

A large, stylized graphic of the number '100' is centered on the page. The digits are formed by multiple overlapping, curved lines that create a three-dimensional, metallic appearance. The word 'YEARS' is written in a clean, white, sans-serif font across the middle of the second zero. Below the '100' graphic, the words 'S I N C E' and '1 9 1 8' are spaced out horizontally in a small, white, sans-serif font.

100 YEARS  
S I N C E 1 9 1 8





**T**he F18 catalogue, the nineteenth issue since 1918, is highly symbolic!

As indicated by the silver '100' on the cover, in May 2018, FACOM joined the exclusive club of famous century-old brands.

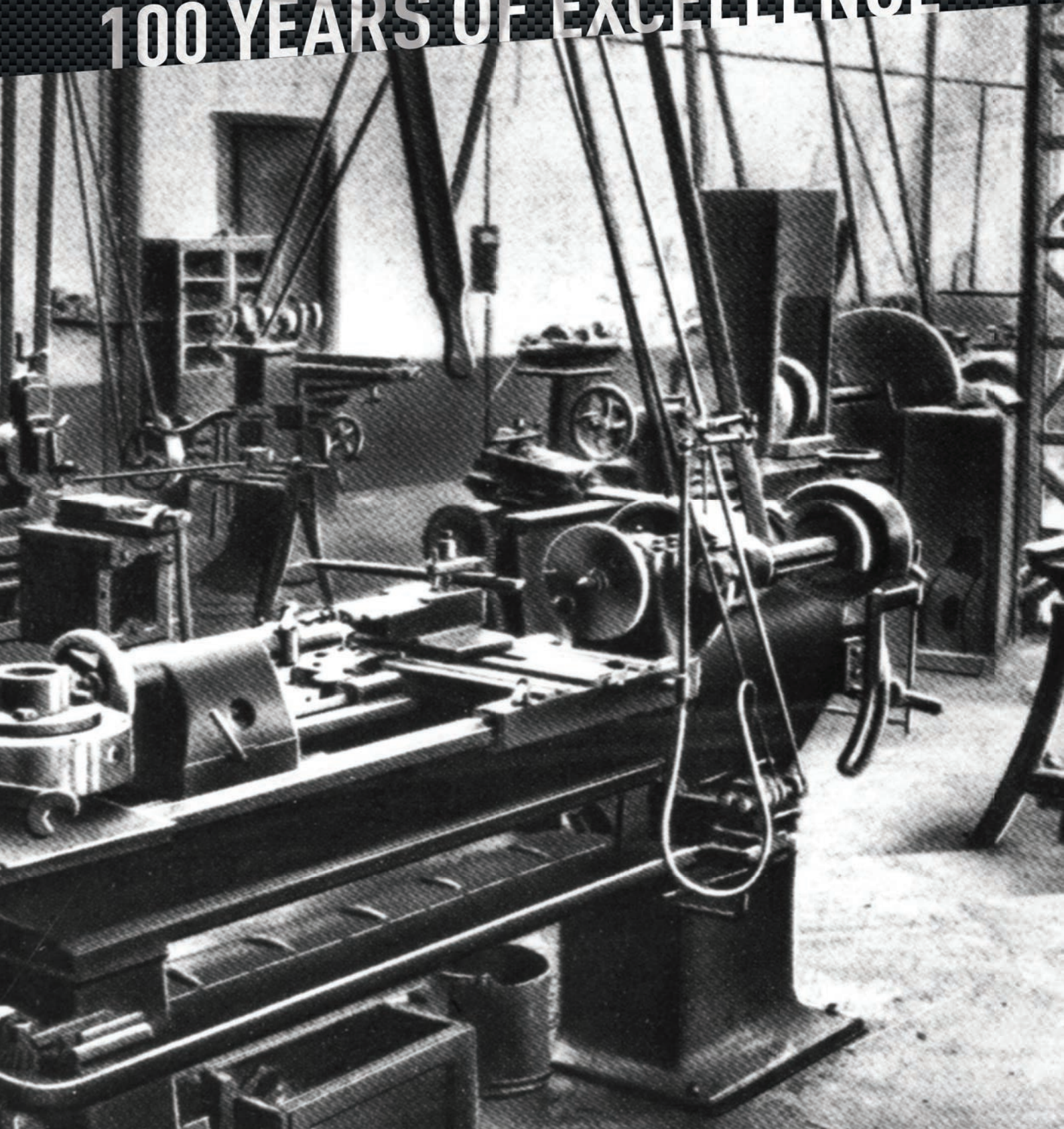
For FACOM, this centenary is a great opportunity to remind us of its durable attachment to the brand's original vision and values: providing professionals in many sectors with innovative and high quality tools for effective and safe performance.

*This centenary is an opportunity to look back over a century of stories and pay tribute to those who have represented - and still represented this brand, now a must and unequalled in hand tools.*

But this centenary is also a promise: a future which FACOM contemplated with excitement and determination. The adventure goes on, and even accelerates, at the forefront of innovation, to raise to the challenges of a world in full metamorphosis.

And FACOM commits to be there... in 100 years!

# 100 YEARS OF EXCELLENCE



# THE BIRTH OF A CULT



**1918: the time of reconstruction, the time of all possibilities. A young engineer graduating from the Arts and Manufactures, Louis Mosès is on the lookout for all industrial innovations. He naturally shows keen interest in the United States, the New World originally untouched by WWI, and its exceptional economic expansion since the end of the XIX<sup>th</sup> century. It is a time of booming industrialisation, transformation of production methods, the railroad boom facilitating raw material and finished product trading.**

In those positive times, Louis Mosès specialized in patent filing. He worked in a consulting firm, which provided him with early access to many US patents. This is how he detected the design of an adjustable wrench; combining simplicity, versatility, easy use and ruggedness.

Louis Mosès was excited; he really believed in this wrench's potential! He set up a company named 'Franco-Américaine de Construction et d'Outillage Mécanique' (Franco-American Mechanical Construction and Tooling Company). A name which left nothing to chance. America was fashionable and any reference to it was a seller. 'The' FACOM has just been born.

Supported financially by his family and friends who trusted him, Louis Mosès purchased a forging workshop at the heart of the popular Paris, and employed about a dozen workmen. It produced the famous thirty centimetre adjustable wrench with the two rounded jaws, with 'FACOM Nr. 101' embedded. Nicknamed 'Mrs 101', the tool met with a huge success, it was talked about among specialists, even the railroad companies of the time tested it, before placing an order for hundreds of units.

FACOM then picked up: in 1920, they relocated to a more spacious workshop in Gentilly, marketed innovative tools for the burgeoning automotive and aeronautical sectors, first catalogue... The FACOM cult was growing.

## THE PILLARS OF PERFORMANCE

Louis Mosès, the founding father, left strong inherited values, leveraged by all those who have made FACOM into a century old company.

The first of these values is passion. Passion of FACOM teams, who have always expressed their pride in working for their company. Passion of clients too, end users acting as distributors, by becoming the brand's 'aficionados'.

However, passion is not enough. Appropriate strategic choices are also required. At key moments, the management teams were able to make the right decisions based on a rare comprehension of the market and acute understanding of its needs.

Here are the main markers of this quest for excellence which forged the FACOM cult.

### **FACOM CATALOGUE: THE TOOL BIBLE**

Leveraging the success of the 'Mrs 101', Louis Mosès broadened the product range. The first FACOM catalogue was published in 1924, an issue with just a few pages with hardly any more references... About a century later, the 19th issue includes: more than one thousand pages with close to 10,000 references! The FACOM catalogue has become the tool bible.

### **AN ORIGINAL MARKETING SYSTEM**

In 1945, André Mosès, Louis's son, took over the family company with innovating ideas. In the United States, he discovered a sales system consisting in offering products directly to the users via a demonstration truck. The famous FACOM truck was born!

From then on, two complementary marketing approaches co-existed: sales to approved dealers on the one hand, and peddling of products to end users through proximity representatives on the other hand.



## WORD OF MOUTH, THE BEST ADVERTISING

With a preference for discretion, in order to channel more investment into product quality and reliability, FACOM has never done major advertising campaigns... The company has built its reputation on word of mouth, and FACOM tool users have undeniably been their best representatives.

## THE 'LIFETIME WARRANTY', SPECIFIC TO FACOM TOOLS

André Mosès, a visionary entrepreneur, launched the lifetime warranty in 1952. A genuine revolution in the world of industry.

This fabulous marketing pitch was supported by the total trust in the reliability and durability of FACOM tools.

With this warranty, FACOM follows the level of quality of its products permanently, identifies improvement paths and ensures premium service to its clients.

The principle of this warranty is that it is 'total', whatever the tool's condition, provided it was used in 'normal' conditions.

This commitment lives on, excluding only technical products, torque tools, roller cabinets and furniture. Every day, a dedicated department with a staff of 18, returns the equivalent of 1.2 ton new products to the clients.

# THE SPIRIT OF PERFECTION



## BUILD-UP

1952

13<sup>th</sup> French  
manufacturer

1962

7<sup>th</sup> French  
manufacturer

1972

1<sup>st</sup> French  
manufacturer

1982

1<sup>st</sup> European  
manufacturer

2006

integrates  
the 1<sup>st</sup> global  
group



# FACOM, AN UNDISPUTED LEADER

'Excellence', 'Innovation' and 'Quality' are the three values associated to FACOM's black and red colours. From the onset, the company was positioned on top of the range, without ever denying it. Today, nobody disputes the specifics of FACOM products, and their aficionados consider them as the 'must-have of hand tooling'.

## EUROPEAN NUMBER 1

Throughout the decades, FACOM has climbed up to the leading rank in global manufacturers. European number 1 in manual tooling over the last 35 years, the Group maintains its leadership through a unique innovation policy. Over two hundred engineers and experts, whether at the head office in Morangis or in the different sites in Europe and in the world, are dedicated to research.

*'For those who build the world'*

Thanks to its level of excellence, its innovative products, the quality of its tools, FACOM is the undisputed reference in terms of tooling in sectors as different as automotive repair, aeronautics, electricity, electronics or industrial maintenance.



## KEY FIGURES

**5,500**  
points of sale  
in 120 countries

**200**  
demonstration  
vehicles

**10,000**  
tool references

**9**  
plants in Europe  
including 5 in France

**+ 60 %**  
tools manufactured in plants  
owned by FACOM and the  
StanleyBlack&Decker group  
in France and in Europe

Belongs to the world  
leader in tooling, with over

**50,000** staff  
through the world

# THE SPIRIT OF PERFECTION



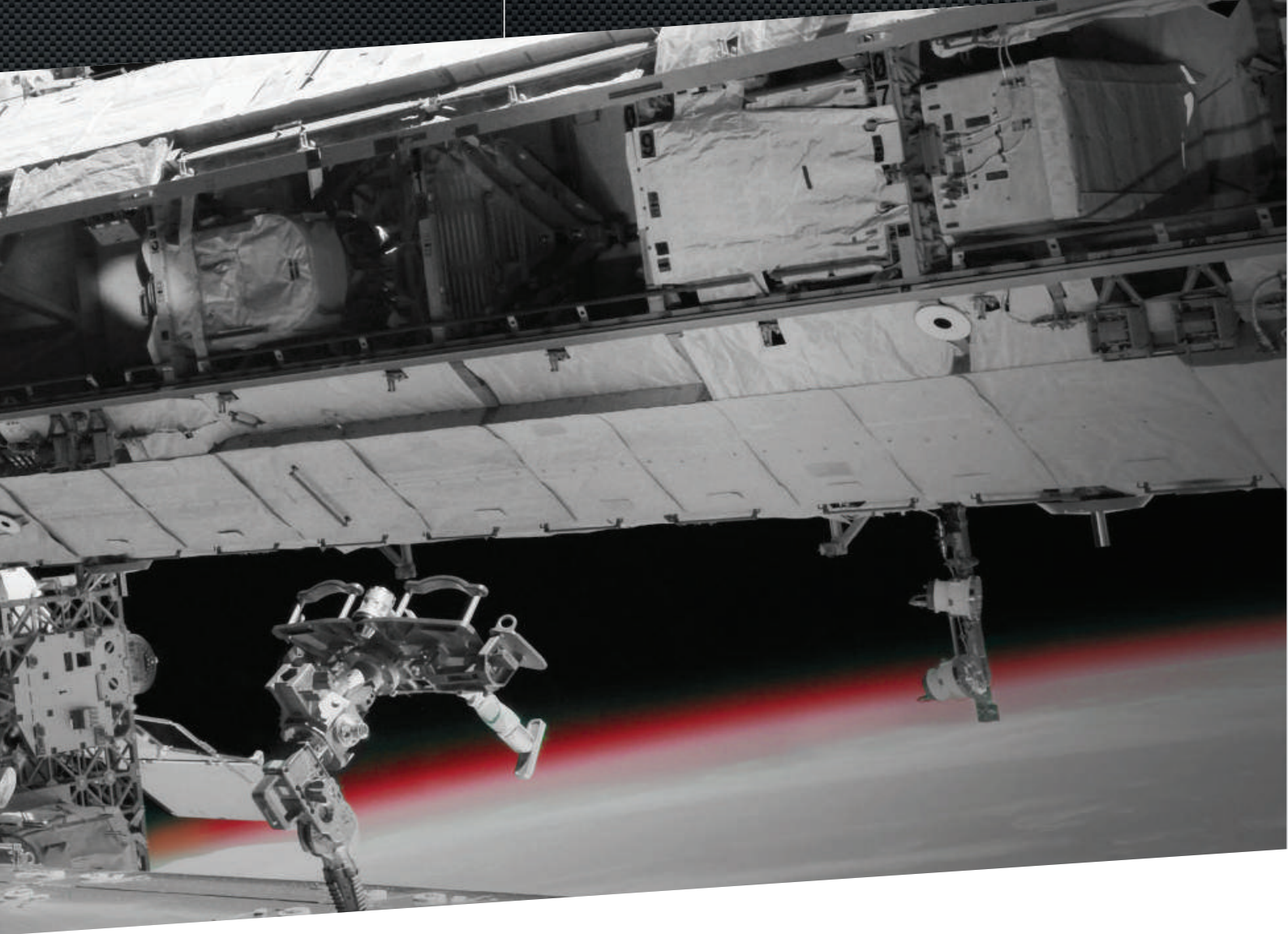
## PARTNERS LOYAL TO EXCELLENCE

The quest for excellence has naturally found outlets in the most demanding sectors in terms of quality and safety. This particularly applies to the automotive industry. FACOM's roller cabinet is a must, present in the paddocks of Formula 1™ or MotoGP™ teams.

### SUPPORTING TOP DRIVERS

Throughout the years, FACOM established a relation of trust with automotive professionals.

With champions... Five-time Formula 1™ World Champion in the 50s, the Argentinian Juan Manuel Fangio peddled the FACOM catalogue in the 60s. A few years later, Alain Prost tuned his first Formula 1™ cars with FACOM tools.



In the roads of the world rally championship, Sébastien Loeb has also supported FACOM's colours.

With brands too... The British maker McLaren required tools made with titanium, a light and precious metal, demonstrating the requirements in terms of production standards of both makes. FACOM took up the challenge and manufactured a special series, limited to 300 units, unique in the world.

## **SUPPORTING CONQUERORS OF THE SKY AND SPACE**

Rumour has it... A FACOM tool has been flying the Earth's orbit above our heads for several years! It is said it was forgotten in one of the satellites launched into orbit by the *Ariane* rocket.

Today, major players in aeronautics and astronautics trust FACOM for the maintenance of their systems.

## **SUPPORTING PRESTIGIOUS STRUCTURES**

FACOM is the reference tool when managing works on large infrastructures. Its name is associated with structures as iconic as the Channel Tunnel, the construction of the Grande Arche de la Défense, the overhauling of the statue of Liberty in New York or maintenance of the Eiffel tower.

## **SUPPORTING PLAYERS IN THE TECHNOLOGICAL REVOLUTION**

Today, FACOM is networking with promising start-ups working all over the world on solutions compatible with its products. More particularly, this applies to the development of new battery technologies. Hence, FACOM works in 'open innovation' or 'shared innovation' with universities or engineering schools, organizing workshops during which students collectively reflect on the tools of the future.

## THE ROUGH DIAMOND OF THE STANLEY BLACK & DECKER GROUP

The backing, back in 2006, of the Stanley Black and Decker group, the global leader in tooling, reinforced FACOM's leadership in hand tools. This pooling supported its development in the international industrial scene in general, and in the automotive and aerospace sectors more particularly.

FACOM benefits from the power and know-how of this global group and its 50,000 staff, while also benefitting from its investment capacity to imagine, manufacture and launch new products in its markets.

Stanley Black & Decker is an innovation accelerator for FACOM.

Leveraging its perfect control over local markets, the industrial and automotive division adapts the offer to the specific needs of each region.



Jim Loree is the Chief Executive Officer of the Stanley Black & Decker Group. He speaks of his attachment to the FACOM make, the values it bears, and considers the future... starting in 100 years.

### **What does FACOM represent for you?**

FACOM is a major industrial player. It is one of the most famous and respected French brands. And FACOM conveys 'quality', 'innovation' and 'excellence'.

### **Why has Stanley Black & Decker chosen to acquire FACOM in 2006?**

To continue its growth, the Stanley Black & Decker group, global Nr.1 in tooling, wished to get closer to companies bearing excellence in their respective markets. FACOM was probably the most iconic of all. Few brands in the world have such a resonance in the mind of people.

For FACOM, it was a great opportunity to open a new chapter in its history thanks to support from the leading tooling company.



*'Since 1918, FACOM has been at the forefront of industrial excellence, a pioneer in advanced technical solutions guaranteeing a top quality service, and we are already working on the innovations of the next century, in the spirit of the company's founders.'*

**What is your approach to innovation?**

Innovation is the cornerstone in providing advanced solutions for our clients on the one hand, and our Group on the other hand.

Innovation is key to be Nr. 1 in this market.

Innovation is what separates leaders from followers. It relies on three components: a strategy to design it, an expert to lead it, and a process or procedure to guide the project.

**What for you is the greatest challenge in terms of innovation?**

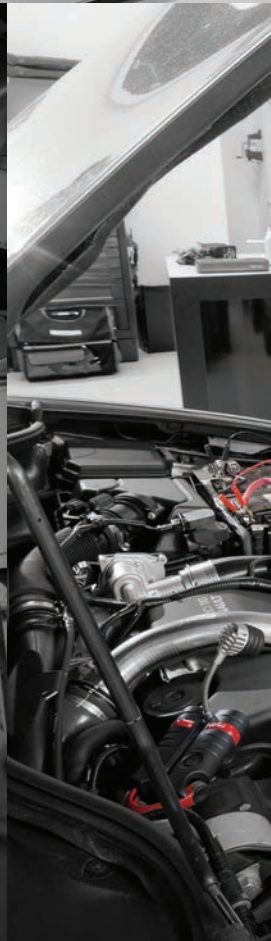
The first step consists in identifying the right level of new technologies to be integrated into our solutions to meet our clients' expectations. It is a matter of pace and pricing.

Beyond those, one thing is certain: in the future, cars will no longer run on petrol and maintenance of these new motors will be different. We will meet these new needs.

And then, with robotisation, we will also create solutions allowing robots to fulfil their missions.

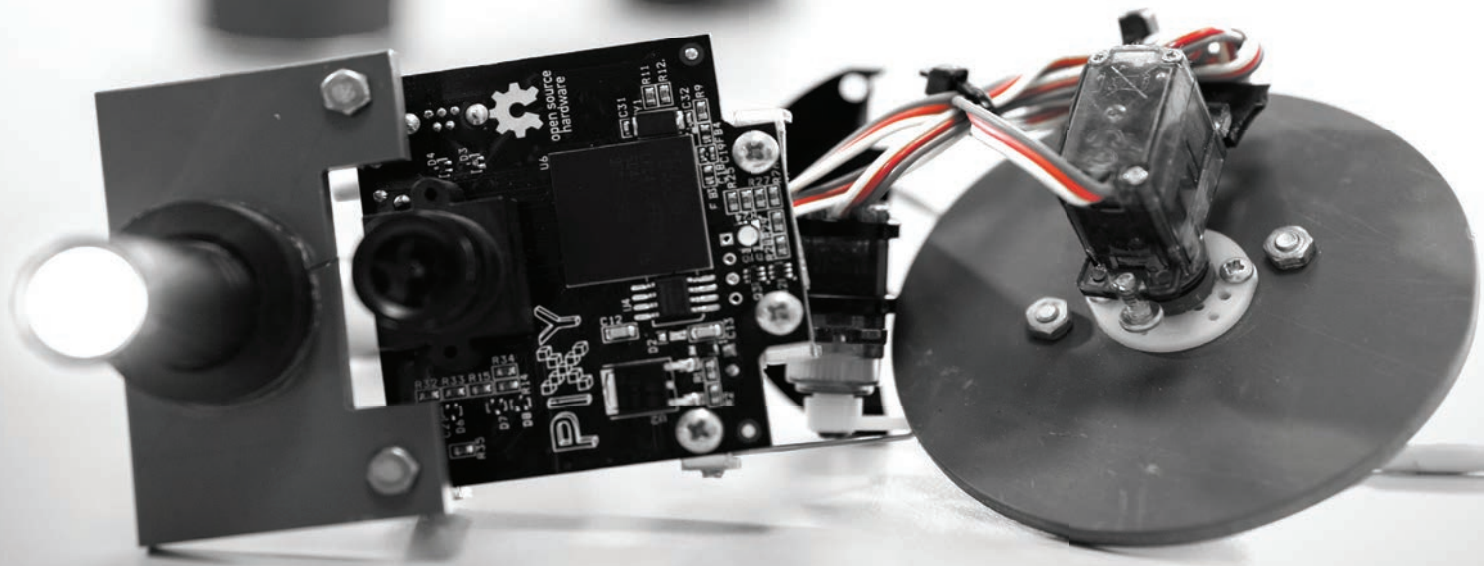
**What is your ambition for FACOM?**

We are the largest global tooling manufacturer. Our products and services change the life of our clients. Our objective is to allow those who build the world, those who produce and create, to have solutions meeting their needs and facilitating their task. We will continue inspiring those around us.





# THE SPIRIT OF PERFECTION





# INNOVATION: CORNERSTONE OF DEVELOPMENT

FACOM has built its reputation on its ability to market tools which are innovative in terms of safety, effectiveness, ergonomics, design ... The impetus was given by Mr Caroff, a FACOM employee and gifted inventor, who filed multiple patents.

Throughout time, FACOM accumulated the 'firsts': first chrome-plated tools rather than burnished by heat treatment, first socket tools, first smart tools...

Innovation according to FACOM, means developing new concepts through progress in methods, the definition or original processes, as well as research in the science of materials.

## KEY FIGURES

**+ 200**  
staff dedicated  
to research and  
development

**30**  
experts  
in innovation

**20**  
engineers specializing  
in technology and  
industrialisation

**10**  
design offices

**1**  
design laboratory  
dedicated to ergonomics and  
product aesthetics

## TOWARDS TOOLS WHICH ARE MORE EFFECTIVE, MORE ERGONOMIC, MORE RELIABLE, 'SMARTER'

### RFID TOOLS OR THE ILLUSTRATION OF THE GROUP'S FORCE

Radio-identification, most often identified by the RFID acronym, i.e. *radio frequency identification*, is a method for remote data memorization and retrieval using markers called 'radio-tags'. The addition of RFID to the FACOM tools is a great story.

*It started with a request from the aeronautical industry...*

In this sector extremely sensitive in terms of safety, forgetting a tool in an aircraft system during its manufacturing, or a maintenance operation, can cause an air disaster. How can one be sure no tool has been forgotten? Initially, FACOM fitted its storage cases with special foam trays ensuring any missing tool would be seen instantly. However, this only solved half of the problem, as although this tool was seen to be absent, it remained to be found.

FACOM then offered tools fitted with a fluorescent material allowing their remote identification, but this required an inspection with a UV lamp.

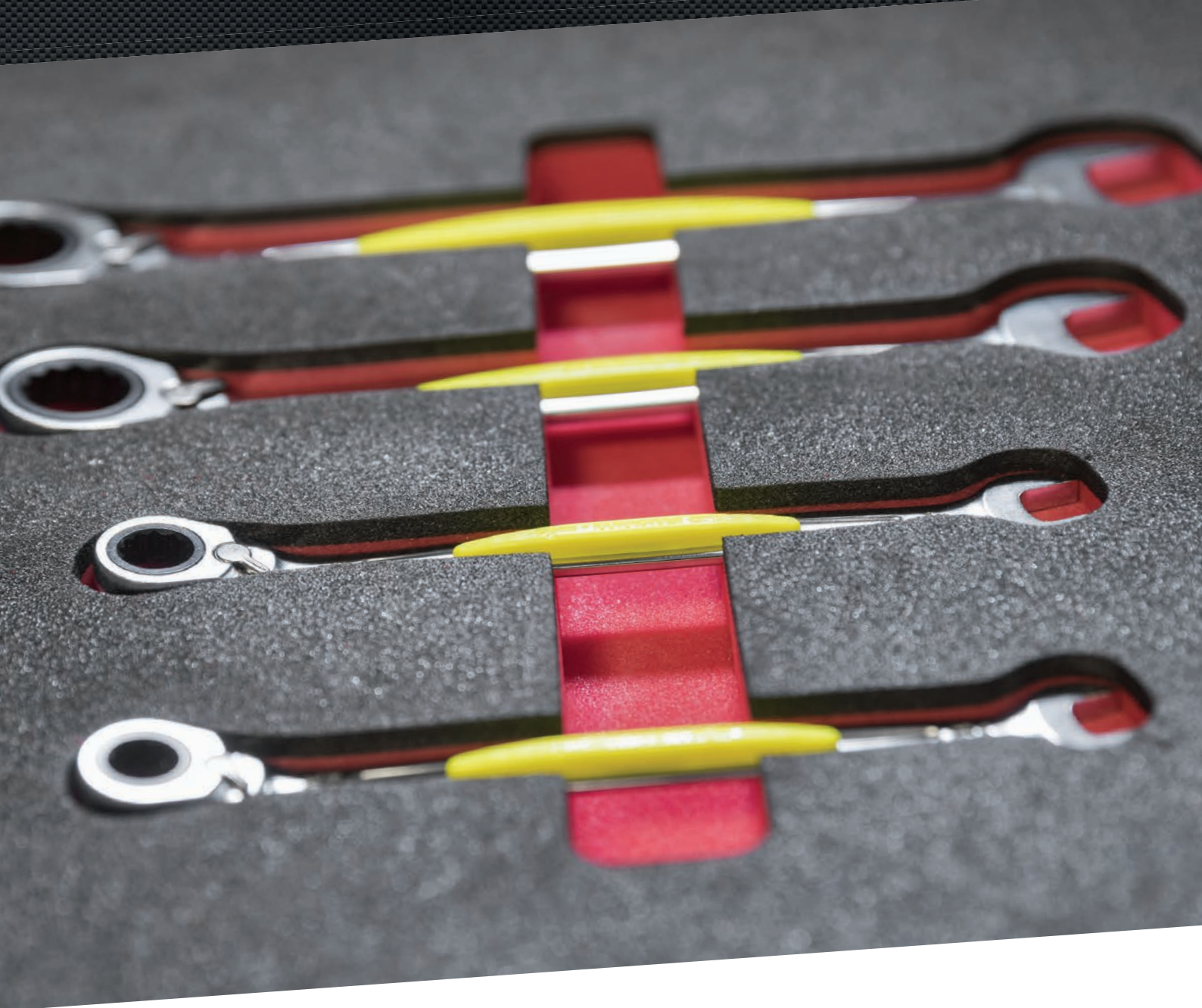
This led to the idea of integrating RFID chips to the tools. But FACOM did not master this technique at the time. The solution came from a subsidiary of the Stanley Black & Decker group, specializing in RFID and the software ensuring traceability.

Close cooperation between the French and American research teams showed FACOM how to integrate RFID chips to hand tools, and sensors to its associated storage solutions.

Success was instant... For the first time, FACOM sold tools and storage units to the German aeronautical industry, in fact via the local sites of the European consortium Airbus.

### TOOLS SECURED FOR WORK AT HEIGHT: THE FACOM SOLUTION

Why wait so long for a solution to attach tools to carrier belts? The idea is just common sense, nearly obvious. And yet this technique was developed rather recently, and FACOM played a vital role in it.



In fact, the problem is not that simple. Up to now, users were hostile to this idea, as belt attachment interferes with their movements. By discussing with clients, FACOM teams finally found out that the tool could be dropped when gripped. An ergonomic solution was then found: While maintaining basic ergonomics of use, FACOM's solution provided a double safety for tool seizing and placing, whether linked to the wrist or belt.

## **NEW GENERATION OF ROUND HEAD RATCHETS**

In 2016, FACOM created a stronger, sealed, compact, light and customizable ratchet: the 161.B. It is twice as strong and resists industrial dust. Designed using an innovating technique (powder injection moulding), this new generation tool was a hit when released, and is becoming the reference in its category by imposing new standards.

# FACOM 4.0





# LET'S INVENT TOMORROW

**100 years and beyond... Celebrating this centenary also means, always staying loyalty to the brand's values and spirit, turning resolutely to the future and attempting to imagine tomorrow's FACOM...**

**Imagine FACOM; not in 100 years, as this would be unrealistic, but in 5 or 10 years. It will be a new era if the world continues changing at its current pace.**

**This teaser is based on many discussions with those who are currently in charge of imagining and preparing the FACOM of tomorrow.**

Connected tools, datacentre, smartphone for all, applications, cyber-security, zero paper... The digital transformation has hit FACOM throughout its organisation.

Nevertheless, a constant remains inalterable: client relations. Our clients are our best ambassadors and, in addition, they foster innovation by expressing their needs.

Our 'in-house' trucks, our link with the clients, continue travelling European roads. Fully electric, hyper-connected, most of the time the 'FACOM' drives in auto pilot, saving tiredness and stress for the driver, the brand's technical advisor. Comfortably installed in a cab which is more similar to an office than a driver's seat, the latter leads the tasks related with his mission, prepares his next appointments, views the Group's social networks... While being able to take over driving at any time.

FACOM could have chosen remote-controlled driverless vehicles, as they are now becoming commonplace. The idea was appealing, but was rejected unanimously. The reason was simple: the traditional physical contact with clients - allowing to find an unsuspected need through discussion - is much too precious, and even if direct contact, guaranteeing a proximity relation, is no longer fashionable in this all-connected era...

FACOM maintains contact permanently. THROUGH social media first, where clients are now several hundred thousand to regularly follow the Group's news and visit backstage. Proactive clients have become genuine 'FACOM ambassadors' and facilitators of a community of loyal clients increasing permanently.

Increasingly sophisticated and highly intuitive applications collect valuable data on the use made of the tools, providing instant feedback on the technical difficulties met and supporting solutions to be sought, without any user intervention.



## THE TOOLS ALWAYS OFFER MORE ADDED VALUE

Potential needs are sent directly to the desk of the Innovation team in Morangis, where tomorrow's tools take shape.

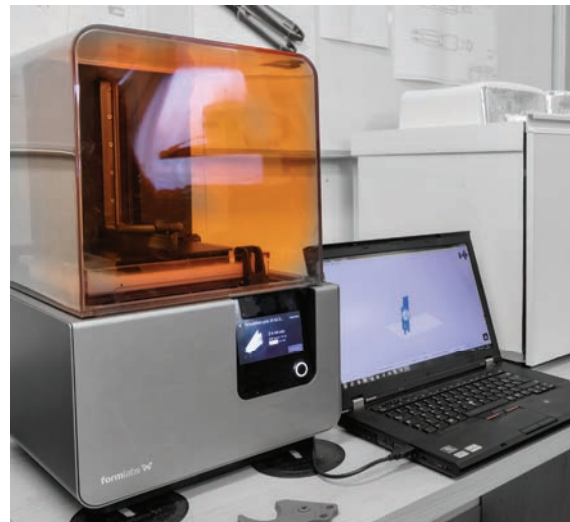
At FACOM, three directions have been guiding research over many years: productivity, safety and interactivity. Why this triple bias? Because they are the competitive forces of the brand, with an international fame for making the best tools in the market.

Working faster with a tool means simplifying its use and reducing repetitive gestures. For a composite manual tool, where each part assembled has its importance, innovation is in the details: choice of materials, size, weight, ergonomics...

Simultaneously, the tools must guarantee optimum safety. A few years back, capitalising on the success of the 'Safety Lock System' tools, which prevent not only the risks of falling onto somebody or a fragile machine, but also the loss of a sometimes expensive part, FACOM teams are now dreaming – and working – on electromagnetic solutions which would fully eliminate the obstacle feel.

Connectivity first appeared on battery tools; but hand tools ultimately followed. Nowadays, certain 'speak' or rather 'express themselves' in case of tiredness or overheating... This last innovation was subject to long debates within Innovation teams around the choice of the right voice tone!

Once validated, the idea is transmitted to the prototypes laboratory, in charge of studying the project's technical feasibility. The prototypist then produces a pre-model which is then submitted to many tests. This work has evolved with the 3D printer, which has opened the era of tailor-made and small series for all. This is 'additive manufacturing', a practise which is developing constantly and no longer reserved only to excellence partners.



If considered compliant, the R&D department takes over to study the economic relevance of the project: production cost assessment, sales forecasts, launching costs, checking with users via FACOM's technical advisors. Then come test groups, made of representative clients, who express their opinion. These discussions allow projects to be corrected and improved, before their transfer to the plant.



Innovation also calls upon permanent watch for new trends and identification of partners likely to help us accomplish our next technological leap, always faster. FACOM is now in permanent contact with a vast network of start-ups throughout the world, and its teams cooperate daily with their contacts. It is in fact a permanent brainstorming session in a vast workshop extending over all continents.

## INNOVATION IS A COLLECTIVE CHALLENGE

In a 'garage of the future', users – human clients, but also robots - are conveyed to test innovation approaches. These clients can also be trained at home with the catalogue of augmented reality training. Once the headset on, the user trains, as long as necessary, in reproducing the perfect gesture. When back to reality, the user is perfectly trained...

Facing an ever more aggressive competition, FACOM must keep a forward edge, perfectly master the uses of its clients, and better anticipate their needs.

FACOM achieved this in a major market: the automotive industry. With the decline of fossil fuels to the profit of renewable sources of energy, this sector has completed its revolution. Petrol engines are being phased out by batteries, and tooling had to be rethought accordingly.

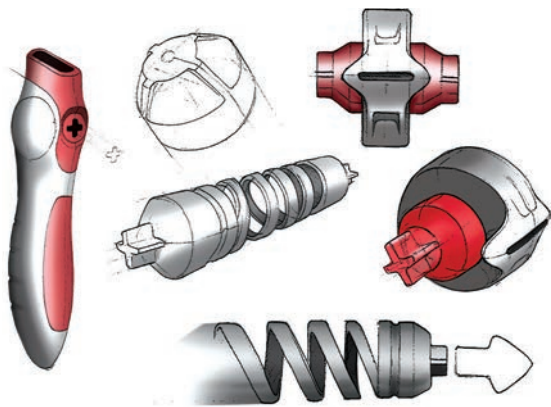
Half of the tools used yesterday are no longer used today. FACOM was able to design fully renewed product ranges in record times, thanks to its strong implantation with manufacturers and garages, inherited from its long history.



If the technological environment and basics of its client relation allowed FACOM to accelerate the pace of its innovations, a constraint remains: the frequency at which clients are prone to invest in innovating products... Finding the proper timing is more than ever a requirement, ensuring the distribution of a new product and full satisfaction of its users.

## ROBOTS HELPING HUMANS

Time goes by, but FACOM plants remain mostly anchored in the French territory and in Europe, always close to their clients. In these plants, digital technologies and on-board sensors have completely changed the production line. More connected, the plant has become 'smart' with the most demanding tasks robotised, consumptions optimised, internal and external flows rationalised...



Nevertheless, humans remain at the heart of the manufacturing process. Robots help humans, and not the other way round. FACOM fits these same robots with tools which have become indispensable to their activities. 'Cobotics', an emerging technology, aims at producing robots assisting humans by automating part of the tasks, is an answer to difficult and arduous tasks or those with very little added value. The technician is then in direct or remote interaction with the robotic system to decide and correct, if required.

Simulation and control tools optimize quality of products and performance of the plant over a broad operating range. All data collected via the sensors is stored in a datacentre, then used for fast adaptation or reconfiguration of the plant, to meet market requirements.

FACOM plants are now '4.0 plants' based on Stanley Black & Decker's three pilot sites opened in the United States in the 2010s. The Group's 80 plants in the world are now fully digitized, with screens replacing paper.

Although method changes are important, the 4.0 plant has not forgotten the spirit animating the company since its creation; the staff has kept the same excitement and pride in their work for FACOM. Creativity, energy, passion remain the only guiding threads in the brand's daily business.

## BASICS WHICH RESIST FRANTIC MODERNITY

If the visit by the FACOM dealer remains an expected moment, clients now often use digital tools to place orders for their urgent needs. 'Express' delivery is guaranteed, the delivery drones now being able to move ever heavier loads at increasing speeds.

In the sharing and pooling era, a debate has arisen lately with the FACOM community, staff and ambassador clients... The Innovation department and Marketing department are about to launch a new concept: a travelling tools leasing service. The project remains 'top secret', but rumour has it that the user would be able to rent the references meeting his/her needs for the time of his/her choice. In addition, delivery would be possible in the site of their choice... still by drone!

Progress cannot be stopped but, fortunately it does not sweep everything in its path. The new issue of the FACOM catalogue is about to be finalised. A few minor modifications, here and there, in a text or a photo, and then transfer to the printer, web sites and smartphones!

FACOM, always at the forefront.



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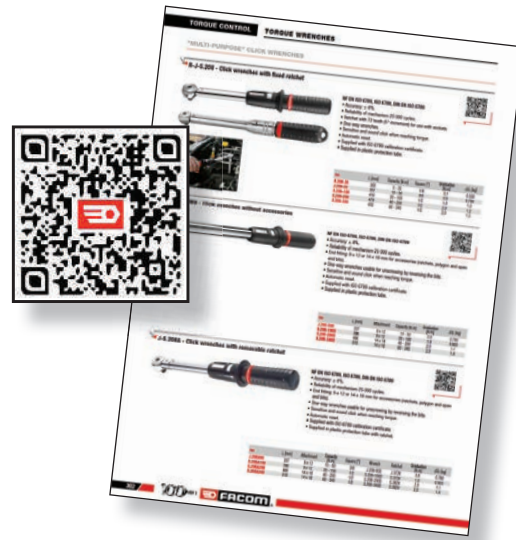


## F18, THE 100% CONNECTED CATALOGUE

Whether printed or digital, always be at the forefront! Scan the QR codes corresponding to each of the 10,000 products and access all additional information: updates, selection aid, recommended accessories, videos... Whether in your workshop or on a worksite, nothing to install: just your smartphone or tablet, and access the digital version of the F18 catalogue.

**F18 is the first paper catalogue remaining 100% up to date.**

FACOM, always at the forefront of innovation!



## KEY PAGES TO INFORM YOU

### 2 HANDY INDEXES:

ALPHABETIC	1204
ALPHANUMERIC	1212

### FACOM WARRANTY:

1202

### FACOM AVAILABLE TO YOU:

Client contact	1224
----------------	------

### TECHNICAL AND SAFETY:

Safety instructions	1090
Measurement unit conversion	1094
FACOM and standards	1095
Mechanical adjustments	1096
Lighting standardization	1097
Screw and circlip standardization	1098

## PRACTICAL INFORMATION

### CONTACT FACOM EXPERTS

Whatever your question, our advisors have access to the most comprehensive data to provide you with a reliable and precise answer in real time or within 24 h maximum.

- > Technical information.
- > Search for a product or a spare part.
- > Recommendations of us.
- > Technical documentation request.



### TECHNICAL INFORMATION

Tel. (33) 01 64 54 45 14

8 to 12:30 am - 1:15 to 6:00 pm

### SPECIAL TOOLS

Tel. (33) 01 64 54 46 70 Fax (33) 01 69 74 29

048 to 12:30 am - 1:15 to 5:00 pm

[www.facom.com](http://www.facom.com)

# TABLE OF CONTENTS

## WORKSTATIONS AND TOOL STORAGE

<b>1</b>	<b>TOOL SETS</b>		<b>2</b>
<b>2</b>	<b>ROLLER CABINETS AND WORKSHOP FURNITURE</b>		<b>54</b>
<b>3</b>	<b>TOOLBOXES, CASES AND CHESTS</b>		<b>162</b>





## GENERAL TOOLING

<b>4</b>	<b>FIXED-SIZE AND ADJUSTABLE WRENCHES</b>		<b>196</b>
<b>5</b>	<b>RATCHETS - SOCKETS - ACCESSORIES</b>		<b>260</b>
<b>6</b>	<b>TORQUE CONTROL</b>		<b>364</b>
<b>7</b>	<b>SCREWDRIVERS - KEYS - BITS</b>		<b>414</b>
<b>8</b>	<b>PLIERS - CIRCLIPS® PLIERS - LOCKGRIP PLIERS</b>		<b>482</b>
<b>9</b>	<b>METROLOGY - MEASURING - MARKING-OUT</b>		<b>526</b>
<b>10</b>	<b>HAMMERS - IMPACT TOOLS</b>		<b>558</b>
<b>11</b>	<b>SAWING - DRILLING - CUTTING</b>		<b>582</b>
<b>12</b>	<b>PULLERS</b>		<b>624</b>
<b>13</b>	<b>LIGHTING</b>		<b>666</b>
<b>14</b>	<b>POWER TOOLS</b>		<b>680</b>
<b>15</b>	<b>PERSONAL EQUIPMENT - MAINTENANCE</b>		<b>718</b>
<b>16</b>	<b>NON-SPARKING TOOLS</b>		<b>740</b>



## SPECIALIST TOOLING

<b>17</b>	<b>SLS TOOLING</b>		<b>760</b>
<b>18</b>	<b>FLUORESCENT TOOLS</b>		<b>804</b>
<b>19</b>	<b>RFID TOOLING</b>		<b>846</b>
<b>20</b>	<b>AEROSPACE</b>		<b>896</b>
<b>21</b>	<b>ELECTRICITY</b>		<b>924</b>
<b>22</b>	<b>ELECTRONICS</b>		<b>974</b>
<b>23</b>	<b>AUTOMOTIVE</b>		<b>1018</b>
<b>24</b>	<b>HEAVY GOODS VEHICLES - INDUSTRIAL VEHICLES</b>		<b>1164</b>



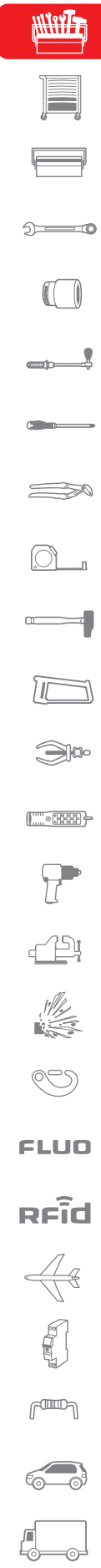
FLUO

RFID





# TOOL SETS



**UNIVERSAL TOOL SET** 05

**INCH PACK TOOL SETS** 36

**INDUSTRIAL MAINTENANCE TOOL SETS** 10

**AUTOMOTIVE MAINTENANCE TOOL SETS** 38

**ELECTRICIANS TOOL SETS** 18

**AGRICULTURAL MAINTENANCE TOOL SETS** 39

**ELECTROMECHANICAL TOOL SETS** 22

**MOTORCYCLE MAINTENANCE TOOL SETS** 40

**ELECTRONIC TOOL SETS**  
**UNIVERSAL TOOL SET** 25

**FLUORESCENT TOOL SETS** 41

**PLUMBERS TOOL SETS** 29

**AERONAUTICAL MECHANICS TOOL SETS** 43

**GENERAL SERVICES TOOL SETS** 31

**ENGINE MECHANICS TOOL SETS** 46

**PERSONAL/TECHNICAL EDUCATION TOOL SETS** 33

**AIRBUS HELICOPTERS MAINTENANCE TOOL SETS** 48

**HEAVY INDUSTRY TOOL SETS** 34

**MILITARY PLANE MAINTENANCE TOOL SETS** 52

**AGRO-FOOD INDUSTRY TOOL SETS** 35

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IN EVERY JOB ITS SELECTION OF TOOLS



## FACOM PROPOSES A RANGE OF TOOL SETS ADAPTED TO YOUR NEEDS

WITH A WIDE CHOICE OF SOLUTIONS OF STORAGE  
AND OF MODULES FOR OPTIONAL DRAWERS.



**CM.230 230-piece set of universal tools - 9 drawer roller cabinet**

- 8 complete drawers in JET.9M3 roller cabinet.
- 22 1/3 thermoformed plastic trays.



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Code	Qty	Description
MOD.440-1	16	Module of combination wrenches 6 to 22 and 24 mm
MOD.440-2	4	Module of combination wrenches 27, 28, 30 and 32 mm
MOD.44-1	9	Module of open-ended wrenches 6 to 24 mm
MOD.44-2	3	Module of open-ended wrenches 26 to 32 mm
MOD.55-1	7	Module of offset ring wrenches 6 to 19 mm
MOD.S161-36	26	Module of 1/2" 6-point sockets + S.161B
MOD.HLB	13	1/2" long-reach 6-point sockets module
MOD.J161-36	21	3/8" metric 6-point sockets module + J.161B
MOD.R161-26	37	Module of 1/4" 6-point sockets + R.161B
MOD.AT1	8	Module of Protwist® screwdrivers 2xAN, 1xANP, 1xAWSH, 1xAWPH, 3xAND
MOD.AT2	6	Module of Protwist® screwdrivers: 2xAN, 3xANP, 1xAWDH
MOD.ATXR	7	Module of Protwist® Tamper Torx® screwdrivers

Code	Qty	Description
MOD.84TZSA	7	T key module
MOD.89TXA	7	Torx® key module
MOD.E20L	20	Screw bits module
MOD.CPEAO	4	Plier module
MOD.PR11	2	Adjustable plier module
MOD.PCSN	4	4-piece Circlip® plier module
MOD.MI3	7	Impact tool module
MOD.CG	11	Drift punch module
MOD.601	10	Cutting module
PL.S384	1	Plastic fastener organisation tray
PL.L384	1	Plastic small parts organisation tray
PL.655	1	Storage trays

**CM.166** 166-piece set of universal tools in 7 drawer roller cabinet

- 5 complete drawers in CHRONO.7M3A roller cabinet.
- 15 1/3 thermoformed plastic trays.



Code	Qty	Description
<b>MOD.440-1</b>	16	Module of combination wrenches 6 to 22 and 24 mm
<b>MOD.440-2</b>	4	Module of combination wrenches 27, 28, 30 and 32 mm
<b>MOD.467BJ12</b>	12	Module of 12 wrenches 467B
<b>MOD.R161-26</b>	37	Module of 1/4" 6-point sockets + R.161B
<b>MOD.J161-36</b>	21	3/8" metric 6-point sockets module + J.161B
<b>MOD.S161-36</b>	26	Module of 1/2" 6-point sockets + S.161B
<b>MOD.HLB</b>	13	1/2" long-reach 6-point sockets module
<b>MOD.AT1</b>	8	Module of Protwist® screwdrivers 2xAN, 1xANP, 1xAWSH, 1xAWPH, 3xAND
<b>MOD.AT2</b>	6	Module of Protwist® screwdrivers: 2xAN, 3xANP, 1xAWDH

Code	Qty	Description
<b>MOD.ATXR</b>	7	Module of Protwist® Tamper Torx® screwdrivers
<b>MOD.84TZSA</b>	7	T key module
<b>MOD.CPEA0</b>	4	Plier module
<b>MOD.PR12</b>	2	Adjustable plier module
<b>MOD.PCSN</b>	4	4-piece Circlip® plier module
<b>MOD.MI7</b>	7	Impact module
<b>PL.S384</b>	1	Plastic fastener organisation tray
<b>PL.L384</b>	1	Plastic small parts organisation tray





■ **CM.160A** 528-piece set of industrial maintenance tools

- 3 Options available:
  - CM.160A: Set supplied without container.
  - CM.160A-F: Set supplied with 1/3 foam trays (x39).
  - JET8.M160A: Set supplied with 8-drawer roller cabinet JET.8GM3 and chest JET.C4GM3.



Qty	Description
18	18-piece set of metric combination wrenches
1	OGV® combination wrench 26 mm
1	OGV® combination wrench 27 mm
1	OGV® combination wrench 28 mm
1	OGV® combination wrench 29 mm
1	OGV® combination wrench 30 mm
1	OGV® combination wrench 32 mm
12	12-piece set of combination wrenches 1/4 to 15/16
6	Set of 6 extra-slim wrenches - mm
10	10-piece set of short-reach metric combination wrenches
1	Long-reach combination wrench 33 mm
1	Long-reach combination wrench 35 mm
1	Long-reach combination wrench 36 mm
1	Long-reach combination wrench 38 mm
12	12-piece set of metric open-end wrenches
5	Set of 5 flare-nut wrenches
14	14-piece set of socket wrenches
2	2-piece set of ratchet wrenches 64Cset
1	Chromed adjustable wrench 10"
1	Chromed adjustable wrench 6"
1	Rack hook and pin wrench 100 mm
1	Heavy duty pipe wrench 18"
1	Nylon strap wrench 4"
38	Box of 1/4" 6-point sockets
11	11-piece set of 6-point sockets
30	1/2" 12-point sockets box + S.161B
1	1/2" extendable hinged handle
7	7-piece set of sockets 1/2", 3/8 to 21/32
6	6-piece set of sockets 1/2", 11/16 to 1"
16	3/4" 12-point metric sockets set
21	21-piece 1/2" impact bit set
26	1/2" 6-point impact sockets set
1	Torque wrench 200 N.m with ratchet
1	Protwist® screwdriver for slotted screws 3.5x75
1	Protwist® screwdriver for slotted screws 4x100
1	Protwist® short screwdriver for slotted screws 4x35
1	Protwist® screwdriver for slotted screws 5.5x100
1	Protwist® short screwdriver for slotted screws 6.5x35
1	Protwist® screwdriver PZ 0x75
1	Protwist® screwdriver PZ 1x100
1	Protwist® screwdriver PZ 2x125
1	Protwist® screwdriver for slotted screws 6.5x150
1	Protwist® screwdriver for slotted screws 8x200
1	Protwist® Phillips® screwdriver 0x75
1	Protwist® Phillips® screwdriver 1x100
1	Protwist® short Phillips® screwdriver 1x35
1	Protwist® Phillips® screwdriver 2x125
1	Protwist® Phillips® screwdriver 2x35
1	Protwist® Shock® screwdriver for slotted screws 4x100
1	Protwist® Shock® screwdriver for slotted screws 6.5x15
1	Protwist® Shock® screwdriver for slotted screws 8x175
1	Protwist® Shock® screwdriver ph1x100
1	Protwist® Shock® screwdriver ph2x125
1	Protwist® screwdriver PZ 3x150
1	Protwist® screwdriver for slotted screws 10x175
1	Protwist® screwdriver PH 3x150
1	Protwist® 1000v slim screwdriver for slotted screws 3.5x100
1	Protwist® 1000v slim screwdriver for slotted screws 4x100
1	Protwist® 1000v slim screwdriver for slotted screws 6.5x150
1	Protwist® 1000v Phillips® slim screwdriver 1x100
1	Protwist® 1000v Phillips® slim screwdriver 2x125
1	Protwist® square bit 8x125
1	Protwist® screwdriver ratchet shank holder grip
1	Reversible bit holder blade 1/4"
5	5-piece set of Microtech® Protwist® screwdrivers
1	Protwist® screw starter for slotted screws 7x130
1	Hexagonal micro key 0.9x3 5 mm
1	Hexagonal micro key 1.3x35 mm
1	Hexagonal micro key 1.5x35 mm
1	Hexagonal micro key 2.5x75 mm
1	Hexagonal micro key 2x75 mm
9	9-piece set of metric spherical keys
10	10-piece set of keys in wallet
8	8-piece set of metric keys
1	Multigrip pliers 250 mm
1	Multigrip pliers 300 mm
1	Sheathed half-round pliers 20 cm
1	Sheathed combination pliers 18 cm
1	Sheathed flat-nose pliers 16 cm
1	Sheathed round-nose pliers 17 cm
1	Jointed front cutting pliers
1	Sheathed diagonal cutters 16 cm

Qty	Description
1	Sheathed half-round pliers 20 cm
1	Angled combination pliers
1	Extra-long pliers 340 mm
1	Heavy-duty end nippers 22cm
1	Microtech® extra-long reach nose pliers
1	Microtech® extra-long reach angled nose pliers
1	Microtech® axial cutters
1	45° angled nose outside circlip® pliers 10-25
1	45° angled nose outside circlip® pliers 18-60
1	45° angled nose outside circlip® pliers 32-100
1	45° angled nose inside circlip® pliers 12-25
1	45° angled nose inside circlip® pliers 18-60
1	45° angled nose inside circlip® pliers 31-100
1	Multiposition long-nose lock-grip pliers
1	Single-setting lock-grip pliers
1	G-clamp pliers with sliding jaw
1	Long-nose auto lock-grip pliers 7"
1	Wire cutter-stripper
1	Set of maintenance terminal ends
1	Feeler gauge
1	Slide rule 1/50th - 200 mm
1	Micrometer 1/100th - 0-25 mm
1	Depth gauge 1/50th - 160 mm
1	Tape measure 2 m/13 mm ABS
1	Stainless steel 2-sided rule
1	Composite riveting hammer 32 mm
1	Composite riveting hammer 26 mm
1	Steel mallet 32 mm
1	Mallet
1	Sheathed nail set - diam.2 mm
1	Sheathed nail set - diam.3 mm
1	Sheathed nail set - diam.4 mm
1	Sheathed nail set - diam.6 mm
1	Sheathed nail set - diam.8 mm
1	Sheathed drift punch 2 mm
1	Sheathed drift punch 3mm
1	Sheathed drift punch 4 mm
1	Sheathed drift punch 6 mm
1	Sheathed drift punch 8 mm
1	Precision centre punch-diam.4 mm
1	Sheathed automatic centre punch
1	Constant-profile chisel length 180 mm
1	Constant-profile cape chisel length. 200 mm
1	Sheathed cape chisel - length 180 mm
1	Alu hacksaw
10	10 bimetal saw blades 8 teeth/cm
1	Lock-back knife
1	Short blade scissors
1	Interchangeable folding blade
1	Chamfer shears 26cm
1	Nibblers 26 cm
1	Angled blade general-purpose shears
1	Steel cable cutter diameter 5 mm
1	Inspection lamp 230v 11w neon
1	Wireless slim inspection lamp
1	Multimeter
1	Protwist® voltage tester
1	Magnetic retriever
1	Ratchet tool holder d8->105 mm
1	Ratchet tool holder d8->300 mm
1	LED telescopic mirror 55 mm
12	12 files t2-180 mm
1	Straight lever pliers 400 mm
10	Set of stud pullers 3-18 mm + drill bit
1	High-precision copper pipe cutter 35 mm
41	Set of taps and dies
19	19-piece set of bits size 1-10 mm
1	Three-square scraper 20 cm
1	Scriber
1	One piece carbide scriber 180 mm
1	Thread restoring tool
1	Set of clamps 4-6-8-10-12-14-16 mm
26	Set of maintenance gasket cutter
5	5 wood handle screwdrivers
1	3-leg puller - capacity 80mm
1	3-leg puller 7-140 mm
1	Spare leg for U.306
1	Slide hammer - weight 1.6 kg
1	Aluminium rivet box
1	Thread restoring tool - ISO
1	Steel wire brush
3	Set of 3 stainless steel scrapers



■ **CM.150A** 333-piece set of industrial maintenance tools

- 3 Options available:
  - CM.150A: Set supplied without container.
  - CM.150A-F: Set supplied with 1/3 foam trays (x26)
  - JET7.M150A: Set supplied with 7-drawer roller cabinet JET.7GM3 and chest JET.C4GM3.



Qty	Description
18	18-piece set of metric combination wrenches
1	OGV® combination wrench 26 mm
1	OGV® combination wrench 27 mm
1	OGV® combination wrench 28 mm
1	OGV® combination wrench 29 mm
1	OGV® combination wrench 30 mm
1	OGV® combination wrench 32 mm
10	10-piece set of short-reach metric combination wrenches
1	Long-reach combination wrench 33 mm
1	Long-reach combination wrench 35 mm
1	Long-reach combination wrench 36 mm
1	Long-reach combination wrench 38 mm
12	12-piece set of metric open-end wrenches
6	Set of 6 extra-slim wrenches - mm
2	2-piece set of ratchet wrenches 64Cset
1	Chromed adjustable wrench 10"
1	Chromed adjustable wrench 6"
1	Heavy duty pipe wrench 18"
38	Box of 1/4" 6-point sockets
30	1/2" 12-point sockets box + S.161B
1	1/2" extendable hinged handle
16	3/4" 12-point metric sockets set
1	Torque wrench 200 N.m with ratchet
1	Protwist® screwdriver for slotted screws 3.5x75
1	Protwist® screwdriver for slotted screws 4x100
1	Protwist® screwdriver for slotted screws 5.5x100
1	Protwist® screwdriver PZ 0x75
1	Protwist® screwdriver PZ 1x100
1	Protwist® screwdriver PZ 2x125
1	Protwist® screwdriver for slotted screws 6.5x150
1	Protwist® screwdriver for slotted screws 8x200
1	Protwist® Phillips® screwdriver 0x75
1	Protwist® Phillips® screwdriver 1x100
1	Protwist® Phillips® screwdriver 2x125
1	Protwist® screwdriver PZ 3x150
1	Protwist® screwdriver for slotted screws 10x175
1	Protwist® screwdriver PH 3x150
1	Protwist® screwdriver ratchet shank holder grip
1	Reversible bit holder blade 1/4"
1	Protwist® 1000v slim screwdriver for slotted screws 3.5x100
1	Protwist® 1000v slim screwdriver for slotted screws 4x100
1	Protwist® 1000v slim screwdriver for slotted screws 6.5x150
1	Protwist® 1000v Phillips® slim screwdriver 1x100
1	Protwist® 1000v Phillips® slim screwdriver 2x125
1	Protwist® voltage tester
5	5-piece set of Microtech® Protwist® screwdrivers
1	Protwist® screw starter for slotted screws 7x130
1	Protwist® square bit 8x125
9	9-piece set of metric spherical keys
8	8-piece set of metric keys
1	Multigrip pliers 250 mm
1	Multigrip pliers 300 mm
1	Sheathed half-round pliers 20 cm
1	Sheathed combination pliers 18 cm
1	Sheathed flat-nose pliers 16 cm
1	Sheathed round-nose pliers 17 cm
1	Jointed front cutting pliers
1	Sheathed diagonal cutters 16 cm
1	Sheathed half-round pliers 20 cm

Qty	Description
1	Extra-long pliers 340 mm
1	Microtech® axial cutters
1	Heavy-duty end nippers 22cm
1	45° angled nose outside circlip® pliers 18-60
1	45° angled nose outside circlip® pliers 10-25
1	45° angled nose outside circlip® pliers 32-100
1	45° angled nose inside circlip® pliers 12-25
1	45° angled nose inside circlip® pliers 18-60
1	45° angled nose inside circlip® pliers 31-100
1	Multiposition long-nose lock-grip pliers
1	Single position vice pliers
1	G-clamp pliers with sliding jaw
1	Slide rule 1/50th - 150 mm
1	Tape measure 2 m/13 mm ABS
1	Stainless steel 2-sided rule
1	Composite riveting hammer 26 mm
1	Composite riveting hammer 32 mm
1	Steel mallet 32 mm
1	Mallet
1	Sheathed nail set - diam.2 mm
1	Sheathed nail set - diam.3 mm
1	Sheathed nail set - diam.4 mm
1	Sheathed nail set - diam.6 mm
1	Sheathed nail set - diam.8 mm
1	Sheathed drift punch 2 mm
1	Sheathed drift punch 3mm
1	Sheathed drift punch 4 mm
1	Sheathed drift punch 6 mm
1	Sheathed drift punch 8 mm
1	Precision centre punch-diam.4 mm
1	Sheathed automatic centre punch
1	Constant-profile chisel length 180 mm
1	Constant-profile cape chisel length. 200 mm
1	Sheathed cape chisel - length 180 mm
1	Alu hacksaw
10	10 bimetal saw blades 8 teeth/cm
1	Lock-back knife
1	Interchangeable folding blade
1	Chamfer shears 26cm
1	Angled blade general-purpose shears
1	Steel cable cutter diameter 5 mm
1	Compact torch
1	Multimeter
41	Set of taps and dies
19	19-piece set of bits size 1-10 mm
1	Thread restoring tool
1	Magnetic retriever
1	Ratchet tool holder d8->105 mm
1	Ratchet tool holder d8->300 mm
1	LED telescopic mirror 55 mm
5	5 wood handle screwdrivers
1	3-leg puller 7-140 mm
1	Spare leg for U.306
1	Slide hammer - weight 1.6 kg
1	Aluminium rivet box
1	Thread restoring tool - ISO
1	Steel wire brush
3	Set of 3 stainless steel scrapers



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■ **CM.140A** 200-piece set of industrial maintenance tools

• 4 Options available

- CM.140A: Set supplied without container.
- CM.140A-F: Set supplied with 1/3 foam trays (x18).
- 2074.M140A: Set supplied with 4-drawer chest BT.C4T.
- JET7.M140A: Set supplied with 7-drawer roller cabinet JET.7GM3.



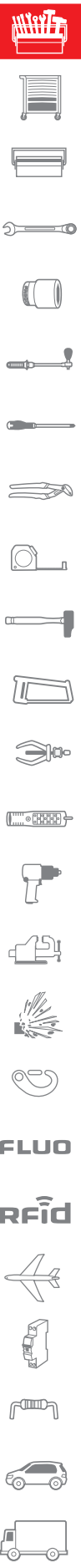
Code	Qty	Description
440.JE18	18	18-piece set of metric combination wrenches
440.26	1	OGV® combination wrench 26 mm
440.27	1	OGV® combination wrench 27 mm
440.28	1	OGV® combination wrench 28 mm
440.29	1	OGV® combination wrench 29 mm
440.30	1	OGV® combination wrench 30 mm
440.32	1	OGV® combination wrench 32 mm
39.JE10T	10	10-piece set of short-reach metric combination wrenches
44.JE12	12	12-piece set of metric open-end wrenches
113A.10C	1	Chromed adjustable wrench 10"
134A.18	1	Heavy duty pipe wrench 18"
R2NANO	38	Box of 1/4" 6-point sockets
S.161-5P12	30	1/2" 12-point sockets box + S.161B
AT3.5X75	1	Protwist® screwdriver for slotted screws 3.5x75
AT4X100	1	Protwist® screwdriver for slotted screws 4x100
AT5.5X100	1	Protwist® screwdriver for slotted screws 5.5x100
ATD0X75	1	Protwist® screwdriver PZ 0x75
ATD1X100	1	Protwist® screwdriver PZ 1x100
ATD2X125	1	Protwist® screwdriver PZ 2x125
ATF6.5X150	1	Protwist® screwdriver for slotted screws 6.5x150
ATF8X200	1	Protwist® screwdriver for slotted screws 8x200
ATPOX75	1	Protwist® Phillips® screwdriver 0x75
ATP1X100	1	Protwist® Phillips® screwdriver 1x100
ATP2X125	1	Protwist® Phillips® screwdriver 2x125
ATWDH3X150	1	Protwist® screwdriver PZ 3x150
ATWH10X175	1	Protwist® screwdriver for slotted screws 10x175

Code	Qty	Description
ATWPH3X150	1	Protwist® screwdriver PH 3x150
AT3.5X100TVE	1	Protwist® 1000v slim screwdriver for slotted screws 3.5x100
AT4X100TVE	1	Protwist® 1000v slim screwdriver for slotted screws 4x100
AT6.5X150TVE	1	Protwist® 1000v slim screwdriver for slotted screws 6.5x150
ATP1X100TVE	1	Protwist® 1000v Phillips® slim screwdriver 1x100
ATP2X125TVE	1	Protwist® 1000v Phillips® slim screwdriver 2x125
ATP8X125	1	Protwist® Phillips® screwdriver 8x125
AV.HT1C	1	Protwist® voltage tester
82H.JP9A	9	9-piece set of hexagonal keys
181A.25CPE	1	Multigrip pliers 250 mm
185A.20CPE	1	Sheathed half-round pliers 20 cm
187A.18CPE	1	Sheathed combination pliers 18 cm
188A.16CPE	1	Sheathed flat-nose pliers 16 cm
192A.16CPE	1	Sheathed diagonal cutters 16 cm
167A.13	1	45° angled nose outside circlip® pliers 10-25
167A.18	1	45° angled nose outside circlip® pliers 18-60
167A.23	1	45° angled nose outside circlip® pliers 32-100
169A.13	1	45° angled nose inside circlip® pliers 12-25
169A.18	1	45° angled nose inside circlip® pliers 18-60
169A.23	1	45° angled nose inside circlip® pliers 31-100
185.34L	1	Extra-long pliers 340 mm
495A.22EL	1	Heavy-duty end nippers 22cm

Code	Qty	Description
501A	1	Multiposition long-nose lock-grip pliers
501AMP	1	Single position vice pliers
DELA.1051.300	1	Stainless steel 2-sided rule
804	1	Feeler gauge
200C.26	1	Composite riveting hammer 26 mm
200C.32	1	Composite riveting hammer 32 mm
208A.32CBA	1	Steel mallet 32 mm
247.62	1	Sheathed nail set - diam.2 mm
247.64	1	Sheathed nail set - diam.4 mm
249.62	1	Sheathed drift punch 2 mm
249.64	1	Sheathed drift punch 4 mm
256.4	1	Precision centre punch-diam.4 mm
263.18	1	Constant-profile chisel length 180 mm
265.G18	1	Sheathed cape chisel - length 180 mm
841	1	Short blade scissors
603F	1	Alu hacksaw
668A.8	10	10 bimetal saw blades 8 teeth/cm
840.F	1	Lock-back knife
980	1	Straight blade general-purpose shears
779.PBT	1	Pen lamp
234	1	Scriber
834B.RTI	1	LED telescopic mirror 55 mm
STG	5	5 wood handle screwdrivers
Y.RIV1	1	Aluminium rivet box
270A.MA	1	Steel wire brush
235.J1	3	Set of 3 stainless steel scrapers

CM.130A 165-piece industrial maintenance set

- 4 Options available:
  - CM.130A: Set supplied without container.
  - CM.130A-F: Set supplied with 1/3 foam trays (x13).
  - 2074.M130A: Set supplied with 4-drawer chest BT.C4T.
  - JET6.M130A: Set supplied with 6-drawer roller cabinet JET.6GM3.



Code	Qty	Description
440.JE18	18	18-piece set of metric combination wrenches
44.JE12	12	12-piece set of metric open-end wrenches
113A.10C	1	Chromed adjustable wrench 10"
R2NANO	38	Box of 1/4" 6-point sockets
S.161-5P12	30	1/2" 12-point sockets box + S.161B
AT3.5X75	1	Protwist® screwdriver for slotted screws 3.5x75
AT4X100	1	Protwist® screwdriver for slotted screws 4x100
AT5.5X100	1	Protwist® screwdriver for slotted screws 5.5x100
ATD0X75	1	Protwist® screwdriver PZ 0x75
ATD1X100	1	Protwist® screwdriver PZ 1x100
ATD2X125	1	Protwist® screwdriver PZ 2x125
ATF6.5X150	1	Protwist® screwdriver for slotted screws 6.5x150
ATF8X200	1	Protwist® screwdriver for slotted screws 8x200
ATP0X75	1	Protwist® Phillips® screwdriver 0x75
ATP1X100	1	Protwist® Phillips® screwdriver 1x100
ATP2X125	1	Protwist® Phillips® screwdriver 2x125
AT3.5X100TVE	1	Protwist® 1000v slim screwdriver for slotted screws 3.5x100
AT4X100TVE	1	Protwist® 1000v slim screwdriver for slotted screws 4x100
AT6.5X150TVE	1	Protwist® 1000v slim screwdriver for slotted screws 6.5x150
ATP1X100TVE	1	Protwist® 1000v Phillips® slim screwdriver 1x100
ATP2X125TVE	1	Protwist® 1000v Phillips® slim screwdriver 2x125
AP8x125	1	Protwist® square bit 8x125
AV.HT1C	1	Protwist® voltage tester
89.JP8A	8	8-piece set of metric keys
167A.13	1	45° angled nose outside circlip® pliers 10-25
167A.18	1	45° angled nose outside circlip® pliers 18-60

Code	Qty	Description
169A.13	1	45° angled nose inside circlip® pliers 12-25
169A.18	1	45° angled nose inside circlip® pliers 18-60
181A.25CPE	1	Multigrip pliers 250 mm
185A.20CPE	1	Sheathed half-round pliers 20 cm
187A.18CPE	1	Sheathed combination pliers 18 cm
188A.16CPE	1	Sheathed flat-nose pliers 16 cm
192A.16CPE	1	Sheathed diagonal cutters 16 cm
185.34L	1	Extra-long pliers 340 mm
501A	1	Multiposition long-nose lock-grip pliers
893B.213	1	Tape measure 2 m/13 mm ABS
200C.32	1	Composite riveting hammer 32 mm
208A.32CBA	1	Steel mallet 32 mm
247.G2	1	Sheathed nail set - diam.2 mm
247.G4	1	Sheathed nail set - diam.4 mm
249.G2	1	Sheathed drift punch 2 mm
249.G4	1	Sheathed drift punch 4 mm
256.4	1	Precision centre punch-diam.4 mm
263.18	1	Constant-profile chisel length 180 mm
265.G18	1	Sheathed cape chisel - length 180 mm
603F	1	Alu hacksaw
668A.8	10	10 bimetal saw blades 8 teeth/cm
840.F	1	Lock-back knife
980	1	Straight blade general-purpose shears
779.PBT	1	Pen lamp
STG	5	5 wood handle screwdrivers

■ **CM.120A** 147-piece set of industrial maintenance tools

• 3 Options available:

- CM.120A: Set supplied without container.
- BT203.M120A: Set supplied with 3-drawer bi-material toolbox BT.203
- 2092.M120A: Set supplied with roller chest 2092.B.



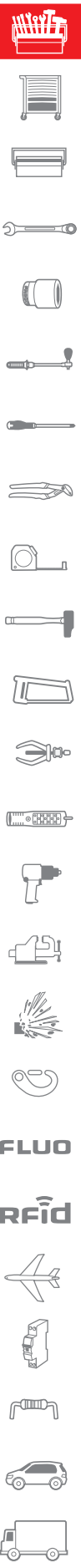
Icon	Qty	Description
	440.7	1 OGV® combination wrench 7 mm
	440.8	1 OGV® combination wrench 8 mm
	440.10	1 OGV® combination wrench 10 mm
	440.11	1 OGV® combination wrench 11 mm
	440.12	1 OGV® combination wrench 12 mm
	440.13	1 OGV® combination wrench 13 mm
	440.14	1 OGV® combination wrench 14 mm
	440.16	1 OGV® combination wrench 16 mm
	440.17	1 OGV® combination wrench 17 mm
	440.18	1 OGV® combination wrench 18 mm
	440.19	1 OGV® combination wrench 19 mm
	440.21	1 OGV® combination wrench 21 mm
	440.22	1 OGV® combination wrench 22 mm
	440.24	1 OGV® combination wrench 24 mm
	44.JE12	12 12-piece set of metric open-end wrenches
	113AS.6C	1 Short-reach adjustable wrench 6"
	R2NANO	38 Box of 1/4" 6-point sockets
	S.161-4P6	26 1/2" 6-point sockets box + S.161B
	AT3.5X75	1 Protwist® screwdriver for slotted screws 3.5x75
	AT4X100	1 Protwist® screwdriver for slotted screws 4x100
	AT5.5X100	1 Protwist® screwdriver for slotted screws 5.5x100
	ATD0X75	1 Protwist® screwdriver PZ 0x75
	ATD1X100	1 Protwist® screwdriver PZ 1x100
	ATD2X125	1 Protwist® screwdriver PZ 2x125
	ATF6.5X150	1 Protwist® screwdriver for slotted screws 6.5x150
	ATF8X200	1 Protwist® screwdriver for slotted screws 8x200
	ATPOX75	1 Protwist® Phillips® screwdriver 0x75

Icon	Qty	Description
	ATP1X100	1 Protwist® Phillips® screwdriver 1x100
	ATP2X125	1 Protwist® Phillips® screwdriver 2x125
	AT4X100TVE	1 Protwist® 1000v slim screwdriver for slotted screws 4x100
	AP1X100TVE	1 Protwist® 1000v Phillips® slim screwdriver 1x100
	AP8x125	1 Protwist® square bit 8x125
	82H.JP9A	9 9-piece set of hexagonal keys
	181A.25CPE	1 Multigrip pliers 250 mm
	185A.20CPE	1 Sheathed half-round pliers 20 cm
	187A.18CPE	1 Sheathed combination pliers 18 cm
	188A.16CPE	1 Sheathed flat-nose pliers 16 cm
	192A.16CPE	1 Sheathed diagonal cutters 16 cm
	167A.18	1 45° angled nose outside circlip® pliers 18-60
	169A.18	1 45° angled nose inside circlip® pliers 18-60
	501A	1 Multiposition long-nose lock-grip pliers
	893B.213	1 Tape measure 2 m/13 mm ABS
	200C.32	1 Composite riveting hammer 32 mm
	208A.32CBA	1 Steel mallet 32 mm
	247.G2	1 Sheathed nail set - diam.2 mm
	247.G4	1 Sheathed nail set - diam.4 mm
	249.G2	1 Sheathed drift punch 2 mm
	249.G4	1 Sheathed drift punch 4 mm
	256.4	1 Precision centre punch-diam.4 mm
	603F	1 Alu hacksaw
	668A.8	10 10 bimetal saw blades 8 teeth/cm
	840.F	1 Lock-back knife
	STG	5 5 wood handle screwdrivers



■ **CM.110A** 126-piece set of industrial maintenance tools

- 4 Options available:
  - CM.110A: Set supplied without container.
  - 2050.M110-A: Set supplied with 5-compartment metal toolbox BT.11A.
  - 2120.M110A: Set supplied with tool bag BS.T20.
  - CR4.M110A: Set supplied with roller chest JET.CR4GM.3



Code	Qty	Description
440.7	1	OGV® combination wrench 7 mm
440.8	1	OGV® combination wrench 8 mm
440.10	1	OGV® combination wrench 10 mm
440.11	1	OGV® combination wrench 11 mm
440.12	1	OGV® combination wrench 12 mm
440.13	1	OGV® combination wrench 13 mm
440.14	1	OGV® combination wrench 14 mm
440.16	1	OGV® combination wrench 16 mm
440.17	1	OGV® combination wrench 17 mm
440.18	1	OGV® combination wrench 18 mm
440.19	1	OGV® combination wrench 19 mm
440.21	1	OGV® combination wrench 21 mm
440.22	1	OGV® combination wrench 22 mm
440.24	1	OGV® combination wrench 24 mm
113A.10C	1	Chromed adjustable wrench 10"
R2NANO	38	Box of 1/4" 6-point sockets
S.161-4P6	26	1/2" 6-point sockets box + S.161B
AT3.5X75	1	Protwist® screwdriver for slotted screws 3.5x75
AT4X100	1	Protwist® screwdriver for slotted screws 4x100
AT5.5X100	1	Protwist® screwdriver for slotted screws 5.5x100
ATD2X125	1	Protwist® screwdriver PZ 2x125
ATF6.5X150	1	Protwist® screwdriver for slotted screws 6.5x150
ATF8X200	1	Protwist® screwdriver for slotted screws 8x200
ATPOX75	1	Protwist® Phillips® screwdriver 0x75

Code	Qty	Description
ATP1X100	1	Protwist® Phillips® screwdriver 1x100
ATP2X125	1	Protwist® Phillips® screwdriver 2x125
AT4X100TVE	1	Protwist® 1000v slim screwdriver for slotted screws 4x100
AP8x125	1	Protwist® square bit 8x125
82H.JP9A	9	9-piece set of hexagonal keys
181A.25CPE	1	Multigrip pliers 250 mm
185A.20CPE	1	Sheathed half-round pliers 20 cm
187A.18CPE	1	Sheathed combination pliers 18 cm
188A.16CPE	1	Sheathed flat-nose pliers 16 cm
192A.16CPE	1	Sheathed diagonal cutters 16 cm
167A.18	1	45° angled nose outside circlip® pliers 18-60
169A.18	1	45° angled nose inside circlip® pliers 18-60
501A	1	Multiposition long-nose lock-grip pliers
893B.213	1	Tape measure 2 m/13 mm ABS
200H.32	1	Wooden grip riveting hammer 32 mm
208A.32CBA	1	Steel mallet 32 mm
247.G2	1	Sheathed nail set - diam.2 mm
247.G4	1	Sheathed nail set - diam.4 mm
249.G2	1	Sheathed drift punch 2 mm
249.G4	1	Sheathed drift punch 4 mm
256.4	1	Precision centre punch-diam.4 mm
603F	1	Alu hacksaw
668A.8	10	10 bimetal saw blades 8 teeth/cm
840.F	1	Lock-back knife

■ **CM.100A** 96-piece set of industrial maintenance tools



• 4 Options available:

- CM.100A: Set supplied without container.
- 2050.M100A: Set supplied with 5-compartment metal toolbox BT.11A.
- 2026.M100A: Set supplied with plastic toolbox BP.C24N.
- BT200.M100A: Set supplied with bi-material toolbox BT.200.



Item Code	Qty	Description
440.7	1	OGV® combination wrench 7 mm
440.8	1	OGV® combination wrench 8 mm
440.10	1	OGV® combination wrench 10 mm
440.11	1	OGV® combination wrench 11 mm
440.12	1	OGV® combination wrench 12 mm
440.13	1	OGV® combination wrench 13 mm
440.14	1	OGV® combination wrench 14 mm
440.16	1	OGV® combination wrench 16 mm
440.17	1	OGV® combination wrench 17 mm
440.18	1	OGV® combination wrench 18 mm
440.19	1	OGV® combination wrench 19 mm
440.21	1	OGV® combination wrench 21 mm
440.22	1	OGV® combination wrench 22 mm
440.24	1	OGV® combination wrench 24 mm
113AS.6C	1	Short-reach adjustable wrench 6"
R1PICO	29	Ultra-compact socket/bit box
S.161-3P6	23	1/2" 6-point sockets box + S.161
AT3.5X75	1	Protwist® screwdriver for slotted screws 3.5x75
AT4X100	1	Protwist® screwdriver for slotted screws 4x100

Item Code	Qty	Description
AT5.5X100	1	Protwist® screwdriver for slotted screws 5.5x100
ATF6.5X150	1	Protwist® screwdriver for slotted screws 6.5x150
ATF8X200	1	Protwist® screwdriver for slotted screws 8x200
ATPOX75	1	Protwist® Phillips® screwdriver 0x75
ATP1X100	1	Protwist® Phillips® screwdriver 1x100
ATP2X125	1	Protwist® Phillips® screwdriver 2x125
AT4X100TVE	1	Protwist® 1000v slim screwdriver for slotted screws 4x100
181A.25CPE	1	Multigrip pliers 250 mm
187A.18CPE	1	Sheathed combination pliers 18 cm
192A.16CPE	1	Sheathed diagonal cutters 16 cm
893B.213	1	Tape measure 2 m/13 mm ABS
200H.32	1	Wooden grip riveting hammer 32 mm
247.G2	1	Sheathed nail set - diam.2 mm
247.G4	1	Sheathed nail set - diam.4 mm
249.G2	1	Sheathed drift punch 2 mm
249.G4	1	Sheathed drift punch 4 mm
603F	1	Alu hacksaw
668A.8	10	10 bimetal saw blades 8 teeth/cm

CM.LT3 39-piece set of industrial maintenance tools

- 3 Options available:
  - CM.LT3: Set supplied without container.
  - 2060.LT3: Set supplied with 2-compartment metal toolbox BT.6A.
  - BSSMB.LT3: Set supplied with compact tool bag BS.SMB.



Code	Qty	Description
440.JE9	9	10-piece set of combination wrenches 8 to 19 mm
75.JN10	10	10-piece set of box tube wrenches
AT3.5X100	1	Protwist® screwdriver for slotted screws 3.5x100
AT5.5X150	1	Protwist® screwdriver for slotted screws 5.5x150
ATD1X75	1	Protwist® screwdriver PZ 1x75
ATD2X100	1	Protwist® screwdriver PZ 2x100
82H.JP9A	9	9-piece set of hexagonal keys

Code	Qty	Description
181A.25CPE	1	Multigrip pliers 250 mm
187A.18G	1	Combination pliers 18 cm
192A.16G	1	Diagonal cutters 16 cm
200H.32	1	Wooden grip riveting hammer 32 mm
249.4	1	Drift punch 4 mm
249.6	1	Drift punch 6 mm
263.18	1	Constant-profile chisel length 180 mm

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■ **CM.EL31** 69-piece set of electricians tools



• 3 Options available:

- CM.EL31: Set supplied without container.
- 2132.EL31: Set supplied with metal toolbox BT.9.
- BPC16N.EL31: Set supplied with plastic toolbox BPC16N.



🔗	Qty	Description
<b>22.JE6T</b>	6	Set of 6 "micromechanic" open end wrenches 3.2 to 13mm
<b>R2NANO</b>	38	Box of 1/4" 6-point sockets
<b>AT2.5X50VE</b>	1	PROTWIST® 1000v screwdriver for slotted screws 2.5x50
<b>AT3.5x75VE</b>	1	Protwist® 1000v screwdriver for slotted screws 3.5x75
<b>AT4X100TVE</b>	1	Protwist® 1000v slim screwdriver for slotted screws 4x100
<b>AT5.5x150VE</b>	1	Protwist® 1000v screwdriver for slotted screws 5.5x150
<b>ATDOX75VE</b>	1	Protwist® 1000v Pozidriv® screwdriver 0x75
<b>ATD1X100TVE</b>	1	Protwist® 1000v Pozidriv® slim screwdriver 1x100
<b>ATPOX75VE</b>	1	Protwist® 1000v Phillips® screwdriver 0x75
<b>ATP1X100TVE</b>	1	Protwist® 1000v Phillips® slim screwdriver 1x100
<b>AEF.J1</b>	5	5-piece set of Microtech® Protwist® screwdrivers
<b>AFU.0</b>	1	Screw starter for slotted screws

🔗	Qty	Description
<b>HT.2X2,4</b>	1	Protwist® tuning screwdriver for slotted screws
<b>170A.18</b>	1	Multigrip pliers 180 mm
<b>405.12MT</b>	1	Microtech® axial cutters
<b>406.MT</b>	1	Microtech® compact cutters
<b>420.MT</b>	1	Microtech® grip pliers
<b>431.LMT</b>	1	Microtech® slim profile nose grip pliers
<b>433.LMT</b>	1	Microtech® 45° slim profile nose grip pliers
<b>449B</b>	1	Crimping pliers
<b>1230B.20</b>	1	Soldering iron 20 w
<b>1830.1</b>	1	Brush
<b>839A.1</b>	1	Desoldering pump

■ **CM.EL32** 94-piece set of electricians tools

• 3 Options available:

- CM.EL32: Set supplied without container.
- 2208.EL32: Set supplied with case BV.51A.
- BST20.EL32: Set supplied with tool bag BS.T20.



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Qty	Description
6	Set of 6 'micromechanic' open end wrenches 3.2 to 13mm
1	Short-reach adjustable wrench 6"
38	Box of 1/4" 6-point sockets
1	Protwist® short screwdriver for slotted screws 4x35
1	Protwist® 1000v screwdriver for slotted screws 3.5x75
1	Protwist® 1000v slim screwdriver for slotted screws 4x100
1	Protwist® 1000v screwdriver for slotted screws 5.5x150
1	Protwist® 1000v Pozidriv® screwdriver 0x75
1	Protwist® 1000v Pozidriv® slim screwdriver 1x100
1	Protwist® 1000v Phillips® screwdriver 0x75
1	Protwist® 1000v Phillips® slim screwdriver 1x100
1	Screw starter for slotted screws
1	Protwist® multiblade screwdriver
1	Protwist® tuning screwdriver for slotted screws
9	9-piece set of metric spherical keys
1	Multigrip pliers 180 mm
1	Microtech® axial cutters

Qty	Description
1	Microtech® compact cutters
1	Microtech® grip pliers
1	Microtech® short nose grip pliers
1	Microtech® 45° slim profile nose grip pliers
1	Crimping pliers
1	Tape measure 3 m grip body
1	Short blade scissors
1	Lock-back knife
1	Pen lamp
1	Soldering iron 20 w
1	Straight model tweezers
1	Brush
1	Inspection mirror
1	Spring puller
1	Desoldering pump
6	Set of 6 files
1	Set of 6 needle files 160 mm

■ **CM.EL34** 101-piece set of electricians tools

• 3 Options available:

- CM.EL34: Set supplied without container.
- 2138.EL34: Set supplied with case BV.21ST.
- BSR20.EL34: Set supplied with roller tool bag BS.R20.

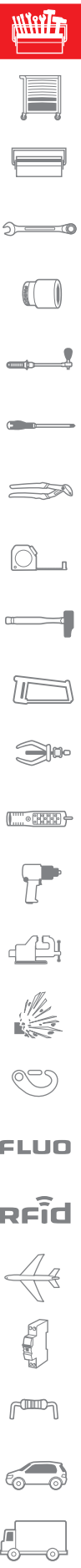


Item Code	Qty	Description
467S.1/4	1	Short-reach ratchet wrench 1/4
467S.5/16	1	Short-reach ratchet wrench 5/16
467S.11/32	1	Short-reach ratchet wrench 11/32
467S.3/8	1	Short-reach ratchet wrench 3/8
467S.7/16	1	Short-reach ratchet wrench 7/16
467S.1/2	1	Short-reach ratchet wrench 1/2
467S.9/16	1	Short-reach ratchet wrench 9/16
467S.5/8	1	Short-reach ratchet wrench 5/8
467S.11/16	1	Short-reach ratchet wrench 11/16
467S.3/4	1	Short-reach ratchet wrench 3/4
22.JE6T	6	Set of 6 "micromechanic" open end wrenches 3.2 to 13mm
113A.GC	1	Chromed adjustable wrench 6"
R.420AMU	29	Box of 1/4" 6-point metric and inch-size sockets
AMR	1	Protwist® multiblade screwdriver
AT4X35	1	Protwist® short screwdriver for slotted screws 4x35
ATP1X35	1	Protwist® short Phillips® screwdriver 1x35
AT3.5x75VE	1	Protwist® 1000v screwdriver for slotted screws 3.5x75
AT4X100VE	1	Protwist® 1000v screwdriver for slotted screws 4x100
AT5.5x150VE	1	Protwist® 1000v screwdriver for slotted screws 5.5x150
ATD0X75VE	1	Protwist® 1000v Pozidriv® screwdriver 0x75
ATD1X100VE	1	Protwist® 1000v Pozidriv® screwdriver 1x100
ATP0X75VE	1	Protwist® 1000v Phillips® screwdriver 0x75
ATP1X100VE	1	Protwist® 1000v Phillips® screwdriver 1x100
AFU.0	1	Screw starter for slotted screws
AFUX.1	1	Screw starter for Phillips® screws
82H.JE10	10	Set of hexagonal keys - metric
82H.JU7	7	Set of hexagonal keys - inch

Item Code	Qty	Description
181A.18G	1	Multigrip pliers 180 mm
405.12MT	1	Microtech® axial cutters
405.MT	1	Microtech® compact cutters
416.PMT	1	Microtech® slim profile sharp tip cutters
431.MT	1	Microtech® short nose grip pliers
433.LMT	1	Microtech® 45° slim profile nose grip pliers
449B	1	Crimping pliers
897A.319	1	Tape measure 3 m grip body
840.F	1	Lock-back knife
841	1	Short blade scissors
779.PBT	1	Pen lamp
839A	1	Desoldering pump
834	1	Inspection mirror
835A	1	Spring puller
826.0	1	Mechanical finger
1230B.20	1	Soldering iron 20 w
141.12	1	Straight model tweezers
152.Y	1	PVC sheath 45° tweezers
153	1	Straight model tweezers with cross nose
1802A.N	1	Black wire mini-grip
1802A.R	1	Red wire mini-grip
1803A.N	1	Black probe
1803A.R	1	Red probe
1804B.N	1	Black connection lead
1804B.R	1	Red connection lead
1830.1	1	Brush

CM.EL35 172-piece set of electricians tools

- 3 Options available:
  - CM.EL35: Set supplied without container.
  - 2138.EL35: Set supplied with case BV.21ST.
  - BPC24N.EL35: Set supplied with plastic toolbox BP.C24N.



Qty	Description
6	6-piece set of short-reach wrenches on case
1	Short-reach ratchet wrench 1/4
1	Short-reach ratchet wrench 5/16
1	Short-reach ratchet wrench 11/32
1	Short-reach ratchet wrench 3/8
1	Short-reach ratchet wrench 7/16
1	Short-reach ratchet wrench 1/2
1	Short-reach ratchet wrench 9/16
1	Short-reach ratchet wrench 5/8
1	Short-reach ratchet wrench 11/16
1	Short-reach ratchet wrench 3/4
1	'Micromechanic' metric open end wrench 22.4X5
1	'Micromechanic' metric open end wrench 22.6X7
1	'Micromechanic' metric open end wrench 22.8X9
1	'Micromechanic' metric open end wrench 22.10X11
1	'Micromechanic' metric open end wrench 22.12X13
1	Chromed adjustable wrench 6"
29	Box of 1/4" 6-point metric and inch-size sockets
1	Protwist® multiblade screwdriver
1	Protwist® short screwdriver for slotted screws 4x35
1	Protwist® short Phillips® screwdriver 1x35
1	Protwist® 1000V screwdriver for slotted screws 3.5x75
1	Protwist® 1000V slim screwdriver for slotted screws 4x100
1	Protwist® 1000V screwdriver for slotted screws 5.5x150
1	Protwist® 1000V Pozidriv® screwdriver 0x75

Qty	Description
1	Protwist® 1000V Pozidriv® screwdriver 1x100
1	Protwist® 1000V Phillips® screwdriver 0x75
1	Protwist® 1000V Phillips® screwdriver 1x100
8	8-piece set of Microtech® Protwist® screwdrivers
1	Screw starter for slotted screws
1	Screw starter for Phillips® screws
1	Microtech® Protwist® hexagonal screwdriver 84E.0,9X35
1	Microtech® Protwist® hexagonal screwdriver 84E.1,3X35
1	Microtech® Protwist® hexagonal screwdriver 84E.1,5X35
1	Microtech® Protwist® hexagonal screwdriver 84E.2,5X75
1	Hexagonal micro key 2x75 mm
31	Bit and bit holder box
10	Set of hexagonal keys - metric
10	10-piece set of keys in wallet
1	Multigrip pliers 180 mm
1	Microtech® axial cutters 405.12MT
1	Microtech® compact cutters 405.MT
1	Microtech® slim profile sharp tip cutters 416.PMT
1	Microtech® short nose grip pliers 431.MT
1	Microtech® short nose grip pliers 432.MT
1	Microtech® 45° slim profile nose grip pliers 433.LMT
1	Crimping pliers 449B
1	Tape measure 3 m grip body 897A.319

Qty	Description
1	Drift punch 1 mm
1	Drift punch 1.5 mm
1	Drift punch 2 mm
1	Drift punch 2.5 mm
1	Drift punch 3 mm
1	Drift punch 3.5 mm
1	Drift punch 4 mm
1	Drift punch 5 mm
1	Drift punch 6 mm
1	Composite riveting hammer 26 mm
1	Lock-back knife
1	Short blade scissors
1	Pen lamp
1	Multifunction sheath strippers
1	Desoldering harness
1	Pen oil can
1	Mechanical finger
1	Flexible mechanical finger
1	LED telescopic mirror 30mm
1	Spring puller
1	Desoldering pump
6	Set of 6 files
1	Soldering iron 20 w
1	PVC sheath 45° tweezers
1	Straight model tweezers with cross nose
1	Black wire mini-grip
1	Red wire mini-grip
1	Black probe
1	Red probe
1	Black connection lead
1	Red connection lead

■ **CM.EM40A 80-piece set of electromechanical tools**



- 4 Options available:
  - CM.EM40A: Set supplied without container.
  - BPC16N.EM40A: Set supplied with plastic toolbox BPC16N.
  - BST14.EM40A: Set supplied with tool bag BS.T14.
  - DS295.EM40A: Set supplied with 3-drawer Tough System® toolbox BSYS.BPC3T.



🔧	Qty	Description
<b>44.JE9T</b>	9	9-piece set of open end wrenches 8 to 19 mm
<b>113A.6C</b>	1	Chromed adjustable wrench 6"
<b>R2NANO</b>	38	Box of 1/4" 6-point sockets
<b>AT4X35</b>	1	Protwist® short screwdriver for slotted screws 4x35
<b>AT3.5x75VE</b>	1	Protwist® 1000v screwdriver for slotted screws 3.5x75
<b>AT4X100TVE</b>	1	Protwist® 1000v slim screwdriver for slotted screws 4x100
<b>AT5.5X125TVE</b>	1	Protwist® 1000v slim screwdriver for slotted screws 5.5x125
<b>AT6.5X150TVE</b>	1	Protwist® 1000v slim screwdriver for slotted screws 6.5x150
<b>ATPOX75VE</b>	1	Protwist® 1000v Phillips® screwdriver 0x75
<b>ATP1X100TVE</b>	1	Protwist® 1000v Phillips® slim screwdriver 1x100
<b>ATP2X125TVE</b>	1	Protwist® 1000v Phillips® slim screwdriver 2x125
<b>AFU.2</b>	1	Screw starter for slotted screws
<b>83H.JP9A</b>	1	9-piece set of long-reach metric keys
<b>181A.25CPE</b>	1	Multigrip pliers 250 mm

🔧	Qty	Description
<b>192A.16G</b>	1	Diagonal cutters 16 cm
<b>193A.16CPE</b>	1	Sheathed half-round pliers 160 mm
<b>194A.17CPE</b>	1	Wire stripper 170 mm
<b>195A.16CPE</b>	1	Half-round short nose pliers 160 mm
<b>893B.213</b>	1	Tape measure 2 m/13 mm ABS
<b>251A.2</b>	1	Drift punch 2 mm
<b>251A.3</b>	1	Drift punch 3 mm
<b>251A.4</b>	1	Drift punch 4 mm
<b>840.F</b>	1	Lock-back knife
<b>779.PBT</b>	1	Pen lamp
<b>834B.RTI</b>	1	LED telescopic mirror 55 mm
<b>835A</b>	1	Spring puller
<b>141.12</b>	1	Straight model tweezers



■ CM.EM41A 120-piece set of electromechanical tools

- 4 Options available:
  - CM.EM41A: Set supplied without container.
  - 2208.EM41A: Set supplied with case BV.51A.
  - BSR20.EM41A: Set supplied with roller tool bag BS.R20.
  - BT200.EM41A: Set supplied with bi-material toolbox BT.200.



Code	Qty	Description
39.JE16T	16	16-piece set of short-reach combination wrenches 3.2 to 17mm
113A.6C	1	Chromed adjustable wrench 6"
R2NANO	38	Box of 1/4" 6-point sockets
AT4X35	1	Protwist® short screwdriver for slotted screws 4x35
ATP1X35	1	Protwist® short Phillips® screwdriver 1x35
AT3.5X100TVE	1	Protwist® 1000v slim screwdriver for slotted screws 3.5x100
AT4X100TVE	1	Protwist® 1000v slim screwdriver for slotted screws 4x100
AT5.5X125TVE	1	Protwist® 1000v slim screwdriver for slotted screws 5.5x125
AT6.5X150TVE	1	Protwist® 1000v slim screwdriver for slotted screws 6.5x150
ATD1X100TVE	1	Protwist® 1000v Pozidriv® slim screwdriver 1x100
ATD2X125TVE	1	Protwist® 1000v Pozidriv® slim screwdriver 2x125
ATP0X75VE	1	Protwist® 1000v Phillips® screwdriver 0x75
ATP1X100TVE	1	Protwist® 1000v Phillips® slim screwdriver 1x100
ATP2X125TVE	1	Protwist® 1000v Phillips® slim screwdriver 2x125
AE.J1	8	8-piece set of Microtech® Protwist® screwdrivers
AFU.2	1	Screw starter for slotted screws
AFUX.1	1	Screw starter for Phillips® screws
82H.JP9A	9	9-piece set of hexagonal keys
177A.13	1	Straight-nose outside circlip® pliers
179A.13	1	Straight-nose inside circlip® pliers
181A.186	1	Multigrip pliers 180 mm
401.MT	1	Microtech® extra-long reach nose pliers
402.MT	1	Microtech® extra-long reach nose pliers
403.MT	1	Microtech® extra-long reach angled nose pliers

Code	Qty	Description
405.10MT	1	Microtech® cutters
405.12MT	1	Microtech® axial cutters
449B	1	Crimping pliers
804	1	Feeler gauge
893B.213	1	Tape measure 2 m/13 mm ABS
251A.1	1	Drift punch 1 mm
251A.2	1	Drift punch 2 mm
251A.3	1	Drift punch 3 mm
251A.4	1	Drift punch 4 mm
256.2,5	1	Precision centre punch-diam.2.5 mm
200H.26	1	Hickory riveting hammer 26 mm
841	1	Short blade scissors
840.F	1	Lock-back knife
779.PBT	1	Pen lamp
872271	1	Multifunction sheath strippers
1230B.20	1	Soldering iron 20 w
141.12	1	Straight model tweezers
152.Y	1	PVC sheath 45° tweezers
153	1	Straight model tweezers with cross nose
234	1	Scriber
827.1	1	Extra-thin magnetic finger
834B.RTI	1	LED telescopic mirror 55 mm
835A	1	Spring puller
AS.6L160T2A	1	Set of 6 needle files 160 mm

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■ **CM.EM42A** 105-piece set of electromechanical tools

- 3 Options available:
  - CM.EM42A: Set supplied without container.
  - BPC19N.EM42A: Set supplied with plastic toolbox B.P.C19N.
  - BST20.EM42A: Set supplied with tool bag BS.T20.



Item Code	Qty	Description
440.JE11	11	Set of 11 combination wrenches 7 to 19mm
467BS.JP6	6	6-piece set of short-reach wrenches on case
113A.6C	1	Chromed adjustable wrench 6"
R2NANO	38	Box of 1/4" 6-point sockets
AT4X35	1	Protwist® short screwdriver for slotted screws 4x35
AT3.5x75VE	1	Protwist® 1000v screwdriver for slotted screws 3.5x75
AT4X100TVE	1	Protwist® 1000v slim screwdriver for slotted screws 4x100
AT5.5X125TVE	1	Protwist® 1000v slim screwdriver for slotted screws 5.5x125
AT6.5X150TVE	1	Protwist® 1000v slim screwdriver for slotted screws 6.5x150
ATP0X75VE	1	Protwist® 1000v Phillips® screwdriver 0x75
ATP1X100TVE	1	Protwist® 1000v Phillips® slim screwdriver 1x100
ATP2X125TVE	1	Protwist® 1000v Phillips® slim screwdriver 2x125
AFU.2	1	Screw starter for slotted screws
83H.JP9A	1	9-piece set of long-reach metric keys
181A.25CPE	1	Multigrip pliers 250 mm
192A.16G	1	Diagonal cutters 16 cm
193A.16CPE	1	Sheathed half-round pliers 160 mm
194A.17CPE	1	Wire stripper 170 mm
195A.16CPE	1	Half-round short nose pliers 160 mm

Item Code	Qty	Description
467	1	Circlip® outside pliers with interchangeable bits
469	1	Circlip® inside pliers with interchangeable bits
185.34L	1	Extra-long pliers 340 mm
893B.213	1	Tape measure 2 m/13 mm ABS
840.F	1	Lock-back knife
980	1	Straight blade general-purpose shears
251A.2	1	Drift punch 2 mm
251A.3	1	Drift punch 3 mm
251A.4	1	Drift punch 4 mm
200C.32	1	Composite riveting hammer 32 mm
779.PBT	1	Pen lamp
872271	1	Multifunction sheath strippers
1230B.20	1	Soldering iron 20 w
141.12	1	Straight model tweezers
834B.RTI	1	LED telescopic mirror 55 mm
835A	1	Spring puller
270A.MA	1	Steel wire brush
235.J1	3	Set of 3 stainless steel scrapers
AS.6L160T2A	1	Set of 6 needle files 160 mm

■ **CM.SE** 15-piece set of electronic tools

- 3 Options available:
  - CM.SE: Set supplied without container.
  - 2180.SE: Set supplied with leather bag BV.100.
  - BSSMB.SE: Set supplied with tool bag BS.SMB.



Icon	Qty	Description
	1	PROTWIST® 1000v screwdriver for slotted screws 2.5x50
	1	Protwist® 1000v screwdriver for slotted screws 3.5x75
	1	Protwist® 1000v slim screwdriver for slotted screws 4x100
	1	Protwist® 1000v slim screwdriver for slotted screws 5.5x125
	1	Protwist® 1000v slim screwdriver for slotted screws 6.5x150
	1	Protwist® 1000v Phillips® screwdriver 0x75
	1	Protwist® 1000v Phillips® slim screwdriver 1x100
	1	Protwist® 1000v Phillips® slim screwdriver 2x125

Icon	Qty	Description
	1	187A.18VE 1000 v insulated combination pliers
	1	194A.17VE 1000 v insulated combination pliers
	1	391A.16VE 1000v insulated wire stripper
	1	402.MT Microtech® extra-long reach nose pliers
	1	405.12MT Microtech® axial cutters
	1	449B Crimping pliers
	1	840.1 Wooden handle electricians knife

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▪ **CM.E16 39-piece set of electronic tools**



- 4 Options available:
  - CM.E16: Set supplied without container.
  - 2163.E16: Set supplied with case BV.7A.
  - BPC16N.E16: Set supplied with plastic toolbox BP.C16N.
  - DS290.E16: Set supplied with 2-drawer Tough System® toolbox BSYS.BPC2T.



Code	Qty	Description
44.14X15	1	Open end wrench 14 x 15 mm
44.16X17	1	Open end wrench 16 x 17 mm
44.18X19	1	Open end wrench 18 x 19 mm
44.21X23	1	Open end wrench 21 x 23 mm
44.22X24	1	Open end wrench 22 x 24 mm
22.JE6T	6	Set of 6 'micromechanic' open end wrenches 3.2 to 13mm
113A.8C	1	Chromed adjustable wrench 8"
R2NANO	38	Box of 1/4" 6-point sockets
AMS	1	Standard Protwist® multiblade screwdriver
AT2.5X50VE	1	PROTWIST® 1000v screwdriver for slotted screws 2.5x50
AT3.5X100TVE	1	Protwist® 1000v slim screwdriver for slotted screws 3.5x100
AT4X100TVE	1	Protwist® 1000v slim screwdriver for slotted screws 4x100
AT5.5x150VE	1	Protwist® 1000v screwdriver for slotted screws 5.5x150

Code	Qty	Description
ATPOX75VE	1	Protwist® 1000v Phillips® screwdriver 0x75
ATP1X100TVE	1	Protwist® 1000v Phillips® slim screwdriver 1x100
83SH.JP9A	9	9-piece set of metric spherical keys
391A.16CPE	1	Diagonal cutters
181A.25CPE	1	Multigrip pliers 250 mm
187A.18CPE	1	Sheathed combination pliers 18 cm
194A.17CPE	1	Wire stripper 170 mm
449B	1	Crimping pliers
256.6	1	Precision centre punch-diam.6 mm
263.15	1	Chisel 150 mm
203H.18	1	Electricians hammer
841	1	Short blade scissors
840.F	1	Lock-back knife

CM.E17 101-piece set of electronic tools



- 4 Options available:
  - CM.E17: Set supplied without container.
  - 2050.E17: Set supplied with metal toolbox BT.11A.
  - BST20.E17: Set supplied with tool bag BS.T20.
  - DS295.E17: Set supplied with 3-drawer Tough System® toolbox BSYS.BPC3T.



ED	Qty	Description
44.16X17	1	Open end wrench 16 x 17 mm
44.18X19	1	Open end wrench 18 x 19 mm
44.21X23	1	Open end wrench 21 x 23 mm
44.22X24	1	Open end wrench 22 x 24 mm
22.JE6T	6	Set of 6 "micromechanic" open end wrenches 3.2 to 13mm
113A.6C	1	Chromed adjustable wrench 6"
R2NANO	38	Box of 1/4" 6-point sockets
AT3.5x75VE	1	Protwist® 1000v screwdriver for slotted screws 3.5x75
AT4X100TVE	1	Protwist® 1000v slim screwdriver for slotted screws 4x100
AT5.5x150VE	1	Protwist® 1000v screwdriver for slotted screws 5.5x150
AT6.5X150TVE	1	Protwist® 1000v slim screwdriver for slotted screws 6.5x150
ATD1X100TVE	1	Protwist® 1000v Pozidriv® slim screwdriver 1x100
ATD2X125TVE	1	Protwist® 1000v Pozidriv® slim screwdriver 2x125
ATP1X100VE	1	Protwist® 1000v Phillips® screwdriver 1x100
ATP2X125VE	1	Protwist® 1000v Phillips® screwdriver 2x125
AP8x125	1	Protwist® square bit 8x125
AFU.1	1	Protwist® screw starter for slotted screws 7x130
83SH.JP9A	9	9-piece set of metric spherical keys
181A.25CPE	1	Multigrip pliers 250 mm
187A.18CPE	1	Sheathed combination pliers 18 cm
188A.16CPE	1	Sheathed flat-nose pliers 16 cm

ED	Qty	Description
190A.20CPE	1	Front cutters 20 cm
194A.17CPE	1	Wire stripper 170 mm
195A.20CPE	1	Sheathed half-round pliers 20 cm
391A.16CPE	1	Diagonal cutters
449B	1	Crimping pliers
582.7	1	Long-nose auto lock-grip pliers 7"
893B.213	1	Tape measure 2 m/13 mm ABS
200C.32	1	Composite riveting hammer 32 mm
203H.18	1	Electricians hammer
249.2	1	Drift punch 2 mm
249.4	1	Drift punch 4 mm
256.6	1	Precision centre punch-diam.6 mm
259	1	Slim-profile chisel
601	1	Hacksaw
841	1	Short blade scissors
412B.10	1	Copper aluminium cable cutters
668A.8	10	10 bimetal saw blades 8 teeth/cm
840.F	1	Lock-back knife
701B	1	Multimeter
985956	1	Sheath strippers
1230B.20	1	Soldering iron 20 w

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■ **CM.E18 120-piece set of electronic tools**

- 5 Options available:
  - CM.E18: Set supplied without container.
  - 2070.E18: Set supplied with metal toolbox BT.13A.
  - 2120.E18: Set supplied with tool bag BS.T20.
  - BPC24N.E18: Set supplied with plastic toolbox BP.C24N.
  - DS295.E18: Set supplied with 3-drawer Tough System® toolbox BSYS.BPC2T.



Code	Qty	Description
440.JE9	9	10-piece set of combination wrenches 8 to 19 mm
467BS.JP6	6	6-piece set of short-reach wrenches on case
22.JE6T	6	Set of 6 'micromechanic' open end wrenches 3.2 to 13mm
113A.6C	1	Chromed adjustable wrench 6"
R2NANO	38	Box of 1/4" 6-point sockets
AT3.5x75VE	1	Protwist® 1000v screwdriver for slotted screws 3.5x75
AT4X100TVE	1	Protwist® 1000v slim screwdriver for slotted screws 4x100
AT5.5x150VE	1	Protwist® 1000v screwdriver for slotted screws 5.5x150
AT6.5X150TVE	1	Protwist® 1000v slim screwdriver for slotted screws 6.5x150
ATD1X100TVE	1	Protwist® 1000v Pozidriv® slim screwdriver 1x100
ATD2X125TVE	1	Protwist® 1000v Pozidriv® slim screwdriver 2x125
ATP1X100VE	1	Protwist® 1000v Phillips® screwdriver 1x100
ATP2X125VE	1	Protwist® 1000v Phillips® screwdriver 2x125
AP8x125	1	Protwist® square bit 8x125
AFP.1	1	Protwist® screw starter
Afu.1	1	Protwist® screw starter for slotted screws 7x130
83SH.JP9A	9	9-piece set of metric spherical keys
500A	1	Multiposition short-nose lock-grip pliers
181A.25CPE	1	Multigrip pliers 250 mm
185A.20CPE	1	Sheathed half-round pliers 20 cm
187A.18CPE	1	Sheathed combination pliers 18 cm
188A.16CPE	1	Sheathed flat-nose pliers 16 cm
190A.20CPE	1	Front cutters 20 cm
194A.17CPE	1	Wire stripper 170 mm

Code	Qty	Description
195A.20CPE	1	Sheathed half-round pliers 20 cm
391A.16CPE	1	Diagonal cutters
805.1	1	Slide rule 1/50th - 150 mm
307B.40	1	Trapezoid level
893B.213	1	Tape measure 2 m/13 mm ABS
DELA.1051.200	1	Stainless steel flexible rule
200C.32	1	Composite riveting hammer 32 mm
203H.18	1	Electricians hammer
249.2	1	Drift punch 2 mm
249.3	1	Drift punch 3 mm
249.4	1	Drift punch 4 mm
256.6	1	Precision centre punch-diam.6 mm
259	1	Slim-profile chisel
412B.10	1	Copper aluminium cable cutters
668A.8	10	10 bimetal saw blades 8 teeth/cm
601	1	Hacksaw
841	1	Short blade scissors
840.1	1	Wooden handle electricians knife
701B	1	Multimeter
872271	1	Multifunction sheath strippers
673838	1	Serkan® ratchet crimping pliers for pre-insulated terminals
985956	1	Sheath strippers
1230B.20	1	Soldering iron 20 w
826.1	1	Flexible mechanical finger

■ **CM.200A** 67-piece set of plumbers tools

- 3 Options available:
  - CM.200A: Set supplied without container.
  - BT6A.M200A: Set supplied with metal toolbox BT.6A.
  - BSLMBC.M200A: Set supplied with fabric/PVC tool bag BS.LMBC.



Code	Qty	Description
467BF.JP10	10	10-piece set of flexible ratchet combination wrenches on case
113AS.6C	1	Short-reach adjustable wrench 6"
131A.18	1	Stillson pipe wrench 450 mm
R1PICO	29	Ultra-compact socket/bit box
AT2X75	1	Protwist® screwdriver for slotted screws 2x75
AT3,5X75	1	Protwist® screwdriver for slotted screws 3.5x75
AT4X100	1	Protwist® screwdriver for slotted screws 4x100
AT5,5X100	1	Protwist® screwdriver for slotted screws 5.5x100
ATPOX75	1	Protwist® Phillips® screwdriver 0x75
ATP1X100	1	Protwist® Phillips® screwdriver 1x100
ATP2X125	1	Protwist® Phillips® screwdriver 2x125

Code	Qty	Description
83H.JP9A	1	9-piece set of long-reach metric keys
170A.25	1	Standard multigrip pliers
192A.16G	1	Diagonal cutters 16 cm
185A.20G	1	Half-round nose pliers
187A.18G	1	Combination pliers 18 cm
893B.213	1	Tape measure 2 m/13 mm ABS
200C.32	1	Composite riveting hammer 32 mm
844.D	1	Folding utility knife
338B.1	1	Iron pipe cutter
334C.35NX	1	Stainless steel pipe cutter
RD.MD200EMA	1	Flat second-cut file 200 mm with grip



■ **CM.210A** 94-piece set of plumbers tools



• 4 Options available:

- CM.210A: Set supplied without container.
- BT.11A.M210A: Set supplied with metal toolbox BT.11A.
- BPC16N.M210A: Set supplied with plastic toolbox BPC.16N.
- DS295.M210A: Set supplied with 3-drawer Tough System® toolbox BSYS.BPC3T.



Code	Qty	Description
467BF.JP10	10	10-piece set of flexible ratchet combination wrenches on case
42.14X17	1	15° flare nut wrench 14x17 mm
42.19X22	1	15° flare nut wrench 19x22 mm
42.24X27	1	15° flare nut wrench 24x27 mm
42.30X32	1	15° flare nut wrench 30x32 mm
113AS.6C	1	Short-reach adjustable wrench 6"
113AS.8C	1	Short-reach adjustable wrench 8"
131A.18	1	Stillson pipe wrench 450 mm
131A.14	1	Stillson pipe wrench 350 mm
136A.2	1	Chain wrench
R2NANO	38	Box of 1/4" 6-point sockets
AT2X75	1	Protwist® screwdriver for slotted screws 2x75
AT3.5X75	1	Protwist® screwdriver for slotted screws 3.5x75
AT4X100	1	Protwist® screwdriver for slotted screws 4x100
AT5.5X100	1	Protwist® screwdriver for slotted screws 5.5x100
ATP0X75	1	Protwist® Phillips® screwdriver 0x75
ATP1X100	1	Protwist® Phillips® screwdriver 1x100
ATP2X125	1	Protwist® Phillips® screwdriver 2x125

Code	Qty	Description
83H.JP9A	1	9-piece set of long-reach metric keys
89.JP6	6	Set of Torx® keys
170A.25	1	Standard multigrip pliers
187A.18CPE	1	Sheathed combination pliers 18 cm
192A.16CPE	1	Sheathed diagonal cutters 16 cm
185A.20CPE	1	Sheathed half-round pliers 20 cm
893B.213	1	Tape measure 2 m/13 mm ABS
307B.40	1	Trapezoid level
200C.32	1	Composite riveting hammer 32 mm
338B.1	1	Iron pipe cutter
334C.35NX	1	Stainless steel pipe cutter
335B.40	1	Ratchet pipe cutter
334C.35	1	High-precision copper pipe cutter 35 mm
844.D	1	Folding utility knife
603F	1	Alu hacksaw
RD.MD200EMA	1	Flat second-cut file 200 mm with grip
DRD.MD250EMA	1	Half-round file 250 mm with grip



CM.SG3A 79-piece set of general services tools



- 3 Options available:
  - CM.SG3A: Set supplied without container.
  - BST14.SG3A: Set supplied with tool bag BS.T14.
  - DS290.SG3A: Set supplied with 2-drawer Tough System® toolbox BSYS.BPC3T.



Code	Qty	Description
44.JE8	8	8-piece set of open end wrenches 8 to 24 mm
92A.10	1	Angled box wrenches 10 mm
92A.11	1	Angled box wrenches 11 mm
92A.12	1	Angled box wrenches 12 mm
92A.13	1	Angled box wrenches 13 mm
92A.5.5	1	Angled box wrenches 5.5 mm
92A.6	1	Angled box wrenches 6 mm
92A.7	1	Angled box wrenches 7 mm
92A.8	1	Angled box wrenches 8 mm
92A.9	1	Angled box wrenches 9 mm
113A.12C	1	Chromed adjustable wrench 12"
131A.14	1	Stillson pipe wrench 350 mm
R1PIC0	29	Ultra-compact socket/bit box
AT5.5X100	1	Protwist® screwdriver for slotted screws 5.5x100
AT6.5X150	1	Protwist® screwdriver for slotted screws 6.5x150
ATF10X200	1	Protwist® screwdriver for slotted screws 10x200
ATF8X150	1	Protwist® screwdriver for slotted screws 8x150
ATP1X100	1	Protwist® Phillips® screwdriver 1x100

Code	Qty	Description
ATP2X125	1	Protwist® Phillips® screwdriver 2x125
AT4X100TVE	1	Protwist® 1000v slim screwdriver for slotted screws 4x100
ATP2X125TVE	1	Protwist® 1000v Phillips® slim screwdriver 2x125
82H.JP9A	9	9-piece set of hexagonal keys
170A.25	1	Standard multigrip pliers
185A.20G	1	Half-round nose pliers
192A.16G	1	Diagonal cutters 16 cm
501A	1	Multiposition long-nose lock-grip pliers
893B.213	1	Tape measure 2 m/13 mm ABS
200H.32	1	Wooden grip riveting hammer 32 mm
256.4	1	Precision centre punch-diam.4 mm
601	1	Hacksaw
841	1	Short blade scissors
840.F	1	Lock-back knife
844.D	1	Folding utility knife
DRD.MD250EMA	1	Half-round file 250 mm with grip
PAM.B250EMA	1	Flat bastard file
RD.MD200EMA	1	Flat second-cut file 200 mm with grip

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**CM.SG4A 112-piece set of general services tools**

- 4 Options available:
  - CM.SG4A: Set supplied without container.
  - 2046.SG4A: Set supplied with metal toolbox BT.13A.
  - BSR20.SG4A: Set supplied with tool bag BS.R20.
  - DS295.SG4A: Set supplied with 3-drawer Tough System® toolbox BSYS.BPC3T.



Code	Qty	Description
44.JE8	8	8-piece set of open end wrenches 8 to 24 mm
44.6X7	1	Open end wrench 6 x 7 mm
64C.J2	2	2-piece set of ratchet wrenches 64Cset
92A.10	1	Angled box wrenches 10 mm
92A.11	1	Angled box wrenches 11 mm
92A.12	1	Angled box wrenches 12 mm
92A.13	1	Angled box wrenches 13 mm
92A.5,5	1	Angled box wrenches 5.5 mm
92A.6	1	Angled box wrenches 6 mm
92A.7	1	Angled box wrenches 7 mm
92A.8	1	Angled box wrenches 8 mm
92A.9	1	Angled box wrenches 9 mm
113A.12C	1	Chromed adjustable wrench 12"
131A.14	1	Stillson pipe wrench 350 mm
R2NANO	38	Box of 1/4" 6-point sockets
AT5.5X100	1	Protwist® screwdriver for slotted screws 5.5x100
AT6.5X150	1	Protwist® screwdriver for slotted screws 6.5x150
ATF10X200	1	Protwist® screwdriver for slotted screws 10x200
ATF8X150	1	Protwist® screwdriver for slotted screws 8x150
ATP1X100	1	Protwist® Phillips® screwdriver 1x100
ATP2X125	1	Protwist® Phillips® screwdriver 2x125
AT4X100TVE	1	Protwist® 1000v slim screwdriver for slotted screws 4x100
ATP2X125TVE	1	Protwist® 1000v Phillips® slim screwdriver 2x125
AV.HT1C	1	Protwist® voltage tester
82H.JP9A	9	9-piece set of hexagonal keys

Code	Qty	Description
495A.25EL	1	End nippers
501A	1	Multiposition long-nose lock-grip pliers
193.20G	1	Angled combination pliers
269	1	Straight lever pliers 400 mm
181A.25CPE	1	Multigrip pliers 250 mm
185A.20G	1	Half-round nose pliers
192A.16G	1	Diagonal cutters 16 cm
307B.40	1	Trapezoid level
893B.213	1	Tape measure 2 m/13 mm ABS
200H.32	1	Wooden grip riveting hammer 32 mm
256.4	1	Precision centre punch-diam.4 mm
263.18	1	Constant-profile chisel length 180 mm
601	1	Hacksaw
841	1	Short blade scissors
840.1	1	Wooden handle electricians knife
844.D	1	Folding utility knife
668A.8	10	10 bimetal saw blades 8 teeth/cm
980	1	Straight blade general-purpose shears
779.PBT	1	Pen lamp
DRD.MD250EMA	1	Half-round file 250 mm with grip
PAM.B250EMA	1	Flat bastard file
RAB.DRDM250EMA	1	Half-round file
RD.MD200EMA	1	Flat second-cut file 200 mm with grip
270A.MA	1	Steel wire brush
234	1	Scriber



■ **CM.300A** 69-piece set of heavy industry tools



- Supplied without content.

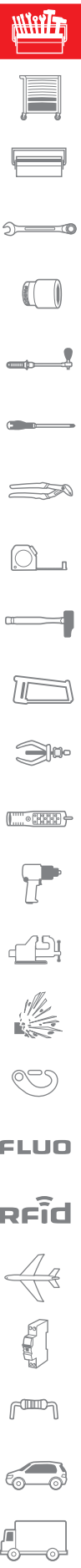


Qty	Description
1	Long-reach combination wrench 21 mm
1	Long-reach combination wrench 22 mm
1	Long-reach combination wrench 24 mm
1	Long-reach combination wrench 27 mm
1	Long-reach combination wrench 30 mm
1	Long-reach combination wrench 32 mm
1	Long-reach combination wrench 34 mm
1	Long-reach combination wrench 36 mm
1	Long-reach combination wrench 41 mm
1	Offset ring wrench 8x9 mm
1	Offset ring wrench 10x11 mm
1	Offset ring wrench 12x13 mm
1	Offset ring wrench 14x15 mm
1	Offset ring wrench 16x17 mm
1	Offset ring wrench 18x19 mm
1	Offset ring wrench 21x23 mm
1	Offset ring wrench 24x26 mm
1	Offset ring wrench 27x30 mm
1	Stillson pipe wrench 450 mm
30	Box of 1/2 6-point sockets

Qty	Description
1	Protwist® Shock® screwdriver for slotted screws 4x100
1	Protwist® Shock® screwdriver for slotted screws 6.5x150
1	Protwist® Shock® screwdriver for slotted screws 8x175
1	Protwist® Shock® screwdriver ph1x100
1	Protwist® Shock® screwdriver ph2x125
1	Multigrip pliers 300 mm
1	Sheathed diagonal cutters 16 cm
1	Sheathed combination pliers 18 cm
1	Front cutters 16 cm
1	Multiposition long-nose lock-grip pliers
1	Composite riveting hammer 32 mm
1	Composite riveting hammer 26 mm
1	Sheathed drift punch 12 mm
1	Sheathed drift punch 14 mm
1	Sheathed drift punch 16 mm
1	Sheathed chisel - length 190 mm
1	Sheathed drift punch 20 mm
1	Sheathed drift punch 22 mm
1	Sheathed cape chisel - length 180 mm
1	Alu hacksaw

CM.400A 94-piece set of agro-food industry tools

- Supplied without content.



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Code	Qty	Description
440.7	1	OGV® combination wrench 7 mm
440.8	1	OGV® combination wrench 8 mm
440.10	1	OGV® combination wrench 10 mm
440.11	1	OGV® combination wrench 11 mm
440.12	1	OGV® combination wrench 12 mm
440.13	1	OGV® combination wrench 13 mm
440.14	1	OGV® combination wrench 14 mm
440.15	1	OGV® combination wrench 15 mm
440.16	1	OGV® combination wrench 16 mm
440.17	1	OGV® combination wrench 17 mm
440.18	1	OGV® combination wrench 18 mm
440.19	1	OGV® combination wrench 19 mm
440.22	1	OGV® combination wrench 22 mm
440.24	1	OGV® combination wrench 24 mm
113AS.8C	1	Short-reach adjustable wrench 8"

Code	Qty	Description
RIPICO	29	Ultra-compact socket/bit box
S.161-3P12	25	1/2" 12-point sockets box + S.161B
APST.J6	6	6-piece set of stainless steel Protwist® screwdrivers
83SHST.JP9A	9	9-piece set of stainless steel hexagonal keys
181A.25CPE	1	Multigrip pliers 250 mm
187A.18CPE	1	Sheathed combination pliers 18 cm
192A.16CPE	1	Sheathed diagonal cutters 16 cm
897A.319	1	Tape measure 3 m grip body
200C.32	1	Composite riveting hammer 32 mm
212A.35	1	Dead-blow mallet, interchangeable tips
249.2	1	Drift punch 2 mm
249.4	1	Drift punch 4 mm
840LE	1	Stainless steel electricians knife
235.J1	3	Set of 3 stainless steel scrapers

▪ **S.P1** Inch pack 1: 46-piece set of inch tools



ASME B107.100, SAE AS954G

- Supplied without content.



Code	Qty	Description
440.JU9	9	9-piece set of combination wrenches on case 1/4 to 3/4
S.161-3P12U	25	1/2" 12-point sockets box + S.161B
82H.JU10	10	10-piece set of keys in wallet

Code	Qty	Description
800A.216	1	Tape measure 2 x 16mm 2 sides
202H.1	1	Hickory carpenter's hammer 1lb

▪ **SR.P2** Inch pack 2: 93-piece set of inch tools



- Supplied without content.



Code	Qty	Description
440.JU12	12	12-piece set of combination wrenches 1/4 to 15/16
44.JU6	6	6-piece set of open end wrenches 1/4 to 15/16
RL.NANO-U1	38	Box of 1/4" 6-point sockets
S.161-3P12U	25	1/2" 12-point sockets box + S.161B

Code	Qty	Description
82H.JU10	10	10-piece set of keys in wallet
800A.216	1	Tape measure 2 x 16mm 2 sides
202H.1	1	Hickory carpenter's hammer 1lb

▪ **SR.P3** Inch pack 3: 115-piece set of inch tools



• Supplied without content.



Qty	Description
17	17-piece set of combination wrenches 1/4 to 1"1/4
8	8-piece set of open end wrenches 1/4 to 1"1/4
10	10-piece set of short-reach combination wrenches 1/8 to 7/16
38	Box of 1/4" 6-point sockets
25	1/2" 12-point sockets box + S.161B

Qty	Description
13	13-piece set of long-reach inch keys
1	Tape measure 2 x 16mm 2 sides
1	Feeler gauge - Inch
1	Hickory carpenter's hammer 1/2
1	Hickory carpenter's hammer 1lb

▪ **SR.P4** Inch pack 4: 131-piece set of inch tools

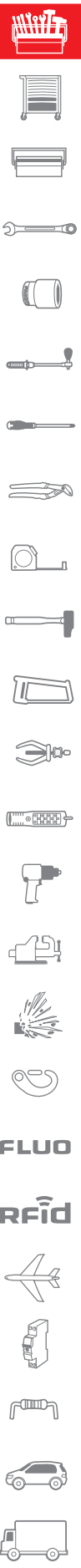


• Supplied without content.



Qty	Description
21	21-piece set of combination wrenches 1/4" to 1"1/2
8	8-piece set of ratchet combination wrenches 5/16 to 3/4
8	8-piece set of open end wrenches 1/4 to 1"1/4
14	14-piece set of short-reach combination wrenches 1/8 to 11/16
38	Box of 1/4" 12-point sockets
25	1/2" 12-point sockets box + S.161B

Qty	Description
13	13-piece set of long-reach inch keys
1	Tape measure 2 x 16mm 2 sides
1	Feeler gauge - Inch
1	Hickory carpenter's hammer 1/2
1	Hickory carpenter's hammer 1lb



■ **CM.138** 138-piece set of automotive maintenance tools

- 4 Options available:
  - CM.138: Set supplied in foam trays without container.
  - ROLL6M3.CM135: Set supplied in foam trays with 6-drawer roller cabinet ROLL.6M3
  - CHRONO6M3.CM135: Set supplied in foam trays with 6-drawer roller cabinet CHRONO.6M3A
  - JET6M3.CM135: Set supplied in foam trays with 6-drawer roller cabinet JET.6M3A



Code	Qty	Description
<b>MODM.440-1</b>	17	17-piece module of offset ring wrenches 6 to 24 mm
<b>MODM.467B.J12</b>	12	12-piece module of offset ring wrenches 8 to 19 mm
<b>MODM.R161-36</b>	46	Module of 1/4" 6-point sockets + R.161B
<b>MODM.S1A</b>	23	Module of 1/2 6-point sockets + S.161B
<b>MODM.A4</b>	9	Module of Protwist® screwdrivers: 7xAN, 2xAWH

Code	Qty	Description
<b>MODM.A5</b>	10	Module of Protwist® screwdrivers: 7xANP, 3xAND
<b>MODM.A6</b>	10	Module of Protwist® screwdrivers: 7xANXR, 3xAE
<b>MODM.CPEA1</b>	4	Plier module
<b>MODM.MI6</b>	7	Impact module

■ **CM.CAR** 128-piece set of automotive bodywork tools

- 2 Options available:
  - CM.CAR: Set supplied in foam trays without container.
  - CRT4.CMCAR: Set supplied in foam trays with bodywork roller cabinet CR.T4XL.



Code	Qty	Description
<b>MODM.SRLXLPB</b>	85	MODM.SRLXLPB
<b>MODM.A8XLPB</b>	17	MODM.A8XLPB
<b>MODM.MICPEXLPB</b>	13	MODM.MICPEXLPB
<b>CR.SB-J2</b>	2	Dressing wedge
<b>860H.28</b>	1	Dinging hammer
<b>851C</b>	1	File frame
<b>850.S350</b>	1	Milled file

Code	Qty	Description
<b>861D.30</b>	1	Bumping hammer
<b>862D.60</b>	1	Flat dresser
<b>870B</b>	1	Dolly
<b>871B.45</b>	1	Dolly
<b>874A</b>	1	Dolly
<b>906A</b>	1	Dolly
<b>209.50</b>	1	Mallet
<b>875.3</b>	1	Long single spoon



**CM.PL 142-piece set of agricultural maintenance tools**

- 2 Options available:
  - CM.PL: Set supplied in foam trays without container.
  - JET6M4.CMPL: Set supplied in foam trays with 6-drawer roller cabinet JET.6M4.



Qty	Description
17	17-piece module of offset ring wrenches 6 to 24 mm
56	Module of Nano box and Torx® and 6-point keys
17	Set of 1/2" long-reach sockets 12 to 32 mm
23	Module of 1/2 6-point sockets + S.161B

Qty	Description
9	Module of Protwist® screwdrivers: 7xAN, 2xAWH
10	Module of Protwist® screwdrivers: 7xANP, 3xAND
4	Plier module
6	Impact module

**CM.AGRI 135-piece set of agricultural maintenance tools**

- 4 Options available:
  - CM.AGRI: Set supplied in foam trays without container.
  - ROLL6M3.CMAG: Set supplied in foam trays with 6-drawer roller cabinet ROLL.6M3.
  - CHRONO6M3.CMAG: Set supplied in foam trays with 6-drawer roller cabinet CHRONO.6M3A.
  - JET6M3.CMAG: Set supplied in foam trays with 6-drawer roller cabinet JET.6M3A.



Qty	Description
12	12-piece module of offset ring wrenches 8 to 19 mm
56	Module of Nano box and Torx® and 6-point keys
23	Module of 1/2 6-point sockets + S.161B
4	Plier module

Qty	Description
9	Module of Protwist® screwdrivers: 7xAN, 2xAWH
10	Module of Protwist® screwdrivers: 7xANP, 3xAND
11	Module of drift punches, nail setters and punches
10	Impact module



■ **CM.M01** 118-piece set of motorcycle maintenance tools

- 2 Options available:
  - CM.M01: Set supplied without container.
  - CR4.M01: Set supplied with roller chest ROLL.CR4GM3.

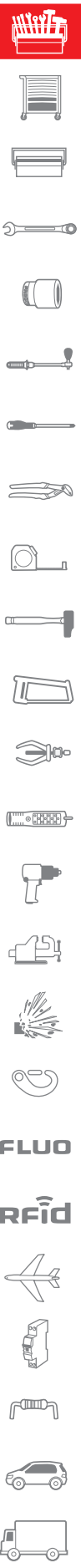


🔗	Qty	Description
440.7	1	OGV® combination wrench 7 mm
440.8	1	OGV® combination wrench 8 mm
440.10	1	OGV® combination wrench 10 mm
440.11	1	OGV® combination wrench 11 mm
440.12	1	OGV® combination wrench 12 mm
440.13	1	OGV® combination wrench 13 mm
440.14	1	OGV® combination wrench 14 mm
440.15	1	OGV® combination wrench 15 mm
440.16	1	OGV® combination wrench 16 mm
440.17	1	OGV® combination wrench 17 mm
440.18	1	OGV® combination wrench 18 mm
440.19	1	OGV® combination wrench 19 mm
440.22	1	OGV® combination wrench 22 mm
440.24	1	OGV® combination wrench 24 mm
440.27	1	OGV® combination wrench 27 mm
988.8	1	T socket wrench 8 mm
988.10	1	T socket wrench 10 mm
988.12	1	T socket wrench 12 mm
988.13	1	T socket wrench 13 mm
988.14	1	T socket wrench 14 mm
113A.12C	1	Chromed adjustable wrench 12"
R2NANO	38	Box of 1/4" 6-point sockets
S.161-3P6	23	1/2" 6-point sockets box + S.161
J.229A	1	3/8" drive tee with universal joint

🔗	Qty	Description
AT5.5X100	1	Protwist® screwdriver for slotted screws 5.5x100
AT5.5X35	1	Protwist® screwdriver for slotted screws 5.5x35
AT3.5X100	1	Protwist® screwdriver for slotted screws 3.5x100
AT4X100	1	Protwist® screwdriver for slotted screws 4x100
AT6.5X150	1	Protwist® screwdriver for slotted screws 6.5x150
ATP1X100	1	Protwist® Phillips® screwdriver 1x100
ATP2X125	1	Protwist® Phillips® screwdriver 2x125
ATP2X35	1	Protwist® Phillips® screwdriver 2x35
83SH.JP9A	9	9-piece set of metric spherical keys
84TC.JE5	5	5-piece set of T spinner hexagonal keys
181A.25CPE	1	Multigrip pliers 250 mm
192A.16CPE	1	Sheathed diagonal cutters 16 cm
185A.20CPE	1	Sheathed half-round pliers 20 cm
501A	1	Multiposition long-nose lock-grip pliers
893B.319	1	Tape measure 3 m
804	1	Feeler gauge
200C.32	1	Composite riveting hammer 32 mm
212A.40	1	Mallet
249.4	1	Drift punch 4 mm
249.5	1	Drift punch 5 mm
249.6	1	Drift punch 6 mm
779.PCA	1	Pocket torch
DF.3	1	Wire brush

**BVFC1.FLUO-1 143-piece set of metric fluorescent tools - foam trays and sealed box**

- For all types of maintenance operations in locations requiring good visibility on the tooling.
- 2 Options available:
  - CM.AEFLUO-1: Set supplied without container.
  - BVFC1.FLUO-1: Set supplied in 4 foam trays and sealed box BV.FC1.



Code	Qty	Description
MODM.FLUO1-1	1	Foam module
PM.MODFLUO1-1	1	Foam tray
779.UVT	1	UV torch
834B.RTF	1	Inspection mirror
841F	1	Electricians scissors
EF.RF	1	Locking bit holder 1/4"
R.215RCF	1	1/4" locking extension Fluo
R.227AF	1	1/4" screwdriver handle 260 mm Fluo
R.4ELF	1	1/4" 12-point socket 4 mm Fluo
R.5.5ELF	1	1/4" 12-point socket 5.5 mm Fluo
R.5ELF	1	1/4" 12-point socket 5 mm Fluo
R.6ELF	1	1/4" 12-point socket 6 mm Fluo
R.7ELF	1	1/4" 12-point socket 7 mm Fluo
R.8ELF	1	1/4" 12-point socket 8 mm Fluo
R.9ELF	1	1/4" 12-point socket 9 mm Fluo
R.10ELF	1	1/4" 12-point socket 10 mm Fluo
R.11ELF	1	1/4" 12-point socket 11 mm Fluo
R.12ELF	1	1/4" 12-point socket 12 mm Fluo
R.13ELF	1	1/4" 12-point socket 13 mm Fluo
R.14ELF	1	1/4" 12-point socket 14 mm Fluo
R.3.2FLUO	1	1/4" 6-point socket 3.2 mm Fluo
R.4FLUO	1	1/4" 6-point socket 4 mm Fluo
R.5.5FLUO	1	1/4" 6-point socket 5.5 mm Fluo
R.5FLUO	1	1/4" 6-point socket 5 mm Fluo
R.6FLUO	1	1/4" 6-point socket 6mm Fluo
R.7FLUO	1	1/4" 6-point socket 7 mm Fluo
R.8FLUO	1	1/4" 6-point socket 8 mm Fluo
R.9FLUO	1	1/4" 6-point socket 9 mm Fluo
R.10FLUO	1	1/4" 6-point socket 10 mm Fluo
R.11FLUO	1	1/4" 6-point socket 11 mm Fluo
R.12FLUO	1	1/4" 6-point socket 12 mm Fluo
R.13FLUO	1	1/4" 6-point socket 13 mm Fluo
R.14FLUO	1	1/4" 6-point socket 14 mm Fluo
E.1063F	1	Set of 63 Detection Box bits
R.360F	1	1/4" 360° socket Fluo
MODM.FLUO1-2	1	Foam module
PM.MODFLUO1-2	1	Foam tray
113A.10CF	1	Chromed adjustable wrench 10" - Fluo
440.4HF	1	Combination wrench 4 mm Fluo
440.5.5HF	1	Combination wrench 5.5 mm Fluo
440.5HF	1	Combination wrench 5 mm Fluo

Code	Qty	Description
440.6F	1	Combination wrench 6 mm Fluo
440.7F	1	Combination wrench 7 mm
440.8F	1	Combination wrench 8 mm Fluo
440.9F	1	Combination wrench 9 mm Fluo
440.10F	1	Combination wrench 10 mm
440.11F	1	Combination wrench 11 mm
440.12F	1	Combination wrench 12 mm Fluo
440.13F	1	Combination wrench 13 mm Fluo
440.14F	1	Combination wrench 14 mm Fluo
440.16F	1	Combination wrench 16 mm Fluo
440.17F	1	Combination wrench 17 mm Fluo
440.18F	1	Combination wrench 18 mm Fluo
440.19F	1	Combination wrench 19 mm Fluo
MODM.FLUO1-3	1	Foam module
PM.MODFLUO1-3	1	Foam tray
170A.25F	1	Standard multigrip pliers - Fluo
185.20CPEF	1	Half-round long snipe-nose pliers
187.18CPEF	1	Combination pliers
192.16CPEF	1	Diagonal cutters
200C.30F	1	Graphite handle hammer
83SH.JP9F	1	9-piece set of hexagonal angled keys in wallet
AN2X75F	1	Protwist® screwdriver for slotted screws 4x35 Fluo
AN3.5X100F	1	Protwist® screwdriver for slotted screws 3.5x100 Fluo
AN3.5X75F	1	Protwist® screwdriver for slotted screws 3.5x75 Fluo
AN4X35F	1	Protwist® screwdriver for slotted screws 4x35 Fluo
DELA.1051.300	1	Stainless steel 2-sided rule
MODM.FLUO1-4	1	Foam module
PM.MODFLUO1-4	1	Foam tray
AN4X150F	1	Protwist® screwdriver for slotted screws 4x150 Fluo
AN5.5X150F	1	Protwist® screwdriver for slotted screws 5.5x100 Fluo
AN6.5X150F	1	Protwist® screwdriver for slotted screws 6.5x100 Fluo
ANPDX75F	1	Protwist® Phillips® screwdriver 0x75 Fluo
ANP1X100F	1	Protwist® Phillips® screwdriver 1x100 Fluo
ANP2X125F	1	Protwist® Phillips® screwdriver 2x125 Fluo
ANP3X150F	1	Protwist® Phillips® screwdriver 3x150 Fluo
ANP4X200F	1	Protwist® Phillips® screwdriver 4x200 Fluo
ANXR10X75F	1	Protwist® screwdriver for Resistor® screws 10X75 Fluo
ANXR15X75F	1	Protwist® screwdriver for Resistor® screws 15X75 Fluo
ANXR20X100F	1	Protwist® screwdriver for Resistor® screws 20X100 Fluo
ANXR25X100F	1	Protwist® screwdriver for Resistor® screws 25X100 Fluo

■ **BVFC1.FLUO-2** 136-piece set of inch fluorescent tools - foam trays and sealed box

- For all types of maintenance operations in locations requiring good visibility on the tooling.
- 2 Options available:
  - CM.AEFLUO-2: Set supplied without container.
  - BVFC1.FLUO-2: Set supplied in 4 foam trays and sealed box BV.FC1.



Item Code	Qty	Description
MODM.FLUO2-1	1	Foam module
PM.MODFLUO2-1	1	Foam tray
440.1/2F	1	Combination wrench 1/2"
440.11/16F	1	Combination wrench 11/16" Fluo
440.13/16F	1	Combination wrench 13/16" Fluo
440.15/16F	1	Combination wrench 15/16" Fluo
440.1PF	1	Combination wrench 1P Fluo
440.3/4F	1	Combination wrench 3/4" Fluo
440.3/8F	1	Combination wrench 3/8" Fluo
440.5/8F	1	Combination wrench 5/8" Fluo
440.7/16F	1	Combination wrench 7/16" Fluo
440.7/8F	1	Combination wrench 7/8" Fluo
440.9/16F	1	Combination wrench 9/16" Fluo
MODM.FLUO2-2	1	Foam module
PM.MODFLUO2-2	1	Foam tray
113A.6CF	1	Chromed adjustable wrench 6" - Fluo
440.1/4F	1	Combination wrench 1/4" Fluo
440.11/32F	1	Combination wrench 11/32" Fluo
440.5/16F	1	Combination wrench 5/16" Fluo
779.UVT	1	UV torch
834B.RTF	1	Inspection mirror
841F	1	Electricians scissors
EF.RF	1	Locking bit holder 1/4
R.215RCF	1	1/4" locking extension Fluo
R.227AF	1	1/4" screwdriver handle 260 mm Fluo
R.1/2EF	1	1/4" 12-point socket 1/2 Fluo
R.1/4EF	1	1/4" 12-point socket 1/4 Fluo
R.11/32EF	1	1/4" 12-point socket 11/32 Fluo
R.3/16EF	1	1/4" 12-point socket 3/16 Fluo
R.3/8EF	1	1/4" 12-point socket 3/8 Fluo
R.5/16EF	1	1/4" 12-point socket 5/16 Fluo
R.7/16EF	1	1/4" 12-point socket 7/16 Fluo
R.9/16EF	1	1/4" 12-point socket 9/16 Fluo
R.9/32EF	1	1/4" 12-point socket 9/32 Fluo
R.1/2ELF	1	1/4" long-reach 12-point socket 1/2 Fluo
R.1/4ELF	1	1/4" long-reach 12-point socket 11/32 Fluo

Item Code	Qty	Description
R.11/32ELF	1	1/4" long-reach 12-point socket 11/32 Fluo
R.3/16ELF	1	1/4" long-reach 12-point socket 3/16 Fluo
R.3/8ELF	1	1/4" long-reach 12-point socket 3/8 Fluo
R.5/16ELF	1	1/4" long-reach 12-point socket 5/16 Fluo
R.7/16ELF	1	1/4" long-reach 12-point socket 7/16 Fluo
R.9/16ELF	1	1/4" long-reach 12-point socket 9/16 Fluo
R.9/32ELF	1	1/4" long-reach 12-point socket 9/32 Fluo
E.1063F	1	Set of 63 Detection Box bits
R.360F	1	1/4" 360° socket Fluo
MODM.FLUO2-3	1	Foam module
PM.MODFLUO2-3	1	Foam tray
170A.25F	1	Standard multigrip pliers - Fluo
185.20CPEF	1	Half-round long snipe-nose pliers
187.18CPEF	1	Combination pliers
192.16CPEF	1	Diagonal cutters
200C.30F	1	Graphite handle hammer
83SH.JP8UF	1	8-piece set of hexagonal angled keys in wallet
AN2X75F	1	Protwist® screwdriver for slotted screws 4x35 Fluo
AN3.5X100F	1	Protwist® screwdriver for slotted screws 3.5x100 Fluo
AN3.5X75F	1	Protwist® screwdriver for slotted screws 3.5x75 Fluo
AN4X35F	1	Protwist® screwdriver for slotted screws 4x35 Fluo
DELA.1051.300	1	Stainless steel 2-sided rule
MODM.FLUO2-4	1	Foam module
PM.MODFLUO2-4	1	Foam tray
ANPOX75F	1	Protwist® Phillips® screwdriver 0x75 Fluo
ANP1X100F	1	Protwist® Phillips® screwdriver 1x100 Fluo
ANP2X125F	1	Protwist® Phillips® screwdriver 2x125 Fluo
ANP3X150F	1	Protwist® Phillips® screwdriver 3x150 Fluo
ANP4X200F	1	Protwist® Phillips® screwdriver 4x200 Fluo
ANXR10X75F	1	Protwist® screwdriver for Resistorx® screws 10X75 Fluo
ANXR15X75F	1	Protwist® screwdriver for Resistorx® screws 15X75 Fluo
ANXR20X100F	1	Protwist® screwdriver for Resistorx® screws 20X100 Fluo
ANXR25X100F	1	Protwist® screwdriver for Resistorx® screws 25X100 Fluo
AN4X150F	1	Protwist® screwdriver for slotted screws 4x150 Fluo
AN5.5X150F	1	Protwist® screwdriver for slotted screws 5.5x150 Fluo
AN6.5X150F	1	Protwist® screwdriver for slotted screws 6.5x150 Fluo

**BVFC1.MRO-A 141-piece set of A license aeronautical mechanics tools - foam trays and sealed box**

- Suited for all types of light maintenance (A check, AOG), on runway or other.
- 2 Options available:
  - CU.AEMRO-A: Set supplied without container.
  - BVFC1.MRO-A: Set supplied in 4 foam trays and sealed box BV.FC1.



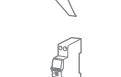
Item Code	Qty	Description
MODM.MROA-1	1	Foam module
PM.MODMROA-1	1	Foam tray
185.20CPEF-R	1	Half-round retainer pliers
188.16CPEF	1	Flat-nose pliers
192.16CPEF-R	1	Diagonal cutters 16 cm retaining
445.8DS	1	Reversible locking-wire pliers 8"
RB.11/32	1	1/4" 12-point socket 11/32
RB.3/8	1	1/4" 12-point socket 3/8
RB.7/16	1	1/4" 12-point socket 7/16
RB.1/2	1	1/4" 12-point socket 1/2
RB.9/16	1	1/4" 12-point socket 9/16
R.3/16EL	1	1/4" 12-point long-reach socket 3/16
R.7/32EL	1	1/4" 12-point long-reach socket 7/32
R.1/4EL	1	1/4" 12-point long-reach socket 1/4
R.9/32EL	1	1/4" 12-point long-reach socket 9/32
R.5/16EL	1	1/4" 12-point long-reach socket 5/16
R.11/32EL	1	1/4" 12-point long-reach socket 11/32
R.3/8EL	1	1/4" 12-point long-reach socket 3/8
R.7/16EL	1	1/4" 12-point long-reach socket 7/16
R.1/2EL	1	1/4" 12-point long-reach socket 1/2
R.9/16EL	1	1/4" 12-point long-reach socket 9/16
R.55RCK	1	1/4" locking milled extension 55 mm
R.150RCK	1	1/4" locking milled extension 150 mm
R.210S	1	1/4" angular extension 100 mm
R.240A	1	1/4" universal joint
RL.171F	1	1/4" locking socket
RB.3/16	1	1/4" 12-point socket 3/16
RB.7/32	1	1/4" 12-point socket 7/32
RB.1/4	1	1/4" 12-point socket 1/4
RB.9/32	1	1/4" 12-point socket 9/32
RB.5/16	1	1/4" 12-point socket 5/16

Item Code	Qty	Description
MODM.MROA-2	1	Foam module
PM.MODMROA-2	1	Foam tray
202H.1	1	Hickory carpenter's hammer 1lb
208A.32CBA	1	Steel mallet 32 mm
248.2	1	Drift punch length 2 mm
248.3	1	Drift punch length 3 mm
248.4	1	Drift punch length 4 mm
248.5	1	Drift punch length 5 mm
248.6	1	Drift punch length 6 mm
248.8	1	Drift punch length 8 mm
248.10	1	Drift punch length 10 mm
44.1/2X9/16	1	Open end wrench 1/2 x 9/16
44.1/4X5/16	1	Open end wrench 1/4 x 5/16
44.19/32X11/16	1	Open end wrench 19/32 x 11/16
44.3/8X7/16	1	Open end wrench 3/8 x 7/16
MODM.MROA-3	1	Foam module
PM.MODMROA-3	1	Foam tray
834B.RTI	1	LED telescopic mirror 55 mm
893B.213	1	Tape measure 2 m/13 mm ABS
MODM.MROA-4	1	Foam module
PM.MODMROA-4	1	Foam tray
83SH.JP8U	1	8-piece set of long-reach inch keys
AN3.5X75F	1	Protwist® screwdriver for slotted screws 3.5x75 Fluo
AN4X100F	1	Protwist® screwdriver for slotted screws 4x100 Fluo
AN5.5X100F	1	Protwist® screwdriver for slotted screws 5.5x100 Fluo
AN6.5X150F	1	Protwist® screwdriver for slotted screws 6.5x150 Fluo
ANP1X100F	1	Protwist® Phillips® screwdriver 1x100 Fluo
ANP2X125F	1	Protwist® Phillips® screwdriver 2x125 Fluo
EF.RF	1	Locking bit holder 1/4
R.227AF	1	1/4" screwdriver handle 260 mm Fluo
E.1063F	1	Set of 63 Detection Box bits



Qty	Description
1	Foam module
1	Foam tray
1	1/4" locking socket
1	1/4" locking milled extension 150 mm
1	1/4" angular extension 100 mm
1	1/4" universal joint
1	1/4" locking milled extension 55 mm
1	1/4" 12-point long-reach socket 1/2
1	1/4" 12-point long-reach socket 1/4
1	1/4" 12-point long-reach socket 11/32
1	1/4" 12-point long-reach socket 3/16
1	1/4" 12-point long-reach socket 3/8
1	1/4" 12-point long-reach socket 5/16
1	1/4" 12-point long-reach socket 7/16
1	1/4" 12-point long-reach socket 7/32
1	1/4" 12-point long-reach socket 9/16
1	1/4" 12-point long-reach socket 9/32
1	1/4" 12-point socket 1/2
1	1/4" 12-point socket 1/4
1	1/4" 12-point socket 11/32
1	1/4" 12-point socket 3/16
1	1/4" 12-point socket 3/8
1	1/4" 12-point socket 5/16
1	1/4" 12-point socket 7/16
1	1/4" 12-point socket 7/32
1	1/4" 12-point socket 9/16
1	1/4" 12-point socket 9/32
1	3/8" 12-point long-reach socket 1/2
1	3/8" 12-point long-reach socket 11/16
1	3/8" 12-point long-reach socket 13/16
1	3/8" 12-point long-reach socket 15/16
1	3/8" 12-point long-reach socket 1"
1	3/8" drive speed brace
1	3/8" hinged handle
1	3/8" angular extension 125 mm
1	3/8" universal joint
1	3/8" locking milled extension 250 mm
1	3/8" 12-point long-reach socket 3/8
1	3/8" 12-point long-reach socket 5/8
1	3/8" 12-point long-reach socket 7/16
1	3/8" 12-point long-reach socket 7/8
1	3/8" locking milled extension 75 mm
1	3/8" 12-point long-reach socket 9/16
1	3/8" 12-point socket 1/2
1	3/8" 12-point socket 11/16
1	3/8" 12-point socket 13/16
1	3/8" 12-point socket 3/4
1	3/8" 12-point socket 3/8
1	3/8" 12-point socket 5/8
1	3/8" 12-point socket 7/16
1	3/8" 12-point socket 7/8
1	3/8" 12-point socket 9/16
1	3/8" locking socket Fluo
1	Foam module
1	Foam tray
1	Open end wrench 1/2 x 9/16
1	Open end wrench 1/4 x 5/16
1	Open end wrench 1" x 1"1/16
1	Open end wrench 3/8 x 7/16

Qty	Description
1	Open end wrench 5/8 x 3/4
1	Open end wrench 7/8 x 15/16
1	OGV® combination wrench 1/2"
1	OGV® combination wrench 1/4"
1	OGV® combination wrench 11/16"
1	OGV® combination wrench 13/16"
1	OGV® combination wrench 3/4"
1	OGV® combination wrench 3/8"
1	OGV® combination wrench 5/16"
1	OGV® combination wrench 5/8"
1	OGV® combination wrench 7/16"
1	OGV® combination wrench 7/8"
1	OGV® combination wrench 9/16"
1	Foam module
1	Foam tray
1	Short-reach adjustable wrench 6"
1	Short-reach adjustable wrench 8"
1	15° ratchet ring wrench 1/2x9/16
1	15° ratchet ring wrench 1/4x5/16
1	15° ratchet ring wrench 3/4x13/16
1	15° ratchet ring wrench 3/8x7/16
1	15° ratchet ring wrench 5/8x11/16
1	15° ratchet ring wrench 7/8x15/16
1	Extra-thin magnetic finger
1	8-piece set of long-reach inch keys
1	Foam module
1	Foam tray
1	Half-round retainer pliers
1	Extra-long pliers 340 mm
1	Flat-nose pliers
1	Diagonal cutters 16 cm retaining
1	Reversible locking-wire pliers 8"
1	Long-nose auto lock-grip pliers 7"
1	Compact torch
1	LED telescopic mirror 55 mm
1	Interchangeable folding blade
1	Tape measure 2 m/13 mm ABS
1	Locking bit holder 1/4
1	1/4" screwdriver handle 260 mm Fluo
1	Set of 63 Detection Box bits
1	Foam module
1	Foam tray
1	Hickory carpenter's hammer 1lb
1	Steel mallet 32 mm
1	Drift punch length 2 mm
1	Drift punch length 3 mm
1	Drift punch length 4 mm
1	Drift punch length 5 mm
1	Drift punch length 6 mm
1	Drift punch length 8 mm
1	Drift punch length 10 mm
1	Feeler gauge - Inch
1	Protwist® screwdriver for slotted screws 3.5x75 Fluo
1	Protwist® screwdriver for slotted screws 4x100 Fluo
1	Protwist® screwdriver for slotted screws 5.5x100 Fluo
1	Protwist® screwdriver for slotted screws 6.5x100 Fluo
1	Protwist® Phillips® screwdriver 1x100 Fluo
1	Protwist® Phillips® screwdriver 2x125 Fluo
1	Protwist® screwdriver for slotted screws 8x150



▪ **BVFC4.ENG-1 104-piece set of inch engine mechanics tools - foam trays and sealed box**

- Suited to all types of mobile maintenance on SNECMA, GE, Rolls Royce, Pratt & Whitney, Honeywell APU engines.
- 2 Options available:
  - CU.AEENG-1: Set supplied without container.
  - BVFC4.ENG-1: Set supplied in 8 drawer foam trays and sealed box BV.FC4.
- CU.AEENG-1: Set supplied without container.







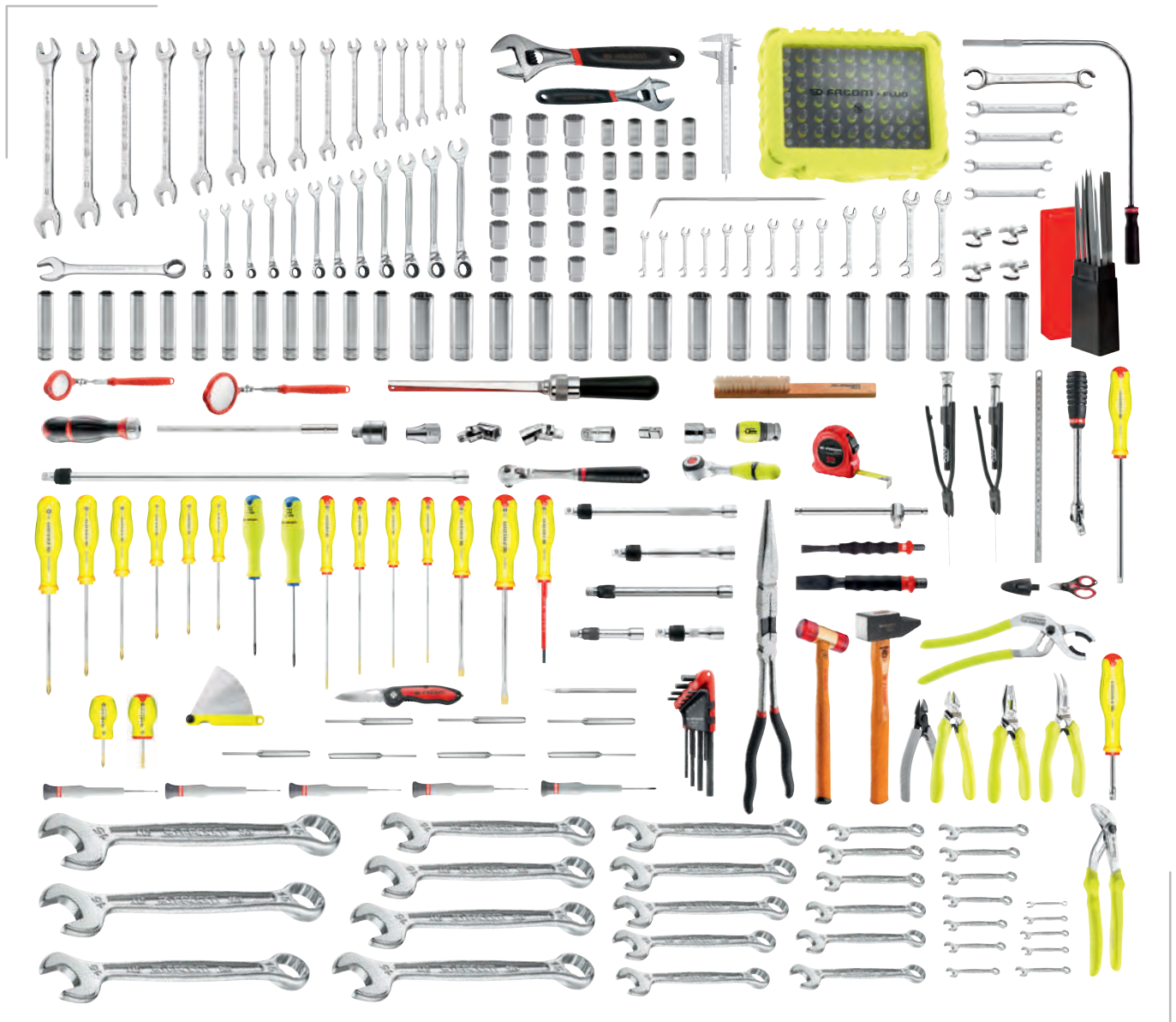
Qty	Description
1	Foam module
1	Foam tray
1	1/4" 12-point hinged socket 3/16 Fluo
1	1/4" 12-point hinged socket 7/32 Fluo
1	1/4" 12-point hinged socket 1/4
1	1/4" 12-point hinged socket 9/32 Fluo
1	1/4" 12-point hinged socket 5/16
1	1/4" 12-point hinged socket 1/32 Fluo
1	1/4" 12-point hinged socket 3/8 Fluo
1	1/4" 12-point hinged socket 7/16
1	1/4" 12-point hinged socket 1/2 Fluo
1	1/4" 12-point hinged socket 9/16 Fluo
1	1/4" 12-point long-reach socket 3/16
1	1/4" 12-point long-reach socket 7/32
1	1/4" 12-point long-reach socket 1/4
1	1/4" 12-point long-reach socket 9/32
1	1/4" 12-point long-reach socket 5/16
1	1/4" 12-point long-reach socket 11/32
1	1/4" 12-point long-reach socket 3/8
1	1/4" 12-point long-reach socket 7/16
1	1/4" 12-point long-reach socket 1/2
1	1/4" 12-point long-reach socket 9/16
1	1/4" drive speed brace
1	1/4" locking socket
1	1/4" universal joint
1	1/4" angular extension 100 mm
1	1/4" locking milled extension 150 mm
1	1/4" locking milled extension 350 mm
1	Foam module
1	Foam tray
1	3/8" locking socket Fluo
1	3/8" universal joint
1	3/8" angular extension 125 mm
1	3/8" locking milled extension 250 mm
1	3/8" locking milled extension 455 mm
1	3/8" 12-point hinged socket 3/8 Fluo
1	3/8" 12-point hinged socket 7/16 Fluo
1	3/8" 12-point hinged socket 1/2 Fluo
1	3/8" 12-point hinged socket 9/16 Fluo
1	3/8" 12-point hinged socket 5/8 Fluo
1	3/8" 12-point hinged socket 11/16
1	3/8" 12-point hinged socket 3/4 Fluo
1	3/8" 12-point long-reach socket 1/4
1	3/8" 12-point long-reach socket 5/16
1	3/8" 12-point long-reach socket 3/8
1	3/8" 12-point long-reach socket 7/16
1	3/8" 12-point long-reach socket 1/2
1	3/8" 12-point long-reach socket 9/16
1	3/8" 12-point long-reach socket 5/8
1	3/8" 12-point long-reach socket 11/16
1	3/8" 12-point long-reach socket 3/4
1	3/8" 12-point long-reach socket 13/16
1	3/8" 12-point long-reach socket 7/8
1	3/8" 12-point long-reach socket 15/16
1	3/8" 12-point long-reach socket 1"
11	Foam module
1	Foam tray
1	Hinged ratchet combination wrench 5/16
1	Hinged ratchet combination wrench 3/8
1	Hinged ratchet combination wrench 7/16

Qty	Description
1	Hinged ratchet combination wrench 1/2
1	Hinged ratchet combination wrench 9/16
1	Hinged ratchet combination wrench 5/8
1	Hinged ratchet combination wrench 11/16
1	Hinged ratchet combination wrench 3/4
1	LED telescopic mirror 30mm
1	Short-reach adjustable wrench 6"
1	Pen lamp
1	Foam module
1	Foam tray
1	3/8" spline impact socket 14
1	3/8" drive speed brace
1	Protwist® screwdriver for slotted screws 2.5x75 Fluo
1	Protwist® screwdriver for slotted screws 3.5x75 Fluo
1	Protwist® screwdriver for slotted screws 4x100 Fluo
1	Protwist® screwdriver for slotted screws 5.5x100 Fluo
1	Phillips® angled screwdriver ph 0 - ph 1
1	Phillips® angled screwdriver ph 1 - ph 2
1	Angled screwdriver for slotted screws 1.0x5.5
1	Foam module
1	Foam tray
1	Long-reach 15° angled offset ring wrench 7/32x1/4
1	Long-reach 15° angled offset ring wrench 1/4x5/16
1	Long-reach 15° angled offset ring wrench 3/8x7/16
1	Long-reach 15° angled offset ring wrench 1/2x9/16
1	Long-reach 15° angled offset ring wrench 5/8x3/4
1	Long-reach 15° angled offset ring wrench 11/16x13/16
1	Long-reach 15° angled offset ring wrench 25/32x7/8
1	Foam module
1	Foam tray
1	Open end wrench 1/4 x 5/16
1	Open end wrench 3/8 x 7/16
1	Open end wrench 1/2 x 9/16
1	Open end wrench 5/8 x 3/4
1	Open end wrench 7/8 x 15/16
1	Open end wrench 1" x 1"1/16
1	Open end wrench 1"1/8 x 1"
1	Foam module
1	Foam tray
1	Drift punch length 2 mm
1	Drift punch length 3 mm
1	Drift punch length 4 mm
1	Drift punch length 5 mm
1	Drift punch length 6 mm
1	Drift punch length 10 mm
1	Graphite handle hammer
1	Steel mallet 32 mm
1	Protwist® short screwdriver for slotted screws 6.5x35 Fluo
1	Protwist® short screwdriver for ph 1x35 Fluo
1	Protwist® short Phillips® screwdriver 2x35 Fluo
1	Foam module
1	Foam tray
1	Reversible locking-wire pliers 8"
1	Diagonal cutters 16 cm retaining
1	Half-round retainer pliers
1	Flat-nose pliers
1	Half-round open nose pliers
1	Standard multigrip pliers - Fluo
1	Round tip metric feeler gauges



■ **BAS.HEL-1** 297-piece set of Airbus helicopters maintenance tools - 8-drawer roller cabinet

- Maintenance of civilian and military helicopters in hangar.
- 2 Options available:
  - CU.AEBHEL-1: Set supplied without container.
  - BAS.HEL-1: Set supplied with 8-drawer roller cabinet JET.8GM3S.





Qty	Description
72	MODM.BHEL1-1 Foam module
1	PM.MODM.BHEL1-1 Foam tray
1	R.360F 1/4" 360° socket Fluo
1	R.140A 1/4" hinged handle
1	R.120A 1/4" sliding tee
1	R.236AF 1/4" screwdriver handle -158 mm Fluo
1	R.240A 1/4" universal joint
1	R.350RCK 1/4" locking milled extension 350 mm
1	R.55RCK 1/4" locking milled extension 55 mm
1	R.100RCK 1/4" locking milled extension 100 mm
1	R.150RCK 1/4" locking milled extension 150 mm
1	R.4LA 1/4" 6-point long-reach socket 4 mm
1	R.5LA 1/4" 6-point long-reach socket 5 mm
1	R.5.5LA 1/4" 6-point long-reach socket 5.5 mm
1	R.6LA 1/4" 6-point long-reach socket 6 mm
1	R.7LA 1/4" 6-point long-reach socket 7 mm
1	R.8LA 1/4" 6-point long-reach socket 8 mm
1	R.9LA 1/4" 6-point long-reach socket 9 mm
1	R.10LA 1/4" 6-point long-reach socket 10 mm
1	R.11LA 1/4" 6-point long-reach socket 11 mm
1	R.12LA 1/4" 6-point long-reach socket 12 mm
1	R.13LA 1/4" 6-point long-reach socket 13 mm
1	R.14LA 1/4" 6-point long-reach socket 14 mm
1	R.5.5E 1/4" 12-point socket 5.5 mm
1	R.6E 1/4" 12-point socket 6mm
1	R.7E 1/4" 12-point socket 7mm
1	R.8E 1/4" 12-point socket 8mm
1	R.9E 1/4" 12-point socket 9mm
1	R.10E 1/4" 12-point socket 10mm
1	R.11E 1/4" 12-point socket 11 mm
1	R.12E 1/4" 12-point socket 12 mm
1	R.13E 1/4" 12-point socket 13 mm
1	R.14E 1/4" 12-point socket 14 mm
1	SL.171 "Sealed" 1/2" locking ratchet
1	S.210RC 1/2" locking extension 1.130mm
1	S.215RC 1/2" locking extension 1.250mm
1	S.230 1/2" to 3/8" coupler
1	S.232B 1/2" to 3/4" coupler
1	S.240A 1/2" universal joint
1	S.10 1/2" 12-point socket 10 mm
1	S.11 1/2" 12-point socket 11 mm
1	S.12 1/2" 12-point socket 12 mm
1	S.13 1/2" 12-point socket 13 mm
1	S.14 1/2" 12-point socket 14 mm
1	S.15 1/2" 12-point socket 15 mm
1	S.16 1/2" 12-point socket 16 mm
1	S.17 1/2" 12-point socket 17 mm
1	S.18 1/2" 12-point socket 18 mm
1	S.19 1/2" 12-point socket 19 mm
1	S.22 1/2" 12-point socket 22 mm
1	S.24 1/2" 12-point socket 24 mm
1	S.27 1/2" 12-point socket 27 mm
1	S.30 1/2" 12-point socket 30 mm
1	S.32 1/2" 12-point socket 32 mm
1	S.12LA 1/2" 12-point long-reach socket 12 mm
1	S.13LA 1/2" 12-point long-reach socket 13 mm
1	S.14LA 1/2" 12-point long-reach socket 14 mm
1	S.15LA 1/2" 12-point long-reach socket 15 mm
1	S.16LA 1/2" 12-point long-reach socket 16 mm
1	S.17LA 1/2" 12-point long-reach socket 17 mm
1	S.18LA 1/2" 12-point long-reach socket 18 mm
1	S.19LA 1/2" 12-point long-reach socket 19 mm
1	S.21LA 1/2" 12-point long-reach socket 21 mm
1	S.22LA 1/2" 12-point long-reach socket 22 mm
1	S.23LA 1/2" 12-point long-reach socket 23 mm
1	S.24LA 1/2" 12-point long-reach socket 24 mm
1	S.26LA 1/2" 12-point long-reach socket 26 mm
1	S.27LA 1/2" 12-point long-reach socket 27 mm
1	S.28LA 1/2" 12-point long-reach socket 28 mm
1	S.29LA 1/2" 12-point long-reach socket 29 mm
1	J.232 3/8" to 1/2" coupler
1	J.230 3/8" to 1/4" coupler
1	J.235 3/8" bit holder socket 1/4"
1	R.227AF 1/4" screwdriver handle 260 mm Fluo
22	MODM.BHEL1-2 Foam module
1	PM.MODM.BHEL1-2 Foam tray
1	39.3.2H Short-reach 6-point combination wrench 3.2 mm
1	440.4H OGV® combination wrench 4 mm

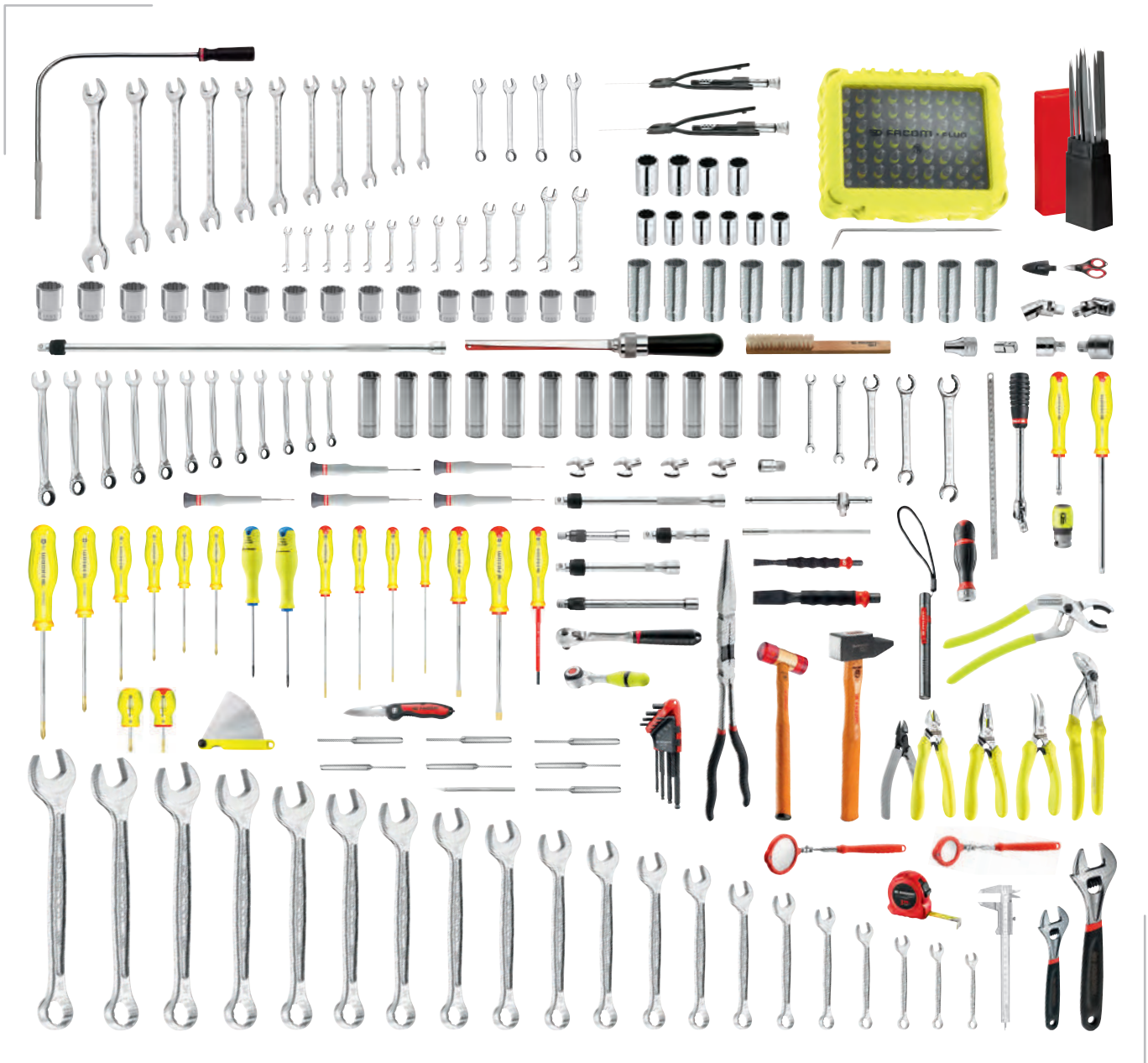
Qty	Description
1	440.5H OGV® combination wrench 5 mm
1	440.5.5H OGV® combination wrench 5.5 mm
1	440.6 OGV® combination wrench 6 mm
1	440.7 OGV® combination wrench 7 mm
1	440.8 OGV® combination wrench 8 mm
1	440.9 OGV® combination wrench 9 mm
1	440.10 OGV® combination wrench 10 mm
1	440.11 OGV® combination wrench 11 mm
1	440.12 OGV® combination wrench 12 mm
1	440.13 OGV® combination wrench 13 mm
1	440.14 OGV® combination wrench 14 mm
1	440.15 OGV® combination wrench 15 mm
1	440.16 OGV® combination wrench 16 mm
1	440.17 OGV® combination wrench 17 mm
1	440.18 OGV® combination wrench 18 mm
1	440.19 OGV® combination wrench 19 mm
1	440.20 OGV® combination wrench 20 mm
1	440.21 OGV® combination wrench 21 mm
1	440.22 OGV® combination wrench 22 mm
1	113A.12CG Chromed sheathed adjustable wrench 12"
11	MODM.BHEL1-3 Foam module
1	PM.MODM.BHEL1-3 Foam tray
1	440.23 OGV® combination wrench 23 mm
1	440.24 OGV® combination wrench 24 mm
1	440.25 OGV® combination wrench 25 mm
1	440.26 OGV® combination wrench 26 mm
1	440.27 OGV® combination wrench 27 mm
1	440.28 OGV® combination wrench 28 mm
1	440.29 OGV® combination wrench 29 mm
1	440.30 OGV® combination wrench 30 mm
1	440.32 OGV® combination wrench 32 mm
1	440.33 OGV® combination wrench 33 mm
1	113A.6CG Chromed sheathed adjustable wrench 6"
30	MODM.BHEL1-4 Foam module
1	PM.MODM.BHEL1-4 Foam tray
1	467B.8 Ratchet combination wrench 8 mm
1	467B.9 Ratchet combination wrench 9 mm
1	467B.10 Ratchet combination wrench 10 mm
1	467B.11 Ratchet combination wrench 11 mm
1	467B.12 Ratchet combination wrench 12 mm
1	467B.13 Ratchet combination wrench 13 mm
1	467B.14 Ratchet combination wrench 14 mm
1	467B.15 Ratchet combination wrench 15 mm
1	467B.16 Ratchet combination wrench 16 mm
1	467B.17 Ratchet combination wrench 17 mm
1	467B.18 Ratchet combination wrench 18 mm
1	467B.19 Ratchet combination wrench 19 mm
1	43.10X11 Flanged flare-nut wrench
1	43.11X13 Flanged flare-nut wrench
1	43.12X14 Flanged flare-nut wrench
1	43.17X19 Flanged flare-nut wrench
1	42.24X27 15° flare nut wrench 3x27 mm
1	34.3.2 Open end wrench 3.2 mm
1	34.4 Open end wrench 4 mm
1	34.5 Open end wrench 5 mm
1	34.5.5 Open end wrench 5.5 mm
1	34.6 Open end wrench 6 mm
1	34.7 Open end wrench 7 mm
1	34.8 Open end wrench 8 mm
1	34.9 Open end wrench 9 mm
1	34.10 Open end wrench 10 mm
1	34.11 Open end wrench 11 mm
1	34.12 Open end wrench 12 mm
1	34.13 Open end wrench 13 mm
1	34.14 Open end wrench 14 mm
15	MODM.BHEL1-5 Foam module
1	PM.MODM.BHEL1-5 Foam tray
1	44.3.2X5.5 Open end wrench 3.2 x 5.5 mm
1	44.4X5 Open end wrench 4 x 5 mm
1	44.6X7 Open end wrench 6 x 7 mm
1	44.8X9 Open end wrench 8 x 9 mm
1	44.10X11 Open end wrench 10 x 11 mm
1	44.12X13 Open end wrench 12 x 13 mm
1	44.14X15 Open end wrench 14 x 15 mm
1	44.16X17 Open end wrench 16 x 17 mm
1	44.18X19 Open end wrench 18 x 19 mm
1	44.21X23 Open end wrench 21 x 23 mm
1	44.22X24 Open end wrench 22 x 24 mm
1	44.27X29 Open end wrench 27 x 29 mm
1	44.30X32 Open end wrench 30 x 32 mm
1	44.34X36 Open end wrench 34 x 36 mm
1	44.38X42 Open end wrench 38 x 42 mm

Qty	Description
21	MODM.BHEL1-6 Foam module
1	PM.MODM.BHEL1-6 Foam tray
1	10.10 Torque wrench open end bit 10
1	10.13 Torque wrench open end bit 13
1	10.14 Torque wrench open end bit 14
1	10.17 Torque wrench open end bit 17
1	445.8DS Reversible locking-wire pliers 8"
1	445.10DS Reversible locking-wire pliers 10"
1	827B Magnetic retriever
1	E.FRF Locking bit holder 1/4"
1	410.SF Connector pliers
1	A.EF.2X35 Microtech® flat blade screwdriver 2x35 mm
1	A.EF.2.5X35 Microtech® flat blade screwdriver 2.5x35 mm
1	A.EF.1.8X35 Microtech® flat blade screwdriver 1.8x35 mm
1	A.EF.1.5X35 Microtech® flat blade screwdriver 1.5x35 mm
1	A.EFP.00X35 Microtech® ph00 screwdriver
1	185.34L Extra-long pliers 340 mm
1	187.18CPEF-R Combination pliers 18 cm retaining
1	192.16CPEF-R Diagonal cutters 16 cm retaining
1	181A.25CPEF Multitrip pliers 250 mm Fluo
1	195.20CPEF Half-round pliers 200 mm
1	405.12MT Microtech® axial cutters
20	MODM.BHEL1-7 Foam module
1	PM.MODM.BHEL1-7 Foam tray
1	83H.JP9A 9-piece set of long-reach metric keys
1	ACL.2A Protwist® screwdriver ratchet shank holder grip
1	AMZ.E Reversible bit holder blade 1/4"
1	AN3.5X100F Protwist® screwdriver for slotted screws 3.5x100 Fluo
1	AN4X100F Protwist® screwdriver for slotted screws 4x100 Fluo
1	AN5.5X150F Protwist® screwdriver for slotted screws 5.5x150 Fluo
1	AN6.5X150F Protwist® screwdriver for slotted screws 6.5x150 Fluo
1	A4X100VEF Protwist® screwdriver 4x100 1000 v
1	AN6.5X35F Protwist® short screwdriver for slotted screws 6.5x35 Fluo
1	AW8X150F Protwist® screwdriver for slotted screws 8x150
1	AW10X200F Protwist® screwdriver for slotted screws 10x200
1	ANP1X35F Protwist® short screwdriver for ph 1x35 Fluo
1	ANPOX75F Protwist® Phillips® screwdriver 0x75 Fluo
1	ANP1X100F Protwist® Phillips® screwdriver 1x100 Fluo
1	ANP2X125F Protwist® Phillips® screwdriver 2x125 Fluo
1	ANP3X150F Protwist® Phillips® screwdriver 3x150 Fluo
1	ANP4X200F Protwist® Phillips® screwdriver 4x200 Fluo
1	AND1X100F Protwist® screwdriver 1x100 Fluo
1	AND2X125F Protwist® screwdriver 2x125 Fluo
1	ANP2X250F Phillips® screwdriver 2x250 Fluo
25	MODM.BHEL1-8 Foam module
1	PM.MODM.BHEL1-8 Foam tray
1	893A.316ME Tape measure 3 x 16 mm 2 sides
1	804F Round tip metric feeler gauges
1	E.1063F Set of 63 Detection Box bits
1	805.1 Slide rule 1/50th - 150 mm
1	200H.26 Hickory riveting hammer 26 mm
1	208A.32BBA Steel mallet 32 mm cellulose
1	DELA.1051.300 Stainless steel 2-sided rule
1	834B.RTI LED telescopic mirror 55 mm
1	834B.RTIS LED telescopic mirror 30mm
1	841A.3 Heavy duty bi-material scissors
1	234 Scriber
1	845.1 Interchangeable-blade utility knife
1	248.2 Drift punch length 2 mm
1	248.3 Drift punch length 3 mm
1	248.4 Drift punch length 4 mm
1	248.5 Drift punch length 5 mm
1	248.6 Drift punch length 6 mm
1	248.8 Drift punch length 8 mm
1	248.10 Drift punch length 10 mm
1	1830.4 Brush
1	AS.12LBP140TOA 12 files 140 mm
1	606A Saw frame with blade backing
1	265.G18 Sheathed cape chisel - length 180 mm
1	263.G19 Sheathed chisel - length 190 mm
1	840.F Lock-back knife



■ **BAS.HEL-2** 280-piece set of inch helicopter maintenance tools - 8-drawer roller cabinet

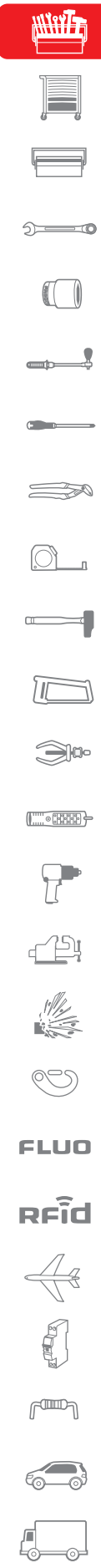
- Maintenance of civilian and military helicopters in hangar: Augusta Westland, Sikorsky, Bell, etc.
- 2 Options available:
  - CU.AEBHEL-2: Set supplied without container.
  - BAS.HEL-2: Set supplied with 8-drawer roller cabinet JET.8GM3S.



Part No.	Qty	Description
MODM.BHEL2-1	66	Foam module
PM.MODM.BHEL2-1	1	Foam tray
R.360F	1	1/4" 360° socket Fluo
R.140A	1	1/4" hinged handle
R.120A	1	1/4" sliding tee
R.236AF	1	1/4" screwdriver handle -158 mm Fluo
R.240A	1	1/4" universal joint
R.350RCK	1	1/4" locking milled extension 350 mm
R.55RCK	1	1/4" locking milled extension 55 mm
R.100RCK	1	1/4" locking milled extension 100 mm
R.150RCK	1	1/4" locking milled extension 150 mm
R.3/16EL	1	1/4" 12-point long-reach socket 3/16
R.7/32EL	1	1/4" 12-point long-reach socket 7/32
R.1/4EL	1	1/4" 12-point long-reach socket 1/4
R.9/32EL	1	1/4" 12-point long-reach socket 9/32
R.5/16EL	1	1/4" 12-point long-reach socket 5/16
R.11/32EL	1	1/4" 12-point long-reach socket 11/32
R.3/8EL	1	1/4" 12-point long-reach socket 3/8
R.7/16EL	1	1/4" 12-point long-reach socket 7/16
R.1/2EL	1	1/4" 12-point long-reach socket 1/2
R.9/16EL	1	1/4" 12-point long-reach socket 9/16
RB.3/16	1	1/4" 12-point socket 3/16
RB.7/32	1	1/4" 12-point socket 7/32
RB.1/4	1	1/4" 12-point socket 1/4
RB.9/32	1	1/4" 12-point socket 9/32
RB.5/16	1	1/4" 12-point socket 5/16
RB.11/32	1	1/4" 12-point socket 11/32
RB.3/8	1	1/4" 12-point socket 3/8
RB.7/16	1	1/4" 12-point socket 7/16
RB.1/2	1	1/4" 12-point socket 1/2
RB.9/16	1	1/4" 12-point socket 9/16
SL.171	1	"Sealed" 1/2" locking ratchet
S.210RC	1	1/2" locking extension 1.130mm
S.215RC	1	1/2" locking extension 1.250mm
S.230	1	1/2" to 3/8" coupler
S.232B	1	1/2" to 3/4" coupler
S.240A	1	1/2" universal joint
S.3/8	1	1/2" 12-point socket 3/8
S.7/16	1	1/2" 12-point socket 7/16
S.1/2	1	1/2" 12-point socket 1/2
S.9/16	1	1/2" 12-point socket 9/16
S.19/32	1	1/2" 12-point socket 19/32
S.5/8	1	1/2" 12-point socket 5/8
S.21/32	1	1/2" 12-point socket 21/32
S.11/16	1	1/2" 12-point socket 11/16
S.3/4	1	1/2" 12-point socket 3/4
S.25/32	1	1/2" 12-point socket 25/32
S.7/8	1	1/2" 12-point socket 7/8
S.15/16	1	1/2" 12-point socket 15/16
S.1P1/16	1	1/2" 12-point socket 1"1/16
S.1P3/16	1	1/2" 12-point socket 1"3/16
S.1P1/4	1	1/2" 12-point socket 1"1/4
S.1/2LA	1	1/2" 12-point long-reach socket 1/2
S.9/16LA	1	1/2" 12-point long-reach socket 9/16
S.5/8LA	1	1/2" 12-point long-reach socket 5/8
S.11/16LA	1	1/2" 12-point long-reach socket 11/16
S.3/4LA	1	1/2" 12-point long-reach socket 3/4
S.13/16LA	1	1/2" 12-point long-reach socket 13/16
S.7/8LA	1	1/2" 12-point long-reach socket 7/8
S.15/16LA	1	1/2" 12-point long-reach socket 15/16
S.1PLA	1	1/2" 12-point long-reach socket 1"
S.1P1/16LA	1	1/2" 12-point long-reach socket 1"1/16
S.1P1/8LA	1	1/2" 12-point long-reach socket 1"1/8
S.1P1/4LA	1	1/2" 12-point long-reach socket 1"1/4
J.232	1	3/8" to 1/2" coupler
J.230	1	3/8" to 1/4" coupler
J.235	1	3/8" bit holder socket 1/4"
R.227AF	1	1/4" screwdriver handle 260 mm Fluo
MODM.BHEL2-2	19	Foam module
PM.MODM.BHEL2-2	1	Foam tray
39.1/8H	1	Short-reach 6-point combination wrench 1/8"

Part No.	Qty	Description
39.5/32H	1	Short-reach 6-point combination wrench 5/32"
39.3/16H	1	Short-reach 6-point combination wrench 3/16"
39.7/32H	1	Short-reach 6-point combination wrench 7/32"
440.1/4	1	OGV® combination wrench 1/4"
440.5/16	1	OGV® combination wrench 5/16"
440.3/8	1	OGV® combination wrench 3/8"
440.7/16	1	OGV® combination wrench 7/16"
440.1/2	1	OGV® combination wrench 1/2"
440.9/16	1	OGV® combination wrench 9/16"
440.5/8	1	OGV® combination wrench 5/8"
440.11/16	1	OGV® combination wrench 11/16"
440.3/4	1	OGV® combination wrench 3/4"
440.13/16	1	OGV® combination wrench 13/16"
440.7/8	1	OGV® combination wrench 7/8"
440.15/16	1	OGV® combination wrench 15/16"
440.1P	1	OGV® combination wrench 1"
440.1P1/16	1	OGV® combination wrench 1"1/16
113A.12CG	1	Chromed sheathed adjustable wrench 12"
MODM.BHEL2-3	7	Foam module
PM.MODM.BHEL2-3	1	Foam tray
440.1P1/8	1	OGV® combination wrench 1"1/8
440.1P1/4	1	OGV® combination wrench 1"1/4
440.1P5/16	1	OGV® combination wrench 1"5/16
440.1P3/8	1	OGV® combination wrench 1"3/8
440.1P7/16	1	OGV® combination wrench 1"7/16
440.1P1/2	1	OGV® combination wrench 1"1/2
113A.6CG	1	Chromed sheathed adjustable wrench 6"
MODM.BHEL2-4	17	Foam module
PM.MODM.BHEL2-4	1	Foam tray
467.1/4	1	Ratchet combination wrench 1/4
467.5/16	1	Ratchet combination wrench 5/16
467.11/32	1	Ratchet combination wrench 11/32
467.3/8	1	Ratchet combination wrench 3/8
467.7/16	1	Ratchet combination wrench 7/16
467.1/2	1	Ratchet combination wrench 1/2
467.9/16	1	Ratchet combination wrench 9/16
467.5/8	1	Ratchet combination wrench 5/8
467.11/16	1	Ratchet combination wrench 11/16
467.3/4	1	Ratchet combination wrench 3/4
467.7/8	1	Ratchet combination wrench 7/8
467.15/16	1	Ratchet combination wrench 15/16
42.5/16x3/8	1	15° flare-nut wrench 5/16x3/8
42.7/16x1/2	1	15° flare-nut wrench 7/16x1/2
42.9/16x5/8	1	15° flare-nut wrench 9/16x5/8
42.11/16x3/4	1	15° flare-nut wrench 11/16x3/4
42.1PX1P1/8	1	15° flare-nut wrench 1"x1"1/8
MODM.BHEL2-5	26	Foam module
PM.MODM.BHEL2-5	1	Foam tray
34.3/16	1	Open end wrench 3/16"
34.7/32	1	Open end wrench 7/32"
34.1/4	1	Open end wrench 1/4"
34.9/32	1	Open end wrench 9/32"
34.5/16	1	Open end wrench 5/16"
34.11/32	1	Open end wrench 11/32"
34.3/8	1	Open end wrench 3/8"
34.13/32	1	Open end wrench 13/32"
34.7/16	1	Open end wrench 7/16"
34.1/2	1	Open end wrench 1/2"
34.9/16	1	Open end wrench 9/16"
34.5/8	1	Open end wrench 5/8"
34.11/16	1	Open end wrench 11/16"
44.1/4X5/16	1	Open end wrench 1/4 x 5/16
44.11/32X13/32	1	Open end wrench 11/32 x 13/32
44.3/8X7/16	1	Open end wrench 3/8 x 7/16
44.1/2X9/16	1	Open end wrench 1/2 x 9/16
44.5/8X11/16	1	Open end wrench 5/8 x 11/16
44.5/8X3/4	1	Open end wrench 5/8 x 3/4
44.7/8X15/16	1	Open end wrench 7/8 x 15/16
44.1PX1P1/16	1	Open end wrench 1" x 1"1/16
44.1P1/8X1P1/4	1	Open end wrench 1"1/8 x 1"1/4
44.1P3/16X1P5/16	1	Open end wrench 1"3/16 x 1"5/16
44.1P3/8X1P1/2	1	Open end wrench 1"3/8 x 1"1/2
MODM.BHEL2-6	21	Foam module
PM.MODM.BHEL2-6	1	Foam tray
10.3/8	1	Torque wrench open end bit 3/8

Part No.	Qty	Description
10.1/2	1	Torque wrench open end bit 1/2"
10.9/16	1	Torque wrench open end bit 9/16
10.11/16	1	Torque wrench open end bit 11/16
445.8DS	1	Reversible locking-wire pliers 8"
445.10DS	1	Reversible locking-wire pliers 10"
827B	1	Magnetic retriever
EF.RF	1	Locking bit holder 1/4
410.SF	1	Connector pliers
AEF.2X35	1	Microtech® flat blade screwdriver 2x35 mm
AEF.2.5X35	1	Microtech® flat blade screwdriver 2.5x35 mm
AEF.1.8X35	1	Microtech® flat blade screwdriver 1.8x35 mm
AEF.1.5X35	1	Microtech® flat blade screwdriver 1.5x35 mm
AEP.00X35	1	Microtech® pH00 screwdriver
185.34L	1	Extra-long pliers 340 mm
187.18CPEF-R	1	Combination pliers 18 cm retaining
192.16CPEF-R	1	Diagonal cutters 16 cm retaining
181A.25CPEF	1	Multigrip pliers 250 mm Fluo
195.20CPEF	1	Half-round pliers 200 mm
405.12MT	1	Microtech® axial cutters
MODM.BHEL2-7	20	Foam module
PM.MODM.BHEL2-7	1	Foam tray
83SH.JP8U	1	8-piece set of long-reach inch keys
ACL.2A	1	Protwist® screwdriver ratchet shank holder grip
AMZ.E	1	Reversible bit holder blade 1/4"
A4X100VEF	1	Protwist® screwdriver 4x100 1000 v
AN3.5X100F	1	Protwist® screwdriver for slotted screws 3.5x100 Fluo
AN4X100F	1	Protwist® screwdriver for slotted screws 4x100 Fluo
AN5.5X150F	1	Protwist® screwdriver for slotted screws 5.5x150 Fluo
AN6.5X150F	1	Protwist® screwdriver for slotted screws 6.5x150 Fluo
AN6.5X35F	1	Protwist® short screwdriver for slotted screws 6.5x35 Fluo
AW8X150F	1	Protwist® screwdriver for slotted screws 8x150
AW10X200F	1	Protwist® screwdriver for slotted screws 10x200
ANP1X35F	1	Protwist® short screwdriver for ph 1x35 Fluo
ANPOX75F	1	Protwist® Phillips® screwdriver 0x75 Fluo
ANP1X100F	1	Protwist® Phillips® screwdriver 1x100 Fluo
ANP2X125F	1	Protwist® Phillips® screwdriver 2x125 Fluo
ANP3X150F	1	Protwist® Phillips® screwdriver 3x150 Fluo
ANP4X200F	1	Protwist® Phillips® screwdriver 4x200 Fluo
AND1X100F	1	Protwist® screwdriver 1x100 Fluo
AND2X125F	1	Protwist® screwdriver 2x125 Fluo
ANP2X250F	1	Phillips® screwdriver 2x250 Fluo
MODM.BHEL2-8	26	Foam module
PM.MODM.BHEL2-8	1	Foam tray
779.PBT	1	Pen lamp
893B.319	1	Tape measure 3 m
804F	1	Round tip metric feeler gauges
E.1063F	1	Set of 63 Detection Box bits
805.1	1	Slide rule 1/50th - 150 mm
200H.26	1	Hickory riveting hammer 26 mm
208A.32BBA	1	Steel mallet 32 mm cellulose
DELA.1051.300	1	Stainless steel 2-sided rule
834B.RTI	1	LED telescopic mirror 55 mm
834B.RTIS	1	LED telescopic mirror 30mm
841A.3	1	Heavy duty bi-material scissors
234	1	Scriber
845.1	1	Interchangeable-blade utility knife
248.2	1	Drift punch length 2 mm
248.3	1	Drift punch length 3 mm
248.4	1	Drift punch length 4 mm
248.5	1	Drift punch length 5 mm
248.6	1	Drift punch length 6 mm
248.8	1	Drift punch length 8 mm
248.10	1	Drift punch length 10 mm
1830.4	1	Brush
AS.12LBP140TOA	1	12 files 140 mm
606A	1	Saw frame with blade backing
265.G18	1	Sheathed cape chisel - length 180 mm
263.G19	1	Sheathed chisel - length 190 mm
840.F	1	Lock-back knife



■ **BVFC4.MIL-1** 117-piece set of metric and inch military aircraft maintenance tools - foam trays and sealed box

- Aircraft by Dassault Aviation, Lockheed Martin, Boeing, Eurofighter.
- 2 Options available:
  - CU.AEMIL-1: Set supplied without container.
  - BVFC4.MIL-1: Set supplied in 8 drawer foam trays and sealed box BV.FC4.







# ROLLER CABINETS AND WORKSHOP FURNITURE





**MOBILE STORAGE**

**56**

Standard 3 module width roller cabinets	58
Chests for roller cabinets	60
Standard 4 module width roller cabinets	61
Standard 5 module width roller cabinets	63
Chests for roller cabinets	66
Chrono roller cabinets	68
Roll roller cabinets	70
E-access roller cabinets	71
Safety roller cabinets	72
Heavy-duty and safety roller cabinets	73
Supports	74
Us roller cabinets	75
Roller servants and moving tables	76
Roller cabinet accessories	78
Roller cabinet accessories	85
Storage tray	86



**CLASSICAL FIXED STORAGE**

**111**

Heavy-duty workbenches	111
Maintenance workbenches	117
Standard	121
Drawer cabinets	122
Worktop cabinets and wall storage units	124
Hooks	126
Tool racks	128
Other tool racks	129



**JETLINE+ FIXED MODULAR STORAGE SYSTEM**

**88**

Jetline+ base unit with drawers and doors	90
Top units jetline+	96
Storage cabinets jetline+	101
Fitting panels jetline+	102
Wooden worktops jetline+	104
Feet - cross beams jetline+	106
Fitting kits - accessories jetline+	108



**CKS PANELS AND HOOK SYSTEM**

**126**

Vertical tool storage	126
Tool-set organizers	130



**FLUO**

**RFid**



MOBILE STORAGE

The choice of size is yours



JET+<sup>3</sup>

3 modules per drawer



JET+<sup>4</sup>

4 modules per drawer



JET+<sup>5</sup>

5 modules per drawer

**Choice**

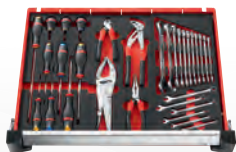
28 possibilities: 3 widths, 6 drawer sets, 2 colours.



**Storage**

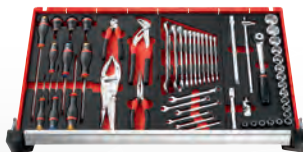
Storage capacity suited to your needs (3 to 5 modules per drawer).

① | ② | ③



20 to 35 kg per drawer -  
15 to 65 litres per drawer

① | ② | ③ | ④



25 to 45 kg per drawer -  
20 to 85 litres per drawer

① | ② | ③ | ④ | ⑤



35 to 60 kg per drawer -  
25 to 110 litres per drawer

**Strength**

Stamped aluminium (2 mm) reinforced with a 15 mm wood worktop, grooved for increased scratch resistance, fastened with stainless steel screws; Worktop angles in shock-proof polypropylene.



900 kg



1000 kg



1100 kg



STANDARD 3 MODULE WIDTH ROLLER CABINETS

M3 ROLLER CABINET



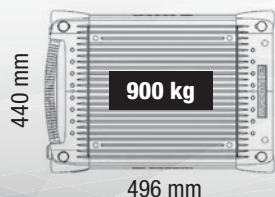
Performance at its best.



- **3 modules per drawer.**
- **12 to 27 modules** distributed in 60 and 130 mm high drawers (200 and 270 mm drawers can also be fitted with modules).
- **125 to 185 kg** total acceptable load in the drawers according to drawer composition (240 kg for 11-drawer unit).
- **150 to 155 litres** effective volume according to drawer composition (230 litres for the 11-drawer unit).
- **0.22m<sup>2</sup> effective working surface** (440 X 496 mm).
- **4 wheels diameter 125mm**, 2 fixed, 2 castors, one with brake.

Technical data

- Overall dimensions (including wheels and worktop): L774 x D546 x H971 mm.
- Effective drawer dimensions: L569 x D421 x H60 / 130 / 200 / 270 mm.



Load per drawer

- drawer 60 mm high: 20 kg
- drawer 130 mm high: 25 kg
- drawer 200 mm high: 30 kg
- drawer 270 mm high: 35 kg

Effective volume per drawer

- drawer 60 mm high: 15 l
- drawer 130 mm high: 30 l
- drawer 200 mm high: 50 l
- drawer 270 mm high: 65 l

STANDARD 3 MODULE WIDTH ROLLER CABINETS

JET+ 5-drawer roller cabinets - 3 modules per drawer



- 5 drawers  
= 12 modules distributed in the 60 and 130 mm drawers:  
- 2 drawers 60 mm wall = 6 modules.  
- 2 drawers 130 mm wall = 6 modules.  
- 1 drawer 270 mm wall.
- The 200 and 270 mm drawers can also be fitted with modules.
- Supplied with 4 partitions for 60 mm drawers and 4 partitions for 130 mm drawers.
- Total load in the drawers: 125 kg.
- Wall storage capacity: 155 litres.
- Drawer useful size: L.569 x D.421 x H.60 / 130 / 270 mm.
- Furnished with 2 separators for drawers of 60 mm and 2 separators for drawer of 130 mm.

	H [mm]	L [mm]	P [mm]	Color	ΔΔ [kg]
JET.5M3	971	774	546	Red 3020	73.5
JET.5GM3	971	774	546	Black 9004	73.5

JET+ 6-drawer roller cabinets - 3 modules per drawer



- 6 drawers  
= 15 modules distributed in the 60 and 130 mm drawers:  
- 4 drawers 60 mm wall = 12 modules.  
- 1 drawer 130 mm wall = 3 modules.  
- 1 drawer 270 mm wall.
- The 200 and 270 mm drawers can also be fitted with modules.
- Supplied with 6 partitions for 60 mm drawers and 2 partitions for 130 mm drawers.
- Total load in the drawers: 140 kg.
- Wall storage capacity: 155 litres.
- Drawer useful size: L.569 x D.421 x H.60 / 130 / 270 mm.
- Furnished with 4 separators for drawers of 60 mm and 2 separators for drawer of 130 mm.

	H [mm]	L [mm]	P [mm]	Color	ΔΔ [kg]
JET.6M3	971	774	546	Red 3020	75.5
JET.6GM3	971	774	546	Black 9004	75.5

■ JET+ 7-drawer roller cabinets - 3 modules per drawer

- 7 drawers = 18 modules distributed in the 60 and 130 mm drawers:
  - 5 drawers 60 mm wall = 15 modules.
  - 1 drawer 130 mm wall = 3 modules.
  - 1 drawer 200 mm wall.
- The 200 and 270 mm drawers can also be fitted with modules.
- Supplied with 6 partitions for 60 mm drawers and 2 partitions for 130 mm drawers.
- Total load in the drawers: 155 kg.
- Wall storage capacity: 155 litres.
- Drawer useful size: L.569 x D.421 x H.60 / 130 / 200 mm.
- Furnished with 4 separators for drawers of 60 mm and 2 separators for drawer of 130 mm.

ED	H [mm]	L [mm]	P [mm]	Color	ΔΔ [kg]
JET.7M3	971	774	546	Red 3020	77.5
JET.7GM3	971	774	546	Black 9004	77.5



■ JET+ 8-drawer roller cabinets - 3 modules per drawer

- 8 drawers = 24 modules distributed in the 60 and 130 mm drawers:
  - 6 drawers 60 mm wall = 18 modules.
  - 2 drawers 130 mm wall = 6 modules.
- The 200 and 270 mm drawers can also be fitted with modules.
- Supplied with 10 partitions for drawers 60 mm wall.
- Total load in the drawers: 170 kg.
- Wall storage capacity: 150 litres.
- Drawer useful size: L.569 x D.421 x H.60 / 130 mm.
- Furnished with 8 separators for drawers of 60 mm.

ED	H [mm]	L [mm]	P [mm]	Color	ΔΔ [kg]
JET.8M3	971	774	546	Red 3020	79.5
JET.8GM3	971	774	546	Black 9004	79.5



■ JET+ 9-drawer roller cabinets - 3 modules per drawer

- 9 drawers = 27 modules distributed in the 60 and 130 mm drawers:
  - 8 drawers 60 mm wall = 24 modules.
  - 1 drawer 130 mm wall = 3 modules.
- The 200 and 270 mm drawers can also be fitted with modules.
- Supplied with 10 partitions for drawers 60 mm wall.
- Total load in the drawers: 185 kg.
- Wall storage capacity: 150 litres.
- Drawer useful size: L.569 x D.421 x H.60 / 130 mm.
- Furnished with 8 separators for drawers of 60 mm

ED	H [mm]	L [mm]	P [mm]	Color	ΔΔ [kg]
JET.9M3	971	774	546	Red 3020	81.5
JET.9GM3	971	774	546	Black 9004	81.5



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CHESTS FOR ROLLER CABINETS

■ JET+ 4-drawer chest - 3 modules per drawer



- 4 drawers = 12 modules distributed in the 60 and 130 mm drawers:
  - 3 drawers 60 mm high = 9 modules.
  - 1 drawer 130 mm high = 3 modules.
- The 200 mm drawers can also be fitted with modules. (can be fitted with the JET2.15 and JET2.16 removable partitions - not supplied).
- Acceptable load and useful volume per drawer of M3 versions:
  - 60mm drawer: 20 kg - 15 litres.
  - 130mm drawer: 25 kg - 30 litres.
- Total load in the drawers: 85 kg.
- High storage capacity: 75 litres.
- Total load on the worktop in static position: 500 kg
- Drawer useful size: L.569 x D.421 x H.60 / 130 mm.
- Can be turned in a mobile version with the wheel set CHRONO.C4K2 (handle + 4 wheels)

	H [mm]	L [mm]	P [mm]	Color	ΔΔ [kg]
JET.C4M3	480	774	546	Red 3020	45.0
JET.C4GM3	480	774	546	Black 9004	45.0

■ JET+ 4-drawer roller cabinets - 3 modules per drawer



- Ideal for mobile maintenance.
- Retractable handle for travelling.
- Easy handling thanks to its high performance wheels (diameter 125 mm, 2 fixed and 2 castors including one with brake).
- 4 drawers = 12 modules distributed in the 60 and 130 mm high drawers.
- 3 drawers 60 mm high = 9 modules.
- 1 drawer 130 mm high = 3 modules.
- The 200 mm drawers can also be fitted with modules.
- Can be fitted with the JET2.15 and JET2.16 removable partitions - not supplied
- Acceptable load and useful volume per drawer of M3 versions:
  - 60 mm drawer: 20 kg - 15 litres.
  - 130 mm drawer: 25 kg - 30 litres.
- Total load in the drawers: 85 kg.
- High storage capacity: 75 litres.
- Drawer useful size: L.569 x D.421 x H.60 / 130 mm.

	H [mm]	L [mm]	P [mm]	Color	ΔΔ [kg]
JET.CR4M3	60/130	569	421	Red 3020	48.5

■ Rolling kit



- Rolling kit comprising a moving handle and a set of 4 wheels of 125 mm, 2 fixed and 2 casters, one with a brake.

	ΔΔ [kg]
CHRONO.C4K2	5.4

STANDARD 4 MODULE WIDTH ROLLER CABINETS

M4 ROLLER CABINET

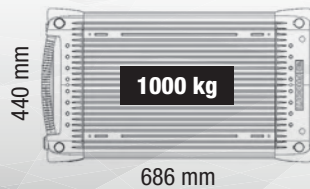
The best combination of storage capacity and work surface.



- 4 modules per drawer.
- 20 to 36 modules distributed in 60 and 130 mm high drawers (200 and 270 mm drawers can also be fitted with modules).
- 175 to 230 kg total acceptable load in the drawers according to drawer composition.
- 200 to 205 litres effective volume according to drawer composition.
- 0.30m<sup>2</sup> effective working surface (440 X 686 mm).
- 4 wheels diameter 125mm, 2 fixed, 2 castors, one with brake.

Technical data

- Overall dimensions (including wheels and worktop): L.964 x D.546 x H.971 mm.
- Effective drawer dimensions: L.759 x D.421 x H.60 / 130 / 200 / 270 mm.



Load per drawer

- drawer 60 mm high: 25 kg
- drawer 130 mm high: 30 kg
- drawer 200 mm high: 40 kg
- drawer 270 mm high: 45 kg

Effective volume per drawer

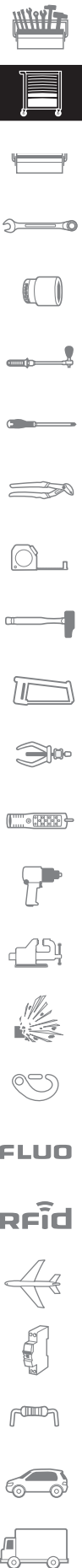
- drawer 60 mm high: 20 l
- drawer 130 mm high: 40 l
- drawer 200 mm high: 65 l
- drawer 270 mm high: 85 l

JET+ 6-drawer roller cabinets - 4 modules per drawer

- 6 drawers = 20 modules distributed in the 60 and 130 mm drawers:
  - 4 drawers 60 mm wall = 16 modules.
  - 1 drawer 130 mm wall = 4 modules.
  - 1 drawer 270 mm wall.
- The 200 and 270 mm drawers can also be fitted with modules.
- Supplied with 9 partitions for 60 mm drawers and 3 partitions for 130 mm drawers.
- Total load in the drawers: 175 kg.
- Wall storage capacity: 205 litres.
- Drawer useful size: L.759 x D.421 x H.60 / 130 / 270 mm.



Model	H [mm]	L [mm]	P [mm]	Color	ΔΔ [kg]
JET.6M4	971	964	546	Red 3020	90.0
JET.6GM4	971	964	546	Black 9004	90.0



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STANDARD 4 MODULE WIDTH ROLLER CABINETS

■ JET+ 7-drawer roller cabinets - 4 modules per drawer



- 7 drawers = 24 modules distributed in the 60 and 130 mm drawers:
  - 5 drawer 60 mm wall = 20 modules.
  - 1 drawer 130 mm wall = 4 modules.
  - 1 drawer 200 mm wall.
- The 200 and 270 mm drawers can also be fitted with modules.
- Supplied with 9 partitions for 60 mm drawers and 3 partitions for 130 mm drawers.
- Total load in the drawers: 195 kg.
- Wall storage capacity: 205 litres.
- Drawer useful size: L.759 x D.421 x H.60 / 130 / 200 mm.

	H [mm]	L [mm]	P [mm]	Color	ΔΔ [kg]
<b>JET.7M4</b>	971	964	546	Red 3020	92.5
<b>JET.7GM4</b>	971	964	546	Black 9004	92.5

■ JET+ 8-drawer roller cabinets - 4 modules per drawer



- 8 drawers = 32 modules distributed in the 60 and 130 mm drawers:
  - 6 drawers 60 mm wall = 24 modules.
  - 2 drawers 130 mm wall = 8 modules.
- The 200 and 270 mm drawers can also be fitted with modules.
- Supplied with 12 partitions for drawers 60 mm wall.
- Total load in the drawers: 210 kg.
- Wall storage capacity: 200 litres.
- Drawer useful size: L.759 x D.421 x H.60 / 130 mm.

	H [mm]	L [mm]	P [mm]	Color	ΔΔ [kg]
<b>JET.8M4</b>	971	964	546	Red 3020	95.0
<b>JET.8GM4</b>	971	964	546	Black 9004	95.0

■ JET+ 9-drawer roller cabinets - 4 modules per drawer



- 9 drawers = 36 modules distributed in the 60 and 130 mm drawers:
  - 8 drawers 60 mm wall = 32 modules.
  - 1 drawer 130 mm wall = 4 modules.
- Supplied with 12 partitions for drawers 60 mm wall.
- Total load in the drawers: 230 kg.
- Wall storage capacity: 200 litres.
- Drawer useful size: L.759 x D.421 x H.60 / 130 mm.

	H [mm]	L [mm]	P [mm]	Color	ΔΔ [kg]
<b>JET.9M4</b>	971	964	546	Red 3020	97.0
<b>JET.9GM4</b>	971	964	546	Black 9004	97.0



**JET+ 4-drawer chest - 4 modules per drawer**

- 4 drawers = 16 modules distributed in the 60 and 130 mm drawers:
  - 3 drawers 60 mm high = 12 modules.
  - 1 drawer 130 mm high = 4 modules.
- The 200 mm drawers can also be fitted with modules. (can be fitted with the JET2.15 and JET2.16 removable partitions - not supplied).
- Acceptable load and useful volume per drawer of M4 versions:
  - 60 mm drawer: 25 kg - 20 litres.
  - 130 mm drawer: 30 kg - 40 litres.
- Total load in the drawers: 105 kg.
- High storage capacity: 100 litres.
- Total load on the worktop in static position: 600 kg
- Drawer useful size: L.759 x D.421 x H.60 / 130 mm.
- Can be turned in a mobile version with the wheel set CHRONO.C4K2 (handle + 4 wheels)



Icon	H [mm]	L [mm]	P [mm]	Color	ΔΔ [kg]
JET.C4M4	480	964	546	Red 3020	51.50
JET.C4GM4	480	964	546	Black 9004	51.50

**Rolling kit**

- Rolling kit comprising a moving handle and a set of 4 wheels of 125 mm, 2 fixed and 2 casters, one with a brake.



Icon	ΔΔ [kg]
CHRONO.C4K2	5.4

**M5 ROLLER CABINET**



**Extra wide worktop.  
The ultimate storage capacity  
with exceptional handling.**



- **Extra-wide drawers - 5 modules per drawer.**
- **25 to 45 modules** distributed in 60 and 130 mm high drawers (200 and 270 mm drawers can also be fitted with modules).
- **235 to 320 kg** total acceptable load in the drawers according to drawer composition.
- **250 to 255 litres** effective volume according to drawer composition.
- **0.40m<sup>2</sup> effective working surface** (440 X 876 mm).

**Technical data**

- Overall dimensions (including wheels and worktop): L.1154 x D.546 x H.1000 mm.
- Effective drawer dimensions: L.948 x D.421 x H.60 / 130 / 200 / 270 mm.

**Load per drawer**

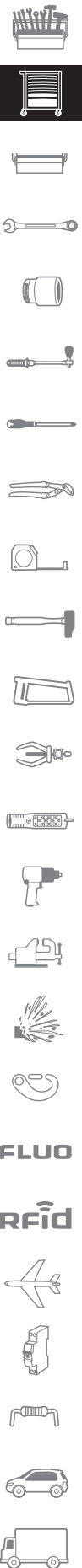
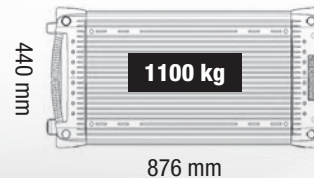
- drawer 60 mm high: 35 kg
- drawer 130 mm high: 40 kg
- drawer 200 mm high: 50 kg
- drawer 270 mm high: 60 kg

**Effective volume per drawer**

- drawer 60 mm high: 25 l
- drawer 130 mm high: 50 l
- drawer 200 mm high: 80 l
- drawer 270 mm high: 110 l

**EXCEPTIONAL handling**

- 6 wheels diameter 160 mm very high performance.
- 4 castors (2 with brakes) and 2 fixed.
- 360° function: very easy to manoeuvre, ride over obstacles.
- Stability ensured with the 2 brakes.



JET+ ROLLER CABINETS

■ JET+ 6-drawer roller cabinets - 5 modules per drawer



- 6 drawers = 25 modules distributed in the 60 and 130 mm drawers:
  - 3 drawer 60 mm wall = 15 modules.
  - 2 drawer 130 mm wall = 10 modules.
  - 1 drawer 200 mm wall.
- The 200 and 270 mm drawers can also be fitted with modules.
- Supplied with 12 partitions for 60 mm drawers and 4 partitions for 130 mm drawers.
- Total load in the drawers: 235 kg.
- Wall storage capacity: 255 litres.
- Drawer useful size: L.948 x D.421 x H.60 / 130 / 200 mm.
- Furnished with 8 separators for drawers of 60 mm and 8 separators for drawer of 130 mm.

ED	H [mm]	L [mm]	P [mm]	Color	ΔΔ [kg]
JET.6M5	1000	1154	546	Red 3020	104.5
JET.6GM5	1000	1154	546	Black 9004	104.5

■ JET+ 7-drawer roller cabinets - 5 modules per drawer



- 7 drawers = 30 modules distributed in the 60 and 130 mm drawers:
  - 5 drawers 60 mm wall = 25 modules.
  - 1 drawer 130 mm wall = 5 modules.
  - 1 drawer 200 mm wall.
- The 200 and 270 mm drawers can also be fitted with modules.
- Supplied with 12 partitions for 60 mm drawers and 4 partitions for 130 mm drawers.
- Total load in the drawers: 265 kg.
- Wall storage capacity: 255 litres.
- Drawer useful size: L.948 x D.421 x H.60 / 130 / 200 mm.
- Furnished with 8 separators for drawers of 60 mm and 8 separators for drawer of 130 mm.

ED	H [mm]	L [mm]	P [mm]	Color	ΔΔ [kg]
JET.7M5	1000	1154	546	Red 3020	107.0
JET.7GM5	1000	1154	546	Black 9004	107.0

■ JET+ 8-drawer roller cabinets - 5 modules per drawer

- 8 drawers = 40 modules distributed in the 60 and 130 mm drawers:
  - 6 drawers 60 mm wall = 30 modules.
  - 2 drawers 130 mm wall = 10 modules.
- The 200 and 270 mm drawers can also be fitted with modules.
- Supplied with 16 partitions for drawers 60 mm wall.
- Total load in the drawers: 290 kg.
- Wall storage capacity: 250 litres.
- Overall dimensions (including wheels and worktop): L.1154 x D.546 x H.1000 mm.
- Drawer useful size: L.948 x D.421 x H.60 / 130 mm.
- Furnished with 12 separators for drawers of 60 mm.



ED	H [mm]	L [mm]	P [mm]	Color	ΔΔ [kg]
JET.8M5	1000	1154	546	Red 3020	110.0
JET.8GM5	1000	1154	546	Black 9004	110.0

■ JET+ 9-drawer roller cabinets - 5 modules per drawer

- 9 drawers = 45 modules distributed in the 60 and 130 mm drawers:
  - 8 drawers 60 mm wall = 40 modules.
  - 1 drawer 130 mm wall = 5 modules.
- The 200 and 270 mm drawers can also be fitted with modules.
- Supplied with 16 partitions for drawers 60 mm wall.
- Total load in the drawers: 320 kg.
- Wall storage capacity: 250 litres.
- Overall dimensions (including wheels and worktop): L.1154 x D.546 x H.1000 mm.
- Drawer useful size: L.948 x D.421 x H.60 / 130 mm.
- Furnished with 12 separators for drawers of 60 mm



ED	H [mm]	L [mm]	P [mm]	Color	ΔΔ [kg]
JET.9M5	1000	1154	546	Red 3020	113.0
JET.9GM5	1000	1154	546	Black 9004	113.0



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CHESTS FOR ROLLER CABINETS

■ JET+ 4-drawer chest - 5 modules per drawer



- 4 drawers = 20 modules distributed in the 60 and 130 mm drawers:
  - 3 drawers 60 mm high = 15 modules.
  - 1 drawer 130 mm high = 5 modules.
- The 200 mm drawers can also be fitted with modules. (can be fitted with the JET2.15 and JET2.16 removable partitions - not supplied).
- Acceptable load and useful volume per drawer of M4 versions:
  - 60 mm drawer: 35 kg - 25 litres.
  - 130 mm drawer: 40 kg - 50 litres.
- Total load in the drawers: 145 kg.
- High storage capacity: 125 litres.
- Total load on the worktop in static position: 700 kg.
- Drawer useful size: L.948 x D.421 x H.60 / 130 mm.
- Can be turned in a mobile version with the wheel set CHRONO.C4K2 (handle + 4 wheels)

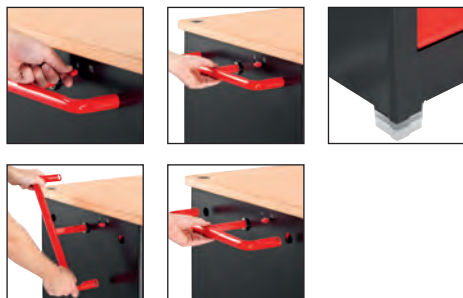
	H [mm]	L [mm]	P [mm]	Color	ΔΔ [kg]
JET.C4M5	480	1154	546	Red 3020	60.5
JET.C4GM5	480	1154	546	Black 9004	60.5

MOBILE WORKBENCHES

■ Heavy-duty mobile or fixed workbench



- Lower the feet with the rotating handle to make your mobile workbench as stable as a fixed workbench.
- Its large 0.7 m2 worktop in multilayered beech wood is coated with lint oil for stronger resistance to liquids and easier maintenance. You can install a vice on it.
- Static resistance is 1-ton on the feet, 500 kg on the wheels.
- Raise the feet with the rotating handle, the workbench is mobile again. This handle also allows moving the workbench easily.
- 4 x 125 mm diameter wheels, 2 swivelling, 2 fixed.
- 6 drawers compatible with XL modules, with aluminium handles and withstanding a load of 30 kg per drawer.
- 1 large lateral compartment to store larger tools or objects, with shelf.
- Single key for the drawers and compartment.
- The left-hand side and back of the workbench can store the JETXL accessories (see FACOM catalogue).
- The worktop is perforated for easy installation of a JET.A6M5 perforated panel.



	H [mm]	L [mm]	P [mm]	ΔΔ [kg]
JET.6MWB	1002	1194	670	127.8

Jet+ 6-drawer mobile workbenches - 3 modules per drawer

- 6 drawers = 15 modules distributed in the 60 and 130 mm drawers:
  - 4 drawers 60 mm high = 12 modules.
  - 1 drawer 130 mm high = 3 modules.
  - 1 drawer 270 mm high.
- The 200 and 270 mm drawers can also be fitted with modules.
- Supplied with 6 partitions for 60 mm drawers and 2 partitions for 130 mm drawers.
- Total load in the drawers: 140 kg.
- High storage capacity drawers: 155 litres.
- 1 full-length closed compartment for storing long tools:
  - Door with key lock.
  - Identical key for the drawers and the compartment.
- Supplied with the plastic carrier tray.
- For the wood top version, just add wood top JET.A14M5.
- Compatible with the JET+ and JET.XL range of accessories.
- 4 very high performance wheels 160 mm diameter - 2 castors (including 2 with brakes) and 2 fixed.
- Drawer useful size: L.569 x D.421 x H.60/130/200 mm.
- Compartment dimensions: L.378 x D.430 x H.679 mm (passage width with door open 310 mm).



ED	H [mm]	L [mm]	P [mm]	Color	ΔΔ [kg]
JET.T6M3	1000	1154	546	Red 3020	100.0
JET.T6GM3	1000	1154	546	Black 9004	100.0

Jet+ 7-drawer mobile workbenches - 3 modules per drawer

- 7 drawers (useful dimensions): 18 modules distributed in the 60 and 130 mm high drawers:
  - 5 drawers 60 mm high = 15 modules.
  - 1 drawers 130 mm high = 3 modules.
  - 1 drawer 200 mm high.
- Supplied with 6 partitions for 60 mm drawers and 2 partitions for 130 mm drawers.
- The 200 and 270 mm drawers can also be fitted with modules.
- Total load in the drawers: 155 kg.
- High storage capacity: 155 litres.
- 1 full-length closed compartment for storing long tools:
  - Door with key lock.
  - Identical key for the drawers and the compartment.
- Supplied with the plastic slider.
- For the wood top version, just add wood top JET.A14M5.
- Compatible with the JET+ and JET.XL range of accessories.
- 4 very high performance wheels 160 mm diameter - 2 castors (including 2 with brakes) and 2 fixed.
- Drawer useful size: L.569 x D.421 x H.60/130/200 mm.
- Compartment dimensions: L.378 x D.430 x H. 679 mm (passage width with door open 310 mm).



ED	H [mm]	L [mm]	P [mm]	Color	ΔΔ [kg]
JET.T7M3	1000	1154	546	Red 3020	103.0
JET.T7GM3	1000	1154	546	Black 9004	103.0



CHRONO ROLLER CABINETS

CHRONO+ ROLLER CABINETS

**2 Integral handles**

- With soft coating, 1 for moving the roller cabinet, 1 to lift it and ride over obstacles.

**Worktop**

- Large worktop 560 x 460 mm in polypropylene with fibre charge.
- Resistant to shocks and hydrocarbons, and an 850 kg static load.



CHRONO+

**Security**

- Lock located on the side.
- Centralized keylock (supplied with 2 keys, 1 hinged).

**Accessories**

- Bottle holder + paper roll holder (fits on the right or left).
- Perforated roller cabinet side panels to fit the accessories of the JETXL range.



**Retaining lips**

- Prevent tools from falling.
- Allow adding a wooden worktop CHRONO.A14M3PB.

**Drawers**

- Features ball slides, with "soft close" return spring for soft and safe closing.
- Anodized aluminium handle = ideal comfort and grip.
- 3 drawer opening methods.



\*Supplied without paper.

**Handling**

- 4 wheels Ø 125 mm, 2 swivel (1 with brake) and 2 fixed.
- Roller cabinet supplied with the wheels fitted.

**Two colour schemes**

- Available in:
  - red 3020
  - black 9004



■ CHRONO+ roller cabinet - 6 drawers - 3 modules per drawer



- 6-drawer roller cabinet = 15 modules distributed in the 60 and 130 mm drawers.
  - 4 drawers 60 mm high = 12 modules.
  - 1 drawer 130 mm high = 3 modules.
  - 1 drawer: 270 mm high. (can also be fitted with modules)
  - Load per drawer: 20 / 25 / 35 kg.
- Accessories:
  - Supplied with 1 bottle holder (fits on the right or left), 1 paper roll holder included, 4 partitions for 60 mm drawers and 2 partitions for 130 mm drawers (additional metal partitions in option: JET2.15 for drawers size 60 mm and JET2.16 for drawers size 130 mm).
- Useful dimensions of drawers (L. x D. x H.): 569 x 421 x 60 / 130 / 270 mm.

	H [mm]	L [mm]	P [mm]	Color	ΔΔ [kg]
CHRONO.6M3A	971	779	518	Red 3020	62.5
CHRONO.6GM3A	971	779	518	Black 9004	62.5

**CHRONO+ roller cabinet - 7 drawers - 3 modules per drawer**

- 7-drawer roller cabinet = 18 modules distributed in the 60 and 130 mm drawers:
  - 5 drawers 60 mm high = 15 modules.
  - 1 drawer 130 mm high = 3 modules.
  - 1 drawer 200 mm high. (can also be fitted with modules).
  - Load per drawer: 20 / 25 / 30 kg.
- Accessories: Supplied with 1 bottle holder (fits on the right or left), 1 paper roll holder included, 4 metal partitions for 60 mm drawers and 2 partitions for 130 mm drawers (additional partitions in option: JET2.15 for drawers size 60 mm and JET2.16 for drawers size 130 mm). Perforated roller cabinet side panels to fit the accessories of the JETXL range.
- Useful dimensions of drawers (L. x D. x H.): 569 x 421 x 60 / 130 / 200 mm.

	H [mm]	L [mm]	P [mm]	Color	ΔΔ [kg]
<b>CHRONO.7M3A</b>	971	787	518	Red 3020	64.5
<b>CHRONO.7GM3A</b>	971971	787	518	Black 9004	64.5



**CHRONO+ roller cabinets - 8 drawers - 3 modules per drawer**

- 8-drawer roller cabinet = 24 modules distributed in the 60 and 130 mm drawers.
  - 6 drawers 60 mm high = 18 modules.
  - 2 drawers 130 mm high = 6 modules.
  - Load per drawer: 20 / 25 kg.
- Accessories: Supplied with 1 bottle holder (fits on the right or left), 1 paper roll holder included, 8 metal partitions for 60 mm drawers (additional partitions in option: JET2.15 for drawers size 60 mm and JET2.16 for drawers size 130 mm).
- Useful dimensions of drawers (L. x D. x H.): 569 x 421 x 60 / 130 mm.

	H [mm]	L [mm]	P [mm]	Color	ΔΔ [kg]
<b>CHRONO.8M3A</b>	971	779	518	Red 3020	66.5
<b>CHRONO.8GM3A</b>	971	779	518	Black 9004	66.5



**CHRONO+ chests 4 drawers - 3 modules per drawer**

- 4-drawer chest:
  - To be used alone or in addition to a CHRONO.M3A roller cabinet
  - Supplied with the link kit for easy and secured mounting of the assembly.
  - 3 drawers 60 mm high.
  - 1 drawer 130 mm high.
  - Drawers can be fitted with all thermoformed or foam trays in the Facom Modular system program
  - Max load per drawer: 20/25 kg.
- Accessories: Bottle holder included (fits on the right or left).
  - Option: metal partitions (JET2.15 for drawers size 60 mm and JET2.16 for drawers size 130 mm).
  - Option: CHRONO.C4K2 rolling kit (moving handle + 4 wheels).
- Overall dimensions worktop included (L. x D. x H.): 779 x 518 x 466 mm.
- Useful drawer sizes (L. x D. x H.): 569 x 421 x 60 / 130 mm.

	H [mm]	L [mm]	P [mm]	Color	ΔΔ [kg]
<b>CHRONO.C4M3A</b>	466	779	518	Red 3020	35.0
<b>CHRONO.C4GM3A</b>	466	779	518	Black 9004	35.0



**Rolling kit**

- Rolling kit comprising a moving handle and a set of 4 wheels of 125 mm, 2 fixed and 2 casters, one with a brake.

	ΔΔ [kg]
<b>CHRONO.C4K2</b>	5.4



ROLL ROLLER CABINETS

ROLL CABINETS AND CHESTS

**Reinforced worktop**

- Resists to a 700 kg static load, resists to shocks and hydrocarbons.

**1 handle on each site**

- To lift the roller cabinet over obstacles and lifting it easily.

**Retaining lips**

- Prevent tools from falling.



**Drawers with secured locking**

- Drawers cannot open while moving. Drawers unlocked by tilting facade.
- Drawers can be fitted with all thermoformed or foam trays in the Facom Modular system program.



**Can be fitted with accessories**

- Perforated roller cabinet side panels to fit the accessories of the JETXL range.
- Bottle holder included (fits on the right or left).

**Handling**

- 4 wheels Ø 125 mm, 2 swivel including one with brake, supplied fitted.

**Secured**

- New side lock to prevent risks of breakage. Centralized keylock, supplied with 2 keys, 1 hinged.

ROLL + roller cabinet with 6 drawers - 3 modules per drawer



- 6 drawers roller cabinet:
  - 3 drawers 60 mm.
  - 2 drawers 130 mm.
  - 1 drawer 200 mm.
- Large worktop made of polypropylene with fiber.
- 2 Handles for easier maneuverability.
- Safety: polypropylene drawer pulls with safety hooks, drawers cannot open while moving. Lock on side to reduce the risk of damage.
- Integrated holder for cans or bottles (Free positioning on right or left).



	H [mm]	L [mm]	P [mm]	Color	ΔΔ [kg]
<b>ROLL.6M3</b>	970	748	515	Red 3020	53.50
<b>ROLL.6GM3</b>	970	748	515	Black 9004	53.50

Chest - 4 drawers - 3 modules per drawer



- 4-drawer chest, to be used alone or together with a ROLL.6M3 rolling cabinet or a ROLL.CR4M3 mobile chest. Supplied with the link kit for easy and secured mounting of the assembly. 3 drawers 60 mm high + 1 drawer 130 mm high. Max load per drawer: 20/25 kg.
- Bottle holder included (fits on the right or left). CHRONO.C4K2 rolling kit in option (moving handle + 4 wheels).

	H [mm]	L [mm]	P [mm]	Color	ΔΔ [kg]
<b>ROLL.C4M3</b>	465	748	515	Red 3020	33

Mobile chest - 4 drawers - 3 modules per drawer (1)



- 4 drawers roller cabinet:
  - 3 drawers 60 mm.
  - 1 drawer 130 mm.
- Maximum load resistance per drawer : 20/25 kg.
- 4 wheels diam. 125 mm, 2 swiveling (one with brake) and 2 fixed - Roller cabinet delivered with wheels already attached Retractable metal handle.
- Integrated holder for cans or bottles (Free positioning on right or left).

	H [mm]	L [mm]	P [mm]	Color	ΔΔ [kg]
<b>ROLL.CR4M3</b>	650	748	585	Red 3020	39.0



E-ACCESS ROLLER CABINETS

E-ACCESS JET + ROLLER CABINETS

**E-ACCESS roller cabinet:  
enter the 21st century!**  
All benefits of the JET+ range!

JET+



**E-ACCESS cards**

- Card coding/denial via card coding and reset.
- Drawer opening/closing via user cards.

**Fast and secured access**

- Mifare® protocol badge electronic opening system.
- Fast opening, no mechanism activation, just hold the card before the antenna.
- Centralized locking of all drawers.
- Stand-alone system: runs on 4 standard 1.5V AAA batteries (included).
- Supplied with 1 coding card and 1 reset card: provides or denies access in a few seconds (up to 100 users).



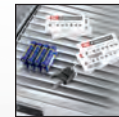
**Android smartphone application\* via NFC**

- Customized parameter management (Automatic locking timing management, user traceability, battery level).
- \* Free.



**Safety**

- Low battery sound and light warning.
- Emergency key to open the roller cabinet if the battery is discharged.



**Supplied with:**

- 1 coding card.
- 1 reset card.
- 2 user cards.
- 1 spare key.
- 4 1.5V AAA batteries.

■ **JET+ roller cabinet - 7 drawers - 3 modules per drawer - E-ACCESS range**



- Roller cabinet fitted with an electronic opening system by Mifare® classic 1k protocol badge.
- 7 drawers: 5 drawers 60 mm high, 1 drawer 130 mm high, 1 drawer 200 mm high.
- Load per drawer: 20 / 25 / 35 kg.
- Accessories: supplied with 4 partitions for 60 mm drawers and 2 partitions for 130 mm drawers (Additional metal partitions in option: JET2.15 for 60 mm drawers and JET2.16 for 130 mm drawers) Perforated roller cabinet side panels to fit the accessories of the JETXL range.
- Useful drawer sizes (L. x D. x H.): 569 x 421 x 60 / 130 / 200 mm.

	H [mm]	L [mm]	P [mm]	Color	ΔΔ [kg]
JET.7GM3EACC	971	774	546	Black 9004	78

■ **JET+ roller cabinet 8 drawers - 3 modules per drawer - E-ACCESS range**



- Roller cabinet fitted with an electronic opening system by Mifare® classic 1k protocol badge.
- 8 drawers: 6 drawers 60 mm high, 2 drawers 130 mm high.
- Load per drawer: 20 / 25 kg.
- Accessories: supplied with 1 bottle holder (fits on the right or left), 1 paper roll holder included, 8 metal partitions for 60 mm drawers (additional partitions in option: JET2.15 for drawers size 60 mm and JET2.16 for drawers size 130 mm).
- Perforated roller cabinet side panels to fit the accessories of the JETXL range.
- Useful drawer sizes (L. x D. x H.): 569 x 421 x 60 / 130 / 270 mm.

	H [mm]	L [mm]	P [mm]	Color	ΔΔ [kg]
JET.8GM3EACC	971	774	546	Black 9004	80



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SAFETY ROLLER CABINETS

ROLLER CABINETS SAFETY

# Safety Lock System



**JET+  
range**



**CHRONO  
range**



■ **JET+ 6-drawer roller cabinets - 3 modules per drawer - safety range**



■ **JET+ 8-drawer roller cabinets - 3 modules per drawer - safety range**



- Supplied with the SAFETY LOCK SYSTEM preventing simultaneous opening of several drawers:
  - 1 drawer at a time.
  - prevents the roller cabinet from tipping over.
- 6 drawers = 15 modules distributed in the 60 and 130 mm wall drawers:
  - 4 drawer 60 mm wall = 12 modules.
  - 1 drawer 130 mm wall = 3 modules.
  - 1 drawer 270 mm wall.
- The 200 and 270 mm drawers can also be fitted with modules.
- Supplied with 4 partitions for 60 mm drawers and 2 partitions for 130 mm drawers.
- Total load in the drawers: 140 kg.
- Wall storage capacity: 155 litres.
- Drawer useful size: L.569 x D.421 x H.60 / 130 / 210 / 270 mm.
- 4 wheels 125 mm diameter: 2 fixed, 2 castors, one with brake.

	H [mm]	L [mm]	P [mm]	Color	ΔΔ [kg]
<b>JET.6GM3S</b>	971	774	546	Black 9004	75.5

- Supplied with the SAFETY LOCK SYSTEM preventing simultaneous opening of several drawers:
  - 1 drawer at a time.
  - prevents the roller cabinet from tipping over.
- 8 drawers = 24 modules distributed in the 60 and 130 mm wall drawers:
  - 6 drawers 60 mm wall = 18 modules.
  - 2 drawers 130 mm wall = 6 modules.
- The 200 and 270 mm drawers can also be fitted with modules.
- Supplied with 10 partitions for drawers 60 mm wall.
- Total load in the drawers: 17 kg.
- Wall storage capacity: 150 litres.
- Overall dimensions (including wheels and worktop): L.774 x D.546 x H.971 mm.
- Drawer useful size: L.569 x D.421 x H.60 / 130 / 210 / 270 mm.
- 4 wheels 125 mm diameter: 2 fixed, 2 castors, one with brake.
- Furnished with 8 separators for drawers of 60 mm.

	H [mm]	L [mm]	P [mm]	Color	ΔΔ [kg]
<b>JET.8GM3S</b>	971	774	546	Black 9004	79.5

HEAVY-DUTY AND SAFETY ROLLER CABINETS

■ CHRONO roller cabinet - 6 drawers - 3 modules per drawer - Heavy loads and safety



- 8-drawer roller cabinet = 24 modules distributed in the 60 and 130 mm drawers.
  - 6 drawers 60 mm high = 18 modules.
  - 2 drawers 130 mm high = 6 modules.
- Fitted with SAFETY LOCK SYSTEM, an interlocking system preventing simultaneous opening of several drawers (a single drawer at a time, preventing any risk of roller cabinet tipping).
- Drawers: features ball slides, total extension with "soft close" return spring for soft and safe closing.
- Exclusive design in anodised aluminium for ideal comfort and grip.
- Load per drawer: 50 kg.
- Worktop: large 760x540mm worktop made of 30 mm thick multi-ply beech with rounded angles, with a 1000 kg static load resistance. Ideal to fit a vice.
- Safety: lock located on the side.
- Centralized key-locking, supplied with 2 keys, 1 hinged.
- Handling:
  - Large metal handle.
- 4 JET + wheels, diam. 125 mm, 2 castors (one with brake) and 2 fixed.
- Low starting load, resistance to chips and most usual common hydrocarbons.
- Roller cabinet supplied with the wheels fitted.
- Accessories: supplied with 1 bottle holder (fits on the right or left), 1 paper roll holder included, 8 metal partitions for 60 mm drawers (additional partitions in option: JET2.15 for drawers size 60 mm and JET2.16 for drawers size 130 mm).
- Perforated roller cabinet side panels to fit the accessories of the JETXL range.
- Useful dimensions of drawers (L. x D. x H.): 569 x 421 x 60 / 130 mm.



	H [mm]	L [mm]	P [mm]	Color	ΔΔ [kg]
<b>CHRONO.6GM3HD</b>	997	848	540	Black 9004	77

■ CHRONO roller cabinet - 8 drawers - 3 modules per drawer - Heavy loads and safety



- 8-drawer roller cabinet = 24 modules distributed in the 60 and 130 mm drawers.
  - 6 drawers 60 mm high = 18 modules.
  - 2 drawers 130 mm high = 6 modules.
- Fitted with SAFETY LOCK SYSTEM, an interlocking system preventing simultaneous opening of several drawers (a single drawer at a time, preventing any risk of roller cabinet tipping).
- Drawers: features ball slides, total extension with "soft close" return spring for soft and safe closing. Exclusive design in anodised aluminium for ideal comfort and grip.
- Load per drawer: 50 kg.
- Worktop: large 760x540 mm worktop made of 30 mm thick multi-ply beech with rounded angles, with a 1000 kg static load resistance. Ideal to fit a vice.
- Security: lock on the side, centralized key-locking, supplied with 2 keys, 1 hinged.
- Handling: large metal handle, 4 wheels from JET + range, diam. 125 mm, 2 castors (one with brake) and 2 fixed.
  - Low starting load, resistance to chips and most usual common hydrocarbons.
- Roller cabinet supplied with the wheels fitted.
- Accessories: supplied with 1 bottle holder (fits on the right or left), 1 paper roll holder included, 8 metal partitions for 60 mm drawers (additional partitions in option: JET2.15 for drawers size 60 mm and JET2.16 for drawers size 130 mm).
- Perforated roller cabinet side panels to fit the accessories of the JETXL range.
- Useful dimensions of drawers (L. x D. x H.): 569 x 421 x 60 / 130 mm.



	H [mm]	L [mm]	P [mm]	Color	ΔΔ [kg]
<b>CHRONO.8GM3HD</b>	997	848	540	Black 9004	80.5



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SUPPORTS

■ Surface preparation workstation



- Workstation comprising:
  - 2 sloping upper shelves for storing consumables.
  - 1 drawer 130 mm high with padlock for expensive items, safety items, etc.
  - 1 2-way sloping shelf for ordinary tools.
  - 1 storage area for bulky consumables.
  - Perforated recessed side panels for attaching accessories: 2 bottle-shelves, 1 paper-roll holder, wire supports to hold paint guns, 1 waste bag holder.

	H [mm]	L [mm]	P [mm]	Color	ΔΔ [kg]
<b>CR.T3XL</b>	1645	825	546	Red 3020	51.0

■ Bodywork repair workstation



- A lid:
  - Containing a panel fitted with a system for securing dressers and hammers.
  - PK perforations for freely hanging other tools.
  - 2 gas springs for comfort of use.
- 2 trays that pull out sideways to reveal a large bin for storing heavier tools such as dollies and spoons. The bottom of the trays and the bin are fitted with non-slip mats.
- 3 drawers (2 x 60 + 1 x 130 mm) compatible with the Facom modular storage system and 1 bin drawer (270 mm high) for storing bulky items and pneumatic tools.
- Galvanised steel worktop: easy-to-maintain and high resistance.
- Safe: central key locking of lid and drawers.
- Corner bumpers to avoid damage to vehicles in case of accidental contact.
- Manoeuvrability ensured by 4 large diameter wheels, 2 fixed, 2 castors, one with a brake.

	H [mm]	L [mm]	P [mm]	Color	ΔΔ [kg]
<b>CR.T4XL</b>	1035	825	546	Red 3020	77.0

US ROLLER CABINETS

■ US roller cabinet and chest - 21 drawers, black

"American style": streamlined design.  
Strength and associated comfort.

- Lid fitted with high resistance gas jacks: easy opening and closing.
- Two pairs of sliders on the wide and large drawers: reinforced resistance.
- High quality round key - Embedded lock for maximum security.
- Massive and comfortable handling grip.
- JET+ heavy duty wheels.
- Compatible with FACOM modules.
- Non-slip mats in all drawers: your tools stay where you place them.
- Rubber mat on the top of the roller cabinet, protecting your worktop when the chest is not used.
- Handling grip with soft coating for better comfort.
- Chest with 8 drawers: FAS.C8BK.
  - Wide storage area L.1061 x D.434 x H.110 mm.
  - 4 drawers with 3 modules L.569 x D.421 x H.60 and 130 mm.
  - 4 drawers with 2 modules L.378 x D.421 x H.60 and 130 mm.
 Weight: 92 kg.
- Roller cabinet with 13 drawers: FAS.13BK.
  - Extra wide drawer for large tools and objects.
  - 5 modules L.1032 x d.421 x H.130 mm.
  - 6 drawers with 3 modules L.569 x D.421 x H.60-130-200 mm.
  - 6 drawers with 2 modules L.378 x D.421 x V.60-130-200 mm.
 Weight: 135 kg.



FAS	ΔΔ [kg]
FAS.21BK	227.0

■ US roller cabinet - 13 drawers, black

- 1 extra wide drawer for large tools and objects with 5 modules:
  - Useful dimensions (L. x D. x H.): 1032 x 421 x 130 mm.
- 6 drawers with 3 modules:
  - Useful dimensions of the drawers (L. x D. x H.): 569 x 421 x 60-130-200 mm.
- 6 drawers with 2 modules:
  - Useful dimensions of the drawers (L. x D. x H.): 378 x 421 x 60-130-200 mm.



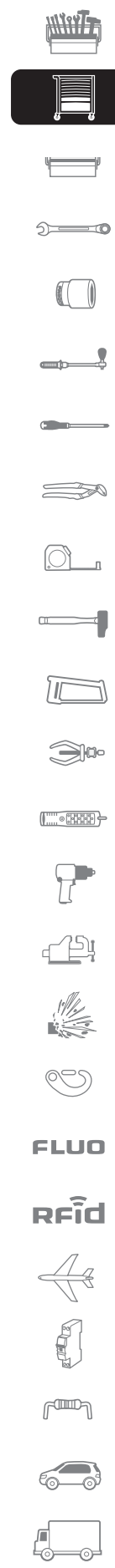
FAS	ΔΔ [kg]
FAS.13BK	135

■ US chest - 8 drawers, black

- Large storage surface L.1061 x D. 434 x H.110 mm.
- 4 drawers with 3 modules L.569 x D.421 x H.60 and
- 4 drawers with 2 modules L.378 x D.421 x H.60 and 130 mm.



FAS	ΔΔ [kg]
FAS.C8BK	92



ROLLER SERVANTS AND MOVING TABLES

Mobile workshop utility cart - 3 shelves



- 3 Metal shelves:
  - 40 mm edges to prevent objects from falling during transport, rounded and smooth border to avoid injuries.
  - Removable ABS mats for protection and easy maintenance.
  - 2 different positioning for middle shelf.
  - Maximum static load capacity : 200 kg.
  - Shelves useful dimensions : L.745xP.455 mm.
- Extra large metal handle for optimal manoeuvrability and comfort.
- 4 Casters Ø 100mm, 2 swiveling, 2 fixed, 1 with brake.
- Delivered disassembled - Fast and easy to assemble (screw and nuts).
- Unpacked information :
  - Overall dimensions (without handle): L.750 x D.460 x H.927 mm.

FACOM	H [mm]	L [mm]	P [mm]	Color	ΔΔ [kg]
<b>ROLL.UC3S</b>	927	750	460	Red 3020	19

Roller cabinet - 3 drawers



- Roller cabinet with 3 drawers:
  - Galvanized worktop, rugged and easy maintenance.
  - Metal handle.
  - 2 lateral drawers.
  - 1 large capacity drawer.
  - Useful size (L. x D. x H.): 569 x 421 x 200 mm.
  - Single keylock of the 3 drawers.
  - 1 fastener and small component compartment.
  - 1 special large capacity compartment with retaining lips.
  - 4 wheels diam. 125 mm, 2 castors (one with brake) and 2 fixed.
  - Compatible with FACOM JETXL lateral accessories.



FACOM	Color	ΔΔ [kg]
<b>JET.3WS</b>	Red 3020	44.60

■ Heavy-duty roller table

- Ideal to deposit and transport heavy loads.
- Max strength and handling:
  - Load acceptable 500 kg - extreme resistance mechanically welded steel tubular structure.
  - Upper surface and lower shelf in steel 20/10th.
- Handling:
  - 4 large size wheels: 2 castors with brake and 2 fixed rollers, Ø 160 mm, rubber tire, for easy handling of the trolley, even when heavily loaded.
  - Robust and comfortable handle.
- Multi function:
  - Laying surface (for pallet 600 x 800 mm), worktop (locked wheels) and transport.

- Max safety:
  - Worktop with edges on 3 sides (including 2 retractible), height 25 mm to avoid prevent objects/tools from falling during transport.
  - Lower panel rounded to protect ankles.
- Colours: grey ELIAN.
- Dimensions: L.1092 x D.617 x H.903 mm.
- Accessories:
  - Additional shelf in galvanised metal sheet thickness 2 mm with anti-fall edges dimensions: L.960 x D.546 x H.20mm / 9kg. Weight: 42 kg.



2702	H [mm]	L [mm]	P [mm]	ΔΔ [kg]
2702	903	1092	617	42.0

■ Heavy-duty trolley

- Ideal for secured transport or storage of tools and components.
- Max strength and handling:
  - Load acceptable 500 kg - extreme resistance mechanically welded steel tubular structure.
  - Upper surface and lower shelf in steel 20/10th.
- Handling:
  - 4 large size wheels: 2 castors with brake and 2 fixed rollers, Ø 160 mm, rubber tire, for easy handling of the trolley, even when heavily loaded.
  - Robust and comfortable handle.
- Multi function:
  - Laying surface (for pallet 600 x 800 mm), worktop (locked wheels) and transport.

- Max safety:
  - Worktop with edges on 3 sides (including 2 retractible), height 25 mm to avoid prevent objects/tools from falling during transport.
  - Lower panel rounded to protect ankles.
- Steel grid sides. (deployed metal 40\*23 thickness 1.5mm).
- Padlock clasp (padlock not supplied).
- Acceptable load 500 kg.
- Extreme resistance steel tubular structure.
- Colours: grey ELIAN.
- Dimensions: L.1092 x D.617 x H.903 mm.
- Accessories:
  - Additional shelf in galvanised metal sheet thickness 2 mm with anti-fall edges.
  - L.960 x D.546 x H.20mm / 9kg. Weight: 54 kg.



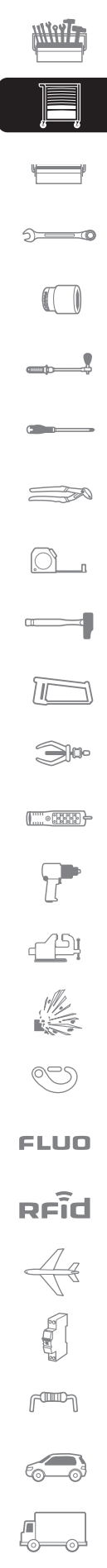
2703	H [mm]	L [mm]	P [mm]	ΔΔ [kg]
2703	903	1092	617	54.0

■ Additional shelf

- In galvanised metal sheet thickness 2 mm with anti-fall edges.



2702.TAB	H [mm]	L [mm]	P [mm]	ΔΔ [kg]
2702.TAB	20	960	546	9.0



**CHOOSING YOUR ACCESSORIES**

	Folding Shelf	Vertical panel	Nuts and screws stand	Side cupboard	Anti-theftbar	Carry tray and holder	Pivoting shelf	Bottle holder	Document holder	Wooden worktop
 JET+3	JET.A16	JET.A6M3	JET.A7GXL	JET.A8GXL	JET.A9M	JET.A11	JET.A3	JET.A1GXL	JET.A2GXL	JET.A14M3
 JET+4	JET.A16	JET.A6M4	-	JET.A8GXL	JET.A9M	JET.A11	JET.A3	JET.A1GXL	JET.A2GXL	JET.A14M4
 JET+5	JET.A16	JET.A6M5	-	JET.A8GXL	JET.A9M	JET.A11	JET.A3	JET.A1GXL	JET.A2GXL	JET.A14M5
 JETXL	JET.A16	JET.A6M3	JET.A7GXL	JET.A8GXL	-	JET.A11	JET.A3	JET.A1GXL	JET.A2GXL	JET.A4XL
 CHRONO	JET.A16	-	-	JET.A8GXL	JET.A9XL	JET.A11	-	JET.A1GXL	JET.A2GXL	CHRONOA14M3
 ROLL	-	-	-	-	-	JET.A11	-	JET.A1GXL	JET.A2GXL	-

	Vise Support	Repair order holder	Cleaning accessories	Side shelf	Waste bin	Paper roll holder	Rubber matting	Sheet of tags	Partitions D60-130mm	Box Holder ToughSystem
 JET+3	JET.A17	JET.A13XL	JET.A5GXL	JET.A5-1GXL	JET.A5-2XL	JET.A5-3GXL	2600.A2 2600.M3	2225.A1	JET2.15 JET2.16	JET.A18
 JET+4	JET.A17	JET.A13XL	JET.A5GXL	JET.A5-1GXL	JET.A5-2XL	JET.A5-3GXL	2600.A2 2600.M4	2225.A1	JET2.15 JET2.16	JET.A18
 JET+5	JET.A17	JET.A13XL	JET.A5GXL	JET.A5-1GXL	JET.A5-2XL	JET.A5-3GXL	2600.A2 2600.M5	2225.A1	JET2.15 JET2.16	JET.A18
 JETXL	JET.A17	JET.A13XL	JET.A5GXL	JET.A5-1GXL	JET.A5-2XL	JET.A5-3GXL	2600.A2 2600.M3	2225.A1	JET2.15 JET2.16	JET.A18
 CHRONO	-	-	JET.A5GXL	JET.A5-1GXL	JET.A5-2XL	JET.A5-3GXL	2600.A2 2600.M3	2225.A1	JET2.15 JET2.16	JET.A18
 ROLL	-	-	-	-	JET.A5-2XL	JET.A5-3GXL	2600.A2 2600.M3	2225.A1	JET2.15 JET2.16	-



ROLLER CABINET ACCESSORIES

■ Cleaning kit

- Compartmented magnetic shelf + paper roll holder.
- Easy to unroll, blocks the paper between pulls.
- Supplied without paper.
- Dimensions: L.410 x D.300 x H.185 mm.
- Metal plate waste bin. Easy to empty
- Dimensions: L.380 x D.160 x H.250 mm.
- Compatible with JET+, JETXL, CHRONO+ and CHRONOXL roller cabinets.

🔗	H [mm]	L [mm]	P [mm]	ΔΔ [kg]
JET.A56XL	185	410	300	5.2



■ Compartmented magnetic shelf + paper roll holder

- Easy to unroll, blocks the paper between pulls.
- Supplied without paper.
- Compatible with JET+, JETXL, CHRONO+ and CHRONOXL roller cabinets.

🔗	H [mm]	L [mm]	P [mm]	ΔΔ [kg]
JET.A5-16XL	185	410	300	3.0



■ Waste bin

- Compatible with JET+, JETXL, CHRONO+ and CHRONOXL roller cabinets.

🔗	H [mm]	L [mm]	P [mm]	ΔΔ [kg]
JET.A5-2XL	250	380	160	2.2



■ Paper roll holder only

- Easy to unroll, blocks the paper between pulls.
- Supplied without paper.
- Compatible with JET+, JETXL, CHRONO+ and CHRONOXL roller cabinets.

🔗	L [mm]	P [mm]	ΔΔ [g]
JET.A5-36XL	340	150	600



■ Bottle holder

- For storing aerosols, cleaning products, sprays, etc.
- Compatible with JET+, JETXL, CHRONO+ and CHRONOXL roller cabinets.

🔗	H [mm]	L [mm]	P [mm]	ΔΔ [kg]
JET.A16XL	125	380	112	1.2



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ROLLER CABINET ACCESSORIES

document holder



- No aggressivity: shelved edges and protection gasket.
- Allows storage of a A4 format folder.
- Dimensions: L.340 x D.55 x H.315 mm.
- Compatible with JET+, JETXL, CHRONO+ and CHRONOXL roller cabinets.

FACOM	H [mm]	L [mm]	P [mm]	ΔΔ [g]
JET.A26XL	315	340	55	800

TOUGHSYSTEM box stand



- To keep your TOUGHSYSTEM boxes handy compatible with all boxes in the program.
- Can contain up to 4 boxes 16 cm high.
- The stand is supplied with 2 pairs of fasteners. Additional fasteners available as an option (Ref. BSYS.CKP).
- Easy and fast stand and box installation.
- Secures the boxes tight even when moving.

FACOM	Color	ΔΔ [kg]
JET.A18	Black 9004	7.30

Pair of fasteners



- Pair of fasteners, ideal to add a new box to your JET.A18 holder.
- Max load: 50 kg.

FACOM	H [mm]	L [mm]	P [mm]	Color	ΔΔ [kg]
BSYS.CKP	270	70	75	Black 9004	0.660

**Vice holder**

- Fit your vice on your worktop without damaging it or losing space.
- Simple and easy to use.
- Very resistant: multi-ply beech 23 mm thick.
- Compatible with JET+ roller cabinets.
- Vice not supplied.

	H [mm]	L [mm]	P [mm]	ΔΔ [kg]
JET.A17	20	200	510	3.10



**Folding tablet**

- Rugged metal tablet, folds to extend the working surface if necessary.
- Compatible with JET+, JETXL, CHRONO+ and CHRONO roller cabinets.
- Load capacity: 20 kg.
- Working surface: 36 x 45 cm.

	ΔΔ [kg]
JET.A16	5.10



**Pivoting shelf**

- For laptop computer reception + scriber function.
- Secured deposit thanks to large edges and possibility of locking.
- For JET+ and JETXL roller cabinet.

	H [mm]	L [mm]	P [mm]	ΔΔ [kg]
JET.A3	200	540	480	1.0



**Repair order holder**

- Work forms, technical data sheets are always handy.
- The A4 panel holder fitted with a clamp is fastened directly in the work surface with tubes.
- Compatible with JET+ and JETXL roller cabinets.

	ΔΔ [kg]
JET.A13XL	1.0



**XL side cabinet**

- For storage of long and/or valuable tools.
- Compatible with FACOM CKS system.
- Keylock.
- For JET+ and JETXL roller cabinet.

	H [mm]	L [mm]	P [mm]	ΔΔ [kg]
JET.A8GXL	685	380	85	7.0



ROLLER CABINET ACCESSORIES

Vertical panel for JET+3



- Vertical fastening panel for JET+3 roller cabinet.
- To fasten plans, procedures or tools (compatible with FACOM CKS system).
- Supplied with data sheet holder (folder rings, without sheet or tooling).



	H [mm]	L [mm]	P [mm]	ΔΔ [kg]
<b>JET.A6M3</b>	400	743	38	4.3

Vertical panel for JET+4



- Vertical fastening panel for JET+4 roller cabinet.
- To fasten plans, procedures or tools (compatible with FACOM CKS system).
- Supplied with data sheet holder (folder rings, without sheet or tooling).



	H [mm]	L [mm]	P [mm]	ΔΔ [kg]
<b>JET.A6M4</b>	400	932	38	9.0

Vertical panel for JET+5



- Vertical fastening panel for JET+5 roller cabinet.
- To fasten plans, procedures or tools (compatible with FACOM CKS system).
- Supplied with data sheet holder (folder rings, without sheet or tooling).



	H [mm]	L [mm]	P [mm]	ΔΔ [kg]
<b>JET.A6M5</b>	400	1123	38	10.5

XL nuts and screws panel



- Panel with 2 rows of tip-out bins for nuts and screws.
  - 1 row of 6 bins: 600 x 110 mm.
  - 1 row of 9 bins: 600 x 70 mm.
- Fasteners cannot fall out, even when moving the cabinet.
- For JET+ and JETXL roller cabinet.
- Tube: 755 mm.



	H [mm]	L [mm]	P [mm]	ΔΔ [kg]
<b>JET.A7GXL</b>	220	690	120	6.2

Wood worktop for JET+3



- Designed to be fitted on the aluminum worktop of JET+ roller cabinets.
  - Beech multiply worktop tinted with linseed oil
  - thickness 15 mm.
  - Screwed on
- Dimensions: L.500 x D.498 mm.



	L [mm]	P [mm]	ΔΔ [kg]
<b>JET.A14M3</b>	500	498	2.6

Wood worktop for JET+4

- Designed to be fitted on the aluminum worktop of JET+ roller cabinets:
  - Beech multiply worktop tinted with linseed oil - thickness 15 mm.
  - Screwed on.



Icon	L [mm]	P [mm]	ΔΔ [kg]
JET.A14M4	690	498	3.6



Wooden worktop for JET+5

- Designed to be fitted on the aluminum worktop of JET+ roller cabinets:
  - Beech multiply worktop tinted with linseed oil - thickness 15 mm.
  - Screwed on.



Icon	L [mm]	P [mm]	ΔΔ [kg]
JET.A14M5	880	498	4.6



Wooden worktop for CHRONO

- Fits in the worktop recess of roller cabinets CHRONO.M3A (thickness: 15 mm).
- Presentation: line-seed treated multi-ply beech.



Icon	L [mm]	P [mm]	ΔΔ [kg]
CHRONO.A14M3	560	460	4,540



JET+ Anti-theft bar

- In addition to central locking of drawers. Padlock clasp (padlock not supplied).
- Easy and fast positioning.
- Dissuasive and cosmetic.
- For JET+ roller cabinet.



Icon	H [mm]	L [mm]	P [mm]	ΔΔ [kg]
JET.A9M	795	120	25	4.0



JETXL anti-theft bar

- In addition to central locking of drawers. Locking by padlock (not supplied).
- Easy and fast positioning.
- Deterrent and elegant.
- For JET.XL roller cabinet
- Presentation: red colour (3020).



Icon	H [mm]	L [mm]	P [mm]	ΔΔ [kg]
JET.A9XL	880	120	110	4.0



ROLLER CABINET ACCESSORIES

▪ Pictogram plate



- Drawer organization and identification.
- Tag labels to be affixed to the drawer handles.



	$\Delta\Delta$ [g]
<b>2225.A1</b>	210

▪ Rubber matting M3



- Easy to cut.
- Dimensions: L.568 x D.419 mm.
- To line drawers.



	$\Delta\Delta$ [g]
<b>2600.A2</b>	483

▪ Foam mat dimensions M3 - M4 - M5



- Foam 3 mm thickness.
- To protect and line drawers.
- M3: dimensions (L. x W.): 568 x 418 mm.
- M4: dimensions (L. x W.): 758 x 418 mm.
- M5: dimensions (L. x W.): 948 x 418 mm.



	$\Delta\Delta$ [g]
<b>2600.M3</b>	483
<b>2600.M4</b>	500
<b>2600.M5</b>	520

▪ Drawer partitions



- galvanised metal partitions held by rubber pad:  
- 2 small drawer heights (H mm) for JET+, JETXL or CHRONOXL.



	H [mm]	$\Delta\Delta$ [g]
<b>JET2.15</b>	60	32
<b>JET2.16</b>	130	70

**Storage module for small components - 4 compartments**



- 4 compartments of 2 different sizes for organised storage of fasteners, lugs, rivets and gaskets.
- Compatible with BP.MBOXS boxes.

	Width l [mm]	L [mm]	ΔΔ [g]
<b>PL.S384</b>	188	107	136

**Storage module for small components - 12 compartments**



- 12 compartments of 3 different sizes for organised storage of fasteners, lugs, rivets and gaskets.
- Compatible with BP.MBOXL boxes.

	Width l [mm]	L [mm]	ΔΔ [g]
<b>PL.L384</b>	188	417	360

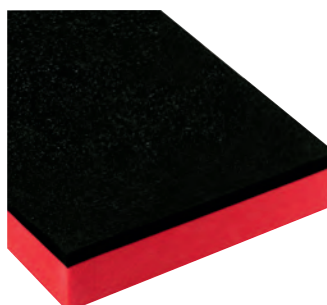
**Storage module for small components - 9 compartments**



- 9 compartments of 3 different sizes for organised storage of fasteners, lugs, rivets and gaskets.
- Compatible with BP.MBOXM boxes.

	Width l [mm]	L [mm]	ΔΔ [g]
<b>PL.M384</b>	188	417	275

**Foam trays 3-3 to be cut**



- 3 modules:
- High density dual color foam tray to be cut according to your needs.
- Dimensions: L.569 X D.420 mm.

	H [mm]	Width l [mm]	L [mm]	ΔΔ [g]
<b>PM.MOD3/3</b>	45	420	569	80

**ROLLER CABINET ACCESSORIES**

**Storage set for small components in foam tray**

- Compartments of different sizes for organised storage of fasteners, lugs, rivets and gaskets.



	H [mm]	Width l [mm]	L [mm]	ΔΔ [g]
<b>PM.384</b>	45	420	418	76



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## HOW SHOULD STORAGE TRAYS BE USED WITH OUR THERMOFORMED MODULES?

**INFORMATION**  
For XL modules (thermoformed and foam), storage trays are not necessary.

### Roller cabinets until 2005



### Roller cabinets from 2006



- If you have separable modules, remove the break-off part and fit your modules.
- If you have older non separable modules, just position them.

Add the PL.636 gutter at the front and back of your drawer.



### With separable modules

Fit your modules and the PL.655 tray to the right or left of your drawer.



### With older non separable modules

Install your modules, the PL.655 tray on the side and the PL.656 tray to the front or back of the drawer.



### Storage tray



- For securing modules and storing small tools and components.

PL.636

ΔΔ [g]  
150



Side storage tray for XL drawer

- For securing modules and storing small tools and components.
- Fitted to the right or left of the drawer.
- For JET+, JETXL, CHRONOXL drawer.



	$\Delta\Delta$ [g]
PL.655	56

Front storage tray for XL drawer

- For securing modules and storing small tools and components.
- Fitted to the front or back of the drawer.
- For JET+, JETXL, CHRONOXL drawer.



	$\Delta\Delta$ [g]
PL.656	98

Front storage tray for JET+M4 drawer

- For securing modules and storing small tools and components.
- Fitted to the front or back of the drawer.
- For JET+ drawer with 4 modules.



	$\Delta\Delta$ [g]
PL.656M4	98

Front storage tray for JET+M5 drawer

- For securing modules and storing small tools and components.
- Fitted to the front or back of the drawer.
- For JET+ drawer with 5 modules.



	$\Delta\Delta$ [g]
PL.656M5	98



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## JETLINE+ SYSTEM

**JETLINE+**

### More modularity

- Work, organize, share, and communicate.

### More space

- Multiple possibilities to maximize use of our space.

### More freedom

- Freely reorganize your workshop and create your ideal layout.

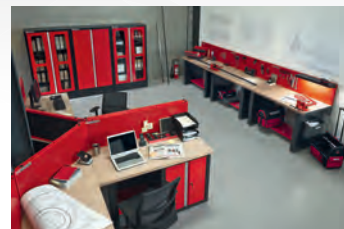
### More comfort

- A genuinely pleasant work place!



### Zero constraints with its self-supporting structure

- Imperatives such as water supplies, power supplies, thresholds, windows and doors cannot be moved.
- With its self-supporting structure, imagine your layout freely.
- Create star-shaped, back to back, U-shaped poles... the only limit is your imagination!

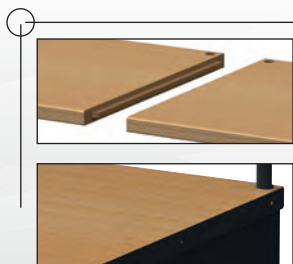


### All the small details make the difference



#### • High modularity

- Assembly kits available in two sizes: 400 and 800 mm.
- 1- For a half-element or a high unit.
  - 2- For 2 stacked elements.



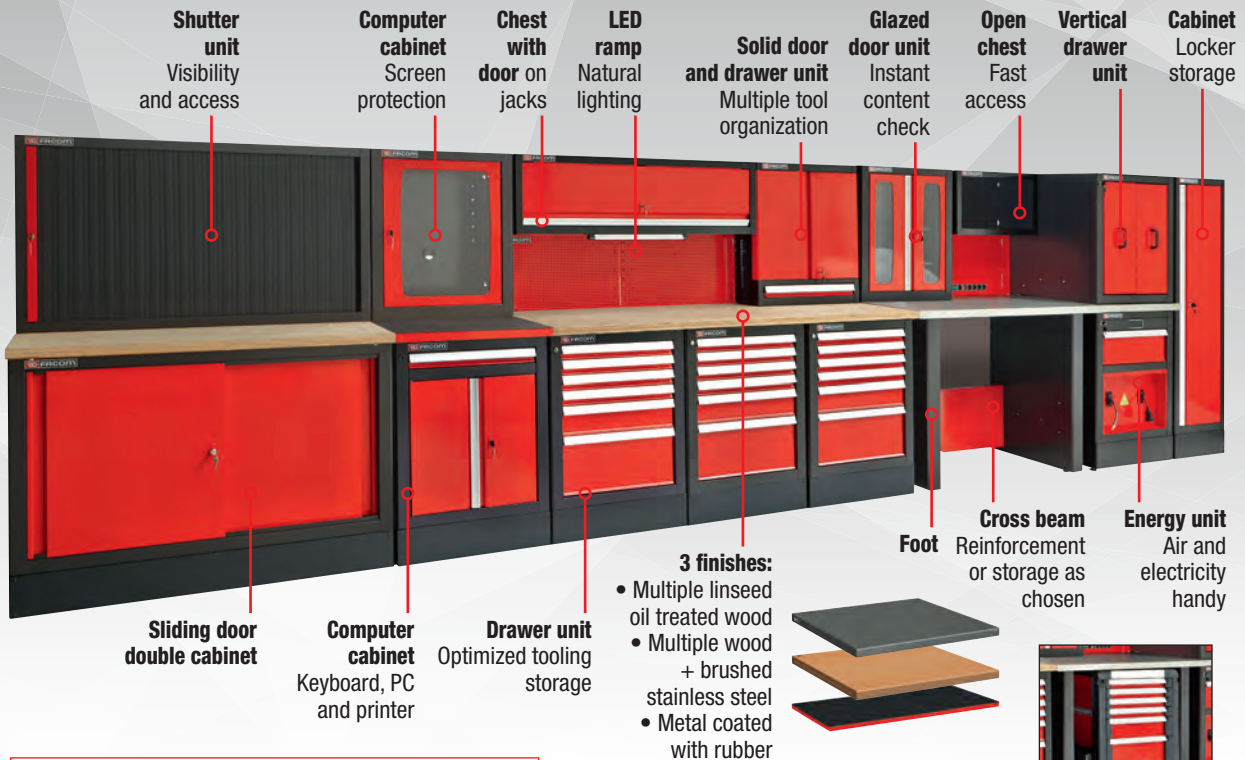
- **Perfect finish** with the new tray adjustment system and the finish cheek to be fastened at the top of the tray.



- **Trays pre-drilled** for passing the tubes. The units are fitted with jointed jacks for easy and fast adjustment and ensuring perfect stability.
- **Easy to use:** single key option upon request by means of interchangeable cylinders.

## JETLINE+ SYSTEM

Make your life easier by organizing and using all your space!



**A well-organized space:** a specific place for every object, no time wasted searching for them.

Your roller cabinet finally has its place under the worktop (in high version 1025 mm).

### A comfortable and organized work space, for genuinely pleasant work!



Just add a raising base to elevate to 1025 mm. Ideal for working standing up and optimize the organization space.

**It's up to you!**  
Design your perfect workshop...



**Our configurator**



Download the Jetline+ System Configurator 30 (Windows version) from our web site [www.facom.com](http://www.facom.com) and design your own customized work space.

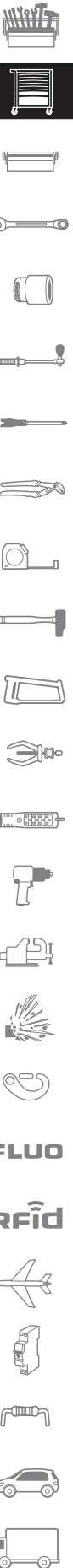
- Products in the range
- 2D view
- 3D view
- Your product list

FLASH THIS QR CODE FOR DIRECT ACCESS TO OUR MINI-SITE JETLINE+



#### Your customization

**A workshop in your own colour scheme**  
Extend customization further by choosing your furniture's colour scheme (RAL colours)



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BASE UNITS JETLINE+

Jetline+ base units - 6 drawers



- 4 drawers : 60 mm high = 12 modules.
- 1 drawer : 130 mm high = 3 modules.
- 1 drawer : 270 mm high.
- Drawer useful size: L.569 x D.421 x H.60 mm.
- Supplied with 3 sets of partitions for drawers 60 mm high and 1 set of partitions for drawers 130 mm high.
- Centralized locking, jointed keylock. Interchangeable lock.
- Fitted with 4 pivoting jacks for a perfect finishing.
- Overall dimensions: L722 x D701 x H810 (H985 mm with raising base JLS2-BASEMBS).




	H [mm]	L [mm]	P [mm]	Color	ΔΔ [kg]
<b>JLS2-MBS6T</b>	810	722	701	Black 9004 Red 3020	79.0

Jetline+ base units - 7 drawers



- 5 drawers : 60 mm high = 15 modules
- 1 drawer : 130 mm high = 3 modules
- 1 drawer : 270 mm high
- Drawer useful size: L.569 x D.421 x H.60 mm.
- Supplied with 3 sets of partitions for drawers 60 mm high and 1 set of partitions for drawers 130 mm high.
- Centralized locking, jointed keylock. Interchangeable lock.
- Fitted with 4 pivoting jacks for a perfect finishing.
- Overall dimensions: L722 x D701 x H810 (H985 mm with raising base JLS2-BASEMBS).




	H [mm]	L [mm]	P [mm]	Color	ΔΔ [kg]
<b>JLS2-MBS7T</b>	810	722	701	Black 9004 Red 3020	82.5

## JETLINE+ BASE UNIT WITH DRAWERS AND DOORS

### Jetline+ base unit, double 5 drawers

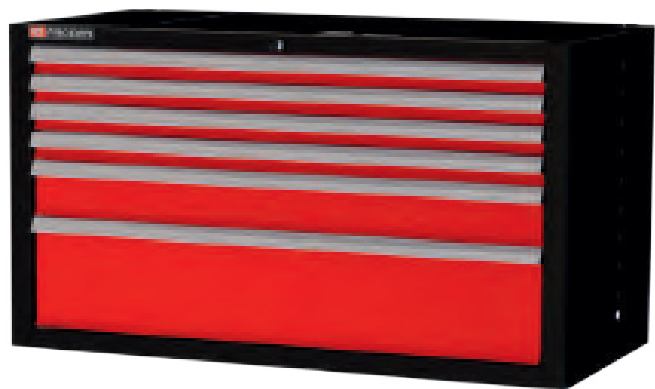
- 2 drawers 60 mm high = 12 modules + free space of 15 cm.
- 2 drawer 130 mm high = 12 modules + free space of 15 cm.
- 1 drawer 270 mm high.
- Useful size of the drawers: L. 1296 x D.421mm x H.60/130/200 mm.
- Supplied with 8 partitions for 60 mm drawers and 8 partitions for 130 mm drawer.
- Centralized keylock (interchangeable cylinder).
- Fitted with 4 jack-mounted swivel feet for perfect adjustment.
- Overall dimensions: L.1449 x D.701 x H.810 mm (H.985 mm with the JLS2-BASEMBD riser).




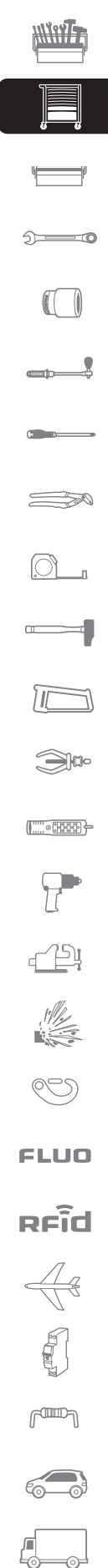
	H [mm]	L [mm]	P [mm]	Color	ΔΔ [kg]
<b>JLS2-MBD5T</b>	810	1449	701	Black 9004 Red 3020	132

### Jetline+ base unit, double 6 drawers

- 4 drawers 60 mm high = 24 modules + free space of 15 cm.
- 1 drawer 130 mm high = 6 modules + free space of 15 cm.
- 1 drawer 270 mm high.
- Useful size of the drawers: L. 1296 x D.421mm x H.60/130/200 mm.
- Supplied with 12 partitions for 60 mm drawers and 4 partitions for 130 mm drawer.
- Centralized keylock (interchangeable cylinder).
- Fitted with 4 jack-mounted swivel feet for perfect adjustment.
- Overall dimensions: L.1449 x D.701 x H.810 mm (H.985 mm with the JLS2-BASEMBD riser).



	H [mm]	L [mm]	P [mm]	Color	ΔΔ [kg]
<b>JLS2-MBD6T</b>	810	1449	701	Black 9004 Red 3020	132



BASE UNITS JETLINE+

Jetline+ base units - 2 vertical drawers

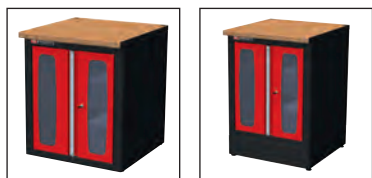


- 2 vertical drawers with perforated panels with square holes that can be used on either side.
- Flexible attachment of stored items thanks to a wide range of hooks. (see F13).
- Panels dimension 600 x 600 mm.
- Useful storage surface : 1,6 m2.
- Load resistance : 75 kg per drawer.
- Centralized locking system + interlock system to prevent multiple panels from being withdrawn.
- Fitted with 4 pivoting jacks for a perfect finishing.
- You can also stack 2 JLS2-MBSTV on, with a wooden top or a stainless top (metal top is forbidden).
- Dimensions : L722 x D701 x H 810 mm (H 985 mm with raising base JLS2-BASEMBS).



FACOM	H [mm]	L [mm]	P [mm]	Color	ΔΔ [kg]
<b>JLS2-MBS2TV</b>	810	722	701	Black 9004 Red 3020	70.0

Jetline+ base units glazed doors



- Transparent doors allow to quickly check contents and cleanless.
- 2 transparent swinging doors in plexiglas, thickness 3mm, mounted on invisible pin hinges offering a 110-degree opening. The doors are tested for 10,000 opening/closing cycles.
- 1 epoxy painted shelf adjustable in height (100 mm steps) withstanding 50 kg loads.
- Unit fitted with jack feet for an adjustment ensuring perfect stability regardless of the type of floor.
- Keylock, supplied with 2 keys, including 1 jointed. Interchangeable lock.
- Overall dimensions : L722 x D701 x H810 mm (H 985 mm with the raising base JLS2-BASEMBS).



FACOM	H [mm]	L [mm]	P [mm]	Color	ΔΔ [kg]
<b>JLS2-MBSPV</b>	810	722	701	Black 9004 Red 3020	55.7

▪ **Jetline+ base units full doors**

- 2 swinging doors , thickness 3mm, mounted on invisible pin hinges offering a 110-degree opening. The doors are tested for 10,000 opening/closing cycles.
- 1 epoxy painted shelf adjustable in height (100 mm steps) withstanding 50 kg loads.
- Unit fitted with jack feet for an adjustment ensuring perfect stability regardless of the type of floor.
- Keylock, supplied with 2 keys, including 1 jointed. Interchangeable lock
- Overall dimensions : L722 x D701 x H810 mm (H 985 mm with the raising base JLS2-BASEMBS).



	H [mm]	L [mm]	P [mm]	Color	ΔΔ [kg]
<b>JLS2-MBSPP</b>	810	722	701	Black 9004 Red 3020	57.5

▪ **Jetline+ base units double full doors**

- The double unit can be used for storing tools and/or items which are too long and bulky for standard units.
- With minimal door volumes, the sliding opening is perfect for small spaces.
- 2 metal sliding panels.
- 1 epoxy painted shelf adjustable in height (100 mm steps) withstanding 75 kg loads.
- Unit fitted with jack feet for an adjustment ensuring perfect stability regardless of the type of floor.
- Keylock, supplied with 2 keys, including 1 jointed. Interchangeable lock.
- Overall dimensions : L1449 x D701 x H810mm. (H985 mm with the raising base JLS2-BASEMBD).



	H [mm]	L [mm]	P [mm]	Color	ΔΔ [kg]
<b>JLS2-MBDDP</b>	810	1449	701	Black 9004 Red 3020	84.7



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BASE UNITS JETLINE+

Jetline+ base units computer station



Computer cabinets protect electronic equipment in dusty and dirty surroundings. Base unit for laptop, printer, keyboard, mouse.

- Lockable 60 mm keyboard or laptop drawer with full extension.
- Pull-out mouse shelf (can be positioned on right or left side).
- 2 swing-out doors.
- 1 adjustable pull-out shelf to receive a computer unit or printer.
- 1 power supply, consisting of a 6 SCHUKO sockets outlet with illuminated switch.
- Centralized locking system.
- Can be completed with the upper part JLS2-MHSPC. Use only metal worktops which are dedicated to this station (integrated holes for cables).
- Fitted with 4 jack feet for an adjustment ensuring perfect stability regardless of the type of floor.
- Overall Dimensions : L722 x D701 x H810 mm.  
(H985 mm with raising base JLS2-BASEMBS).



	H [mm]	L [mm]	P [mm]	Color	ΔΔ [kg]
JLS2-MBSPC	810	722	701	Black 9004 Red 3020	57.7

Jetline+ base units, technical unit



Upper part :

- Electrical duplex outlet allowing customers to install 3 sockets 45mm (Supplied without sockets) (including black covers).
- 1 drawer height 200 mm, fitted with a SCHUKO outlet (6 sockets) to recharge tools, lighting, mobile phone, laptop, etc

Lower part :

- Two 14 meters cable reels for compressed air and power supply roller guides for smooth cables extension and extraction.
- Quick release concealment panel to enclose and conceal the reels. Easy access to the reels.
- Cable management keeps everything tidy and meets the highest requirements.
- Centralized locking, jointed keylock. Interchangeable lock.
- Fitted with 4 pivoting jacks for a perfect finishing.
- Overall Dimensions : L722 x D701 x H810 mm  
(H 985 mm with the raising base JLS2-BASEMBS).



	H [mm]	L [mm]	P [mm]	Color	ΔΔ [kg]
JLS2-MBSEN	810	722	701	Black 9004 Red 3020	69.6



## Jetline+ raising base

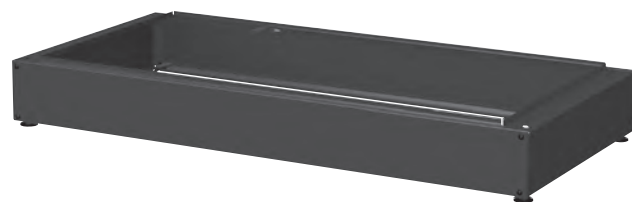
- To increase the height from 850 to 1025 mm (including 40 mm worktop).
- Epoxy painted sheet steel (thickness 12/10th).
- Has to be fitted with the 4 pivoting jacks delivered with the base unit for a perfect finishing.




	H [mm]	L [mm]	P [mm]	Color	$\Delta\Delta$ [kg]
JLS2-BASEMBS	180	720	699	Black 9004	15.5

## Jetline+ double unit

- To increase the height from 850 to 1025 mm (including 40 mm worktop).
- Epoxy painted sheet steel (thickness 12/10th).
- Has to be fitted with the 4 pivoting jacks delivered with the base unit for a perfect finishing.



	H [mm]	L [mm]	P [mm]	Color	$\Delta\Delta$ [kg]
JLS2-BASEMBD	180	1447	699	Black 9004	19.0



TOP UNITS JETLINE+

Jetline+ top units single glazed doors



- Transparent doors allow you to quickly check contents and cleanliness.
- 2 transparent swinging doors in plexiglass, thickness 3 mm, mounted on invisible pin hinges offering a 110-degree opening.
- The doors are tested for 10,000 opening/closing cycles.
- 2 epoxy painted shelf adjustable in height (100 mm steps) withstanding 20 kg loads.
- Keylock, supplied with 2 keys, including 1 jointed. Interchangeable lock.
- Easy and fast fastening on a base unit using a "JLS2-TUBESUP 400" fitting kit.



FACOM	H [mm]	L [mm]	P [mm]	Color	ΔΔ [kg]
<b>JLS2-MHSPV</b>	810	719	278	Black 9004 Red 3020	26.0

Jetline+ top units single full doors



- 2 swinging doors, mounted on invisible pin hinges offering a 110-degree opening. The doors are tested for 10,000 opening/closing cycles.
- 2 epoxy painted shelf adjustable in height (100 mm steps) withstanding 20 kg loads.
- Keylock, supplied with 2 keys, including 1 jointed.
- Easy and fast fastening on a low unit thanks to the "KIT-TUBES" or "KIT-TUBESUP" fitting kit.

FACOM	H [mm]	L [mm]	P [mm]	Color	ΔΔ [kg]
<b>JLS2-MHSPP</b>	810	719	278	Black 9004 Red 3020	27.5

■ **Jetline+ top unit single full doors and 1 drawer**

- Cabinet with vertical hanging and drawer sections.
- Vertical fastening part : Storage surface area: 1 m<sup>2</sup>. The base and sides of the cabinet, door liners, are perforated for hanging tools using the CKS system.
- Opening at 180° of the 2 swinging doors for maximum visibility and accessibility.
- Drawer section : 1 drawer with heavy-duty ball-bearing slides, 100% opening. Drawer useful dimensions : L.569 x H.60 x D.210 mm.
- Centralised locking of the doors and drawer by keylock.
- Easy and fast fastening on a base unit using a "JLS2-TUBESUP 400" fitting Kit.



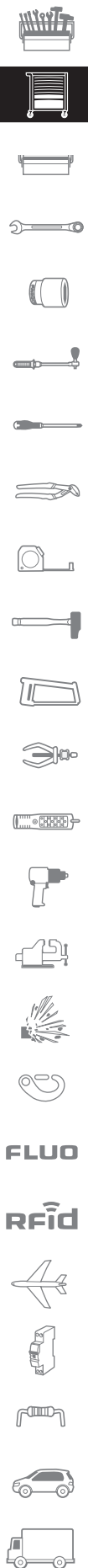
	H [mm]	L [mm]	P [mm]	Color	ΔΔ [kg]
<b>JLS2-2201</b>	810	719	278	Black 9004 Red 3020	31.0

■ **Jetline+ top unit computer station**

- Top unit dedicated to the protection of your monitor.
- 1 swinging door with viewing window made of 3 mm plexiglas for 23 inches flat-screen monitor.
  - 1 adjustable shelf - epoxy painted.
  - Can be installed on base unit JLS2-MBSPC to create a full computer station. In this case use only the metal worktop (JLS2-PM1).
  - Easy and fast fastening on a base unit using a "JLS2-TUBESUP 400" fitting kit.



	H [mm]	L [mm]	P [mm]	Color	ΔΔ [kg]
<b>JLS2-MHSPC</b>	810	719	278	Black 9004 Red 3020	22.7




TOP UNITS JETLINE+

Jetline+ top units single glazed doors



- Transparent doors allow you to quickly check contents and cleanliness.
- 2 transparent swinging doors in plexiglass, thickness 3 mm, mounted on invisible pin hinges offering a 110-degree opening.
- The doors are tested for 10,000 opening/closing cycles.
- 2 epoxy painted shelf adjustable in height (100 mm steps) withstanding 20 kg loads.
- Keylock, supplied with 2 keys, including 1 jointed. Interchangeable lock.
- Easy and fast fastening on a base unit using a "JLS2-TUBESUP 400" fitting kit.

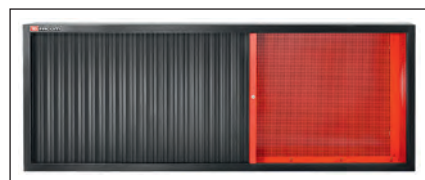



	H [mm]	L [mm]	P [mm]	Color	$\Delta\Delta$ [kg]
JLS2-MHDR	810	719	278	Black 9004 Red 3020	26.0

Jetline+ top units single full doors



- 2 swinging doors, mounted on invisible pin hinges offering a 110-degree opening. The doors are tested for 10,000 opening/closing cycles.
- 2 epoxy painted shelf adjustable in height (100 mm steps) withstanding 20 kg loads.
- Keylock, supplied with 2 keys, including 1 jointed.
- Easy and fast fastening on a low unit thanks to the "KIT-TUBES" or "KIT-TUBESUP" fitting kit.



	H [mm]	L [mm]	P [mm]	Color	$\Delta\Delta$ [kg]
JLS2-MHTR	810	719	278	Black 9004 Red 3020	27.5

▪ **Jetline+ single open chest**

- Open box for quick access. Ideal for storage of documents and/or consumables.
- Acceptable load 30 kg.
- Keylock.
- Easy and fast fastening on a base unit thanks to the JLS2- TUBESUP(800 ou 400) fitting kit.



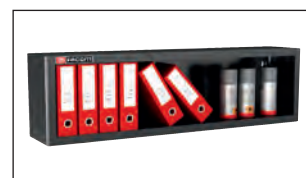
FACOM	H [mm]	L [mm]	P [mm]	Color	ΔΔ [kg]
<b>JLS2-CHS</b>	405	719	278	Black 9004	8.5

▪ **Jetline+ double open chest**

- Open box for quick access. Ideal for storage of documents and/or consumables.
- Acceptable load 50 kg.
- Keylock.
- Easy and fast fastening on a base unit thanks to the JLS2- TUBESUP. (800 ou 400) fitting kit.



FACOM	H [mm]	L [mm]	P [mm]	Color	ΔΔ [kg]
<b>JLS2-CHD</b>	405	1446	278	Black 9004	14.0




TOP UNITS JETLINE+

Jetline+ single full door chest




- Ideal for storage of documents and/or consumables.
- Metal sheet lift door fitted with gas struts tested for 10,000 opening/closing cycles.
- Acceptable load 30 kg.
- Centralized locking, jointed keylock. Interchangeable lock.
- Easy and fast fastening on a base unit thanks to the JLS2- TUBESUP (800 or 400) fitting kit.

	H [mm]	L [mm]	P [mm]	Color	$\Delta\Delta$ [kg]
JLS2-CHSPP	405	719	278	Black 9004 Red 3020	13.5

Jetline+ double full door chest



- Ideal for storage of documents and/or consumables.
- Metal sheet lift door fitted with gas struts tested for 10,000 opening/closing cycles.
- Acceptable load 50 kg.
- Centralized locking, jointed keylock. Interchangeable lock
- Easy and fast fastening on a base unit thanks to the JLS2- TUBESUP (800 or 400) fitting kit.

	H [mm]	L [mm]	P [mm]	Color	$\Delta\Delta$ [kg]
JLS2-CHDPP	405	1446	278	Black 9004 Red 3020	19.0

## STORAGE CABINETS JETLINE+

### Jetline+ one full door

- Low width for restricted spaces.
- For use as standard cabinet or as clothes locker.
- 1 swinging door, mounted on invisible pin hinges offering a 110-degree opening. The doors are tested for 10,000 opening/closing cycles.
- 3 epoxy painted shelves adjustable in height (100mm steps) withstanding 35 kg loads.
- 1 wardrobe bar for use as locker.
- Keylock, 2 points top and bottom.
- Overall dimensions : L500 x D509 x H1835 mm (feet 169 mm).



	H [mm]	L [mm]	P [mm]	Color	$\Delta\Delta$ [kg]
JLS2-A500PP	1835	500	509	Black 9004 Red 3020	70.0

### Jetline+ 2 full doors

- An indispensable cabinet for organized and effective storage of all tools and consumables.
- Swinging doors mounted on invisible pin hinges offering a 110-degree opening.
- The doors are tested for 10,000 opening/closing cycles.
- 3 epoxy painted shelves adjustable in height (100 mm steps) withstanding 75 kg loads.
- Keylock, 2 points top and bottom.
- Overall dimensions : L1000 x D509 x H1835 mm (feet 169 mm).



	H [mm]	L [mm]	P [mm]	Color	$\Delta\Delta$ [kg]
JLS2-A1000PP	1835	1000	509	Black 9004 Red 3020	102.0



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STORAGE CABINETS JETLINE+

Jetline+ 2 glazed doors

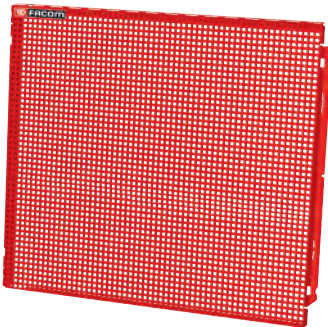


- Transparent doors allow you to quickly check contents and cleanliness.
- 2 transparent swinging doors in Plexiglas, thickness 3 mm, mounted on invisible pin hinges offering a 110-degree opening.
- The doors are tested for 10,000 opening/closing cycles.
- 3 epoxy painted shelves adjustable in height (100 mm steps) withstanding 75 kg loads.
- Keylock, 2 points top and bottom.
- Overall dimensions : L500 x D509 x H1835 mm (feet 169 mm).

🔗	H [mm]	L [mm]	P [mm]	Color	ΔΔ [kg]
JLS2-A1000PV	1835	1000	509	Black 9004 Red 3020	95.0

FITTING PANELS JETLINE+

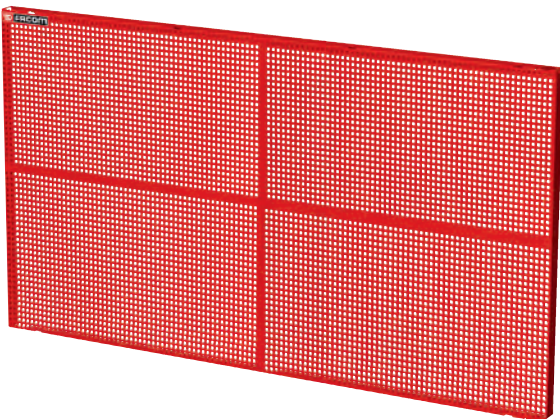
Jetline+ panels (800 mm) - L 724,5 mm



- Perforated panel: 6 x 6 mm in steps of 12 mm.
- Fixing of tools using the CKS range of hooks.
- Stacking of 2 half-panels possible.
- Made of Epoxy painted sheet steel (thickness 12/10ths)
- Colour red 3020.

🔗	H [mm]	L [mm]	P [mm]	Color	ΔΔ [kg]
JLS2-PAV1	805	724.5	45	Red 3020	5.6

Jetline+ panel (800 mm) - L.1452 mm

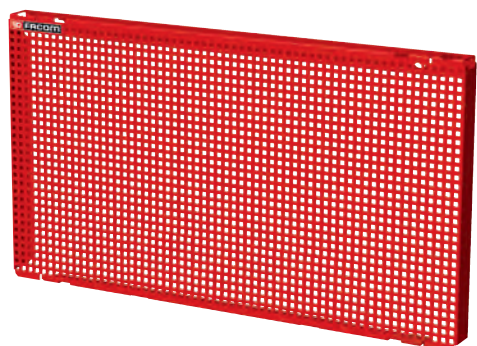


- Perforated panel: 6 x 6 mm in steps of 12 mm.
- Fixing of tools using the CKS range of hooks.
- Stacking of 2 half-panels possible.
- Made of Epoxy painted sheet steel (thickness 12/10ths)
- Colour red 3020.

🔗	H [mm]	L [mm]	P [mm]	Color	ΔΔ [kg]
JLS2-PAV2	805	1452	45	Red 3020	10.6



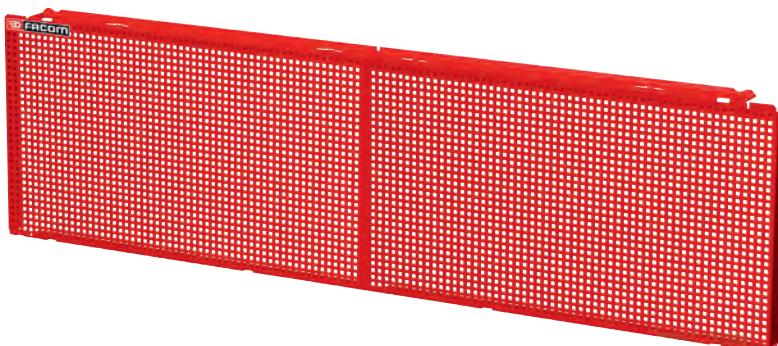
▪ **Jetline+ half panels (400 mm) - L.724,5 mm**



- Perforated panel: 6 x 6 mm in steps of 12 mm.
- Fixing of tools using the CKS range of hooks.
- Stacking of 2 half-panels possible.
- Made of Epoxy painted sheet steel (thickness 12/10ths).
- Colour red 3020.

Icon	H [mm]	L [mm]	P [mm]	Color	ΔΔ [kg]
JLS2-PPAV1	403	724.5	45	Red 3020	3.1

▪ **Jetline+ half panels (400 mm) - L.1452 mm**



- Perforated panel: 6 x 6 mm in steps of 12 mm.
- Fixing of tools using the CKS range of hooks.
- Stacking of 2 half-panels possible.
- Made of Epoxy painted sheet steel (thickness 12/10ths).
- Colour red 3020.

Icon	H [mm]	L [mm]	P [mm]	Color	ΔΔ [kg]
JLS2-PPAV2	403	1452	45	Red 3020	6.2

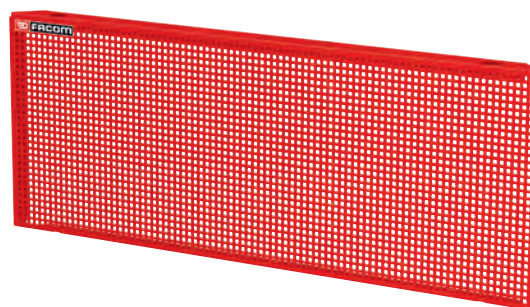
▪ **Jetline+ half panels (400 mm)**



- Perforated panel: 6 x 6 mm in steps of 12 mm.
- Fixing of tools using the CKS range of hooks.
- Stacking of 2 half-panels possible.
- Made of Epoxy painted sheet steel (thickness 12/10ths)
- Colour red 3020.
- Fitted with a block of 6 SCHUKO sockets with on-off switch.

Icon	H [mm]	L [mm]	P [mm]	Color	ΔΔ [kg]
JLS2-PPAV1ELEC	403	724.5	45	Red 3020	4.1

▪ **Jetline+ corner half panels (400mm)**



- Perforated panel: 6 x 6 mm in steps of 12 mm.
- Fixing of tools using the CKS range of hooks.
- Made of Epoxy painted sheet steel (thickness 12/10ths)
- Colour red 3020.
- Stacking of 2 half-panels possible.

Icon	H [mm]	L [mm]	P [mm]	Color	ΔΔ [kg]
JLS2-PPAVA	403	1036	45	Red 3020	4.4



WOODEN WORKTOPS JETLINE+

Jetline+ wooden worktop - L 727 mm



- Wooden panel made of multi-ply beech.
- Thickness 40 mm for strength and durability.
- Linseed oil treatment for improved resistance to liquids and easy maintenance.
- Fast and easy assembly thanks to pre-drilled metallic inserts positions.
- Load resistance : 500 kg pour JLS2-PB1.

	H [mm]	L [mm]	P [mm]	ΔΔ [kg]
<b>JLS2-PB1</b>	40	727	750	17.9

Jetline+ wooden worktop - L 1455 mm



- Wooden panel made of multi-ply beech.
- Thickness 40 mm for strength and durability.
- Linseed oil treatment for improved resistance to liquids and easy maintenance.
- Fast and easy assembly thanks to pre-drilled metallic inserts positions.
- Load resistance : 1 Tonne pour JLS2-PB2.

	H [mm]	L [mm]	P [mm]	ΔΔ [kg]
<b>JLS2-PB2</b>	40	1455	750	35.2

Jetline+ wooden worktop - L 2182 mm



- Wooden panel made of multi-ply beech.
- Thickness 40 mm for strength and durability.
- Linseed oil treatment for improved resistance to liquids and easy maintenance.
- Fast and easy assembly thanks to pre-drilled metallic inserts positions.
- Load resistance : 1 Tonne pour JLS2-PB3.

	H [mm]	L [mm]	P [mm]	ΔΔ [kg]
<b>JLS2-PB3</b>	40	2182	750	52.7

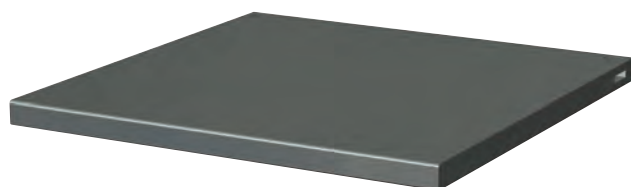
Jetline+ corner worktop



- Wooden panel made of multi-ply beech.
- Thickness 40 mm for strength and durability.
- Linseed oil treatment for improved resistance to liquids and easy maintenance.
- Fast and easy assembly thanks to pre-drilled metallic inserts positions.
- Load resistance : 100 kg.

	H [mm]	L [mm]	P [mm]	ΔΔ [kg]
<b>JLS2-PBA</b>	40	750	750	8.6

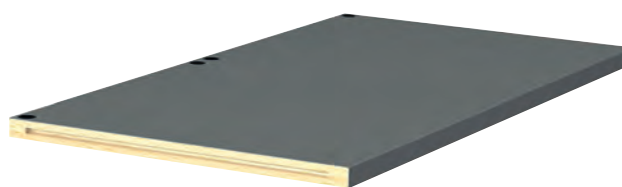
Jetline+ wooden and stainless worktop corner



- Panel made of multi-ply beech of thickness 40 mm covered with 10/10th 304L brushed stainless steel for improved impact and heat resistance  
KEY POINTS (edge also covered - painted metal cover for the sides). Sides will be protected by a finishing painted metal sheet.
- Fast and easy assembly thanks to pre-drilled metallic inserts positions.
- Capable of supporting loads: 500 kg.

	H [mm]	L [mm]	P [mm]	ΔΔ [kg]
JLS2-PBST1	40	727	805	22.6

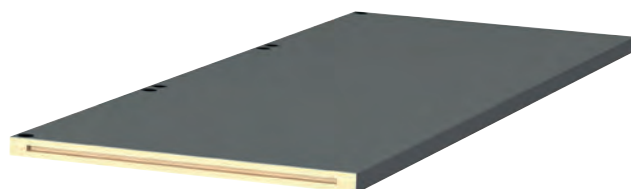
Jetline+ wooden and stainless worktop, 1455 mm



- Panel made of multi-ply beech of thickness 40 mm covered with 10/10th 304L brushed stainless steel for improved impact and heat resistance  
KEY POINTS (edge also covered - painted metal cover for the sides). Sides will be protected by a finishing painted metal sheet.
- Fast and easy assembly thanks to pre-drilled metallic inserts positions.
- Capable of supporting loads: 1 Ton.

	H [mm]	L [mm]	P [mm]	ΔΔ [kg]
JLS2-PBST2	40	1455	750	44.5

Jetline+ wooden and stainless worktop, 2182 mm



- Panel made of multi-ply beech of thickness 40 mm covered with 10/10th 304L brushed stainless steel for improved impact and heat resistance  
KEY POINTS (edge also covered - painted metal cover for the sides). Sides will be protected by a finishing painted metal sheet.
- Fast and easy assembly thanks to pre-drilled metallic inserts positions.
- Capable of supporting loads: 1 Ton.

	H [mm]	L [mm]	P [mm]	ΔΔ [kg]
JLS2-PBST3	40	2182	750	66.6

Jetline+ corner workshop



- Panel made of multi-ply beech of thickness 40 mm covered with 10/10th 304L brushed stainless steel for improved impact and heat resistance  
KEY POINTS (edge also covered - painted metal cover for the sides). Sides will be protected by a finishing painted metal sheet.
- Fast and easy assembly thanks to pre-drilled metallic inserts positions.
- Capable of supporting loads: 100 kg.

	H [mm]	L [mm]	P [mm]	ΔΔ [kg]
JLS2-PBAST	40	750	750	10.6



WOODEN WORKTOPS JETLINE+

Jetline+ metal worktop, 727 mm



- Metal panel covered with a non slipping rubber mat.
- Perfect for the computer station, the worktop is integrating dedicated holes for cables. When you are using the computer unit JLS2-MBSPC alone (lower part), you can install your screen, without threads laying around. When you combine the base unit JLS2-MBSPC and the monitor cabinet JLS2-MHSPC, the passage of cables is done directly and discreetly.
- Epoxy painted (red RAL 3020).
- Fast and easy assembly.

	H [mm]	L [mm]	P [mm]	Color	ΔΔ [kg]
JLS2-PM1	40	727	750	Red 3020	10.0

Jetline+ metal worktop, 1455 mm



- Metal panel covered with a non slipping rubber mat.
- Perfect for the computer station, the worktop is integrating dedicated holes for cables. When you are using the computer unit JLS2-MBSPC alone (lower part), you can install your screen, without threads laying around. When you combine the base unit JLS2-MBSPC and the monitor cabinet JLS2-MHSPC, the passage of cables is done directly and discreetly.
- Epoxy painted (red RAL 3020).
- Fast and easy assembly.
- Capable of supporting loads: 250 kg.

	H [mm]	L [mm]	P [mm]	Color	ΔΔ [kg]
JLS2-PM2	40	1455	750	Red 3020	21.0

FEET - CROSS BEAMS JETLINE+

Jetline+ feet, 850 mm



- Foot made of Epoxy painted sheet steel (thickness 12/10ths).
- Equipped with feet with jack for adjustment giving complete stability, irrespective of the type of floor.

	H [mm]	L [mm]	P [mm]	Color	ΔΔ [kg]
JLS2-PSB	810	100	650	Black 9004	15.5

Jetline+ feet, 1025 mm



- Foot made of Epoxy painted sheet steel (thickness 12/10ths).
- Equipped with feet with jack for adjustment giving complete stability, irrespective of the type of floor.

	H [mm]	L [mm]	P [mm]	Color	ΔΔ [kg]
JLS2-PSH	985	100	650	Black 9004	19.0



FITTING KITS - ACCESSORIES JETLINE+

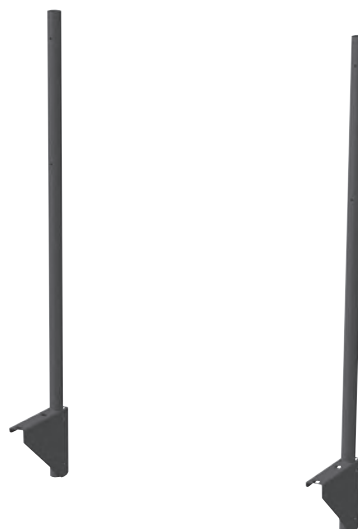
Jetline+ Fitting kits (400mm)



- JLS2-TUBESUP are made of 2 epoxy painted metallic tubes with fitting system under worktop.
- Dimensions : diameter 30 mm / lenght : 585 mm.

Icon	L [mm]	P [mm]	Color	ΔΔ [kg]
JLS2-TUBESUP400	585	30	Black 9004	2.0

Jetline+ Fitting kits (800mm)



- JLS2-TUBESUP are made of 2 epoxy painted metallic tubes with fitting system under worktop.
- Dimensions : diameter 30 mm / lenght : 585 - 990 mm.

Icon	L [mm]	P [mm]	Color	ΔΔ [kg]
JLS2-TUBESUP800	990	30	Black 9004	2.8

Jetline+ key



- Only one key for all your units Jetline+
- Interchangeable lock – Easy and fast to install.
- This option is free if you asked for it when you order your furniture. Otherwise, you will need to order the barrel in spare part.

Icon	ΔΔ [g]
JLS2-1KEY	200

Jetline+ lighting



- Rampe LED.
- 18w – 1150 LUMEN.
- 30,000 hours.
- Natural Light.
- Possible to connect few banks together.

Icon	H [mm]	L [mm]	P [mm]	ΔΔ [g]
JLS2-LIGHT	27	584	42	600

Jetline+



- This metal support enables you to fix your lighting directly onto a verticalhooking panel (JLS2-PAV1, PAV2, ...).
- Epoxy painted steel black 9004.

	H [mm]	Width l [mm]	L [mm]	ΔΔ [kg]
JLS2-LIGHTSUP	73	170	722	2.2

Jetline+ cables channel



- Made of galvanized steel. Used to hold cables making them discrete. Easy fitting by screws at the back at the worktop.

	H [mm]	Width l [mm]	L [mm]	ΔΔ [g]
JLS2-TC	35	40	727	100

Shelf for A500 cabinets



- Metal sheet shelf and fastening kit.

	ΔΔ [kg]
JLS2-A500PP.03	2.65

Shelf for A1000 cabinets



- Metal sheet shelf and fastening kit.

	ΔΔ [kg]
A1000PP.04	5.1



JETLINE+ ASSEMBLY KIT AND ACCESSORIES

Single shelf for MBS low units



- Metal sheet shelf and fastening kit.

	$\Delta\Delta$ [kg]
JLS2-MBSPP.04	3.192

Single shelf for MHS high units



- Metal sheet shelf and fastening kit.

	$\Delta\Delta$ [kg]
JLS2-MHSPP.01	1.755

Interchangeable cylinder



	$\Delta\Delta$ [kg]
JLS2.02	0.200

Lock for A1000, A500 cabinets and MBS furniture units



- For cabinets A1000 and A500.
- For base units full doors JLS2-MBSPP, MBSPV.
- Cylinder + 2 keys.

	$\Delta\Delta$ [kg]
JLS2-A1000PP.05	0.200

Lock for MBS Drawer units



- Cylinder + 2 keys.

	$\Delta\Delta$ [kg]
JLS2-MBS.01	0.200

Lock for MBD base units



- Cylinder + 2 keys.

	$\Delta\Delta$ [kg]
JLS2-MBDPP.06	0.200

Shutter cabinet lock

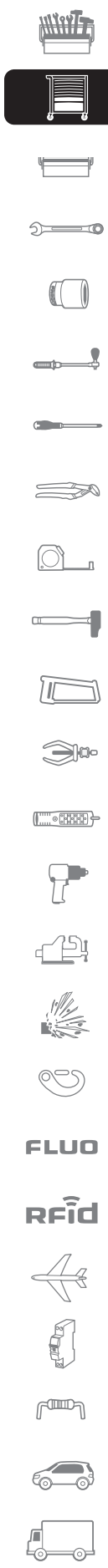


- For cabinets JLS2-MHDR and JLS2-MHTR.
- Cylinder + 2 keys.

	$\Delta\Delta$ [kg]
JLS2-MHDR.06	0.200



HEAVY-DUTY WORKBENCHES



■ Heavy-duty workbench 2182 mm - 7 drawers - wooden worktop - low version



- Description:
- One 7-drawer unit JLS2-MBS7T:
  - 5 drawers 60 mm high, 1 drawer 130 mm high, 1 drawer 200 mm high.
  - Drawer useful size: L.569 x D.421 mm.
  - Single keylock.
  - Fitted with 4 jack-mounted swivel feet for perfect adjustment.
  - Overall dimensions: L.722 x D.701 x H.810 mm.
- 1 JLS2-PSB foot:
  - Foot made of epoxy painted sheet steel (thickness 12/10ths).
  - Fitted with jack-mounted swivel feet for adjustment providing complete stability irrespective of the type of floor.
  - Dimensions: L.100 mm x H.810 mm x D.650 mm.
  - Colour black 9004.
- A wooden worktop JLS2-PB3:
  - Depth 750 mm, thickness 40 mm ensuring resistance and durability.
  - Linseed oil treatment for improved resistance to liquids and ease of maintenance. Capable of supporting loads: 1 ton.
- A JLS2-TRAB3 cross-beam:
  - Multifunction cross beam: connecting, reinforcement and storage space, 2 possible positions: horizontal or vertical.
  - Made of epoxy painted sheet steel (thickness 12/10ths).



Icon	H [mm]	L [mm]	P [mm]	Color	ΔΔ [kg]
JLS2-2MW7DL	850	2182	750	Red 3020 Black 9004	158.1

HEAVY-DUTY WORKBENCHES

Heavy-duty workbench 2182 mm - 7 drawers - stainless steel worktop - low version



- Description:
- One 7-drawer unit JLS2-MBS7T:
  - 5 drawers 60 mm high, 1 drawer 130 mm high, 1 drawer 200 mm high.
  - Drawer useful size: L.569 x D.421 mm
  - Centralized keylock
  - Fitted with 4 jack-mounted swivel feet for perfect adjustment.
  - Overall dimensions: L.722 x D.701 x H.810 mm
- 1 foot JLS2-PSB:
  - Foot made of epoxy painted sheet steel (thickness 12/10ths).
  - Fitted with jack-mounted swivel feet for adjustment providing complete stability irrespective of the type of floor.
  - Dimensions: L.100 mm x H.810 mm x D.650 mm.
  - Colour black 9004.
- A JLS2-PBST3 worktop:
  - Panel made of multi-ply beech of thickness 40 mm covered with 10/10th 304 L brushed stainless steel for improved impact and heat resistance (edge also covered - painted metal cover for the sides). Sides will be protected by a finishing painted metal sheet.
  - Fast and easy assembly thanks to pre-drilled metallic inserts positions. Capable of supporting loads: 1 ton.
- A JLS2-TRAB3 cross-beam
  - Multifunction cross beam: connecting, reinforcement and storage space, 2 possible positions: horizontal or vertical.
  - Made of epoxy painted sheet steel (thickness 12/10ths).

	H [mm]	L [mm]	P [mm]	Color	ΔΔ [kg]
JLS2-2MS7DL	850	2182	750	Red 3020 Black 9004	172

Heavy-duty workbench 2182 mm - 7 drawers - wooden worktop - low version and shutter cabinet



- Workstation, made of a workbench and a shutter cabinet:
- Workbench JLS2-2MW7DL.
- Cabinet JLS2-MHTR.
- The vertical hook panels provide high visibility and direct access to the tools.

	Color	ΔΔ [kg]
JLS2-2MW7DCL	Red 3020 Black 9004	190,8

■ Heavy-duty workbench 2182 mm - 13 drawers - stainless steel worktop - low version



- Description:
- One 6-drawer unit JLS2-MBS6T:
  - 4 drawers 60 mm high, 1 drawer 130 mm high, 1 drawer 270 mm high.
- One 7-drawer unit JLS2-MBS7T:
  - 5 drawers 60 mm high, 1 drawer 130 mm high, 1 drawer 200 mm high.
  - Drawer useful size: L.569 x D.421 mm.
  - Single keylock.
  - Fitted with 4 jack-mounted swivel feet for perfect adjustment.
  - Overall dimensions: L.722 x D.701 x H.810 mm.
- 1 JLS2-PSB foot:
  - Foot made of epoxy painted sheet steel (thickness 12/10ths).
  - Fitted with jack-mounted swivel feet for adjustment providing complete stability irrespective of the type of floor.
  - Dimensions: L.100 mm x H.810 mm x D.650 mm.
  - Colour black 9004.
- One JLS2-PBST3 worktop:
  - Panel made of multi-ply beech of thickness 40 mm covered with 10/10th 304 L brushed stainless steel for improved impact and heat resistance (edge also covered - painted metal cover for the sides). Sides will be protected by a finishing painted metal sheet.
  - Fast and easy assembly thanks to pre-drilled metallic inserts positions. Capable of supporting loads: 1 ton.
- A JLS2-TRBB3 cross-beam
  - Multifunction cross beam: connecting, reinforcement and storage space, 2 possible positions: horizontal or vertical.
  - Made of epoxy painted sheet steel (thickness 12/10ths).



Icon	H [mm]	L [mm]	P [mm]	Color	ΔΔ [kg]
JLS2-2MS13DL	850	2182	750	Red 3020 Black 9004	232.5

■ Heavy-duty workbench 2182 m - 13 drawers - wooden worktop - low version



- Description:
- One 6-drawer unit JLS2-MBS6T:
  - 4 drawers 60 mm high, 1 drawer 130 mm high, 1 drawer 270 mm high.
- One 7-drawer unit JLS2-MBS7T:
  - 5 drawers 60 mm high, 1 drawer 130 mm high, 1 drawer 200 mm high.
  - Drawer useful size: L.569 x D.421 mm.
  - Single keylock.
  - Fitted with 4 jack-mounted swivel feet for perfect adjustment.
  - Overall dimensions: L.722 x D.701 x H.810 mm.
- 1 JLS2-PSB foot:
  - Foot made of epoxy painted sheet steel (thickness 12/10ths).
  - Fitted with jack-mounted swivel feet for adjustment providing complete stability irrespective of the type of floor.
  - Dimensions: L.100 mm x H.810 mm x D.650 mm.
  - Colour black 9004.
- A JLS2-PB3 wooden worktop:
  - Depth 750 mm, thickness 40 mm ensuring resistance and durability.
  - Linseed oil treatment for improved resistance to liquids and ease of maintenance. Capable of supporting loads: 1 ton.
- A JLS2-TRBB3 cross-beam:
  - Multifunction cross beam: connecting, reinforcement and storage space, 2 possible positions: horizontal or vertical.
  - Made of epoxy painted sheet steel (thickness 12/10ths).



Icon	H [mm]	L [mm]	P [mm]	Color	ΔΔ [kg]
JLS2-2MW13DL	850	2182	750	Red 3020 Black 9004	218.6



HEAVY-DUTY WORKBENCHES

Heavy-duty workbench 2182mm - 7 drawers - stainless steel or wooden worktop - high version



JLS2-2MW7DH



JLS2-2MS7DH

- Description:
- One 7-drawer unit JLS2-MBS7T:
  - 5 drawers 60 mm high, 1 drawer 130 mm high, 1 drawer 200 mm high.
  - Drawer useful size: L.569 x D.421 mm.
  - Single keylock.
  - Fitted with 4 jack-mounted swivel feet for perfect adjustment.
  - Overall dimensions: L.722 x D.701 x H.810 mm.
- 1 JLS2-PSH foot:
  - Foot made of epoxy painted sheet steel (thickness 12/10ths).
  - Fitted with jack-mounted swivel feet for adjustment providing complete stability irrespective of the type of floor.
  - Dimensions: L.100 mm x H.985 mm x D.650 mm.
  - Colour black 9004.
- 1 low unit raising base JLS2-BASEMBS:
  - Base in 12/10th steel sheet.
  - Dimensions: L.720 mm x H.180 mm x D.699 mm.
  - Colour black 9004.
- A wooden worktop JLS2-PB3
  - Depth 750mm, thickness 40 mm ensuring resistance and durability.
  - Linseed oil treatment for improved resistance to liquids and ease of maintenance. Capable of supporting loads: 1 ton.
- One stainless steel worktop JLS2-PBST3:
  - Panel made of multi-ply beech of thickness 40 mm covered with 10/10th 304 L brushed stainless steel for improved impact and heat resistance (edge also covered - painted metal cover for the sides). Sides will be protected by a finishing painted metal sheet.
  - Fast and easy assembly thanks to pre-drilled metallic inserts positions. Capable of supporting loads: 1 ton.
- A cross-beam JLS2-TRAB3:
  - Multifunction cross beam: connecting, reinforcement and storage space, 2 possible positions: horizontal or vertical.
  - Made of epoxy painted steel sheet (thickness 12/10ths).
  - Colour red 3020.

	H [mm]	L [mm]	P [mm]	Color	ΔΔ [kg]
JLS2-2MW7DH	1025	2182	750	Red 3020 Black 9004	177.1
JLS2-2MS7DH	1025	2182	750	Red 3020 Black 9004	177.1

Heavy-duty workbench 2182 mm - 7 drawers - stainless steel worktop - low version and shutter cabinet



- Workstation, made of a workbench and a shutter cabinet:
- Workbench JLS2-2MS7DL:
  - Fitted with a 7-drawer unit JLS2-MBS7T (5 drawers 60 mm high, 1 drawer 130 mm high, 1 drawer 200 mm high.) drawer useful size (L. x D.): 569 x 421 mm.
  - Worktop made of multi-ply beech of thickness 40 mm covered with 10/10th 304L brushed stainless steel. (L. x D.)2182x750mm
  - Weight: 172 kg.
- Cabinet JLS2-MHTR:
  - Stores long and cumbersome tools and/or objects
- The vertical hook panels provide high visibility and direct access to the tools.
  - Shutter with key lock.
  - Fitted with a perforated panel (6x6 mm with 12 mm pitch) to hang the tools with the range of CKS hooks.
  - To be fastened directly on the worktop or wall.
  - Hanging volume useful size: L.2057xD.183xH.714 mm.
  - Weight: 32.7 kg.


	Color	ΔΔ [kg]
JLS2-2MS7DCL	Red 3020 Black 9004	204.7

■ Heavy-duty workbench 2182 m - 13 drawers - Wooden worktop - high version



- Description:
- One 6-drawer unit JLS2-MBS6T:
  - 4 drawers 60 mm high, 1 drawer 130 mm high, 1 drawer 270 mm high.
- One 7-drawer unit JLS2-MBS7T:
  - 5 drawers 60 mm high, 1 drawer 130 mm high, 1 drawer 200 mm high.
  - Drawer useful size: L.569 x D.421mm.
  - Single keylock.
  - Fitted with 4 jack-mounted swivel feet for perfect adjustment.
  - Overall dimensions: L.722 x D.701 x H.810 mm.
- 1 JLS2-PSH foot:
  - Foot made of epoxy painted sheet steel (thickness 12/10ths).
  - Fitted with jack-mounted swivel feet for adjustment providing complete stability irrespective of the type of floor.
  - Dimensions: L.100 mm x H.985 mm x D.650 mm.
  - Colour black 9004.
- 1 low unit raising base JLS2-BASEMBS:
  - Base in 12/10th steel sheet.
  - Dimensions: L.720 mm x H.180 mm x D.699 mm.
  - Colour black 9004.
- A wooden worktop JLS2-PB3
  - Depth 750mm, thickness 40 mm ensuring resistance and durability.
  - Linseed oil treatment for improved resistance to liquids and ease of maintenance. Capable of supporting loads: 1 ton.
- A JLS2-TRBB3 cross-beam
  - Multifunction cross beam: connecting, reinforcement and storage space, 2 possible positions: horizontal or vertical.
  - Made of epoxy painted steel sheet (thickness 12/10ths).
  - Colour red 3020.




	H [mm]	L [mm]	P [mm]	Color	ΔΔ [kg]
JLS2-2MW13DH	1025	2182	750	Black 9004 Red 3020	249,6

■ Heavy-duty workbench 2182 mm - 13 drawers - stainless steel worktop - high version



- Description:
- One 6-drawer unit JLS2-MBS6T.
- One 7-drawer unit JLS2-MBS7T.
- 1 foot JLS2-PSH.
- 1 low unit raising base JLS2-BASEMBS.
- One JLS2-PBST3 worktop:
  - Panel made of multi-ply beech of thickness 40 mm covered with 10/10th 304 L brushed stainless steel for improved impact and heat resistance (edge also covered - painted metal cover for the sides). Sides will be protected by a finishing painted metal sheet.
  - Fast and easy assembly thanks to pre-drilled metallic inserts positions. Capable of supporting loads: 1 ton.
- A JLS2-TRBB3 cross-beam.



	H [mm]	L [mm]	P [mm]	Color	ΔΔ [kg]
JLS2-2MS13DH	1025	2182	750	Black 9004 Red 3020	263,5



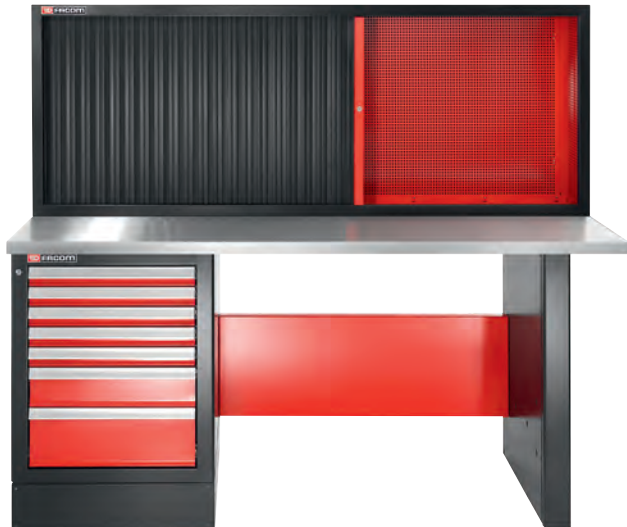
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HEAVY-DUTY WORKBENCHES

■ Heavy-duty workbench 2182mm - 7 drawers - stainless steel worktop - high version and shutter cabinet



- Workstation, made of a workbench and a shutter cabinet:
- Workbench JLS2-2MW7DH:
  - fitted with a 7-drawer unit JLS2-MBS7T (5 drawers 60 mm high, 1 drawer 130 mm high, 1 drawer 200 mm high.) drawer useful size (L. x D.): 569 x 421 mm.
  - Beech-ply worktop (thickness: 40 mm), treated with linseed oil for ease of maintenance. (L. x D.)2182x750mm
  - Weight: 177.1 kg.
- Cabinet JLS2-MHTR:
  - Stores long and cumbersome tools and/or objects
  - The vertical hook panels provide high visibility and direct access to the tools.
  - Shutter with key lock.
  - Fitted with a perforated panel (6x6mm with 12 mm pitch) to hang the tools with the range of CKS hooks.
  - To be fastened directly on the worktop or wall.
- Hanging volume useful size: L2057xD183xH714mm
- Weight: 32.7 kg.

	Color	ΔΔ [kg]
JLS2-2MS7DSCH	Red 3020 Black 9004	209,8

■ Heavy-duty workbench 2182mm - 7 drawers - wooden worktop - high version and shutter cabinet



- Workstation, made of a workbench and a shutter cabinet:
- Workbench JLS2-2MW7DH:
  - fitted with a 7-drawer unit JLS2-MBS7T (5 drawers 60 mm high, 1 drawer 130 mm high, 1 drawer 200 mm high.) drawer useful size (L. x D.): 569 x 421 mm.
  - Beech-ply worktop (thickness: 40 mm), treated with linseed oil for ease of maintenance. (L. x D.)2182x750mm
  - Weight: 177.1 kg.
- Cabinet JLS2-MHTR:
  - Stores long and cumbersome tools and/or objects
  - The vertical hook panels provide high visibility and direct access to the tools.
  - Shutter with key lock.
  - Fitted with a perforated panel (6x6mm with 12 mm pitch) to hang the tools with the range of CKS hooks.
  - To be fastened directly on the worktop or wall.
- Hanging volume useful size: L2057xD183xH714mm
- Weight: 32.7 kg.

	Color	ΔΔ [kg]
JLS2-2MW7DSCH	Black 9004 Red 3020	209,80

MAINTENANCE WORKBENCHES

■ Maintenance workbench – 6 drawers, wooden top, 2 m



- 6 drawers unit:
  - 3 drawers 60 mm.
  - 2 drawers 130 mm.
  - 1 drawer 200 mm.
- The drawers can be fitted with thermoshaped and foam modules  
Maximum load resistance per drawer : 20/25/30 kg.
- Polypropylène drawer pulls with safety hooks.
- Lock on side to reduce the risk of damage. Centralized locking system, delivered with 2 keys, one folding.
- Leg:
  - Steel sheet "U" profile.
  - Arranged for ground fixing.
- Worktop:
  - 40 mm multilayered beech wood.
  - Suitable for installing a vice.
  - Spread load resistance: 1 ton.
- Accessories:
  - Integrated holder for cans or bottles (Free positioning on right or left).
  - Sides of the drawer unit are perforated to receive most of the JET.XL accessories range.
  - Metal partitions can be provided in option (JET2.15 for 60 mm drawers and JET2.16 for 130 mm drawers).
- Easy and fast assembly.
- Overall dimensions (L. x D. x H.): L2000\*D700\*H816 mm.
- Drawer useful size: L.569 x D.421 x H.60 / 130 / 200 mm.



ED	H [mm]	L [mm]	P [mm]	Color	ΔΔ [kg]
2000.ROLL6M3W	850	2000	700	Red 3020	89

■ Maintenance workbench – 6 drawers, galvanized top, 2 m



- 6 drawers unit:
  - 3 drawers 60 mm.
  - 2 drawers 130 mm.
  - 1 drawer 200 mm.
- The drawers can be fitted with thermoshaped and foam modules  
Maximum load resistance per drawer : 20/25/30 kg.
- Polypropylène drawer pulls with safety hooks.
  - Lock on side to reduce the risk of damage. Centralized locking system, delivered with 2 keys, one folding.
- Leg:
  - Steel sheet "U" profile.
  - Arranged for ground fixing.
- Worktop:
  - 2.5 mm shock- and heat-resistant galvanised metal sheet.
  - 30 mm Safety edges on 3 sides with rounded and smooth border to avoid injuries.
  - Spread load resistance: 800 kg.
- Accessories:
  - Integrated holder for cans or bottles (Free positioning on right or left).
  - Sides of the drawer unit are perforated to receive most of the JETXL accessories range (F13 catalogue).
  - Metal partitions can be provided in option (JET2.15 for 60 mm drawers and JET2.16 for 130 mm drawers).
- Easy and fast assembly.
- Drawer useful size: L.569 x D.421 x H.60 / 130 / 200 mm.



ED	H [mm]	L [mm]	P [mm]	Color	ΔΔ [kg]
2000.ROLL6M3G	850	2000	700	Red 3020	87



FLUO

RFid



MAINTENANCE

■ Maintenance workbench 2 m long with drawers



- Worktop length: 2 m.
- Surface width: 750 mm.
- Height: 860 mm.
- Treated beech-ply worktop 40 mm thick.
- 2235.AT3 3-drawer unit with partitions.
- Possibility to fasten a 2nd 2235.AT drawer unit.
- Drawer size: L.534 x D.358 mm.

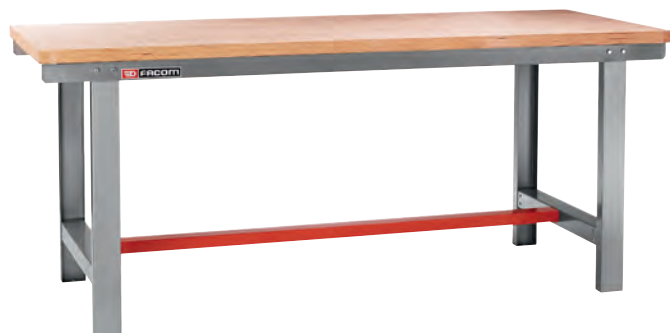


	H [mm]	L [mm]	ΔΔ [kg]
<b>2250.AT3</b>	860	2000	96.5

■ Maintenance workbench 2 m long



- Worktop length: 2 m.
- Surface width: 750 mm.
- Height: 860 mm.
- Treated beech-ply worktop 40 mm thick.
- Possibility to fasten 2 2235.AT drawer units.



	H [mm]	L [mm]	ΔΔ [kg]
<b>2250</b>	860	2000	70.5



■ Maintenance workbench 1.5 m long with vertical panel

- Worktop length: 1.5 m.
- Surface width: 750 mm.
- Height: 860 mm.
- Treated beech-ply worktop 40 mm thick.
- Tools hung with CKS system on vertical panel: 1500 x 510 x 50 mm.
- 2235.AT3 3-drawer unit with partitions.
- Drawer size: L.534 x D.358 mm.



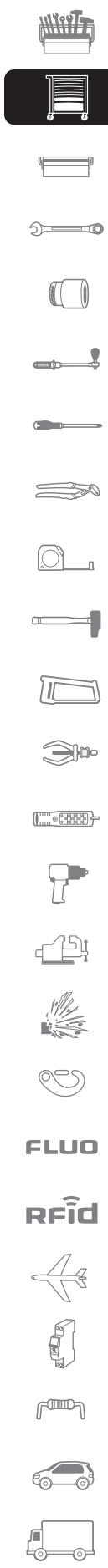
Icon	H [mm]	L [mm]	ΔΔ [kg]
	860	1500	97.3

■ Maintenance workbench 1.5 m long

- Worktop length: 1.5 m.
- Surface width: 750 mm.
- Height: 860 mm.
- Treated beech-ply worktop 40 mm thick.
- Possibility to fasten a 2235.AT drawer unit.



Icon	H [mm]	L [mm]	ΔΔ [kg]
	860	1500	59.5



FLUO

RFid

MAINTENANCE

Double drawer unit



- Drawer unit to fit either side under worktop.
- Fittings supplied.
- Keylock.
- Drawer dimensions:  
- L.534 x H.100 x D.358 mm (x2).

	H [mm]	L [mm]	P [mm]	Dimension [mm]	ΔΔ [kg]
<b>2235.AT2</b>	325	670	426	670 x 426 x 315	20.5

Triple drawer unit



- Drawer unit to fit either side under worktop.
- Fittings supplied.
- Keylock.
- Drawer dimensions:  
- L.534 x H.50 x D.358 mm (x2).  
- L.534 x H.100 x D.358 mm (x1).

	H [mm]	L [mm]	P [mm]	Dimension [mm]	ΔΔ [kg]
<b>2235.AT3</b>	315	670	426	670 x 426 x 315	26.0

Maintenance workbench - galvanized steel worktop - 1.5 m



- Worktop in 2.5 mm shock- and heat-resistant galvanised metal sheet.
- Welded and bolted heavy duty metallic construction.
- Static load resistance 500 kg.
- Safety edges on 3 sides.
- Floor anchoring possible.
- Can be fitted with 2 additional drawers WB.DRAWERP.B.
- Wide cross-piece used as shelf or foot rest.
- Easy and fast assembly.

	H [mm]	L [mm]	P [mm]	ΔΔ [kg]
<b>WB.1500GSA</b>	850	1500	750	59.0

Maintenance workbench - galvanized steel worktop - 2 m



- Worktop in 2.5 mm shock- and heat-resistant galvanised metal sheet.
- Welded and bolted heavy duty metallic construction.
- Static load resistance 700 kg.
- Safety edges on 3 sides.
- Floor anchoring possible.
- Can be fitted with 2 additional drawers WB.DRAWERP.B.
- Wide cross-piece used as shelf or foot rest.
- Easy and fast assembly.

	H [mm]	L [mm]	P [mm]	ΔΔ [kg]
<b>WB.2000GSA</b>	850	2000	750	81.5

■ Maintenance workbench - multilayered beech wood worktop - 1.5 m

- Worktop in 30 mm multilayered beech wood coated with lint oil for increased resistance to liquids and easy maintenance.
- Welded and bolted heavy duty metallic construction.
- Static resistance: 800 kg.
- Floor anchoring possible.
- Suitable for installing a vice.
- Wide cross-piece used as shelf or foot rest.
- Can be fitted with 2 additional drawers WB.DRAWERP.B.
- Easy and fast assembly.



ED	H [mm]	L [mm]	P [mm]	ΔΔ [kg]
WB.1500WA	850	1500	750	54.0

■ Maintenance workbench - multilayered beech wood worktop - 2 m

- Worktop in 30 mm multilayered beech wood coated with lint oil for increased resistance to liquids and easy maintenance.
- Welded and bolted heavy duty metallic construction.
- Static resistance: 1 ton.
- Floor anchoring possible.
- Suitable for installing a vice.
- Wide cross-piece used as shelf or foot rest.
- Can be fitted with 2 additional drawers WB.DRAWERP.B.
- Easy and fast assembly.



ED	H [mm]	L [mm]	P [mm]	ΔΔ [kg]
WB.2000WA	850	2000	750	70.0

STANDARD

■ Drawer

- Drawer unit 140mm long to fit either side under worktop.
- Can be fitted with 3 modules.
- Keylock.



ED	H [mm]	L [mm]	P [mm]	ΔΔ [kg]
WB.DRAWER	140	569	421	7.3



DRAWER CABINETS

DRAWER CABINET

**Heavy loads**

- High strength telescopic ball sliders with full opening.
- 75 kg for small drawers (50/75/100).
- 120 kg for large drawers (125/175/225) - 2 pairs of sliders.



**Organised storage**

- 1 The drawers are fitted with 6 "XL" modules.
- 2 As an option: Transversal and longitudinal galvanised sheet partition system.
- 3 And modular tray sets.



**Large storage capacity**

- Effective drawer dimensions: L 840 mm x D 570 mm x H 50/75/125/175/225 mm.
- Stackable (supplied with a linking kit).

**Safety**

- Central drawer locking: the drawers are locked simultaneously. (Cabinet supplied with 2 keys).
- Anti-tilt system: with selective drawer opening, opening one drawer locks all others. This prevents the cabinet from tilting.
- Floor anchoring possible.

■ Heavy load industrial unit with 6 drawers



- 2 drawers H.50 mm.
- 1 drawer H.75 mm.
- 2 drawers H.175 mm.
- 1 drawer H.25 mm.
- The drawers can also be fitted with "XL" modules.
- High strength 100% opening ball bearing telescopic sliders.
- 75 kg for small drawers (50/75/100).
- 120 kg for large drawers (125/175/225) - 2 pairs of sliders.
- Drawer useful dimensions: L.840 x D.570 x H.50/75/125/175/225 mm.
- The cabinets are stackable (supplied with linking kit).
- Safety:
  - Drawer centralised locking: the drawers are locked simultaneously. (cabinet supplied with 2 keys).
  - Anti-tilting system: when opened individually, each drawer locks all others. This prevents the cabinet from tipping over.
  - Ground-anchoring option.

	H [mm]	L [mm]	P [mm]	ΔΔ [kg]
<b>2936B</b>	1000	980	680	139.0

■ Heavy-duty industrial unit with 7 drawers



- High storage and load capacity.
- 4 drawers H.75 mm.
- 2 drawers H.125 mm.
- 1 drawers H.175 mm.
- The drawers can also be fitted with "XL" modules.
- High strength 100% opening ball bearing telescopic sliders.
- 75 kg for small drawers (50/75/100).
- 120 kg for large drawers (125/175/225) - 2 pairs of sliders.
- Drawer useful dimensions: L.840 x D.570 x H.50/75/125/175/225 mm.
- The cabinets are stackable (supplied with linking kit).
- Safety:
  - Drawer centralised locking: the drawers are locked simultaneously. (cabinet supplied with 2 keys).
  - Anti-tilting system: when opened individually, each drawer locks all others. This prevents the cabinet from tipping over.
  - Ground-anchoring option.

	H [mm]	L [mm]	P [mm]	ΔΔ [kg]
<b>2937B</b>	1000	980	680	154.0

■ Heavy-duty industrial unit with 8 drawers

- High storage and load capacity.
- 4 drawers H.50 mm.
- 1 drawer H.75 mm.
- 2 drawers H.125 mm.
- 1 drawer H.175 mm.
- The drawers can also be fitted with "XL" modules.
- High strength 100% opening ball bearing telescopic sliders.
- 75 kg for small drawers (50/75/100).
- 120 kg for large drawers (125/175/225) - 2 pairs of sliders.
- Drawer useful dimensions: L.840 x D.570 x H.50/75/125/175/225 mm.

- The cabinets are stackable (supplied with linking kit).
- Safety:
  - Drawer centralised locking: the drawers are locked simultaneously. (cabinet supplied with 2 keys).
  - Anti-tilting system: when opened individually, each drawer locks all others. This prevents the cabinet from tipping over.
  - Ground-anchoring option.



	H [mm]	L [mm]	P [mm]	ΔΔ [kg]
<b>2938B</b>	1000	980	680	161.5

■ Heavy-duty industrial unit with 9 drawers

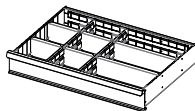
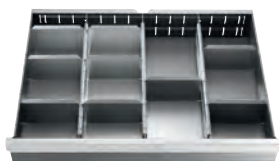
- High storage and load capacity.
- 4 drawers H.50 mm.
- 3 drawer H.75 mm.
- 2 drawers H.125 mm.
- The drawers can also be fitted with "XL" modules.
- High strength 100% opening ball bearing telescopic sliders.
- 75 kg for small drawers (50/75/100).
- 120 kg for large drawers (125/175/225) - 2 pairs of sliders.
- Drawer useful dimensions: L.840 x D.570 x H.50/75/125/175/225 mm.

- The cabinets are stackable (supplied with linking kit).
- Safety:
  - Drawer centralised locking: the drawers are locked simultaneously. (cabinet supplied with 2 keys).
  - Anti-tilting system: when opened individually, each drawer locks all others. This prevents the cabinet from tipping over.
  - Ground-anchoring option.



	H [mm]	L [mm]	P [mm]	ΔΔ [kg]
<b>2939B</b>	1000	980	680	172.5

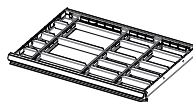
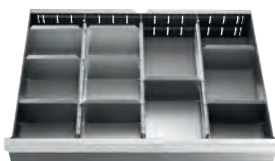
■ Set of 8 partitions for drawers 125 mm wall



- Partitioning system in galvanised metal sheet.
- 2 separations.
- 4 partitions 200 mm high.
- 2 partitions 400 mm high.

	ΔΔ [kg]
<b>2930.C3</b>	3.3

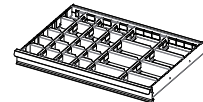
■ Supplied with 18 partitions for drawers 80 and 75 mm wall



- Partitioning system in galvanised metal sheet.
- 3 separations.
- 4 partitions 100 mm high.
- 3 partitions 300 mm high.
- 8 partitions 200 mm high.

	ΔΔ [kg]
<b>2930.C1</b>	2.6

■ Set of 27 partitions for drawers 75 mm wall

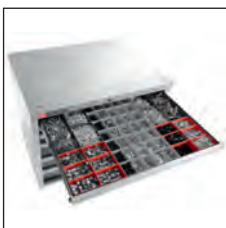
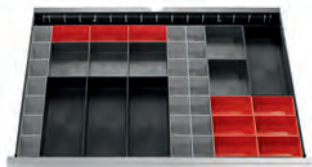


- Partitioning system in galvanised metal sheet.
- 5 separations.
- 16 partitions 100 mm high.
- 6 partitions 200 mm high.

	ΔΔ [kg]
<b>2930.C2</b>	4.6



■ Set of 57 plastique trays



- Different coloured plastic modular trays
- 36 trays : 62,7 x 69,7 mm.
- 12 trays : 125,4 x 69,7 mm.
- 6 trays : 125,4 x 139,4 mm.
- 3 trays : 125,4 x 278,8 mm.

	$\Delta\Delta$ [g]
2930.B1A	500

■ Set of 25 plastique trays



- Different coloured plastic modular trays
- 12 trays : 62,7 x 69,7 mm.
- 12 trays : 125,4 x 69,7 mm.
- 6 trays : 125,4 x 139,4 mm.
- 6 trays : 125,4 x 278,8 mm.

	$\Delta\Delta$ [g]
2930.B2A	200

WORKTOP CABINETS AND WALL STORAGE UNITS

■ Jetline+ top unit double with shutter



- The double unit can be used for storing tools and/or items which are too long and bulky for standard units.
- Maximum visibility and accessibility thanks to vertical hooking part.
- Shutters opening fully offers a direct tool access.
- Shutter, key-lock closing (Interchangeable lock).
- Fitted with a perforated panel (6 x 6 mm au pas de 12 mm) for a fixing of tools using the CKS range of hooks
- Easy and direct fixing on the worktop or to the wall. No fitting kits to use.
- Overall dimensions : L1455 x D278 x H810 mm.
- Hook fastening useful dimensions : L1330 x D183 x H714 mm.

	H [mm]	L [mm]	P [mm]	Color	$\Delta\Delta$ [kg]
JLS2-MHDR	810	1455	278	Black 9004 Red 3020	24.2

■ Jetline+ top unit triple with shutter

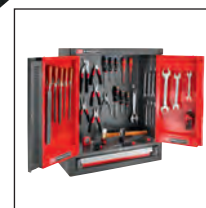


- The double unit can be used for storing tools and/or items which are too long and bulky for standard units.
- Maximum visibility and accessibility thanks to vertical hooking part.
- Shutters opening fully offers a direct tool access.
- Shutter, key-lock closing (Interchangeable lock).
- Fitted with a perforated panel (6\*6mm au pas de 12 mm) for a fixing of tools using the CKS range of hooks
- Easy and direct fixing on the worktop or to the wall. No fitting kits to use.
- Overall dimensions : L2182 x D278 x H810 mm.
- Hook fastening useful dimensions : L2057 x D183 x H714mm.

	H [mm]	L [mm]	P [mm]	Color	$\Delta\Delta$ [kg]
JLS2-MHTR	810	2182	278	Black 9004 Red 3020	32.7

Jetline+ top unit single full doors and 1 drawer

- Cabinet with vertical hanging and drawer sections.
- Vertical fastening part : Storage surface area: 1 m<sup>2</sup>. The base and sides of the cabinet, door liners, are perforated for hanging tools using the CKS system.
- Opening at 180° of the 2 swinging doors for maximum visibility and accessibility.
- Drawer section :
  - 1 drawer with heavy-duty ball-bearing slides, 100% opening.
  - Drawer useful dimensions : L.569 x H.60 x D.210 mm.
  - Centralised locking of the doors and drawer by keylock.
- Easy and fast fastening on a base unit using a "JLS2-TUBESUP 400" fitting Kit.
- Overall dimensions : L719 x D278 x H810 mm.



FACOM	H [mm]	L [mm]	P [mm]	Color	ΔΔ [kg]
JLS2-2201	810	719	278	Black 9004 Red 3020	31.0

Wall unit with 2 drawers and shutters - 1000 mm wall

- Vertical fastening part:
- Storage surface area: 1.8 m<sup>2</sup>.
- The base and sides of the cabinet, door liners, as well as the 2 additional panels, are perforated for hanging tools using the CKS system.
- Opening at 180° of the 2 swinging doors for maximum visibility and accessibility.
- Drawer section:
  - 2 drawers with heavy-duty ball-bearing slides, 100% opening.
  - Drawer useful size: L.569 x H.60 x D.210 mm.
  - Centralised locking of the doors and drawers by keylock.
  - Wall mounted (through holes provided) or on a workbench.
- Dimensions: L.720 x D.280 x H.1.000 mm.

Supplied without tools.



FACOM	H [mm]	L [mm]	P [mm]	Color	ΔΔ [kg]
2202XL	1000	720	280	Black 9004 Red 3020	42.5



HOOKS

VERTICAL TOOL STORAGE

A HOOK FOR EACH TOOL!

Space-saving:

- Wall surfaces are transformed into storage surfaces.

CKS hook system

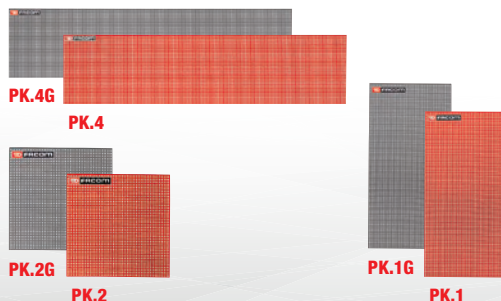
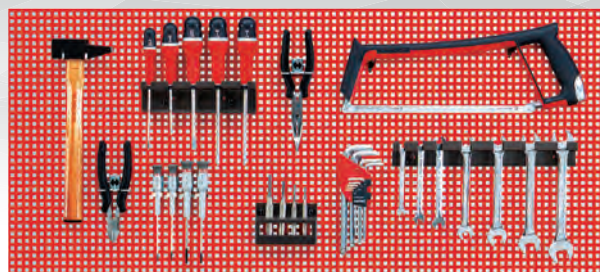
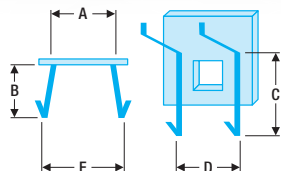
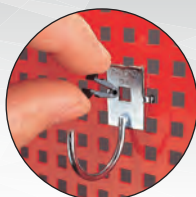
- Installation of retaining clip CKLA.

Perforated panels

- Perforation: L 6 x 6 mm.
- Pitch: 12 mm.

Ergonomic:

- Direct tool access.



PK	L mm	H mm	W mm	Weight kg
PK.1	444	888	10	2.350
PK.2	444	444	10	1.160
PK.4	1665	444	10	4.360

PK	L mm	H mm	W mm	Weight kg
PK.1G	444	888	10	2.350
PK.2G	444	444	10	1.160
PK.4G	1665	444	10	4.360

Standard hook

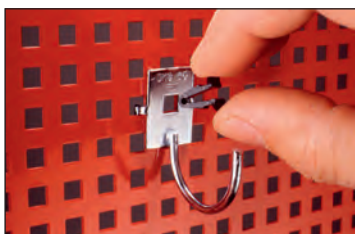


- CK: Standard hook length: 50 mm.



CK	L [mm]	ΔΔ [g]
CK	50	10

Locking clips



- Very useful in case of modification of hook implantation. (Packaging unit: 10).



CKLA	ΔΔ [g]
CKLA	15

Tool hook for combination wrenches

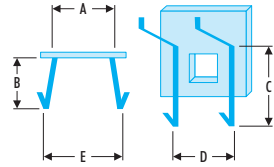


CKS	d [mm]	Dimension [mm]	ΔΔ [kg]
CKS.60A	30	Hook Ø 30 mm	0,010
CKS.61A	15	Hook Ø 15 mm	0,010



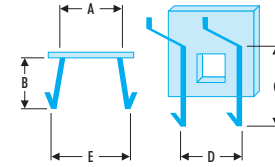
HOOKS

Tool hook for open end wrenches



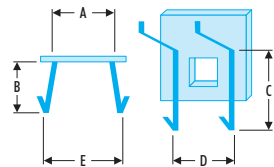
CKS	A [mm]	B [mm]	ΔΔ [kg]
CKS.57A	13	5	0,010
CKS.58A	25	8	0,010
CKS.59A	36	12	0,010

Tool hook for screwdrivers



CKS	A [mm]	C [mm]	D [mm]	ΔΔ [kg]
CKS.50A	13	35	7	0,020
CKS.51A	13	35	10	0,020
CKS.52A	14	35	13	0,020

Tool hook for hammers



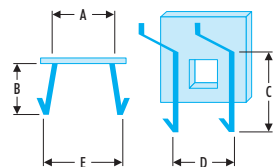
CKS	A [mm]	B [mm]	ΔΔ [kg]
CKS.45A	17	28	0,010
CKS.46A	33	36	0,010

Tool hooks for cylindrical tools



CKS	d [mm]	L2 [mm]	ΔΔ [kg]
CKS.64A	7 - 8 - 9	PH.0	0,010
CKS.65A	8 - 9 - 10 - 11 - 12	PH.1	0,010
CKS.66A	12 - 13 - 14 - 15	PH.2	0,010
CKS.67A	15 - 16 - 17 - 18 - 19 - 20 - 21 - 22 - 23 - 24 - 25	PH.3	0,010
CKS.68A	25 - 26 - 27 - 28 - 29 - 30 - 31 - 32		0,010

Tool hook for pliers

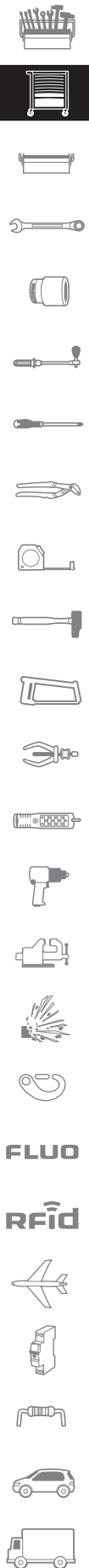


CKS	A [mm]	B [mm]	L3 [mm]	ΔΔ [kg]
CKS.55A	61	28	PZ.1	0,010
CKS.56A	50	17	PZ.2	0,010



- CKS.K1: kit comprising 30 hooks: 20 x CK, 5 x CKS.58A, 5 x CKS.59A.
- CKS.K2: kit comprising 40 hooks: 5 x CKS.45A, 5 x CKS.46A, 5 x CKS.55A, 5 x CKS.56A, 10 x CKS.66A, 10 x CKS.67A.
- CKS.K3: kit comprising 65 hooks: 20 x CKS.60A, 20 x CKS.61A, 5 x CKS.67A, 5 x CKS.68A, 5 x CKS.50A, 5 x CKS.51A, 5 x CKS.52A.

CKS	ΔΔ [kg]
CKS.K1	0.220
CKS.K2	0.620
CKS.K3	0.750



TOOL RACKS

■ Versatile wrench rack



- Easy to install: very easy fastening on the perforated sides of the roller cabinet or on a wall-mounted panel (fastening system supplied).
- Easy use and time gain.
- No specific location, wrenches can be positioned in any cell.
- No risk of damaging tools: polypropylene rack and appropriate design ensure risk-free contact.
- Broad range coverage.

🚚	Dimension [mm]	For	ΔΔ [g]
<b>CKS.100</b>	6 to 14	8 open end wrenches	60
<b>CKS.101</b>	14 to 27	8 open end wrenches	130
<b>CKS.102</b>	24 to 42	4 open end wrenches	90

■ Versatile screwdriver rack



- Easy use and time gain.
- No specific location, wrenches can be positioned in any cell.
- No risk of damaging tools: polypropylene rack and appropriate design ensure risk-free contact.
- Broad range coverage.

🚚	H [mm]	L [mm]	P [mm]	ΔΔ [kg]
<b>CKS.08</b>	38	238	50	0.050

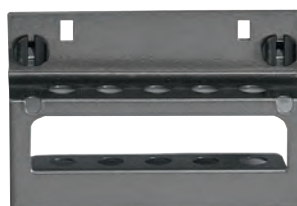
■ Versatile drift punch rack



- Easy to install: very easy fastening on the perforated sides of the roller cabinet or on a wall-mounted panel (fastening system supplied).
- Easy use and time gain.
- No specific location, drift punches can be positioned in any cell.
- No risk of damaging tools: polypropylene rack and appropriate design ensure risk-free contact.
- Broad range coverage: compatible with sheathed drift punches.

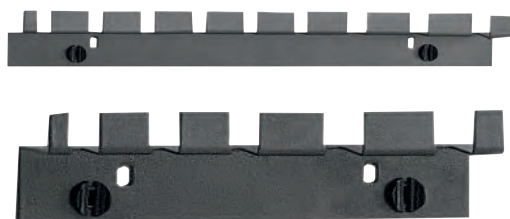
🚚	H [mm]	L [mm]	P [mm]	Qtés	ΔΔ [g]
<b>CKS.103</b>	70	170	35	1	95

■ Versatile stud puller rack



🚚	Dimension [mm]	For	ΔΔ [kg]
<b>CKS.25A</b>	4 to 11	5 stud pullers	0.052

■ File rack



🚚	For	ΔΔ [kg]
<b>CKS.34A</b>	9 handle files	0.140
<b>CKS.35A</b>	5 handle files	0.068

■ Rack for angled socket wrenches no.1



🚚	Dimension [mm]	For	ΔΔ [kg]
<b>CKS.37A</b>	8 to 19	9 angled socket wrenches 75 or 76	0.186

TOOL RACKS

■ Rack for angled socket wrenches no.2



🚚	Dimension [mm]	For	ΔΔ [kg]
<b>CKS.39A</b>	8 to 24	16 angled socket wrenches 75 - 76 - 92	0.780

■ Socket rack



🚚	Dimension [mm]	For	ΔΔ [kg]
<b>CKS.1A</b>	8 to 21	13 1/2" - 3/8" sockets	0.280

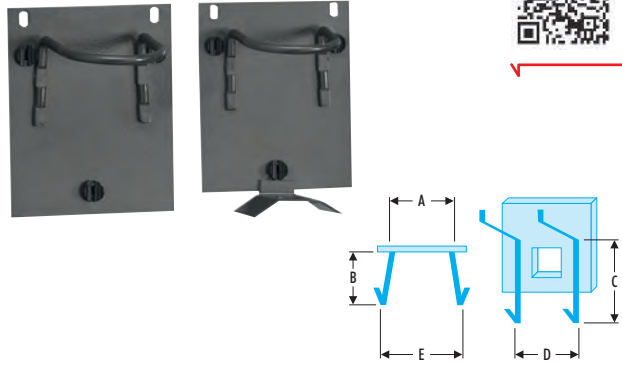
■ Chisel rack



🚚	For	ΔΔ [kg]
<b>CKS.80B</b>	4 chisels	0.145
<b>CKS.81A</b>	5 capped chisels	0.210

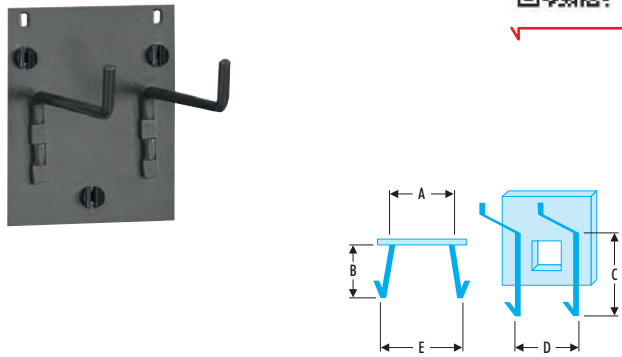
OTHER TOOL RACKS

■ Pneumatic tool rack



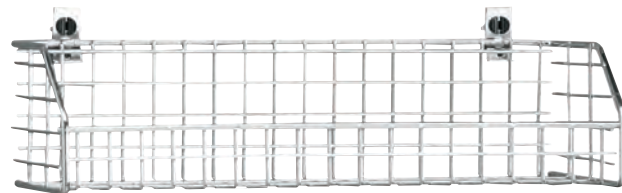
🚚	A [mm]	B [mm]	ΔΔ [kg]
<b>CKS.71A</b>	48	60	0.200
<b>CKS.79A</b>	48	60	0.200

■ Electric tool rack

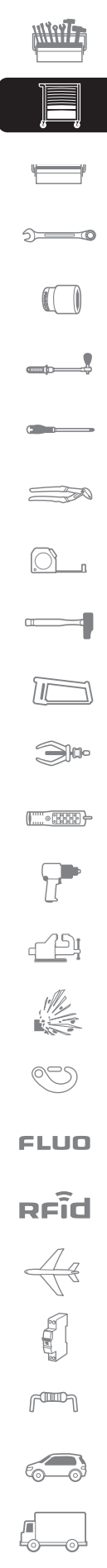


🚚	A [mm]	B [mm]	ΔΔ [kg]
<b>CKS.77A</b>	55	100	0.190

■ Wire basket



🚚	H [mm]	L [mm]	P [mm]	ΔΔ [g]
<b>CKS.78A</b>	105	355	92	208

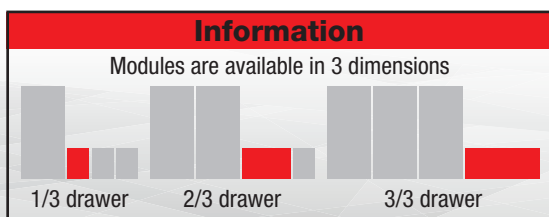


WRENCHES

**FACOM MODULAR SYSTEM**

**Effective tool organisation with FACOM Modular System**

- Stored tools = productivity, comfort and safety.
- Instant access to all your tools without wasting time. Optimum safety: no more rummaging through loose tools in a drawer.



**Break-off modules**

- Universal modules compatible with all FACOM roller cabinets.
- Thermoformed shock polystyrene.
- Dimensions 175 x 418 mm (355 mm without the tray).



For ROLL and CHRONO, detach the break-off section.



**Modules XL**

- Modules compatible only with XL drawers (JET +3, JET +4, JET +5, CHRONO+ ranges, but also JETXL and CHRONOXL).
- Thermoformed shock polystyrene.
- Dimensions 188 x 418 mm

■ **Module metric open end combined ratchets**



- Compatible with the FACOM modular storage system:  
- Adapted to CHRONO, JET, CHRONO XL, CHRONO+, JET XL and JET+ rolling cabinets.

Module	Content set	Contents	Qty	ΔΔ [kg]
<b>MOD.467BRJ12</b>	8, 9, 10, 11, 12, 13, 14, 15, 16, 17, 18, 19	PL.652	12	1.5
<b>MOD.467BRJ14</b>	8, 9, 10, 11, 12, 13, 14, 15, 16, 17, 18, 19, 22, 24	PL.690	14	1.7

■ **12-piece module of hinged combination wrenches and adaptors**



- Compatible with the FACOM modular storage system:  
- Adapted to CHRONO, JET, CHRONO XL, CHRONO+, JET XL and JET+ rolling cabinets.

Module	Content set	Contents	Qty	ΔΔ [kg]
<b>MOD.467BFJ12</b>	8 - 9 - 10 - 11 - 12 - 13 - 14 - 15 - 16 - 17 - 18 - 19	PL.680	12	1.5

■ **7-piece 12-point ratchet ring wrench module**



- Compatible with the FACOM modular storage system:  
- Adapted to CHRONO, JET, CHRONO XL, CHRONO+, JET XL and JET+ rolling cabinets.

Module	Content set	Contents	Qty	ΔΔ [kg]
<b>MOD.64J7</b>	6x7 - 8x9 - 10x11 - 12x13 - 14x15 - 16x18 - 17x19	PL.608A	7	0.925

7-piece 12-point 15° head ring wrench module



- Compatible with the FACOM modular storage system:
  - Adapted to CHRONO, JET, CHRONO XL, CHRONO+, JET XL and JET+ rolling cabinets.

Content set	Contents	Qty	ΔΔ [kg]
6x7 - 8x9 - 10x11 - 12x13 - 14x15 - 16x18 - 17x19	PL.608A	7	1.2

16 OGV® combination wrenches sizes module



- Compatible with the FACOM modular storage system:
  - Adapted to CHRONO, JET, CHRONO XL, CHRONO+, JET XL and JET+ rolling cabinets.

Content set	Contents	Qty	ΔΔ [kg]
6 - 7 - 8 - 9 - 10 - 11 - 12 - 13 - 14 - 15 - 16 - 17 - 18 - 19 - 22 - 24	PL.670	16	1.801

4 OGV® combination wrenches large sizes module



- Compatible with the FACOM modular storage system:
  - Adapted to CHRONO, JET, CHRONO XL, CHRONO+, JET XL and JET+ rolling cabinets.

Content set	Contents	Qty	ΔΔ [kg]
27 - 29 - 30 - 32	PL.314A	4	2.0

13 inch combination wrenches module



- Compatible with the FACOM modular storage system:
  - Adapted to CHRONO, JET, CHRONO XL, CHRONO+, JET XL and JET+ rolling cabinets.

Content set	Contents	Qty	ΔΔ [kg]
1/4 - 5/16 - 11/32 - 3/8 - 7/16 - 1/2 - 9/16 - 5/8 - 11/16 - 3/4 - 13/16 - 7/8 - 15/16	PL.673	13	1.6

17 combination wrenches 440 module



**XL**

- Compatible with the FACOM modular storage system:
  - Adapted to CHRONO, JET, CHRONO XL, CHRONO+, JET XL and JET+ rolling cabinets.

Content set	Contents	Qty	ΔΔ [kg]
6 - 7 - 8 - 9 - 10 - 11 - 12 - 13 - 14 - 15 - 16 - 17 - 18 - 19 - 21 - 22 - 24	PL.313	17	1.9

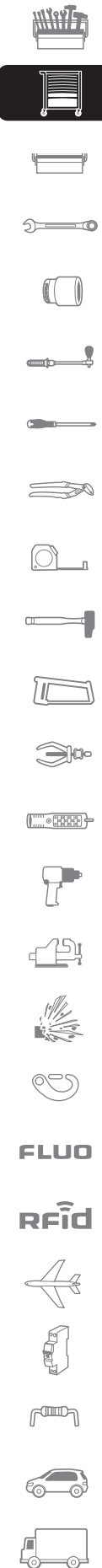
5 OGV® combination wrenches large size module



**XL**

- Compatible with the FACOM modular storage system:
  - Adapted to CHRONO, JET, CHRONO XL, CHRONO+, JET XL and JET+ rolling cabinets.

Content set	Contents	Qty	ΔΔ [kg]
27 - 29 - 30 - 32 - 34	PL.671	5	2.9



WRENCHES

9 open-end wrenches module, 6 to 24 mm



• Compatible with the FACOM modular storage system: - compatible with CHRONO, JET, CHRONO XL, CHRONO+, JETXL and JET+ roller cabinets.

Content set	Contents	Qty	ΔΔ [kg]
44. 6x7 - 8x9 - 10x11 - 12x13 - 14x15 - 16x17 - 18x19 - 21x23 - 22x24	PL.315	9	1.301

3 open end wrenches large size module



• Compatible with the FACOM modular storage system: - compatible with CHRONO, JET, CHRONO XL, CHRONO+, JETXL and JET+ roller cabinets.

Content set	Contents	Qty	ΔΔ [kg]
44. 26x28 - 27x29 - 30x32	PL.316	3	1.601

6-piece metric long double ended ring wrenches in thermoformed tray



• Compatible with the FACOM modular storage system: - compatible with CHRONO, JET, CHRONO XL, CHRONO+, JETXL and JET+ roller cabinets.

Content set	Contents	Qty	ΔΔ [kg]
6x7 - 8x9 - 10x11 - 12x13 - 14x15 - 18x19	PL.698	6	1,650

6-piece metric 15° hinged long-reach offset-ring wrenches in thermoformed tray



• Compatible with the FACOM modular storage system: - compatible with CHRONO, JET, CHRONO XL, CHRONO+, JETXL and JET+ roller cabinets.

Content set	Contents	Qty	ΔΔ [kg]
5.5x7 - 8x9 - 10x11 - 12x13 - 12x14 - 17x19	PL.697	6	1.001

Metric angled socket wrench sets in heat formed tray



• Compatible with the FACOM modular storage system: - compatible with CHRONO, JET, CHRONO XL, CHRONO+, JETXL and JET+ roller cabinets.

Content set	Contents	Qty	ΔΔ [kg]
8 - 10 - 11 - 12 - 13 - 14 - 16 - 17 - 18 - 19	PL.625	10	2.501

6 tubular box wrenches module



• Compatible with the FACOM modular storage system: - compatible with CHRONO, JET, CHRONO XL, CHRONO+, JETXL and JET+ roller cabinets.

Content set	Contents	Qty	ΔΔ [kg]
8X9 - 10X11 - 12X13 - 14X15 - 16X17 - 18X19	PL.359	6	0.9

7 universal joint socket wrenches module



Compatible with the FACOM modular storage system: - compatible with CHRONO, JET, CHRONO XL, CHRONO+, JETXL and JET+ roller cabinets.

	Content set	Contents	Qty	ΔΔ [kg]
<b>MOD.99B</b>	7 - 8 - 10 - 11 - 13 - 17 - 19	PL.304	7	4.0

6 hinged socket wrenches module



Compatible with the FACOM modular storage system: - compatible with CHRONO, JET, CHRONO XL, CHRONO+, JETXL and JET+ roller cabinets.

	Content set	Contents	Qty	ΔΔ [kg]
<b>MOD.66A-1</b>	6X7 - 8X9 - 10X11 - 12X13 - 14X15 - 16X17	PL.319A	6	0.94

3 hinged socket wrenches module



Compatible with the FACOM modular storage system: - compatible with CHRONO, JET, CHRONO XL, CHRONO+, JETXL and JET+ roller cabinets.

	Content set	Contents	Qty	ΔΔ [kg]
<b>MOD.66A-2</b>	18X19 - 20X22 - 21X23	PL.320	3	1.6

Flare nut 5 wrenches module



Compatible with the FACOM modular storage system: - compatible with CHRONO, JET, CHRONO XL, CHRONO+, JETXL and JET+ roller cabinets.

	Content set	Contents	Qty	ΔΔ [kg]
<b>MOD.43</b>	7X9 - 8X10 - 11X13 - 12X14 - 17X19	PL.365	5	0.96

37-piece 1/4" metric 6-point socket and bit module - R.161B



Compatible with the FACOM modular storage system: - Suited to CHRONO XL, CHRONO+, JET XL, JET+ roller cabinets and MBOX.S box.

	Content set	Contents	Qty	ΔΔ [kg]
<b>MOD.R161-66</b>	R.161B - R.5,5 - 6 - 7 - 8 - 9 - 10 - 11 - 12 - 13 - 14 - R.209 - R.210 - R.240A - R.236A - R.235 - EP.1T Phillips® : PH1 - PH2 - PH3 - ED.1T Pozidriv® : PZ1 - PZ2 - PZ3 - ES.1T : 4,5 - 6,5 - 8,0 - EH.1 : 3 - 4 - 5 - 6 - 7 - EXR.1 Resistorx® : TT10 - TT15 - TT20 - TT25 - TT27 - TT30 - TT40	PL.S15	37	0.555

32-piece 1/4" metric 6-point socket module - R.161B



Compatible with the FACOM modular storage system: - Suited to CHRONO XL, CHRONO+, JET XL, JET+ roller cabinets and MBOX.L box.

	Content set	Contents	Qty	ΔΔ [kg]
<b>MOD.R161-16</b>	R.161B - R.5,5 - 6 - 7 - 8 - 9 - 10 - 11 - 12 - 13 - 14 - R.209 - R.215 - R.240A - R.120A - R.236A - R.235 - ED.1T Pozidriv® : PZ1 - PZ2 - EXR.1 Resistorx® : TT10 - TT15 - TT20 - TT25 - TT27 - TT30 - TT40 - 83SH.3 - 4 - 5 - 6 - 7 - 8	PL.L13	32	0.930



SOCKETS

36-piece 1/4" metric 6-point socket module - R.161B



- Compatible with the FACOM modular storage system:
  - Suited to CHRONO XL, CHRONO+, JET XL, JET+ roller cabinets and MBOX.L box.

	Content set	Contents	Qty	ΔΔ [kg]
<b>MOD.R161-26</b>	R.161B - R. 5,5 - 6 - 7 - 8 - 9 - 10 - 11 - 12 - 13 - 14 - R.209 - R.215 - R.240A - R.120A - R.236A - R.235 - ED.1T Pozidriv® : PZ1 - PZ2 - ES.1T : 4,5 - 6,5 - 8,0 - EH.1 : 3 - 4 - 5 - 6 - 82H. 2 - 2,5 - 3 - 4 - 5 - 6 - 7 - 8 - 9 - 10 mm	PL.L13	36	1.085

36-piece 1/4" inch 6-point socket module - R.161B



- Compatible with the FACOM modular storage system:
  - Suited to CHRONO XL, CHRONO+, JET XL, JET+ roller cabinets and MBOX.L box.

	Content set	Contents	Qty	ΔΔ [kg]
<b>MOD.R161-1U</b>	R.161B - R. 3/16" - 7/32" - 1/4" - 9/32" - 5/16" - 11/32" - 3/8" - 13/32" - 7/16" - 1/2" - R.209 - R.215 - R.240A - R.120A - R.236A - R.235 - ED.1T Pozidriv® : PZ1 - PZ2 - ES.1T : 4,5 - 6,5 - 8,0 - EH.1 : 1/8" - 5/32" - 3/16" - 7/32" - 82H. 5/64" - 3/32" - 1/8" - 9/64" - 5/32" - 3/16" - 7/32" - 1/4" - 5/16" - 3/8"	PL.L13	36	0.955

20-piece 3/8" metric 6-point socket module - J.161B



- Compatible with the FACOM modular storage system:
  - Suited to CHRONO XL, CHRONO+, JET XL, JET+ roller cabinets and MBOX.M box.

	Content set	Contents	Qty	ΔΔ [kg]
<b>MOD.J161-36</b>	J.161B - J.H 7 - 8 - 9 - 10 - 11 - 12 - 13 - 14 - 15 - 16 - 17 - 18 - 19 - 21 - 22 - J.210 - J.215 - J.240A - J.120A	PL.M15	20	2.985

20-piece 3/8" metric 6-point socket module - JL.161



- Compatible with the FACOM modular storage system:
  - Suited to CHRONO XL, CHRONO+, JET XL, JET+ roller cabinets and MBOX.M box.

	Content set	Contents	Qty	ΔΔ [kg]
<b>MOD.JL161-36</b>	JL.161. - J.H 7 - 8 - 9 - 10 - 11 - 12 - 13 - 14 - 15 - 16 - 17 - 18 - 19 - 21 - 22 mm. - J.210 - J.215 - J.240A - J.120A	PL.M15	20	1.635

20-piece 3/8" metric 6-point socket module - JL.171



- Compatible with the FACOM modular storage system:
  - Suited to CHRONO XL, CHRONO+, JET XL, JET+ roller cabinets and MBOX.M box.

	Content set	Contents	Qty	ΔΔ [kg]
<b>MOD.JL171-36</b>	JL.171 - J.H 7 - 8 - 9 - 10 - 11 - 12 - 13 - 14 - 15 - 16 - 17 - 18 - 19 - 21 - 22 - J.210RC - J.215RC - J.240A - J.120A	PL.M15	20	1.675

20-piece 3/8" metric 6-point socket module - J.360



- Compatible with the FACOM modular storage system:
  - Suited to CHRONO XL, CHRONO+, JET XL, JET+ roller cabinets and MBOX.M box.

	Content set	Contents	Qty	ΔΔ [kg]
<b>MOD.J360-36</b>	J.360 - J.H 7 - 8 - 9 - 10 - 11 - 12 - 13 - 14 - 15 - 16 - 17 - 18 - 19 - 21 - 22 - J.210 - J.215 - J.240A - J.120A	PL.M16	20	1.865



16-piece 3/8" inch 12-point socket module - J.161B



- Compatible with the FACOM modular storage system:
  - Suited to CHRONO XL, CHRONO+, JET XL, JET+ roller cabinets and MBOX.M box.

	Content set	Contents	Qty	ΔΔ [kg]
<b>MOD.J161-212U</b>	J.161B - J.1/4' - 5/16' - 3/8' - 7/16' - 1/2' - 9/16' - 5/8' - 11/16' - 3/4' - 13/16' - 7/8' - J.210 - J.215 - J.240A - J.120A	PL.M18	16	1.455

16-piece 3/8" inch 12-point socket module - JL.161



- Compatible with the FACOM modular storage system:
  - Suited to CHRONO XL, CHRONO+, JET XL, JET+ roller cabinets and MBOX.M box.

	Content set	Contents	Qty	ΔΔ [kg]
<b>MOD.JL161-212U</b>	JL.161 - J.1/4' - 5/16' - 3/8' - 7/16' - 1/2' - 9/16' - 5/8' - 11/16' - 3/4' - 13/16' - 7/8' - J.210 - J.215 - J.240A - J.120A	PL.M18	16	1.495

1/2" metric 6-point sockets module



- Compatible with the FACOM modular storage system:
  - Suitable for to CHRONO XL, CHRONO+, JET XL, JET+ roller cabinets and MBOX.M box.

	Content set	Contents	Qty	ΔΔ [kg]
<b>MOD.S161-36</b>	S.161B - S.H 8 - 9 - 10 - 11 - 12 - 13 - 14 - 15 - 16 - 17 - 18 - 19 - 21 - 22 - 23 - 24 - 27 - 30 - 32 - S.210 - S.215 - S.240A	PL.M01	23	3.051

1/2" metric 6-point sockets module



- Compatible with the FACOM modular storage system:
  - Suitable for to CHRONO XL, CHRONO+, JET XL, JET+ roller cabinets and MBOX.M box.

	Content set	Contents	Qty	ΔΔ [kg]
<b>MOD.SL161-36</b>	SL.161 - S.H 8 - 9 - 10 - 11 - 12 - 13 - 14 - 15 - 16 - 17 - 18 - 19 - 21 - 22 - 23 - 24 - 27 - 30 - 32 - S.210 - S.215 - S.240A	PL.M01	23	3.051

26-piece 1/2" metric 6-point sockets module



- Compatible with the FACOM modular storage system:
  - Suitable for CHRONO XL, CHRONO+, JET XL, JET+ roller cabinets and MBOX.L box.

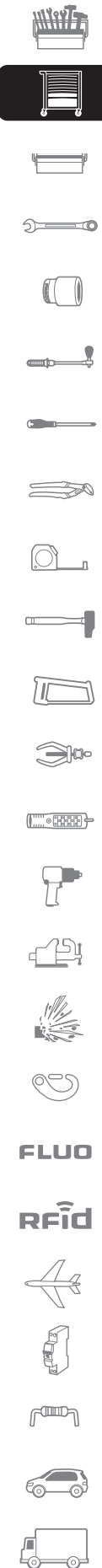
	Content set	Contents	Qty	ΔΔ [kg]
<b>MOD.S161-46</b>	S.161B - S.H 8 - 9 - 10 - 11 - 12 - 13 - 14 - 15 - 16 - 17 - 18 - 19 - 21 - 22 - 23 - 24 - 27 - 28 - 29 - 30 - 32 - S.210 - S.215 - S.240A - S.120A	PL.L02	26	3.68

1/2" metric 6-point sockets module



- Compatible with the FACOM modular storage system:
  - Suitable for CHRONO XL, CHRONO+, JET XL, JET+ roller cabinets and MBOX.L box.

	Content set	Contents	Qty	ΔΔ [kg]
<b>MOD.SL161-46</b>	SL.161 - S.H 8 - 9 - 10 - 11 - 12 - 13 - 14 - 15 - 16 - 17 - 18 - 19 - 21 - 22 - 23 - 24 - 27 - 28 - 29 - 30 - 32 - S.210 - S.215 - S.240A - S.120A	PL.L02	26	3.721



SOCKETS

1/2" inch 12-point sockets module



- Compatible with the FACOM modular storage system:
  - Suitable for CHRONO XL, CHRONO+, JET XL, JET+ roller cabinets and MBOX.M box.

	Content set	Contents	Qty	ΔΔ [kg]
<b>MOD.S161-112U</b>	S.161B - S. 3/8" - 7/16" - 1/2" - 9/16" - 19/32" - 5/8" - 21/32" - 11/16" - 3/4" - 13/16" - 7/8" - S.210 - S.215 - S.240A	PL.M05	15	2.0

1/2" inch 12-point sockets module



- Compatible with the FACOM modular storage system:
  - Suitable for CHRONO XL, CHRONO+, JET XL, JET+ roller cabinets and MBOX.M box.

	Content set	Contents	Qty	ΔΔ [kg]
<b>MOD.SL161-112U</b>	SL.161 - S. 3/8" - 7/16" - 1/2" - 9/16" - 19/32" - 5/8" - 21/32" - 11/16" - 3/4" - 13/16" - 7/8" - S.210 - S.215 - S.240A	PL.M05	15	2.15

1/2" inch 12-point sockets module



- Compatible with the FACOM modular storage system:
  - Suitable for CHRONO XL, CHRONO+, JET XL, JET+ roller cabinets and MBOX.L box.

	Content set	Contents	Qty	ΔΔ [kg]
<b>MOD.S161-212U</b>	S.161B - S. 3/8" - 7/16" - 1/2" - 9/16" - 19/32" - 5/8" - 21/32" - 11/16" - 3/4" - 13/16" - 7/8" - 15/16" - 1" - 1 1/16" - 1 1/8" - 1 3/16" - 1 1/4" - S.210 - S.215 - S.240A - S.120A	PL.L05	22	3.3

1/2" inch 12-point sockets module



- Compatible with the FACOM modular storage system:
  - Suitable for CHRONO XL, CHRONO+, JET XL, JET+ roller cabinets and MBOX.L box.

	Content set	Contents	Qty	ΔΔ [kg]
<b>MOD.SL161-212U</b>	SL.161 - S. 3/8" - 7/16" - 1/2" - 9/16" - 19/32" - 5/8" - 21/32" - 11/16" - 3/4" - 13/16" - 7/8" - 15/16" - 1" - 1 1/16" - 1 1/8" - 1 3/16" - 1 1/4" - S.210 - S.215 - S.240A - S.120A	PL.L05	22	3.34

1/2" long-reach metric 6-point sockets module



- Compatible with the FACOM modular storage system:
  - Suitable for CHRONO XL, CHRONO+, JET XL, JET+ roller cabinets and MBOX.M box.

	Content set	Contents	Qty	ΔΔ [kg]
<b>MOD.HLB</b>	J.HLA - 7 - 8 - 9 - 10 - 11 - S.HLA - 12 - 13 - 14 - 15 - 16 - 17 - 18 - 19	PL.M06	13	1.445

24-piece set of Torx® sockets and wrenches

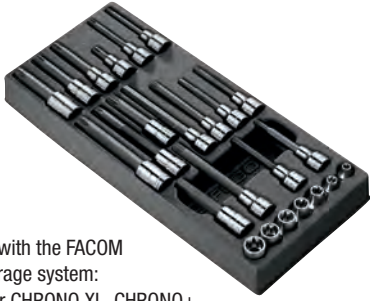


- Compatible with the FACOM modular storage system:
  - Suited to CHRONO XL, CHRONO+, JET XL, JET+ roller cabinets and MBOX.M box.

	Content set	Contents	Qty	ΔΔ [kg]
<b>MOD.TX1A</b>	Torx®: JTX. E8 - E10 - E12 - E14 - E16 - Torx®: STX. E18 - E20 - Torx®: 59TX. E6xE8 - E10xE12 - E14xE18 - E20xE24 - R.235 - J.235 - S.236 - EXR.1 Resistor®: TT10 - TT15 - TT20 - TT25 - TT30 - TT40 - EX.2 Torx®: T 40 - T 45 - T 50 - T 55	PL.M08	24	0.95

AUTOMOTIVE

Module of 24 cylinder head tightening and loosening tools



**XL**

- Compatible with the FACOM modular storage system:
  - Suitable for CHRONO XL, CHRONO+, JET XL, JET+ roller cabinets and MBOX.M

	Content set	Contents	Qty	ΔΔ [kg]
<b>MOD.CH</b>	D.34BL 7 - 9 - 10 - 12 - 14 - 16 - SV.LB 6 - 8 - 10 - 12 - 14 - JTX.8 - 10 Torx® - STX.12 - 14 - 16 - 18 - 20 Torx® - SX.LA 55 - 70 Torx® - SHPLA 6 - 8 - 10 - 12	PL.663	24	2.6

15-piece module of 1/2" screwdriver sockets



- Compatible with the FACOM modular storage system:
  - Suitable for CHRONO XL, CHRONO+, JET XL, JET+ roller cabinets and MBOX.M

	Content set	Contents	Qty	ΔΔ [kg]
<b>MOD.SHPA</b>	SHPLA 5 - 6 - 7 - 8 - XZN® : SV.LB M6 - M8 - M10 - M12 - M14 - M16 - M18 - Torx® : SX.LA T40 - T45 - T55 - T70	PL.336A	15	3.501

SCREWDRIVERS

Thermo-formed Protwist® 8 screwdrivers module



- Compatible with the Facom modular storage system:
  - Compatible with CHRONO XL, CHRONO+, JETXL and JET+ roller cabinets.

	Content set	Contents	Qty	ΔΔ [kg]
<b>MOD.AT1</b>	AT3X75 - AT3.5X100 - AT4X100 - AT5.5X125 - ATWH6.5X150 - ATWH8X175 - ATP1X100 - ATP2X125	PL.325	8	0.985

Thermo-formed Protwist® 8 screwdrivers module - MOD.AT2



- Compatible with the Facom modular storage system:
  - Compatible with CHRONO XL, CHRONO+, JETXL and JET+ roller cabinets.

	Content set	Contents	Qty	ΔΔ [kg]
<b>MOD.AT2</b>	AT2X75 - AT2.5X75 - ATWDH3X150 - ATPOX75 - ATDOX75 - ATD1X100 - ATD2X125	PL.631	8	0.75

Thermo-formed Protwist® 8 screwdrivers module - MOD.AT3



- Compatible with the Facom modular storage system:
  - Compatible with CHRONO XL, CHRONO+, JETXL and JET+ roller cabinets.

	Content set	Contents	Qty	ΔΔ [kg]
<b>MOD.AT3</b>	AT4X25 - AT5.5X35 - ATPOX75 - ATP1X25 - ATDOX75 - ATD1X100 - ATD2X125 - ATD2X35	PL.326	8	0.785

Thermo-formed Protwist® 9 screwdrivers module - MOD.AT4



**XL**

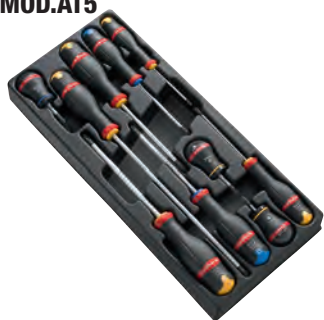
- Compatible with the Facom modular storage system:
  - Compatible with CHRONO XL, CHRONO+, JETXL and JET+ roller cabinets.

	Content set	Contents	Qty	ΔΔ [kg]
<b>MOD.AT4</b>	AT2.5X75 - AT3.5X75 - AT4X35 - AT4X100 - AT4X300 - AT5.5X35 - AT6.5X100 - AT8X175	PL.676	9	0.995



SCREWDRIVERS

Thermo-formed Protwist® 10 screwdrivers module - MOD.AT5



- Compatible with the Facom modular storage system:
  - Compatible with CHRONO XL, CHRONO+, JETXL and JET+ roller cabinets.

	Content set	Contents	Qty	ΔΔ [kg]
<b>MOD.AT5</b>	ATD1X100 - ATD2X125 - ATD2X35 - ATP0X75 - ATP1X25 - ATP1X100 - ATP2X35 - ATP2X125 - ATP2X250 - ATP3X150	PL.677	10	0.92

Thermo-formed Protwist® 10 screwdrivers module - MOD.AT6



- Compatible with the Facom modular storage system:
  - Compatible with CHRONO XL, CHRONO+, JETXL and JET+ roller cabinets.

	Content set	Contents	Qty	ΔΔ [kg]
<b>MOD.AT6</b>	AEX6X35 - AEX7X35 - AEX8X75 - ATXR10X75 - ATXR15X75 - ATXR30X125 - ATXR40X150 - ATXR20X100 - ATXR25X100 - ATXR27X100	PL.678	10	0.892

Thermo-formed Protwist® 8 screwdrivers module - MOD.AT7



- Compatible with the Facom modular storage system:
  - Compatible with CHRONO XL, CHRONO+, JETXL and JET+ roller cabinets.

	Content set	Contents	Qty	ΔΔ [kg]
<b>MOD.AT7</b>	AT3.5X75 - AT4X100 - AT5.5X150 - AT6.5X150 - ATWH8X175 - ATD1X100 - ATD2X125 - ATP0X75	PL.325	8	1.0

Thermo-formed Protwist® 7 screwdrivers module - MOD.ATX



- Compatible avec le système de rangement modulaire FACOM :
  - Adapté aux servantes CHRONO, JET, CHRONO XL, CHRONO+, JET XL et JET+.

	Content set	Contents	Qty	ΔΔ [kg]
<b>MOD.ATX</b>	ATX10X75 - ATX15X75 - ATX20X100 - ATX25X100 - ATX27X100 - ATX30X125 - ATX40X150	PL.327	7	0.84

Thermo-formed Protwist® 7 screwdrivers module - MOD.ATXR



- Compatible with the Facom modular storage system:
  - Compatible with CHRONO XL, CHRONO+, JETXL and JET+ roller cabinets.

	Content set	Contents	Qty	ΔΔ [kg]
<b>MOD.ATXR</b>	ATXR10X75 - ATXR15X75 - ATXR20X100 - ATXR25X100 - ATXR27X100 - ATXR30X125 - ATXR40X150	PL.327	7	0.84

Thermo-formed Protwist® 8 screwdrivers module - MOD.AT1VE



- Compatible with the Facom modular storage system:
  - Compatible with CHRONO XL, CHRONO+, JETXL and JET+ roller cabinets.

	Content set	Contents	Qty	ΔΔ [kg]
<b>MOD.AT1VE</b>	ATVE 3,5 - 4 - 5,5 - 6,5 - ATP1 x 100VE - ATP2 x 125VE - ATD1 x 100VE - ATD2 x 125VE	PL.325	8	0.907

▪ Set of 7 "T" spherical head hexagon keys



- Compatible with the Facom modular storage system:
- Compatible with CHRONO XL, CHRONO+, JETXL and JET+ roller cabinets.

Content set	Contents	Qty	ΔΔ [kg]	
<b>MOD.84TZSA</b>	84TZA.3, 84TZA.4, 84TZA.5, 84TZA.6, 84TZA.7, 84TZA.8, 84TZA.10	PL.MM-A	7	0.996

▪ Set of 7 "T" spherical head TORX® hexagon keys - MOD.89TXA



- Compatible with the FACOM modular storage system:
- Adapted to CHRONO, JET, CHRONO XL, CHRONO+, JET XL and JET+ roller cabinets.

Content set	Contents	Qty	ΔΔ [kg]	
<b>MOD.89TXA</b>	89TXA - 15 - 20 - 25 - 27 - 30 - 40	PL.TORX-A	7	0.648

▪ Module with 20 screw bits



- Compatible with the Facom modular storage system:
- Compatible with CHRONO XL, CHRONO+, JETXL and JET+ roller cabinets.

Content set	Contents	Qty	ΔΔ [kg]	
<b>MOD.E20L</b>	EH.204L, 205L, 206L, 207L, 208L, 210L, EV.205L, 206L, 208L, 210L, EX.230L, 240L, 245L, 250L - EXR.110L, 115L, 120L, 125L, 130L, 140L - R.235 - J.236 - S.236	PL.624	20	0.755

▪ 41 bits and 3 bit holders module



- Compatible with the Facom modular storage system:
- Compatible with CHRONO XL, CHRONO+, JETXL and JET+ roller cabinets.

Content set	Contents	Qty	ΔΔ [kg]	
<b>MOD.E41</b>	ED.101T-102T-103T - EH.104-105-106-107 - EXR.110-115-120-125-130-140 - EXR.110L-115L-120L-125L-130L-140L - EH.204L-205L-206L-207L-208L-210L - EH.208-210 - EV.205L-206L-208L-210L - EV.206-208-210 - EX.230L-240L-245L-250L - EX.245-250-255 - R.235-J.236-S.236	PL.621	44	0.895

PLIERS

▪ Impact screwdrivers module



- Compatible with the Facom modular storage system:
- Compatible with CHRONO XL, CHRONO+, JETXL and JET+ roller cabinets.

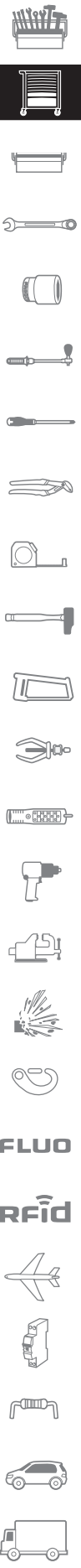
Content set	Contents	Qty	ΔΔ [kg]	
<b>MOD.NS260</b>	NS.260A - NS.236A - ENH. 5 - 6 - 8 - 10 - END.2 n°2 - 3 - ENP.2 n°2 - 3 - 4 - ENX.2 20 - 25 - 30 - 40 - 45 - 55	PL.380	17	1.3

▪ 3-piece mechanic pliers module



- Compatible with the Facom modular storage system:
- Compatible with CHRONO XL, CHRONO+, JETXL and JET+ roller cabinets.

Content set	Contents	Qty	ΔΔ [kg]	
<b>MOD.CPEAO</b>	185A.20CPE, 187A.18CPE, 192A.16CPE	PL.MODCPEAO	3	0.942



PLIERS

5-piece pliers module



**XL**

- Compatible with the Facom modular storage system:  
- Compatible with CHRONO XL, CHRONO+, JETXL and JET+ roller cabinets.

	Content set	Contents	Qty	ΔΔ [kg]
<b>MOD.CPE5</b>	181A.25CPE - 501A - 192.16CPE - 195.20CPE - 185.20CPE	XL PL.657	5	1.8

3-piece 1000V insulated pliers module



- Compatible with the Facom modular storage system:  
- Compatible with CHRONO XL, CHRONO+, JETXL and JET+ roller cabinets.

	Content set	Contents	Qty	ΔΔ [kg]
<b>MOD.VEA0</b>	180A.VE, 194A.17VE, 391A.16VE	PL.622	3	0.951

2-piece adjustable pliers module PR4



- Compatible with the Facom modular storage system:  
- Compatible with CHRONO XL, CHRONO+, JETXL and JET+ roller cabinets.

	Content set	Contents	Qty	ΔΔ [kg]
<b>MOD.PR4</b>	180.CPE - 501AMP	PL.330	2	1.2

2-piece adjustable pliers module PR8



- Compatible with the Facom modular storage system:  
- Compatible with CHRONO XL, CHRONO+, JETXL and JET+ roller cabinets.

	Content set	Contents	Qty	ΔΔ [kg]
<b>MOD.PR8</b>	180.CPE - 500A	PL.330	2	1.2

2-piece adjustable pliers module PR9



- Compatible with the Facom modular storage system:  
- Compatible with CHRONO XL, CHRONO+, JETXL and JET+ roller cabinets.

	Content set	Contents	Qty	ΔΔ [kg]
<b>MOD.PR9</b>	181A.25CPE - 501A	PL.330	2	0.504

2-piece adjustable pliers module PR11



- Compatible with the Facom modular storage system:  
- Compatible with CHRONO XL, CHRONO+, JETXL and JET+ roller cabinets.

	Content set	Contents	Qty	ΔΔ [kg]
<b>MOD.PR11</b>	181A.25CPE - 501AMP	PL.330	2	1.2

2-piece adjustable pliers module PR12



- Compatible with the Facom modular storage system:
  - Compatible with CHRONO XL, CHRONO+, JETXL and JET+ roller cabinets.

Content set	Contents	Qty	ΔΔ [kg]
181A.25CPE - 580.10	PL.330	2	1.2

4-piece Circlip® pliers module



- Compatible with the Facom modular storage system:
  - Compatible with CHRONO XL, CHRONO+, JETXL and JET+ roller cabinets.

Content set	Contents	Qty	ΔΔ [kg]
177A.13 (10 - 25) - 177A.18 (18 - 60) G61 - 179A.13 (12 - 25) - 179A.18 (18 - 60)	PL.683	4	0.842

Module of 4 straight and round nose Circlip® closing / opening pliers



- Compatible with the Facom modular storage system:
  - Compatible with CHRONO XL, CHRONO+, JETXL and JET+ roller cabinets.

Content set	Contents	Qty	ΔΔ [kg]
177A.13 (10 - 25) - 177A.18 (18 - 60) - 179A.13 (12 - 25) - 179A.18 (18 - 60)	PL.332A	4	0.842

Sheathed drift punches module



- Compatible with the Facom modular storage system:
  - Compatible with CHRONO XL, CHRONO+, JETXL and JET+ roller cabinets.

Content set	Contents	Qty	ΔΔ [kg]
249.G2 - 3 - 4 - 5 - 6 - 8 - 247.G4 - 5 - 6 - 8 - 255.G6	PL.334	11	1.5

Drift punch - chisels - sheathed cape chisel module



- Compatible with the Facom modular storage system:
  - Compatible with CHRONO XL, CHRONO+, JETXL and JET+ roller cabinets.

Content set	Contents	Qty	ΔΔ [kg]
249.G12 - 14 - 16 - 263G19 - 20 - 22 - 265.G18	PL.611	7	3.0

Impact tools 205C module



- Compatible with the Facom modular storage system:
  - Compatible with CHRONO XL, CHRONO+, JETXL and JET+ roller cabinets.

Content set	Contents	Qty	ΔΔ [kg]
205C.50 - 208A.32CBA - 248.G 4 - 5 - 6 - 263.18 - 256.6	PL.333	7	1.7



HICKORY HANDLE HAMMERS

Impact tools module



- Compatible with the Facom modular storage system:  
- Compatible with CHRONO XL, CHRONO+, JETXL and JET+ roller cabinets.

Content set	Contents	Qty	ΔΔ [kg]
200H.32 - 208A.32CBA - 263.20 - 256.6 - 248.4 - 5 - 6	PL.333	7	1.8

Impact tools 205H module



- Compatible with the Facom modular storage system:  
- Compatible with CHRONO XL, CHRONO+, JETXL and JET+ roller cabinets.

Content set	Contents	Qty	ΔΔ [kg]
205H.50 - 208A.32CBA - 263.18 - 256.6 - 248.4 - 5 - 6	PL.333	7	1.7

Impact tools 202H module



- Compatible with the Facom modular storage system:  
- Compatible with CHRONO XL, CHRONO+, JETXL and JET+ roller cabinets.

Content set	Contents	Qty	ΔΔ [kg]
202H.1/2 - 208A.32CBA - 263.18 - 256.6 - 248.4 - 5 - 6	PL.333	7	1.5

CUTTING AND MEASURING

Saw, measuring, file module



- Compatible with the Facom modular storage system:  
- Compatible with CHRONO XL, CHRONO+, JETXL and JET+ roller cabinets.

Content set	Contents	Qty	ΔΔ [kg]
601 - 666B.10 - 234.S - 803.300M - PAM.B250EMA - DRD.MD250EMA - CAR.MD200EMA - TRI.MD200EMA - RD.MD200EMA - 893.316	PL.335	10	2.3

5-piece file module



- Compatible with the Facom modular storage system:  
- Compatible with CHRONO XL, CHRONO+, JETXL and JET+ roller cabinets.

Content set	Contents	Qty	ΔΔ [kg]
PAM.B200EMA - DRD.MD200EMA - CAR.MD200EMA - TRI.MD200EMA - RD.MD200EMA	PL.606	5	0.950

Riveting module



- Compatible with the Facom modular storage system:  
- Compatible with CHRONO XL, CHRONO+, JETXL and JET+ roller cabinets.

Content set	Contents	Qty	ΔΔ [kg]
Y.105B	PL.377	700	2.0



AUTOMOTIVE

Micro-Tech® pliers module



- Compatible with the Facom modular storage system:  
- Compatible with CHRONO XL, CHRONO+, JETXL and JET+ roller cabinets.

Content set	Contents	Qty	ΔΔ [kg]
<b>MOD.MT1</b> 402.MT - 405.MT - 405.12MT - 406.MT - 406.8MT - 433.LMT	PL.612	6	0.65

Disc brake module



- Compatible with the Facom modular storage system:  
- Compatible with CHRONO XL, CHRONO+, JETXL and JET+ roller cabinets.

Content set	Contents	Qty	ΔΔ [kg]
<b>MOD.DFD</b> 31.14X15 et 31.16X17 - 467F.12 - 13 - 14 - NJ.260 - NJ.236A - 83SH.7 - 249.G4 - Torx® ENX.230 - ENX.240 ; Phillips® n°2 ; ENH.205 5 mm	PL.685	13	1.7

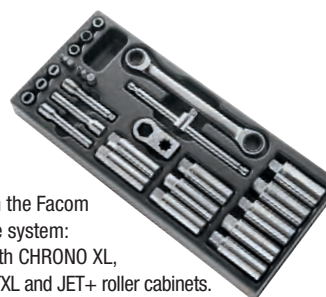
Drum brake module



- Compatible with the Facom modular storage system:  
- Compatible with CHRONO XL, CHRONO+, JETXL and JET+ roller cabinets.

Content set	Contents	Qty	ΔΔ [kg]
<b>MOD.DFT</b> D.104A - DF.2 - D.79A - 43. 8x10 - 11x132	PL.684	5	0.855

Module of 28 tools for Mac Pherson® shock absorber head



**XL**

- Compatible with the Facom modular storage system:  
- Compatible with CHRONO XL, CHRONO+, JETXL and JET+ roller cabinets.

Content set	Contents	Qty	ΔΔ [kg]
<b>D.83C</b> D.83CTS12 - D.83C 13L - 14L - 15L - 17L - 18L - 19L - 21L - 22L - 24L - D.83C 8H - 9H - 11H - D.83C 5S - 6S - 8S - D.83CJ794M - D.83CJ635 - D.83CJ8 - J.120A - 64.17x19 - EH.108 - 107 - 106 - EXR.140, EX.245 - XZN : EV.2 M12, 36	PL.647	27	3.8

Wheel nut tightening module



- Compatible with the Facom modular storage system:  
- Compatible with CHRONO XL, CHRONO+, JETXL and JET+ roller cabinets.

Content set	Contents	Qty	ΔΔ [kg]
<b>MOD.208</b> 77AT0D - S.208 - 200 - NSB.17 - 19 - 21 - SH.17 - 19 - 21	PL.337A	9	5.5

Bodywork module no.2



- Compatible with the Facom modular storage system:  
- Compatible with CHRONO XL, CHRONO+, JETXL and JET+ roller cabinets.

Content set	Contents	Qty	ΔΔ [kg]
<b>MOD.CAR2</b> 259 - 209.50 - 225.J3 - 850.S350 - 851B - 860H.28 - 861D.30 - 862D.60 - 867D - 870B - 871B.55 - 874A - 875.3 - 906A	PL.679	14	10.0



OIL-FILTER WRENCHES

Multi-make oil change and filter module



- Compatible with the Facom modular storage system:
  - Compatible with CHRONO XL, CHRONO+, JETXL and JET+ roller cabinets.

Content set	Contents	Qty	ΔΔ [kg]
<b>MOD.U48A</b>	U.48 - 13, 14, 17, 18, 19, 21 - 8, 10, 12, 13, 14, 17 - Torx® 45	XL PL.399A	29 1.0

Complete spark plug module



- Compatible with the Facom modular storage system:
  - Compatible with CHRONO XL, CHRONO+, JETXL and JET+ roller cabinets.

Content set	Contents	Qty	ΔΔ [kg]
<b>MOD.BJ-GM</b>	B.J14BH 1 - 2 / B.J16A 1 - 2 / B.J21A1 - B.10R8L - B.10R9L - B.10R10A - B.10R12AL - J.161 - D.110	PL.661A	9 2.2

Spark plug service module



- Compatible with the Facom modular storage system:
  - Compatible with CHRONO XL, CHRONO+, JETXL and JET+ roller cabinets.

Content set	Contents	Qty	ΔΔ [kg]
<b>MOD.BJC</b>	B.J14BH1 - B.J14BH2 - B.J16A1 - B.J16A2 - B.J18A1 - B.J21A1 - DM.20	PL.669A	7 1.5

Spark plug service module



- Compatible with the Facom modular storage system:
  - Compatible with CHRONO XL, CHRONO+, JETXL and JET+ roller cabinets.

Content set	Contents	Qty	ΔΔ [kg]
<b>MOD.BSB</b>	B.S16A1 - B.S16A2 - B.S18A1 - B.S21A1 - DM.20	PL.668A	5 1.2

Glow plug module



- Compatible with the Facom modular storage system:
  - Compatible with CHRONO XL, CHRONO+, JETXL and JET+ roller cabinets.

Content set	Contents	Qty	ΔΔ [kg]
<b>MOD.BRA</b>	D.110 - B.10R8D - B.10R9D - B.10R10D - B.10R12AL - D.133A6	PL.667	6 0.910

Torx® wrench sockets and bit module



- Compatible with the Facom modular storage system:
  - Compatible with CHRONO XL, CHRONO+, JETXL and JET+ roller cabinets.

Content set	Contents	Qty	ΔΔ [kg]
<b>MOD.TX1</b>	JTX. E8 - E10 - E12 - E14 - E16 - Torx® : STX. E18 - E20 - Torx® : 59TX. E6xE8 - E10xE12 - E14xE18 - E20xE24 - R.235 - J.235 - S.236 - EXR.1 Resistox® : TT10 - TT15 - TT20 - TT25 - TT30 - TT40 - EX.2 Torx® : T 40 - T 45 - T 50 - T 55	PL.360	88 0.995

WRENCHES

**FACOM MODULAR SYSTEM / FOAM**

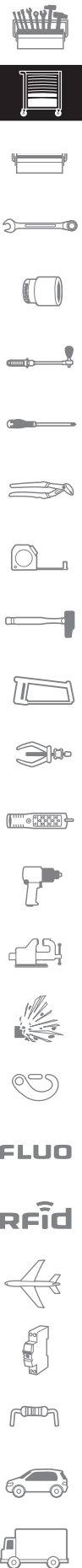
**Effective tool organisation with FACOM Modular System**

- Stored tools = productivity, comfort and safety.
- Instant access to all your tools without wasting time.
- Optimum safety: no more rummaging through loose tools in a drawer.

**Foam modules FACOM Control System**



- Two-colour system: helps immediate identification of missing tools.
- High density foam: resistant to crushing, hydrocarbons, hydraulic fluids and detergents.
- Finger recesses for easy pick-up.
- Tools securely held during transport.
- Dimensions 188 x 418 mm.
- Only for the JET+3, JET+4, JET+5, JETXL, CHRONOXL and CHRONO+ ranges.



■ **467BR - Module of 12 metric open end combined ratchets in foam tray**

- Compatible with the FACOM modular storage system:
  - Adapted to CHRONO XL, CHRONO+, JET XL and JET+ roller cabinets.

Icon	Content set	Contents	Qty	ΔΔ [kg]
	8, 9, 10, 11, 12, 13, 14, 15, 16, 17, 18, 19	PM.MOD467J12	12	1.5
	8, 9, 10, 11, 12, 13, 14, 15, 16, 17, 18, 19	PM.MOD467J12	14	1.7



■ **Inch short ratchet combination wrench in foam tray**

- Compatible with the Facom modular storage system:
  - Compatible with CHRONO XL, CHRONO+, JETXL and JET+ roller cabinets.

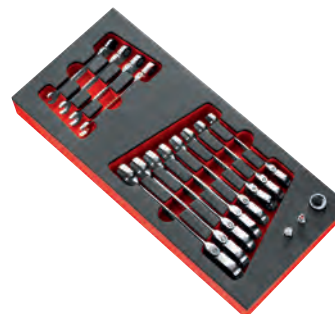
Icon	Content set	Contents	Qty	ΔΔ [kg]
	1/4 - 5/16 - 11/32 - 3/8 - 7/16 - 1/2 - 9/16 - 5/8 - 11/16 - 3/4	PM.MOD467SJU10	10	0.8



■ **Hinged metric ratchet combination wrench sets in heat**

- Compatible with the FACOM modular storage system: compatible with CHRONO XL, CHRONO+, JETXL and JET+ roller cabinets.

Icon	Content set	Contents	Qty	ΔΔ [kg]
	7 - 8 - 10 - 11 - 12 - 13 - 14 - 15 - 16 - 17 - 18 - 19	PM.MOD467FJ12	12	1.6



WRENCHES

7-piece set of 15° angled offset-ring ratchets Spline in foam tray



- Compatible with the FACOM modular storage system:
  - Adapted to CHRONO XL, CHRONO+, JET XL and JET+ roller cabinets.

	Content set	Contents	Qty	ΔΔ [kg]
<b>MODM.65SPL7</b>	65.7X9SPL, 8X10SPL, 2X14SPL, 16X18SPL, 20X22SPL, 24X28SPL, 26X30SPL	PM. MOD65SPL7	7	0.95

F18 - 17 OGV® combination wrenches sizes 6 to 22 and 24 mm in foam tray



- Compatible with the Facom modular storage system:
  - Compatible with CHRONO XL, CHRONO+, JETXL and JET+ roller cabinets.

	Content set	Contents	Qty	ΔΔ [kg]
<b>MODM.440-1</b>	6 - 7 - 8 - 9 - 10 - 11 - 12 - 13 - 14 - 15 - 16 - 17 - 18 - 19 - 21 - 22 - 24	PM. MOD440-1	17	1.9

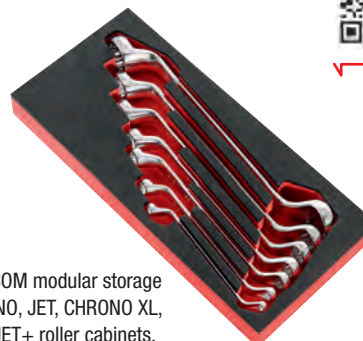
5 OGV® combination wrenches sizes 27 to 22 and 34 mm in foam tray



- Compatible with the Facom modular storage system:
  - Compatible with CHRONO XL, CHRONO+, JETXL and JET+ roller cabinets.

	Content set	Contents	Qty	ΔΔ [kg]
<b>MODM.440-2</b>	27 - 29 - 30 - 32 - 34	PM. MOD440-2	5	2.2

7-piece set of inch and metric angled offset-ring wrenches in foam tray



- Compatible with the FACOM modular storage system: Suited to CHRONO, JET, CHRONO XL, CHRONO+, JET XL and JET+ roller cabinets.

	Content set	Contents	Qty	ΔΔ [kg]
<b>MODM.55A-1</b>	8x9 - 10-11 - 12x13 - 14x15 - 16x17 - 18-19 x 21x23	PM. MOD55A-1	7	1.3
<b>MODM.55A-2</b>	1/4x5/16 - 3/8x7/16 - 1/2x9/16 - 5/8x11/16 - 3/4x13/16 - 7/8x15/16 - 1"x1"1/16	PM. MOD55A-2	7	1.7

8-piece set of inch offset-ring wrenches in foam tray



- Compatible with the FACOM modular storage system: suited to CHRONO, JET, CHRONO XL, CHRONO+, JET XL and JET+ roller cabinets.

	Content set	Contents	Qty	ΔΔ [kg]
<b>MODM.56JU8</b>	1/4X5/16 - 3/8x7/16 - 1/2x9/16 - 9/16x5/8 - 5/16X3/8 - 7/16x1/2 - 9/16X5/8 - 11/16x3x4	PM. MOD56JU8	8	0.900

Offset-ring wrenches, metric, inch, Spline, in foam tray



- Compatible with the Facom modular storage system:
  - Compatible with CHRONO XL, CHRONO+, JETXL and JET+ roller cabinets.

	Content set	Contents	Qty	ΔΔ [kg]
<b>MODM.57LJ7</b>	57L.5.5x7 - 8x9 - 10x11 - 12x13 - 12x14 - 17x19 - 18x20	PM.MOD57LJ7	7	2.04
<b>MODM.57LJU5</b>	57L.7/32X1/4 - 5/16x3/8 - 57L.7/16X1/2 - 1/2x9/16 - 5/8x3/4	PM. MOD57LJU5	5	1.377
<b>MODM.57LSPL6</b>	57L.7x9 - 8x10 - 12x14 - 16x18 - 18x20 - 22x24	PM. MOD57LSPL6	6	1.0

13 OGV® 6-point tubular socket wrenches set in foam tray



- Compatible with the Facom modular storage system:
  - Compatible with CHRONO XL, CHRONO+, JETXL and JET+ roller cabinets.

	Content set	Contents	Qty	ΔΔ [kg]
<b>MODM.75</b>	75.7 - 8 - 9 - 10 - 11 - 12 - 13 - 14 - 15 - 16 - 17 - 18 - 19	PM.MOD75	13	2.7

7 universal joint socket wrenches set 7 to 19 mm in foam tray

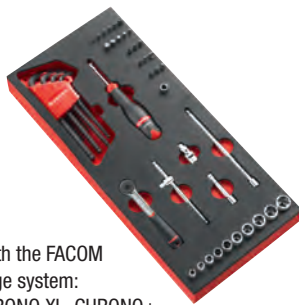


- Compatible with the Facom modular storage system:
  - Compatible with CHRONO XL, CHRONO+, JETXL and JET+ roller cabinets.

	Content set	Contents	Qty	ΔΔ [kg]
<b>MODM.99B</b>	7 - 8 - 10 - 11 - 13 - 17 - 19	PM.MOD99B	7	3.5

SOCKETS

46-piece 1/4" metric 6-point socket foam module - R.161B



- Compatible with the FACOM modular storage system:
  - Suited to CHRONO XL, CHRONO+, JET XL, JET+ roller cabinets and MBOX.L box.

	Content set	Contents	Qty	ΔΔ [kg]
<b>MODM.R161-36</b>	R.161B - R.5.5 - 6 - 7 - 8 - 9 - 10 - 11 - 12 - 13 - 14 - R.209 - R.215 - R.240A - R.120A - R.236A - R.235 - EP.1T : PH1 - PH2 - PH3 - ED.1T : PZ1 - PZ2 - PZ3. - ES.1T : 4,5 - 6,5 - 8,0 - EH.1 : 3 - 4 - 5 - 6 - 7 - EXR.1 : TT15 - TT20 - TT25 - TT27 - TT30	PM. MODR1AN	46	1.025

46-piece 1/4" metric 6-point socket foam module - RL.161



- Compatible with the FACOM modular storage system:
  - Suited to CHRONO XL, CHRONO+, JET XL, JET+ roller cabinets and MBOX.L box.

	Content set	Contents	Qty	ΔΔ [kg]
<b>MODM.RL161-36</b>	RL.161 - R.5.5 - 6 - 7 - 8 - 9 - 10 - 11 - 12 - 13 - 14 - R.209 - R.215 - R.240A - R.120A - R.236A - R.235 - EP.1T Phillips® : PH1 - PH2 - PH3. - ED.1T Pozidriv® : PZ1 - PZ2 - PZ3. - ES.1T : 4,5 - 6,5 - 8,0 mm. - EH.1 : 3 - 4 - 5 - 6 - 7 - EXR.1 Resistor® : TT15 - TT20 - TT25 - TT27 - TT30 - TT40. - 83SH. 1,5 - 2 - 2,5 - 3 - 4 - 5 - 6 - 8 - 10	PM. MODR1AN	46	1.025

20-piece 3/8" metric 6-point socket foam module - J.161B



- Compatible with the FACOM modular storage system:
  - Suited to CHRONO XL, CHRONO+, JET XL, JET+ roller cabinets and MBOX.L box.

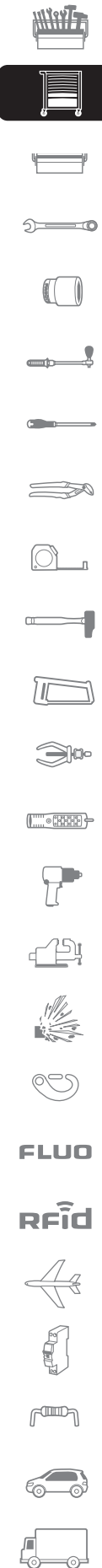
	Content set	Contents	Qty	ΔΔ [kg]
<b>MODM.J161-36</b>	J.161B - J.H 7 - 8 - 9 - 10 - 11 - 12 - 13 - 14 - 15 - 16 - 17 - 18 - 19 - 21 - 22 - J.210 - J.215 - J.240A - J.120A	PM. MODJ161-3	20	1.45

20-piece 3/8" metric 6-point socket foam module - JL.161



- Compatible with the FACOM modular storage system:
  - Suited to CHRONO XL, CHRONO+, JET XL, JET+ roller cabinets and MBOX.L box.

	Content set	Contents	Qty	ΔΔ [kg]
<b>MODM.JL161-36</b>	JL.161 - J.H 7 - 8 - 9 - 10 - 11 - 12 - 13 - 14 - 15 - 16 - 17 - 18 - 19 - 21 - 22 - J.210 - J.215 - J.240A - J.120A	PM. MODJ161-3	20	1.49



SOCKETS

23-piece 1/2" metric 6-point socket foam module - SL.161B



- Compatible with the FACOM modular storage system:
  - Suited to CHRONO XL, CHRONO+, JET XL, JET+ roller cabinets and MBOX.M box.

	Content set	Contents	Qty	ΔΔ [kg]
<b>MODM.S161-36</b>	S.161B - S.H 8 - 9 - 10 - 11 - 12 - 13 - 14 - 15 - 16 - 17 - 18 - 19 - 21 - 22 - 23 - 24 - 27 - 30 - 32 - S.210 - S.215 - S.240A	PM. MODS161-3	23	2.9

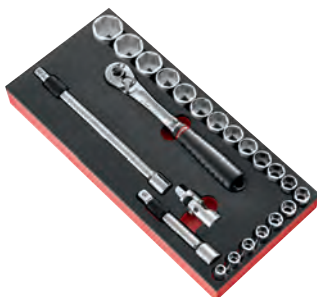
23-piece 1/2" metric 6-point socket foam module - SL.161



- Compatible with the FACOM modular storage system:
  - Suited to CHRONO XL, CHRONO+, JET XL, JET+ roller cabinets and PB.MBOX.L box.

	Content set	Contents	Qty	ΔΔ [kg]
<b>MODM.SL161-36</b>	SL.161 - S.H 8 - 9 - 10 - 11 - 12 - 13 - 14 - 15 - 16 - 17 - 18 - 19 - 21 - 22 - 23 - 24 - 27 - 30 - 32 - S.210 - S.215 - S.240A	PM. MODS161-3	23	2.9

23-piece 1/2" metric 6-point socket foam module - SL.171



- Compatible with the FACOM modular storage system:
  - Suited to CHRONO XL, CHRONO+, JET XL, JET+ roller cabinets and PB.MBOX.L box.

	Content set	Contents	Qty	ΔΔ [kg]
<b>MODM.SL171-36</b>	SL.171 - S.H 8 - 9 - 10 - 11 - 12 - 13 - 14 - 15 - 16 - 17 - 18 - 19 - 21 - 22 - 23 - 24 - 27 - 30 - 32 - S.210RC - S.215RC - S.240A	PM. MODS161-3	23	3.0

1/2" 6-point socket and accessories foam module



- Compatible with the FACOM modular storage system:
  - Suited to CHRONO XL, CHRONO+, JET XL, JET+ roller cabinets and MBOX.L box.

	Content set	Contents	Qty	ΔΔ [kg]
<b>MODM.S1A</b>	S.161B - S.H 8 - 10 - 11 - 12 - 13 - 14 - 15 - 16 - 17 - 18 - 19 - 21 - 22 - 23 - 24 - 27 - 30 - 32 - S.210 - S.215 - S.240A - S.120A	PM.MOD.S1A	23	3.15

1/2" metric 6-point socket foam module - SL.161



- Compatible with the FACOM modular storage system:
  - Suited to CHRONO XL, CHRONO+, JET XL, JET+ roller cabinets and MBOX.L box.

	Content set	Contents	Qty	ΔΔ [kg]
<b>MODM.SL1</b>	SL.161 - S.H 8 - 10 - 11 - 12 - 13 - 14 - 15 - 16 - 17 - 18 - 19 - 21 - 22 - 23 - 24 - 27 - 30 - 32 - S.210 - S.215 - S.240A - S.120A	PM.MOD.S1A	23	3.40

22-piece 1/2" metric 12-point socket foam module



- Compatible with the FACOM modular storage system:
  - Suited to CHRONO XL, CHRONO+, JET XL, JET+ roller cabinets and MBOX.L box.

	Content set	Contents	Qty	ΔΔ [kg]
<b>MODM.S161-212U</b>	S.161B - S. 3/8' - 7/16' - 1/2' - 9/16' - 19/32' - 5/8' - 21/32' - 11/16' - 3/4' - 13/16' - 7/8' - 15/16' - 1' - 1 1/16' - 1 1/8' - 1 3/16' - 1 1/4' - S.210 - S.215 - S.240A - S.120A	PM.MODM-CHA	22	3.1

22-piece 1/2" inch 12-point socket foam module

- Compatible with the FACOM modular storage system:
  - Suited to CHRONO XL, CHRONO+, JET XL, JET+ roller cabinets and MBOX.L box.

	Content set	Contents	Qty	ΔΔ [kg]
<b>MODM.S161-36</b>	S.161B - S.H 8 - 9 - 10 - 11 - 12 - 13 - 14 - 15 - 16 - 17 - 18 - 19 - 21 - 22 - 23 - 24 - 27 - 30 - 32 - S.210 - S.215 - S.240A	PM. MODS161-3	23	2.9



Long-reach 6-point socket set foam tray

- Compatible with the FACOM modular storage system:
  - Suited to CHRONO XL, CHRONO+, JET XL, JET+ roller cabinets and MBOX.M box.

	Content set	Contents	Qty	ΔΔ [kg]
<b>MODM.HLA</b>	J.HLA 7 - 8 - 9 - 10 - 11 - S.HLA 12 - 13 - 14 - 15 - 16 - 17 - 18 - 19	PM.MODHLA	13	1.4



Torx sockets - bit sockets, 6-point, Torx®, XZN®, foam module

- Compatible with the FACOM modular storage system:
  - Suited to CHRONO XL, CHRONO+, JET XL, JET+ roller cabinets and MBOX.M box.

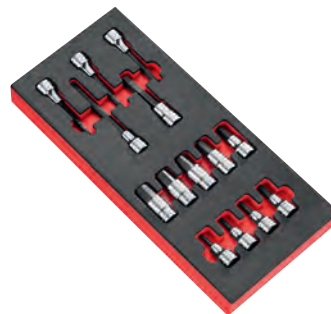
	Content set	Contents	Qty	ΔΔ [kg]
<b>MODM.CHA</b>	RTX. E8 Torx® - JTX. E8 - E10 Torx® - STX. E12 - E14 - E16 - E18 - E20. Torx® - SHP6LA - 7 - 8 - 10 - 12 - SVLB M6 - M8 - M10 - M12 - M14 - M16 - M18 XZN® - SX.LA T40 - T50 - T55 - T70 Torx®	PM. MODCHA171M	23	2.58



Bit sockets, 6-point, Torx®, XZN®, foam module

- Compatible with the FACOM modular storage system:
  - Suited to CHRONO XL, CHRONO+, JET XL, JET+ roller cabinets and MBOX.M box.

	Content set	Contents	Qty	ΔΔ [kg]
<b>MODM.SHP</b>	SL.161 - S.240A-N - S.210-N - S.215-N - S.21H-N - 22 - 24 - 27 - 30 - 32 - S.11H-N - 12 - 13 - 14 - 15 - 16 - 17 - 18 - 19	PM.MODS2	19	3.5



SCREWDRIVERS

8-piece set of Protwist® screwdrivers in foam tray

- Compatible with the FACOM modular storage system:
  - Adapted to CHRONO, JET, CHRONO XL, CHRONO+, JET XL and JET+ roller cabinets.

	Content set	Contents	Qty	ΔΔ [g]
<b>MODM.AT1</b>	AT3,5X75 - AT3,5X100 - AT4X100 - AT5,5X125 - ATWH6,5X150 - ATWH8X175 - ATP1X100 - ATP2X125	PM.MODA1	8	900



SCREWDRIVERS

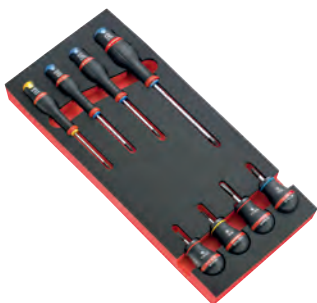
8-piece set of Protwist® screwdrivers in foam tray



- Compatible with the FACOM modular storage system:
  - Adapted to CHRONO, JET, CHRONO XL, CHRONO+, JET XL and JET+ roller cabinets.

	Content set	Contents	Qty	ΔΔ [g]
<b>MODM.AT2</b>	AT2X75 - AT2,5X75 - ATP0X75 - ATWPH3X50 - ATD0X75 - ATD1X100 - ATD2X125 - ATWDH3X150	PM.MODA2	8	900

8-piece set of Protwist® screwdrivers in foam tray



- Compatible with the FACOM modular storage system:
  - Adapted to CHRONO, JET, CHRONO XL, CHRONO+, JET XL and JET+ roller cabinets.

	Content set	Contents	Qty	ΔΔ [g]
<b>MODM.AT3</b>	AT4X25 - AT5,5X35 - ATP0X75 - ATP1X25 - ATD0X75 - ATD1X100 - ATD2X125 - ATD2X35	PM.MODA3	9	763

9-piece set of Protwist® screwdrivers in foam tray



- Compatible with the FACOM modular storage system:
  - Adapted to CHRONO, JET, CHRONO XL, CHRONO+, JET XL and JET+ roller cabinets.

	Content set	Contents	Qty	ΔΔ [g]
<b>MODM.AT4</b>	AT2,5X75 - AT3,5X75 - AT4X35 - AT4X100 - AT4X300 - AT5,5X35 - AT5,5X10 - ATWH6,5X150 - ATWH8X175	PM.MODA4	9	900

10-piece set of Protwist® screwdrivers in foam tray



- Compatible with the FACOM modular storage system:
  - Adapted to CHRONO, JET, CHRONO XL, CHRONO+, JET XL and JET+ roller cabinets.

	Content set	Contents	Qty	ΔΔ [g]
<b>MODM.AT5</b>	ATP0X75 - ATP1X25 - ATP1X100 - ATP2X35 - ATP2X125 - ATP2X250 - ATP3X150 - ATD1X100 - ATD2X125 - ATD2X35	PM.MODA5	10	900

10-piece set of Protwist® screwdrivers in foam tray



- Compatible with the FACOM modular storage system:
  - Adapted to CHRONO, JET, CHRONO XL, CHRONO+, JET XL and JET+ roller cabinets.

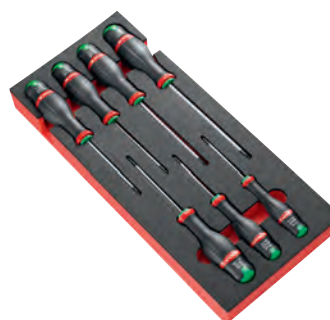
	Content set	Contents	Qty	ΔΔ [g]
<b>MODM.AT6</b>	AEX6X35 - AEX7X35 - AEX8X75 - ATXR10X75 - ATXR15X75 - ATXR30X125 - ATXR40X150 - ATXR20X100 - ATXR25X100 - ATXR27X100	PM.MODA6	10	900



7-piece set of Protwist® screwdrivers in foam tray

- Compatible with the FACOM modular storage system:
  - Adapted to CHRONO, JET, CHRONO XL, CHRONO+, JET XL and JET+ roller cabinets.

Content set	Contents	Qty	ΔΔ [g]
<b>MODM.ATXR</b>	ANX10X75 - ANX15X75 - ANX20X100 - ANX25X100 - ANX27X100 - ANX30X125 - ANX40X150	PM. MODANXR	7 763



PLIERS

Foam 3-piece plier set

- Compatible with the Facom modular storage system:
  - Compatible with CHRONO XL, CHRONO+, JETXL and JET+ roller cabinets.

Content set	Contents	Qty	ΔΔ [g]
<b>MODM.CPEAO</b>	192A.16CPE - 185A.20CPE - 187A.18CPE	PM. MODCPEAO	3 975



Foam 4-piece plier set

- Compatible with the Facom modular storage system:
  - Compatible with CHRONO XL, CHRONO+, JETXL and JET+ roller cabinets.

Content set	Contents	Qty	ΔΔ [g]
<b>MODM.CPEA1</b>	192A.16CPE - 185A.20CPE - 181A.25CPE - 501A	PM. MODCPEA1	4 1580



MODM.CPEA2 - Foam 4-piece plier & Shears set

- Compatible with the Facom modular storage system:
  - Compatible with CHRONO XL, CHRONO+, JETXL and JET+ roller cabinets.

Content set	Contents	Qty	ΔΔ [g]
<b>MODM.CPEA2</b>	192A.16CPE - 185A.20CPE - 181A.25CPE - 980C	PM.MODM.CPEA2	4 974



Foam 3-piece plier set

- Compatible with the Facom modular storage system:
  - Compatible with CHRONO XL, CHRONO+, JETXL and JET+ roller cabinets.

Content set	Contents	Qty	ΔΔ [g]
<b>MODM.CPEA3</b>	194A.17CPE - 181A.25CPE - 500A	PM. MODCPEA3	3 1280



PLIERS

■ Foam - 2-piece lock grip plier set



- Compatible with the Facom modular storage system:  
- Compatible with CHRONO XL, CHRONO+, JETXL and JET+ roller cabinets.

Icon	Content set	Contents	Qty	ΔΔ [g]
	501A - 501AMP	PM.MOD501A	2	1920

■ Foam 4-piece Circlips® plier set



- Compatible with the Facom modular storage system:  
- Compatible with CHRONO XL, CHRONO+, JETXL and JET+ roller cabinets.

Icon	Content set	Contents	Qty	ΔΔ [g]
	177A.13 (10 - 25); 177A.18 (18 - 60); 179A.13 (12 - 25); 179A.18 (18 - 60)	PM.MODPCSN	9	946

HICKORY HANDLE HAMMERS

■ Impact tools 200H foam module



- Compatible with the Facom modular storage system:  
- Compatible with CHRONO XL, CHRONO+, JETXL and JET+ roller cabinets.

Icon	Content set	Contents	Qty	ΔΔ [kg]
	200H.40 - 208A.32CBA - 263.20 - 256.6 - 248.4 - 5 - 6	PM.MODMI1	7	1.8

■ Impact tools 205H foam module



- Compatible with the Facom modular storage system:  
- Compatible with CHRONO XL, CHRONO+, JETXL and JET+ roller cabinets.

Icon	Content set	Contents	Qty	ΔΔ [kg]
	205H.100 - 208A.32CBA - 263.20 - 256.6 - 248.4 - 5 - 6	PM.MODMI3	7	1.8

■ Impact tools 202H foam module



- Compatible with the Facom modular storage system:  
- Compatible with CHRONO XL, CHRONO+, JETXL and JET+ roller cabinets.

Icon	Content set	Contents	Qty	ΔΔ [kg]
	202H.1 - 208A.32CB - 263.20 - 256.6 - 248.4 - 5 - 6	PM.MODMI4	7	1.8

Impact tools 205C long sheathed drift punches foam module

- Compatible with the Facom modular storage system:
  - Compatible with CHRONO XL, CHRONO+, JETXL and JET+ roller cabinets.

Content set	Contents	Qty	ΔΔ [kg]
MODM.MI5 205C.50 - 208A.32CB - 263.G19 - 256.6 - 249.G 4 - 5 - 6	PM.MODMI5	7	1.8



Impact tools 200C foam module

- Compatible with the Facom modular storage system:
  - Compatible with CHRONO XL, CHRONO+, JETXL and JET+ roller cabinets.

Content set	Contents	Qty	ΔΔ [kg]
MODM.MI6 200C.40 - 208A.32CBA - 256.6 - 263.G19 - 249.G 4 - 5 - 6 mm	PM.MODMI6	7	2.2



Impact tools 205C long drift punches foam module

- Compatible with the Facom modular storage system:
  - Compatible with CHRONO XL, CHRONO+, JETXL and JET+ roller cabinets.

Content set	Contents	Qty	ΔΔ [kg]
MODM.MI7 205C.50 - 208A.32CBA - 256.6 - 263.18 - 248.4 - 5 - 6 mm	PM.MODMI7	7	1.7



Sheathed drift punches foam module

- Compatible with the Facom modular storage system:
  - Compatible with CHRONO XL, CHRONO+, JETXL and JET+ roller cabinets.

Content set	Contents	Qty	ΔΔ [kg]
MODM.CG 249.G 2 - 3 - 4 - 5 - 6 - 8 - 247.G 4 - 5 - 6 - 8 - 255.G6	PM.MODCG	11	1.5



SAWING

Foam tray saw, tape measure and files

- Compatible with the Facom modular storage system:
  - Compatible with CHRONO XL, CHRONO+, JETXL and JET+ roller cabinets.

Content set	Contents	Qty	ΔΔ [kg]
MODM.603F 234.S - 603F - 893B.319 - CAR. MD200EMA - DRD.MD250EMA - PAM.B250EMA - TRI.MD200EMA	PM.MOD603F	7	2.1



FLUO

RFid

SLS - FLUO

■ Foam module of 17 OGV® combination wrenches 6 to 24 mm - SLS



- Compatible with the FACOM modular storage system:  
- Adapted to CHRONO XL, CHRONO+, JET XL and JET+ roller cabinets.

	Content set	Contents	Qty	ΔΔ [kg]
<b>MODM.440J17SLS</b>	440.6 - 7 - 8 - 9 - 10 - 11 - 12 - 13 - 14 - 15 - 16 - 17 - 18 - 19 - 21 - 22 - 24	PM.MOD440J17SLS	17	2.4

■ Foam module of 5 OGV® combination wrenches 27 to 34 mm - SLS



- Compatible with the FACOM modular storage system:  
- Adapted to CHRONO XL, CHRONO+, JET XL and JET+ roller cabinets.

	Content set	Contents	Qty	ΔΔ [kg]
<b>MODM.440J5SLS</b>	440.27 - 29 - 30 - 32 - 34	PM.MOD440J5SLS	5	3.0

■ Foam module of 12 ratchet combination wrenches 8 to 19 mm - SLS



- Compatible with the FACOM modular storage system:  
- Adapted to CHRONO XL, CHRONO+, JET XL and JET+ roller cabinets.

	Content set	Contents	Qty	ΔΔ [kg]
<b>MODM.467J12SLS</b>	467.8 - 9 - 10 - 11 - 12 - 13 - 14 - 15 - 16 - 17 - 18 - 19	PM.MOD467J12SLS	12	1.620

■ Foam module of 4 ratchet combination wrenches 21 to 27 mm - SLS



- Compatible with the FACOM modular storage system:  
- Adapted to CHRONO XL, CHRONO+, JET XL and JET+ roller cabinets.

	Content set	Contents	Qty	ΔΔ [kg]
<b>MODM.467J4SLS</b>	467.SLS : 21 - 22 - 24 - 27	PM.MOD467J4SLS	4	4.0

■ Foam module of 9 open end wrenches 6 to 24 mm - SLS



- Compatible with the FACOM modular storage system:  
- Adapted to CHRONO XL, CHRONO+, JET XL and JET+ roller cabinets.

	Content set	Contents	Qty	ΔΔ [kg]
<b>MODM.44J9SLS</b>	44.SLS : 6X7 - 8X9 - 10X11 - 12X13 - 14X15 - 16X17 - 18X19 - 21X23 - 22X24	PM.MOD44J9SLS	9	1.3

1/4" sockets module - SLS

- Compatible with the FACOM modular storage system:
  - Adapted to CHRONO XL, CHRONO+, JET XL and JET+ roller cabinets.

	Content set	Contents	Qty	ΔΔ [g]
<b>MODM.RL1SLS</b>	SL.171SLS - S.H 8 - 10 - 11 - 12 - 13 - 14 - 15 - 16 - 17 - 18 - 19 - 21 - 22 - 23 - 24 - 27 - 30 - 32 mm. - S.210RC - S.215RC	PM. MODRL1SLS	13	405



3/8" sockets module - SLS

- Compatible with the FACOM modular storage system:
  - Adapted to CHRONO XL, CHRONO+, JET XL and JET+ roller cabinets.

	Content set	Contents	Qty	ΔΔ [kg]
<b>MODM.JL1SLS</b>	JL.171SLS - J.H 8 - 9 - 10 - 11 - 12 - 13 - 14 - 15 - 16 - 17 - 18 - 19 - 21 - 22 - 24 mm - J.210RC - J.215RC	PM. MODJL1SLS	18	1.4



1/2" sockets module - SLS

- Compatible with the FACOM modular storage system:
  - Adapted to CHRONO XL, CHRONO+, JET XL and JET+ roller cabinets.

	Content set	Contents	Qty	ΔΔ [kg]
<b>MODM.SL1SLS</b>	SL.171SLS - S.H 8 - 10 - 11 - 12 - 13 - 14 - 15 - 16 - 17 - 18 - 19 - 21 - 22 - 23 - 24 - 27 - 30 - 32 mm - S.210RC - S.215RC	PM. MODSL1SLS	21	1.4



Foam module for 8 screwdrivers - SLS

- Compatible with the FACOM modular storage system:
  - Adapted to CHRONO XL, CHRONO+, JET XL and JET+ roller cabinets.

	Content set	Contents	Qty	ΔΔ [kg]
<b>MODM.AN1SLS</b>	AN.SLS : 2,5X75 - 3X100 - 4x100 - 5,5X150 - 6,5X150 - 8X150 - ANP.SLS : PH1 - PH2. Phillips®	PM. MODAN1SLS	8	1.0



Foam module for 6 "T" hex keys - SLS

- Compatible with the FACOM modular storage system:
  - Adapted to CHRONO XL, CHRONO+, JET XL and JET+ roller cabinets.

	Content set	Contents	Qty	ΔΔ [g]
<b>MODM.84TZJ6SLS</b>	84TZ.SLS : 3 - 4 - 5 - 6 - 8 - 10	PM. MOD84TZJ6SLS	6	800



SLS - FLUO

■ Foam module for 2 pliers - SLS



- Compatible with the FACOM modular storage system:  
- Adapted to CHRONO XL, CHRONO+, JET XL and JET+ roller cabinets.

	Content set	Contents	Qty	ΔΔ [kg]
<b>MODM.CPE1SLS</b>	501ASLS - 181A.25CPESLS	PM. MODCPE1SLS	2	1.2

■ Foam module for 3 pliers - SLS



- Compatible with the FACOM modular storage system:  
- Adapted to CHRONO XL, CHRONO+, JET XL and JET+ roller cabinets.

	Content set	Contents	Qty	ΔΔ [g]
<b>MODM.CPE2SLS</b>	192.16CPESLS - 185.20CPESLS - 187.18CPESLS	PM. MODCPE2SLS	3	750

■ MODM.601SLS - Sawing marking module - SLS



- Compatible with the FACOM modular storage system:  
- Adapted to CHRONO XL, CHRONO+, JET XL and JET+ roller cabinets.

	Content set	Contents	Qty	ΔΔ [kg]
<b>MODM.601SLS</b>	601SLS - PAM.B250EMASLS - DRD.MD250EMASLS - CAR. MD200EMASLS - TRI.MD200EMASLS - RD.MD200EMASLS - 234.SSLS - 803.300MSLS - 893.316SLS	PM.MOD601SLS	9	2.060

■ Impact module - SLS



- Compatible with the FACOM modular storage system:  
- Adapted to CHRONO XL, CHRONO+, JET XL and JET+ roller cabinets.

	Content set	Contents	Qty	ΔΔ [kg]
<b>MODM.MI1SLS</b>	200C.40SLS - 208A.32CBASLS - 255.G6SLS - 263.G19SLS - 249.GSLS : 4 - 5 - 6	PM.MODMI1SLS	7	2.185

■ 3-piece pliers with offcut retainer set in foam tray - FLUO



- Compatible with the Facom modular storage system:  
- Compatible with CHRONO XL, CHRONO+, JETXL and JET+ roller cabinets.

	Content set	Contents	Qty	ΔΔ [kg]
<b>MODM.CPE-R</b>	185.20CPEF-R - 187.18CPEF-R - 192.16CPEF-R	PM.MODCPE	3	0.75

AERO

■ Inch combination wrench set in foam module

- Compatible with the Facom modular storage system:
  - Compatible with CHRONO XL, CHRONO+, JETXL and JET+ roller cabinets.



Code	Content set	Contents	Qty	ΔΔ [kg]
<b>MODM.440-4</b>	440.1/4 - 5/16 - 11/32 - 3/8 - 7/16 - 1/2 - 9/16 - 5/8 - 11/16 - 3/4 - 13/16 - 7/8 - 15/16"	PM. MOD440-4	13	1.640

■ Inch ratchet combination wrench set in foam module

- Compatible with the Facom modular storage system:
  - Compatible with CHRONO XL, CHRONO+, JETXL and JET+ roller cabinets.



Code	Content set	Contents	Qty	ΔΔ [kg]
<b>MODM.467JU12</b>	467.1/4 - 5/16 - 11/32 - 3/8 - 7/16 - 1/2 - 9/16 - 5/8 - 11/16 - 3/4 - 7/8 - 15/16"	PM. MOD467JU12	12	2.040

■ Inch hinged ratchet combination wrench set in foam module

- Compatible with the Facom modular storage system:
  - Compatible with CHRONO XL, CHRONO+, JETXL and JET+ roller cabinets.



Code	Content set	Contents	Qty	ΔΔ [kg]
<b>MODM.467FJU8</b>	467F.5/16 - 3/8 - 7/16 - 1/2 - 9/16 - 5/8 - 11/16 - 3/4"	PM. MOD467FJU8	8	1.175

■ 10-piece foam module of inch-size short ratchet combination wrenches

- Compatible with the Facom modular storage system:
  - Compatible with CHRONO XL, CHRONO+, JETXL and JET+ roller cabinets.



Code	Content set	Contents	Qty	ΔΔ [kg]
<b>MODM.467SJU10</b>	467S.1/4 - 5/16 - 11/32 - 3/8 - 7/16 - 1/2 - 9/16 - 5/8 - 11/16 - 3/4"	PM. MOD467SJU10	10	0.896



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7-piece foam module of metric-size 15° angled long-reach ring wrenches



- Compatible with the Facom modular storage system:
  - Compatible with CHRONO XL, CHRONO+, JETXL and JET+ roller cabinets.



Icon	Content set	Contents	Qty	ΔΔ [kg]
	57L.5.5x7 - 8x9 - 10x11 - 12x13 - 12x14 - 17x19 - 18x20	PM.MOD57LJ7	7	2.04

5-piece foam module of inch-size 15° angled long-reach ring wrenches



- Compatible with the Facom modular storage system:
  - Compatible with CHRONO XL, CHRONO+, JETXL and JET+ roller cabinets.



Icon	Content set	Contents	Qty	ΔΔ [kg]
	57L.7/32X1/4 - 5/16x3/8 - 57L.7/16X1/2 - 1/2x9/16 - 5/8x3/4	PM.MOD57LJU5	5	1.377

6-piece foam module of Spline 15° angled long-reach ring wrenches



- Compatible with the Facom modular storage system:
  - Compatible with CHRONO XL, CHRONO+, JETXL and JET+ roller cabinets.



Icon	Content set	Contents	Qty	ΔΔ [kg]
	57L.7x9 - 8x10 - 12x14 - 16x18 - 18x20 - 22x24	PM.MOD57LSPL6	6	1.0

8-piece foam module of inch-size 10° angled short-reach ring wrenches



- Compatible with the Facom modular storage system:
  - Compatible with CHRONO XL, CHRONO+, JETXL and JET+ roller cabinets.



Icon	Content set	Contents	Qty	ΔΔ [kg]
	1/4X5/16 - 3/8x7/16 - 1/2x9/16 - 9/16x5/8 - 5/16X3/8 - 7/16x1/2 - 9/16X5/8 - 11/16x3x4	PM.MOD56JU8	8	0.900



**Inch straight ratchet ring wrenches in foam module**

- Compatible with the Facom modular storage system:
  - Compatible with CHRONO XL, CHRONO+, JETXL and JET+ roller cabinets.

Content set	Contents	Qty	ΔΔ [kg]
<b>MODM.64JU6</b> 64.1/4X5/16, 3/8X7/16, 1/2X9/16, 5/8X11/16, 3/4X13/16, 64.7/8X15/16"	PM.MOD64JU6	6	1.3



**Inch straight ratchet ring wrenches in foam module**

- Compatible with the Facom modular storage system:
  - Compatible with CHRONO XL, CHRONO+, JETXL and JET+ roller cabinets.

Content set	Contents	Qty	ΔΔ [kg]
<b>MODM.65JU6</b> 65.1/4X5/16, 3/8X7/16, 1/2X9/16, 5/8X11/16, 3/4X13/16, 64.7/8X15/16"	PM.MOD65JU6	6	1.3



**7-piece foam module of Spline 15° angled ratchet ring wrenches**

- Compatible with the Facom modular storage system:
  - Compatible with CHRONO XL, CHRONO+, JETXL and JET+ roller cabinets.

Content set	Contents	Qty	ΔΔ [kg]
<b>MODM.65SPL7</b> 65.7X9SPL, 8X10SPL, 2X14SPL, 16X18SPL, 20X22SPL, 24X28SPL, 26X30SPL	PM.MOD65SPL7	7	0.95



**1/4" locking ratchet and inch-size sockets foam module**

- Compatible with the Facom modular storage system:
  - Compatible with CHRONO XL, CHRONO+, JETXL and JET+ roller cabinets.

Content set	Contents	Qty	ΔΔ [kg]
<b>MODM.RL1U</b> RL.171 - R.210RC - R.217RC - R.1/2E - R.1/4E - R.11/32E - R.13/32E - R.3/16E - R.3/8E - R.5/16E - R.7/16E - R.7/32E - R.9/16E - R.9/32E - R.1/2EL - R.1/4EL - R.11/32EL - R.3/16EL - R.3/8EL - R.5/16EL - R.7/16EL - R.7/32EL - R.9/16EL - R.9/32E	PM.MODRL1U	24	1.2



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1/4" locking ratchet and inch-size sockets foam module



- Compatible with the Facom modular storage system:
  - Compatible with CHRONO XL, CHRONO+, JETXL and JET+ roller cabinets.

	Content set	Contents	Qty	ΔΔ [kg]
<b>MODM.RL2U</b>	RL.161 - R.120A - J4763 - R.209 - R.215 - R.3/16E - 3/8E - 5/16E - 7/16E - 7/32E - 9/16E - 9/32E - 83SH.JP8AU - R.236A - 3 x ED.1T (101 --> 103) - 3 x EP.1T (101 --> 103). 2 x ES.1T (134,5T - 136,5T) - EH.1 (103 --> 107). 5 x EX.1 (115 - 120 - 125 - 130 - 140). - R.240A - R.235	PM. MODRL2U	40	1.3

3/8" locking ratchet - inch sockets in foam module



- Compatible with the Facom modular storage system:
  - Compatible with CHRONO XL, CHRONO+, JETXL and JET+ roller cabinets.

	Content set	Contents	Qty	ΔΔ [kg]
<b>MODM.JL2U</b>	JL.171 - J.210RC - J.217RC - J.1/2 - J.1/4 - J.11/16 - J.13/16 - J.15/16 - J.1P - J.3/4 - J.3/8 - J.5/16 - J.5/8 - J.7/16 - J.7/8 - J.9/16 - J.1/2LA - J.1/4LA - J.11/16LA - J.13/16LA - J.3/4LA - J.3/8LA - J.5/16LA - J.5/8LA - J.7/16LA - J.7/8LA	PM. MODJL2U	36	4.2

1/2" locking ratchet - inch sockets in foam module



- Compatible with the Facom modular storage system:
  - Compatible with CHRONO XL, CHRONO+, JETXL and JET+ roller cabinets.

	Content set	Contents	Qty	ΔΔ [kg]
<b>MODM.SL2U</b>	SL.171 - S.210RC - S.215RC - S.1/2 - S.11/16 - S.13/16 - S.15/16 - S.1P - S.1P1/16 - S.1P1/4 - S.1P1/8 - S.1P3/16 - S.3/4 - S.3/8 - S.5/8 - S.7/16 - S.7/8 - S.9/16 - S.1/2LA - S.11/16LA - S.13/16LA - S.3/4LA - S.5/8LA - S.7/8LA - S.9/16LA	PM. MODSL2U	26	4.0

6-piece straight offset-ring wrenches in foam module



- Compatible with the Facom modular storage system:
  - Compatible with CHRONO XL, CHRONO+, JETXL and JET+ roller cabinets.

	Content set	Contents	Qty	ΔΔ [kg]
<b>MODM.59LJ6</b>	59L.6X7, 59L.8X9, 59L.10X11, 59L.12X13, 59L.14X15, 59L.18X19	PM. MOD59LJ6	6	1.65

■ Metric 1/4"-3/8" sockets - wrenches in foam module

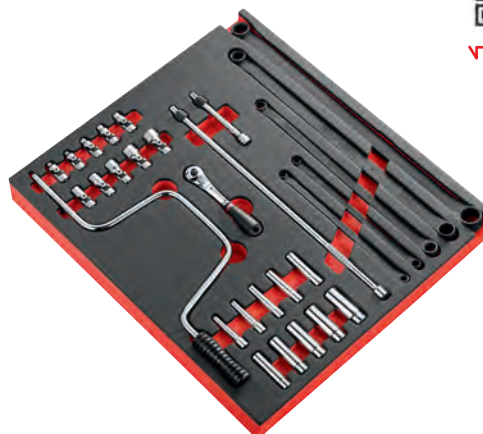
- Compatible with the Facom modular storage system:
  - Compatible with CHRONO XL, CHRONO+, JETXL and JET+ roller cabinets.



Content set	Contents	Qty	ΔΔ [kg]
<b>MODM.SPL</b> RL.171 - JL.171. - J.16S, J.18S, J.20S. - R.7S, R.8S, R.9S, R.10S, R.12S, R.14S. - : 65.12X14SPL, 65.16X18SPL, 65.20X22SPL, 65.24X28SPL, 65.26X30SPL, 65.7X9SPL, 65.8X10SPL	PM.MODSPL	16	3.8

■ Tools for motor in foam module

- Compatible with the Facom modular storage system:
  - Compatible with CHRONO XL, CHRONO+, JETXL and JET+ roller cabinets.



Content set	Contents	Qty	ΔΔ [kg]
<b>MODM.ENG-R</b> RL.171 - R.100RCK - R.350RCK. - R.1/2EL, R.1/4EL, R.11/32EL, R.3/16EL, R.3/8EL, R.5/16EL, R.7/16EL, R.7/32EL, R.9/16EL, R.9/32EL. - R.1/2F, R.1/4F, R.11/32F, R.3/16F, R.3/8F, R.5/16F, R.7/16F, R.7/32F, R.9/16F, R.9/32F - 57L.5/8X3/4, 57L.7/32X1/4, 57L	PM. MODENGR	31	3.0

AUTOMOTIVE

■ Foam module 21 short-range impact sockets 1/2"

- Compatible with the Facom modular storage system:
  - Compatible with CHRONO XL, CHRONO+, JETXL and JET+ roller cabinets.



Content set	Contents	Qty	ΔΔ [kg]
<b>MODM.ROUE</b> NS.10A - 11A - 12A - 13A - 14A - 15A - 16A - 17A - 18A - 19A - 20A - 21A - 22A - 23A - 24A - 26A - 27A - 28A - 29A - 30A - 32A	PM.ROUE	21	0.300



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# TOOLBOXES - CASES - CHEST



**TOOLBOXES**

**164**

ToughSystem	164
Plastic Toolboxes	171
Organizer	173
Plastic cases	173
Tool bags	174
Leather bags	177
Metal toolboxes	180



**CHESTS**

**181**

Service chests	181
Mobile workbenches	182



**TOOLBOXES**

**185**

Bi-material Toolboxes	185
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**SERVICE CASES**

**188**

Roller fly cases	188
Electrical service cases	191
Roller cases	192



**BAGS, SOFT CASE AND ROLL BAGS**

**193**

Leather cases	193
"Light maintenance" soft cases	194
"Light maintenance" roll bags	195



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TOUGHSYSTEM®

FACOM TOUGHSYSTEM®

From your workshop...



...to the site of intervention.

Create your ideal mobile solution.



**ToughSystem®**, Facom's innovative sturdy and watertight storage system. Ultra-mobile to adapt to all your professional needs. Rugged and sealed, carry your equipment safely. A handy solution for your travelling maintenance interventions.



**TOUGHSYSTEM®**



[www.facom.com/toughsystem](http://www.facom.com/toughsystem)

FACOM TOUGHSYSTEM® - TOOLBOXES

Unique solutions



- Modular and adaptable storage system adapting to all your professional needs.

- Rugged and sealed**
- Carry your equipment safely.



[www.facom.com/toughsystem](http://www.facom.com/toughsystem)

■ **FS150 - Tool box with cups and inner lid organizers**

- Durable structural foam box walls give robust structure to the stand alone units.
- Central locking mechanism secures the box to the frame.
- IP 65 rating - water and dust resistant.
- Anti rust metal latches.
- Coated handle for good gripping in both directions.
- Stacking latches - compatible with all ToughSystem® modules.
- Side handles for two man carrying.
- Inner lid organizers for drills & bits.
- 2 sizes removable cups for small parts organization.



	H [mm]	L [mm]	P [mm]	ΔΔ [kg]
<b>BSYS.BP150</b>	158	554	336	4.45

■ **FS300 - Tool box with tray**

- Durable structural foam box walls give robust structure to the stand alone units.
- Central locking mechanism secures the box to the frame.
- IP 65 rating - water and dust resistant.
- Anti rust metal latches.
- Coated handle for good gripping.
- Stacking latches - compatible with all ToughSystem® modules.
- Side handles for two man carrying.
- Large storage volume.
- Compatible with all ToughSystem® modules.



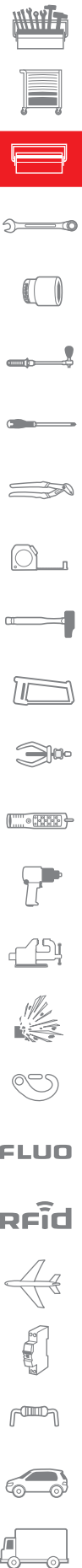
	H [mm]	L [mm]	P [mm]	ΔΔ [kg]
<b>BSYS.BP300</b>	308	552	336	4.35

■ **FS400 - Tool box with tray & verticle storage**

- Durable structural foam box walls give robust structure to the stand alone units.
- Central locking mechanism secures the box to the frame.
- IP 65 rating - water and debris resistant.
- Inner vertical storage for hand tools.
- Anti rust metal latches.
- Coated handle for good gripping.
- Stacking latches - compatible with all ToughSystem® modules.
- Side handles for two man carrying.
- Large storage volume.
- Vertical storage & removable tray for hand tools.
- Compatible with all ToughSystem® modules.



	H [mm]	L [mm]	P [mm]	ΔΔ [kg]
<b>BSYS.BP400</b>	406	550	366	6



TOUGHSYSTEM®

FS290 - Two drawers



- Durable structural foam box walls give robust structure to the stand alone units.
- Two deep drawers.
- Metal ball bearing slides.
- IP 54 rating - Unique water seal and dust protection for drawers.
- Coated handle for good gripping.
- Stacking latches - compatible with all ToughSystem® modules.
- Side handles for two man carrying.
- Compatible with all ToughSystem® modules.

	$\Delta\Delta$ [kg]
<b>BSYS.BPC2T</b>	7.3

FS295 - three drawers



- Durable structural foam box walls give robust structure to the stand alone units.
- Three deep drawers.
- Metal ball bearing slides.
- IP 54 rating - Unique water seal and dust protection for drawers.
- Coated handle for good gripping.
- Stacking latches - compatible with all ToughSystem® modules.
- Side handles for two man carrying.
- Compatible with all ToughSystem® modules.

	$\Delta\Delta$ [kg]
<b>BSYS.BPC3T</b>	8.7

FS100 - Clear lid organizer



- Durable, thick structural foam walls.
- Clear lid is made of polycarbonate for resistance and full visibility.
- 4 large and 8 small removable cups.
- Integrated water seal in every unit IP 65 rated protection against dust and water.
- Compatible with all ToughSystem® modules.
- Anti-rust metal latches Stacking latches.



	H [mm]	L [mm]	P [mm]	$\Delta\Delta$ [kg]
<b>BSYS.BPZ100</b>	116	553	350	3.26

FS280 - Tote



- Large open interior for bulk storage (can hold spray cans, cables etc.).
- Heavy duty foamed polypropylene for a tough and strong product.
- Robust design strong metal handle.
- Side grab handle for carrying the product and placing on ToughSystem® carrier.
- Stacking latches allow stacking products one on top of the other as well as on other ToughSystem® modules.
- Internal slots for inserting dividers for maximum organization of space.
- Compatible with all ToughSystem® modules.



	H [mm]	L [mm]	P [mm]	$\Delta\Delta$ [kg]
<b>BSYS.BPT0280</b>	277	557	325	2.5



FS450

- IP 65 level seal - water and dust protection.
- Includes portable tray inside.
- Anti-rust metal latches.
- Structural foam material.
- Wide gripping area for pushing & pulling.
- Stacking latches allow compatibility with all ToughSystem® modules.
- Bi-material telescopic handle.
- Special design of lid opening with a rotating handle, enables maximum storage volume with a non-detachable lid.
- Side handles for carrying.
- High quality 7" wheels.



	H [mm]	L [mm]	P [mm]	ΔΔ [kg]
<b>BSYS.BPT450</b>	990	597	480	9.5

FACOM TOUGHSYSTEM® - FSMUSIC WORKSITE RADIO

A radio designed for the workshop or the worksite

Strong

- Shock protection to withstand transport.
- Water- and dust-tight (IP 54), resists to the most extreme environments.



Handy

- Compatible with ToughSystem®, lateral clips to connect another case. Carry handled for more mobility.



Versatile

- High quality sound FM radio, DAB+ Bluetooth digital radio. Sealed compartment for storing your phone with auxiliary socket and USB charging port.

FSMUSIC - Music + charger

- Premium sound - 4 full range tweeters + 1 subwoofer + 1 assisted bass resonator.
- Charging capability - built-in charger ensures jobsite productivity by charging 10.8 V and 18 V batteries.
- IP 54 rated for water and dust resistance.
- Connectivity to Bluetooth®, 3.5mm Aux. Input, 5V/1A USB charger.
- ToughSystem® carrier cart compatible.
- Can be stacked to other ToughSystem® modules.
- Can run on 10.8 V and 18 V FACOM batteries or can be plugged into a wall outlet.



	H [mm]	L [mm]	P [mm]	ΔΔ [kg]
<b>BSYS.BPMUSIC</b>	155	545	360	7.24



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TOUGHSYSTEM®

FACOM TOUGHSYSTEM® - TROLLEY



**Modular and comfortable**

- Structure used to adjust the height of the fasteners and adding others.
- Wide coated handle for a better grip.
- Large wheels (22 cm) for better handling.

**Easy to store**

- Folding tray and fasteners to reduce footprint.
- One or several pairs of additional fasteners can be added (maximum load 50kg per pair).



BSYS.CKP

■ FSCARRIER - Trolley



- Metal carrier with adjustable foldable brackets allows tailored configuration.
- Central locking mechanism secures the boxes to the frame.
- ToughSystem® cases not included.
- Folding brackets for storage.
- Flexible platform enables adding brackets or changing heights.
- Super tough metal structure - wide handle, with hand grip.
- 8.5" tire durable wheels - For extreme maneuverability.
- Folding scoop.
- Compatible with all ToughSystem® Modules.



	H [mm]	L [mm]	P [mm]	ΔΔ [kg]
BSYS.TR	1113	685	514	15.65

■ FSBRACKETS - For carrier and workshop



- Adjustable foldable brackets to tailor specific configuration.
- 80 kg weight capacity per pair of brackets.
- For use with FS workshop and FS carrier.



	H [mm]	L [mm]	P [mm]	ΔΔ [kg]
BSYS.CKP	270	70	75	0.75

**FACOM TOUGHSYSTEM® WORKSHOP**



**Optimized space for easier organization**

**Resistant**

- Maximum charge of 200 kg to store your tools.



**Adaptable**

- Structure allowing to settle the height of ties and adapt itself to your needs. Metal bars of 1,8 m, 2 crossbars and 5 pairs of ties for any solutions of storage. Compatible with all the modules ToughSystem®.



**FSWORKSHOP - Racking system**

- Modular & intuitive self assembly solution.
- Compatible with all ToughSystem® modules.
- Customized organization endless arrangement options.
- Robust racking solution can load up to 440 lbs / 200 kg.
- Brackets support shelf add-on option.
- Cost and space efficient.
- Small packaging to fit shelf.
- Compatible with all ToughSystem® modules.



	H [mm]	L [mm]	P [mm]	ΔΔ [kg]
<b>BSYS.TK</b>	180	650	329	6.64



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TOUGHSYSTEM®

## FACOM TOUGHSYSTEM® FSVAN

Set up your own storage solutions and gain capacity.



### Handy, strong and safe

- Crash-tested telescopic metal bars with height adjustment to adapt to any type of van. 70 kg capacity per support for perfect adaptability.
- Folding reinforced fasteners with 20 kg capacity for each pair for optimum footprint and storage capacity.
- Adjustable bar to reinforce and stabilise the system. 8 patented fasteners adaptable to all types of truck. Reinforced feet ground anchoring.

### FSVANL - Racking for tall vans

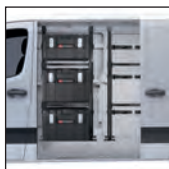


- Intuitive self-assembled van rack.
- Fits most popular vans.
- Folds out of the way when not in use.
- Light-weight and gas-efficient.
- Can carry up to 70 kg per rack.
- Allows easy transfer of gear between workshop and jobsite.
- Compatible with most ToughSystem® modules.
- Dimensions: min 160 cm. Max 210 cm.



	L [mm]	ΔΔ [kg]
<b>BSYS.TKVANL</b>	1600-2100	21.4

### FSVAN - Racking for standard vans



- Intuitive self-assembled van rack.
- Fits most popular vans.
- Folds out of the way when not in use.
- Light-weight and gas-efficient.
- Can carry up to 70 kg per rack.
- Allows easy transfer of gear between workshop and jobsite.
- Compatible with most ToughSystem® modules.
- Dimensions: min 90 cm. Max 160 cm.
- Crash tested telescopic metal bars allow height adjustment to fit most types of vans.



	L [mm]	ΔΔ [kg]
<b>BSYS.TKVAN</b>	900-1600	17.5

### FSBRACKETS - For vans



- Adjustable foldable brackets for ToughSystem® van racking.
- Space efficient-brackets fold for optimal storage.
- 20 kg weight capacity per pair of brackets.



	H [mm]	L [mm]	P [mm]	ΔΔ [kg]
<b>BSYS.CKPVAN</b>	74	270	114	0.35

PLASTIC TOOLBOXES

PLASTIC TOOLBOX WITH AUTOMATIC CLOSING

Handy

- New one-hand opening system
- Automatic clasp closing
- 2 on-cover storage compartments for small parts, screws, consumables and accessories. Accessible when box closed.
- Removable tool carry tray.
- Designed for optimized storage volume.



Small model 16" self-closing

- Latch opening with one hand and self-closing.
- 2 storage compartments on the cover.
- High strength metal closures.
- Padlock clasp (padlock not supplied).
- Folding handle. Removable tray. Stackable toolboxes.
- Loading capacity: 17 kg .

	H [mm]	L [mm]	l [mm]	ΔΔ [kg]
<b>B.P.C16N</b>	164	391	222	1.2



Small model 19" self-closing

- Latch opening with one hand and self-closing.
- 2 storage compartments on the cover.
- High strength metal closures.
- Padlock clasp (padlock not supplied).
- Folding handle. Removable tray. Stackable toolboxes.
- Loading capacity: 25 kg .

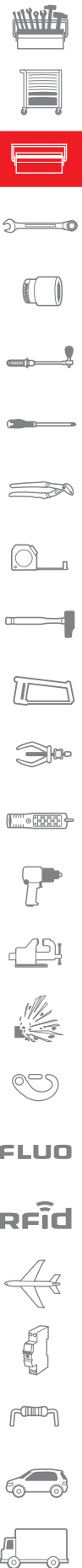
	H [mm]	L [mm]	l [mm]	ΔΔ [kg]
<b>B.P.C19N</b>	237	481	271	2.1



Small model 24" self-closing

- Latch opening with one hand and self-closing.
- 2 storage compartments on the cover.
- High strength metal closures.
- Padlock clasp (padlock not supplied).
- Folding handle. Removable tray. Stackable toolboxes.
- Loading capacity: 28 kg .

	H [mm]	L [mm]	l [mm]	ΔΔ [kg]
<b>B.P.C24N</b>	260	603	273	2.8



PLASTIC TOOLBOXES

TOOL BOX - small model 16"



- 2 storage compartments on the cover.
- High strength metal closures.
- Padlock clasp (padlock not supplied).
- Folding handle.
- Removable tray.
- Stackable toolboxes.



	H [mm]	L [mm]	I [mm]	ΔΔ [kg]
<b>BP.C16</b>	185	411	199	1.1

TOOL BOX - medium model 19"



- 2 storage compartments on the cover.
- High strength metal closings, padlock clasp (padlock not supplied).
- Folding handle.
- Removable tray.
- Stackable toolboxes.



	H [mm]	L [mm]	I [mm]	ΔΔ [kg]
<b>BP.C19</b>	248	493	256	2.0

TOOL BOX - large model 24"



- 2 storage compartments on the cover.
- High strength metal closings, padlock clasp (padlock not supplied).
- Folding handle.
- Removable tray.
- Stackable toolboxes.




	H [mm]	L [mm]	I [mm]	ΔΔ [kg]
<b>BP.C24</b>	284	610	270	2.8

ORGANISER

■ Tool organizer

- Can be used as work station.
- Organize your hand tools, power tools and accessories.
- Innovative design allows simultaneous access to all storage bins.
- Built-in carrying handle.



	H [mm]	L [mm]	P [mm]	ΔΔ [kg]
<b>BP.Z46A</b>	234	426	316	2.7

■ Eight-tray organiser

- Indispensable for workshop components.
- Transparent lid: instant content visibility.
- 8 removable and dividable compartments (up to 10 boxes).
- Polycarbonate cover.
- Cover locking the interior boxes: the parts stay in place during transport.




	H [mm]	L [mm]	l [mm]	ΔΔ [kg]
<b>BP.Z8</b>	106	422	335	1.8

PLASTIC CASES

■ BP - Plastic cases

- Recyclable polypropylene material.
- Resistant to chemical agents and hydrocarbons.
- High impact and fall resistance.
- Ultra-strong hinges and clasps upon use.
- Easy to use: easy one-hand opening.
- Lightweight cases.



	H [mm]	L [mm]	P [mm]	ΔΔ [g]
<b>BP.102</b>	52	204	122	172
<b>BP.115</b>	67	332	143	390
<b>BP.112</b>	66	389	164	458
<b>BP.109</b>	72	478	234	910



TOOL BAGS

BS.T20 FABRIC TOOL BOX

FACOM PROBAG!



**Heavy duty design:**

- Very high strength 1,200 x 1,200 denier fabric.
- Rigid, waterproof tool compartment.
- Aluminium handle.

**Protection and comfort:**

- Leather grip.
- Padded shoulder strap.
- Closing flap.



**Handy storage:**

- Elastic tool retaining strap.
- Special screwdriver partition.
- Easy access to the tool compartment.
- Large number of side pockets.
- Adjustable saw compartment with self-adhesive strips.
- Flap top storage pouch.



■ Fabric tool box - Mini PROBAG



- Compact fabric tool box 14".
- Strength and comfort:
- High strength polyester fabric 1200 x 1200 deniers.
- Rigid and waterproof polypropylene bin.
- Aluminum handle with gripping handle.
- Shoulder strap with reinforcement cushion on shoulder level.
- Stainless metal strap fastening hooks.
- Closed by flexible cover - holding straps to store the cover.

Handy storage:

- Vertical storage for instant access to tools.
- Elastic tool holding strap.
- Side rack for screwdrivers and drift punches.
- Many side pockets.
- High storage capacity: 34 litres.
- High storage capacity: 11 kg.



	H [mm]	L [mm]	l [mm]	ΔΔ [kg]
<b>BS.T14</b>	340	420	240	2.2

■ Fabric tool box - PROBAG



- Large size fabric tool box 20".
- Strength and comfort:
- High strength polyester fabric 1200 x 1200 deniers.
- Rigid and waterproof polypropylene bin.
- Aluminum handle with leather grip.
- Shoulder strap with reinforcement cushion on shoulder level. Stainless metal strap fastening hooks.
- Closed by flexible cover - built-in kangaroo pocket to store the cover.

Handy storage:

- Vertical storage for instant access to tools.
- Elastic tool holding strap.
- Side rack for screwdrivers and drift punches.
- Many side pockets.
- Saw compartment adjustable by self-adhesive tape.
- High storage capacity: 47 litres.
- High storage capacity: 15 kg.



	H [mm]	L [mm]	l [mm]	ΔΔ [kg]
<b>BS.T20</b>	360	520	250	2.8



■ Fabric tool box with rollers - PROBAG

- Tool bag 14" compact version.
- Effective tool organization.
- Interior layout: easy access tool compartment, elastic tool retaining strap, special screwdriver partition.
- Exterior layout: 6 outside pockets, adjustable saw compartment with self adhesive strips, 1 large document compartment (A4) also used to store the protection cover.
- Also used combined with the PC case BS.PC15.
- Simple and comfortable to use.
- Easy access to the bag's contents.
- 3 carrying solutions: wheels and telescopic handle, aluminium handle with leather grip, padded shoulder strap.
- High strength 1200-denier fabric.
- Wheel diameter: 90 mm.
- Useful capacity: 33 litres; Max weight: 18 kg.
- Interior dimensions: L.47 x D.24 x H.30 cm.




	H [mm]	L [mm]	P [mm]	ΔΔ [kg]
<b>BS.R20</b>	440	550	360	5.4

■ PC case - PROBAG

- Protection guaranteed: Interior foam padding to protect a 15-inch laptop.
- Storage: 3 flap pockets in the front of the bag to store a few tools and the PC charger.
- The bag can also be used for A4 format documents
- Easy to carry.
- By hand with the double carrying handle.
- On the shoulder with the padded strap.
- Installed on the folding handle of the roller PROBAG BS.R20.
- High strength 1200-denier fabric.




	H [mm]	L [mm]	P [mm]	ΔΔ [g]
<b>BS.PC15</b>	300	390	70	690

■ 2-in-1 fabric bag: tooling and laptop PC

- Interior: 14 pockets, 2 straps for pliers, wrenches and screwdrivers, 1 tape measure hook.
- 1 padded pocket for your laptop PC (15" max), tablet or A4 documents.
- Exterior: 2 lateral pockets (one closed, one open net pocket).
- Full access when the bag is completely open.
- Fast access by opening the front pocket.
- By hand with the soft grip handle.
- On the shoulder, with the adjustable s-trap, comfortable reinforcement pad.
- Heavy duty in 1200-denier fabric.
- Max load: 7 kg.



	H [mm]	L [mm]	P [mm]	ΔΔ [kg]
<b>BS.TLB</b>	350	460	150	1.9




TOOL BAGS

■ Fabric back-pack



- High density foam back.
- Adjustable padded straps.
- Adjustable padded chest and stomach belt: effective load distribution.
- Pockets and hooks for organized tooling.
- Padded back laptop compartment (15").
- BS.ORG1 "Organizer" bag: multiple purpose removable tool rack.
- Special hacksaw compartment.
- A4 document holder.
- Reflective strips on the front and straps.
- Rigid polypropylene compartment: waterproof function, holding up, fragile floor protection.
- Locked by a padlock.
- Capacity: 30 litres.
- Max load: 12 kg.

	H [mm]	L [mm]	P [mm]	ΔΔ [kg]
<b>BS.L30</b>	460	355	225	3.2

■ Modular & compact backpack



- Perfect measurements - compatible with safety hoop ladder.
- Durable ballistic nylon fabric - abrasion-resistance & water-resistance.
- Easy-sliding, heavy-duty zippers – secured with padlock eye.
- TPR feet - to prevent damages from floor.
- Smart inner organisation – fastening tapes (Velcro) and 4 removable pockets for maximum customization.
- Transparent removable document/tablet pouch.
- Removable organiser - can be hanged on a ladder.
- Internal D-Rings & external round hoops - SLS tools compatible.
- Oval outer eyelets – can carry up to 0.5kg each.
- Ensured safety - reflective strips for night safety on both front and sides.
- Contoured padded shoulder straps with quick-release mechanism provide extra comfort while on the job.
- Safeback ensures maximum carrying comfort and optimum load distribution.
- External stretch-mesh side pocket provides additional storage for a small water bottle or other quick-grab items.
- Quick-grab handle provides an additional carrying option.
- Capacity: 20 litres.
- Max load: 10 kg.

	H [mm]	L [mm]	P [mm]	ΔΔ [kg]
<b>BS.MCB</b>	480	300	180	2.7

■ Fabric bag 1st intervention



- By hand with the double handle.
- On the shoulder, with the adjustable padded shoulder strap.
- Full opening for easy and total access to the bag's content.
- High strength 1200-denier fabric.
- Broad rubber feet under the compartment, protecting the bag but also the ground under it.
- Transparent PVC document pocket.
- Tape measure hook.
- Wrench fastening hook.
- Pen light dedicated storage.
- Max load: 5 kg.

	H [mm]	L [mm]	P [mm]	ΔΔ [kg]
<b>BS.SMB</b>	170	450	180	1.5

■ PVC coated fabric softbag 50 cm

- Long enough to receive long tools as hacksaw, level & big wrenches.
- Tough PVC Coated fabric Water splash resistant Easy to clean and maintain.
- 100% opening of the flap lid for an easy access to the tools.
- Lateral handles and adjustable cushioned shoulder strap When the flap is open, the user can carry the bag thanks to the lateral handles.
- Pocket for documents, hook for tape measure, hook for keys, Fixing pen light.
- Plastic feet to protect the bag and avoid to damage the floor
- Reinforced structure and double 2-ply fabric : no deformation when in use.
- Volume : 12.25 litres.
- Load resistance : 8 kg.
- Overall Dimensions (L x D x H) : 540 x 220 x 200 mm on the back, 150 on the front.



	H [mm]	L [mm]	P [mm]	ΔΔ [kg]
<b>BS.LMBC</b>	200	540	220	1.6

LEATHER BAGS

■ Compact leather bag

- Tool transport for intervention on machine.
- High strength, suited to uses in aggressive environment.
- Closing by 2 adjustable loop straps.
- 1 interior compartment.



	H [mm]	L [mm]	I [mm]	ΔΔ [g]
<b>BV.100</b>	132	350	158	510

■ Leather bag

- Leather panel bag with strap.
- Reinforced sides for stronger rigidity.
- Assembled by nickel-plated rivets.
- Closing by 3 adjustable loop straps.



	H [mm]	L [mm]	I [mm]	ΔΔ [g]
<b>703232</b>	125	405	145	880



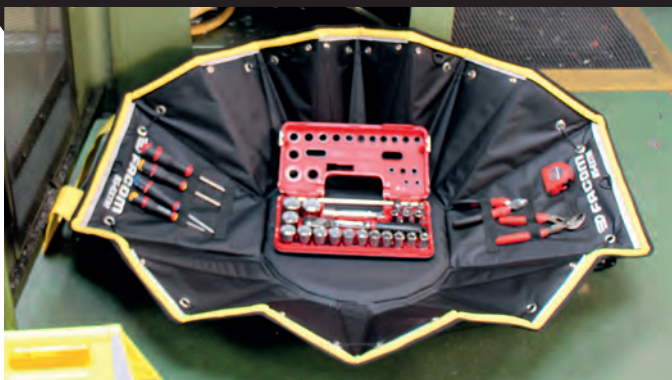
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TOOL BAGS

EXPRESS TOOLMAT



Set up, work,  
fold and go



**SAFE**

- The tools are inside a well-defined space. Keeping your tools in a designated area, avoiding FOD (Foreign Object Debris).
- Elastic straps over the mat's rim allow to store the tools.

**COMFORTABLE**

- Soft foam protects your knees from hard and metallic surfaces (grating) and high strength fabric isolates you from cold, humidity and dirt.
- Welded PVC mat surface: protection against water, oil, and other fluids. Washable for easy maintenance...



**CLEAN**

- After you have completed the job, promptly leave a clean work area!
- Carries up to 5 kg.



**COMPACT**

- And easy to carry - with a shoulder strap or handle.



EXPRESS TOOLMAT working surface



- Increases safety at work.
- Internal surface made from nylon PVC coated washable.
- External Surface and fund from nylon (600 and 1680 deniers).
- Padded internal foam make kneepads unnecessary.
- Tape opening mechanism makes it easy to deploy and pack – 3 seconds only!
- String from polypropylène diameter 4mm.
- A padded shoulder strap.
- Ergonomic Interlock Handle.
- Internal elastic loops to store tools inside.
- Can add BP.EXTMS as accessory (connected by 2 clip buttons).
- Max load: 5 kg
- Dimensions: closed 400 x 400 x 400 mm, opened: 1103 x 1100 mm.

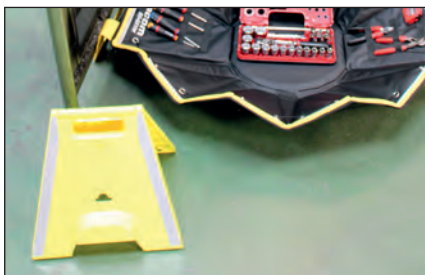


BS.EXTM	H [mm]	L [mm]	P [mm]	ΔΔ [kg]
	400	400	400	2.5

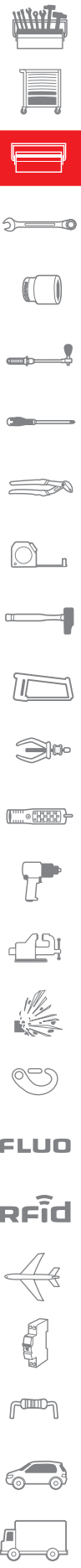
EXPRESS TOOLMAT safety sign



- For marking the working area and increase visibility.
- Polypropylene material.
- 2 reflective bands add visibility.
- Sign face has a hook that can hold different safety signs/messages.
- Sign back side can hold A4 sheet with working instructions.
- Can be connected to BS.EXTM via 2 clip buttons.



BP.EXTMS	H [mm]	L [mm]	P [mm]	ΔΔ [g]
	370	362	294	600



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METAL TOOLBOXES

"TRADITIONAL" METAL TOOL BOXES

Instant access to compartments!



**Sturdy**

- Heavy-duty hinges and anodized pins.
- Stiffened lid, fully riveted.

**Practical**

- Storage modules available.
- Padlock clasp.

**Ergonomic**

- Ergonomic handle.
- Edges carefully deburred for safety.

3-tray metal tool box



- Particularly interesting size/useful capacity combination.
- Handle separation space provides instant access to all compartments.
- Base of compartments covered with foam.
- Padlock clasp (padlock not supplied).
- Bin dimensions (L x W x H): 448 x 205 x 98 mm.
- Compartment dimensions (L x W x H): 448 x 100 x 55 mm.
- Useful load: 20 kg.
- Volume: 13 dm<sup>3</sup>.
- Red 3020 and grey Elian.



	H [mm]	L [mm]	ΔΔ [kg]
<b>BT.9</b>	185	475	3.4

5-tray metal tool box



- Large storage capacity.
- Handle separation space provides instant access to all compartments.
- Base of compartments covered with foam.
- Padlock clasp (padlock not supplied).
- Bin dimensions (L x W x H): 448 x 200 x 98 mm.
- Compartment dimensions (L x W x H): 448 x 100 x 55 mm.
- Useful load: 25 kg.
- Volume: 17 dm<sup>3</sup>.
- Red 3020 and grey Elian.



	H [mm]	L [mm]	l [mm]	ΔΔ [kg]
<b>BT.11A</b>	238	475	220	4.5

Large 5-tray metal tool box - large volume



- Large storage capacity. Can contain a level or a hacksaw.
- Handle separation space provides instant access to all compartments.
- Base of compartments covered with foam.
- Padlock clasp (padlock not supplied).
- Bin dimensions (L x W x H): 518 x 200 x 98 mm.
- Compartment dimensions (L x W x H): 526 x 100 x 55 mm.
- Useful load: 30 kg.
- Volume: 18 dm<sup>3</sup>.
- Red 3020 and grey Elian.



	H [mm]	L [mm]	l [mm]	ΔΔ [kg]
<b>BT.13A</b>	238	560	220	5.0

■ "Compact" metal tool box

- Steel box containing a tool tray with central partition, comfortable handle.
- Free volume bin dimensions (L x W x H): 290 x 155 x 45 mm.
- Tray compartment dimensions (L x W x H): 260 x 80 x 30 mm (x 2).
- Red 3020 and grey Elian.



	H [mm]	L [mm]	l [mm]	ΔΔ [kg]
<b>BT.4A</b>	95	295	207	1.8

■ 2-tray metal tool box

- Composed of a bin and tray jointed by tie-rods.
- Opening the cover automatically moves the tray from the bin.
- Base of compartments covered with foam.
- Padlock clasp (padlock not supplied).
- Transport handle, round-shaped and cartouche for customisation.
- Bin dimensions (L x W x H): 440 x 170 x 85 mm.
- Compartment dimensions (L x W x H): 440 x 170 x 50 mm.
- Useful load: 15 kg.
- Volume: 10 dm<sup>3</sup>.
- Red 3020 and grey Elian.



	H [mm]	L [mm]	l [mm]	ΔΔ [kg]
<b>BT.6A</b>	155	467	165	3.0

CHESTS

SERVICE CHESTS

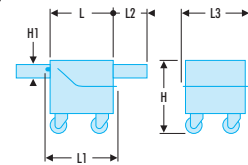
■ Mobile workshop utility cart - 3 shelves



- 3 Metal shelves:
  - 40 mm edges to prevent objects from falling during transport, rounded and smooth border to avoid injuries.
  - Removable ABS mats for protection and easy maintenance.
  - 2 different positioning for middle shelf.
  - Maximum static load capacity : 200 kg.
  - Shelves useful dimensions : L.745xP.455 mm.
- Extra large metal handle for optimal manoeuvrability and comfort.
- 4 Casters Ø 100mm, 2 swiveling, 2 fixed, 1 with brake.
- Delivered disassembled - Fast and easy to assemble (screw and nuts).
- Unpacked information :
  - Overall dimensions (without handle) : L.750 x D.460 x H.927 mm.

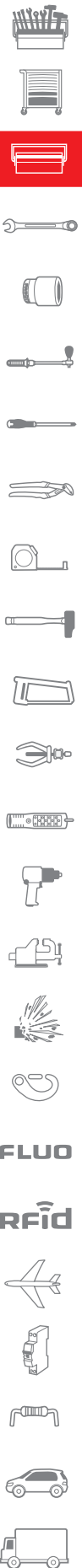
	H [mm]	L [mm]	P [mm]	Color	ΔΔ [kg]
<b>ROLL.UC3S</b>	927	750	460	Red 3020	19

■ Black roller chest



- Vertical access model.
- Particularly interesting combination of size and useful.
- Transportable in a vehicle.
- Wheels diameter 125 mm for tireless long distance rolling.
- 2 drawers height dimensions (L x D x H.): 100 x 360 x 300 mm.
- Each drawer is completed with a mobile tray, dimensions (L x D x H): 360 x 148 x 40 mm, for storing small tools.
- 2 compartments dimensions (L x D x H): 440 x 140 x 60 mm.
- Lid interior holds documents or flat items. Large size bin dimensions (L x D x H.): 668 x 443 x 248 mm.
- Padlock clasp (padlock not supplied).
- Ankle protection thanks to the shelved compartment.
- Color : black 9004.

	H [mm]	H1 [mm]	L [mm]	L1 [mm]	L2 [mm]	L3 [mm]	P [mm]	ΔΔ [kg]
<b>2092B</b>	550	100	670	740	252	512	512	28,50



MOBILE WORKBENCHES

ROLLER CHESTS



# Not just a chest, a mini roller cabinet!

- + Ideal for travelling maintenance.
- + Highly manoeuvrable with high performance wheels.
- + Offers maximum storage space combined with a fixed chest.
- + Overall dimensions (including wheels and worktop): L774 x D546 x H621 mm.
- + Capacity 12 modules.

JET+ 4-drawer roller cabinets - 3 modules per drawer



- Ideal for mobile maintenance.
- Retractable handle for travelling.
- Easy handling thanks to its high performance wheels (diameter 125 mm, 2 fixed and 2 castors including one with brake).
- 4 drawers = 12 modules distributed in the 60 and 130 mm high drawers.
- 3 drawers 60 mm high = 9 modules.
- 1 drawer 130 mm high = 3 modules.
- The 200 mm drawers can also be fitted with modules.
- Can be fitted with the JET2.15 and JET2.16 removable partitions - not supplied.
- Acceptable load and useful volume per drawer of M3 versions: - 60 mm drawer: 20 kg - 15 litres. - 130 mm drawer: 25 kg - 30 litres.
- Total load in the drawers: 85 kg.
- High storage capacity: 75 litres.
- Overall dimensions (L x D x H) (wheels and worktop included): 774 x 546 x 621 mm.
- Drawer useful dimensions (L x D x H): 569 x 421 x 60 / 130 mm.



ED	H [mm]	L [mm]	P [mm]	Color	ΔΔ [kg]
JET.CR4M3	60/130	569	421	Red 3020	48.5
JET.CR4GM3	60/131	569	421	Black 9004	48.5

ADDITIONAL CHESTS

JET+ 4-drawer chest - 3 modules per drawer



- 4 drawers = 12 modules distributed in the 60 and 130 mm drawers: - 3 drawers 60 mm high = 9 modules. - 1 drawer 130 mm high = 3 modules.
- The 200 mm drawers can also be fitted with modules. (can be fitted with the JET2.15 and JET2.16 removable partitions - not supplied).
- Acceptable load and useful volume per drawer of M3 versions: - 60mm drawer: 20 kg - 15 litres. - 130mm drawer: 25 kg - 30 litres.
- Total load in the drawers: 85 kg.
- High storage capacity: 75 litres.
- Total load on the worktop in static position: 500 kg
- Drawer useful size: L.569 x D.421 x H.60 / 130 mm.
- Can be turned in a mobile version with the wheel set CHRONO.C4K2 (handle + 4 wheels)



ED	H [mm]	L [mm]	P [mm]	Color	ΔΔ [kg]
JET.C4M3	480	774	546	Red 3020	45.0
JET.C4GM3	480	774	546	Black 9004	45.0



■ JET+ 4-drawer chest - 4 modules per drawer



- 4 drawers = 16 modules distributed in the 60 and 130 mm drawers:
  - 3 drawers 60 mm high = 12 modules.
  - 1 drawer 130 mm high = 4 modules.
- The 200 mm drawers can also be fitted with modules. (can be fitted with the JET2.15 and JET2.16 removable partitions - not supplied).
- Acceptable load and useful volume per drawer of M4 versions:
  - 60 mm drawer: 25 kg - 20 litres.
  - 130 mm drawer: 30 kg - 40 litres.
- Total load in the drawers: 105 kg.
- High storage capacity: 100 litres.
- Total load on the worktop in static position: 600 kg
- Drawer useful size: L.759 x D.421 x H.60 / 130 mm.
- Can be turned in a mobile version with the wheel set CHRONO.C4K2 (handle + 4 wheels).



ED	H [mm]	L [mm]	P [mm]	Color	ΔΔ [kg]
JET.C4M4	480	964	546	Red 3020	51.50
JET.C4GM4	480	964	546	Black 9004	51.5

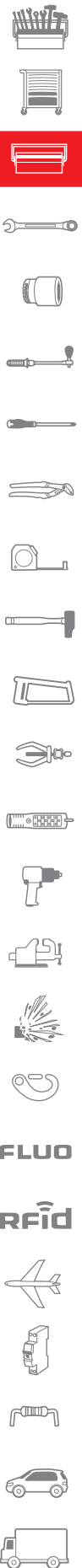
■ JET+ 4-drawer chest - 5 modules per drawer



- 4 drawers = 20 modules distributed in the 60 and 130 mm drawers:
  - 3 drawers 60 mm high = 15 modules.
  - 1 drawer 130 mm high = 5 modules.
- The 200 mm drawers can also be fitted with modules. (can be fitted with the JET2.15 and JET2.16 removable partitions - not supplied).
- Acceptable load and useful volume per drawer of M4 versions:
  - 60 mm drawer: 35 kg - 25 litres.
  - 130 mm drawer: 40 kg - 50 litres.
- Total load in the drawers: 145 kg.
- High storage capacity: 125 litres.
- Total load on the worktop in static position: 700 kg.
- Drawer useful size: L.948 x D.421 x H.60 / 130 mm.
- Can be turned in a mobile version with the wheel set CHRONO.C4K2 (handle + 4 wheels)



ED	H [mm]	L [mm]	P [mm]	Color	ΔΔ [kg]
JET.C4M5	480	1154	546	Red 3020	60.5
JET.C4GM5	480	1154	546	Black 9004	60.5



SERVICE CHESTS

▪ Metal 2-drawer chest



- 2 drawers fitted with aluminium handles and auto-return slides.
- 1 drawer, height 40mm, (W x D) 570 x 270mm
- 1 drawer, height 119 mm, (W x D) 570 x 270mm.
- Centralized lock system.

	H [mm]	L [mm]	P [mm]	Color	ΔΔ [kg]
<b>BT.C2TA</b>	293	670	345	Red 3020	16.5

▪ Metal 3-drawer chest



- 3 drawers fitted with aluminium handles and auto-return slides.
- 3 drawers, height 65 mm, (W x D) 570 x 270mm.
- 1 upper compartment height 100 mm, (W x D) 509.5 x 224mm,
- Centralized lock system.
- Closing the cover blocks the drawers in the closed position.
- 2 lateral handles.

	H [mm]	L [mm]	P [mm]	Color	ΔΔ [kg]
<b>BT.C3TA</b>	383	663	335	Red 3020	23

▪ Metal 4-drawer chest



- 4 drawers fitted with aluminium handles and auto-return slides.
- 3 drawers, height 50 mm, (W x D) 570 x 270 mm.
- 1 drawer, height 125 mm, (W x D) 570 x 270 mm.
- 1 upper compartment, 600 x 280 x 70mm.
- Centralized lock system.
- Closing the cover blocks the drawers in the closed position
- 2 lateral handles.

	H [mm]	L [mm]	P [mm]	ΔΔ [kg]
<b>BT.C4TA</b>	438	664	336	27

▪ Metal 6-drawer chest



- 6 drawers fitted with aluminium handles and auto-return slides.
- 3 drawers, height 40 mm, (W x D) 169.5 x 271.5mm.
- 2 drawers, height 40 mm, (W x D) 571.5 x 271.5mm.
- 1 drawer, height 119 mm, (W x D) 571.5 x 271.5mm.
- 1 upper compartment, 600 x 280 x 70mm.
- Centralized lock system.
- Closing the cover blocks the drawers in the closed position.
- 2 lateral handles.
- Overall dimensions (W x D x H) : 663 x 335 x 438mm.

	H [mm]	L [mm]	P [mm]	Color	ΔΔ [kg]
<b>BT.C6TA</b>	438	663	335	Red 3020	30.5

BI-MATERIAL TOOLBOXES

**BT.200 - IDEAL PORTABLE MAINTENANCE**



MY MOBILE STORAGE SOLUTION



My Mobile Storage Solution revolutionizes the work organization. The tools are close to hand and heavy loads become easy to move. Time gain, performance and well-being, My Mobile Storage Solution optimizes your work processes:



**Ultra mobile**

- Modular, it carries tools, spare parts or miscellaneous loads.

**Designed for optimum organization**

- Innovative and strong toolboxes with 4 carrying solutions and customizable storage foam compartments on demand.

**Easy to use**

- As it is light, My Mobile Storage Solution follows you effortlessly and keeps your tools handy at all times.

**Modular according to your needs**

- An adaptable tool allowing different configurations to create the perfect combination for your needs.



**Versatile hand truck**

- Supplied with 1 set of mounting brackets for 1 box or 1 basket (BT.200, BT.203, BT.HT1BASKET).
- Additional support set can be purchased as an option (BT.HT1SUP)
- Folding base with secure locking
- Wheels 200 mm for easy travel even on rough terrain.
- Load resistance : 100 kg.



	H [mm]	L [mm]	P [mm]	ΔΔ [kg]
<b>BT.HT1</b>	990	550	490	9.5



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BI-MATERIAL TOOLBOXES

■ Bi-material toolbox



- Metal and polypropylene
- Tough polypropylene lid on which you can put your removable tray to have a full access to your tools. (lid maximum load resistance : 5kg)
- Organized storage :
  - 2 lateral racks for screwdrivers and wrenches.
  - 1 compartmentalized removable tray (L362xD232xH80mm).
  - 1 dedicated handsaw location.
- 4 ways of carrying :
  - 1 retractable top handle on the lid
  - One adjustable cushioned shoulder strap. Detachable, it can be used for the other boxes of the range.
  - 2 Lateral handles.
  - Handtruck BT.HT1. Easy and fast to install.
- Stackable.
- Load resistance : 15 kg / volume : 25 liters.
- Inner dimensions: L460xD260xH250.



	H [mm]	L [mm]	P [mm]	ΔΔ [kg]
<b>BT.200</b>	294	510	287	5.2

■ Bi-material toolbox - 3 drawers



- Metal and polypropylene.
- Metal frame and polypropylene drawers.
- 3 ways of carrying
  - 2 Lateral handles
  - Handtruck BT.HT1. Easy and fast to install.
  - With the carrying shoulder strap that you can buy in option (ref BT.200STRAP).
- Organized storage
  - 3 polypropylene drawers, height 65 mm, fitted with ball bearing slides, 100% opening
  - Can receive plastic and foam trays from Facom modular system (see F13)
  - Drawers can be divided for small spare parts or components with removable compartments. Supplied with 1 set of 5 partitions : 1 lengthways, 4 cross-ways. Partitions set can also be purchased in option (BT.203-07).
- Stackable.
- Safety latch on each drawer (move the latch toward the left to open the drawer)
- Centralized locking system with padlock (diam 6) – padlock not included.
- Load resistance : 15 kg
- Drawers inner dimensions : L430xD225xH65.



	H [mm]	L [mm]	P [mm]	ΔΔ [kg]
<b>BT.203</b>	270	510	270	7.3

**Fitting system**

- Set of 2 brackets made of polyamide with fibreglass.
- Allows the installation of BT.200, BT.203 boxes and BT.HT1BASKET on the BT.HT1 hand-truck.
- Load capacity: 30 kg.
- 3 sets maximum .
- Fast fitting by nut/bolt on the hand truck BT.HT1.



Image	$\Delta\Delta$ [g]
<b>BT.HT1SUP</b>	56

**Steel wire Basket**

- 3 mm diameter steel wire.
- Load capacity : 20 kg.
- Dimensions of the bottom of the basket : W 540 x P280 x H 230 mm.



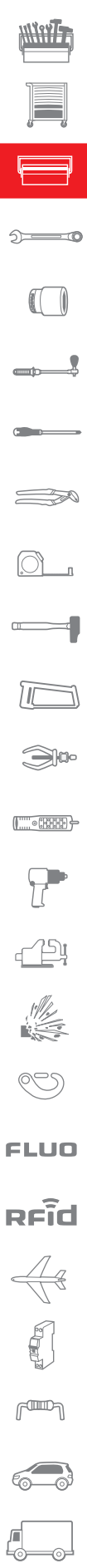
Image	H [mm]	L [mm]	P [mm]	$\Delta\Delta$ [kg]
<b>BT.HT1BASKET</b>	230	627	370	2.4

**Carrying strap**

- One adjustable cushioned shoulder strap.
- Compatible with BT.200 and BT.203 boxes.
- Quick assembly and disassembly thanks to the dedicated attachment loops .
- Adjustable up to 1270 mm.



Image	$\Delta\Delta$ [g]
<b>BT.200STRAP</b>	152



ROLLER CASES

**FLYCASE - MOBILE STORAGE**

**Sturdy**

- In shock-resistant injected polypropylene.
- Reinforced angles for high durability.
- Stainless steel hinge angle, resists to corrosion.



**Sealed**

- One-piece fitted sealing gasket: protects the content from outside aggressions.
- Minimum gap clasps, 100% sealed to dust and water.

**Modular**

- Adaptable to all types of tool sets thanks to the foam module on demand program.
- Stackable.
- Several padlock clasps.
- Customizable identification plate.

**Easy to transport**

- Ergonomic telescopic handle for higher comfort of use.
- Handles on both sides for easy handling.
- Ultra strong wheels.
- Depressurizing valve.



Sealed roller chest



**IP67 STANAG 4280 DEF STAN 81-41**

- High density injected polypropylene resistant to extreme conditions of use. Suitable for Military & aerospace use.
- Totally sealed and resists to shock, dust and industrial fluids.
- Several padlock clasps available.
- Stainless steel hinge pins.
- Gap-free clasps and sealing gasket.
- Resists pressure differences. Manual depressurizing valve.
- Handle designed for maximum comfort.
- Temperature tolerance: -33°/+90°.
- Telescopic handle and side handles for easier use.
- Stackable.
- Customizable identification plate.
- Inner dimensions (LxWxD): 517x277x217 mm.

	L [mm]	I [mm]	P [mm]	ΔΔ [kg]
<b>BV.FC1</b>	546	347	247	6.540

Sealed roller chest - L 627 mm

IP67 STANAG 4280 DEF STAN 81-41 MIL-STD 810F

- High density injected polypropylene resistant to extreme conditions of use. Suitable for Military & aerospace use.
- Totally sealed and resists to shock, dust and industrial fluids.
- Several padlock clasps available.
- Stainless steel hinge pins.
- Gap-free clasps and sealing gasket.
- Resists pressure differences. Manual depressurizing valve.
- Handle designed for maximum comfort.
- Temperature tolerance: -33°/+90°.
- Telescopic handle and side handles for easier use.
- Stackable.
- Customizable identification plate.
- Inner dimensions (LxWxD): 538x405x250 mm.



	L [mm]	I [mm]	P [mm]	ΔΔ [kg]
<b>BV.FC2</b>	627	475	292	9.950

Sealed roller chest - L 670 mm

IP67 STANAG 4280 DEF STAN 81-41 MIL-STD 810F

- High density injected polypropylene resistant to extreme conditions of use. Suitable for Military & aerospace use.
- Totally sealed and resists to shock, dust and industrial fluids.
- Several padlock clasps available.
- Stainless steel hinge pins.
- Gap-free clasps and sealing gasket.
- Resists pressure differences. Manual depressurizing valve.
- Handle designed for maximum comfort.
- Temperature tolerance: -33°/+90°.
- Telescopic handle and side handles for easier use.
- Stackable.
- Customizable identification plate.
- Inner dimensions (LxWxD): 580x440x330 mm.



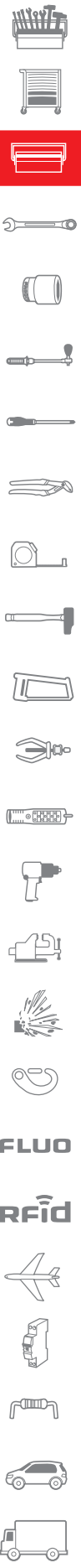
	L [mm]	I [mm]	P [mm]	ΔΔ [kg]
<b>BV.FC3</b>	670	510	372	12.320

Sealed roller tool chest

- High density injected polypropylene resistant to extreme conditions of use. Suitable for Military & aerospace use.
- Totally sealed and resists to shock, dust and industrial fluids.
- Several padlock clasps available.
- Stainless steel hinge pins.
- Clasps easy to use.
- Resists pressure differences.
- 2 lateral handles & telescopic handle.
- Temperature tolerance: -33°/+90°.
- Customizable identification plate.
- 4 60mm high drawers + worktop
- Tools accessible from the front or the top.



	L [mm]	I [mm]	P [mm]	ΔΔ [kg]
<b>BV.FC4S</b>	581	381	455	14



SELECTION GUIDE

# Choosing a case

FACOM cases are of sturdy design for carrying heavy loads and are laid out in such a way as to optimise the available storage space. All cases feature a keylock for the safety of your tools. Protect your back, reduce fatigue. Wheeled cases: most FACOM cases are compatible with the "FACOM case trolley" or are fitted as standard with wheels.

A case to suit every need:



	Hand-held	Roller cases
Standard	-	 BV.21TR1
Heavy-duty	 BV.51A: rack tool holders BV.51APR: pouch tool storage	-
Seal tight	-	 BV.FC1
Large capacity	-	 BV.61A
Leather	 BV.7A: large BV.5A: with drawers	-



ELECTRICAL SERVICE CASES

Technicians case

- Tool storage racks (8) with rubber holding straps distributed on 4 storage surfaces.
- 1 document holder in the cover.
- 1 fully modular bin with 5 unclipping partitions.
- Cover lockable in open position.
- Locking by numbered key (20 different lock numbers on special order).
- Bi-material handle.
- Polypropylene antishock shell.
- Anti-slide rubber feet.
- Dimensions of the 5 partitions:
  - 1 partition 315 mm x 65 mm.
  - 2 partitions 185 mm x 65 mm.
  - 2 partitions 125 mm x 65 mm.
- Bin dimension (L x D x H): 435 x 315 x 65 mm.
- Interior dimensions (L x D x H): 470x 345 x 190 mm.



	H [mm]	L [mm]	P [mm]	ΔΔ [kg]
<b>BV.51A</b>	205	486	430	6.1

Technicians case + additional panels

- Identical to model BV.51A, but with additional internal storage panels.
- 4 tool holder faces.
- Tool storage racks (8) with rubber holding straps distributed on 4 storage surfaces.
- 1 document holder in the cover.
- 1 fully modular bin with 5 unclipping partitions.
- Cover lockable in open position.
- Locking by numbered key (20 different lock numbers on special order).
- Bi-material handle.
- Polypropylene antishock shell.
- Anti-slide rubber feet.
- Dimensions of the 5 partitions:
  - 1 partition 315 mm x 65 mm.
  - 2 partitions 185 mm x 65 mm.
  - 2 partitions 125 mm x 65 mm.
- Bin dimension (L x D x H): 435 x 315 x 65 mm.
- Interior dimensions (L x D x H): 470 x 345 x 190 mm.



	H [mm]	L [mm]	P [mm]	ΔΔ [kg]
<b>BV.51APR</b>	205	486	430	5.3

Set of 3 plastic boxes



- 3 boxes to store small parts with 3 different types of partition.

	H [mm]	L [mm]	I [mm]	ΔΔ [g]
<b>BV.21BP</b>	26	165	110	252

Foam bin divider



- Dimensions (L x W x H): 490 x 345 x 35 mm.

	ΔΔ [g]
<b>BV.21M</b>	124



ROLLER CASES

■ Fitters roller container case



- High Density Polyethylene (HDPE).
- Locking and folding built-in trolley system.
- 2 removable separator pages for optimised and organised storage.
- 1 large size bin for cumbersome tools and/or spare parts.
- 2 handles for 2 carrying solutions.
- Stability studs.
- 3 boxes to store small parts.
- Protection reinforcements.
- Large size wheels.
- Keylocks (20 different lock numbers on special order).
- Max load: 30 kg.
- Length opened: 850 mm.
- Interior dimensions (L x W x H): 470 x 390 x 347 mm.



	H [mm]	L [mm]	P [mm]	ΔΔ [kg]
<b>BV.61A</b>	365	550	440	8.5

■ Fitters service roller case



- Locking and folding steel trolley system.
- Modular storage of tools by sealed partition between compartments.
- Bin separation foam securing the tools during transport and used for knee protection.
- 2 small parts storage boxes.
- TSA Lock
- Max load: 25 kg.
- Interior dimensions (L x W x H): 500 x 360 x 165 mm.
- Overall dimensions (L x W x H): 530 x 390 x 180 mm, excluding trolley system.



	H [mm]	L [mm]	I [mm]	ΔΔ [kg]
<b>BV.21TR1</b>	180	530	390	5.2

LEATHER CASES

LEATHER CASES

Strong leather and convenient plastics for long life and user comfort.



• Quality finish.



• Optimum storage.



• Comfort.



• Security.

Leather fold-down front case

- 1 removable double-sided tilting panel 400 x 280 mm, comprising:
  - One tool holder panel and one panel with storage for A4 documents or miscellaneous products.
  - A tool holder back panel with 11 patterns.
  - One tool holder tilting face.
  - Case bottom in galvanised metal sheet.
- Ground isolating feet.



	H [mm]	L [mm]	I [mm]	ΔΔ [kg]
<b>BV.7A</b>	185	445	330	3.8

Leather drawer case

- Sliding drawers including one fitted with 4 bins with 1 to 8 compartments possible, providing instant access to the contents dimensions (L x W x H): 375 x 116 x 40 mm.
- Removable bin with transport handle.
- Tool holder tilt back with 22 patterns.



	H [mm]	L [mm]	I [mm]	ΔΔ [kg]
<b>BV.5A</b>	215	425	320	4.6



"LIGHT MAINTENANCE" SOFT CASES

Soft case



- This lightweight "light servicing" case can be fitted with different tool or equipment selections.
- Material resistant to hydrocarbons.
- Closed with a 2-slider zips to fit a padlock (padlock not supplied).
- An A4 document holder storage.
- 29 tool slots and a case or measuring device compartment, dimensions (L x W x H): 220 x 120 x 50 mm max.
- Stiff sides hold tools in position.
- Useful load: 10 kg.



FACOM	H [mm]	L [mm]	I [mm]	ΔΔ [g]
<b>BV.16</b>	75	440	315	920

Flexible case with 4 flaps



- This "light servicing" case offers universal storage.
- 4 different surfaces planned for storing the tools (+ 40 tools).
- 1 side pocket with zipper and flap to protect documents.
- Full opening thanks to the 2-slider zippers.
- Padlock clasp (padlock not supplied).
- Exterior sides in anti impact and hydrocarbon resistant material.
- Supplied without tools.



FACOM	H [mm]	L [mm]	I [mm]	ΔΔ [kg]
<b>BS.12</b>	130	430	320	1.9

"LIGHT MAINTENANCE" ROLL BAGS

■ Nylon roll bag - 4 compartments



- Material: nylon.
- 4 large PVC compartments.
- Resistant to chemical agents and hydrocarbons.
- Practical: folding.
- Safety: closing by clipped strap.
- Comfort: locations designed for the tool format.

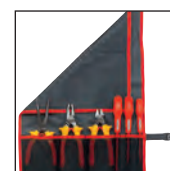


	H [mm]	L [mm]	ΔΔ [g]
<b>N.38A-4B</b>	530	310	166

■ Nylon roll bag - 6 compartments



- Material: nylon.
- 3 small and large PVC compartments.
- Resistant to chemical agents and hydrocarbons.
- Practical: folding.
- Safety: closing by clipped strap.
- Comfort: locations designed for the tool format.



	H [mm]	L [mm]	ΔΔ [g]
<b>N.38A-6F</b>	520	360	181

■ Nylon roll bag - 10 compartments



- Material: nylon.
- 3 small, 1 medium and 6 large PVC compartments.
- Resistant to chemical agents and hydrocarbons.
- Practical: folding.
- Safety: closing by clipped strap.
- Comfort: locations designed for the tool format.

	H [mm]	L [mm]	ΔΔ [g]
<b>N.38A-10C</b>	735	320	223

■ Nylon roll bag - 12 compartments



- Material: nylon.
- 5 small and 7 large PVC compartments.
- Resistant to chemical agents and hydrocarbons.
- Practical: folding.
- Safety: closing by clipped strap.
- Comfort: locations designed for the tool format.

	H [mm]	L [mm]	ΔΔ [g]
<b>N.38A-12C</b>	800	330	258





# FIXED-SIZE AND ADJUSTABLE WRENCHES



**RATCHET WRENCHES** **202**

- Ratchet combination wrench series 202
- Short combination ratchet series 208
- Angled combination ratchet series 210
- Ring ratchet series 211
- Ring ratchet 15° head series 212
- Ring ratchet multiple opening straight series 215



**COMBINATION WRENCHES** **218**

- Standard series 218
- Short series 221
- Offset series 222
- Power series 223



**OPEN END WRENCHES** **224**

- Standard series 224
- "Extra-slim" profile series 226
- Micro-engineering series 227
- Power series 228



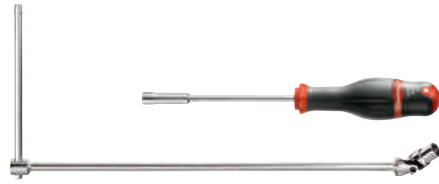
**RING WRENCHES** **229**

- Standard series 229
- Hinged series 232
- Straight series 234
- Half-moon series 235
- Power series 236
- Impact series 237



**ANGLED SOCKET WRENCHES** **240**

- Standard series 240
- Box series 243
- Socket series 244



**SOCKET WRENCHES** **245**

- Tee handle series 245
- Universal joint series 247
- Hinged series 249



**FLARE NUT WRENCHES** **250**

- Ratchet series 250
- Standard series 251



**PIN AND HOOK WRENCHES** **253**

- Series for lateral notch nuts 253
- Series for lateral notch nuts 254
- Series for nuts with top recesses 255



**OTHER WRENCHES** **255**

- Container tightening wrench 255



**VARIABLE OPENING WRENCHES** **256**

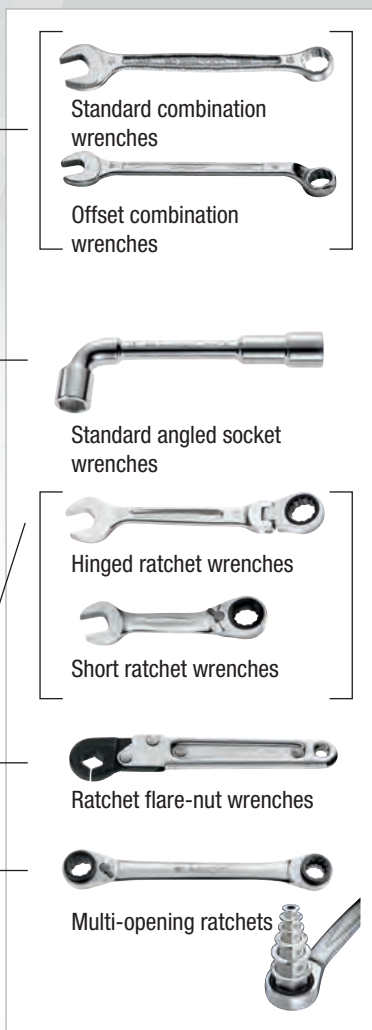
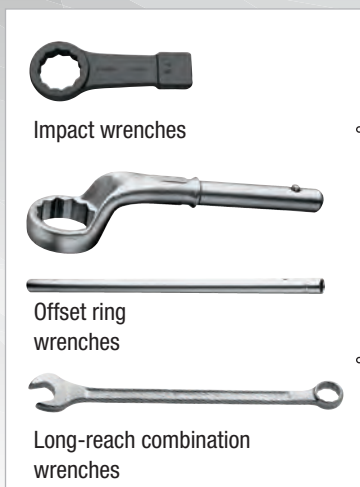
- Adjustable wrench 256
- Monkey series 259



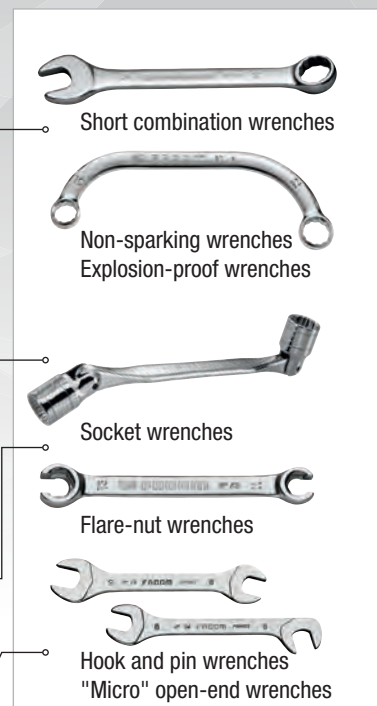
**FACOM WRENCHES**

# A wide range for all applications

**Force**



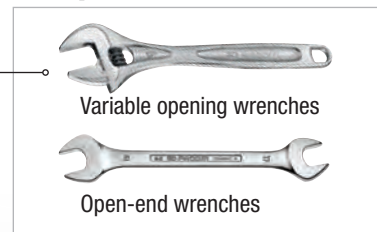
**Specific access and uses**



**Productivity**



**Lightweight and compact**



**FACOM exclusive safety and productivity**



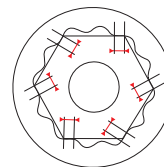
JP portable clip set for quick identification of the right wrench.



The safety accessory for impact wrenches.



Wrenches VSE insulated for work on live parts.



OGV® profile for more powerful tightening without damaging nuts.



SLEEVE SETS

A useful innovation!



**PRACTICAL: SAVE TIME**

- Immediately find the right wrench.No more loose wrenches in your tool box.
- Easy wrench selection.



**Optimised STORAGE**

- Compact and organised wrench set in the sleeve hence saving space.Easy to store in any FACOM roller cabinet drawer and tool box compartment.



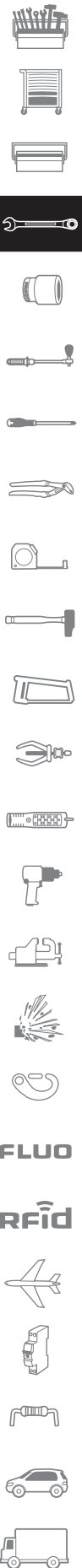
**SAFE**

- No more tools left on site at the end of the job.Missing wrenches clearly identified. Compatible with the FOD concept (Foreign Object Damage).



**AVAILABLE FOR ALL WRENCH FAMILIES**

- Standard and short combination wrenches.
- Standard and short reversible ratchet wrenches.
- Hinged ratchet wrenches.
- Ratchet ring wrenches.








FLUO

RFid

SELECTION GUIDE: RATCHET WRENCH SETS AND MODULES

# Productivity solution: ratchet wrench sets and modules for all your uses

	Characteristic	Reference	Page
<p><b>Interventions on sites</b> FOD prevention. Machine/operator safety. Max productivity</p> 	<p><b>Versatile:</b> All flat tightening uses.</p> <p><b>Ultra-compact / ultra-handly:</b> specific accessibility.</p> <p><b>Ring</b> maximum safety thanks to ring tightening.</p>	<p><b>467B.JP10</b></p> <p><b>467BS.JP6</b> <b>467BF.JP10</b></p> <p><b>65.JP6</b></p>	<p>204</p> <p>208 210</p> <p>212</p>
<p><b>General maintenance</b></p> 	<p><b>Ring / versatile:</b> All flat tightening uses. Basic sets.</p> <p> Inches</p>	<p><b>64.JE6T</b> <b>64.JU6T</b> <b>65.JU6T</b> <b>467B.J7</b></p>	<p>211 211 212 204</p>
<p><b>Ultra Light maintenance</b></p> 	<p><b>11 in 1 / Quattro:</b> Lightweight gain - extra flat head - complete set - compact diameter - access to embedded screws</p> <p><b>Multi-service</b> All compact ratchet tightening solutions with maximum weight gain.</p>	<p><b>464.J1</b> <b>64C.J2</b></p> <p><b>467BS.BOX</b></p>	<p>216 215</p> <p>209</p>
<p><b>Workshop maintenance</b></p> 	<p><b>Versatile:</b> All flat tightening uses.</p> <p><b>Ultra-handly:</b> Specific accessibility. Fitted for socket tightening.</p> <p><b>Ring:</b> Maximum safety thanks to ring tightening. 15° angle when required by access.</p>	<p><b>MOD.467BJ12</b> <b>MOD.467BJ13</b></p> <p><b>MOD.467BXL</b> <b>MOD.467BFJ12</b></p> <p><b>MOD.64J7</b> <b>MOD.65J7</b></p>	<p>204</p> <p>204 210</p> <p>211 213</p>



SELECTION GUIDE COMBINATION WRENCHES RATCHET

increase productivity



**FACOM offers a broad range of ratchet wrenches suited to all your needs: standard combination wrenches, short combination wrenches, hinged combination wrenches, straight ring wrenches, offset ring and multi-opening wrenches.**



**SAVE TIME**

- The ratchet mechanism increases productivity as you no longer have to reposition the wrench.

**MAXIMUM ACCESSIBILITY**

- The 5° increment (6° for the 8 and 9 mm dimensions) allow working in awkward spaces. Extremely compact mechanism. FACOM offers accessories optimising accessibility.

**PERFORMANCE AND SAFETY**

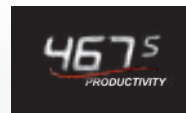
- FACOM guarantees very high performance for its ratchet wrenches: ISO 1711-1 + 50% guaranteed. Integral reversing lever avoiding accidental reversing. To help you, use our selection guide in the next pages.

**3 models of ratchet combination wrenches for the ultimate versatility in any application**



**SHORT COMBINATION WRENCHES PRODUCTIVITY & ACCESSIBILITY ULTRA-COMPACT:**

- 40% more compact than the standard ratchet combination wrench.



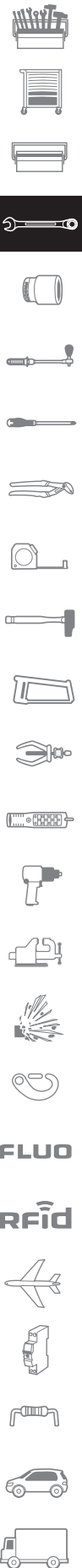
**HINGED COMBINATION WRENCHES PRODUCTIVITY & MANOEUVRABILITY ULTRA-MANOEUVRABLE:**

- overcomes the problems of tightening and loosening in applications where the operator must work "blind".
- The hinged head offers unique accessibility as more compact than the ratchet-joint-socket association.



**STANDARD COMBINATION WRENCHES PRODUCTIVITY & VERSATILITY ULTRA-VERSATILE:**

- Ring head: ratchet mechanism with 5° increment, with 15° angle.
- Open end oriented at 15°.



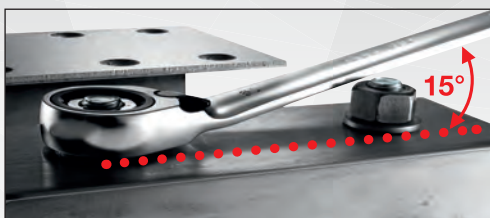
**NEW RATCHET WRENCH 467B**



**467**

**Ultra grip combination wrench socketwork faster and safer**

- Integral reversing lever avoiding accidental reversing.
- Ring head: ratchet mechanism
- 72 teeth with 5° increments.
- Open end head with 15° angle for side access.



**Ergonomic handle**

- Painless torque application.

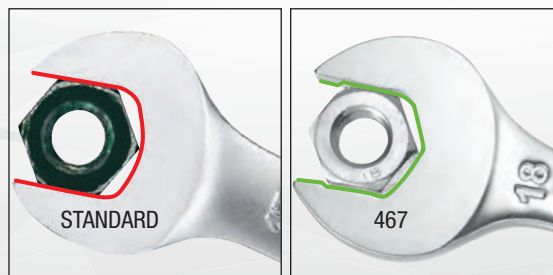


**Securing notch on the ring**

- Wrench retained on the nut for faster tightening.

**Securing notch on the open end**

- More productive and safer.



## RATCHET COMBINATION WRENCH SERIES

### 467B - Metric ratchet combination wrenches

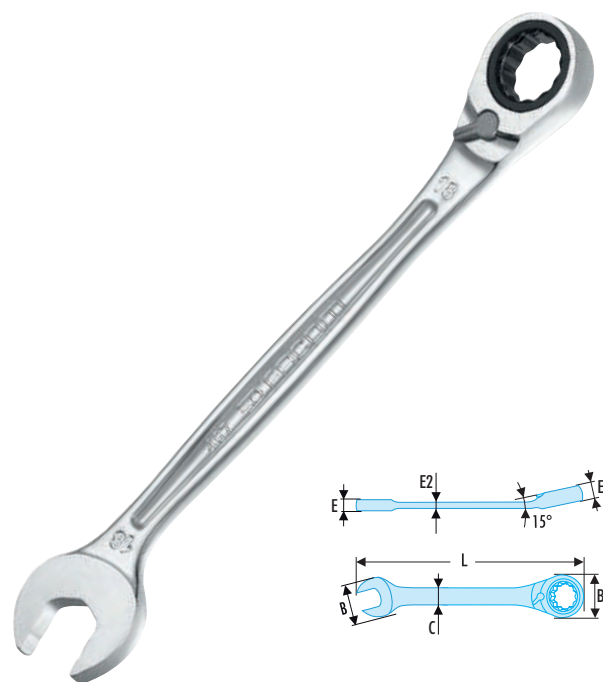


NF ISO 1711-1, NF ISO 691, ISO 1711-1, ISO 691, DIN ISO 1711-1, DIN ISO 691

- Ultra-Grip ratchet wrenches: retaining pin on the ring + securing notch on the open end. Does not slip on the nuts, optimum safety.
- Compact ratchet mechanism reversing by lever. Better accessibility.
- 5° increments (7.5° for size 6 mm; 6° for 7, 8 and 9 mm sizes). Enhanced productivity.
- Ring and open end tilted at 15°.
- Metric sizes: 6 to 41 mm
- Satin chrome finish.

Size	A [mm]	B [mm]	B1 [mm]	C [mm]	E [mm]	E1 [mm]	E2 [mm]	L [mm]	ΔΔ [g]
467B.6	6	14.1	14.1	6.5	4	6.3	2.7	128	20
467B.7	7	18.6	16.8	8.2	4.6	6.5	3.1	140	34
467B.8	8	18.6	16.8	8.2	4.6	6.5	3.1	140	34
467B.9	9	21	18.6	9	4.6	6.9	3.2	149	40
467B.10	10	22.7	20.2	10.4	5.1	7.3	3.4	158	49
467B.11	11	23.7	22	10.6	5.2	7.7	3.5	165	58
467B.12	12	26.8	23.2	11.3	5.4	8.2	3.8	171	69
467B.13	13	28.4	25.3	12.2	5.7	8.6	4.3	178	86
467B.14	14	30.8	27	13	5.9	9	4.3	190	100
467B.15	15	32.3	28.3	14	6.1	9.4	4.7	199	115
467B.16	16	34.9	30	14.1	6.6	9.9	5.3	208	138
467B.17	17	36.8	31.7	15.4	6.6	10.3	5.4	225	162
467B.18	18	38.4	32.8	15.6	7.4	10.7	5.8	236	183
467B.19	19	41.2	33.9	16	7.4	11.2	6	247	212
467B.21	21	46.9	39.7	18	8.6	13	6.3	287	314
467B.22	22	46.9	39.7	18	8.6	13	6.3	287	314
467B.24	24	51	46	19.5	8.9	14.5	6.7	320	414
467B.27	27	57.9	52	21	9.8	15.5	7.1	356	567
467B.30	30	64.9	58	24.2	10.5	17	8.3	400	794
467B.32	32	67.9	62.2	26	11	17.5	8.5	422	951
467B.34	34	72	62.2	27	11	17.5	8.7	455	1026
467B.36	36	79.9	66	30	13	18	10.5	487	1343
467B.38	38	79.9	66	30	13	18	10.5	487	1343
467B.41	41	84.7	72	31.3	14	19.5	12.5	565	1871

### 467B - Inch ratchet combination wrenches



ASME B107.100

- Standard ratchet combination wrenches: for all common applications.
- Compact ratchet mechanism reversing by lever.
- 5° increments (7.5° for size 1/4" size; 6° for 5/16" and 11/32" sizes).
- Ring and open end tilted at 15°.
- Inch dimensions from 1/4 to 15/16".
- Satin chrome finish.

Size	A ["]	B [mm]	B1 [mm]	E [mm]	E1 [mm]	E2 [mm]	L [mm]	ΔΔ [g]
467B.1/4	1/4	14.1	14.1	4	6.3	2.7	128	20
467B.5/16	5/16	18.6	16.8	4.6	6.5	3.1	140	34
467B.11/32	11/32	21	18.6	4.6	6.9	3.2	149	40
467B.3/8	3/8	22.7	20.2	5.1	7.3	3.4	158	49
467B.7/16	7/16	23.7	22	5.2	7.7	3.5	165	58
467B.1/2	1/2	28.4	25.3	5.7	8.6	4.3	178	86
467B.9/16	9/16	30.8	27	5.9	9	4.3	190	100
467B.5/8	5/8	34.9	30	6.6	9.9	5.3	208	138
467B.11/16	11/16	36.8	31.7	6.6	10.3	5.4	225	162
467B.3/4	3/4	41.2	33.9	7.4	11.2	6	247	212
467B.7/8	7/8	46.9	39.7	8.6	13	6.3	287	314
467B.15/16	15/16	51	46	8.9	14.5	6.7	320	414



467B - Sets of metric and inch combination wrenches on portable case



- Productivity and safety = Fast storage, fast finding, with you at all times.
- Compact and easy to use during interventions on site.
- Withstands chemicals.



Ref	A ["]	A [mm]	Contents	Qty	ΔΔ [kg]
467B.JP8	-	8 - 10 - 11 - 12 - 13 - 14 - 17 - 19	Portable case: CK.467BJP8	8	0,85
467B.JP10	-	8 - 10 - 11 - 12 - 13 - 14 - 16 - 17 - 18 - 19	Portable case: CK.467BJP10	10	1.2
467B.JP12	-	7 - 8 - 10 - 11 - 12 - 13 - 14 - 15 - 16 - 17 - 18 - 19	Portable case: CK.467BJP12	12	1.4
467B.JP8U	5/16 - 3/8 - 7/16 - 1/2 - 9/16 - 5/8 - 11/16 - 3/4	-	Portable case: CK.467BJP8U	8	0.85
467B.JP12U	1/4 - 5/16 - 11/32 - 3/8 - 7/16 - 1/2 - 9/16 - 5/8 - 11/16 - 3/4 - 7/8 - 15/16	-	Portable case: CK.467BJP12U	12	1.4

Set of metric ratchet combination wrenches

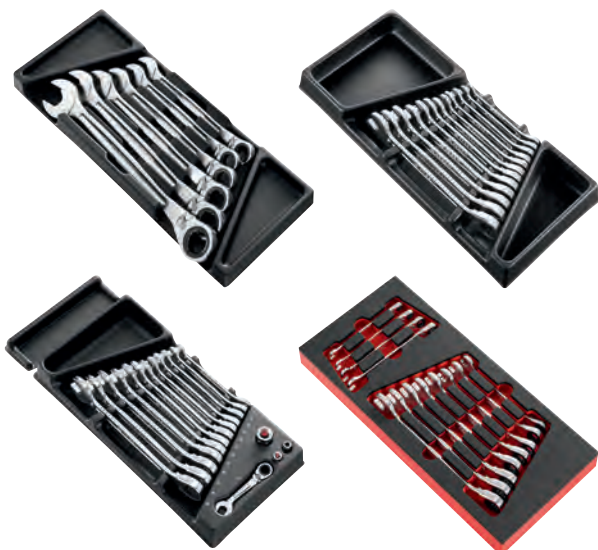


- Presentation: box set.



Ref	A [mm]	Qty	ΔΔ [g]
467B.J7	8 - 10 - 12 - 13 - 14 - 17 - 19	7	710

MOD.467B - Sets of metric ratchet combination wrenches in thermoformed and foam trays



- Compatible with the FACOM modular storage system:
  - MOD.467BJ12 and MOD.467BJ13: suited to CHRONO, JET, CHRONO XL, CHRONO+, JET XL and JET+ roller cabinets.
  - MOD.467BXL: suited to CHRONO XL, CHRONO+, JET XL and JET+ roller cabinets.



Ref	A [mm]	Contents	Qty	ΔΔ [kg]
MOD.467BXL	21 - 22 - 24 - 27 - 30 - 32	XL.PL.653	6	4.22
MOD.467BJ12	8 - 9 - 10 - 11 - 12 - 13 - 14 - 15 - 16 - 17 - 18 - 19	PL.652	12	1.675
MOD.467BJ13	8 - 9 - 10 - 11 - 12 - 13 - 14 - 15 - 16 - 17 - 18 - 19 + 467S.10 + 467.ADAPT10-19	PL.682	14	1.7
MODM.467BJ12	8 - 9 - 10 - 11 - 12 - 13 - 14 - 15 - 16 - 17 - 18 - 19	PM.MOD467J12	12	1.535

**FAST RATCHET WRENCHES**

**"Double ratchet"  
wrench**

467R



**Ergonomic handle:**

- painless torque application. Integral reversing lever.

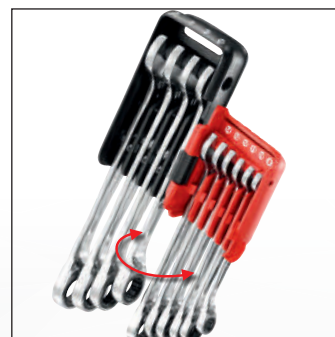


**Ring end:**

- 72 teeth ratchet mechanism for 5° increment, 15° angled.

**Pocket holder:**

- Find the required wrench quickly and easily & save space with well-arranged tools.



**Fast open-end with  
ratchet effect:**

- Ultra-fast tightening without wasting time to reposition the wrench. Rewind action without removing the tool.



**Open ends:**

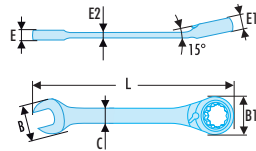
- Perfectly suited to approach operations. Anti-slip ring stop: no slipping from the fastener head to work faster.



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467BR - Metric fast open end combined ratchets



NF ISO 1711-1, NF ISO 691, ISO 1711-1, ISO 691, DIN ISO 1711-1, DIN ISO 691

- Standard open end combined ratchets: for all current applications.
- Compact lever reversible ratchet mechanism.
- 5° increments.
- Ring head angled by 15°.
- Open end head angled by 15°.
- Metric dimensions: 8 to 19 mm.
- Satin chrome finish.

	A [mm]	B [mm]	B1 [mm]	C [mm]	E [mm]	E1 [mm]	E2 [mm]	L [mm]	ΔΔ [g]
<b>467BR.8</b>	8	18.6	16.8	8.2	4.6	6.5	3.1	140	34
<b>467BR.10</b>	10	22.7	20.2	10.4	5.1	7.3	3.4	158	49
<b>467BR.11</b>	11	23.7	22	10.6	5.2	7.7	3.5	165	58
<b>467BR.12</b>	12	26.8	23.2	11.3	5.4	8.2	3.8	171	69
<b>467BR.13</b>	13	28.4	25.3	12.2	5.7	8.6	4.3	178	86
<b>467BR.14</b>	14	30.8	27	13	5.9	9	4.3	190	100
<b>467BR.16</b>	16	34.9	30	14.1	6.6	9.9	5.3	208	138
<b>467BR.17</b>	17	36.8	31.7	15.4	6.6	10.3	5.4	225	162
<b>467BR.18</b>	18	38.4	32.8	15.6	7.4	10.7	5.8	236	183
<b>467BR.19</b>	19	41.2	33.9	16	7.4	11.2	6	247	212

467BR - Set of 7 metric open end combined ratchets



	A [mm]	Qty	ΔΔ [g]
<b>467BR.J7</b>	8 - 10 - 12 - 13 - 14 - 17 - 19	7	710



## 467BR - Set of 10 metric open end combined ratchets



FACOM	A [mm]	Contents	Qty	ΔΔ [kg]
<b>467BR.JP10</b>	8 - 10 - 11 - 12 - 13 - 14 - 16 - 17 - 18 - 19	Portable case: CK.467BJP10.	10	1.21

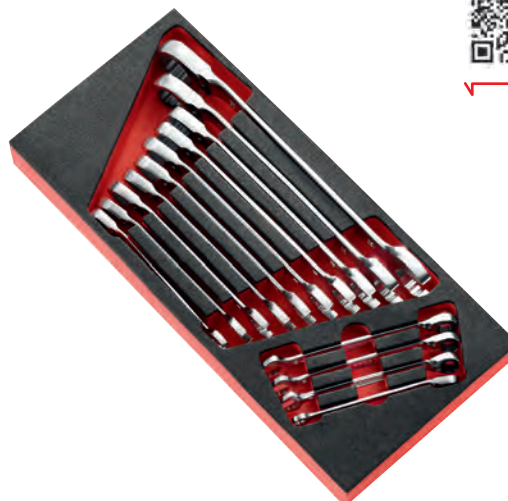
## MOD.467BR - Module metric open end combined ratchets in thermoformed tray

- Compatible with the FACOM modular storage system:
  - Adapted to CHRONO, JET, CHRONO XL, CHRONO+, JET XL and JET+ rolling cabinets.



FACOM	A [mm]	Contents	Qty	ΔΔ [kg]
<b>MOD.467BRJ12</b>	8, 9, 10, 11, 12, 13, 14, 15, 16, 17, 18, 19	PL.652	12	1.5
<b>MOD.467BRJ14</b>	8, 9, 10, 11, 12, 13, 14, 15, 16, 17, 18, 19, 22, 24	PL.690	12	1.7

## MODM.467BR - Module of 12 metric open end combined ratchets in foam tray



FACOM	A [mm]	Content set	Qty	ΔΔ [kg]
<b>MODM.467BRJ12</b>	8, 9, 10, 11, 12, 13, 14, 15, 16, 17, 18, 19	PM.MOD467J12	12	1.5
<b>MODM.467BRJ14</b>	8, 9, 10, 11, 12, 13, 14, 15, 16, 17, 18, 19, 22, 24	PM.MOD467J14	12	1.7

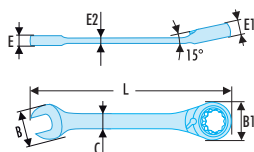


SHORT COMBINATION RATCHET SERIES

467BS - Short metric ratchet combination wrenches



- Extra-short handle ratchet combination wrenches: ideal in highly dense zones.
- Compact ratchet mechanism and reversible by lever.
- Increment 5° (6° for dimension 7 and 8 mm).
- Ring head angled at 15°.
- Open end head angled at 15°.
- Metric sizes: 7 to 19 mm.
- Presentation: satin chrome finish.



➤	A [mm]	B [mm]	C [mm]	E [mm]	E1 [mm]	E2 [mm]	L [mm]	ΔΔ [g]
467BS.7	7	18.6	7.6	4.6	6.5	3.1	90.5	25
467BS.8	8	18.6	7.6	4.6	6.5	3.1	90.5	25
467BS.10	10	22.7	9.0	5.1	7.3	3.6	95.5	37
467BS.11	11	23.7	9.2	5.2	7.7	3.7	103.5	44
467BS.12	12	26.8	10.0	5.4	8.2	4.0	106.5	51
467BS.13	13	28.4	10.1	5.7	8.6	4.5	108.5	65
467BS.14	14	30.8	11.3	5.9	9.0	4.5	115.5	75
467BS.15	15	32.3	11.8	6.1	9.4	4.7	119.5	87
467BS.16	16	34.9	12.3	6.6	9.9	5.3	123.5	106
467BS.17	17	36.8	13.1	6.6	10.3	5.4	127.5	116

467BS - Short ratchet combination wrench sets in portable case



NF ISO 1711-1, NF ISO 691, ISO 1711-1, ISO 691, DIN ISO 1711-1, DIN ISO 691, ASME B107.100

- Productivity and safety = easy to organise, easy to spot, always with you.
- Resistant to chemicals and impacts.



➤	A [mm]	Content set	Qty	ΔΔ [kg]
467BS.JP6	8 - 10 - 11 - 12 - 13 - 14	CK.67SJ1	6	0.4
467BS.JP10	7-8-10-11-12-13-14-15-16-17	CK.467BSJP10	10	0.7

Set of inch short-reach ratchet combination wrenches in foam tray



- Compatible with the FACOM modular storage system:
  - Adapted to CHRONO XL, CHRONO+, JET XL and JET+ roller cabinets.



➤	A [mm]	H [mm]	L [mm]	Contents	ΔΔ [g]
MODM.467BSJU10	1/4 - 5/16 - 11/32 - 3/8 - 7/16 - 1/2 - 9/16 - 5/8 - 11/16 - 3/4	45	418	PM.MOD467BSJU10	0.8

**ULTRA COMPACT MULTI-TIGHTENING SET**

**Maximum access thanks to the short ratchet wrench / socket / bit adapter system.**

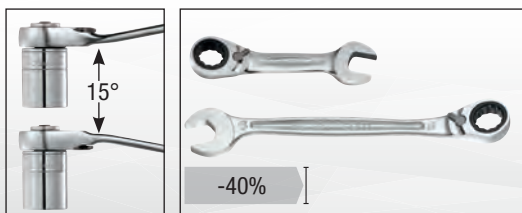
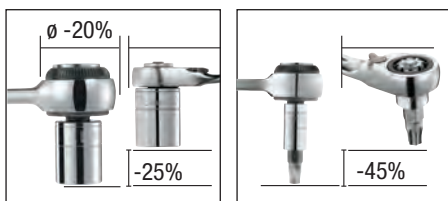
**Ultra-compact  
Ultra-accessible  
Multi-tightening**

- All compact ratchet tightening solutions for applications where access is limited. Using adapters, change the wrench into an ultra-compact ratchet for sockets and bits.



**Access everywhere**

- 72-teeth mechanism = 5° increments.



**Ultra compact metric wrench, socket and bit set**

- The flat tightening / socket tightening / versatile and ultra-compact screwing solution.

Comprising:

- 7 short ratchet combination wrenches: 467BS.7 - 8 - 10 - 11 - 12 - 13 - 14 mm.
- 10 1/4" sockets: R.5.5 - 6 - 7 - 8 - 9 - 10 - 11 - 12 - 13 - 14 mm.
- 1 1/4" extension 55 mm long: R.209.
- 2 10mm socket adaptors with 1/4" socket and 10 mm wrench with 1/4" 6-point bits: 467.ADAPT10MM.
- 20 bits:
  - For slotted screw: ES 4.5 - 6.5 - 8 mm.
  - For Phillips® screw: EP 1 - 2 - 3.
  - For Pozidriv® screw: ED 1 - 2 - 3.
  - For Torx® and Resistorx® screw: EXR 10 - 15 - 20 - 25 - 30 - 40.
  - For hex 6-point screw: EH 3 - 4 - 5 - 6 - 7 mm.
- Plastic box: BP.MBOX5.
- Foam tray: PM.467BSBOX1.



	$\Delta\Delta$ [g]
467BS.BOX	890

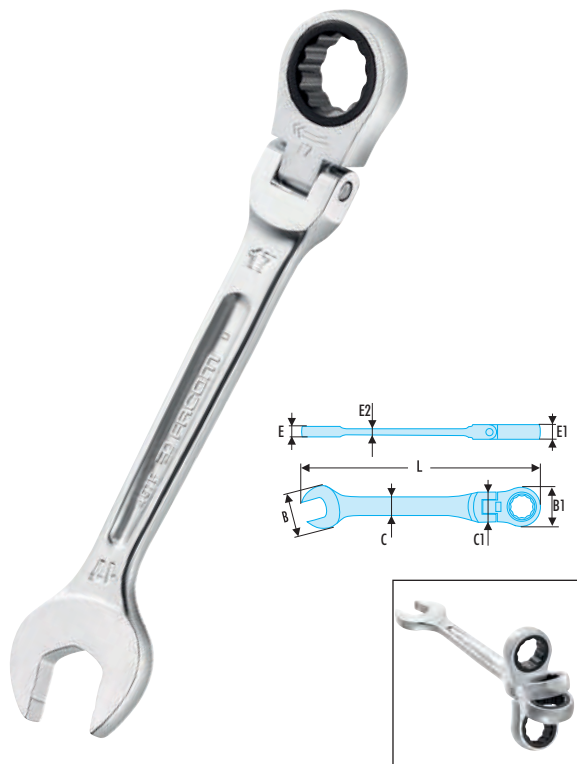


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ANGLED COMBINATION RATCHET SERIES

467BF - Metric hinged jointed combination wrenches



NF ISO 1711-1, NF ISO 691, ISO 1711-1, ISO 691, DIN ISO 1711-1, DIN ISO 691

- Hinged head ratchet combination wrenches: to reach difficult access nuts.
- Compact ratchet mechanism and reversible by flipping the wrench.
- Increment 5° (6° for dimensions 8 and 9 mm).
- Ring head hinged at 180°.
- Open end head angled at 15°.
- Metric sizes: 8 to 19 mm.
- Presentation: satin chrome finish.



ED	A [mm]	B [mm]	B1 [mm]	C [mm]	E [mm]	E1 [mm]	E2 [mm]	L [mm]	ΔΔ [g]
467BF.8	8	18.6	16.7	8.0	4.6	6.5	3.1	127.5	38
467BF.10	10	22.7	20.0	9.8	5.1	7.3	3.6	136.5	53
467BF.11	11	23.7	21.8	9.8	5.2	7.7	3.7	141.5	61
467BF.12	12	26.8	23.0	10.7	5.4	8.2	4.0	148.0	74
467BF.13	13	28.4	25.2	11.6	5.7	8.6	4.5	155.0	94
467BF.14	14	30.8	26.8	12.0	5.9	9	4.5	161.0	108
467BF.15	15	32.3	28.3	13.4	6.1	9.4	4.7	170.0	123
467BF.16	16	34.9	29.8	13.5	6.6	9.9	5.3	180.0	152
467BF.17	17	36.8	31.8	15.0	6.6	10.3	5.4	191.0	167
467BF.18	18	38.4	32.8	15.1	7.4	10.7	5.8	204.0	189
467BF.19	19	41.2	33.9	15.2	7.4	11.2	5.9	216.0	215

Metric hinged ratchet combination wrench set in portable case



- Productivity and safety = easy to organise, easy to spot, always with you.
- Resistant to chemicals and impacts.

ED	A ["]	A [mm]	Contents	Qty	ΔΔ [kg]
467BF.JP10	8 - 10 - 11 - 12 - 13 - 14 - 16 - 17 - 18 - 19		Portable case: CK.467BJP10	10	1.3
467BF.JP12		7 - 8 - 10 - 11 - 12 - 13 - 14 - 15 - 16 - 17 - 18 - 19	Portable case: CK.467BJP12	12	1.5
467BF.JP8U	5/16 - 3/8 - 7/16 - 1/2 - 9/16 - 5/8 - 11/16 - 3/4		Portable case: CK.467BJP10.	8	1.25

MOD.467BF - Hinged metric ratchet combination wrench sets in heat formed tray



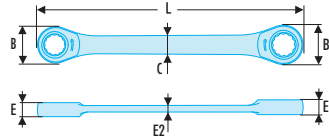
ED	A [mm]	Contents	Qty	ΔΔ [kg]
MOD.467BFJ12	7 - 8 - 10 - 11 - 12 - 13 - 14 - 15 - 16 - 17 - 18 - 19	PL.680	12	1.5
MODM.467BFJ12	7 - 8 - 10 - 11 - 12 - 13 - 14 - 15 - 16 - 17 - 18 - 19	PM.MOD467FJ12	12	1.6

**RING RATCHET SERIES**

**64 - Metric straight ratchet ring wrenches**



**64 - Inch straight ratchet ring wrenches**



NF ISO 1711-1, NF ISO 691, ISO 1711-1, ISO 691, DIN ISO 1711-1, DIN ISO 691, ASME B107.100

- Straight ratchet ring wrenches: to reach the nut flat.
- Compact ratchet mechanism and reversible by flipping the wrench.
- Increment 5° (7.5° for dimension 6 mm; 6° for dimensions 7, 8 and 9 mm).
- Metric sizes: 6 to 24 mm.
- Presentation: satin chrome finish.

ASME B107.100

- Straight ratchet ring wrenches: to reach the nut flat.
- Compact ratchet mechanism and reversible by flipping the wrench.
- Increment 5° (7.5° for dimension 1/4" mm; 6° for dimensions 5/16" and 11/32").
- Dimensions in inches: from 1/4" to 5"16.
- Presentation: satin chrome finish.

64	A [mm]	B [mm]	B1 [mm]	C [mm]	E [mm]	E1 [mm]	E2 [mm]	L [mm]	ΔΔ [g]
64.6X7	6x7	14,2	17,2	8,0	6,3	6,5	3,0	115	35
64.8X9	8x9	16,8	20,2	8,3	6,5	6,9	3,2	128	45
64.10X11	10x11	20,2	21,8	9,1	7,3	7,7	3,6	150	60
64.12X13	12x13	23	24,8	11,3	8,2	8,6	4,2	170	80
64.14X15	14x15	26,5	29,5	13,1	9,0	9,4	4,7	190	130
64.16X18	16x18	29,5	33,5	14,8	9,9	10,7	5,4	210	185
64.17X19	17x19	31,5	33,5	15,2	10,3	11,2	5,4	230	190
64.21X23	21x23	40	46,0	15,2	13,0	14,5	5,4	260	480
64.22X24	22x24	40	46,0	15,2	13,0	14,5	5,4	260	480

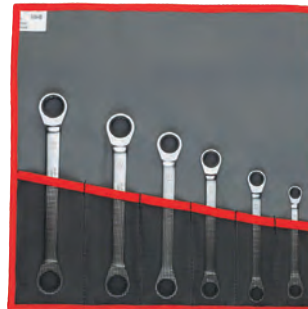
64	A ["]	B [mm]	B1 [mm]	C [mm]	E [mm]	E1 [mm]	E2 [mm]	L [mm]	ΔΔ [g]
64.1/4X5/16	1/4x5/16	14,2	17,2	8,0	6,3	6,5	3,0	115	40
64.5/16X11/32	5/16x11/32	16,8	20,2	8,3	6,5	6,9	3,2	128	45
64.3/8X7/16	3/8x7/16	20,2	21,8	9,1	7,3	7,7	3,6	150	60
64.1/2X9/16	1/2x9/16	23	24,8	11,3	8,6	9,0	4,2	180	115
64.5/8X11/16	5/8x11/16	29,5	33,5	14,8	9,9	10,7	5,4	210	185
64.3/4X13/16	3/4x13/16	33,5	40,0	15,2	11,2	13,0	5,4	245	310
64.7/8X15/16	7/8x15/16	40	46,0	15,2	13	14,5	5,4	260	480

**64 - Sets of metric and inch straight ratchet ring wrenches**

NF ISO 1711-1, NF ISO 691, ISO 1711-1, ISO 691, DIN ISO 1711-1, DIN ISO 691, ASME B107.100

- Presentation: supplied as box or roll sets.

64	A ["]	A [mm]	Contents	Qty	ΔΔ [g]
64.J4	-	10x11 - 12x13 - 16x18 - 17x19	Box	4	535
64.JE6T	-	8x9 - 10x11 - 12x13 - 14x15 - 16x18 - 17x19	Roll: N.38A-6B	6	825
64.JU6T	1/4x5/16 - 3/8x7/16 - 1/2x9/16 - 5/8x11/16 - 3/4x13/16 - 7/8x15/16	-	Roll: N.38A-6B	6	1300

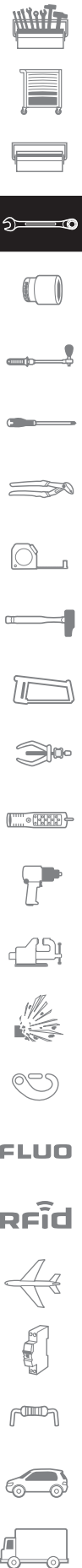


**MOD.64 - Metric straight ratchet ring wrench sets in heat formed tray**

NF ISO 1711-1, NF ISO 691, ISO 1711-1, ISO 691, DIN ISO 1711-1, DIN ISO 691, ASME B107.100

- Compatible with the FACOM modular storage system: compatible with CHRONO, JET, CHRONO XL, CHRONO+, JETXL and JET+ roller cabinets.

MOD.64J7	A [mm]	H [mm]	I [mm]	L [mm]	Contents	Qty	ΔΔ [g]
MOD.64J7	6x7 - 8x9 - 10x11 - 12x13 - 14x15 - 16x18 - 17x19	40	175	418	Tray : PL.608A	7	925



RING RATCHET 15° HEAD SERIES

65 - Metric 15° hinged ratchet ring wrenches

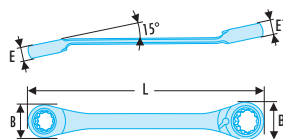


NF ISO 1711-1, NF ISO 691, ISO 1711-1, ISO 691, DIN ISO 1711-1, DIN ISO 691, ASME B107.100

- 15° hinged ratchet ring wrenches: ring offset to clear fingers or obstacles.
- Compact ratchet mechanism and reversible by lever.
- Increment 5° (7.5° for dimension 6 mm; 6° for dimensions 7, 8 and 9 mm).
- Ring head angled at 15°.
- Metric sizes: 6 to 24 mm.
- Presentation: satin chrome finish.

➤	A [mm]	B [mm]	B1 [mm]	E [mm]	E1 [mm]	L [mm]	ΔΔ [g]
65.6X7	6x7	14,0	17,0	6,3	6,5	115	30
65.8X9	8x9	17,0	20,2	6,5	6,9	128	45
65.10X11	10x11	20,2	22,0	7,3	7,7	150	65
65.12X13	12x13	23,4	25,5	8,2	8,6	170	90
65.14X15	14x15	26,9	29,8	9,0	9,4	190	130
65.16X18	16x18	29,8	34,0	9,9	10,7	210	190
65.17X19	17x19	31,8	34,0	10,3	11,2	230	210
65.21X23	21x23	40,1	46,0	13,0	14,5	260	430
65.22X24	22x24	40,1	46,5	13,0	14,5	260	425

65 - Inch 15° hinged ratchet ring wrenches



ASME B107.100

- 15° hinged ratchet ring wrenches: ring offset to clear fingers or obstacles.
- Compact ratchet mechanism and reversible by lever.
- Increment 5° (7.5° for dimension 1/4"; 6° for dimensions 5/16" and 11/32").
- Ring head angled at 15°.
- Dimensions in inches: from 1/4" to 15"16.
- Presentation: satin chrome finish.

➤	A ["]	B [mm]	B1 [mm]	E [mm]	E1 [mm]	L [mm]	ΔΔ [g]
65.1/4X5/16	1/4x5/16	14,0	17,0	6,3	6,5	115	30
65.5/16X11/32	5/16x11/32	17,0	20,2	6,5	6,9	128	45
65.3/8X7/16	3/8x7/16	20,2	22,0	7,3	7,7	150	65
65.1/2X9/16	1/2x9/16	25,5	26,9	8,6	9,0	180	110
65.5/8X11/16	5/8x11/16	29,8	31,8	9,9	10,3	200	170
65.3/4X13/16	3/4x13/16	34,0	40,1	11,2	13,0	245	290
65.7/8X15/16	7/8x15/16	40,1	46,5	13	14,5	260	420

Metric 15° hinged ratchet combination wrenches set in portable case



- Productivity and safety = easy to organise, easy to spot, always with you.
- Resistant to chemicals and impacts.



➤	A [mm]	Qty	ΔΔ [kg]
65.JP6	8x9 - 10x11 - 12x13 - 14x15 - 16x18 - 17x19	6	0,8

Inch 15° hinged ratchet ring wrenches set



NF ISO 1711-1, NF ISO 691, ISO 1711-1, ISO 691, ASME B107.100

- Presentation: supplied in roll.



➤	6-point [No]	Contents	Qty	ΔΔ [kg]
65.JU6T	1/4x5/16 - 3/8x7/16 - 1/2x9/16 - 5/8x11/16 - 3/4x13/16 - 7/8x15/16	Roll: N.38A-6B	6	1,3

■ **Metric 15° hinged ratchet ring wrench sets in heat formed tray**

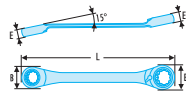
- Compatible with the FACOM modular storage system: compatible with CHRONO, JET, CHRONO XL, CHRONO+, JETXL and JET+ roller cabinets.



REF	A [mm]	H [mm]	L [mm]	Contents	Qty	ΔΔ [kg]
<b>MOD.65J7</b>	6x7 - 8x9 - 10x11 - 12x13 - 14x15 - 16x18 - 17x19	40	418	PL.608A	7	1.2

■ **65 - Spline 15° angled offset-ring ratchets**

- Spline profile 15° angled ratchet offset wrenches, specific for aeronautical fasteners.
- The fluted profile applies more torque with less effort through the larger contact surface at tightening.
- The contact points of a Spline wrench are always away from the nut angles. This limits wear on the nuts.
- The Spline profile offers broad versatility. It is compatible with the following types of fasteners: fluted (Spline), Torx, 4-, 6- and 12-points.
- Recess under the handle allows to pass fingers or an obstacle.
- Compact ratchet mechanism reversing by lever.
- 5° increments (6° for sizes 7, 8 and 9).
- Spline dimensions: from 7 to 36.
- Satin chrome finish.



REF	A ["]	B [mm]	B1 [mm]	E [mm]	E1 [mm]	L [mm]	ΔΔ [g]
<b>65.7X9SPL</b>	7/32x9/32	14	17	6.3	6.5	115	24
<b>65.8X10SPL</b>	1/4x5/16	14	17	6.3	6.5	115	30
<b>65.12X14SPL</b>	3/8x7/16	20.2	22	7.3	7.7	150	49
<b>65.16X18SPL</b>	1/2x9/16	25.5	26.9	8.6	9	180	99
<b>65.20X22SPL</b>	5/8x11/16	29.8	31.8	9.9	10.3	200	165
<b>65.24X28SPL</b>	3/4x7/8	34	40.1	11.2	13	245	276
<b>65.26X30SPL</b>	13/16x15/16	40.1	46.5	13	14.5	260	294
<b>65.32X36SPL</b>	1x1P1/8	46	58.5	14.5	17	295	658

■ **Set of 15° angled offset-ring ratchets Spline in foam tray**

- Compatible with the FACOM modular storage system: - Adapted to CHRONO XL, CHRONO+, JET XL and JET+ roller cabinets.



REF	A [mm]	H [mm]	L [mm]	Contents	Qty	ΔΔ [g]
<b>MODM.65SPL7</b>	7x9 - 8x10 - 12x14 - 16x18 - 20x22 - 24x28 - 26x30	40	418	PM.MOD65SPL7	7	950

■ **Set of 2 adaptors for 10 mm wrenches to 1/4" drive**



- 2 adaptors to use your 10 mm ratchet wrench with 1/4" drive sockets and 1/4" 6-point bits.

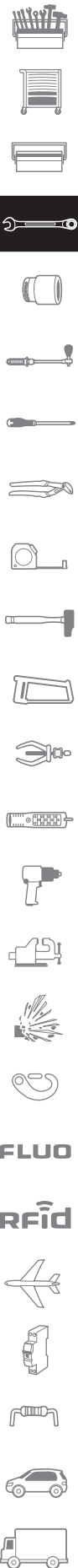
<b>467.ADAPT10MM</b>	ΔΔ [g]
	10

■ **Set of 2 adaptors for 10 mm wrenches to 1/4" drive and for 19 mm wrenches to 1/2" drive**



- 1 adaptor to use your 10 mm ratchet wrench with 1/4" drive sockets and 1/4" 6-point bits.
- 1 adaptor to use your 19 mm ratchet wrench with 1/2" drive sockets.

<b>467.ADAPT10-19</b>	ΔΔ [g]
	15

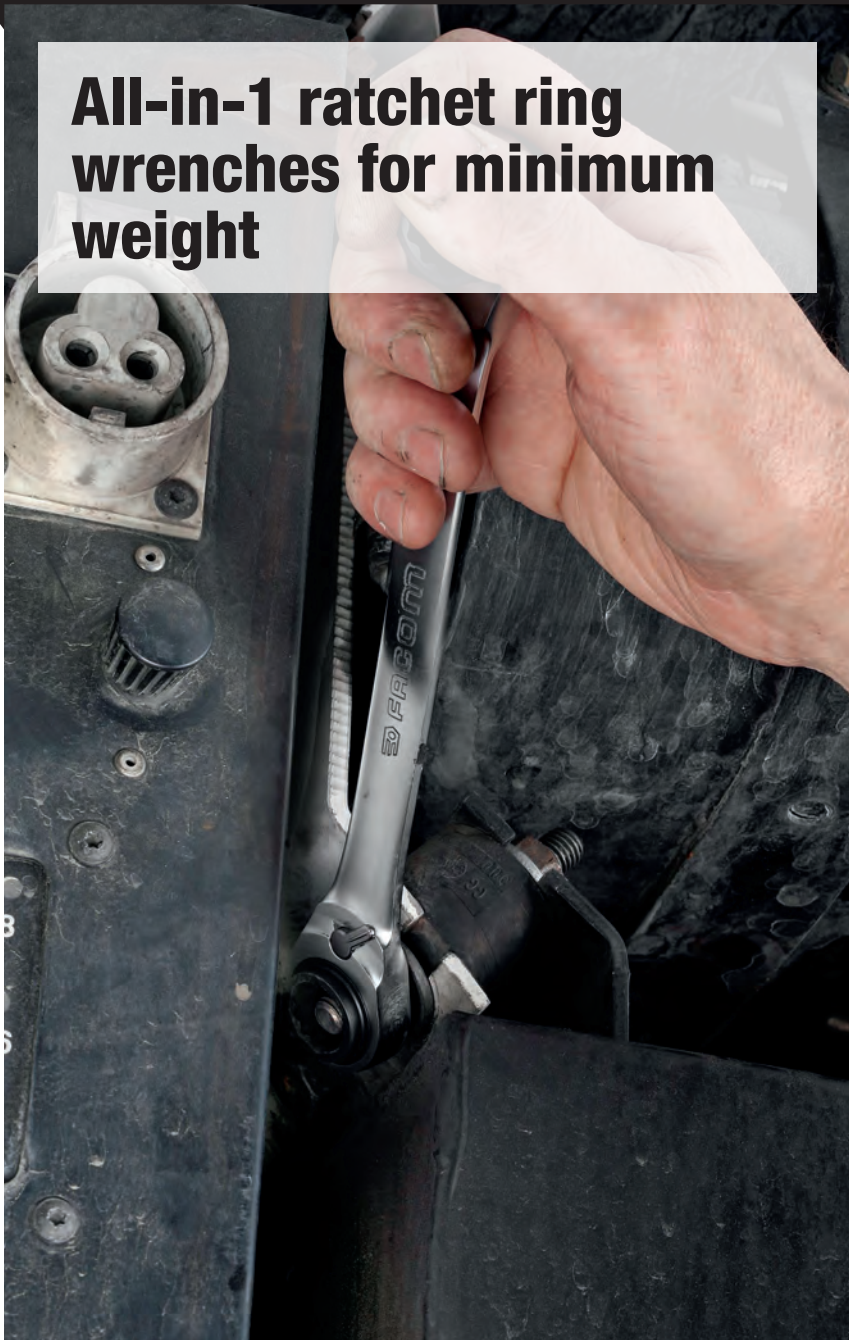


FLUO

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## ALL-IN-1 SOLUTIONS: "QUATTRO" CONCEPT

## All-in-1 ratchet ring wrenches for minimum weight



### Each head has 2 dimensions 1 wrench = 4 dimensions

- 72-teeth Mechanism = 5° increments.
- FACOM guarantees very high performance for its ratchet wrenches: ISO 1711-1 + 50% guaranteed.
- Integral reversing lever avoids any risk of accidental reversal.
- Compact head.
- 8 sizes available: 8-10-12-13-16-17-18-19 mm.

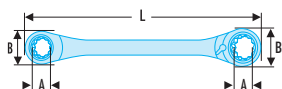


RING RATCHET MULTIPLE OPENING STRAIGHT SERIES

64C - Metric multi-opening straight ratchet ring wrenches

NF ISO 1711-1, ISO 1711-1, DIN ISO 1711-1

- Straight multi-opening ratchet ring wrenches: highly versatile wrenches = 4 dimensions per wrench.  
Saves weight: 1 single wrench in the tool box instead of 4.
- 4 metric dimensions per wrench:
  - 64C.S1: 8x10 - 12x13 mm.
  - 64C.S2: 16x17 - 18x19 mm.
- Compact ratchet mechanism and reversible by lever.
- Increment 5°.
- Presentation: satin chrome finish.



Ref	A [mm]	B [mm]	B1 [mm]	L [mm]	ΔΔ [g]
64C.S0	4x6 - 5x7	14,2	17,2	115	36
64C.S1	8x10 - 12x13	20,2	25,2	150	105
64C.S2	16x17 - 18x19	31,8	34,0	230	270
64C.S3	12x14 - 13x15	26,5	29,5	190	163

Metric multi-opening straight ratchet ring wrenches set

NF ISO 1711-1, NF ISO 691, ISO 1711-1, ISO 691, ASME B107.100

- Set of 2 multi-opening straight ratchet ring wrenches (8 dimensions):
  - 64C.S1: 8x10 - 12x13 mm.
  - 64C.S2: 16x17 - 18x19 mm.
- Compact ratchet mechanism and reversible by lever.
- Increment 5°.
- Presentation: satin chrome finish.
- Supplied in cardboard box.



Ref	A [mm]	Qty	ΔΔ [g]
64C.J2	8x10 - 12x13 - 16x17 - 18x19	2	400

Straight ratchet ring wrench opening 14 and 19 mm

NF ISO 1711-1, NF ISO 691, ISO 1711-1, ISO 691, ASME B107.100

- Ideal for spaces with low access in height. The extra-flat wrench is 3 times slimmer than a traditional ratchet + socket system.
- Compact ratchet mechanism and reversible by flipping the wrench.
- Increment 5°.
- Dimensions of the 2 ratchet heads without bush: 14 and 19 mm.
- Presentation: satin chrome finish.



Ref	A [mm]	ΔΔ [g]
464.M14X19	14 x 19	170

Set of 9 reduction bushes for ratchet ring wrench 464.M14X19

- Dimensions 14 and 18 mm in the wrench 464.M14X19.



Ref	A [mm]	Qty	ΔΔ [g]
464.MKIT	8, 9, 10, 11, 12, 13, 15, 16, 17	9	100



**"11 IN 1" RATCHET WRENCH SET = 1 RATCHET RING WRENCH + 9 RINGS**

**Travelling maintenance special: save 60% weight compared with a set of 6 ratchet ring wrenches**



**Save time**

- Ratchet mechanisms avoiding unproductive repositioning.
- Easy fitting of adapter rings: 1 click is enough.
- No time wasted trying to find the right dimension: clear marking.



**Maximum accessibility:**

- 72-teeth mechanism = 5° increments.
- Extra-slim head: 3 times more compact than the ratchet-socket system.
- Through ratchet function for long threads.



**Performance and safety:**

- FACOM guarantees very high performance for its ratchet wrenches: ISO1711-1 + 50% guaranteed. No more tools left on site at the end of the job thanks to instant checking system for missing tools. Single-handed effective locking system: no ring ejection thanks to the ring locking and release system. The rings stay in their foam compartments even when the box is tipped or dropped. Box and foam resistant to impact and chemical agents.

**Dimensions / openings: 8-9-10-11-12-13-14-15-16-17-19 mm.**

**Flat tightening case "11 in 1"**



Ultra-light "11 in 1" set: 1 wrench + 9 bushes = 11 dimensions.

- Ideal for spaces with low access in height.
- The extra-flat wrench is 3 times slimmer than a traditional ratchet + socket system.
- Compact ratchet mechanism and reversible by lever.
- Increment 5°.
- Dimensions of the 2 ratchet heads without bush: 14 and 19 mm.
- 9 reducer bushes.
- Plastic box: BP.102.

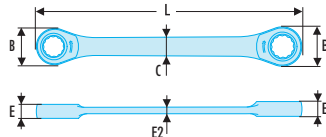
FACOM	A [mm]	H [mm]	L [mm]	P [mm]	Contents	ΔΔ [g]
<b>464.J1</b>	8, 9, 10, 11, 12, 13, 15, 16, 17	45	265	235	BP.102 - PM.464J1	530

■ **464TX - Ratchet wrenches**

- Ideal for crowded or tight spaces !
- EXTRA LOW-PROFILE: The compact ring head perfectly replaces the ratchet and socket combination and provides the advantages of an extra low-profile ratchet.
- COMPACT: Ratchet system incorporated within a compact ring head. 2 sizes per wrench.
- FAST: 5° increments. Ultra-fast tightening without wasting time to reposition the wrench.



🔪	A [mm]	B [mm]	B1 [mm]	C [mm]	E [mm]	E1 [mm]	E2 [mm]	L [mm]	ΔΔ [g]
<b>464TX.6X8</b>	6x8	16,8	20,2	8,7	6,5	6,9	3,2	128	45
<b>464TX.10X12</b>	10X12	20,2	21,8	9,7	7,3	7,7	3,6	150	60
<b>464TX.14X18</b>	14X18	26,5	29,5	13,7	9,0	9,4	4,7	190	140
<b>464TX.20X24</b>	20X24	31,5	33,5	15,9	10,3	11,2	5,4	230	210



■ **Set of 3 socket wrenches**



🔪	A [mm]	Qty	ΔΔ [g]
<b>464TX.J3</b>	E6xE8 - E10xE12 - E14xE18.	3	245

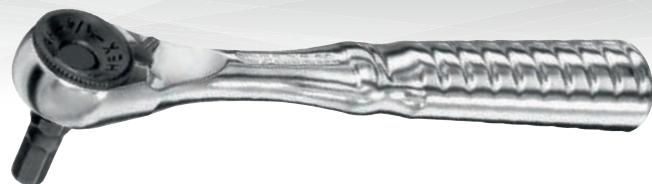
■ **Set of 4 socket wrenches**



🔪	A [mm]	Qty	ΔΔ [g]
<b>464TX.J4</b>	E6xE8 - E10xE12 - E14xE18 - E20xE24.	4	465

**RATCHET TIGHTENING OF FEMALE HEAD SCREWS / NUTS**

**Ratchets  
for bits.  
See p. 284**

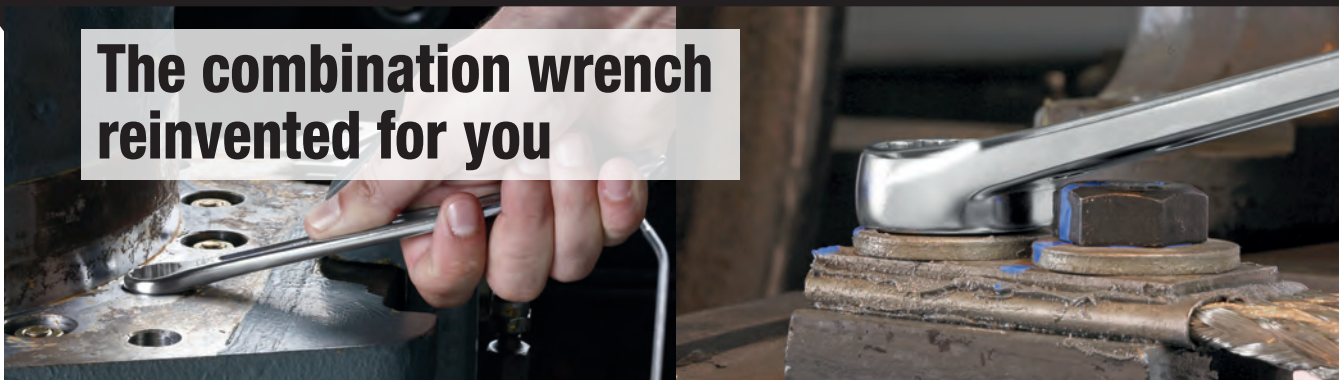


**FLUO**

**RFid**

COMBINATION WRENCH "NEW GENERATION"

The combination wrench reinvented for you



440

**More control**

During pre-tightening: More stable. Easier to guide. Wrench does not turn in the hand.



**More power, delivered safely**

The combination wrench 440 was designed to combine compactness with strength: Dimensions meet the requirements of tooling standards NF ISO 1711-1 and aerospace standard SAE AS 954G. Tightening torques guaranteed significantly above specifications of high strength tooling and bolting standards ISO 898-1 (quality class 12.9). Combination wrench 440 was also designed to ensure maximum user safety. When critical tightening torques are reached, the wrench is distorted gradually. No brutal breaking likely to injure the user.

ISO 898-1\* Bolting standards

ISO 1711-1 Standard tooling standard

SAE AS 954G Aerospace tooling standard

440

FACOM combination wrench



Maximum performance

**More comfort**

Variable handle cross section doubles the surface in contact with the hand. Painless torque application

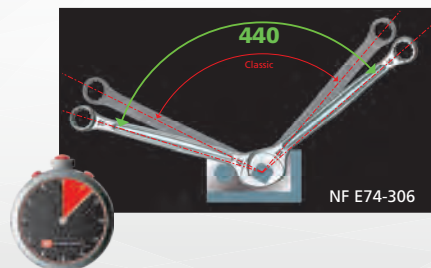


**Better ring head accessibility**

Ring head provides better clearance for reaching recessed or closely spaced nuts.

**More efficient open-end**

The open-end / handle geometry: Saves 20% time. Save 15% space in highly confined zones.



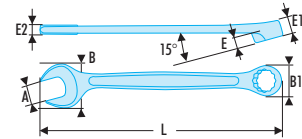
NF E74-306

STANDARD SERIES

440 - Metric combination wrenches



440 - Inch combination wrenches



NF ISO 691, NF ISO 7738, NF ISO 3318, NF ISO 1711-1, E74-306, ISO 691, ISO 7738, ISO 3318, ISO 1711-1, DIN ISO 691, DIN 1711-1, DIN 3113, ASME B107.100

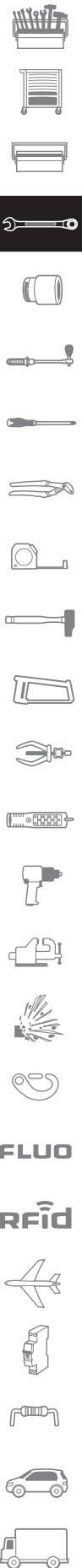
- Standard wrench for all common applications.
- High mechanical performance combined with compact design complying with aeronautical standards.
- Ring head:
  - Ring clearance (E dimension) designed for better access to serial-mounted or embedded screws.
  - OGV® profile 12-point ring for powerful tightening while protecting the nut. Suffix H = 6 sided ring.
  - Ring head with 15° angle.
- Open end head:
  - Open end with 15° angle.
  - Open end head-handle geometry optimized for increased accessibility.
- Metric dimensions: 4 to 41 mm.
- Satin chrome finish.

ASME B107.100, SAE AS954G

- Standard wrench for all common applications.
- High mechanical performance combined with compact design complying with aeronautical standards.
- Ring head:
  - Ring clearance (E dimension) designed for better access to serial-mounted or embedded screws.
  - OGV® profile 12-point ring for powerful tightening while protecting the nut. Suffix H = 6 sided ring.
  - Ring head with 15° angle.
- Open end head:
  - Open end with 15° angle.
  - Open end head-handle geometry optimized for increased accessibility.
- Inch dimensions from 1/4" to 1"1/2.
- Satin chrome finish.

Size	A [mm]	B [mm]	B1 [mm]	E [mm]	E1 [mm]	E2 [mm]	L [mm]	ΔΔ [g]
440.4H	4	10,0	7,8	2,1	3,5	3,0	106	10
440.5H	5	13,3	9,2	3,1	6,0	3,6	115	16
440.5,5H	5,5	13,3	9,2	3,1	6,0	3,8	115	15
440.6	6	14,1	10,0	3,1	6,0	3,8	115	20
440.7	7	17,2	11,2	3,4	6,2	3,9	122	20
440.8	8	19,2	12,8	3,5	6,7	4,7	133	30
440.9	9	21,2	14,2	3,9	7,1	4,7	138	35
440.10	10	23,0	15,0	4,2	7,6	5,2	145	40
440.11	11	24,5	16,9	4,6	8,1	5,5	155	50
440.12	12	27,0	18,0	4,4	8,4	5,8	162	60
440.13	13	28,7	19,3	4,8	8,6	6,1	170	70
440.14	14	31,0	21,1	5,7	9,5	6,4	180	85
440.15	15	32,6	22,2	5,9	10,0	6,8	185	95
440.16	16	35,6	23,9	6,4	10,5	7,3	195	115
440.17	17	37,0	25,3	6,5	10,9	7,6	202	130
440.18	18	38,7	26,0	7,2	11,4	8,1	208	150
440.19	19	41,2	27,8	7,2	11,9	8,3	216	170
440.20	20	43,1	29,5	6,3	12,3	8,6	224	185
440.21	21	45,4	30,9	7,8	12,8	8,8	233	205
440.22	22	46,9	32,3	8,3	13,3	9,0	248	230
440.23	23	49,0	33,6	8,7	13,8	9,3	257	255
440.24	24	51,0	35,0	8,9	14,2	9,7	267	290
440.25	25	53,0	36,4	9,4	14,7	9,9	274	315
440.26	26	55,5	37,8	9,8	15,1	10,1	285	345
440.27	27	58,0	39,2	8,9	15,6	10,4	295	375
440.28	28	60,7	40,6	10,6	16,1	10,7	305	415
440.29	29	63,0	42,0	10,8	16,6	11,2	320	475
440.30	30	65,0	43,5	11,2	17,1	11,5	340	530
440.32	32	68,0	46,1	11,5	18,0	12,5	355	640
440.33	33	69,8	47,0	11,8	18,5	12,8	380	715
440.34	34	72,0	48,9	12,8	19,0	13,0	390	745
440.35	35	74,3	51,0	12,8	19,5	13,5	430	890
440.36	36	76,0	53,0	13,2	20,0	14,0	440	945
440.38	38	80,0	56,0	14,1	22,0	15,2	450	1100
440.41	41	85,0	58,3	14,7	23,0	16,0	460	1300

Size	A ["]	B [mm]	B1 [mm]	E [mm]	E1 [mm]	E2 [mm]	L [mm]	ΔΔ [g]
440.1/4	1/4	14,1	10,0	3,1	6,0	3,8	115	20
440.5/16	5/16	19,2	12,8	3,5	6,7	4,7	133	30
440.11/32	11/32	21,2	14,2	3,9	7,1	4,7	138	35
440.3/8	3/8	23,0	15,0	4,2	7,6	5,2	145	45
440.7/16	7/16	24,5	16,9	4,6	8,1	5,5	155	50
440.1/2	1/2	28,7	19,3	4,8	8,6	6,1	170	70
440.9/16	9/16	31,0	21,1	5,7	9,5	6,4	180	85
440.5/8	5/8	35,6	23,9	6,4	10,5	7,3	195	115
440.11/16	11/16	37,0	25,3	6,5	10,9	7,6	202	130
440.3/4	3/4	41,2	27,8	7,2	11,9	8,3	216	170
440.13/16	13/16	43,1	29,5	6,3	12,3	8,6	224	185
440.7/8	7/8	46,9	32,3	8,3	13,3	9,0	248	230
440.15/16	15/16	51,0	35,0	8,9	14,2	9,7	267	290
440.1'	1	53,0	36,4	9,4	14,7	9,9	274	315
440.1'1/16	1'1/16	58,0	39,2	8,9	15,6	10,4	295	375
440.1'1/8	1'1/8	60,7	40,6	10,6	16,1	10,7	305	415
440.1'1/4	1'1/4	68,0	46,1	11,5	18,0	12,5	355	640
440.1'5/16	1'5/16	69,8	47,0	11,8	18,5	12,8	380	715
440.1'3/8	1'3/8	74,3	51,0	12,8	19,5	13,5	430	890
440.1'7/16	1'7/16	76,0	53,0	13,2	20,0	14,0	440	945
440.1'1/2	1'1/2	80,0	56,0	14,1	22,0	15,2	450	1100



■ 440 - Set of metric combination wrenches in portable case

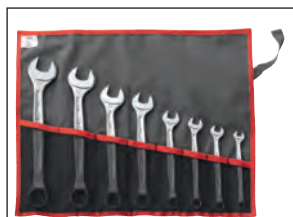
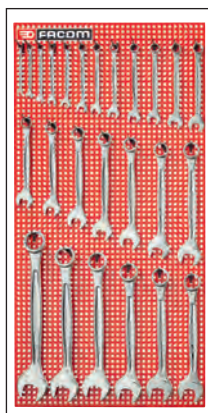
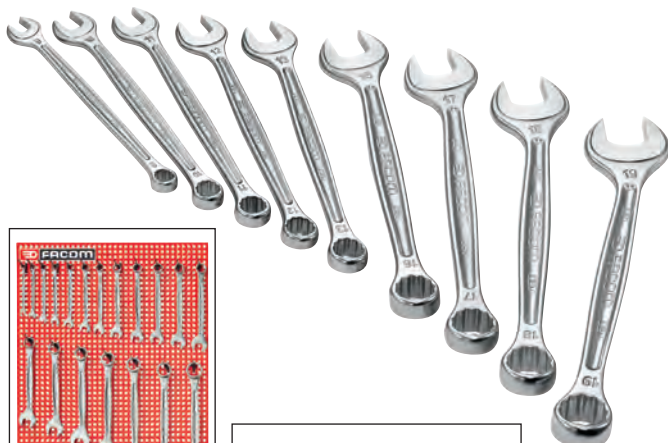


NF ISO 691, NF ISO 7738, NF ISO 3318, NF ISO 1711-1, E74-306, ISO 691, ISO 7738, ISO 3318, ISO 1711-1, DIN ISO 691, DIN 1711-1, DIN 3113, ASME B107.100

- Productivity and safety = Fast storage, fast finding, with you at all times.
- Resists chemicals and shocks.

Code	A ["]	A [mm]	Contents	Qty	ΔΔ [kg]
440.JP8		8 - 10 - 11 - 12 - 13 - 14 - 17 - 19	Portable case: CK.467BJP8	8	0,72
440.JP10		8 - 10 - 11 - 12 - 13 - 14 - 16 - 17 - 18 - 19	Portable case: CK.467BJP10	10	1,02
440.JP12A		7 - 8 - 10 - 11 - 12 - 13 - 14 - 15 - 16 - 17 - 18 - 19	Portable case: CK.467BJP12	12	1,17
440.JP14		7 - 8 - 10 - 11 - 12 - 13 - 14 - 15 - 16 - 17 - 18 - 19	Portable case: CK.440J3	14	1,7
440.JP8U	5/16 - 3/8 - 7/16 - 1/2 - 9/16 - 5/8 - 11/16 - 3/5		Portable case: CK.467BJP8U	8	0,72
440.JP12U	1/4 - 5/16 - 11/32 - 3/8 - 7/16 - 1/2 - 9/16 - 5/8 - 11/16 - 3/4 - 7/8 - 15/17		Portable case: CK.467BJP12U	12	1,17

■ 440 - Sets of metric combination wrenches



NF ISO 691, NF ISO 7738, NF ISO 3318, NF ISO 1711-1, E74-306, ISO 691, ISO 7738, ISO 3318, ISO 1711-1, DIN ISO 691, DIN 1711-1, DIN 3113, ASME B107.100

- Supplied as box, roll or panel sets.

Code	A [mm]	Contents	Qty	ΔΔ [kg]
440.JN8	8 - 10 - 11 - 13 - 17 - 19 - 22 - 24	Box	8	1,0
440.JN8T	8 - 10 - 11 - 13 - 17 - 19 - 22 - 24	Roll: N.38A-8C	8	1,1
440.JE9	8 - 9 - 10 - 11 - 12 - 13 - 14 - 17 - 19	Box	9	
440.JE11	7 - 8 - 10 - 11 - 12 - 13 - 14 - 16 - 17 - 18 - 19	Box	11	0,900
440.JE16	8 - 9 - 10 - 11 - 12 - 13 - 14 - 15 - 16 - 17 - 18 - 19 - 21 - 22 - 23 - 24	Box	16	2,0
440.JE16T	8 - 9 - 10 - 11 - 12 - 13 - 14 - 15 - 16 - 17 - 18 - 19 - 21 - 22 - 23 - 24	Roll: N.38A-17A	16	2,2
440.JE18	6 - 7 - 8 - 9 - 10 - 11 - 12 - 13 - 14 - 15 - 16 - 17 - 18 - 19 - 21 - 22 - 23 - 24	Box	18	2,0
440.JE25	6 - 7 - 8 - 9 - 10 - 11 - 12 - 13 - 14 - 15 - 16 - 17 - 18 - 19 - 21 - 22 - 23 - 24 - 26 - 27 - 28 - 29 - 30 - 32 - 34	Box	25	6,0
440.JE29	7 - 8 - 9 - 10 - 11 - 12 - 13 - 14 - 15 - 16 - 17 - 18 - 19 - 21 - 22 - 23 - 24 - 26 - 27 - 28 - 29 - 30 - 32 - 33 - 34 - 35 - 36 - 38 - 41	Box	29	11,2
440.P25M	6 - 7 - 8 - 9 - 10 - 11 - 12 - 13 - 14 - 15 - 16 - 17 - 18 - 19 - 21 - 22 - 23 - 24 - 26 - 27 - 28 - 29 - 30 - 32 - 34	Panel: PK.1	25	5,6

■ 440 - Set of inch combination wrenches



ASME B107.100, SAE AS954G

- Supplied as roll or box sets.

Code	A ["]	Contents	Qty	ΔΔ [g]
440.JU9	1/4 - 5/16 - 3/8 - 7/16 - 1/2 - 9/16 - 5/8 - 11/16 - 3/4	Box	9	700
440.JU12	1/4 - 5/16 - 3/8 - 7/16 - 1/2 - 9/16 - 5/8 - 11/16 - 3/4 - 13/16 - 7/8 - 15/16	Box	12	1600
440.JU21	1/4 - 5/16 - 11/32 - 3/8 - 7/16 - 1/2 - 9/16 - 5/8 - 11/16 - 3/4 - 13/16 - 7/8 - 15/16 - 1" - 1"1/16 - 1"1/8 - 1"1/4 - 1"5/16 - 1"3/8 - 1"7/16 - 1"1/2	Box	21	1300
440.JU6T	3/8 - 7/16 - 1/2 - 9/16 - 5/8 - 11/16	Roll: N.38A-6B	6	605
440.JU17T	1/4 - 5/16 - 11/32 - 3/8 - 7/16 - 1/2 - 9/16 - 5/8 - 11/16 - 3/4 - 13/16 - 7/8 - 15/16 - 1" - 1"1/16 - 1"1/8 - 1"1/4"	Roll: N.38A-17A	17	3400

440 - Sets of combination wrenches in thermoformed and foam tray

- Compatible with the FACOM modular storage system:
  - MOD.440-1XL and MOD.440-2XL, MODM.440-1 and MODM.440-2: suited to CHRONO XL, CHRONO+, JET XL and JET+ roller cabinets.
  - MOD.440-1, MOD.440-2 and MOD.440-4: suited to CHRONO, JET, CHRONO XL, CHRONO+, JET XL and JET+ roller cabinets.



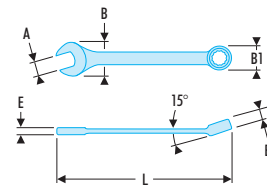
Ref	A ["]	A [mm]	H [mm]	Width [mm]	L [mm]	Contents	Qty	ΔΔ [kg]
MOD.440-1XL		6 - 7 - 8 - 9 - 10 - 11 - 12 - 13 - 14 - 15 - 16 - 17 - 18 - 19 - 21 - 22 - 24	40	188	418	PL.313	17	1.9
MOD.440-2XL		27 - 29 - 30 - 32 - 34	40	188	418	XL.PL.671	5	2.9
MOD.440-1		6 - 7 - 8 - 9 - 10 - 11 - 12 - 13 - 14 - 15 - 16 - 17 - 18 - 19 - 22 - 24	40	175	418	PL.670	16	1.801
MOD.440-2		27 - 29 - 30 - 32	40	175	418	PL.314A	4	2.0
MOD.440-4	1/4 - 5/16 - 11/32 - 3/8 - 7/16 - 1/2 - 9/16 - 5/8 - 11/16 - 3/4 - 13/16 - 7/8 - 15/16		40	175	418	PL.673	13	1.6
MODM.440-1		6 - 7 - 8 - 9 - 10 - 11 - 12 - 13 - 14 - 15 - 16 - 17 - 18 - 19 - 21 - 22 - 24	45	188	418	PM.MOD440-1	17	1.9
MODM.440-2		27 - 29 - 30 - 32 - 34	45	188	418	PM.MOD440-2	5	2.2

SHORT SERIES

39 - Metric short-reach combination wrenches



39 - Inch short-reach combination wrenches



NF ISO 691, NF ISO 7738, NF ISO 3318, NF ISO 1711-1, E74-306, ISO 691, ISO 7738, ISO 3318, ISO 1711-1, DIN ISO 691, DIN 1711-1, ASME B107.100

- Short combination wrenches: the short handle and compact head allow for high handiness. Ideal for confined access.
- OGV® profile with 12-point ring for powerful tightening while protecting the nut. H suffix = 6-point ring.
- Ring head angled at 15°.
- Open end head angled at 15°.
- Metric sizes: 3.2 to 17 mm.
- Presentation: satin chrome finish.

Ref	A [mm]	B x B1 [mm]	E [mm]	E1 [mm]	L [mm]	6 - 12 [mm]	ΔΔ [g]
39.3,2H	3,2	10,0 x 7,0	3,1	3,1	77	6	10
39.4H	4	10,0 x 8,0	3,1	3,1	77	6	10
39.5H	5	11,8 x 9,0	3,5	4,0	82	6	10
39.5,5H	5,5	11,8 x 9,5	3,5	4,0	84	6	10
39.6	6	15,0 x 10,4	4,1	5,0	90	12	15
39.7	7	15,0 x 11,5	4,1	5,0	90	12	15
39.8	8	17,2 x 12,5	4,5	5,8	94	12	20
39.9	9	19,4 x 14,0	4,8	6,0	98	12	25
39.10	10	21,5 x 15,3	5,1	6,4	103	12	30
39.11	11	23,7 x 16,8	5,3	6,8	109	12	35
39.12	12	26,0 x 18,0	5,5	7,5	127	12	50
39.13	13	28,0 x 19,5	5,8	8,0	141	12	55
39.14	14	30,2 x 20,8	6,0	8,5	147	12	70
39.15	15	32,3 x 22,1	6,4	9,0	152	12	80
39.16	16	34,4 x 23,6	6,7	9,6	158	12	90
39.17	17	36,5 x 25,0	6,9	10,0	165	12	100

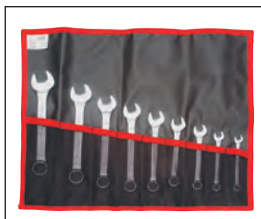
ASME B107.100

- Short combination wrenches: the short handle and compact head allow for high handiness. Ideal for confined access.
- OGV® profile with 12-point ring for powerful tightening while protecting the nut. H suffix = 6-point ring.
- Ring head angled at 15°.
- Open end head angled at 15°.
- Dimensions in inches: from 1/8" to 11"16.
- Presentation: satin chrome finish.

Ref	A ["]	B x B1 [mm]	E [mm]	E1 [mm]	L [mm]	6 - 12 [mm]	ΔΔ [g]
39.1/8H	1/8	10,0 x 7,0	3,1	3,1	77	6	10
39.5/32H	5/32	10,0 x 8,0	3,1	3,1	77	6	10
39.3/16H	3/16	11,8 x 9,0	3,5	4,0	82	6	10
39.7/32H	7/32	11,8 x 9,5	3,5	4,0	84	6	10
39.1/4	1/4	15,0 x 10,4	4,1	5,0	90	6	15
39.9/32	9/32	15,0 x 11,5	4,1	5,0	90	6	15
39.5/16	5/16	17,2 x 12,5	4,5	5,8	94	6	20
39.11/32	11/32	19,4 x 14,0	4,8	6,0	98	6	25
39.3/8	3/8	21,5 x 15,3	5,1	6,4	103	6	30
39.7/16	7/16	23,7 x 16,8	5,3	6,8	109	6	35
39.1/2	1/2	28,0 x 19,5	5,8	8,0	141	12	50
39.9/16	9/16	30,2 x 20,8	6,0	8,5	147	12	70
39.5/8	5/8	34,4 x 23,6	6,7	9,6	158	12	90
39.11/16	11/16	36,5 x 25,0	6,9	10,0	165	12	100



39 - Metric short-reach combination wrench sets



NF ISO 691, NF ISO 7738, NF ISO 3318, NF ISO 1711-1, E74-306, ISO 691, ISO 7738, ISO 3318, ISO 1711-1, DIN ISO 1711-1, DIN ISO 691, ASME B107.00

• Presentation: supplied as box or roll sets.

Code	A [mm]	Contents	Qty	ΔΔ [g]
39.JP6	8 - 10 - 11 - 12 - 13 - 14	Portable case: CK.67SJ1	6	285
39.JE9T	7 - 8 - 10 - 11 - 12 - 13 - 14 - 16 - 17	Roll : N.38A-9E	9	580
39.JE10	3,2 - 4 - 5 - 5,5 - 6 - 7 - 8 - 9 - 10 - 11	Box BP.39VA + Tray PL.206	10	266
39.JE10T	3,2 - 4 - 5 - 5,5 - 6 - 7 - 8 - 9 - 10 - 11	Roll : N.38A-10A	10	300
39.JE16T	3,2H - 4H - 5H - 5,5H - 6 - 7 - 8 - 9 - 10 - 11 - 12 - 13 - 14 - 15 - 16 - 17	Roll : N.38A-16A	16	700

39 - Inch short-reach combination wrench sets



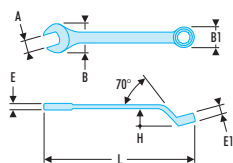
ASME B107.100

• Presentation: supplied in roll.

Code	A ["]	Contents	Qty	ΔΔ [g]
39.JU10T	1/8 - 5/32 - 3/16 - 7/32 - 1/4 - 9/32 - 5/16 - 11/32 - 3/8 - 7/16	Roll: N.38A-10A	10	250
39.JU14T	1/8 - 5/32 - 3/16 - 7/32 - 1/4 - 9/32 - 5/16 - 11/32 - 3/8 - 7/16 - 1/2 - 9/16 - 5/8 - 11/16	Roll: N.38A-16A	14	560

OFFSET SERIES

41 - Metric offset combination wrenches



NF ISO 7738, ISO 7738, DIN 3113

- Offset combination wrenches: ring offset to clear fingers or obstacles. Ideal for series of nuts.
- OGV® profile with 12-point ring for powerful tightening while protecting the nut.
- Open end head angled at 15°.
- Metric sizes: 6 to 32 mm.
- Presentation: satin chrome finish.

Code	A [mm]	B x B1 [mm]	E [mm]	E1 [mm]	H [mm]	L [mm]	ΔΔ [g]
41.6	6	14,5 x 11,0	4,0	6,0	12,5	113	30
41.7	7	18,5 x 13,0	4,5	7,0	15,0	127	35
41.8	8	18,5 x 13,0	4,5	7,0	15,0	127	35
41.9	9	23,5 x 15,5	5,0	8,0	16,5	142	50
41.10	10	23,5 x 15,5	5,0	8,0	16,5	142	50
41.11	11	27,5 x 18,5	5,5	8,6	18,5	160	75
41.12	12	27,5 x 18,5	5,5	8,6	18,5	160	75
41.13	13	31,5 x 21,5	5,5	9,0	18,5	180	100
41.14	14	31,5 x 21,5	5,5	9,0	18,5	180	100
41.15	15	36,5 x 24,5	6,6	10,3	20,5	200	130
41.16	16	36,5 x 24,5	6,6	10,3	20,5	200	130
41.17	17	40,5 x 27,0	7,3	11,2	22,0	224	195

Code	A [mm]	B x B1 [mm]	E [mm]	E1 [mm]	H [mm]	L [mm]	ΔΔ [g]
41.18	18	40,0 x 27,0	7,3	11,2	22,0	224	195
41.19	19	43,0 x 30,0	7,8	12,6	24,0	248	250
41.21	21	48,0 x 33,0	8,2	13,0	26,5	275	320
41.22	22	48,0 x 33,0	8,2	13,0	26,5	275	320
41.23	23	53,0 x 36,0	9,0	14,0	28,5	302	415
41.24	24	53,0 x 36,0	9,0	14,0	28,5	302	415
41.26	26	59,0 x 40,0	9,5	15,0	31,5	332	605
41.27	27	59,0 x 40,0	9,5	15,0	31,5	332	605
41.28	28	63,0 x 43,5	10,0	15,6	33,5	364	700
41.29	29	63,0 x 43,5	10,0	15,6	33,5	364	700
41.30	30	68,0 x 46,5	10,5	16,5	35,5	398	850
41.32	32	68,0 x 46,5	10,5	16,5	35,5	398	850



41 - Metric offset combination wrench sets

NF ISO 7738, ISO 7738, DIN 3113

• Presentation: supplied as box, roll or panel sets.

Code	A [mm]	Contents	Qty	ΔΔ [kg]
41.JE18	6 - 7 - 8 - 9 - 10 - 11 - 12 - 13 - 14 - 15 - 16 - 17 - 18 - 19 - 21 - 22 - 23 - 24	Box	18	3.0
41.JE12T	8 - 10 - 11 - 12 - 13 - 14 - 16 - 17 - 18 - 19 - 21 - 22	Roll: N.38A-12B	12	2.1
41.P24M	6 - 7 - 8 - 9 - 10 - 11 - 12 - 13 - 14 - 15 - 16 - 17 - 18 - 19 - 21 - 22 - 23 - 24 - 26 - 27 - 28 - 29 - 30 - 32	Panel: PK.1	24	9.5



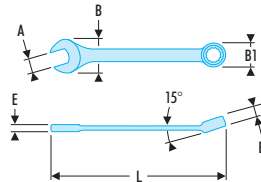
POWER SERIES

40 .LA- Metric long-reach combination wrenches



NF ISO 1711-1, NF ISO 3318, NF ISO 7738, ISO 1711-1, ISO 3318, ISO 7738, DIN ISO 691, DIN ISO 1711-1, DIN 3113, ASME B107.100

- Long combination wrenches: the extra-long handle passes high torque with minimum effort.
- OGV® profile with 12-point ring for powerful tightening while protecting the nut.
- Ring head angled at 15°.
- Open end head angled at 15°.
- Metric sizes: 19 to 50 mm.
- Presentation: satin chrome finish.



Code	A [mm]	B x B1 [mm]	E [mm]	E1 [mm]	L [mm]	ΔΔ [kg]
40.19LA	19	45,0 x 29,6	8,7	12,0	329	0,240
40.21LA	21	49,0 x 32,3	9,5	13,0	355	0,305
40.22LA	22	51,0 x 33,8	9,9	14,0	368	0,360
40.23LA	23	53,0 x 35,4	10,3	14,5	381	0,370
40.24LA	24	55,0 x 36,9	10,7	15,0	394	0,455
40.26LA	26	59,0 x 39,4	11,5	15,5	420	0,520
40.27LA	27	61,0 x 40,6	11,9	16,0	433	0,590
40.28LA	28	62,4 x 42,2	12,3	16,5	446	0,600
40.29LA	29	62,4 x 42,2	12,3	16,5	446	0,600
40.30LA	30	65,0 x 45,2	13,1	17,0	472	0,800
40.32LA	32	69,5 x 47,8	13,2	18,0	498	0,850
40.33LA	33	49,0 x 32,3	9,5	13,0	498	0,850

Code	A [mm]	B x B1 [mm]	E [mm]	E1 [mm]	L [mm]	ΔΔ [kg]
40.34LA	34	51,0 x 33,8	9,9	14,0	524	1,040
40.35LA	35	53,0 x 35,4	10,3	14,5	524	1,040
40.36LA	36	55,0 x 36,9	10,7	15,0	550	1,200
40.38LA	38	59,0 x 39,4	11,5	15,5	576	1,435
40.41LA	41	61,0 x 40,6	11,9	16,0	615	1,720
40.42LA	42	62,4 x 42,2	12,3	16,5	615	1,720
40.46LA	46	62,4 x 42,2	12,3	16,5	680	2,435
40.50LA	50	65,0 x 45,2	13,1	17,0	732	3,500
40.55LA	55	42,0 x 84,5	21,5	31	760	3,900
40.60LA	60	44,0 x 90,0	23	32	800	4,900
40.65LA	65	49,7 x 98,0	24,5	32	840	6,000

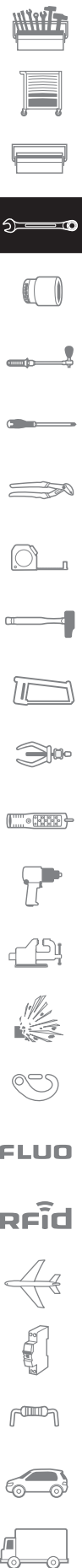
40.LA- Metric standard and long-reach combination wrenches set

NF 1711-1, NF ISO 3318, NF ISO 7738, ISO 1711-1, ISO 3318, ISO 7738, DIN ISO 691, DIN ISO 1711-1, DIN 3113, ASME B107.100

• Presentation: in box.



Code	A [mm]	Qty	ΔΔ [kg]
40LA.JE17	19 - 21 - 22 - 23 - 24 - 26 - 27 - 28 - 29 - 30 - 32 - 33 - 35 - 36 - 38 - 41 - 42	17	13.8



FLUO

Rfid

STANDARD SERIES

OPEN-END WRENCH

the "double-ended" wrench

2 sizes per wrench

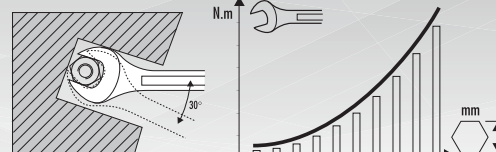
Reduces the number and weight of tools.

Power and precision

FACOM guarantees very high performance for its open end wrenches: ISO 1711-1 + 30% guaranteed. Tight tolerances for a perfect fit on fasteners.

Slim profile and comfort

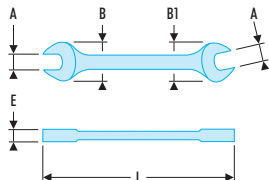
Smaller shape and volume for better accessibility. Streamlined heads. 30° increments by flipping the wrench.



44 - Metric open end wrenches



44 - Inch open end wrenches



NF ISO 10102, NF ISO 3318, NF ISO 1711-1, NF ISO 691, ISO 10102, ISO 3318, ISO 1711-1, ISO 691, DIN ISO 1711-1, DIN ISO 691, DIN 3110

- Open end wrenches = the open ends are slimmer than a standard combination wrench for better thickness accessibility. Examples: brake calipers, hydraulic hose locknuts.
- Heads hinged at 15°.
- Metric sizes: 3.2 to 42 mm.
- Presentation: satin chrome finish.

44	A [mm]	B x B1 [mm]	E [mm]	L [mm]	ΔΔ [g]
44.3,2X5,5	3,2x5,5	11,0 x 13,5	3,5	90	13
44.4X5	4x5	11,0 x 13,5	3,5	90	10
44.6X7	6x7	15,0 x 17,5	3,7	120	20
44.8X9	8x9	19,0 x 22,0	4,2	137	35
44.8X10	8x10	19,0 x 22,0	4,2	137	33
44.10X11	10x11	23,0 x 25,0	4,9	152	50
44.10X13	10x13	23,0 x 29,0	4,9	162	64
44.12X13	12x13	25,8 x 29,8	5,5	167	72
44.12X14	12x14	25,5 x 29,8	5,5	167	70
44.14X15	14x15	31,0 x 33,5	5,7	182	95
44.13X17	13x17	31,0 x 37,0	6,3	192	117
44.16X17	16x17	37,0 x 42,0	6,3	210	148
44.16X18	16x18	39,0 x 42,0	7,3	220	182
44.17X19	17x19	39,0 x 42,0	7,3	220	174
44.18X19	18x19	39,0 x 42,0	7,3	220	173
44.19X22	19x22	43,0 x 48,5	4,2	240	221
44.20X22	20x22	43,0 x 48,5	7,5	240	221
44.21X23	21x23	47,0 x 52,0	8,3	245	284
44.22X24	22x24	47,0 x 52,0	8,3	245	277
44.24X27	24x27	53,0 x 58,0	8,8	270	349
44.25X28	25x28	59,5 x 64,0	9,5	285	412
44.26X28	26x28	59,5 x 64,0	9,5	285	409
44.27X29	27x29	59,5 x 64,0	9,5	285	400
44.27X30	27x30	59,5 x 64,0	9,5	285	403
44.30X32	30x32	64,0 x 70,0	9,8	318	516
44.34X36	34x36	71,0 x 75,0	11,7	342	781
44.36X41	36x41	78,0 x 87,0	12,3	381	1034
44.38X42	38x42	78,0 x 87,0	12,3	381	1022

ASME B107.100

- Open end wrenches = the open ends are slimmer than a standard combination wrench for better thickness accessibility. Examples: brake calipers, hydraulic hose locknuts.
- Heads hinged at 15°.
- Dimensions in inches: from 1/4" to 1"5/8.
- Presentation: satin chrome finish.

44	A ["]	B x B1 [mm]	E [mm]	L [mm]	ΔΔ [g]
44.1/4X5/16	1/4x5/16	15,0 x 17,5	3,7	120	20
44.5/16X3/8	5/16x3/8	19,0 x 22,0	4,2	37	35
44.11/32X13/32	11/32x13/32	19,0 x 22,0	4,2	137	32
44.3/8X7/16	3/8x7/16	23,0 x 25,0	4,9	152	49
44.7/16X1/2	7/16x1/2	25,5 x 29,8	5,5	167	72
44.1/2X9/16	1/2x9/16	31,0 x 33,5	5,7	182	93
44.9/16X5/8	9/16x5/8	31,0 x 33,5	5,7	182	95
44.1/7/16X1/5/8	1/7/16x1/5/8	78,0 x 87,0	12	381	945
44.5/8X3/4	5/8x3/4	39,0 x 42,0	7,3	220	182
44.5/8X11/16	5/8x11/16	39,0 x 42,0	7,3	220	173
44.3/4X13/16	3/4x13/16	43,0 x 48,5	7,5	240	220
44.3/4X7/8	3/4x7/8	43,0 x 48,5	7,5	240	221
44.13/16X7/8	13/16x7/8	43,0 x 48,5	7,5	240	221
44.7/8X15/16	7/8x15/16	47,0 x 52,0	8,3	245	272
44.15/16X1"	15/16x1"	53,0 x 58,0	8,8	270	349
44.1"x1/16	1"x1/16	59,5 x 64,0	9,5	285	414
44.1/16X1/8	1/16x1/8	59,5 x 64,0	9,5	285	400
44.1/8X1/4	1/8x1/4	64,0 x 70,0	9,8	318	542
44.1/3/16X1/5/16	1/3/16x1/5/16	64,0 x 70,0	9,8	318	544
44.1/3/8X1/1/2	1/3/8x1/1/2	78,0 x 87,0	12,3	381	1050

44 - Metric open ring wrench sets

NF ISO 10102, NF ISO 3318, NF ISO 1711-1, NF ISO 691, ISO 10102, ISO 3318, ISO 1711-1, ISO 691, DIN ISO 1711-1, DIN ISO 691, DIN 3110

• Presentation: supplied as box, roll or panel sets.



Ref	A [mm]	Contents	Qty	ΔΔ [g]
44.JE9	3,2x5,5 - 4x5 - 6x7 - 8x9 - 10x11 - 12x13 - 14x15 - 16x17 - 18x19	Box	9	550
44.JE8	8x9 - 10x11 - 12x13 - 14x15 - 16x17 - 18x19 - 21x23 - 22x24	Box	8	980
44.JE12	6x7 - 8x9 - 10x11 - 12x13 - 14x15 - 16x17 - 18x19 - 21x23 - 22x24 - 26x28 - 27x29 - 30x32	Box	12	2300
44.JE16	3,2x5,5 - 4x5 - 6x7 - 8x9 - 10x11 - 12x13 - 14x15 - 16x17 - 18x19 - 21x23 - 22x24 - 26x28 - 27x29 - 30x32 - 36x41 - 38x42	Box	16	2500

Ref	A [mm]	Contents	Qty	ΔΔ [g]
44.JE8T	8x9 - 10x11 - 12x13 - 14x15 - 16x17 - 18x19 - 21x23 - 22x24	Roll: N.38A-8C	8	1000
44.JE9T	3,2x5,5 - 4x5 - 6x7 - 8x9 - 10x11 - 12x13 - 14x15 - 16x17 - 18x19	Roll: N.38A-9E	9	580
44.P16E	3,2x5,5 - 4x5 - 6x7 - 8x9 - 10x11 - 12x13 - 14x15 - 16x17 - 18x19 - 21x23 - 22x24 - 26x28 - 27x29 - 30x32 - 36x41 - 38x42	Panel: PK.1	16	2500

44 - Inch open ring wrench sets

ASME B107.100

• Presentation: supplied as box or roll sets.



Ref	A ["]	Contents	Qty	ΔΔ [g]
44.JU6	1/4x5/16 - 3/8x7/16 - 1/2x9/16 - 5/8x11/16 - 3/4x13/16 - 7/8x15/16	Box	6	650
44.JU8T	1/4x5/16 - 3/8x7/16 - 1/2x9/16 - 5/8x11/16 - 3/4x13/16 - 7/8x15/16 - 1"x1"1/16 - 1"1/8x1"1/4	Roll: N.38A-8B	8	1600

MOD.44 - Metric open ring wrench sets

• Compatible with the FACOM modular storage system: compatible with CHRONO, JET, CHRONO XL, CHRONO+, JETXL and JET+ roller cabinets.



Ref	A [mm]	H [mm]	Width [mm]	L [mm]	Contents	Qty	ΔΔ [kg]
MOD.44-1	44. 6x7 - 8x9 - 10x11 - 12x13 - 14x15 - 16x17 - 18x19 - 21x23 - 22x24	40	175	418	Tray: PL.315	9	1.301
MOD.44-2	44. 26x28 - 27x29 - 30x32	40	175	418	Tray: PL.316	3	1.601



"EXTRA-SLIM" PROFILE SERIES

EXTRA-SLIM OPEN END WRENCHES

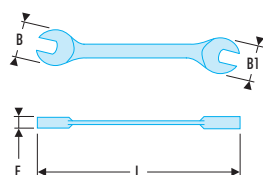


# Extra-slim open end wrenches

30% slimmer than classical open ends. Ideal for tightening extra-slim lock nuts or nuts.



31 - Metric "extra-slim" end wrenches



NF ISO 3318, NF ISO 691, ISO 3318, ISO 691, DIN ISO 691

- Metric "extra-slim" open end wrenches: 30 % slimmer than a classical open end wrench = maximum accessibility.
- Indispensable for confined access and locknuts.
- Heads hinged at 15°.
- Metric sizes: 6 to 24 mm.
- Presentation: satin chrome finish.



Size	A [mm]	B x B1 [mm]	E [mm]	L [mm]	ΔΔ [g]
31.6X7	6x7	16,6 x 19,6	2,2	147	20
31.8X9	8x9	20,5 x 24,5	2,6	176	30
31.10X11	10x11	20,5 x 24,5	2,6	176	30
31.12X13	12x13	29,0 x 33,5	3,6	209,5	70
31.14X15	14x15	29,0 x 33,5	3,6	209,5	70
31.16X17	16x17	38,0 x 42,5	4,6	250	140
31.18X19	18x19	38,0 x 42,5	4,6	250	140
31.22X24	22x24	48,0 x 52,0	5,6	290	270

31 - Metric "extra-slim" open-end wrench sets



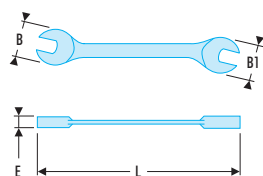
NF ISO 3318, NF ISO 691, ISO 691, DIN ISO 691

- Presentation: supplied in roll.



Set	A [mm]	Contents	Qty	ΔΔ [kg]
31.JE6T	8x9 - 10x11 - 12x13 - 14x15 - 16x17 - 18x19	Roll: N.38A-6B	6	0,680
31.JE8T	6x7 - 8x9 - 10x11 - 12x13 - 14x15 - 16x17 - 18x19 - 22x24	Roll: N.38A-8B	8	1.0

22 - Metric 15° hinged "midget" open end wrenches



NF ISO 3318, NF ISO 691, ISO 3318, ISO 691, DIN ISO 691

- "Midget" open end wrenches: short shank and slim heads for manoeuvrability in confined spaces.
- Heads hinged at 15°.
- Metric sizes: 3.2 to 13 mm.
- Presentation: satin chrome finish.



Size	A [mm]	B x B1 [mm]	E [mm]	L [mm]	ΔΔ [g]
22.3,2X5,5	3,2x5,5	10 x 13	2,4	70	10
22.4X5	4x5	10 x 13	2,4	70	10
22.6X7	6x7	14 x 16	2,7	80	10
22.8X9	8x9	18 x 20	3,0	90	20
22.10X11	10x11	21 x 23	3,0	100	25
22.12X13	12x13	26 x 28	3,5	110	35

MICRO-ENGINEERING SERIES

22 - Metric and inch 15° hinged "midget" open end wrench sets

• Presentation: supplied in roll.



Ref	A [mm]	Contents	Qty	ΔΔ [g]
22.JE6T	3,2x5,5 - 4x5 - 6x7 - 8x9 - 10x11 - 12x13	Roll: N.38A-6A	6	140

34 - Metric 15° and 75° hinged "midget" open end wrenches

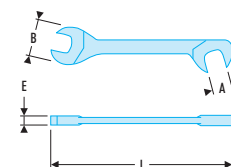


NF ISO 3318, NF ISO 691, ISO 3318, ISO 691, DIN ISO 691

- "Midget" open end wrenches: short shank and slim heads for manoeuvrability in confined spaces.
- Heads hinged at 15° and 75° allow to intervene on nuts inaccessible with a standard wrench.
- Metric sizes: 3.2 to 17 mm.
- Presentation: satin chrome finish.

Ref	A [mm]	B [mm]	E [mm]	L [mm]	ΔΔ [g]
34.3,2	3,2	10	2,4	70	10
34.4	4	10	2,4	70	10
34.5	5	13	2,4	75	10
34.5,5	5,5	13	2,4	75	10
34.6	6	15	2,7	80	15
34.7	7	15	2,7	80	15
34.8	8	18,5	3,0	90	20
34.9	9	18,5	3,0	90	20
34.10	10	22	3,0	100	25
34.11	11	22	3,0	100	25
34.12	12	27	3,5	120	35
34.13	13	27	3,5	120	35
34.14	14	27	3,5	120	40
34.15	15	33	4,5	140	70
34.16	16	33	4,5	140	70
34.17	17	33	4,5	140	70

34 - Inch 15° and 75° hinged "midget" open end wrenches



ASME B107.100

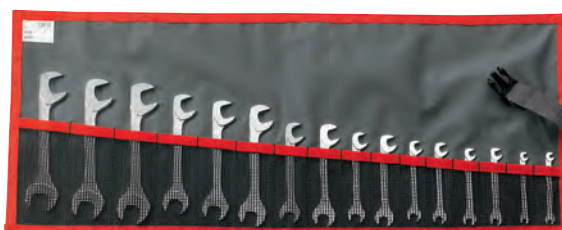
- "Midget" open end wrenches: short shank and slim heads for manoeuvrability in confined spaces.
- Heads hinged at 15° and 75° allow to intervene on nuts inaccessible with a standard wrench.
- Dimensions in inches: from 3/16" to 11/16".
- Presentation: satin chrome finish.

Ref	A ["]	B [mm]	E [mm]	L [mm]	ΔΔ [g]
34.3/16	3/16	13	2,4	75	10
34.7/32	7/32	13	2,4	75	10
34.1/4	1/4	15	2,7	80	15
34.9/32	9/32	15	2,7	80	15
34.5/16	5/16	18,5	3,0	90	20
34.11/32	11/32	18,5	3,0	90	20
34.3/8	3/8	22	3,0	100	25
34.13/32	13/32	22	3,0	100	30
34.7/16	7/16	22	3	100	30
34.1/2	1/2	27	3,5	120	35
34.9/16	9/16	27	3,5	120	40
34.5/8	5/8	33	4,5	140	70
34.11/16	11/16	33	4,5	140	70

34 - Metric and inch "midget" open-end wrench sets in rolls

NF ISO 3318, NF ISO 691, ISO 3318, ISO 691, DIN ISO 691

• Presentation: supplied in roll.



Ref	A ["]	A [mm]	Contents	Qty	ΔΔ [g]
34.JL16T		3,2 - 4 - 5 - 5,5 - 6 - 7 - 8 - 9 - 10 - 11 - 12 - 13 - 14 - 15 - 16 - 17	Roll: N.38A-16A	16	560
34.JU13T	3/16 - 7/32 - 1/4 - 9/32 - 5/16 - 11/32 - 3/8 - 13/32 - 7/16 - 1/2 - 9/16 - 5/8 - 11/16		Roll: N.38A-5C	13	430



FLUO

RFid

POWER SERIES

45 - Open end wrenches



NF ISO 4229, NF ISO 1711-1, NF ISO 691, ISO 4229, ISO 1711-1, ISO 691, DIN 894, DIN ISO 691, DIN ISO 1711-1

- Single open end wrenches: the open end is thicker for very high tightening torques. Examples: public works, rail worksites, naval construction, agriculture, oil platforms, metallic constructions.
- Hanging hole at end of handle: wrenches stored on panel or hung to avoid loss or fall.
- Open end angled at 15°.
- Metric sizes: 30 to 75 mm.
- Presentation: burnt.

Size	A [mm]	B [mm]	E [mm]	L [mm]	ΔΔ [g]
45.30	30	66,0	12,0	240	320
45.32	32	71,5	13,0	270	410
45.34	34	71,5	13,0	270	570
45.36	36	79,5	14,5	296	590
45.38	38	79,5	14,5	296	610
45.41	41	90,5	17,5	335	860
45.46	46	95,5	18,0	370	1000
45.50	50	106,5	19,5	410	1800
45.55	55	106,5	19,5	410	2000
45.60	60	121,5	21,5	488	2500
45.65	65	121,5	21,5	488	2300
45.70	70	153,0	24,0	595	3300
45.75	75	153,0	24,0	595	3400

RING WRENCHES – 12-POINT RING

12-point OGV® ring

30° increments.  
Powerful tightening and less fastener wear.

3 configurations according to accessibility constraints:

- ① - Straight ring wrenches.
- ② - Offset ring wrenches.
- ③ - Half-moon ring wrenches.

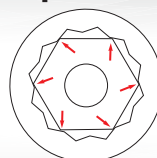


FACOM OGV® PROFILE

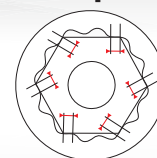
Higher power without damaging fasteners!

More powerful tightening: socket/nut contact surface extended reducing stress. Reduced wear: the nut is driven on the faces, not the angles. Increased durability: the sharp angles of the wrench, concentrating stress, are removed.

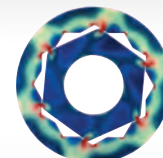
Standard profile      FACOM OGV® profile



Stress applied to edges

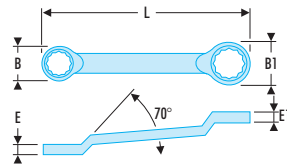


Bears against the side faces



## STANDARD SERIES

### 55A - Metric offset-ring wrenches

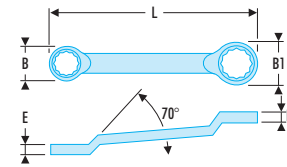


NF ISO 1711-1, NF ISO 691, ISO 1711-1, ISO 691, DIN 838, DIN ISO 1711-1, DIN ISO 691

- Offset-ring wrenches: ring offset to clear fingers or obstacles. Ideal for series of nuts.
- OGV® profile with 12-point profile for powerful tightening while protecting the nut.
- Metric sizes: 6 to 50 mm.
- Presentation: satin chrome finish.

🔗	A [mm]	B x B1 [mm]	E x E1 [mm]	L [mm]	ΔΔ [g]
55A.6X7	6x7	10,7 x 12,2	5,5 x 6,2	167	40
55A.7X8	7x8	12,0 x 14,0	5,5 x 6,5	172	45
55A.8X9	8x9	13,7 x 15,5	6,5 x 7,2	182	60
55A.8X10	8x10	13,7 x 15,5	6,5 x 7,2	182	65
55A.10X11	10x11	16,5 x 18,0	7,5 x 17,0	197	85
55A.11X13	11x13	18,0 x 21,0	8,9 x 9,2	217	110
55A.12X13	12x13	19,5 x 21,5	8,9 x 9,2	218	120
55A.13X15	13x15	21,5 x 23,5	9,2 x 9,7	238	150
55A.14X15	14x15	22,0 x 23,5	9,2 x 9,7	238	135
55A.13X16	13x16	21,5 x 26,0	9,4 x 10,7	245	155
55A.13X17	13x17	21,0 x 26,0	9,4 x 10,7	245	150
55A.16X17	16x17	25,7 x 27,0	10,7 x 11,2	258	200
55A.16X18	16x18	25,7 x 27,2	10,7 x 11,2	258	195
55A.17X19	17x19	27,0 x 29,7	11,2 x 12,2	290	265
55A.18X19	18x19	27,0 x 29,7	11,2 x 12,2	290	260
55A.18X21	18x21	29,0 x 33,0	11,7 x 12,7	296	290
55A.19X22	19x22	29,0 x 33,7	11,7 x 12,7	296	285
55A.20X22	20x22	32,0 x 35,0	12,2 x 13,2	316	365
55A.21X23	21x23	32,0 x 35,0	12,2 x 13,2	316	360
55A.22X24	22x24	33,7 x 36,7	12,2 x 13,2	324	390
55A.24X26	24x26	37,2 x 41,0	12,7 x 14,3	328	470
55A.24X27	24x27	37,2 x 41,2	12,7 x 14,3	328	465
55A.25X28	25x28	39,7 x 43,0	13,7 x 14,7	345	515
55A.26X28	26x28	39,7 x 43,0	13,7 x 14,7	345	510
55A.27X29	27x29	41,5 x 46,0	14,3 x 15,7	353	575
55A.27X30	27x30	41,5 x 46,0	14,3 x 15,7	353	570
55A.27X32	27x32	41,5 x 46,2	14,3 x 15,7	353	575
55A.30X32	30x32	45,3 x 48,7	15,2 x 16,7	360	640
55A.30X34	30x34	46,0 x 52,0	17,2 x 19,2	402	820
55A.34X36	34x36	52,0 x 55,0	18,2 x 20,2	440	1075
55A.36X41	36x41	53,7 x 61,7	18,2 x 20,2	440	1080
55A.38X42	38x42	41,5 x 46,0	14,3 x 15,7	455	1100
55A.46X50	46x50	70,7 x 76,7	20,7 x 21,7	510	1900

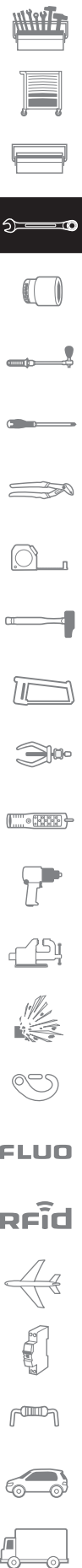
### 55A - Inch offset-ring wrenches



ASME B107.100

- Offset-ring wrenches: ring offset to clear fingers or obstacles. Ideal for series of nuts.
- OGV® profile with 12-point profile for powerful tightening while protecting the nut.
- Dimensions in inches: from 1/4" to 1 1/4".
- Presentation: satin chrome finish.

🔗	A ["]	B x B1 [mm]	E x E1 [mm]	L [mm]	ΔΔ [g]
55A.1/4X5/16	1/4X5/16	11,0 x 14,0	5,5 x 6,5	172	45
55A.11/32X13/32	11/32X13/32	15,5 x 18,0	7,5 x 8,7	197	80
55A.3/8X7/16	3/8X7/16	16,5 x 18,0	7,5 x 17,0	197	85
55A.7/16X1/2	7/16X1/2	18,0 x 21,0	8,9 x 9,2	217	110
55A.1/2X9/16	1/2X9/16	21,5 x 23,0	9,2 x 9,7	238	145
55A.9/16X5/8	9/16X5/8	22,0 x 23,5	9,2 x 9,7	238	135
55A.5/8X11/16	5/8X11/16	25,7 x 27,0	10,7 x 11,2	258	200
55A.19/32X25/32	19/32X25/32	25,7 x 27,2	10,7 x 11,2	258	195
55A.5/8X3/4	5/8X3/4	25,7 x 27,2	10,7 x 11,2	258	265
55A.11/16X3/4	11/16X3/4	27,0 x 29,7	11,2 x 12,2	290	260
55A.3/4X13/16	3/4X13/16	29,0 x 33,0	11,7 x 12,7	296	290
55A.13/16X7/8	13/16X7/8	32,0 x 35,0	12,2 x 13,2	316	365
55A.7/8X15/16	7/8X15/16	33,7 x 36,7	12,2 x 13,2	324	390
55A.15/16X1"	15/16X1"	37,2 x 41,0	12,7 x 14,3	328	470
55A.1"X1"1/16	1"X1"1/16	39,7 x 42,0	13,7 x 14,7	345	475
55A.1"1/16X1"1/8	1"1/16X1"1/8	41,5 x 46,0	14,3 x 15,7	353	575
55A.1"1/8X1"1/4	1"1/8 x 1"1/4	45,3 x 48,7	15,2 x 16,7	360	640



STANDARD SERIES

55A - Metric offset-ring wrench sets



Code	A [mm]	Contents	Qty	ΔΔ [kg]
55A.JN6	8x9 - 10x11 - 12x13 - 14x15 - 16x17 - 18x19	Box	6	0,740
55A.JD8	6x7 - 8x9 - 10x11 - 12x13 - 14x15 - 16x17 - 18x19 - 20x22	Box	8	1.0
55A.JE8	8x9 - 10x11 - 12x13 - 14x15 - 16x17 - 18x19 - 21x23 - 24 x 26	Box	8	1.4
55A.JD10	6x7 - 8x9 - 10x11 - 12x13 - 14x15 - 16x17 - 18x19 - 20x22 - 24x27 - 30x32	Box	10	2.0
55A.JE12	6x7 - 8x9 - 10x11 - 12x13 - 14x15 - 16x17 - 18x19 - 21x23 - 24x26 - 26x28 - 27x29 - 30x32	Box	12	3.3
55A.JD12	6x7 - 8x9 - 10x11 - 12x13 - 14x15 - 16x17 - 18x19 - 20x22 - 21x23 - 24x26 - 25x28 - 27x32	Box	12	3.1

NF ISO 1711-1, NF ISO 691, ISO 1711-1, ISO 691, DIN 838, DIN ISO 1711-1, DIN ISO 691

• Presentation: supplied as box, roll or panel sets.



Code	A [mm]	Contents	Qty	ΔΔ [kg]
55A.JD12A	6x7 - 8x9 - 10x11 - 12x13 - 14x15 - 16x17 - 18x19 - 20x22 - 21x23 - 24x27 - 25x28 - 30x32	Box	12	3.1
55A.JE14	6x7 - 8x9 - 10x11 - 12x13 - 14x15 - 16x17 - 18x19 - 21x23 - 22x24 - 26x28 - 27x29 - 30x32 - 36x41 - 38x42	Box	14	6.2
55A.JN6T	8x9 - 10x11 - 12x13 - 14x15 - 16x17 - 18x19	Roll: N.38A-6B	6	0,830
55A.JD8T	6x7 - 8x9 - 10x11 - 12x13 - 14x15 - 16x17 - 18x19 - 20x22	Roll: N.38A-8B	8	1.1
55A.JE8T	8 x 9 - 10 x 11 - 12 x 13 - 14 x 15 - 16 x 17 - 18 x 19 - 21 x 23 - 24 x 26	Roll: N.38A-8B	8	1.5
55A.P14E	6 x 7 - 8 x 9 - 10 x 11 - 12 x 13 - 14 x 15 - 16 x 17 - 18 x 19 - 21 x 23 - 22 x 24 - 26 x 28 - 27 x 29 - 30 x 32 - 36 x 41 - 38 x 42	Panel: PK.1	14	8.6

55A - Inch offset-ring wrench sets



• Roll sets

Code	A ["]	Contents	Qty	ΔΔ [kg]
55A.JU10	1/4x5/16 - 11/32x13/32 - 3/8x7/16 - 1/2x9/16 - 5/8x11/16 - 19/32x25/32 - 3/4x13/16 - 7/8x15/16 - 1"x1"1/16 - 1"1/8"x1"1/4"	Box	10	2.4



MOD.55 - Metric and inch offset-ring wrenches set in heat formed tray



• Compatible with the FACOM modular storage system: compatible with CHRONO, JET, CHRONO XL, CHRONO+, JETXL and JET+ roller cabinets.

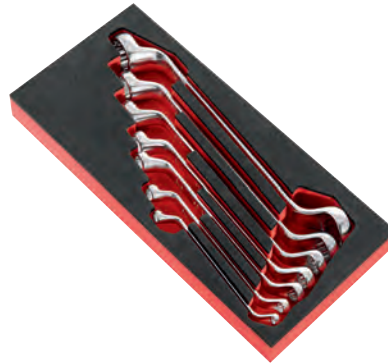
Code	A ["]	A [mm]	H [mm]	L [mm]	Contents	Qty	ΔΔ [kg]
MOD.55-1		55A. 6x7 - 8x9 - 10x11 - 12x13 - 14x15 - 16x17 - 18x19	40	418	PL.317A	7	0,920
MOD.55-2		55A. 21x23 - 22x24 - 26x28	40	418	PL.318A	3	1.5
MOD.55-3		55A. 1/2x9/16 - 1/4x5/16 - 11/32x13/32 - 19/32x25/32 - 3/4x13/16 - 3/8 x 7/16 - 5/8x 11/16	40	418	PL.600A	7	1.0





MODM.55 - Sets of metric and inch angled offset-ring wrenches in foam tray

- Compatible with the FACOM modular storage system: suited to CHRONO, JET, CHRONO XL, CHRONO+, JET XL and JET+ roller cabinets.

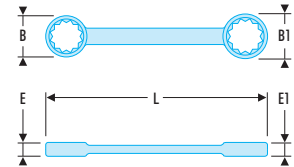


Icon	A ["]	A [mm]	Contents	Qty	ΔΔ [kg]
<b>MODM.55A-1</b>		8x9 - 10-11 - 12x13 - 14x15 - 16x17 - 18-19 - 21x23	PM.MOD55A-1	7	1.3
<b>MODM.55A-2</b>	1/4x5/16 - 3/8x7/16 - 1/2x9/16 - 5/8x11/16 - 3/4x13/16 - 7/8x15/16 - 1"x1"1/16		PM.MOD55A-2	7	1.7

59L - Metric long double ended ring wrenches



59L - Inch long double ended ring wrenches



AS 955

- Offset box end for manoeuvrability in confined spaces.
- Metric dimensions: from 6 mm to 19 mm.
- Presentation: satin chrome finish.

AS 954

- Offset box end for manoeuvrability in confined spaces.
- Dimensions in inches: from 1/4" to 13/16".
- Presentation: satin chrome finish.

Icon	A ["]	B [mm]	B1 [mm]	E [mm]	E1 [mm]	L [mm]	ΔΔ [g]
<b>59L.6X7</b>	6X7	10,2	11,6	6,3	7,3	200	60
<b>59L.8X9</b>	8X9	11,8	13,3	6,5	7,5	240	63
<b>59L.10X11</b>	10X11	14,6	16	7,5	8,7	288	98
<b>59L.12X13</b>	12X13	17,3	18,8	10,4	11,3	330	176
<b>59L.14X15</b>	14X15	20	21,5	12	13,7	364	258
<b>59L.14X17</b>	14X17	20	23,9	12	13,7	364	263
<b>59L.18X19</b>	18X19	25,3	26,5	14	15,1	405	369

Icon	A ["]	B [mm]	B1 [mm]	E [mm]	E1 [mm]	L [mm]	ΔΔ [g]
<b>59L.1/4X5/16</b>	1/4x5/16	10,2	11,6	6,3	7,3	200	60
<b>59L.3/8X7/16</b>	3/8x7/16	14,6	17,2	7,5	8,8	288	100
<b>59L.1/2X9/16</b>	1/2x9/16	18,8	20	12	13,7	364	176
<b>59L.5/8X3/4</b>	5/8x3/4	22,8	26,5	14	15,1	405	356
<b>59L.11/16X13/16</b>	11/16x13/16	25,4	30	17	18	410	369

MOD.59L - Sets of metric and inch angled offset-ring wrenches in foam and thermoformed trays

- Compatible with the FACOM modular storage system: suited to CHRONO, JET, CHRONO XL, CHRONO+, JET XL and JET+ roller cabinets.



Icon	A ["]	A [mm]	Contents	Qty	ΔΔ [kg]
<b>MODM.59LJU4</b>	1/4x5/16 - 3/8x7/16 - 1/2x9/16 - 5/8x3/4		PM.MOD59LJU4	4	0,890
<b>MODM.59LJ6</b>		6x7 - 8x9 - 10x11 - 12x13 - 14x15 - 18x19	PM.MOD59LJ6	6	1,65
<b>MOD.59LJ6</b>		6x7 - 8x9 - 10x11 - 12x13 - 14x15 - 18x19	PL.698	6	1,650



FLUO

Rfid

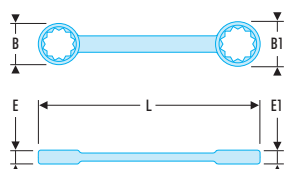
HINGED SERIES

56A - Inch 10° hinged short-reach ring wrenches



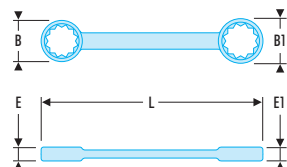
ASME B107.100 GGG-W-636E

- Short-reach 10° offset-ring wrenches. Recess allows to pass fingers or an obstacle.
- The short-reach series increases accessibility.
- Ergonomic handle to apply torque while maintaining comfort of use.
- For 56A.3/16X7/32 6-point.
- OGV® profile 12-point ring for powerful tightening while protecting the nut.
- Inch sizes 3/16" to 13/16
- Satin chrome finish.



56A	A ["]	B x B1 [mm]	E x E1 [mm]	L [mm]	ΔΔ [g]
56A.3/16X7/32	3/16x7/32	8,7x9,5	5,4x5,9	100	24
56A.1/4X5/16	1/4x5/16	10,5x12,5	5,9x6,5	110	31
56A.5/16X3/8	5/16x3/8	12,5x14,6	6,5x7,6	115	45
56A.3/8X7/16	3/8x7/16	14,6x16,7	7,6x8,3	122	55
56A.7/16X1/2	7/16x1/2	16,7x19	8,3x9,3	130	68
56A.1/2X9/16	1/2x9/16	19x21	9,3x10,3	140	89
56A.9/16X5/8	9/16x5/8	21x23,3	10,3x11,5	145	103
56A.5/8X3/4	5/8x3/4	23,3x27,5	11,5x12,8	160	139
56A.11/16X13/16	11/16x13/16	25,6x29,9	11,8x13	170	170

56L - Long-reach metric offset ring wrenches with 10° angle



ISO 691, AS954, ISO 9227

- Short offset ring wrenches 10°.
- Ergonomic handle to apply torque while maintaining comfort of use.
- OGV® profile 12-point ring for powerful tightening while protecting the nut.
- Metric dimensions: 6 to 32 mm.
- Satin chrome finish.

56L	A [mm]	B x B1 [mm]	E x E1 [mm]	L [mm]	ΔΔ [g]
56L.6X7	6X7	12,5x10,5	5,90x6,50	170	46
56L.8X9	8X9	14,6x12,5	6,50x7,60	180	72
56L.10X11	10X11	17,0x15,5	8,50x9,00	185	81
56L.12X13	12X13	21,0x19,0	9,30x10,30	220	142
56L.14X15	14X15	23,3x21,0	10,30x11,50	230	162
56L.16X17	16X17	26,5x25,0	11,50x11,80	250	210
56L.17X19	17X19	27,5x25,6	11,80x12,80	270	250
56L.18X19	18X19	29,5x28,5	12,50x13,50	270	250
56L.20X22	20X22	32,2x29,9	13,50x14,50	300	361
56L.21X23	21X23	35,5x32,5	14,00x14,50	330	500
56L.24X27	24X27	40,0x36,2	14,50x16,00	370	604
56L.30X32	30X32	47,5x44,6	17,50x18,00	430	763

56L - Inch 10° hinged long-reach ring wrenches



ASME B107.100 AS 954G GGG-W-636E

- Long-reach 10° offset-ring wrenches. Recess allows to pass fingers or an obstacle.
- Ergonomic handle to apply torque while maintaining comfort of use.
- OGV® profile 12-point ring for powerful tightening while protecting the nut.
- Inch sizes 3/16" to 13/16
- Satin chrome finish.

56L	A ["]	B x B1 [mm]	E x E1 [mm]	L [mm]	ΔΔ [g]
56L.1/4X5/16	1/4x5/16	10,5x12,5	5,9x6,5	170	48
56L.5/16X11/32	5/16x11/32	12,5x13,5	6,5x7,2	180	62
56L.5/16X3/8	5/16x3/8	12,5x14,6	6,5x7,6	180	70
56L.3/8X7/16	3/8x7/16	14,6x16,7	7,6x8,3	185	82
56L.7/16X1/2	7/16x1/2	16,7x19	8,3x9,3	210	108
56L.1/2X9/16	1/2x9/16	19x21	9,3x10,3	220	137
56L.9/16X5/8	9/16x5/8	21x23,3	10,3x11,5	230	158
56L.5/8X3/4	5/8x3/4	23,3x27,5	11,5x12,8	260	216
56L.11/16X3/4	11/16x3/4	25,6x27,5	11,8x12,8	270	256
56L.13/16X7/8	13/16x7/8	29,9x32,2	13,5x14,5	300	363
56L.15/16X1P	15/16x1P	34,5x36,8	15x15,5	340	502
56L.1Px1P1/16	1Px1P1/16	36,8x38,8	15,4x16	370	598
56L.1P1/8x1P1/4	1P1/8x1P1/4	40,8x45,2	16x18	400	762

MODM.56 - Set of inch angled offset-ring wrench module in foam tray



Part No.	A ["]	H [mm]	I [mm]	L [mm]	Content set	Qty	ΔΔ [kg]
MODM.56JU8	1/4x5/16 - 3/8x7/16 - 1/2x9/16 - 9/16x5/8 - 5/16x3/8 - 7/16x1/2 - 9/16x5/8 - 11/16x3x4	45	188	418	PM. MOD56JU8	8	0.900

57L - Metric 15° hinged long-reach offset-ring wrenches

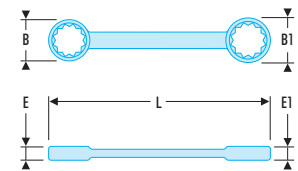


AS 955

- 15° thin wall long-reach offset-ring wrenches.
- Thin wall and long profile for maximum accessibility.
- Wrenches used in engine assembly and maintenance.
- OGV profile 12-point ring for powerful tightening.
- Sizes in mm: from 5.5 to 22
- Black phosphate finish.

Part No.	A [mm]	B x B1 [mm]	E x E1 [mm]	H [mm]	L [mm]	ΔΔ [g]
57L.5.5X7	5,5x7	9,5x10,7	6,3x7,3	4	191,8	50
57L.8X9	8x9	11,8x13,3	6,5x7,5	4	231,7	60
57L.8X10	8x10	11,8x14,6	6,5x7,5	4	231,7	66
57L.10X11	10x11	14,6x16	7,5x8,7	4	276,4	103
57L.10X12	10x12	14,6x17,3	7,5x8,7	4	276,4	105
57L.12X13	12x13	17,3x18,8	10,4x11,3	5	317,3	162
57L.12X14	12x14	17,3x18,8	10,4x11,3	5	317,3	181
57L.14X17	14x17	20,2x23,9	12x14	6	350,4	270
57L.17X19	17x19	23,9x26,5	14x15,1	7	390,3	360
57L.18X20	18x20	25,4x30,6	14x15,1	8	409,7	400
57L.19X22	19x22	28,5x31	16,7x17	8	409,7	425
57L.20X22	20x22	28,5x31	16,7x17	8	409,7	454

57L - Inch 15° hinged long-reach offset-ring wrenches



AS 954G

- 15° thin wall long-reach offset-ring wrenches.
- Thin wall and long profile for maximum accessibility.
- Wrenches used in engine assembly and maintenance.
- OGV profile 12-point ring for powerful tightening.
- Inch sizes 7/32" to 7/8
- Black phosphate finish.

Part No.	A ["]	B x B1 [mm]	E x E1 [mm]	H [mm]	L [mm]	ΔΔ [g]
57L.7/32x1/4	7/32x1/4	9,5x10,7	6,3x7,3	4	191,8	42
57L.1/4x5/16	1/4x5/16	10,2x11,6	6,3x7,3	4	191,8	42
57L.5/16x3/8	5/16x3/8	11,8x14,6	6,5x7,5	4	231,7	60
57L.3/8x7/16	3/8x7/16	14,6x17,3	7,5x8,7	4	276,4	105
57L.7/16x1/2	7/16x1/2	17,3x18,8	10,4x11,3	5	317,3	185
57L.1/2x9/16	1/2x9/16	18,8x20	12x13,7	6	350,4	272
57L.9/16x5/8	9/16x5/8	20x22,8	13,7x14	6	350,4	278
57L.5/8x3/4	5/8x3/4	22,8x26,5	14x15,1	7	390,3	393
57L.11/16x13/16	11/16x13/16	25,4x30	14x15,1	8	396,1	503
57L.25/32x7/8	25/32x7/8	28,5x31	16,7x17	8	409,7	529

MOD.57L - Sets of metric and inch offset-ring wrenches and Spline in thermoformed and foam trays



- Compatible with the FACOM modular storage system: suited to CHRONO, JET, CHRONO XL, CHRONO+, JET XL and JET+ roller cabinets.

Part No.	A ["]	A [mm]	Contents	Qty	ΔΔ [kg]
MODM.57LJ7		5.5x7 - 8x9 - 10x11 - 12x13 - 12x14 - 17x19 - 18x20	PM. MOD57LJ7	7	1,4
MODM.57LJU5	7/32x1/4 - 5/16x3/8 - 7/16x1/2 - 1/2x9/16 - 5/8x3/4		PM. MOD57LJU5	5	1
MODM.57LSPL6		7x9 - 8x10 - 12x14 - 16x18 - 18x20 - 22x24	PM. MOD57LSPL6	6	1
MOD.57LJ6		5.5x7 - 8x9 - 10x11 - 12x13 - 12x14 - 17x19	PL.697	6	1

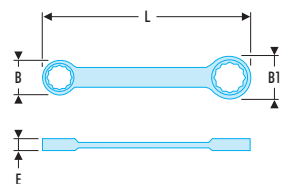


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STRAIGHT SERIES

59 - Metric straight offset-ring wrenches



NF ISO 10103, NF ISO 1711-1, NF ISO 691, ISO 10103, ISO 1711-1, ISO 691, DIN 837, DIN ISO 1711-1, DIN ISO 691

- Straight offset-ring wrenches: the slim heads and short shank allows to work in dense mechanical assemblies.
- OGV® profile with 12-point ring for powerful tightening while protecting the nut.
- Metric sizes: 6 to 32 mm.
- Presentation: satin chrome finish.



➤	A [mm]	B x B1 [mm]	E [mm]	Width l [mm]	L [mm]	[g]
59.6X7	6X7	10,8 x 12,0	5,0	100	120	10
59.8X9	8X9	13,2 x 14,5	5,5	115	135	16
59.10X11	10X11	15,8 x 17,2	6,4	128	150	28
59.12X13	12X13	19,8 x 21,2	7,2	143	165	40
59.14X15	14X15	21,2 x 24,4	7,9	157	185	50
59.16X17	16X17	24,2 x 26,5	8,5	168	210	65
59.18X19	18X19	27,0 x 28,6	9,2	189	225	80
59.21X23	21X23	30,5 x 33,6	9,9	217	240	130
59.22X24	22X24	32,0 x 35,2	10,6	217	255	130
59.26X28	26X28	36,5 x 39,2	11,3	265	270	230
59.27X29	27X29	39,2 x 43,6	12,6	285	315	270
59.30X32	30X32	45,0 x 48,0	13,8	285	335	280

59 - Metric straight offset-ring wrenches sets



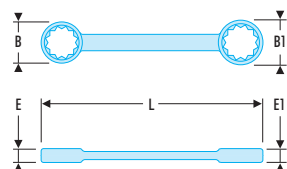
NF ISO 10103, NF ISO 1711-1, NF ISO 691, ISO 10103, ISO 1711-1, ISO 691, DIN 837, DIN ISO 1711-1, DIN ISO 691

- Presentation: supplied as box or roll sets.



➤	A [mm]	Contents	Qty	ΔΔ [g]
59.JN6	8x9 - 10x11 - 12x13 - 14x15 - 16x17 - 18x19	Box	6	280
59.JE12	6x7 - 8x9 - 10x11 - 12x13 - 14x15 - 16x17 - 18x19 - 21x23 - 22x24 - 26x28 - 27x29 - 30x32	Box	12	1300
59.JN8T	8x9 - 10x11 - 12x13 - 14x15 - 16x17 - 18x19 - 21x23 - 22x24	Roll: N.38A-8C	8	570

59TX - Straight ring wrenches with Torx® profile



- Straight ring wrenches with Torx® profile: ideal in locations where access in height is limited and/or impossible with a ratchet + socket.
- 30° increment by flipping the wrench thanks to special broaching.
- Torx dimensions: from E6 to E24.
- Presentation: satin chrome finish.



➤	B x B1 [mm]	E x E1 [mm]	L [mm]	Torx [No]	ΔΔ [g]
59TX.6X8	9,1 x 11,1	5,2 x 6,3	113	E6 x E8	15
59TX.10X12	12,7 x 14,8	7,0 x 8,2	141	E10 x E12	35
59TX.14X18	17,3 x 21,8	8,0 x 9,5	181	E14 x E18	65
59TX.20X24	24,6 x 28,7	11,0 x 13,5	224	E20 x E24	190

Set of 4 straight ring wrenches with Torx® profile



- Straight ring wrenches with Torx® profile: ideal in locations where access in height is limited and/or impossible with a ratchet + socket.
- 30° increment by flipping the wrench thanks to special broaching.
- Set of 4 wrenches: E6xE8 - E10xE12 - E14xE18 - E20xE24.
- Presentation: satin chrome finish.



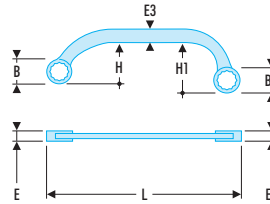
➤	Torx [No]	Qty	ΔΔ [g]
59TX.J4	E6 x E8, E10 x E12, E14 x E18, E20 x E24	4	315

HALF-MOON SERIES

57 - Metric half-moon offset-ring wrenches

NF ISO 3318, NF ISO 1711-1, NF ISO 691, ISO 3318, ISO 1711-1, ISO 691, DIN ISO 1711-1, DIN ISO 691

- Half-moon offset-ring wrenches: the half-moon shape allows to manoeuvre nuts inaccessible with a classical tool.
- OGV® profile with 12-point ring for powerful tightening while protecting the nut.
- Metric sizes: 10 to 22 mm.
- Presentation: satin chrome finish.



57	A [mm]	B x B1 [mm]	E x E1 [mm]	E3 [mm]	H x H1 [mm]	L [mm]	ΔΔ [g]
57.10X12	10X12	15,2 x 18,0	6,4 x 6,7	9,7	33,0 x 44,2	142	85
57.11X13	11X13	18,2 x 21,1	7,9 x 8,4	11,3	43,8 x 55,3	165	85
57.13X15	13X15	22,0 x 25,0	8,1 x 9,2	13,3	54,5 x 66,0	191	100
57.14X16	14X16	22,0 x 25,0	8,1 x 9,2	13,3	54,5 x 66,0	191	180

57	A [mm]	B x B1 [mm]	E x E1 [mm]	E3 [mm]	H x H1 [mm]	L [mm]	ΔΔ [g]
57.14X17	14X17	22,0 x 25,0	8,1 x 9,2	13,3	54,5 x 66,0	191	180
57.15X17	15X17	25,2 x 27,8	9,0 x 10,0	13,8	56,0 x 67,2	220	180
57.16X18	16X18	25,2 x 27,8	9,0 x 10,0	13,8	56,0 x 67,2	220	215
57.19X22	19X22	28,2 x 32,2	9,9 x 11,3	15,5	66,5 x 78,5	255	280

Set of 5 metric half-moon offset-ring wrenches

NF ISO 3318, NF ISO 1711-1, NF ISO 691, ISO 3318, ISO 1711-1, ISO 691, DIN ISO 1711-1, DIN ISO 691

- Half-moon offset-ring wrenches: the half-moon shape allows to manoeuvre nuts inaccessible with a classical tool.
- OGV® profile with 12-point ring for powerful tightening while protecting the nut.
- Presentation: satin chrome finish.



57	A [mm]	Qty	ΔΔ [g]
57.JE5	57.10x12 - 11x13 - 14x17 - 16x18 - 19x22	5	850

RATCHET RING WRENCHES

Save time

For ratchet ring wrenches, see p. 211

SERIES 64



SERIES 65

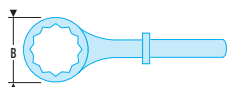
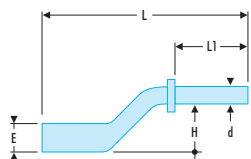


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POWER SERIES

54A - Metric "heavy-duty" offset-ring wrenches



<p>54A.24 - 54A.30</p> <p>54.M1B</p> <p>L2 (54A.24 + 54.M1B) = 555 mm L2 (54A.30 + 54.M1B) = 565 mm</p>	<p>54A.46 - 54A.50 - 54A.55</p> <p>54.M3B</p> <p>L2 (54A.46 + 54.M3B) = 910 mm L2 (54A.50 + 54.M3B) = 920 mm L2 (54A.55 + 54.M3B) = 925 mm</p>
<p>54A.32 - 54A.36 - 54A.41</p> <p>54.M2B</p> <p>L2 (54A.32 + 54.M2B) = 730 mm L2 (54A.36 + 54.M2B) = 735 mm L2 (54A.41 + 54.M2B) = 748 mm</p>	<p>54A.60 - 54A.65 - 54A.70</p> <p>54.M4B</p> <p>L2 (54A.60 + 54.M4B) = 1050 mm L2 (54A.65 + 54.M4B) = 1060 mm L2 (54A.70 + 54.M4B) = 1065 mm</p>

NF ISO 691, ISO 691, DIN ISO 691

- "Heavy-duty" offset-ring wrenches: wrenches for tight (unlocking, thanks to high strength of the polygonal head and long adaptable handle (to be ordered separately).
- Ring offset to clear fingers or obstacles. Ideal for series of nuts.
- Handle to use: 54.M1B for the dimensions 24 and 30 mm; 54.M2B for the dimensions 32 to 41 mm; 54.M3B for the dimensions 46 to 55 mm; 54.M4B for the dimensions 60 to 70 mm.
- Metric sizes: 24 to 70 mm.
- Presentation: satin chrome finish.



54	A [mm]	B [mm]	d [mm]	E [mm]	H [mm]	L [mm]	L1 [mm]	ΔΔ [g]
54A.24	24	38,0	18,5	17,0	29,5	180	85	380
54A.30	30	48,0	18,5	18,0	33,5	200	95	550
54A.32	32	49,0	21,5	18,0	34,0	235	116	700
54A.36	36	54,0	21,5	20,0	35,5	245	120	840
54A.41	41	62,0	21,5	22,0	39,5	265	127	1000
54A.46	46	69,0	24,5	23,0	40,0	280	129	1300
54A.50	50	76,0	24,5	25,5	42,5	290	129	1500
54A.55	55	81,0	24,5	28,0	45,5	300	136	1500
54A.60	60	90,0	29,5	30,5	49,0	345	156	2300
54A.65	65	98,0	29,5	33,0	53,0	355	158	2400
54A.70	70	105,0	29,5	35,5	55,0	365	160	2800

54.MB - Handle

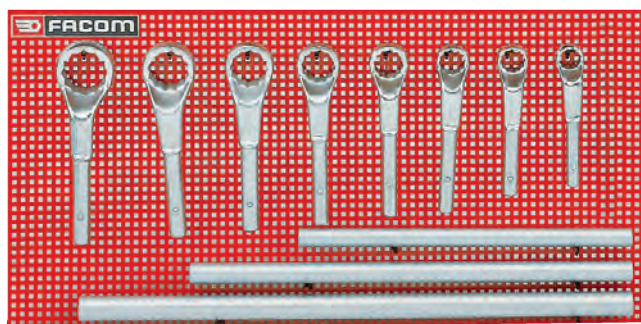


- Handle to use: 54.M1B for the dimensions 24 and 30 mm; 54.M2B for the dimensions 32 to 41 mm; 54.M3B for the dimensions 46 to 55 mm; 54.M4B for the dimensions 60 to 70 mm.
- Presentation: satin chrome finish.



54	ΔΔ [g]
54.M1B	613
54.M2B	1185
54.M3B	2748
54.M4B	2862

Metric "heavy-duty" offset-ring wrenches set



NF ISO 691, ISO 691, DIN ISO 691

- Supplied without handle: 54.M1B, 54.M2B, 54.M3B.
- Presentation: on panel.



54	A [mm]	Contents	Handle	Qty	ΔΔ [kg]
54.P9M	24 - 30 - 32 - 36 - 41 - 46 - 50 - 55	PK.1	54.M1B, 54.M2B, 54.M3B	11	15.4

IMPACT SERIES

51BS 'HIGH SAFETY' SLOGGING WRENCHES

# Innovative fastening system

- Work safely: no need to hold the wrench.
- Increase productivity: single-handed operation with no accessories required.

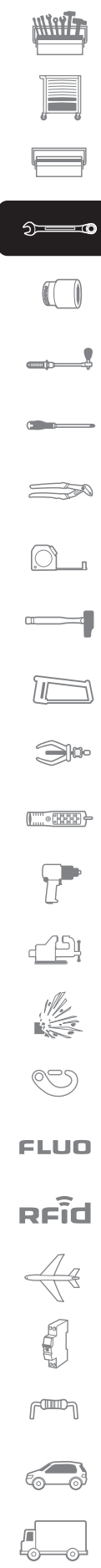
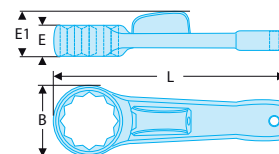


51BS - Metric safety slogging wrenches

- Patented mechanism to lock the wrench on the screw.
- No need to hold the wrench when striking=no risk of injuries, maximum security.
- Innovative & Easy to use unlock trigger.
- Hook for work at height.
- Metric sizes from 24 to 80mm.
- Presentation: black phosphate.



51BS	A [mm]	B [mm]	E [mm]	E1 [mm]	L [mm]	ΔΔ [kg]
51BS.24	24	45	19.5	32.5	180	0,510
51BS.27	27	45	19.5	32.5	180	0,493
51BS.30	30	48	21	33.8	195	0,607
51BS.32	32	51	21.5	34.2	195	0,649
51BS.36	36	59	25	37.2	205	0,904
51BS.41	41	62	26	37.2	231	0,904
51BS.46	46	71	28	39.0	240	1.7
51BS.50	50	75	31	41.0	255	1.5
51BS.55	55	80	35	47.5	270	2.0
51BS.60	60	85	38	49.5	280	2.3
51BS.65	65	93	41	48.0	300	2.7
51BS.70	70	102	43	58.0	320	3.5
51BS.75	75	108	48	60.0	330	3.8
51BS.80	80	118	52	63.0	360	4.7



FLUO

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51B - Metric polygon impact wrenches



- Polygon impact wrenches: use with a sledgehammer or pneumatic hammer for heavy mechanical (un)blocking.
- Wrenches forged in resilient steel to withstand impact.
- Metric dimensions: 24 to 115 mm.
- Burnished finish.

51B	A [mm]	B [mm]	E [mm]	L [mm]	ΔΔ [kg]
51B.24	24	42	19	165	0,297
51B.27	27	45	19.5	180	0,360
51B.30	30	48	21	195	0,490
51B.32	32	51	21.5	195	0,547
51B.34	34	51	21.5	195	0,547
51B.36	36	56	24	205	0,787
51B.38	38	56	24	205	0,787
51B.40	40	62	26	230	1.0
51B.41	41	62	26	230	1.0
51B.42	42	62	26	230	1.0
51B.44	44	71	28	240	1.3
51B.45	45	71	28	240	1.3
51B.46	46	71	28	240	1.3
51B.50	50	75	31	255	1.6
51B.55	55	80	35	270	2.0
51B.56	56	80	35	270	2.0
51B.58	58	80	35	270	2.0
51B.60	60	85	38	280	2.3
51B.65	65	93	41	300	3.0
51B.70	70	102	43	320	3.6
51B.75	75	108	48	330	4.0
51B.80	80	118	52	360	5.2
51B.85	85	118	52	360	5.2
51B.95	95	134	55	400	6.9
51B.100	100	134	55	400	6.9
51B.105	105	170	58	435	11.2
51B.110	110	170	58	435	11.2
51B.115	115	170	58	435	11.2

51B - Inch polygon impact wrenches



- Polygon impact wrenches: use with a sledgehammer or pneumatic hammer for heavy mechanical (un)blocking.
- Wrenches forged in resilient steel to withstand impact.
- Inch dimensions: 1" to 4"1/8.
- Burnished finish.

51B	A ["]	B [mm]	E [mm]	L [mm]	ΔΔ [kg]
51B.1P	1"	42	19	165	0,267
51B.1P1/2	1 1/2"	56	24	205	0,787
51B.1P1/4	1 1/4"	51	21.5	195	0,547
51B.1P1/8	1 1/8"	48	21	195	0,490
51B.1P11/16	1 11/16"	71	28	240	1.3
51B.1P13/16	1 13/16"	71	28	240	1.3
51B.1P15/16	1 15/16"	75	31	255	1.6
51B.1P3/4	1 3/4"	71	28	240	1.3
51B.1P3/8	1 3/8"	56	24	205	0,787
51B.1P5/16	1 5/16"	51	21.5	195	0,547
51B.1P5/8	1 5/8"	62	26	230	1.0
51B.1P7/16	1 7/16"	56	24	205	0,787
51B.1P7/8	1 7/8"	75	31	255	1.6
51B.2P	2"	75	31	255	1.6
51B.2P1/2	2 1/2"	93	41	300	3.0
51B.2P1/4	2 1/4"	80	35	270	2.0
51B.2P1/8	2 1/8"	80	35	270	2.0
51B.2P15/16	2 15/16"	108	48	330	4.0
51B.2P3/16	2 3/16"	80	35	270	2.0
51B.2P3/4	2 3/4"	102	43	320	3.6
51B.2P3/8	2 3/8"	85	38	280	2.3
51B.2P5/16	2 5/16"	85	38	280	2.3
51B.2P5/8	2 5/8"	102	43	320	3.6
51B.3P	3"	108	48	330	4.0
51B.3P1/2	3 1/2"	134	55	400	6.9
51B.3P1/8	3 1/8"	118	52	360	5.2
51B.3P3/4	3 3/4"	134	55	400	6.9
51B.3P3/8	3 3/8"	118	52	360	5.2
51B.3P7/8	3 7/8"	134	55	400	6.9
51B.4P1/4	4 1/4"	170	58	435	11.2
51B.4P1/8	4 1/8"	170	58	435	11.2



**HOLDING HANDLE FACOM EXCLUSIVE**

**Slogging wrench  
SAFETY HANDLE**



Many accidents involve slogging wrenches. A survey led in large industrial sites (petrochemicals, heavy chemicals, cement plants, naval repair, metallurgy, PW and mining operations) show a high percentage of accidents.

**FACOM has designed a protection handle for slogging wrenches:**

- Fast and easy fitting for easy and stress free use.
- The FACOM handle combines maximum safety and minimum cost: adapts to all traditional slogging wrenches.



**The handle allows access with maximum safety for a minimum cost: no need to change all slogging wrenches.**

Moves the operator's hand out of the impact zone. Key integral with the safety handle = no risk of wrench falling. Hand guard in "soft" material. Suited to all models:

- Facom ring wrenches.
- Ring wrenches by other manufacturers.
- Open end wrenches. Suited to all opening dimensions from 24 mm to 75 mm.

**Other safety advice**



Wear safety goggles, gloves, shoes, hard hat.

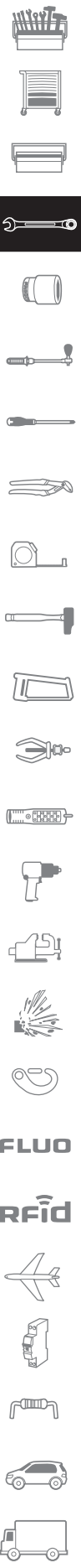
**■ Safety handle for slogging wrenches**

- Safety:
  - The user's hand is outside the impact zone.
  - Hand safety guard in "soft" material.
  - Safety instruction pictograms.
- Simple and fast execution:
  - Less than 10s to position the wrench on the safety handle.
  - Locking mechanism.
  - Adapts to all sizes from 24 mm to 75 mm.
  - Adapts to all for slogging wrench models.

Supplied with an additional strap.



	$\Delta\Delta$ [g]
50.SH	250



STANDARD SERIES

ANGLED OPEN-SOCKET WRENCHES

# Specific through-hole and deep recess

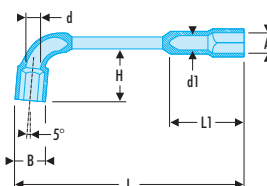
Specific angle and through-hole design: accommodates threaded rods or a bar for extra leverage without affecting wrench strength. Deep recess at one end: tightening possible even with protruding studs. Ring height allows for maximum strength on "tall" nuts.



75 - Forged metric 6 x 6 point angled open-socket wrenches



75 - Forged inch 6 x 6 point angled open-socket wrenches



NF ISO 2236, NF ISO 691, ISO 2236, ISO 691, DIN ISO 691

- Angled socket wrenches: wrenches designed for powerful unlocking.
- Short head and long head: 6-point.
- Opening of the short head for passing threaded rods.
- Metric sizes: 6 to 38 mm.
- Presentation: satin chrome finish.

- Angled socket wrenches: wrenches designed for powerful unlocking.
- Short head and long head: 6-point.
- Opening of the short head for passing threaded rods.
- Dimensions in inches: from 1/4" to 1".
- Presentation: satin chrome finish.

Ø	A [mm]	B [mm]	d [mm]	d1 [mm]	H [mm]	L [mm]	L1 [mm]	ΔΔ [g]
75.6	6	10,0	4,5	4,5	15	102	21	30
75.7	7	11,0	4,5	4,5	17	106	22	35
75.8	8	12,5	7,0	6,0	19	114	25	60
75.9	9	13,5	7,0	6,0	20	122	26	65
75.10	10	15,0	8,0	7,0	24	129	28	95
75.11	11	16,5	8,0	7,0	25	136	30	115
75.12	12	18,0	9,0	8,0	28	144	36	155
75.13	13	19,5	9,0	8,0	30	152	38	175
75.14	14	21,0	10,5	9,0	32	160	40	205
75.15	15	22,5	10,5	10,0	34	169	42	230
75.16	16	24,0	13,0	12,0	37	178	46	285
75.17	17	25,5	13,0	12,0	39	187	48	315
75.18	18	26,5	13,0	12,0	40	195	50	365
75.19	19	28,5	15,0	12,0	41	204	51	430
75.20	20	29,5	15,0	13,0	43	212	53	440
75.21	21	30,5	15,0	14,0	46	221	55	490
75.22	22	32,0	15,0	14,0	48	230	57	535
75.23	23	33,5	18,0	15,0	51	240	64	625
75.24	24	34,5	18,0	16,0	54	250	67	660
75.25	25	36,0	20,0	17,0	56	260	69	785
75.26	26	37,0	20,0	17,0	57	270	70	795
75.27	27	38,0	22,0	19,0	58	280	73	950
75.28	28	39,5	22,0	19,0	60	290	75	950
75.29	29	41,0	22,0	19,0	62	300	76	1000
75.30	30	42,0	24,0	21,0	64	310	83	1300
75.31	31	43,5	24,0	22,6	70	320	86	1400
75.32	32	44,5	24,0	22,6	74	330	88	1400
75.33	33	46,0	27,0	24,0	79	340	92	1500
75.34	34	47,0	27,0	24,0	80	350	95	1600
75.35	35	48,5	27,0	24,0	81	360	96	1600
75.36	36	49,5	27,0	24,0	82	370	97	
75.38	38	52,0	28,0	25,0	85	390	99	

Ø	A ["]	B [mm]	d [mm]	d1 [mm]	H [mm]	L [mm]	L1 [mm]	ΔΔ [g]
75.1/4	1/4	10,0	4,5	4,5	15	102	21	30
75.5/8	5/16	12,5	7,0	6,0	19	114	25	60
75.3/8	3/8	15,0	8,0	7,0	24	129	28	95
75.7/16	7/16	16,5	8,0	7,0	25	136	30	115
75.1/2	1/2	19,5	9,0	8,0	30	152	38	175
75.9/16	9/16	22,5	10,5	10,0	34	169	42	230
75.5/8	5/8	24,0	13,0	12,0	37	178	46	285
75.11/16	11/16	26,5	13,0	12,0	40	195	50	365
75.3/4	3/4	28,5	15,0	12,0	41	204	51	430
75.13/16	13/16	30,5	15,0	14,0	46	221	55	490
75.7/8	7/8	33,5	18,0	15,0	51	240	64	625
75.15/16	15/16	34,5	18,0	16,0	54	250	67	660
75.1'	1"	37,0	20,0	17,0	57	270	70	795



## 75 - Metric and inch angled socket wrench sets

NF ISO 2236, NF ISO 691, ISO 2236, ISO 691, DIN ISO 691

• Presentation: supplied as box or panel sets.



Ref	A ["]	A [mm]	Contents	Qty	ΔΔ [kg]
<b>75.JN8</b>		8 - 10 - 11 - 13 - 17 - 19 - 22 - 24	Box	8	2.4
<b>75.JN10</b>		8 - 10 - 11 - 12 - 13 - 14 - 16 - 17 - 18 - 19	Box	10	2.2
<b>75.J12</b>		7 - 8 - 10 - 11 - 12 - 13 - 16 - 17 - 18 - 19 - 22 - 24	Box	12	3.4
<b>75.JE16</b>		8 - 9 - 10 - 11 - 12 - 13 - 14 - 15 - 16 - 17 - 18 - 19 - 21 - 22 - 23 - 24	Box	16	4.7
<b>75.P22M</b>		8 - 9 - 10 - 11 - 12 - 13 - 14 - 15 - 16 - 17 - 18 - 19 - 21 - 22 - 23 - 24 - 26 - 27 - 28 - 29 - 30 - 32	Panel: PK.1	22	13.4
<b>75.JU10</b>	5/16 - 3/8 - 7/16 - 1/2 - 9/16 - 5/8 - 11/16 - 3/4 - 13/16 - 7/8	-	Box	10	2.8

## Metric angled socket wrench sets in heat formed tray

• Compatible with the FACOM modular storage system: compatible with CHRONO, JET, CHRONO XL, CHRONO+, JETXL and JET+ roller cabinets.



Ref	A [mm]	H [mm]	I [mm]	L [mm]	Contents	Qty	ΔΔ [kg]
<b>MOD.75-1</b>	8 - 10 - 11 - 12 - 13 - 14 - 16 - 17 - 18 - 19	40	175	418	Tray: PL.625	10	2.501

## Metric angled socket wrench sets in foam tray

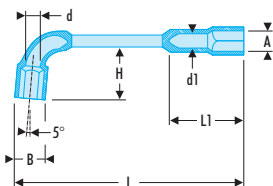
• Compatible with the FACOM modular storage system: compatible with CHRONO XL, CHRONO+, JETXL and JET+ roller cabinets.



Ref	A [mm]	H [mm]	I [mm]	L [mm]	Contents	Qty	ΔΔ [kg]
<b>MODM.75</b>	7 - 8 - 9 - 10 - 11 - 12 - 13 - 14 - 15 - 16 - 17 - 18 - 19	45	188	418	PM.MOD75	13	2.7



76 - Forged metric 12 x 6 point angled open-socket wrenches



76 - Metric angled socket wrench sets



NF ISO 2236, NF ISO 691, ISO 2236, ISO 691, DIN ISO 691

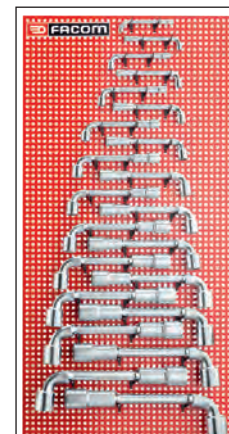
- Angled socket wrenches: wrenches designed for powerful unlocking.
- 12-point short head for 30° increment and 6-point long head.
- Opening of the short head for passing threaded rods.
- Metric sizes: 6 to 38 mm.
- Presentation: satin chrome finish.

76	A [mm]	B [mm]	d [mm]	d1 [mm]	H [mm]	L [mm]	L1 [mm]	ΔΔ [g]
76.6	6	10,0	4,5	4,5	16	102	21	30
76.7	7	11,0	4,5	4,5	17	106	22	35
76.8	8	12,5	7,0	6,0	19	114	25	60
76.9	9	13,5	7,0	6,0	20	122	26	65
76.10	10	15,0	8,0	7,0	24	129	28	95
76.11	11	16,5	8,0	7,0	25	136	30	115
76.12	12	18,0	9,0	8,0	28	144	36	155
76.13	13	19,5	9,0	8,0	30	152	38	175
76.14	14	21,0	10,5	9,0	32	160	40	205
76.15	15	22,5	10,5	10,0	34	169	42	230
76.16	16	24,0	13,0	12,0	37	178	46	285
76.17	17	25,5	13,0	12,0	39	187	48	315
76.18	18	26,5	13,0	12,0	40	195	50	365
76.19	19	28,5	15,0	12,0	41	204	51	430
76.20	20	29,5	15,0	13,0	43	212	53	440
76.21	21	30,5	15,0	14,0	46	221	55	490
76.22	22	32,0	15,0	14,0	48	230	57	535
76.23	23	33,5	18,0	15,0	51	240	64	625
76.24	24	34,5	18,0	16,0	54	250	67	660
76.25	25	36,0	20,0	17,0	56	260	69	785
76.26	26	37,0	20,0	17,0	57	270	70	795
76.27	27	38,0	22,0	19,0	58	280	73	950
76.28	28	39,5	22,0	19,0	60	290	75	950
76.29	29	41,0	22,0	19,0	62	300	76	1000
76.30	30	42,0	24,0	21,0	64	310	83	1300
76.31	31	43,5	24,0	22,6	70	320	86	1400
76.32	32	44,5	24,0	22,6	74	330	88	1400
76.33	33	46,0	27,0	24,0	79	340	92	1500
76.34	34	47,0	27,0	24,0	80	350	95	1600
76.35	35	48,5	27,0	24,0	81	360	96	1600
76.36	36	49,5	27,0	24,0	82	370	97	1700
76.38	38	52,0	28,0	25,0	85	390	99	2100

NF ISO 2236, NF ISO 691, ISO 2236, ISO 691, DIN ISO 691

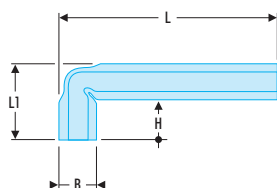
- Presentation: supplied as box or panel sets.

76	A [mm]	Contents	Qty	ΔΔ [kg]
76.JN8	8 - 10 - 11 - 13 - 17 - 19 - 22 - 24	Box	8	2.4
76.JN10	8 - 10 - 11 - 12 - 13 - 14 - 16 - 17 - 18 - 19	Box	10	2.2
76.JE16	8 - 9 - 10 - 11 - 12 - 13 - 14 - 15 - 16 - 17 - 18 - 19 - 21 - 22 - 23 - 24	Box	10	4.7
76.P22M	8 - 9 - 10 - 11 - 12 - 13 - 14 - 15 - 16 - 17 - 18 - 19 - 21 - 22 - 23 - 24 - 26 - 27 - 28 - 29 - 30 - 32	Panel: PK.1	10	13.4



## BOX SERIES

### 92A - Metric angled box wrenches



NF ISO 2236, NF ISO 691, ISO 2236, ISO 691, DIN ISO 691

- Angled box wrenches: allows to work on long threaded rods.
- Passage hole allowing to use shanks: 160A.
- Shank to use: 160A.1 for the dimensions 4 to 23 mm; 160A.2 for the dimensions 24 to 32 mm.
- Metric sizes: 4 to 32 mm.
- Presentation: satin chrome finish.

92A	A [mm]	B [mm]	H [mm]	L [mm]	L1 [mm]	ΔΔ [g]
92A.4	4	8,5	16,5	95	23,5	20
92A.5	5	9,5	16,0	95	23,5	20
92A.5,5	5,5	10,0	17,5	95	25,0	25
92A.6	6	10,5	17,5	100	26,5	30
92A.7	7	11,5	19,5	100	28,5	30
92A.8	8	13,0	20,5	109	31,5	45
92A.9	9	14,5	22,0	109	33,0	50
92A.10	10	16,0	23,0	118	36,5	65
92A.11	11	17,0	23,0	118	36,5	70
92A.12	12	19,0	27,0	127	43,0	100
92A.13	13	20,5	27,0	127	43,0	110
92A.14	14	21,5	31,0	136	49,0	155
92A.15	15	22,5	31,0	136	49,0	160
92A.16	16	24,0	35,0	145	55,0	190
92A.17	17	26,0	35,0	145	55,0	200
92A.18	18	27,5	39,0	154	61,0	225
92A.19	19	28,5	39,0	154	61,0	230
92A.20	20	29,5	41,5	163	66,5	320
92A.21	21	31,0	42,5	163	67,5	325
92A.22	22	32,0	42,5	172	68,0	350
92A.23	23	33,0	46,5	165	72,5	390
92A.24	24	34,5	45,5	175	74,5	415
92A.27	27	38,5	49,0	184	81,0	520
92A.30	30	42,5	53,5	195	86,5	640
92A.32	32	45,0	57,0	200	93,0	785

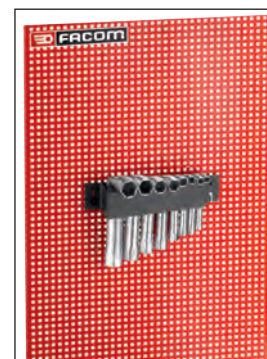
### 92A - Metric angled box wrenches sets



NF ISO 2236, NF ISO 691, ISO 2236, ISO 691, DIN ISO 691

- Presentation: supplied as box or rack.

92A	A [mm]	Contents	Qty	ΔΔ [kg]
92A.JE8	8 - 10 - 11 - 13 - 17 - 19 - 22 - 24	Box	8	1.5
92A.P16M	8 - 9 - 10 - 11 - 12 - 13 - 14 - 15 - 16 - 17 - 18 - 19 - 21 - 22 - 23 - 24	Rack: CKS.39A	16	4.0

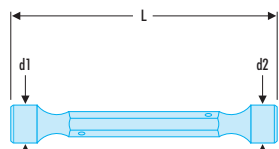


FLUO

Rfid

SOCKET SERIES

97 - Metric forged double socket wrenches



Part No.	A [mm]	d [mm]	d1 [mm]	d1 x d2 [mm]	d2 [mm]	L [mm]	ΔΔ [g]
97.6X7	6x7	4,0	9,5	9,5 x 10,7	10,7	110	35
97.8X9	8x9	4,0	12,5	12,5 x 14	14,0	120	50
97.10X11	10x11	6,0	15,0	15 x 16	16,0	130	65
97.12X13	12x13	6,0	17,5	17,5 x 19	19,0	140	110
97.14X15	14x15	6,5	20,0	20 x 21,5	21,5	150	140
97.16X17	16x17	8,2	22,7	22,7 x 24	24,0	160	190

NF ISO 2236, NF ISO 691, ISO 2236, ISO 691, DIN 896, DIN ISO 691

- Double socket wrenches: full opening of the wrench allows passage of very long threaded rods.
- The forged hexagonal body allows tightening with a wrench.
- Passage hole allowing to use shanks: 160A.
- Shank to use: 160A.1 for the dimensions 6x7 à 21x23 mm; 160A.2 for the dimensions 24x26 to 30x32 mm.
- 6-point heads. • 2 dimensions per wrench.
- Metric sizes: 6 to 32 mm.
- Presentation: satin chrome finish.



Part No.	A [mm]	d [mm]	d1 [mm]	d1 x d2 [mm]	d2 [mm]	L [mm]	ΔΔ [g]
97.18X19	18x19	8,2	25,2	25,2 x 26,5	26,5	170	240
97.20X22	20x22	10,2	27,7	27,7 x 30,2	30,2	180	260
97.21X23	21x23	10,2	29,0	29 x 31,2	31,2	185	295
97.24X26	24x26	12,5	33,0	33 x 35,5	35,5	190	415
97.27X29	27x29	12,5	37,0	37 x 39,5	39,5	200	505
97.30X32	30x32	12,5	40,5	40,5 x 43	43,0	200	630

Metric double-ended forged socket wrench sets



NF ISO 2236, NF ISO 691, ISO 2236, ISO 691, DIN 896, DIN ISO 691

- Presentation: in box.



Part No.	6-point [No]	Contents	Qty	ΔΔ [g]
97.JE6	8x9 - 10x11 - 12x13 - 14x15 - 16x17 - 18x19	Box	6	770

Metric angled socket wrench set in heat formed tray

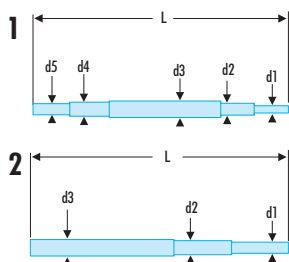


- Compatible with the FACOM modular storage system: compatible with CHRONO, JET, CHRONO XL, CHRONO+, JETXL and JET+ roller cabinets.



Part No.	A [mm]	H [mm]	l [mm]	L [mm]	Contents	Qty	ΔΔ [g]
MOD.97	8X9 - 10X11 - 12X13 - 14X15 - 16X17 - 18X19	40	175	418	PL.359	6	900

160A - Bars for wrenches 91A, 92A and 97



- For 160A.1: Form 1.
- For 160A.2: Form 2.
- Presentation: satin chrome finish.

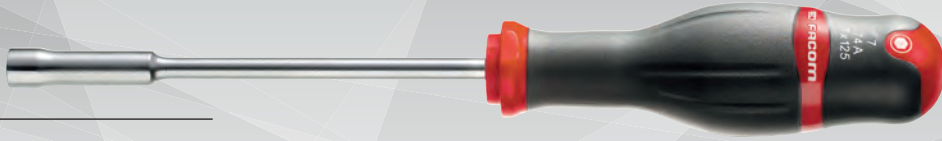


Part No.	d1 [mm]	d2 [mm]	d3 [mm]	d4 [mm]	d5 [mm]	L [mm]	ΔΔ [g]
160A.1	3,80	5,25	9	7,4	6,25	220	80
160A.2	10,75	12,25	13	-	-	300	280

TEE HANDLE SERIES

SOCKET WRENCHES WITH SCREWDRIVER HANDLE

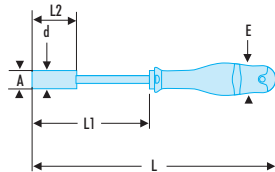
Forged body for maximum strength.  
Hollow body allows insertion over long threaded rods.



PROTWIST® handle

- Natural grip and excellent ergonomics.
- Fast and effective approach.
- Comfortable force tightening.
- High torque application with lesser effort.
- Resistance to loads, impacts, abrasion and chemicals.

74A - Forged socket wrenches with metric screwdriver handle



- Socket wrenches with screwdriver handle ideal for screws with limited access in height or precision mechanics.
- Protwist screwdriver handle for optimum comfort even for powerful unlocking.
- 6-point socket with deep opening for long threads.
- Forged body for maximum strength.
- Metric sizes: 3.2 to 14 mm.
- Presentation: satin chrome finish.

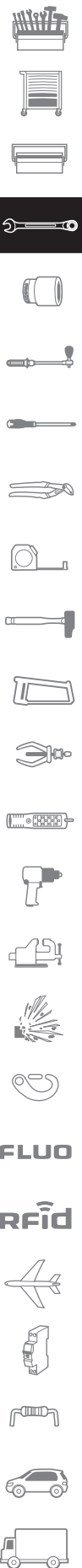
Size	A [mm]	d [mm]	E [mm]	L [mm]	L1 [mm]	L2 [mm]	ΔΔ [g]
74A.3,2	3,2	6,0	36	245	125	20	110
74A.4	4,0	7,0	36	245	125	20	115
74A.4,5	4,5	7,5	36	245	125	25	120
74A.5	5,0	8,0	36	245	125	25	120
74A.5,5	5,5	8,0	36	245	125	30	120
74A.6	6,0	9,5	36	245	125	35	125
74A.7	7,0	9,5	36	245	125	35	130
74A.8	8,0	12,0	36	245	125	50	155
74A.9	9,0	12,0	36	245	125	50	160
74A.10	10,0	14,5	40	250	125	50	200
74A.11	11,0	16,0	40	250	125	50	210
74A.12	12,0	17,0	40	250	125	50	210
74A.13	13,0	18,5	40	250	125	55	250
74A.14	14,0	20,0	40	250	125	55	255

74A - Forged socket wrenches set with metric screwdriver handle



- Presentation: supplied as plastic rack or in roll.

Set	A [mm]	Contents	Qty	ΔΔ [kg]
74A.JL9	3,2 - 4 - 5 - 5,5 - 6 - 7 - 8 - 9 - 10	Roll: N.38A-10D	9	1.0
74A.JL14	3,2 - 4 - 4,5 - 5 - 5,5 - 6 - 7 - 8 - 9 - 10 - 11 - 12 - 13 - 14	Roll: N.38A-14A	14	1.7
74A.P14E	3,2 - 4 - 4,5 - 5 - 5,5 - 6 - 7 - 8 - 9 - 10 - 11 - 12 - 13 - 14	Rack: 3 x CKS.08	14	1.8

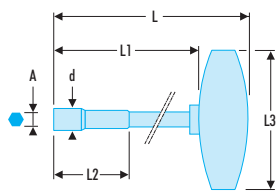
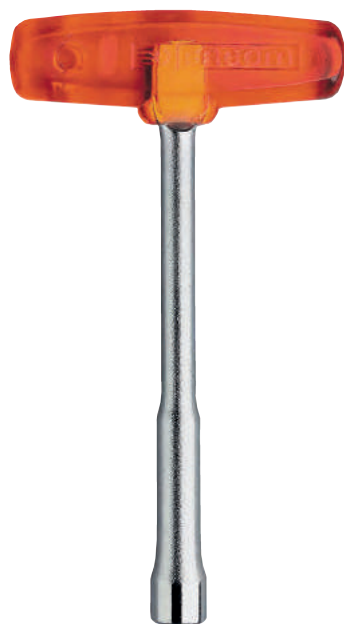


FLUO

RFid

TEE HANDLE SERIES

74T - Forged socket wrenches with metric tee handle



NF ISO 691, ISO 691, DIN ISO 691

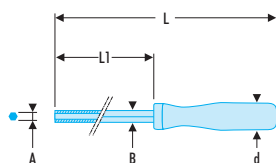
- Socket wrenches with Tee handle: allows to apply more power upon unlocking.
- 6-point socket with deep opening for long threads.
- Forged body for maximum strength.
- Metric sizes: 5 to 14 mm.
- Presentation: satin chrome finish.

Ø	A [mm]	L [mm]	L1 [mm]	L2 [mm]	L3 [mm]	ΔΔ [g]
74T.5	5	185	155	29	85	80
74T.5,5	5,5	185	155	34	85	85
74T.6	6	185	155	39	85	100
74T.7	7	185	155	39	85	115
74T.8	8	185	155	54	85	120
74T.9	9	185	155	54	85	120
74T.10	10	185	155	54	85	125
74T.11	11	185	155	54	85	130
74T.12	12	185	155	54	85	135
74T.13	13	185	155	59	85	135
74T.14	14	185	155	59	85	140

94A - Wrenches engaged in tube with metric screwdriver handle



- Wrenches engaged in tube with screwdriver handle: ideal for screws with limited access in height or precision mechanics.
- Tube body to allow unlocking on very long threaded rods.
- Metric sizes: 3.2 to 14 mm.
- Presentation: satin chrome finish.

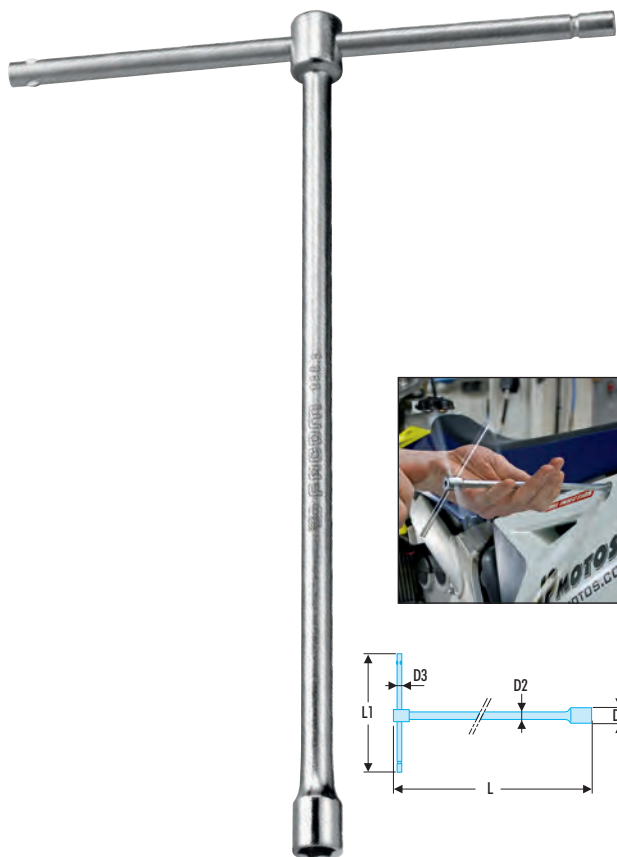


Ø	A [mm]	B [mm]	d [mm]	L [mm]	L1 [mm]	ΔΔ [g]
94A.3,2	3,2	7	25	225	125	70
94A.4	4	7	25	225	125	75
94A.5	5	7	25	225	125	80
94A.5,5	5,5	7	25	225	125	100
94A.6	6	9	28	235	125	110
94A.7	7	9	28	235	125	125
94A.8	8	11	28	235	125	150
94A.9	9	11	28	235	125	160
94A.10	10	13	32	245	125	165
94A.11	11	13	32	245	125	245
94A.12	12	16	39	260	125	260
94A.13	13	16	39	260	125	275
94A.14	14	18	39	260	125	280



UNIVERSAL JOINT SERIES

98B - Tee socket wrenches with metric slide handle



NF ISO 2236, NF ISO 1711-1, NF ISO 691, ISO 2236, ISO 1711-1, ISO 691, DIN ISO 1711-1, DIN ISO 691

- Socket wrenches with sliding tee handle: ideal for unlocking requiring access or fast execution.
- Sliding control handle with groove:
  - the middle position locking groove allows for rapid approach by rotation between the fingers: "rolling effect".
  - the rod in the extreme position allows a "lever arm" use for powerful unlocking or for clearance in confined locations.
- Metric sizes: 8 - 10 - 12 - 13 - 14 mm.
- Presentation: satin chrome finish.

Series	A [mm]	d1 [mm]	d2 [mm]	d3 [mm]	L [mm]	L1 [mm]	ΔΔ [g]
98B.8	8	12,50	7	7	235	165	160
98B.10	10	15,00	8	8	260	175	245
98B.12	12	17,60	9	9	260	180	305
98B.13	13	19,25	9	9	260	180	310
98B.14	14	20,50	10	10	260	200	380

99C - Universal joint tee socket wrenches with metric slide handle



NF ISO 2236, NF ISO 691, ISO 2236, ISO 691, DIN 896, DIN ISO 691

- Universal joint tee handle socket wrenches: the universal joint allows a working angle allowing better access.
- The socket is held in position thanks spring locking.
- Metric sizes: 6 to 19 mm.
- Presentation: satin chrome and polished chrome for the socket.

Series	A [mm]	B [mm]	L [mm]	L1 [mm]	ΔΔ [g]
99C.6	6	10,3	399	165	225
99C.7	7	10,3	399	165	225
99C.8	8	12,6	399	165	225
99C.9	9	13,8	399	175	225
99C.10	10	15,0	431	175	325
99C.11	11	16,5	431	175	325
99C.12	12	17,5	434	175	335
99C.13	13	19,0	466	175	415
99C.14	14	20,5	466	175	430
99C.15	15	21,7	498	180	545
99C.16	16	23,0	499	180	560
99C.17	17	24,0	499	180	560
99C.18	18	24,7	501	180	570
99C.19	19	26,0	523	220	860



UNIVERSAL JOINT SERIES

99C - Universal joint tee socket wrenches set with metric slide handle



NF ISO 2236, NF ISO 691, ISO 691, DIN 896, DIN ISO 691  
 • Presentation: supplied as box or panel sets.



ED	A [mm]	Contents	Qty	ΔΔ [kg]
99C.JE8	8 - 9 - 10 - 11 - 12 - 13 - 14 - 17	Box	8	2.9
99C.JE12	7 - 8 - 9 - 10 - 11 - 12 - 13 - 14 - 16 - 17 - 18 - 19	Box	12	4.6
99C.P12E	7 - 8 - 9 - 10 - 11 - 12 - 13 - 14 - 16 - 17 - 18 - 19	Panel: PK.1	12	6.9

Metric universal joint tee socket wrench set in heat formed tray



• Compatible with the FACOM modular storage system: compatible with CHRONO, JET, CHRONO XL, CHRONO+, JETXL and JET+ roller cabinets.



ED	A [mm]	H [mm]	Width I [mm]	L [mm]	Contents	Qty	ΔΔ [kg]
MOD.99B	7 - 8 - 10 - 11 - 13 - 17 - 19	40	525	418	PL.304	7	4.0

Metric universal joint tee socket wrench set in foam tray



• Compatible with the FACOM modular storage system: compatible with CHRONO, JET, CHRONO XL, CHRONO+, JETXL and JET+ roller cabinets.



ED	A [mm]	H [mm]	Width I [mm]	L [mm]	Contents	Qty	ΔΔ [kg]
MODM.99B	7 - 8 - 10 - 11 - 13 - 17 - 19	45	564	418	PM.MOD99B	7	3.5

HINGED SERIES

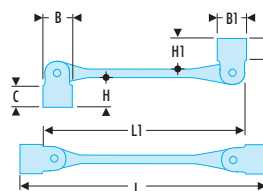
66A - Metric hinged combination wrenches

NF ISO 1711-1, NF ISO 691, ISO 1711-1, ISO 691, DIN ISO 1711-1, DIN ISO 691

- Hinged socket wrenches: the socket can be turned by 180° for maximum access.
- The socket is held in position tanks spring locking.
- OGV® profile with 12-point ring for powerful tightening while protecting the nut.
- Metric sizes: 6 to 23 mm.
- Presentation: satin chrome finish.



66A	A [mm]	B x B1 [mm]	C x C1 [mm]	H x H1 [mm]	L [mm]	L1 [mm]	ΔΔ [g]
66A.6X7	6x7	10,3 x 11,5	15 x 15	23,0 x 23,0	188,5	156	95
66A.8X9	8x9	12,6 x 13,85	15 x 15	23,0 x 23,0	188,5	156	100
66A.10X11	10x11	15,0 x 16,5	18 x 18	26,0 x 26,0	194,5	156	105
66A.10X13	10x13	15,0 x 19,0	21 x 21	31,0 x 31,0	233,5	189,5	190
66A.12X13	12x13	17,5 x 19,0	21 x 21	31,0 x 31,0	233,5	189,5	195
66A.14X15	14x15	20,5 x 21,75	23 x 23	33,0 x 33,0	237,5	231	215
66A.16X17	16x17	23,0 x 24,0	23 x 23	35,0 x 35,0	280,0	231	325
66A.18X19	18x19	24,7 x 26,0	24 x 28	36,0 x 40,0	286,0	231	345
66A.20X22	20x22	27,3 x 30,5	28 x 28	41,5 x 41,5	329,0	270	515
66A.21X23	21x23	28,6 x 31,5	28 x 30	41,5 x 43,5	331,0	270	535



MOD.66A - Metric hinged ratchet socket wrench sets in heat formed tray

- Compatible with the FACOM modular storage system: compatible with CHRONO, JET, CHRONO XL, CHRONO+, JETXL and JET+ roller cabinets.



MOD.66A	A [mm]	H [mm]	Width [mm]	L [mm]	Contents	Qty	ΔΔ [g]
MOD.66A-1	6X7 - 8X9 - 10X11 - 12X13 - 14X15 - 16X17	40	175	418	PL.319A	6	940
MOD.66A-2	18X19 - 20X22 - 66A.21X23	40	175	418	PL.320	3	1600

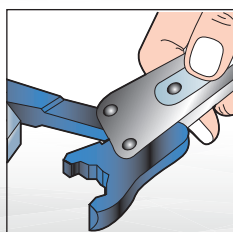


RATCHET SERIES

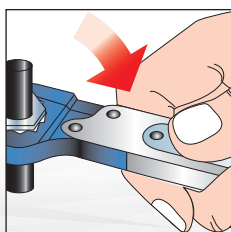
RATCHET FLARE-NUT WRENCHES

# Ratchet effect and accessibility!

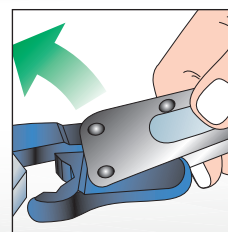
- Positioning is straight forward, even with little clearance around the pipe.



- Torque is applied over all six flats for optimum drive.

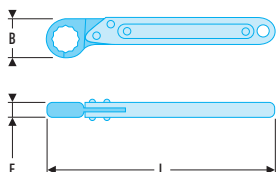


- Ratchet action without wrench removal: completes work five times faster than with a conventional tool.



- Fast tools for pipe unions in a variety of applications such as automotive, construction, air conditioning, refrigeration, aerospace and plumbing, etc.

70A - Straight flare-nut wrenches with metric web



- Flare nut ratchets: the wrench opens to pass around the pipe and closes down on the nut for optimum grip. The special shape of the wrench allows for a ratchet effect.
- Fast tightening on all piping in automotive, trucking, public works, compressors, refrigeration, aeronautics, sanitation.
- 6-point head: 7 to 10 mm - 12-point head: 11 to 32 mm.
- Hanging hole at end of handle: wrenches stored on panel or hung to avoid loss or fall.
- Metric sizes: 8 to 32 mm.
- Presentation: satin chrome handle / burnished head.

70A	A [mm]	B [mm]	E [mm]	L [mm]	ΔΔ [g]
70A.8	8	24,6	7,0	139,5	90
70A.9	9	24,6	7,0	139,5	90
70A.10	10	24,6	7,0	139,5	90
70A.11	11	25,4	7,2	141,0	90
70A.12	12	27,5	7,2	141,0	85
70A.13	13	27,5	7,2	141,0	90
70A.14	14	35,7	10,0	191,0	180
70A.16	16	35,7	10,0	191,0	175

70A	A [mm]	B [mm]	E [mm]	L [mm]	ΔΔ [g]
70A.17	17	35,7	10,0	191,0	175
70A.18	18	35,7	10,0	191,0	170
70A.19	19	37,0	10,0	191,0	160
70A.22	22	40,7	13,0	233,0	295
70A.24	24	43,2	13,0	235,0	300
70A.27	27	55,5	14,1	325,0	605
70A.30	30	56,4	15,9	325,0	615
70A.32	32	58,5	15,9	325,0	625

70A - Metric ratchet flare-nut wrenches sets



- Presentation: supplied as box or roll sets.



70A	A [mm]	Contents	Qty	ΔΔ [g]
70A.JN6	8 - 10 - 11 - 13 - 17 - 19	Box	6	560
70A.JE5T	14 - 16 - 17 - 18 - 19	Roll: N.38A-5A	5	720

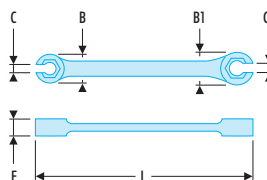
## STANDARD SERIES

### 43 - Straight flare-nut wrenches with metric web

- Flare nut wrenches with web: the head is reinforced by toile allowing for powerful unlocking. Examples: brake hoses, injector nut.
- The toile also holds the wrench on the nut.
- Short handle for better handling.
- Metric sizes: 7 to 19 mm.
- Presentation: satin chrome finish.



⊞	A [mm]	B x B1 [mm]	C x C1 [mm]	E [mm]	L [mm]	ΔΔ [g]
<b>43.7X9</b>	7X9	15,6 x 18,3	5,0 x 6,6	10,0	124	40
<b>43.8X10</b>	8X10	16,6 x 19,1	5,9 x 7,4	10,0	124	40
<b>43.10X11</b>	10X11	19,1 x 20,0	7,4 x 8,1	10,0	124	45
<b>43.11X13</b>	11X13	20,0 x 22,9	8,1 x 9,5	11,5	143	65
<b>43.12X14</b>	12X14	22,3 x 24,6	8,9 x 10,3	11,5	143	70
<b>43.17X19</b>	17X19	28,3 x 31,4	12,6 x 14,1	13,0	162	100



### 43 - Straight flare-nut wrenches set with metric web

- Presentation: supplied in roll.



⊞	A [mm]	Contents	Qty	ΔΔ [g]
<b>43.JE5T</b>	7x9 - 8x10 - 11x13 - 12x14 - 17x19	Roll: N.38A-5B	5	330

### 43 - Straight flare nut set with metric web in heat formed tray

- Compatible with the FACOM modular storage system: compatible with CHRONO, JET, CHRONO XL, CHRONO+, JETXL and JET+ roller cabinets.

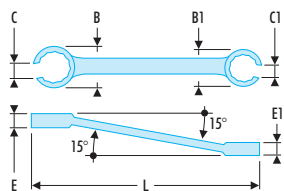


⊞	A [mm]	H [mm]	I [mm]	L [mm]	Contents	Qty	ΔΔ [g]
<b>MOD.43</b>	7X9 - 8X10 - 11X13 - 12X14 - 17X19	40	175	418	PL.365	5	960



STANDARD SERIES

42 - Metric 15° hinged flare nut wrenches

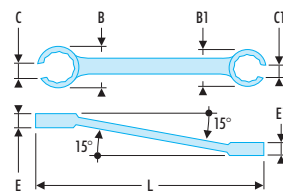


DIN 3118, ISO 691

- 15° hinged flare nut wrenches: facilitates access to the nuts.
- 6-point head: from 8x10 to 12x14 mm - 12-point head: from 14x17 to 36x41 mm.
- Metric sizes: 8 to 41 mm.
- Presentation: satin chrome finish.

Ø	A [mm]	B x B1 [mm]	C x C1 [mm]	E [mm]	E1 [mm]	L [mm]	ΔΔ [g]
42.8X10	8X10	17,9 x 19,4	6 x 7	6,5	7,5	140	55
42.10X11	10X11	19,4 x 21,4	7 x 9	8,0	8,5	154	65
42.10X12	10X12	19,4 x 21,4	7 x 9	8,0	8,5	154	65
42.11X13	11X13	21,4 x 25,4	9 x 11	8,5	10,5	175	110
42.12X14	12X14	21,4 x 25,4	9 x 11	11,0	12,5	175	120
42.14X17	14X17	27,4 x 31,4	11 x 14	11,0	12,5	197	135
42.17X19	17X19	31,4 x 33,4	14 x 15	12,0	13,0	215	175
42.19X22	19X22	33,4 x 38,4	15 x 17	13,0	14,0	230	210
42.22X24	22X24	38,4 x 41,9	17 x 18	15,0	16,0	245	270
42.24X27	24X27	42,4 x 46,4	18 x 20	16,0	17,0	260	290
42.30X32	30X32	50,4 x 52,4	22 x 24	19,5	21,0	300	480
42.36X41	36X41	61,0 x 68,0	25 x 32	25,0	27,0	320	1100

42 - Inch 15° hinged flare nut wrenches



ASME B107.100

- 15° hinged flare nut wrenches: facilitates access to the nuts.
- 6-point head: 5/16x3/8 and 7/16x1/2 - 12-point head: from 9/16x5/8 to 1"x1"1/8.
- Dimensions in inches: from 5/16" to 1"1/8.
- Presentation: satin chrome finish.

Ø	A ["]	B x B1 [mm]	C x C1 [mm]	E [mm]	E1 [mm]	L [mm]	ΔΔ [g]
42.5/16x3/8	5/16x3/8	17,9 x 19,4	6 x 7	6,5	7,5	140	55
42.7/16x1/2	7/16x1/2	21,4 x 25,4	9 x 11	8,5	10,5	175	110
42.9/16x5/8	9/16x5/8	27,4 x 31,4	11 x 14	11,0	12,5	197	135
42.11/16x3/4	11/16x3/4	31,4 x 33,4	14 x 15	12,0	13,0	215	175
42.3/4x7/8	3/4x7/8	33,4 x 38,4	15 x 17	13,0	14,0	230	210
42.1"x1"1/8	1"x1"1/8	50,4 x 52,4	18 x 20	19,5	21,0	300	290

Set of 5 metric flare-nut wrench angled at 15°



- Presentation: supplied in roll.



Ø	A [mm]	Contents	Qty	ΔΔ [g]
42.JE5T	8x10 - 11x13 - 12x14 - 17x19 - 22x24	Roll : N.38A-5A	5	770

SERIES FOR LATERAL NOTCH NUTS

HOOK AND PIN WRENCHES










More versatility  
with FACOM hook  
and pin wrenches

Adjustable models  
= multiple opening  
(Hinged or with rack)

One hinged wrench instead of several fixed wrenches.

More choice

- Hook and pin wrenches: side-hole nuts / transmission of tightening or removal sleeves, mandrels.
- Double hook and pin wrenches: ball joint bearing nuts,...

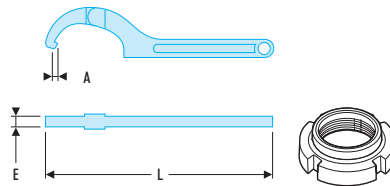
	Pin type	Series	
		Single pin	Double pin
For nuts with side holes	For nuts with side holes 	X	<b>115A, 119</b> 
	For nuts with side holes 	<b>126A</b> 	<b>116</b> 
For nuts with top holes	For nuts with top holes 	X	<b>118.A</b> 
	For nuts with top holes 	X	<b>117.B</b> 

125A - Hinged models

- The hinge is fitted with a spring washer guaranteeing smooth and reliable operation.
- These 5 dimensions replace more wrenches than classical fixed models.
- Capacity: 15 to 180 mm.
- Presentation: satin chrome finish.



Series	A [mm]	d [mm]	E [mm]	L [mm]	ΔΔ [g]
<b>125A.35</b>	3,0	15 - 35	5	168	80
<b>125A.50</b>	4,0	35 - 50	6	202	170
<b>125A.80</b>	5,0	50 - 80	8	280	380
<b>125A.120</b>	5,5	80 - 120	9	345	700
<b>125A.180</b>	7,5	120 - 180	11	492	1500

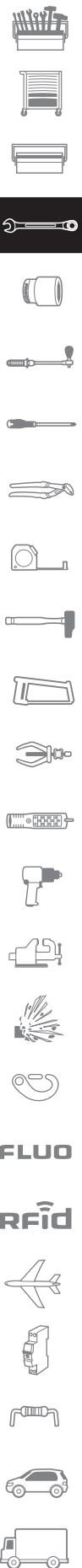
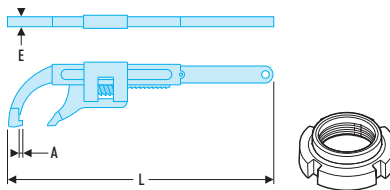


115A - Monkey wrench

- Capacity: 10 to 200 mm.
- Presentation: satin chrome finish.

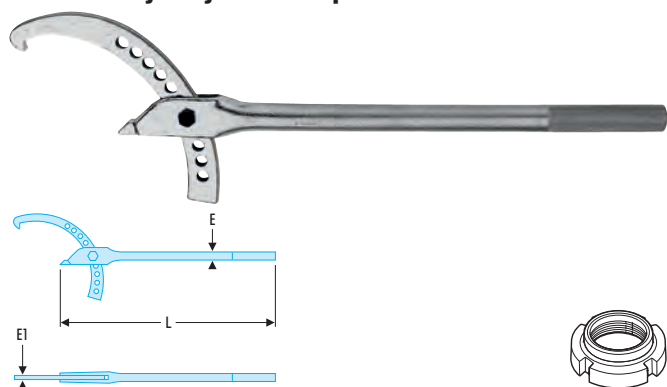


Series	A [mm]	d [mm]	E [mm]	Width l [mm]	L [mm]	ΔΔ [g]
<b>115A.50</b>	4	10 - 50	4	215	213	340
<b>115A.100</b>	5	20 - 100	5	360	347	800
<b>115A.200</b>	7	30 - 200	7	550	548	1900



SERIES FOR LATERAL NOTCH NUTS

119 - Heavy-duty hook and pin wrenches



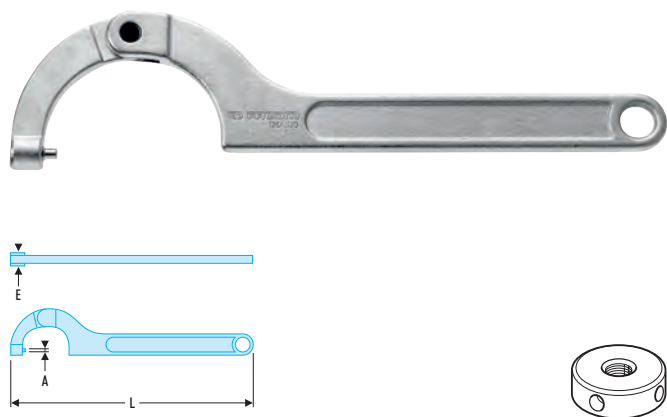
- Replaces many classical model wrenches thanks to its 11 adjustment points in opening.
- Hook: forged and treated for high hardness.
- Capacity: 120 to 324 mm.
- Presentation: satin chrome finish.



ED	d [mm]	E [mm]	E1 [mm]	L [mm]	ΔΔ [g]
119.3/8	120 - 224	26	9,5	610	3160
119.3/4	220 - 324	32	20	635	5900

SERIES FOR LATERAL PIN NUTS

126A - Hinged hook and pin wrenches



- For nuts with lateral holes.
- Removable hooks.
- Same design and benefits as the "125A" wrench, but fitted with removable hooks to turn holed nuts.
- The 5 dimensions replace more wrenches than all classical fixed models.
- Hooks treated for high hardness.
- Capacity: 15 to 180 mm.
- Presentation: satin chrome finish.



ED	A [mm]	d [mm]	E [mm]	L [mm]	ΔΔ [g]
126A.35	3	15 - 35	10	168	80
126A.50	4	35 - 50	12	202	170
126A.80	5	50 - 80	14	280	360
126A.120	6	80 - 120	18	345	700
126A.180	8	120 - 180	20	492	1500

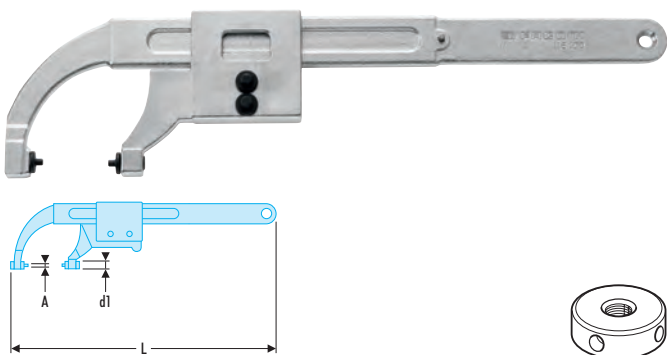
126.E - Sets of 2 spare hooks for 136A wrenches



ED	d [mm]	Wrench	ΔΔ [g]
126.E35	3	126A.35	5
126.E50	4	126A.50	5
126.E80	5	126A.80	10
126.E120	6	126A.120	20
126.E180	8	126A.180	35



116 - Sliding-jaw hook and pin wrenches



- For nuts with lateral holes.
- Removable hooks.
- Sliding the mobile jaw is ensured by simple sliding. Locking on nut is ensured by self-tightening.
- The wrenches are fitted with 2 sets of easily interchangeable hooks.
- Capacity: 0 to 200 mm.
- Presentation: satin chrome handle body; phosphated hooks.



ED	A [mm]	d [mm]	d1 [mm]	L [mm]	ΔΔ [g]
116.50	2,5 - 4	0 - 50	8	213	380
116.100	4 - 6	0 - 100	12	345	820
116.200	6 - 8	35 - 200	16	546	2000



SERIES FOR NUTS WITH TOP RECESSES

Wrench for nuts with holes bored on the face

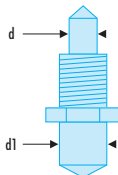
- For nuts with holes bored on the face.
- The wrench is adjusted as a compass, by turning the centre screw.
- Double round removable hooks.
- Each wrench is supplied with 4 sets of 2 hooks.
- Capacity: 20 to 100 mm.
- Presentation: satin chrome finish.



Code	L [mm]	Capacity [mm]	ΔΔ [g]
117.B	245	20 - 100	530

117.E - Sets of 2 spare hooks for 117.B wrench

- Double-ended round pins for nuts with face holes.



Code	d [mm]	d1 [mm]	ΔΔ [g]
117.E1	2,5	4	15
117.E2	6	8	25
117.E3	3	5	20
117.E4	7	9	30

Wrench for nuts with slot on the face

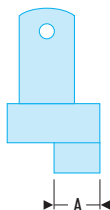
- For nuts with slot on the face.
- The wrench is adjusted as a compass, by turning the centre screw.
- Double square removable hooks.
- Each wrench is supplied with 4 sets of 2 hooks.
- Capacity: 20 to 100 mm.
- Presentation: satin chrome finish.



Code	L [mm]	ΔΔ [g]
118A	245	530

118.EC - Sets of 2 spare hooks for 118A wrenches

- Double-ended square pins for slotted nuts on face.



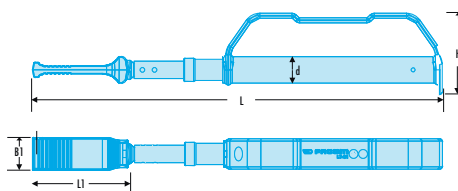
Code	A [mm]	ΔΔ [g]
118.EC4	4	10
118.EC5	5	15
118.EC6	6	15
118.EC8	8	20

OTHER WRENCHES

CONTAINER TIGHTENING WRENCH

Container turnbuckle wrench

- Optimum safety for tightening container turnbuckles at the port or at sea.
- Telescopic grip for high accessibility and effort-free increased torque.
- Extremely strong forged head with anti-slip surface.
- Wide and comfortable grip with hand protection avoiding any shock (and injury) with the outside environment.
- The tool can be fastened with a strap for work in high places or while moving.
- Satin chrome finish.



Code	B [mm]	B1 [mm]	E [mm]	L [mm]	L1 [mm]	ΔΔ [kg]
LT.01	44	42	100	540	122	2,3



ADJUSTABLE WRENCHES SERIES 101 – 101G – 101GR

**Minimum accessibility and increment**

- Head angled at 22° for better access.



**Time gain**

- Easy and fast moving jaw tightening on the nut using the wheel (Series 101 and 101G).

**Handy**

- Fast nut size reading.
- Graded in mm on one side and inch on the other.

- 'IPN' shaped metal handle combining maximum strength and comfort (series 101).



- Bi-material grip for maximum comfort (series 101G and 101GR).

**Versatile**

- Reversible jaw. Flat on one side for traditional usage to avoid damaging the parts worked. Finely serrated on the other side for powerful tightening on tubes and other parts requiring strong grip and high torque. (Series 101GR).

Attachment hole.



**1918:**

FACOM was founded. Together with a client, the company developed and marketed its 1st product: an innovating adaptable wrench with a special shape adapted to its uses, outstanding strength, exceptional ergonomics.

**2018:**

100 years later, FACOM reinvents the adaptable wrench and its initial product: faster adjustment, reinforced access, comfort/handling beyond current standards.

ADJUSTABLE WRENCH

101.G - Adjustable wrenches, bi-material grip

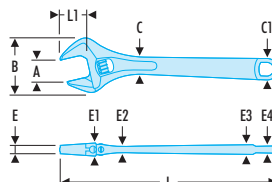


NF ISO 6787, ISO 6787, DIN 3117, ASME B107.100

- G version fast adjustment:
    - Time gain: easy and fast moving jaw tightening on the nut using the button.
  - 3 steps:
    - pull the button to release the moving jaw instantly.
    - adjust the moving jaw to the dimension required by hand.
    - if necessary, use the button traditionally for very fine adjustment.
- 2 to 3 times faster than a standard adjustable wrench.



Series	A [mm]	B [mm]	C x C1 [mm]	E [mm]	E1 [mm]	E3 [mm]	L [mm]	ΔΔ [g]
101.8G	33	65,47	18,0 x 29,9	6,7	14,2	22,1	201	250
101.10G	38	75,6	21,0 x 34,8	8,8	16,3	25,0	255	400
101.12G	41	89,3	25,0 x 39,7	10,1	18,5	27,3	301	650
101.15G	50	105,6	28,0 x 42,0	13,4	20,4	27,2	376	1050

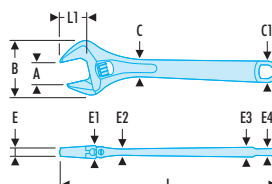


101.GR - Reversible jaw adjustable wrenches, bi-material grip

- GR version with reversible jaws:
  - Extreme versatility: the moving jaw is reversible. On one side, the jaw is flat for traditional usage to avoid damaging the parts worked. On the other side, the jaw is finely serrated for powerful tightening on tubes and other parts requiring strong grip and high torque.
- Slim profile jaws for better accessibility.
- Extra wide opening for higher versatility.
- Grading in mm on one face.
- Presentation: chromed body. Bi-material grip.



Series	A [mm]	B [mm]	C x C1 [mm]	E [mm]	E1 [mm]	E3 [mm]	L [mm]	ΔΔ [g]
101.8GR	33	65,4	18,0 x 29,9	6,7	14,2	22,1	201	270
101.10GR	38	75,6	21,0 x 34,8	8,8	16,3	25,0	255	440
101.12GR	41	89,3	25,0 x 39,7	10,1	18,5	27,3	301	700
101.15GR	50	105,6	28,0 x 47,0	13,4	20,4	27,2	376	1110



101 - Adjustable wrenches, fast adjustment, metal handle

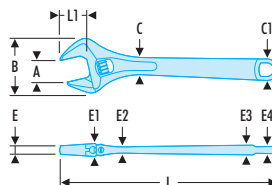


NF ISO 6787, ISO 6787, DIN 3117, ASME B107.100

- Time gain: easy and fast moving jaw tightening on the nut using the button.
  - 3 steps:
    - pull the button to release the moving jaw instantly.
    - adjust the moving jaw to the dimension required by hand.
    - if necessary, use the button traditionally for fine adjustment.
- 2 to 3 times faster than a standard adjustable wrench.
- Slim profile jaws for better accessibility.
- Extra wide opening for higher versatility.
- Grading in mm on one face.
- Presentation: chromed body.



Series	A [mm]	B [mm]	C x C1 [mm]	E [mm]	E1 [mm]	E3 [mm]	L [mm]	ΔΔ [g]
101.4	17	37,0	12,0 x 16,3	4,5	9,4	7,7	110	75
101.6	23	48,6	14,0 x 20,0	5,2	11,4	9,8	150	170
101.8	33	65,4	18,0 x 24,0	6,7	14,2	9,9	200	300
101.10	38	75,6	21,0 x 30,0	8,8	16,3	11,0	254	510
101.12	41	89,3	25,0 x 34,0	10,1	18,5	13,0	300	800
101.15	50	105,6	28,0 x 39,0	13,4	20,4	14,9	375	1350
101.18	63	124,1	32,0 x 46,0	15,9	23,0	15,9	450	2000

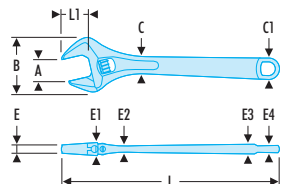


113A.C - Chromed adjustable wrenches



NF ISO 6787, ISO 6787, DIN 3117, ASME B107.100

- Good access to the button = easy setting.
- Non-protruding moving jaw at maximum capacity.
- Pre-adjustment of jaw opening thanks to millimetric gradation.
- Right-hand button rotation.
- Range from 4" to 24".
- Presentation: chromed body and polished head faces.



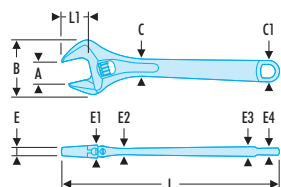
113A.C	A [mm]	B [mm]	C x C1 [mm]	E [mm]	E1 [mm]	E2 [mm]	E3 [mm]	E4 [mm]	L [mm]	L1 [mm]	ΔΔ [g]
113A.4C	13	34,0	11,0 x 14,0	4,5	9,5	5,0	6,5	5,0	114	13	65
113A.6C	20	45,0	14,8 x 18,5	5,0	11,8	6,0	8,3	5,8	155	19	125
113A.8C	27	61,5	18,5 x 24,0	6,5	13,5	9,0	11,0	8,5	206	24	275
113A.10C	30	69,5	21,5 x 28,5	9,0	15,5	9,5	12,7	10,0	255	29	480
113A.12C	34	80,0	25,0 x 31,0	10,0	18,0	10,2	13,0	10,0	306	34	700
113A.15C	44	97,0	28,0 x 35,0	13,5	20,0	12,0	14,8	11,5	380	44	1200
113A.18C	53	115,0	31,0 x 38,5	16,0	22,5	14,3	17,8	13,5	456	53	1800
113C.24C	62	132,0	42,0 x 38,0	17,0	31,0	17,0	15,0	15,0	612	61	3500

113AS.C - Short adjustable wrenches



ISO 6787 NF ISO 6787 DIN 3117 ASME B107.100

- Short handle and thin profile gives optimum accessibility.
- Lightweight = Increased comfort
- Big opening for maximum versatility: up to 41mm.
- Good access to the screw = Easy setting.
- Non-protruding moving jaw at maximum capacity.
- Millimetric gradation.
- Presentation: chromed body and polished head faces."



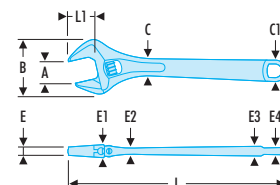
113AS.C	A [mm]	B [mm]	C x C1 [mm]	E [mm]	E1 [mm]	E2 [mm]	E3 [mm]	E4 [mm]	L [mm]	L1 [mm]	ΔΔ [g]
113AS.6C	33	58	17x19	6.3	9.9	6.7	8.8	7.1	160	25.3	178
113AS.8C	40	74	19x23	7	12.1	8.8	10.4	9	200	32.4	328

ADJUSTABLE SERIES

113A.T - Phosphated adjustable wrenches

NF ISO 6787, ISO 6787, DIN 3117, ASME B107.100

- Good access to the button = easy setting.
- Non-protruding moving jaw at maximum capacity.
- Pre-adjustment of jaw opening thanks to millimetric gradation.
- Left-hand button rotation.
- Range from 4" to 24".
- Presentation: phosphated body and "fine ground" head faces.

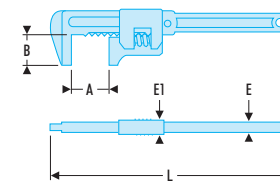
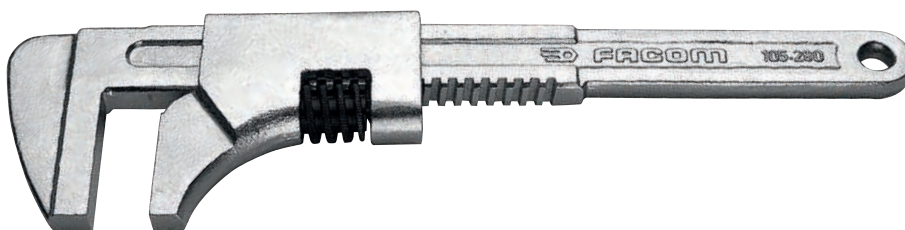


ED	A [mm]	B [mm]	C x C1 [mm]	E [mm]	E1 [mm]	E2 [mm]	E3 [mm]	E4 [mm]	L [mm]	L1 [mm]	ΔΔ [g]
113A.4T	13	34	11,0 x 14,0	4,5	9,5	5,0	6,5	5,0	114	13	65
113A.6T	20	45	14,8 x 18,5	5,0	11,8	6,0	8,3	5,8	155	19	125
113A.8T	27	61,5	18,5 x 24	6,5	13,5	9,0	11,0	8,5	206	24	275
113A.10T	30	69,5	21,5 x 28,5	9,0	15,5	9,5	12,7	10,0	255	29	480
113A.12T	34	80	25,0 x 31,0	10,0	18,0	10,2	13,0	10,0	306	34	700
113A.15T	44	97	28,0 x 35,0	13,5	20,0	12,0	14,8	11,5	380	44	1200
113A.18T	53	115	31,0 x 38,5	16,0	22,5	14,3	17,8	13,5	456	53	1800
113A.24T	62	132	42,0 x 38,0	17,0	31,0	17,0	15,0	15,0	612	61	3270

MONKEY SERIES

105 - Monkey wrenches

- Large capacity robust wrenches for heavy duty work.  
Examples: building, farming, worksites.
- Set of 3 wrenches: maximum capacity 60 - 70 - 80 mm.
- Presentation: satin chrome finish.



ED	A [mm]	B [mm]	E [mm]	E1 [mm]	L [mm]	ΔΔ [g]
105.230	60	34	10	17	230	480
105.280	70	45	11	20	280	810
105.375	80	45	13	22	375	1500



FLUO

RFid



# RATCHETS - SOCKETS



**RADIO 1/4" RANGE**

**271**

- Sets 1/4" 271
- Ratchets 1/4" 282
- Accessories 1/4" 285
- Sockets 1/4" 290
- Long reach sockets 291
- Sockets 1/4" Torx® 293
- 1/4" drive sockets with removable bits 294



**TRUCK 3/4" RANGE**

**337**

- Sets 3/4" 337
- Ratchets 3/4" 341
- Accessories 3/4" 343
- Sockets 3/4" 345



**JUNIOR 3/8" RANGE**

**295**

- Sets 3/8" 295
- Ratchets 3/8" 302
- Accessories 3/8" 304
- Sockets 3/8" 308
- Torx® sockets 3/8" 311
- Screwdriver sockets 3/8" 311



**MAMMOTH 1" RANGE**

**346**

- Sockets 3/4" 346
- Ratchets and accessories 1" 347
- 1" Sockets 348
- 1" metric socket sets 349



**STANDARD 1/2" RANGE**

**312**

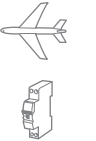
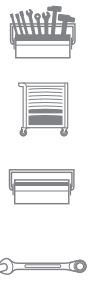
- Sets 1/2" 312
- Ratchets 1/2" 326
- Accessories 1/2" 328
- Sockets 1/2" 332
- Torx® sockets 1/2" 334
- Screwdriver sockets 1/2" 334



**IMPACT RANGE**

**350**

- Impact sockets 3/8" 350
- Impact sockets 1/2" and accessories 352
- Impact sockets 3/4" and accessories 357
- Impact sockets 1" and accessories 361
- Impact sockets 1" 1/2 and accessories 363



**CHOOSING YOUR SOCKETS**

# Range, performance and safety by FACOM

**Range**

- The FACOM range includes over 1500 different ratchets, sockets, accessories and sets to meet your every need, from light engineering to power-assisted work or live working applications.

**Performance**

- The performance of Facom's ratchets, sockets and accessories greatly exceeds current standard specifications.

**Safety**

- For your safety always observe colour codes as well as safety instructions
  - Chrome finish: manual use only.
  - Orange: live, manual use
  - Black: use with impact or power tools.
  - Bronze/Copper: use in explosive atmosphere.

COLOUR OF THE SOCKET OR ACCESSORY	USE	DIMENSIONS	SQUARE DRIVE	p.
Chromed 	Light engineering		Radio range 1/4"	<b>289</b>
	Electronics	3.2 to 14 mm		
	Electromechanical	3/16" to 9/16"		
	Cycles			
Chromed 	Mechanical engineering	7 to 24 mm	Junior range 3/8"	<b>307</b>
	Automotive engineering	1/4" to 1"	Standard range 1/2"	<b>332</b>
	Motorcycles	8 to 34 mm		
Chromed 	Mechanical engineering	19 to 55 mm	Truck range 3/4"	<b>345</b>
	Heavy goods vehicles	3/4" to 2"1/4"		
	Civil engineering plant		Mammoth range 1"	<b>346</b>
	Farming equipment	41 to 100 mm		
Black 	Offshore	1"13/16 to 3"3/8		
	For all your power-assisted torquing applications	6 to 120 mm	Impact range 3/8", 1/2", 3/4", 1", 1"1/2	<b>351</b>
		3/8" to 1"5/8		
			Power-assisted impact machines Power-asted bolters	
Orange 	For all live working applications	Sockets 6 to 12 mm	Radio 1/4"	<b>963</b>
		Sockets 9 to 19 mm	Junior 3/8"	
		Sockets 8 to 22 mm	Standard 1/2"	
Copper-Beryllium 	For all work in explosive atmosphere	See = ADF range		<b>748</b>

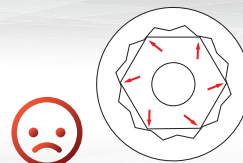
**FACOM OGV® PROFILE**

**Higher power without damaging fasteners!**

**The OGV Profile allows:**

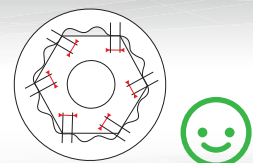
- More powerful fastening: increased socket/nut contact surface.
- Less nut wear: the nut is driven on the faces, not the angles.
- Safer: reduced risk of slipping on rounded nuts.

**Standard profile**



Stress applies to the edges











**OGV® profile**



Bears against the side faces



CHOOSE YOUR RATCHET

USE	OFFER	OTHER BENEFITS	
Universal	 <p><b>161B - "Compact sealed" ratchets</b> Socket with original high performance FACOM mechanism. New patented high resistance finger manufactured in MIM technology. Sealing gasket. Round head. Reversing by cap. 72-teeth mechanism, 5° increments.</p>	IP51 certified sealing Attachment hole	1/4" : <b>R.161B</b> 3/8" : <b>J.161B</b> 1/2" : <b>S.161B</b>
	 <p><b>161 - "Sealed" ratchets</b> Ratchet with FACOM high quality mechanism. Sealing gasket. 'Meter' ratchet. Lever reversing. 72 teeth. 5° increments.</p>	Attachment hole	1/4" : <b>RL.161</b> 3/8" : <b>JL.161</b> 1/2" : <b>SL.161</b> 3/4" : <b>KL.161</b>
	 <p><b>151B - "Original" ratchets</b> Ratchet with the original FACOM mechanism. Round head. Reversing by cap. 72-teeth mechanism, 5° increments.</p>	Attachment hole	1/4" : <b>R.151B</b> 3/8" : <b>J.151B</b> 1/2" : <b>S.151B</b> 3/4" : <b>K.154B</b> 1" : <b>M.151</b>
Fast & productive	 <p><b>360 - Ratchet with rotating handle</b> Approach phase by turning the handle = twice as fast. Ideal in confined spaces. Round head. Reversing by cap. 60-teeth mechanism, 6° increments.</p>	Socket locking	1/4" : <b>R.360</b> 3/8" : <b>J.360</b> 1/2" : <b>S.360</b>
Locking sockets and accessories	 <p><b>171 - Locking ratchets</b> Sockets and accessories secured to avoid any risk of fall particularly in congested zones. "Meter" ratchet. Lever reversing. 72-teeth mechanism, 5° increments.</p>	Socket locking Attachment hole	1/4" : <b>RL.171</b> 3/8" : <b>JL.171</b> 1/2" : <b>SL.171</b>
Power / Accessibility	 <p><b>SXL - Ratchets with extending / long handle - Jointed head</b> Extending handle: standard use / easy storage in closed position or more torque or maximum accessibility in extended position. 'Meter' ratchet. Lever reversing. 72-teeth mechanism, 5° increments.</p>	Socket locking Attachment hole	3/8" : <b>JXL.171</b> 1/2" : <b>SXL.161</b> <b>SXL.171</b> <b>S.154</b>
Accessibility	 <p><b>Ultra-compact ratchet for bits and sockets</b> Design halving size versus a Classic ratchet.</p>	Allows for 1/4" sockets to be used with ECR.1 adapter	1/4" : <b>R.PE</b> <b>R.180</b> <b>R.180HX</b>
	 <p><b>Ratchet without handle</b> For a manual approach with/without extension in confined spaces.</p>		1/4" : <b>R.150A</b>
Others	 <p><b>Offset ratchet</b> For use with a T handle or hinged handle.</p>		3/8" : <b>J.156</b> 1/2" : <b>S.156</b>



**THE SEALED "PERFORMANCE" SOCKET R-J-S.161B**



**Good stress resistance**

- Joint airtightness mechanism: sealed to industrial dust. IP51 certified.
- "Finger" (part moving in the mechanism) patented for maximum contact with the teeth. The finger is made using the MIM (Metal Injection Molding) technology, guaranteeing high manufacturing precision and optimum strength.
- Ratchet tested under extreme constraints.



**Compact head – Reversing cap**

- 1/2" ratchet: reduced head height: <39 mm
- Reversing/rotating cap: easy and fast reversing.
- Shock and impact-resistant metal reverser.



**Accurate**

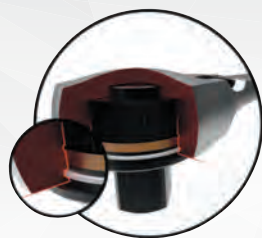
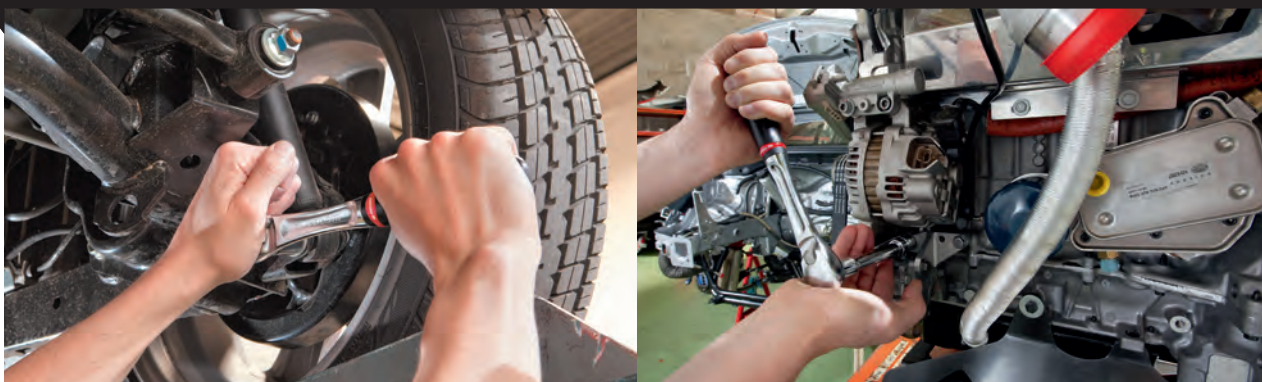
- 72 tooth mechanism for 5° increments.

**Comfortable - Ergonomic**

- Ultra-light 1/2" ratchet: 410 g, the lightest in its category.
- Centre of gravity moved towards the head for easier increment movements.
- Bi-material ergonomic handle resistant to the most aggressive workshop solvents.

	Square drive
<b>R.161B</b>	1/4"
<b>J.161B</b>	3/8"
<b>S.161B</b>	1/2"

THE "ALL-PURPOSE" SEALED RATCHET RL-JL-SL.161



**Resistant to the work environment**

- Double joint airtightness mechanism: sealed to industrial dust.
- Ratchet tested in aggressive, dirty and dusty environment.



**Compact head - Reversing lever**

- Reversing lever: easy reversing even with gloved hands. Visible rotation direction.
- Reverser embedded in ratchet body for optimum protection. Prevents untimely reversing.



**Accurate**

- 72 tooth mechanism for 5° increments.

**Comfortable - Ergonomic**

- 1/2" light ratchet (450 g. 20% lighter than a standard ratchet).
- Centre of gravity moved towards the head for easier increment movements.
- Bi-material ergonomic handle resistant to the most aggressive workshop solvents.

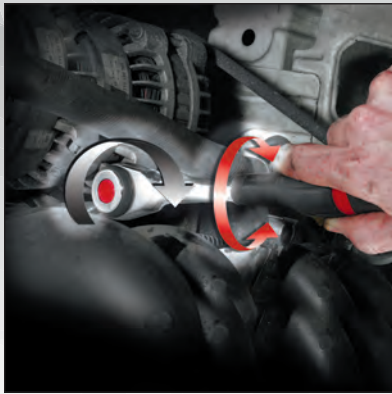
	Square drive
<b>RL.161</b>	1/4"
<b>JL.161</b>	3/8"
<b>SL.161</b>	1/2"



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## THE FAST RATCHET WITH ROTATING HANDLE R-J-S.360



### Works 2 times faster with the rotating handle

- Rotating handle allowing an approach 2 times faster than a standard ratchet. No time wasted in to-and-fro movement.
- Gain time, especially in confined zones.

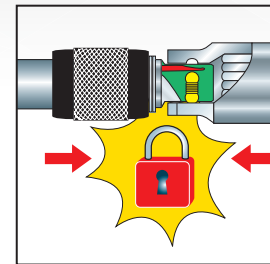
### Accurate

- 0° increments (no movement of the ratchet body) in approach phase by turning the handle.
- 60 tooth mechanism for 6° increments in standard use.



### Reversing cap - "Palm control" switch

- Reversing by rotating cap: easy and fast reversing.
- The 'Palm control' switch allows pressing the ratchet head for powerful (un)tightening while limiting the risk of untimely reversing.



### Safe - Comfortable - Ergonomic

- Socket locking.
- No need to maintain the socket during the approach phase on loose nuts = just place the socket on the nut and turn the handle.
- Bi-material ergonomic handle resistant to the most aggressive workshop solvents.

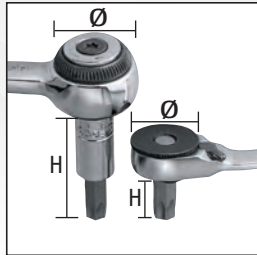
	Square drive
<b>R.360</b>	1/4"
<b>J.360</b>	3/8"
<b>S.360</b>	1/2"



**ULTRA-COMPACT RATCHETS AND "HX - HEXAGONAL" SOCKETS R.PE, R.180 FOR BITS AND SOCKETS**

**Ratchets developed for the best compactness / strength combination**

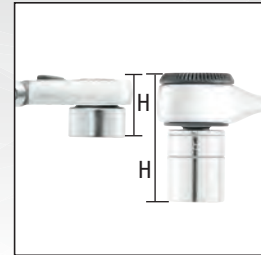
- The bits are fitted directly in the ratchet mechanism (R. PE and R.180) halving the height!
  - Sockets series HX allow:
    - classical drive with the 1/4" square with a ratchet or accessories
    - drive by outside the socket with the 11 mm hexagon with the ratchet R.180HX.
- Sockets series HX are fitted directly in the mechanism of the R.180HX ratchet, halving its height!



**For traditional**  
**R.PE** ratchet bits  
**R.180** with flexible head.  
 Height: -52%, Ø: - 35%.



**Flexible head**  
**R.180** for bits  
**R.180HX** for sockets series HX.



**For HX sockets**  
**R.180HX** with flexible head.  
 Height: -50%.



**Hexagonal sockets series HX**  
 Direct drive by the open end or ring on a combination wrench.

**Our compact and practical solutions in cases**



R.PE + bits  
**R.PEJ31**



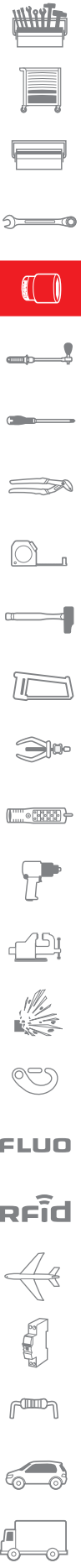
R.180 + bits  
**R.180J31**



R.180 + sockets/bits  
**R1PICO**



R.180HX + HX sockets  
**RXPICO**



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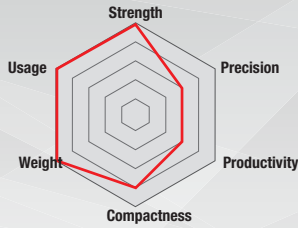


# FACOM'S SOCKETS RANGE

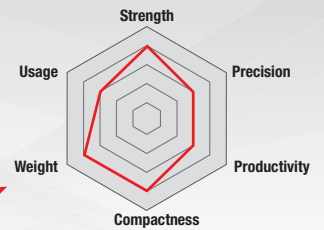
## A solution for each situation!



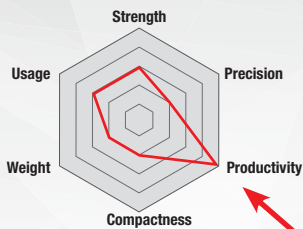
**161B**  
**Effective**



**151B**  
**Original**



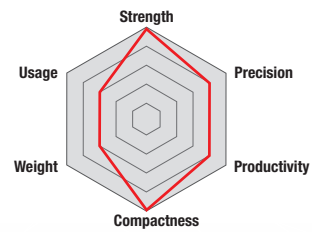
**360**  
**Fast**



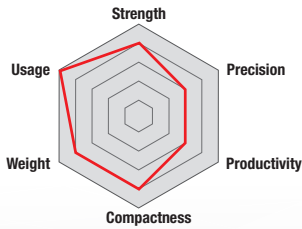
### Solutions for you!



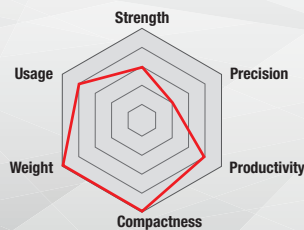
**SXL**  
**Versatile**



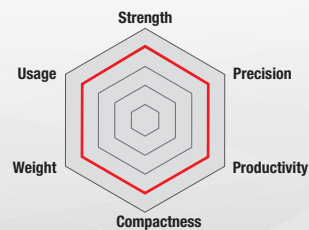
**L.161**  
**All terrain**



**R.PE-R.180-HX**  
**Ultra-compact**



**L.171**  
**Safe**



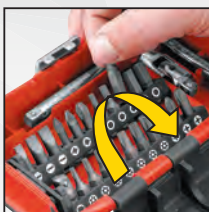
## THE NANO AND DBOX BOX CONCEPT

### Ultra-complete: 100% screwing-tightening

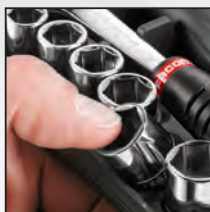
- Up to 38 tools, 1/4" drive, metric or inch sizes, 6- or 12-point sockets: sealed or fast ratchet



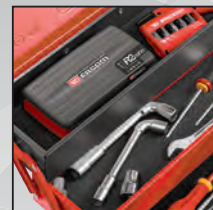
### Ultra-handy Easy tool grip



- Bits rise upon opening.



- Socket picking by tilting.



### Ultra-compact

- 50% more compact than 1/4" sets in traditional box.



- Auto-closing clasp.

### Reinforced safety

- The "Detection BOX" concept ensures instant availability check even when the box is closed.



### Handy and strong

- Easy to carry with the extension used as a handle.
- The sockets stay in place even when set is tipped over.
- Bi-material housing, metal clasps and hinge pins.

### Easy to store

- Storage in all roller cabinet drawers (width of a 1/3 module).
- Holds vertically.
- Does not slide, even on a smooth surface.



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"NEW GENERATION" BOX

**FACOM reinvents the box**



**Automatic closing**



**Customisable**

- A dedicated space is available to stick a colour pellet or write information.

**Anti-slipping**

- On smooth les thanks to the pads in soft polypropylene.

**Opening at 180°**

- The box opens flat at 180°.

**Stackable**

- For easy storage.

**100% compatible**

- Modules compatible with the new Mbox and roller cabinet drawers.





SETS OF 1/4" METRIC NANO SOCKETS

25  
PIECES



6	12	3, 2	4, 5	5, 6	7	8	9	10	11	12	13	14			
+			PH1 PH2 PH3			+			PZ1 PZ2 PZ3			ECR			
-						ES 4,5 ES 6,5 ES 8			○			EH3 EH4 EH5 EH6 EH7			
♻️												EXR10 EXR15 EXR20 EXR25 EXR27 EXR30 EXR40 ECR			
☞			55 mm			100 mm									
☛				☛				☛							

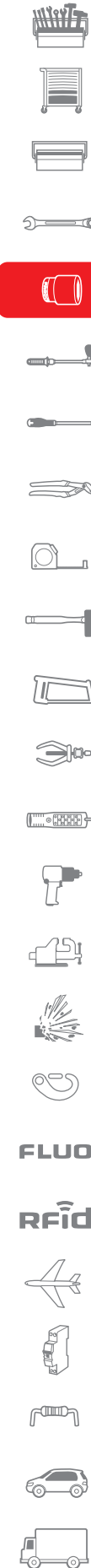
🔪	☛	⚙️	Ⓜ️	📦	ΔΔ [kg]
RL.NANO112	RL.161 12 BV.NANO1	☛	12	BV.NANO-U	152 x 48 x 92 mm 0.655

38  
PIECES



6	12	3, 2	4, 5	5, 6	7	8	9	10	11	12	13	14			
+			PH1 PH2 PH3			+			PZ1 PZ2 PZ3			ECR			
-						ES 4,5 ES 6,5 ES 8			○			EH3 EH4 EH5 EH6 EH7			
♻️												EXR10 EXR15 EXR20 EXR25 EXR27 EXR30 EXR40			
☞			55 mm			100 mm									
☛				☛				☛							

🔪	☛	⚙️	Ⓜ️	📦	ΔΔ [kg]
R2NANO	R.161B BV.NANO	☛	6	BV.NANO	152 x 48 x 92 mm 0.710
RL.NANO1	RL.161 BV.NANO	☛	6	BV.NANO	152 x 48 x 92 mm 0.710
R.360NANO	RL.360 BV.NANO	☛	6	BV.NANO	152 x 48 x 92 mm 0.710



SETS OF 1/4" INCH NANO SOCKETS

28  
PIECES



6 12 3/16 7/32 1/4 9/32 5/16 11/32 3/8 13/32 7/16 1/2 9/16

PH1 PH2 PH3 PZ1 PZ2 PZ3 ECR

ES 4,5 ES 6,5 ES 8 EH1/8 EH5/32 EH3/16 EH7/32 EH1/4

EXR10 EXR15 EXR20 EXR25 EXR27 EXR30 EXR40

55 mm 100 mm

Icon	Icon	Icon	Icon	Icon	ΔΔ [kg]
RL.NANO-U112	RL.161	12	BV.NANO-U	152 x 48 x 92 mm	0.655
R.360NANO-U112	R.360	12	BV.NANO-U	152 x 48 x 92 mm	0.715

38  
PIECES



6 12 3/16 7/32 1/4 9/32 5/16 11/32 3/8 13/32 7/16 1/2 9/16

PH1 PH2 PH3 PZ1 PZ2 PZ3 ECR

ES 4,5 ES 6,5 ES 8 EH1/8 EH5/32 EH3/16 EH7/32 EH1/4

EXR10 EXR15 EXR20 EXR25 EXR27 EXR30 EXR40

55 mm 100 mm

Icon	Icon	Icon	Icon	Icon	ΔΔ [kg]
RL.NANO-U1	RL.161	6	BV.RNANO-U	152 x 48 x 92 mm	0.710
RL.NANO-U2	RL.161	12	BV.RNANO-U	152 x 48 x 92 mm	0.710
R.360NANO-U1	R.360	6	BV.RNANO-U	152 x 48 x 92 mm	0.770

SETS OF 1/4" METRIC MBOX SOCKETS

12  
PIECES



6	12	3, 2	4	5	5,5	6	7	8	9	10	11	12	13	14
+			PH1 PH2 PH3			+			PZ1 PZ2 PZ3					
-			ES 4,5 ES 6,5 ES 8			○			EH3 EH4 EH5 EH6 EH7					
⊗			EXR10 EXR15 EXR20 EXR25 EXR27 EXR30 EXR40											
			55 mm			100 mm								

Icon	Model	Accessories	Size	Material	Accessories	Dimensions	Weight
	R.151B		6	BP.MBOXS	PL.S09	210 x 139 x 59 mm	0.615
	RL.161-1P6		6	BP.MBOXS	PL.S09	210 x 139 x 59 mm	0.620

15  
PIECES



6	12	3, 2	4	5	5,5	6	7	8	9	10	11	12	13	14
+			PH1 PH2 PH3			+			PZ1 PZ2 PZ3					
-			ES 4,5 ES 6,5 ES 8			○			EH3 EH4 EH5 EH6 EH7					
⊗			EXR10 EXR15 EXR20 EXR25 EXR27 EXR30 EXR40											
			55 mm			100 mm								

Icon	Model	Accessories	Size	Material	Accessories	Dimensions	Weight
	R.161-2P6		6	BP.MBOXS	PL.S10	210 x 139 x 59 mm	0.665
	RL.161-2P6		6	BP.MBOXS	PL.S10	210 x 139 x 59 mm	0.665
	RL.171-2P6		6	BP.MBOXS	PL.S10	210 x 139 x 59 mm	0.675
	R.360-2P6		6	BP.MBOXS	PL.S10	210 x 139 x 59 mm	0.725

19  
PIECES



6	12	3, 2	4	5	5,5	6	7	8	9	10	11	12	13	14
+			PH1 PH2 PH3			+			PZ1 PZ2 PZ3					
-			ES 4,5 ES 6,5 ES 8			○			EH3 EH4 EH5 EH6 EH7					
⊗			EXR10 EXR15 EXR20 EXR25 EXR27 EXR30 EXR40											
			55 mm			100 mm								

Icon	Model	Accessories	Size	Material	Accessories	Dimensions	Weight
	R.161-3P6		6	BP.MBOXS	PL.S11	210 x 139 x 59 mm	0.735
	RL.161-3P6		6	BP.MBOXS	PL.S11	210 x 139 x 59 mm	0.665



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SETS OF 1/4" METRIC MBOX SOCKETS



21  
PIECES



6 12 3,2 4 5 5,5 6 7 8 9 10 11 12 13 14

PH1 PH2 PH3 PZ1 PZ2 PZ3

ES 4,5 ES 6,5 ES 8 EH3 EH4 EH5 EH6 EH7

EXR10 EXR15 EXR20 EXR25 EXR27 EXR30 EXR40

55 mm 100 mm

Model	Part No.	Quantity	Material	Case No.	Dimensions	Weight [kg]
R.161-4P6	R.161B	6	BP.MBOXS	PL.S13	210 x 139 x 59 mm	0.670
RL.161-4P6	RL.161	6	BP.MBOXS	PL.S13	210 x 139 x 59 mm	0.670
RL.171-4P6	RL.171	6	BP.MBOXS	PL.S13	210 x 139 x 59 mm	0.680
R.360-4P6	R.360	6	BP.MBOXS	PL.S13	210 x 139 x 59 mm	0.730



31  
PIECES



6 12 3,2 4 5 5,5 6 7 8 9 10 11 12 13 14

PH1 PH2 PH3 PZ1 PZ2 PZ3

ES 4,5 ES 6,5 ES 8 EH3 EH4 EH5 EH6 EH7

EXR10 EXR15 EXR20 EXR25 EXR27 EXR30 EXR40

55 mm 100 mm

Model	Part No.	Quantity	Material	Case No.	Dimensions	Weight [kg]
R.161-5P6	R.161B	6	BP.MBOXS	PL.S14	210 x 139 x 59 mm	0.810
R.161-5P12	R.161B	12	BP.MBOXS	PL.S14	210 x 139 x 59 mm	0.810
RL.161-5P6	RL.161	6	BP.MBOXS	PL.S14	210 x 139 x 59 mm	0.810
RL.161-5P12	RL.161	12	BP.MBOXS	PL.S14	210 x 139 x 59 mm	0.810



37  
PIECES



6 12 3,2 4 5 5,5 6 7 8 9 10 11 12 13 14

PH1 PH2 PH3 PZ1 PZ2 PZ3

ES 4,5 ES 6,5 ES 8 EH3 EH4 EH5 EH6 EH7

EXR10 EXR15 EXR20 EXR25 EXR27 EXR30 EXR40

55 mm 100 mm

Model	Part No.	Quantity	Material	Case No.	Dimensions	Weight [g]
R.161-6P6	R.161B	6	BP.MBOXS	PL.S14	210 x 139 x 59 mm	0.805
R.161-6M6	R.161B	6	BP.MBOXS	PM.R161-6	210 x 139 x 59 mm	0.790
RL.161-6P6	RL.161	6	BP.MBOXS	PL.S14	210 x 139 x 59 mm	0.805

SETS OF 1/4" INCH MBOX SOCKETS

15  
PIECES



6 12 3/16 7/32 1/4 9/32 5/16 11/32 3/8 13/32 7/16 1/2 9/16

PH1 PH2 PH3 PZ1 PZ2 PZ3

ES 4,5 ES 6,5 ES 8 EH1/8 EH5/32 EH3/16 EH7/32 EH1/4

EXR10 EXR15 EXR20 EXR25 EXR27 EXR30 EXR40

55 mm 100 mm

Model	Accessories	6	BP.MBOXS	PL.S10	210 x 139 x 59 mm	ΔΔ [kg]
R.161-1P6U	R.161B	6	BP.MBOXS	PL.S10	210 x 139 x 59 mm	0.700
RL.161-1P6U	RL.161	6	BP.MBOXS	PL.S10	210 x 139 x 59 mm	0.700
RL.171-1P6U	RL.171	6	BP.MBOXS	PL.S10	210 x 139 x 59 mm	0.710
R.360-1P6U	R.360	6	BP.MBOXS	PL.S10	210 x 139 x 59 mm	0.710

17  
PIECES



6 12 3/16 7/32 1/4 9/32 5/16 11/32 3/8 13/32 7/16 1/2 9/16

PH1 PH2 PH3 PZ1 PZ2 PZ3

ES 4,5 ES 6,5 ES 8 EH1/8 EH5/32 EH3/16 EH7/32 EH1/4

EXR10 EXR15 EXR20 EXR25 EXR27 EXR30 EXR40

55 mm 100 mm

Model	Accessories	6	BP.MBOXS	PL.S12	210 x 139 x 59 mm	ΔΔ [kg]
R.161-2P6U	R.161B	6	BP.MBOXS	PL.S12	210 x 139 x 59 mm	0.740
RL.161-2P6	RL.161	6	BP.MBOXS	PL.S12	210 x 139 x 59 mm	0.740

21  
PIECES



6 12 3/16 7/32 1/4 9/32 5/16 11/32 3/8 13/32 7/16 1/2 9/16

PH1 PH2 PH3 PZ1 PZ2 PZ3

ES 4,5 ES 6,5 ES 8 EH1/8 EH5/32 EH3/16 EH7/32 EH1/4

EXR10 EXR15 EXR20 EXR25 EXR27 EXR30 EXR40

55 mm 100 mm

Model	Accessories	6	BP.MBOXS	PL.S13	210 x 139 x 59 mm	ΔΔ [kg]
R.161-3P6U	R.161B	6	BP.MBOXS	PL.S13	210 x 139 x 59 mm	0.680
RL.161-3P6U	RL.161	6	BP.MBOXS	PL.S13	210 x 139 x 59 mm	0.680



SETS OF 1/4" INCH MBOX SOCKETS



31  
PIECES



6 12 3/16 7/32 1/4 9/32 5/16 11/32 3/8 13/32 7/16 1/2 9/16

PH1 PH2 PH3 PZ1 PZ2 PZ3

ES 4,5 ES 6,5 ES 8 EH1/8 EH5/32 EH3/16 EH7/32 EH1/4

EXR10 EXR15 EXR20 EXR25 EXR27 EXR30 EXR40

55 mm 100 mm

Icon	Key	6 12	BP.MBOXS	PL.S14	210 x 139 x 59 mm	ΔΔ [kg]
R.161-4P6U	R.161B	6	BP.MBOXS	PL.S14	210 x 139 x 59 mm	0.820
R.161-4P12U	R.161B	12	BP.MBOXS	PL.S14	210 x 139 x 59 mm	0.820
RB.161-4P12U	R.161B	12	BP.MBOXS	PL.S14	210 x 139 x 59 mm	0.810
RL.161-4P6U	RL.161	6	BP.MBOXS	PL.S14	210 x 139 x 59 mm	0.820
RL.161-4P12U	RL.171	12	BP.MBOXS	PL.S14	210 x 139 x 59 mm	0.820



37  
PIECES



6 12 3/16 7/32 1/4 9/32 5/16 11/32 3/8 13/32 7/16 1/2 9/16

PH1 PH2 PH3 PZ1 PZ2 PZ3

ES 4,5 ES 6,5 ES 8 EH1/8 EH5/32 EH3/16 EH7/32 EH1/4

EXR10 EXR15 EXR20 EXR25 EXR27 EXR30 EXR40

55 mm 100 mm

Icon	Key	6	BP.MBOXS	PL.S15	210 x 139 x 59 mm	ΔΔ [kg]
R.161-5P6U	R.161B	6	BP.MBOXS	PL.S15	210 x 139 x 59 mm	0.820
RL.161-5P6U	RL.161	6	BP.MBOXS	PL.S15	210 x 139 x 59 mm	0.820

36-piece 1/4" inch 6-point socket module - R.161B



36  
PIECES



- Compatible with the FACOM modular storage system:
- Suited to CHRONO XL, CHRONO+, JET XL, JET+ roller cabinets and MBOX.L box.

Icon	ΔΔ [kg]
MOD.R161-1U	0.975

SETS OF 1/4" METRIC AND INCH MBOX SOCKETS

1/4"		R.420AMU	R.430BP	R.440AEP	R.440AUP	R.2BL	R.450BP	
Socket	mm / inch	R.161B mm + inch Standard	R.161B mm Standard	R.161B mm Standard	R.161B Inch Standard	R.161B mm Std + long	R.161B Inch Std + long	
	3,2	•	•	•	•	•	•	
	4	•	•	•	•	•	•	
	5	•	•	•	•	•	•	
	5,5	•	•	•	•	•	•	
	6	•	•	•	•	•	•	
	7	•	•	•	•	•	•	
	8	•	•	•	•	•	•	
	9	•	•	•	•	•	•	
	10	•	•	•	•	•	•	
	11	•	•	•	•	•	•	
	12	•	•	•	•	•	•	
	13	•	•	•	•	•	•	
	14	•	•	•	•	•	•	
		3,2						
4								
5					•			
5,5					•			
6					•			
7					•			
8					•			
9					•			
10					•			
11					•			
12					•			
13					•			
14					•			
		EP					•	
	+					•		
	1					•		
	2					•		
	3					•		
		EH						•
		3						•
		4						•
5							•	
	mm						•	
	6						•	
	7						•	
	8						•	
	ED					•		
	+					•		
	1					•		
	2					•		
	ES						•	
	3						•	
	4,5						•	
	5,5						•	
	mm						•	
	6,5						•	
	8						•	
		EXR						•
10							•	
15							•	
20							•	
25							•	
27							•	
30							•	
40							•	
	22		•					
	3,2 x 5,5		•					
	4 x 5		•					
	6 x 7		•					
	8 x 9		•					
	10 x 11		•					
12 x 13		•						
	R.209	•		•	•	•	•	
	R.210							
	R.215	•						
	R.240A	•						
	R.235							
	R.245						• x 12	
	R.236A	•				•		
	R.120A						•	
	R.110						•	
	R.140A						•	
	R.216						•	
	R.227A						•	
	181A.18G						•	
	AN2.5X75		•					
AN3.5X75								
		PL.S16 BP.MBOXS 210 x 139 x 59 0,840 Kg	PL.M22 BP.MBOXM 329 x 215 x 59 1,460 Kg	PL.L14 BP.MBOXL 434 x 270 x 70 mm 2,355 Kg	PL.L14 BP.MBOXL 434 x 270 x 70 mm 2,350 Kg	PL.M23 BP.MBOXM 329 x 215 x 59 1,635 Kg	PL.L15 BP.MBOXL 434 x 270 x 70 2,880 Kg	

R.420AMU



R.430BP



R.440AEP



R.440AUP
















R.2BL



R.450BP



SETS OF 1/4" AND 1/2" METRIC MBOX SOCKETS

Socket		mm	RSX.427AP	RS.161-1	RS.360-1	RS.161-2
	1/4"		R.161B	R.161B	R.360	R.161B
	1/2"		S.161B	S.161B	S.161B	S.161B
			Torx	6	6	6
			Torx	1/4"	1/2"	1/4"
			Standard	Standard	Standard	Standard
		5,5		•	•	•
		6		•	•	•
		7		•	•	•
		8		•	•	•
		9		•	•	•
		10		•	•	•
		11		•	•	•
		12		•	•	•
		13		•	•	•
		14		•	•	•
		15		•	•	•
		16		•	•	•
		17		•	•	•
	18		•	•	•	
	19		•	•	•	
	21		•	•	•	
	22		•	•	•	
	24		•	•	•	
	27		•	•	•	
	30		•	•	•	
	32		•	•	•	
	Socket	E4	•			
		E5	•			
		E6	•			
		E7	•			
		E8	•			
	Socket	E10	•			
		E12	•			
		E14	•			
		E16	•			
		E18	•			
		E20	•			
		EP	1			•
			2			•
		3			•	
	EH	3			•	
		4			•	
		5			•	
		mm	6			•
		7			•	
		ED	1			•
			2			•
		3			•	
	ES	4,5			•	
		6,5			•	
		8			•	
		EX	T8	•		
Torx -		T10	•			•
		TT10	•			•
EXR		T15	•			•
		TT15	•			•
Résistorx		T20	•			•
		TT20	•			•
		T25	•			•
	TT25	•			•	
	T27	•			•	
	TT27	•			•	
	T30	•			•	
	TT30	•			•	
	T40	•			•	
	TT40	•			•	
	R.209				•	
	R.210		•	•	•	
	R.240A		•	•	•	
	R.235	•			•	
	R.236A	•			•	
	AM.H	•			•	
	S.210	•			•	
S.240A	•			•		
	PL.M24				PL.L16	
	BP.MBOXM		PL.M25		BP.MBOXL	
	329 x 219 x 59 mm		329 x 215 x 59 mm		434 x 270 x 70 mm	
	2,100 Kg		2,890 Kg		2,950 Kg	
					4,020 Kg	

RSX.427AP



RS.161-1



RS.360-1



RS.161-2





1/4" METRIC MODULES THERMOFORMED TRAY

1/4"		MOD.R161-16	MOD.R161-26	MOD.RL161-26	MOD.R161-46	MOD.R161-66	
Socket	mm	R.161B Standard	R.161B Standard	RL.161 Standard	R.161B Standard	R.161B Standard	
	5,5	•	•	•	•	•	
	6	•	•	•	•	•	
	7	•	•	•	•	•	
	8	•	•	•	•	•	
	9	•	•	•	•	•	
	10	•	•	•	•	•	
	11	•	•	•	•	•	
	12	•	•	•	•	•	
	13	•	•	•	•	•	
	14	•	•	•	•	•	
	1				•	•	
	2				•	•	
	3				•	•	
		3		•	•	•	•
		4		•	•	•	•
		5		•	•	•	•
		6		•	•	•	•
7		•	•	•	•		
	1	•	•	•	•	•	
	2	•	•	•	•	•	
	3				•	•	
	4,5		•	•	•	•	
	6,5		•	•	•	•	
	8		•	•	•	•	
	10	•	•	•	•	•	
	15	•	•	•	•	•	
	20	•	•	•	•	•	
	25	•	•	•	•	•	
	27	•	•	•	•	•	
	30	•	•	•	•	•	
	40	•	•	•	•	•	
	2		•	•	•	•	
	2,5		•	•	•	•	
	3		•	•	•	•	
	4		•	•	•	•	
	5		•	•	•	•	
	6		•	•	•	•	
	7		•	•	•	•	
	8		•	•	•	•	
	9		•	•	•	•	
	10		•	•	•	•	
	1,5				•	•	
	2				•	•	
	2,5				•	•	
	3				•	•	
	4				•	•	
	5				•	•	
	6				•	•	
	7				•	•	
8				•	•		
	10				•	•	
	15				•	•	
	20				•	•	
	25				•	•	
	27				•	•	
	30				•	•	
	40				•	•	
	45				•	•	
	R.209	•	•	•	•	•	
	R.210				•	•	
	R.215	•	•	•	•	•	
	R.240A	•	•	•	•	•	
	R.120A	•	•	•	•	•	
	R.236A	•	•	•	•	•	
	R.235	•	•	•	•	•	
		0,930 Kg	PL.L13 420 x 188 mm 1,085 Kg		PL.658 1,280 Kg	PL.S15 188 x 105 mm 0,555 Kg	

MOD.R161-16



MOD.R161-26



MOD.RL161-26











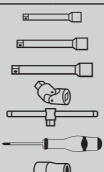
MOD.R161-46



MOD.R161-66



1/4" METRIC MODULES THERMOFORMED TRAY

		MODM.R161-36	MODM.RL161-36	
Socket	1/4" mm	R.161B Standard	RL.161 Standard	
	5,5	•	•	
	6	•	•	
	7	•	•	
	8	•	•	
	9	•	•	
	10	•	•	
	11	•	•	
	12	•	•	
	13	•	•	
	14	•	•	
		1	•	•
		2	•	•
		3	•	•
		3	•	•
4		•	•	
5		•	•	
7		•	•	
	1	•	•	
	2	•	•	
	3	•	•	
	4,5	•	•	
	6,5	•	•	
	8	•	•	
	10	•	•	
	15	•	•	
	20	•	•	
	25	•	•	
	27	•	•	
	30	•	•	
	40	•	•	
	1,5	•	•	
	2	•	•	
	2,5	•	•	
	3	•	•	
	4	•	•	
	5	•	•	
	6	•	•	
	7	•	•	
	8	•	•	
	10	•	•	
	R.209	•	•	
	R.210	•	•	
	R.215	•	•	
	R.240A	•	•	
	R.120A	•	•	
	R.236A	•	•	
	R.235	•	•	

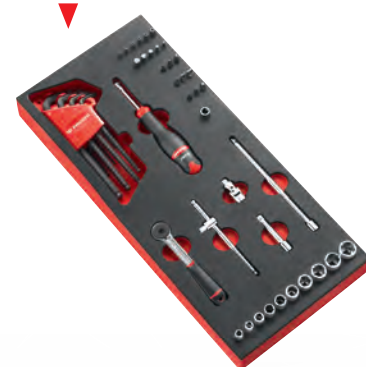


PM.MODR1AN

420 x 188 mm  
1,025 Kg



MODM.R161-36



MODM.RL161-36



## RATCHETS 1/4"

### Socket set 1/4" 6 point metric with bits - 23 pieces - R.180

Comprises:

- 1 x 1/4" ultra-compact flexible ratchet: R.180.
- 5 x 1/4" metric 6-point sockets: R. 6 - 8 - 10 - 12 - 13 mm.
- 1 x extension: L 100 mm (EF.R180).
- 15 x bits - 1/4" drive bit - 6.35 mm - L 25 mm:
  - EP.1T for Philips® head screws: PH1 - PH2.
  - ED.1T for Pozidriv® head screws: PZ2.
  - ES.1T for slotted head screws: 4.5 - 6.5 - 8 mm.
  - EH.1 for metric 6-point hollow head screws: 3 - 4 - 5 - 6 mm.
  - EXR.1 for vis Resistorx® screws: TT10 - TT15 - TT20 - TT25 - TT30.
- 1 x socket holder bit: ECR.1.
- Empty bi-material case: BV.RPE2.

	ΔΔ [g]
<b>R1PICO</b>	375



### Socket set 1/4" 6 point metric - 11 pieces - R.180HX

Comprises:

- 1 x ultra-compact flexible head 11 mm drive ratchet for sockets series HX: R.180HX.
- 10 x 1/4" hexagonal metric 6-point sockets: R.HX 5.5 - 6 - 7 - 8 - 9 - 10 - 11 - 12 - 13 - 14 mm.
- Empty bi-material case: BV.RXPICO.

	ΔΔ [g]
<b>RXPICO</b>	265



### Bit set 1/4" - 31 pieces - R.180

Comprises:

- 1 x 1/4" ultra-compact flexible head bit holder ratchet: R.180.
- 1 x extension: L 100 mm (EF.R180).
- 28 x bits - 1/4" drive bit - 6.35 mm - L 25 mm:
  - EP.1T for Philips® head screws: PH1 - PH2 - PH3.
  - ED.1T for Pozidriv® head screws: PZ1 - PZ2 - PZ3.
  - ES.1T for slotted head screws: 4 - 5.5 mm.
  - EH.1 for metric 6-point socket head screws: 1.5 - 2 - 2.5 - 3 - 4 - 5 - 6 - 7 - 8 mm.
  - EX.1 for Torx® screw: T6 - T7 - T8 - T9.
  - EXR.1 for Resistorx® screws: TT10 - TT15 - TT20 - TT25 - TT27 - TT30 - TT40 .
- 1 x socket holder bit: ECR.1.
- Empty bi-material case: BV.RPE1.

	ΔΔ [g]
<b>R.180J31</b>	335



### Bit set 1/4" - 31 pieces - R.PE

Comprises:

- 1 x 1/4" ultra-compact bit holder ratchet: R.PE.
- 1 x extension: L 100 mm (EF.RPE).
- 28 x bits - 1/4" drive bit - 6.35 mm - L 25 mm:
  - EP.1T for Philips® head screws: PH1 - PH2 - PH3.
  - ED.1T for Pozidriv® head screws: PZ1 - PZ2 - PZ3.
  - ES.1T for slotted head screws: 4 - 5.5 mm.
  - EH.1 for metric 6-point socket head screws: 1.5 - 2 - 2.5 - 3 - 4 - 5 - 6 - 7 - 8 mm.
  - EX.1 for Torx® screw: T6 - T7 - T8 - T9.
  - EXR.1 for Resistorx® screws: TT10 - TT15 - TT20 - TT25 - TT27 - TT30 - TT40 .
- 1 x socket holder bit: ECR.1.
- Empty bi-material case: BV.RPE1.

	ΔΔ [g]
<b>R.PEJ31</b>	445



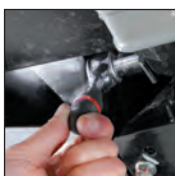
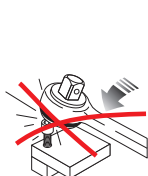
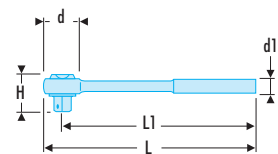
RATCHETS 1/4"

1/4" fast action twist handle ratchet



NF ISO 3315, ISO 3315, DIN 3122, ASME B107.10

- Rotating handle jack: work twice as fast in confined spaces.
- 6° increments for final tightening.
- Socket safety locking: no more lost sockets.
- Palm control system - allows the operator to press down on the head avoiding risk of accidental reverse.



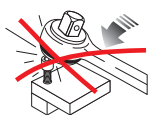
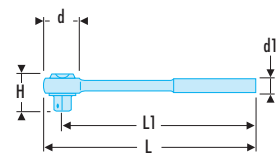
	d [mm]	d1 [mm]	H [mm]	L [mm]	L1 [mm]	ΔΔ [g]
<b>R.360</b>	27	21	29	106	120	145

1/4" maintenance free pear head locking ratchet



NF ISO 3315, ISO 3315, DIN 3122, ASME B107.10

- Socket locking and quick release system.
- Dust proof, maintenance free mechanism.
- 72 teeth mechanism for 5° increments.
- Drive direction switch allows easy reversal even with gloved or greasy hands.
- Palm control system - allows the operator to press down on the head avoiding risk of accidental reverse
- Ultra-compact head.
- Hook for hanging when working at height.
- Ergonomic comfort grip handle design resistant to workshop chemicals and solvents.



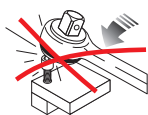
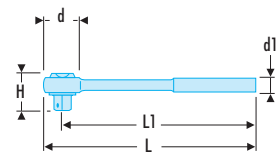
	d [mm]	d1 [mm]	H [mm]	L [mm]	L1 [mm]	ΔΔ [g]
<b>RL.171</b>	22	17,5 / 20	23	121	110	85

1/4" maintenance free pear head ratchet



NF ISO 3315, ISO 3315, DIN 3122, ASME B107.10

- Dust proof, maintenance free mechanism.
- 72 teeth mechanism for 5° increments.
- Drive direction switch allows easy reversal even with gloved or greasy hands.
- Palm control system - allows the operator to press down on the head avoiding risk of accidental reverse.
- Ultra-compact head.
- Hook for hanging when working at height.
- Ergonomic comfort grip handle design resistant to workshop chemicals and solvents.



	d [mm]	d1 [mm]	H [mm]	L [mm]	L1 [mm]	ΔΔ [g]
<b>RL.161</b>	22	17,5 / 20	22,5	121	110	80

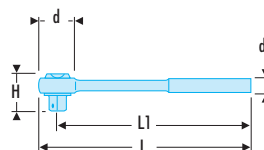
High performance sealed 1/4" ratchet



- Very long durability regardless of working conditions. Mechanism sealed to industrial dust.
- 72 tooth mechanism for 5° increments.
- Reversing by rotating cap.
- Ultra-compact head.
- Bi-material elastomer grip: high resistance to abrasion and the most severe workshop solvents: SP95, SP98, diesel fuel, acetone, brake fluid, Skydrol, Jet Oil, kerosene.
- Hole in the handle for strapping when working in high places.
- Easy maintenance: spare parts kit R.161B-KIT.



Ⓜ	d [mm]	d1 [mm]	H [mm]	L [mm]	L1 [mm]	ΔΔ [g]
R.161B	24,5	17,2 / 19,5	24	121,2	109	80



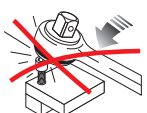
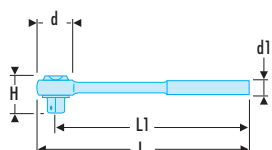
Original 1/4" ratchet



- 72 tooth mechanism for 5° increments.
- Reversing by rotating cap.
- Ultra-compact head.
- Single material elastomer grip: high resistance to abrasion and the most severe workshop solvents: SP95, SP98, diesel fuel, acetone, brake fluid, Skydrol, Jet Oil, kerosene.
- Hole in the handle for strapping when working in high places.
- Easy maintenance: spare parts kit R.151B-KIT.



Ⓜ	d [mm]	d1 [mm]	H [mm]	L [mm]	L1 [mm]	ΔΔ [g]
R.151B	24,5	13 / 19,3	24	121,2	109	75



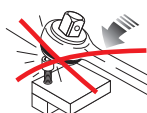
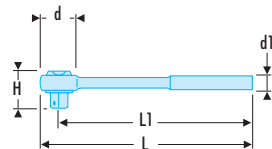
180° flexible head 1/4" compact ratchet



- The compact head allows access to difficult areas when using bits 6-point 1/4".
- Flexible head 180°.
- The button to lock the head in position. 13 locking positions
- 60 teeth mechanism for a recovery to 6°.
- Reversing lever: easy even gloved hand. Allows visualisation of the direction of rotation.
- Use with square sockets 1/4" through ECR.1 adapter.
- Comes with a through magnetic extension 100 mm for use "T-handle" (EF.R180).  
Weight: pawl 70 g, 40 g extension.



Ⓜ	d [mm]	d1 [mm]	H [mm]	L [mm]	L1 [mm]	ΔΔ [g]
R.180	18,5	11	12,5	115	107	70

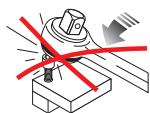
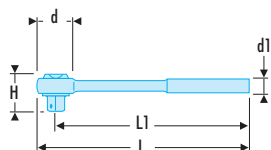


RATCHETS 1/4"

1/4" ultra-compact 180° flexible head ratchet for 1/4" sockets series HX



- Special ratchet for sockets series R.HX. outside socket drive by the 11 mm hexagon. Ratchet / socket set 2 times more compact than a typical ratchet / socket set. Ideal in confined spaces.
- 180° flexible head.
- The button locks the head in position. 13 locking positions.
- 60 tooth mechanism for 6° increments.
- Easy lever reversing even when wearing gloves. Shows the rotation direction
- Satin chrome finish.

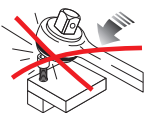
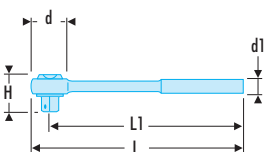


Part No.	d [mm]	d1 [mm]	H [mm]	L [mm]	ΔΔ [g]
R.180HX	22	13,8 / 15,11	7,7	115	70

Ultra compact 1/4" bit ratchet



- Exceptionally compact design when using end bits.
- Mechanism: 60 teeth.
- Use sockets with the ECR adapter.
- Supplied with magnetic extension.



Part No.	d [mm]	d1 [mm]	H [mm]	L [mm]	L1 [mm]	ΔΔ [g]
R.PE	18,5	16	26,5	115	107,0	95

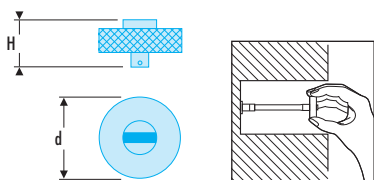
Bit-holder ratchet wrench 1/4" - 5/16"



- Takes the following bits:
  - Series 1: hexagon 1/4".
  - Series 2: hexagon 5/16".
- Used for installing 1/4" and 5/16" aircraft fasteners.
- Increment: 5°.
- Heads angled at 15°.
- Bits held by a spring clip.
- Knurled head for fast pre-tightening.
- Length 150 mm.
- Satin chrome finish.

Part No.	L [mm]	ΔΔ [g]
65.PE	150	75

1/4" finger control ratchet



- 72 teeth mechanism for 5° increments.
- Ideal for confined deep recess spaces.

Part No.	d [mm]	H [mm]	ΔΔ [g]
R.150A	38,5	26,5	120

ACCESSORIES 1/4"

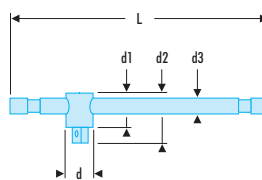
MAINTENANCE OF 1/4" RATCHETS

Kit : 151B			151 style 151B style		161 style 161B style
Kit : 161B			1/4" 6.35 mm	R.151B-KIT : R.151 R.151B	R.161B-KIT : R.161, R.161B, R.155A, R.157A, R.158A, R.150A

1/4" drive sliding tee

NF ISO 3315, ISO 3315, DIN 3122, ASME B107.10

- Friction bar allows the bar to form a T or L-handle.
- Finish: bright chrome.

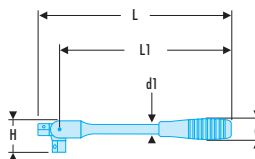


	d [mm]	d1 [mm]	d2 [mm]	d3 [mm]	L [mm]	ΔΔ [g]
R.120A	12	14	22	7	115	50

Hinged bar 1/4" with handle

NF ISO 3315, ISO 3315, DIN 3122, ASME B107.10

- Spring steadies hinge in any position, allowing access behind obstacles.
- Non-slip handle.
- Finish: bright chrome.

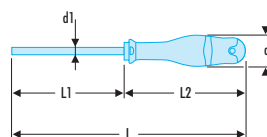


	d [mm]	d1 [mm]	H [mm]	L [mm]	L1 [mm]	ΔΔ [g]
R.140A	19	8	25,5	150	131,5	85

1/4" drive medium spinner

NF ISO 3315, ISO 3315, DIN 3122, ASME B107.10

- Ergonomic bi-material grip.
- Ideal for confined spaces.



	d [mm]	d1 [mm]	L [mm]	L1 [mm]	ΔΔ [g]
R.236A	30	8.3	150	50.0	80



ACCESSORIES 1/4"

1/4" drive short spinner



- Ergonomic bi-material grip.
- Short blade for easy storage and confined spaces requiring a very compact tool.
- Use with 1/4" square driver or bits series 1 (1/4" - 6.35 mm) with the bit holder socket R.235.
- Satin chrome finish.



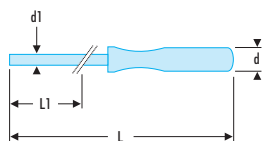
🔧	d [mm]	d1 [mm]	L [mm]	L1 [mm]	ΔΔ [g]
<b>R.236C</b>	30	8,3	130	20	75

1/4" drive standard spinner



NF ISO 3315, ISO 3315, DIN 3122, ASME B107.10

- Ergonomic bi-material grip.
- Ideal for confined spaces.

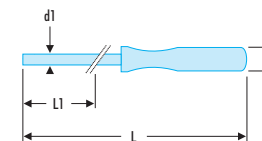


🔧	d [mm]	d1 [mm]	L [mm]	L1 [mm]	ΔΔ [g]
<b>R.227A</b>	23,5	8	260	160	125

1/4" drive flexible spinner

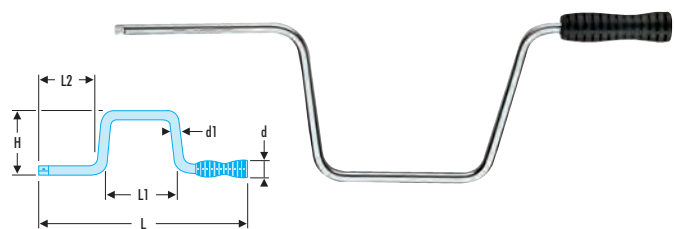


- Ergonomic bi-material grip.
- For fasteners where access is difficult.



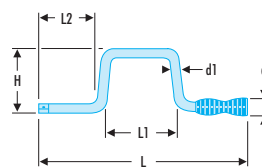
🔧	d [mm]	d1 [mm]	L [mm]	L1 [mm]	ΔΔ [g]
<b>R.222B</b>	40	8	275	150	180

1/4" drive speed brace



NF ISO 3315, ISO 3315, DIN 3122, ASME B107.10

- For fast rotation.
- PVC rotating handle.
- Finish: bright chrome.



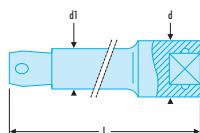
🔧	d [mm]	d1 [mm]	H [mm]	L [mm]	L1 [mm]	L2 [mm]	ΔΔ [g]
<b>R.110</b>	21	8	110	360	130	120	220

1/4" drive extension



NF ISO 3316, ISO 3316, DIN 3123, ASME B107.10

- Finish: chromed.

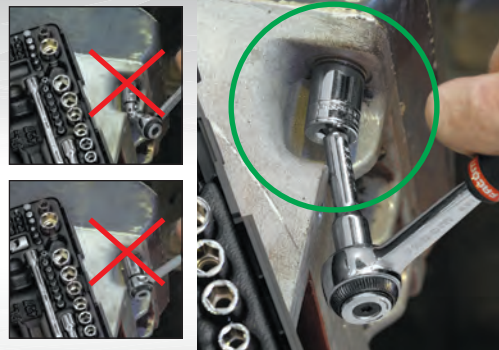
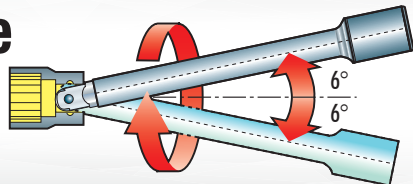


🔧	d [mm]	d1 [mm]	L [mm]	ΔΔ [g]
<b>R.209</b>	12	8,2	55	30
<b>R.210</b>	12	8,2	100	45
<b>R.215</b>	12	8,2	150	65
<b>R.217</b>	12	8,2	250	105



WOBBLE EXTENSION

Hard to access with a socket or universal joint?  
Use a wobble extension!

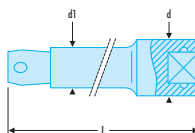


1/4" wobble extension

- Square drive profile gives 6° working angle.
- Hard to access with a socket or universal joint? Use a wobble extension !
- Finish: bright chrome.



Part No.	d [mm]	d1 [mm]	L [mm]	ΔΔ [g]
R.209S	12	8,2	55	30
R.210S	12	8,2	100	45



1/4" drive locking extensions

- NF ISO 3316, ISO 3316, DIN 3123, ASME B107.10
- Locking mechanism
  - Finish : bright chrome



Part No.	d [mm]	d1 [mm]	d2 [mm]	L [mm]	ΔΔ [g]
R.210RC	8,2	12	13	100	45
R.215RC	8,2	12	13	150	60
R.217RC	8,2	12	13	250	100



1/4" wobble extension

- ASME B107.10
- Reaches fasteners out of direct access line.
  - Unsuitable for high torques: max. 2.8 N.m.

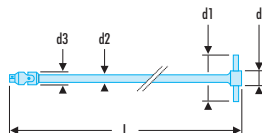


Part No.	d [mm]	d1 [mm]	L [mm]	ΔΔ [g]
R.216	12	8	150	65



ACCESSORIES 1/4"

1/4" drive tee with universal joint

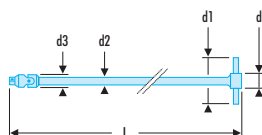


- Universal joint withstands high torques and is spring-steadied in position.
- Long reach and working angle up to 65° allows access to recessed fasteners.
- Finish: bright chrome.



🔧	d [mm]	d1 [mm]	d2 [mm]	d3 [mm]	L [mm]	ΔΔ [g]
<b>R.229A</b>	13	135	9	13	385	215

1/4" drive tee with universal joint

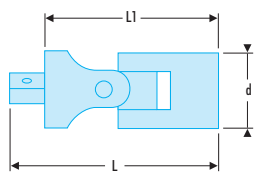


- Extended reach of tee-handle for particularly deep recesses.
- Finish: bright chrome.



🔧	d [mm]	d1 [mm]	d2 [mm]	d3 [mm]	L [mm]	ΔΔ [g]
<b>R.228</b>	13	135	9	13	470	250

1/4" universal joint



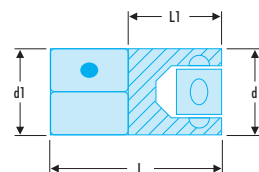
NF ISO 3316, ISO 3316, DIN 3123, ASME B107.10

- Spring-stiffened joints. Stays in position when reaching for fasteners.
- Finish: bright chrome.



🔧	d [mm]	L [mm]	L1 [mm]	ΔΔ [g]
<b>R.240A</b>	13	33	25	20

1/4" to 3/8" coupler



NF ISO 3316, ISO 3316, DIN 3123, ASME B107.10

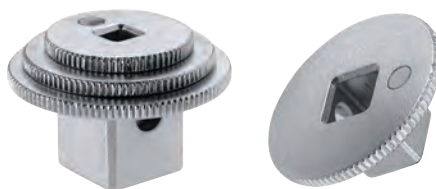
- 1/4" female to 3/8" male square drive.
- For adapting 3/8" drive sockets.
- Finish: bright chrome.



🔧	d [mm]	d1 [mm]	L [mm]	L1 [mm]	ΔΔ [g]
<b>R.232</b>	12	12	24,5	13,5	15

■ Set of 3 couplers

- Allows use of square drivers smaller than socket drive sizes:
  - 1/4" square drive + D.169RJ --> 3/8" socket (ø 1/4' : 28,7 - R 1/4' : 13 mm).
  - 3/8" square drive + D.169JS --> 1/2" socket (ø 3/8' : 37,8 - R 3/8' : 16 mm).
  - 1/2" square drive --> 3/4" socket (ø 1/4' : 43,9 - R 1/8' : 22).
- Compactness means that fewer tools are needed for in situ maintenance operations.
- Magnetic retainer and locking system (JS and SK).
- Knurl allows hand tightening where access is difficult.



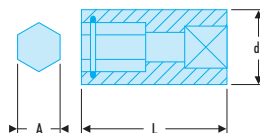
Part Number	Weight [g]
D.169	100

■ 1/4" drive standard spring-clip bit holder

- NF ISO 2725-1, NF ISO 1173, ISO 2725-1, ISO 1173, DIN 3124
- Spring clip for frequent bit (1/4" - 6,35 mm) changes.
  - Finish: bright chrome.



Part Number	A ["]	d [mm]	L [mm]	Square ["]	Weight [g]
R.235	1/4	11,3	22	1/4	10

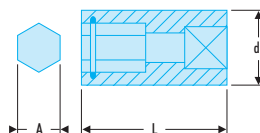


■ 1/4" drive secure spring-clip bit holder

- NF ISO 2725-1, NF ISO 1173, ISO 2725-1, ISO 1173, DIN 3124
- Stiffer, more secure, spring clip for infrequent bit changes.
  - Square drive has side-hole for ball or plunger lock.
  - Finish: bright chrome.



Part Number	A ["]	d [mm]	L [mm]	Square ["]	Weight [g]
R.245	1/4	11,3	22	1/4	10



■ 1/4" drive lock-ring bit holder

- NF ISO 2725-1, NF ISO 1173, ISO 2725-1, ISO 1173, DIN 3124
- Bit lock.
  - Square drive has side-hole for ball or plunger lock.



Part Number	A ["]	L [mm]	Square ["]	Weight [g]
E.F.R	1/4	30	1/4	25



RATCHETS 1/4"

37-piece set of 1/4" metric 6-point socket and bit set



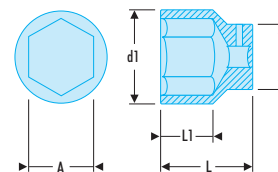
Comprises:

- 1 x ultra-compact flexible head 11 mm drive ratchet for sockets series HX: R.180HX.
- 1 x high performance compact 1/4" ratchet: R.161B.
- 10 x 1/4" hexagonal metric 6-point sockets: R.HX 5.5 - 6 - 7 - 8 - 9 - 10 - 11 - 12 - 13 - 14 mm.
- 2 x 1/4" extensions: L 55 mm (R.209) - L 100 mm (R.210).
- 1 x 1/4" universal joint: R.240A.
- 1 x 1/4" drive standard spring-clip bit holder: R.235.
- 21 x bits - 1/4" drive bit - 6.35 mm - L 25 mm:
  - EP.1T for Philips® head screws: PH1 - PH2 - PH3.
  - ED.1T for Pozidriv® head screws: PZ1 - PZ2 - PZ3.
  - ES.1T for slotted head screws: 4.5 - 6.5 - 8.0 mm.
  - EH.1 for metric 6-point socket head screws: 3 - 4 - 5 - 6 - 7 mm.
  - EXR.1 for vis Resistor® screws: TT 10 - TT 15 - TT 20 - TT 25 - TT 27 - TT 30 - TT 40.
- Empty case: BP.MBOXS.
- Thermoformed tray S (188 x 105 mm): PL.S19.

Part No.	Weight [g]
R.161-6P6HX	805

SOCKETS 1/4"

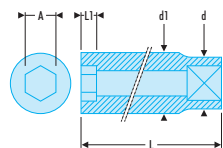
R.HX - 1/4" metric 6-point hexagonal sockets



- Double drive sockets:
  - Classical 1/4" drive with a ratchet or classical 1/4" accessories.
  - Drive outside the socket by the 11 mm hexagon with the ultra compact 180° flexible head (R.180HX). Ratchet / socket fitting 2 times more compact than a typical ratchet / socket fitting. Ideal in confined spaces.
- The hexagon also allows for direct drive by the open end or ring on a combination wrench.
- Satin chrome finish.
- Available in boxes: 10 sockets R.HX + socket R.180HX (RXPICO) or 10 sockets R.HX + 1 traditional ratchet R.161B + 2 extensions + 1 universal joint + 21 bits (R.161-6P6HX).

Part No.	A [mm]	d [mm]	d1 [mm]	L [mm]	L1 [mm]	6 [mm]	ΔΔ [g]
R.5.5HX	5,5	11,0	8,2	18,0	5,0	6	6
R.6HX	6,0	11,0	9,2	18,0	5,0	6	8
R.7HX	7,0	11,0	10,4	18,0	5,0	6	8
R.8HX	8,0	11,0	11,5	18,0	5,0	6	8
R.9HX	9,0	11,0	12,4	18,0	5,0	6	8
R.10HX	10,0	11,0	13,8	18,0	7,0	6	7
R.11HX	11,0	11,0	15,8	18,0	7,0	6	8
R.12HX	12,0	11,0	16,8	18,0	7,0	6	10
R.13HX	13,0	11,0	17,8	18,0	7,0	6	14
R.14HX	14,0	11,0	19,8	18,0	7,0	6	16

R 1/4" drive metric 6-point sockets

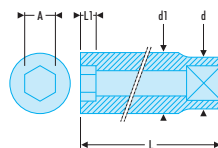


NF ISO 2725-1, NF ISO 1711-1, ISO 2725-1, ISO 1711-1, DIN 3124, ASME B107.5

- OGV® profile: more powerful tightening, preserves fasteners.
- Finish: bright chrome.
- Available as sets on metal rack (Ref R.40E).

Part No.	A [mm]	d [mm]	d1 [mm]	H3 [mm]	L [mm]	L1 [mm]	6 [mm]	ΔΔ [g]
R.3,2	3,2	11,2	5,9	2,4	22	2,4	6	4
R.4	4,0	11,2	6,9	2,6	22	2,6	6	4
R.5	5,0	11,2	8,2	4,8	22	4,8	6	5
R.5,5	5,5	11,2	8,8	4,8	22	4,8	6	6
R.6	6,0	11,2	9,4	5,6	22	5,6	6	6
R.7	7,0	11,0	11,0	6	22	6,0	6	7
R.8	8,0	12,0	12,0	6,50	22	6,5	6	8
R.9	9,0	13,2	13,2	6,50	22	6,5	6	10
R.10	10,0	14,7	14,7	7,80	22	7,8	6	14
R.11	11,0	15,8	15,8	9	22	9,0	6	16
R.12	12,0	17,0	17,0	9,50	22	9,5	6	18
R.13	13,0	17,7	17,7	10	22	10,0	6	20
R.14	14,0	18,7	18,7	10	22	10,0	6	24

R 1/4" drive inch 6-point sockets

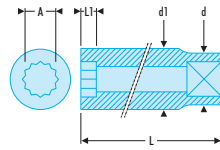


ASME B107.1

- OGV® profile: more powerful tightening, preserves fasteners.
- Finish: bright chrome.
- Available as rack set (Ref R.40U).

Part No.	A ["]	d [mm]	d1 [mm]	H3 [mm]	L [mm]	L1 [mm]	6 [mm]	ΔΔ [g]
R.3/16	3/16	11,2	8,0	4,75	22	4,8	6	6
R.7/32	7/32	11,2	9,0	5,50	22	5,5	6	8
R.1/4	1/4	11,2	10,1	6	22	6,0	6	8
R.9/32	9/32	11,0	11,0	6	22	6,0	6	10
R.5/16	5/16	12,0	12,0	6,50	22	6,5	6	10
R.11/32	11/32	13,2	13,2	6,50	22	6,5	6	12
R.3/8	3/8	14,7	14,7	7,80	22	7,8	6	16
R.13/32	13/32	14,7	14,7	7,80	22	7,8	6	16
R.7/16	7/16	15,8	15,8	9	22	9,0	6	16
R.1/2	1/2	17,7	17,7	10	22	10,0	6	22
R.9/16	9/16	18,7	18,7	10	22	10,0	6	24

■ R.E 1/4" drive metric 12-point sockets

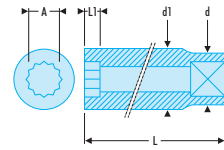


NF ISO 2725-1, NF ISO 1711-1, ISO 2725-1, ISO 1711-1, DIN 3124, ASME B107.5

- OGV® profile: more powerful tightening, preserves fasteners.
- Finish: bright chrome.

⚙️	A [mm]	d [mm]	d1 [mm]	L [mm]	L1 [mm]	12 [mm]	ΔΔ [g]
R.5,5E	5,5	11,2	8,8	22	4,8	12	8
R.6E	6,0	11,2	9,4	22	5,6	12	9
R.7E	7,0	11,0	11,0	22	6,0	12	9
R.8E	8,0	12,0	12,0	22	6,5	12	11
R.9E	9,0	13,2	13,2	22	6,5	12	14
R.10E	10,0	14,7	14,7	22	7,8	12	18
R.11E	11,0	15,8	15,8	22	9,0	12	19
R.12E	12,0	17,0	17,0	22	9,5	12	23
R.13E	13,0	17,7	17,7	22	10,0	12	24
R.14E	14,0	18,7	18,7	22	10,0	12	26

■ R.E 1/4" drive inch 12-point sockets

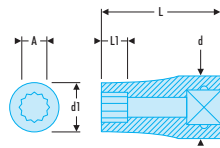


ASME B107.1

- OGV® profile: more powerful tightening, preserves fasteners.
- Finish: bright chrome.

⚙️	A ["]	d [mm]	d1 [mm]	L [mm]	L1 [mm]	12 [mm]	ΔΔ [g]
R.3/16E	3/16	11,2	8,0	22	4,8	12	6
R.7/32E	7/32	11,2	9,0	22	5,5	12	8
R.1/4E	1/4	11,2	10,1	22	6,0	12	8
R.9/32E	9/32	11,2	10,6	22	6,0	12	10
R.5/16E	5/16	12,0	12,0	22	6,5	12	10
R.11/32E	11/32	13,0	13,0	22	6,5	12	12
R.3/8E	3/8	14,7	14,7	22	7,8	12	16
R.13/32E	13/32	14,7	14,7	22	7,8	12	16
R.7/16E	7/16	15,8	15,8	22	9,0	12	16
R.1/2E	1/2	17,7	17,7	22	10,0	12	22
R.9/16E	9/16	18,7	18,7	22	10,0	12	24

■ RB 1/4" drive inch 12-point thin wall sockets

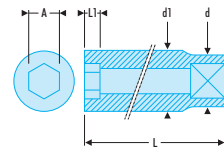


ASME B107.110

- OGV® profile: more powerful tightening, preserves fasteners.
- Thin-wall for better access, conform with aeronautical standards.
- Finish: bright chrome.

⚙️	A ["]	d [mm]	d1 [mm]	L [mm]	L1 [mm]	12 [mm]	ΔΔ [g]
RB.3/16	3/16	11,2	7,6	22	4,8	12	7
RB.7/32	7/32	11,2	8,7	22	5,5	12	8
RB.1/4	1/4	11,2	9,7	22	6,0	12	8
RB.9/32	9/32	11,2	10,6	22	6,0	12	10
RB.5/16	5/16	11,9	11,9	22	6,5	12	10
RB.11/32	11/32	12,9	12,9	22	6,5	12	11
RB.3/8	3/8	13,7	13,7	22	7,8	12	14
RB.7/16	7/16	14,8	15,8	22	9,0	12	17
RB.1/2	1/2	16,0	16,9	22	10,0	12	18
RB.9/16	9/16	17,5	18,7	22	10,0	12	22

■ R.LA 1/4" long-reach metric 6-point sockets



NF ISO 2725-1, NF ISO 1711-1, ISO 2725-1, ISO 1711-1, DIN 3124, ASME B107.5

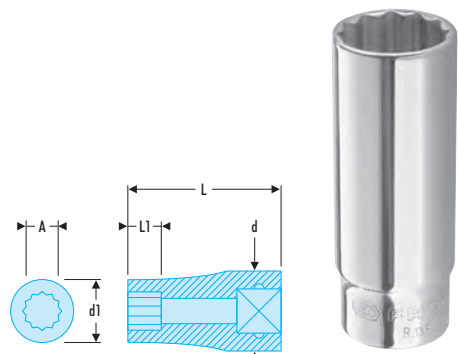
- OGV® profile: more powerful tightening, preserves fasteners.
- Long-reach sockets for long recess or thread access.
- Available as rack set Ref RL.40E (3.2 --> 9 mm) and Ref RL.41E (10 --> 14 mm).
- Finish: bright chrome.

⚙️	A [mm]	d [mm]	d1 [mm]	L [mm]	L1 [mm]	6 [mm]	ΔΔ [g]
R.3.2LA	3,2	12,0	5,80	50,5	1,8	6	18
R.4LA	4,0	12,0	6,80	50,5	2,0	6	18
R.5LA	5,0	12,0	8,10	50,5	2,3	6	18
R.5.5LA	5,5	12,0	8,10	50,5	3,0	6	18
R.6LA	6,0	12,0	9,40	50,5	5,6	6	18
R.7LA	7,0	12,0	10,90	50,5	7,1	6	27
R.8LA	8,0	12,0	12,00	50,5	7,9	6	27
R.9LA	9,0	12,8	12,80	50,5	7,9	6	32
R.10LA	10,0	14,3	14,30	50,5	7,9	6	41
R.11LA	11,0	16,0	16,00	50,5	7,9	6	54
R.12LA	12,0	16,8	16,80	50,5	8,4	6	50
R.13LA	13,0	18,2	18,20	50,5	8,4	6	59
R.14LA	14,0	19,2	19,20	50,5	10,2	6	68



LONG REACH SOCKETS 1/4"

R.EL - 1/4" long-reach metric 12-point sockets

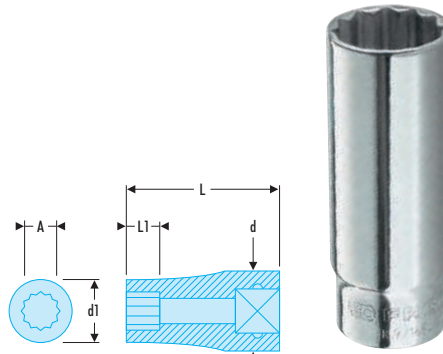


NF ISO 2725-1, NF ISO 1711-1, ISO 2725-1, ISO 1711-1, DIN 3124, ASME B107.5

- OGV® profile: more powerful tightening, preserves fasteners.
- Long-reach sockets for long recess or thread access.
- Available as rack sets (Ref REL.40U).
- Finish: bright chrome.

⊞	A [mm]	d [mm]	d1 [mm]	L [mm]	L1 [mm]	12 [mm]	ΔΔ [g]
R.4EL	4	6.7	11.2	50	4	12	18
R.4.5EL	4.5	7.3	11.2	50	4.5	12	18
R.5EL	5	7.8	11.2	50	5.5	12	18
R.5.5EL	5.5	8.5	11.2	50	6	12	18
R.6EL	6	9.2	11.2	50	7	12	18
R.7EL	7	10.3	11.2	50	8	12	27
R.8EL	8	11.2	11.7	50	9	12	27
R.9EL	9	13	12	50	10	12	32
R.10EL	10	14.3	12.9	50	11	12	41
R.11EL	11	15.5	14.3	50	12	12	54
R.12EL	12	16.8	15.5	50	13	12	56
R.13EL	13	18	16.4	50	14	12	59
R.14EL	14	19.3	17.9	50	16	12	68

R.EL 1/4" long-reach metric 12-point sockets



ASME B107.1

- OGV® profile: more powerful tightening, preserves fasteners.
- Long-reach sockets for long recess or thread access.
- High performance, suitable for aircraft fasteners to AS954E.
- Thinner socket walls for better accessibility.
- Available as rack set (Ref REL.40U).
- Finish: bright chrome.

⊞	A ["]	d [mm]	d1 [mm]	L [mm]	L1 [mm]	12 [mm]	ΔΔ [g]
R.3/16EL	3/16	10,9	7,7	50	6,0	12	14
R.7/32EL	7/32	10,9	8,5	50	7,4	12	15
R.1/4EL	1/4	10,9	9,4	50	7,4	12	17
R.9/32EL	9/32	10,9	10,2	50	8,5	12	17
R.5/16EL	5/16	11,8	11,4	50	9,0	12	23
R.11/32EL	11/32	12,0	12,5	50	9,7	12	25
R.3/8EL	3/8	12,8	13,7	50	11,2	12	32
R.7/16EL	7/16	14,3	15,6	50	11,9	12	40
R.1/2EL	1/2	16,2	17,3	50	13,8	12	45
R.9/16EL	9/16	17,1	18,8	50	16,2	12	49

Set of 1/4" long-reach inch 12-point sockets



⊞	A ["]	A [mm]	6-12 [mm]	Contents	Qtés	ΔΔ [kg]
R.40E		R. 3,2 - 4 - 5 - 5,5 - 6 - 7 - 8 - 9 - 10 - 11 - 12 - 13 - 14	6	CKS.93	13	0,255
RB.40AE		R.E 5,5 - 6 - 7 - 8 - 9 - 10 - 11 - 12 - 13 - 14	12	CKS.93	10	0,200
RL.40E		R.LA 3,2 - 4 - 5 - 5,5 - 6 - 7 - 8 - 9	6	CKS.89	8	0,215
RL.41E		R.LA 10 - 11 - 12 - 13 - 14	6	CKS.89	5	0,300
REL.40		R.EL 3,2 - 4 - 5 - 5,5 - 6 - 7 - 8 - 9	12	CKS.89	8	0,215
REL.41		R.EL 10 - 11 - 12 - 13 - 14	12	CKS.89	5	0,300
R.40U		R. 3/16 - 7/32 - 1/4 - 9/32 - 5/16 - 11/32 - 3/8 - 13/32 - 7/16 - 1/2 - 9/16	6	CKS.93	11	0,220
RB.40AU		RB. 3/16 - 7/32 - 1/4 - 9/32 - 5/16 - 11/32 - 3/8 - 7/16 - 1/2 - 9/16	12	CKS.93	10	0,205
REL.40U		R.EL 3/16 - 7/32 - 1/4 - 9/32 - 5/16 - 11/32 - 3/8 - 7/16 - 1/2 - 9/16	12	CKS.93	10	0,345
RTX.40		RTX. E4 - E5 - E6 - E7 - E8 - E10	Torx®	CKS.89	7	0,105

■ Sets of 1/4" sockets

• Box: BP.MOXS.

Ref	A ["]	A [mm]	12 [mm]	Contents	Qtés	ΔΔ [kg]
R.400		R.E 5,5 - 6 - 7 - 8 - 9 - 10 - 11 - 12 - 13 - 14	12	PLS17	10	0,445
R.401		R. 5,5 - 6 - 7 - 8 - 9 - 10 - 11 - 12 - 13 - 14	6	PLS17	10	0,445
R.400U	R.E 7/32 - 1/4 - 9/32 - 5/16 - 11/32 - 3/8 - 13/32 - 7/16 - 1/2 - 9/16		12	PLS17	10	0,455
R.401U	R. 7/32 - 1/4 - 9/32 - 5/16 - 11/32 - 3/8 - 13/32 - 7/16 - 1/2 - 9/16		6	PLS17	10	0,455
R.404		R.EL 5,5 - 6 - 7 - 8 - 9 - 10 - 11 - 12 - 13 - 14	12	PLS18	10	0,700
R.405		R.LA 5,5 - 6 - 7 - 8 - 9 - 10 - 11 - 12 - 13 - 14	6	PLS18	10	0,700
R.404U	R.EL 3/16 - 7/32 - 1/4 - 9/32 - 5/16 - 11/32 - 3/8 - 7/16 - 1/2 - 9/16		12	PLS18	10	0,590

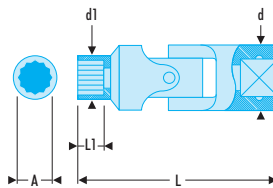


■ R.F - 1/4" drive hinged 12-point sockets

ASME B107.110

- OGV® profile: more powerful tightening, preserves fasteners.
- Compact solution used instead of universal joint.
- Finish: bright chrome.

Ref	A ["]	d [mm]	d1 [mm]	L [mm]	L1 [mm]	12 [mm]	ΔΔ [g]
R.3/16F	3/16	13	8,0	31,6	5,3	12	13
R.7/32F	7/32	13	8,5	32,4	6,1	12	13
R.1/4F	1/4	13	9,8	32,8	6,5	12	13
R.9/32F	9/32	13	10,5	32,8	6,5	12	13
R.5/16F	5/16	13	12,0	33,3	7,0	12	14
R.11/32F	11/32	13	13,3	33,3	7,0	12	16
R.3/8F	3/8	13	13,7	34,6	8,3	12	21
R.7/16F	7/16	13	15,5	35,8	9,5	12	27
R.1/2F	1/2	13	18,0	36,8	10,5	12	34
R.9/16F	9/16	13	19,2	36,8	10,5	12	35

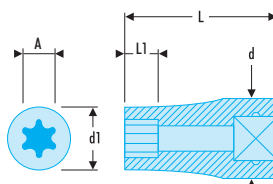


TORX® SOCKETS 1/4"

■ RTX - 1/4" Torx® sockets

- For Torx® fasteners.
- Finish: bright chrome.
- Available as rack set (Ref RTX.40).

Ref	A [mm]	d [mm]	d1 [mm]	L [mm]	L1 [mm]	Torx [No]	ΔΔ [g]
RTX.4	3,70	11,2	5,4	22	3,2	E4	8
RTX.5	4,58	11,2	6,7	22	3,0	E5	8
RTX.6	5,54	11,2	7,7	22	3,6	E6	8
RTX.7	6,22	11,2	8,3	22	3,6	E7	8
RTX.8	7,29	11,2	9,6	22	4,3	E8	9
RTX.10	9,19	12,0	11,3	22	5,6	E10	11



1/4" DRIVE SOCKETS WITH REMOVABLE BITS

21-piece set of 1/4" and 1/2" Torx® sockets and bits

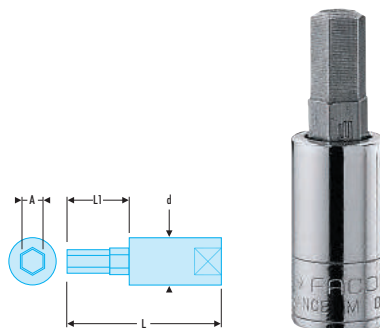


Comprises:

- 4 x 1/4" Torx® sockets: RTX. E6 - E7 - E8 - E10.
- 5 x 1/2" Torx® sockets: STX. E10 - E14 - E16 - E18 - E20.
- 1 x 1/4" socket bit holder with retaining pin - standard for 1/4" bits - 6.35 mm: R.235.
- 1 x 1/2" socket bit holder with retaining pin - standard for 5/16" bits - 7.94 mm: S.236.
- 7 x bits - 1/4" drive bit - 6.35 mm - L 25 mm:  
- EXR.1 for Resistorx® screws: TT 10 - TT 15 - TT 20 - TT 25 - TT 27 - TT 30 - TT 40.
- 3 x bits - 5/16" drive bit - 7.94 mm - L 35 mm:  
- EX.2 for Torx® screws: T 45 - T 50 - T 55.
- Empty case: BP.MBOXS.
- Thermoformed tray S (188 x 105 mm): PL.S05.

⚙️	ΔΔ [kg]
<b>RSX.19B</b>	0,840

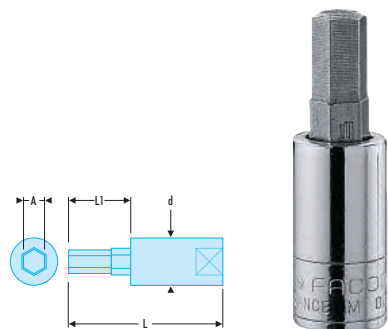
RT 1/4" drive metric 6-point sockets



- Removable hard tip for more durability.
- R.245 socket.
- Finish: bright chrome with phosphate-hardened tip.

⚙️	A [mm]	d [mm]	L [mm]	L1 [mm]	Socket	Bits	ΔΔ [g]
<b>RT.2</b>	2,0	11,3	37	15	R.245	EH.102	18
<b>RT.2,5</b>	2,5	11,3	37	15	R.245	EH.102,5	18
<b>RT.3</b>	3,0	11,3	37	15	R.245	EH.103	18
<b>RT.4</b>	4,0	11,3	37	15	R.245	EH.104	18
<b>RT.5</b>	5,0	11,3	37	15	R.245	EH.105	19
<b>RT.6</b>	6,0	11,3	37	15	R.245	EH.106	20
<b>RT.7</b>	7,0	11,3	37	15	R.245	EH.107	21
<b>RT.8</b>	8,0	11,3	37	15	R.245	EH.108	22
<b>RT.10</b>	10,0	11,3	37	15	R.245	EH.110	24

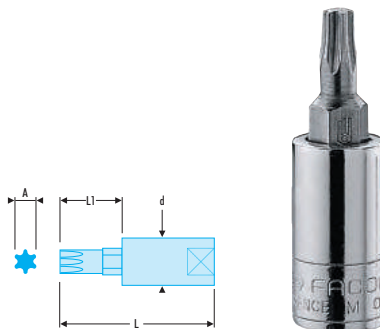
RT 1/4" drive inch 6-point sockets



- Removable hard tip for more durability.
- R.245 socket.
- Finish: bright chrome with phosphate-hardened tip.

⚙️	A ["]	A [mm]	d [mm]	L [mm]	L1 [mm]	Bits	ΔΔ [g]
<b>RT.1/8</b>	1/8	3,17	11,3	37	15	EH.101/8	18
<b>RT.5/32</b>	5/32	3,96	11,3	37	15	EH.105/32	18
<b>RT.3/16</b>	3/16	4,76	11,3	37	15	EH.103/16	18
<b>RT.7/32</b>	7/32	5,56	11,3	37	15	EH.107/32	19
<b>RT.1/4</b>	1/4	6,35	11,3	37	15	EH.101/4	20

RX 1/4" drive Torx® bit sockets










- Removable hard tip for more durability.
- R.245 socket.
- Finish: bright chrome with phosphate-hardened tip.

⚙️	A [mm]	d [mm]	L [mm]	L1 [mm]	Torx [No]	Bits	No.	ΔΔ [g]
<b>RX.10</b>	2,72	11,3	37	15	T10	EX.110	T10	17
<b>RX.15</b>	3,26	11,3	37	15	T15	EX.115	T15	17
<b>RX.20</b>	3,84	11,3	37	15	T20	EX.120	T20	18
<b>RX.25</b>	4,40	11,3	37	15	T25	EX.125	T25	18
<b>RX.27</b>	4,96	11,3	37	15	T27	EX.127	T27	18
<b>RX.30</b>	5,49	11,3	37	15	T30	EX.130	T30	18
<b>RX.40</b>	6,60	11,3	37	15	T40	EX.140	T40	18



SETS OF 3/8" METRIC 'DETECTION BOX' SOCKETS

		J.161DBOX1	JL.DBOX1	JL.DBOX112	JL.DBOX500	JL.DBOX501	J.360DBOX1	J.360DBOX112	JXL.DBOX1
	J.161B	JL.161	JL.161	JL.171	JL.171	J.360	J.360	JXL.171	
<b>Socket</b>	mm	Standard	Standard	Standard	Standard	Standard	Standard	Standard	
	J.8	•	•	•	•	•	•	•	
	J.9	•	•	•	•	•	•	•	
	J.10	•	•	•	•	•	•	•	
	J.11	•	•	•	•	•	•	•	
	J.12	•	•	•	•	•	•	•	
	J.13	•	•	•	•	•	•	•	
	J.14	•	•	•	•	•	•	•	
	J.15	•	•	•	•	•	•	•	
	J.16	•	•	•	•	•	•	•	
	J.17	•	•	•	•	•	•	•	
	J.18	•	•	•	•	•	•	•	
	J.19	•	•	•	•	•	•	•	
	J.21	•	•	•	•	•	•	•	
	J.22	•	•	•	•	•	•	•	
	J.210	•	•	•	•	•	•	•	
	J.210RC				•	•		•	
	J.215	•	•	•			•		
	J.210RC				•	•		•	
	J.240A	•	•	•			•	•	
BV.J1NANO									
280 x 124 x 50 mm									
		1,840 Kg	1,880 Kg	1,880 Kg	1,920 Kg	1,920 Kg	2,105 Kg	2,105 Kg	2,075 Kg

J.161DBOX1



JL.DBOX1



JL.DBOX112



JL.DBOX500



JL.DBOX501



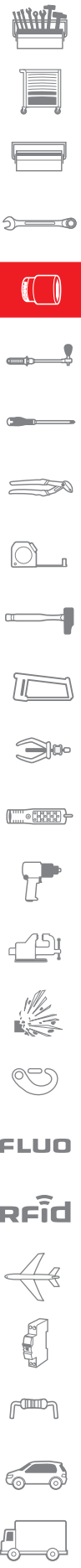
J.360DBOX1



J.360DBOX112



JXL.DBOX1



3/8" SOCKET SETS MBOX METRIC

15  
PIECES



6	12	7	8	9	10	11	12	13	14	15				
						16	17	18	19	20	21	22	23	24
125 mm						250 mm								
[Icon]			[Icon]			[Icon]			[Icon]					

[Icon]	[Icon]	[Icon]	[Icon]	[Icon]	[Icon]	[Icon]	ΔΔ [kg]
J.161-1P6	J.161B	[Icon]	6	BP.MBOXM	PL.M13	329 x 219 x 59 mm	1.565
J.161-1P12	J.161B	[Icon]	12	BP.MBOXM	PL.M13	329 x 219 x 59 mm	1.565

18  
PIECES



6	12	7	8	9	10	11	12	13	14	15				
						16	17	18	19	20	21	22	23	24
125 mm						250 mm								
[Icon]			[Icon]			[Icon]			[Icon]					

[Icon]	[Icon]	[Icon]	[Icon]	[Icon]	[Icon]	[Icon]	ΔΔ [kg]
J.161-2P6	J.161B	[Icon]	6	BP.MBOXM	PL.M14	329 x 219 x 59 mm	1.950
J.161-2P12	J.161B	[Icon]	12	BP.MBOXM	PL.M14	329 x 219 x 59 mm	1.950
JL.161-2P6	JL.161	[Icon]	6	BP.MBOXM	PL.M14	329 x 219 x 59 mm	1.990
JL.161-2P12	JL.161	[Icon]	12	BP.MBOXM	PL.M14	329 x 219 x 59 mm	1.990

3/8" SOCKET SETS MBOX METRIC

20  
PIECES



6 12 7 8 9 10 11 12 13 14 15  
16 17 18 19 20 21 22 23 24

125 mm 250 mm

			6 12				ΔΔ [kg]
J.161-3P6	J.161B		6	BP.MBOXM	PL.M15	329 x 219 x 59 mm	2.190
J.161-3P12	J.161B		12	BP.MBOXM	PL.M15	329 x 219 x 59 mm	2.190
JL.161-3P6	JL.161		6	BP.MBOXM	PL.M15	329 x 219 x 59 mm	2.230
JL.161-3P12	JL.161		12	BP.MBOXM	PL.M15	329 x 219 x 59 mm	2.230
JL.171-3P6	JL.171		6	BP.MBOXM	PL.M15	329 x 219 x 59 mm	2.270
JL.171-3P12	JL.171		12	BP.MBOXM	PL.M15	329 x 219 x 59 mm	2.270
J.360-3P6	J.360		6	BP.MBOXM	PL.M16	329 x 219 x 59 mm	2.460
J.360-3P12	J.360		12	BP.MBOXM	PL.M16	329 x 219 x 59 mm	2.460

24  
PIECES



6 12 7 8 9 10 11 12 13 14 15  
16 17 18 19 20 21 22 23 24

125 mm 250 mm

			6 12				ΔΔ [kg]
J.161-4P6	J.161B		6	BP.MBOXL	PL.L10	434 x 270 x 70 mm	3.495
J.161-4P12	J.161B		12	BP.MBOXL	PL.L10	434 x 270 x 70 mm	3.495



FLUO

Rfid

3/8" SOCKET SETS MBOX INCH

12  
PIECES



6 **12** 1/4 5/16 3/8 7/16 1/2 9/16  
5/8 11/16 3/4 13/32 7/8 15/16 1

125 mm 250 mm

J.161-1P12U	J.161B	12	BP.MBOXM	PL.M17	329 x 219 x 59 mm	1.470	

16  
PIECES



6 **12** 1/4 5/16 3/8 7/16 1/2 9/16  
5/8 11/16 3/4 13/32 7/8 15/16 1

125 mm 250 mm

J.161-2P12U	J.161B	12	BP.MBOXM	PL.M18	329 x 219 x 59 mm	2.070	
JL.161-2P12U	JL.161	12	BP.MBOXM	PL.M18	329 x 219 x 59 mm	2.110	

19  
PIECES



6 **12** 1/4 5/16 3/8 7/16 1/2 9/16  
5/8 11/16 3/4 13/32 7/8 15/16 1

125 mm 250 mm

J.161-3P12U	J.161B	12	BP.MBOXL	PL.L11	434 x 270 x 70 mm	3.325	

### 3/8" SOCKET SETS MBOX METRIC AND INCH

Socket		J.430AMU	JL.430AMU	J.431BSP	J.430BSP	J.451EP	J.450U
mm/inch		J.161B mm + inch Standard	JL.161 mm + inch Standard	J.161B mm Standard	J.161B mm Standard	J.161B + J.156 mm Std + long	J.161B + J.156 Inch Std + long
	7	1/4	•	•	•	•	•
	8	5/16	•	•	•	•	•
	9	3/8	•	•	•	•	•
	10	7/16	•	•	•	•	•
	11	1/2	•	•	•	•	•
	12	9/16	•	•	•	•	•
	13	5/8	•	•	•	•	•
	14	11/16	•	•	•	•	•
	15	3/4	•	•	•	•	•
	16	13/16	•	•	•	•	•
	17	7/8	•	•	•	•	•
	18	15/16	•	•	•	•	•
	19	1	•	•	•	•	•
	21		•	•	•	•	•
	22		•	•	•	•	•
	24		•	•	•	•	•
	EH 3			•	•	•	•
	EH 4			•	•	•	•
	EH 5			•	•	•	•
	EH 6			•	•	•	•
	EH 7			•	•	•	•
	ED 1			•	•	•	•
	ED 2			•	•	•	•
	ED 3			•	•	•	•
	ED 4			•	•	•	•
	ES 4,5			•	•	•	•
	ES 5,5			•	•	•	•
	ES 6,5			•	•	•	•
	ES 8			•	•	•	•
	ES 10			•	•	•	•
	J.210	•	•	•	•	•	•
	J.215	•	•	•	•	•	•
	J.216	•	•	•	•	•	•
	J.240A	•	•	•	•	•	•
	J.120A	•	•	•	•	•	•
	J.110	•	•	•	•	•	•
	J.140A	•	•	•	•	•	•
	J.235	•	•	•	•	•	•
J.236	•	•	•	•	•	•	
		PL.L12 BP.MBOXL 434 x 270 x 70 mm 3,500 Kg	JL.430AMU PL.L12 BP.MBOXL 434 x 270 x 70 mm 3,540 Kg	J.431BSP PL.M19 BP.MBOXM 329 x 219 x 59 mm 2,365 Kg	J.430BSP PL.M19 BP.MBOXM 329 x 219 x 59 mm 2,365 Kg	J.451EP PL.77B 540 x 280 x 58 mm 7,700 Kg	J.450U PL.78B 540 x 280 x 58 mm 7,380 Kg

J.430AMU



JL.430AMU



J.431BSP



J.430BSP



J.451EP



J.450U



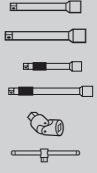



FLUO

RFid



**3/8" MODULES IN THERMOFORMED TRAYS METRIC-INCH**

		<b>MOD.J161-36</b>	<b>MOD.JL161-36</b>	<b>MOD.JL171-36</b>	<b>MOD.J360-36</b>	<b>MOD.J161-212U</b>	<b>MOD.JL161-212U</b>
 <b>Socket</b> mm/inch		J.161B	JL.161	JL.171	J.360	J.161B	JL.161
		6 mm Standard	6 mm Standard	6 mm Standard	6 mm Standard	12 inch Standard	12 inch Standard
 7 1/4 8 5/16 9 3/8 10 7/16 11 1/2 12 9/16 13 5/8 14 11/16 15 3/4 16 13/16 17 7/8 18 19 21 22		•	•	•	•	•	•
		•	•	•	•	•	•
		•	•	•	•	•	•
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 J.210 J.215 J.210RC J.215RC J.240A J.120A		•	•	•	•	•	•
		•	•	•	•	•	•
				•			
				•			
		•	•	•	•	•	•
	•	•	•	•	•	•	
 PL.M15		PL.M15			PL.M16	PL.M18	
		309 x 188 x 55 mm					
		1,595 Kg	1,635 Kg	1,675 Kg	1,865 Kg	1,455 Kg	1,495 Kg

**MOD.J161-36**



**MOD.JL161-36**



**MOD.JL171-36**



**MOD.J360-36**



**MOD.J161-212U**

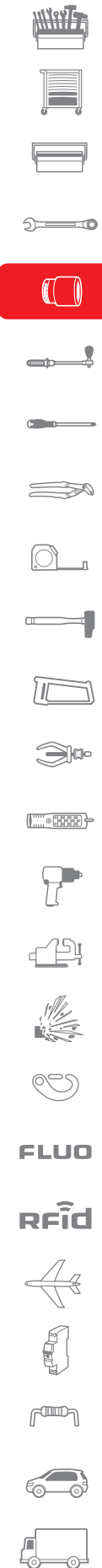


**MOD.JL161-212U**



3/8" MODULES IN FOAM TRAYS METRIC

Socket	mm/inch		MODM.J161-36	MODM.JL161-36
	J.161B	JL.161	Standard	Standard
	7	1/4	•	•
	8	5/16	•	•
	9	3/8	•	•
	10	7/16	•	•
	11	1/2	•	•
	12	9/16	•	•
	13	5/8	•	•
	14	11/16	•	•
	15	3/4	•	•
	16	13/16	•	•
	17	7/8	•	•
	18		•	•
	19		•	•
	21		•	•
22		•	•	
	J.210		•	•
	J.215		•	•
	J.210RC			
	J.215RC			
	J.240A		•	•
	PM.MODJ161-3			
	410 x 188 x 55 mm			
		1,450 Kg	1,490 Kg	



FLUO

RFid

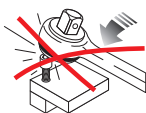
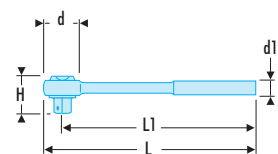
RATCHETS 3/8"

3/8" fast action twist handle ratchet



NF ISO 3315, ISO 3315, DIN 3122, ASME B107.10

- 3/8" fast ratchet with rotating handle:
- Rotating handle jack: work twice as fast in confined spaces.
- 6° increments for final tightening.
- Socket safety locking = no sockets lost in your machines.
- Palm control system - allows the operator to press down on the head avoiding risk of accidental reverse.



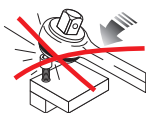
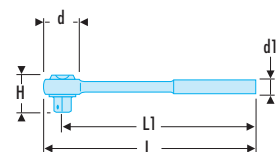
	d [mm]	d1 [mm]	H [mm]	L [mm]	L1 [mm]	ΔΔ [g]
J.360	37	37	39	233	215	465

3/8" maintenance free pear head locking ratchet



NF ISO 3315, ISO 3315, DIN 3122, ASME B107.10

- Socket locking and quick release system.
- Dust proof, maintenance free mechanism.
- 72 teeth mechanism for 5° increments.
- Drive direction switch allows easy reversal even with gloved or greasy hands.
- Palm control system - allows the operator to press down on the head avoiding risk of accidental reverse
- Ultra-compact head.
- Hook for hanging when working at height.
- Ergonomic comfort grip handle design resistant to workshop chemicals and solvents.



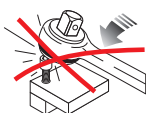
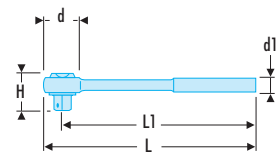
	d [mm]	d1 [mm]	H [mm]	L [mm]	L1 [mm]	ΔΔ [g]
JL.171	29	24/27	24,5	210	195.0	245

3/8" maintenance free pear head ratchet



NF ISO 3315, ISO 3315, DIN 3122, ASME B107.10

- Dust proof, maintenance free mechanism.
- 72 teeth mechanism for 5° increments.
- Drive direction switch allows easy reversal even with gloved or greasy hands.
- Palm control system - allows the operator to press down on the head avoiding risk of accidental reverse
- Ultra-compact head.
- Hook for hanging when working at height.
- Ergonomic comfort grip handle design resistant to workshop chemicals and solvents.



	d [mm]	d1 [mm]	H [mm]	L [mm]	L1 [mm]	ΔΔ [g]
JL.161	29	24 / 27	29	210	195	240



High performance sealed 3/8" ratchet



⇒	d [mm]	d1 [mm]	H [mm]	L [mm]	L1 [mm]	ΔΔ [g]
J.161B	30	24,3 / 28,2	27,6	201	185	200

Original 3/8" ratchet

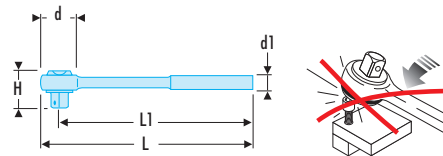
- 72 tooth mechanism for 5° increments.
- Reversing by rotating cap.
- Ultra-compact head.
- Single material elastomer grip: high resistance to abrasion and the most severe workshop solvents: SP95, SP98, diesel fuel, acetone, brake fluid, Skydrol, Jet Oil, kerosene.
- Hole in the handle for strapping when working in high places.
- Easy maintenance: spare parts kit J.151B-KIT.



⇒	d [mm]	d1 [mm]	H [mm]	L [mm]	L1 [mm]	ΔΔ [g]
J.151B	30	16,6 / 28,1	27,6	201	185	195

high performance sealed 3/8" locking ratchet with extending and flexible head

- 2-in-1 ratchet with extending handle. Standard use and easy storage in closed position. Higher torque, less effort and maximum accessibility in the extended position.
- Total length from 247 to 355 mm. 8 setting positions secured by safety catch.
- 180° hinged and secured head to maintain the position even with a socket engaged.
- Very long durability regardless of working conditions. Maintenance-free. Mechanism sealed to industrial dust.
- 72 tooth mechanism for 5° increments.
- Socket safety locking: no sockets lost in your machines.
- Lever reversing: easy even when wearing gloves. Visible rotation direction.
- "Palm control" system, allowing to press the ratchet head during (un)tightening without risk of accidental reversing of the rotation direction.
- Ultra-compact head.
- Bi-material elastomer grip: high resistance to abrasion and the most severe workshop solvents: SP95, SP98, diesel fuel, acetone, brake fluid, Skydrol, Jet Oil, kerosene.
- Hole in the handle for strapping when working in high places.
- Finish: bright chrome.

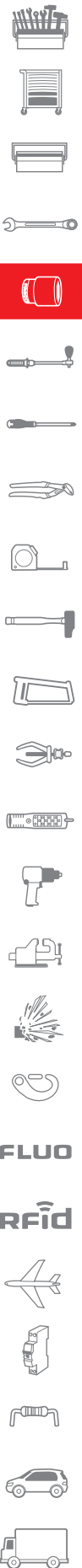


⇒	d [mm]	d1 [mm]	H [mm]	L [mm]	L1 [mm]	ΔΔ [g]
JXL.171	29	28/32	33	247/355	192/300	400

MAINTENANCE OF 3/8" RATCHETS

Kit : 151B	
Kit : 161B	

	151 style 151B style	161 style 161B style
3/8" 9.52 mm	⇒ J.151B-KIT : J.151A J.151B	⇒ J.161B-KIT : J.161, J.161B, J.153, J.155A, J.157A, J.158A, R.161E

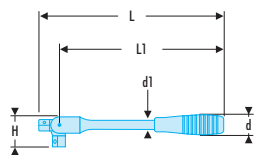


ACCESSORIES 3/8"

3/8" hinged bar



NF ISO 3315, ISO 3315, DIN 3122, ASME B107.10  
 • Stiffened joint.  
 • Finish: bright chrome.

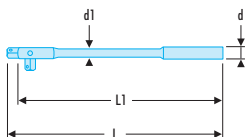


🔧	d [mm]	d1 [mm]	H [mm]	L [mm]	L1 [mm]	ΔΔ [g]
J.140A	25	10	33,5	260	235,5	230

3/8" drive metal-grip hinged handle

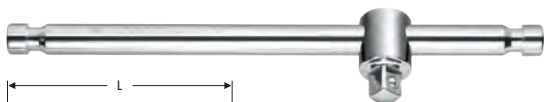


NF ISO 3315, ISO 3315, DIN 3122, ASME B107.10  
 • Stiffened joint.  
 • Finish: bright chrome.

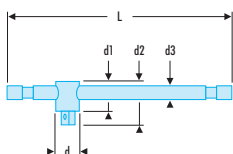


🔧	d [mm]	d1 [mm]	L [mm]	L1 [mm]	ΔΔ [g]
J.145	17	11	255	245	290

3/8" drive sliding tee



NF ISO 3315, ISO 3315, DIN 3122, ASME B107.10  
 • Friction-head allows bar to form a T or L-handle.  
 • Finish: bright chrome.

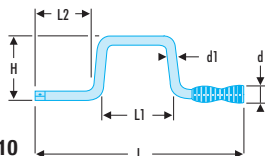


🔧	d [mm]	d1 [mm]	d2 [mm]	d3 [mm]	L [mm]	ΔΔ [g]
J.120A	20	23	34	12	200	215

3/8" drive speed brace



NF ISO 3315, ISO 3315, DIN 3122, ASME B107.10  
 • For fast rotation.  
 • PVC rotating handle.  
 • Finish: bright chrome.

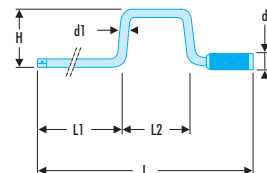


🔧	d [mm]	d1 [mm]	H [mm]	L [mm]	L1 [mm]	L2 [mm]	ΔΔ [g]
J.110A	29	12	115	382	130	110	395

3/8" drive metal-grip speed brace



NF ISO 3315, ISO 3315, DIN 3122, ASME B107.10  
 • For fast rotation.  
 • Metal rotating handle.  
 • Finish: bright chrome.



🔧	d [mm]	d1 [mm]	H [mm]	L [mm]	L1 [mm]	L2 [mm]	ΔΔ [g]
J.115	29	9,5	75	420	195	125	425

**3/8" offset ratchet**

- Allows adding a ratchet mechanism to a fixed control tool (such as a hinged handle).
- 3/8" female square drive bit.
- Out: 3/8" male square drive bit.
- 72 tooth mechanism for 5° increments.
- Reversing by rotating cap.
- Satin chrome finish.




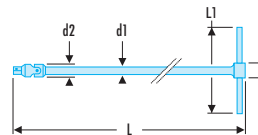
	d [mm]	H [mm]	ΔΔ [g]
<b>J.156</b>	39	53	200

**3/8" drive tee with universal joint**

- Universal joint withstands high torques and is spring-steadied in position.
- Long reach and working angle up to 65° allows access to recessed fasteners.
- Sliding tee handle for a T or L position for more power.
- Finish: bright chrome.

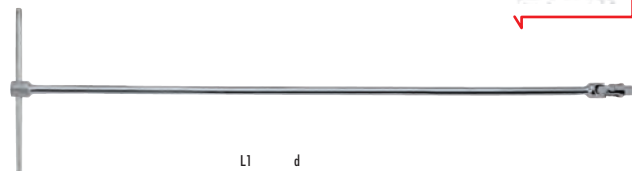


	d [mm]	d1 [mm]	d2 [mm]	L [mm]	L1 [mm]	ΔΔ [g]
<b>J.229A</b>	17	10	19	460	175	410

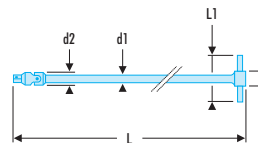


**3/8" long-reach drive tee with universal joint**

- Universal joint withstands high torques and is spring-steadied in position.
- Long reach and working angle up to 65° allows access to recessed fasteners.
- Sliding tee handle for a T or L position for more power.
- Finish: bright chrome.




	d [mm]	d1 [mm]	d2 [mm]	L [mm]	L1 [mm]	ΔΔ [g]
<b>J.228</b>	18	12	19	700	190	660

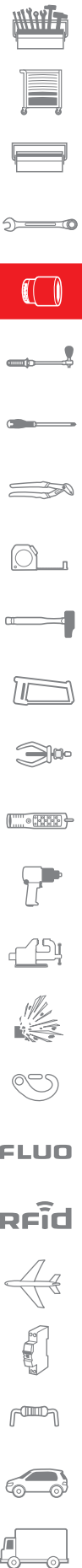
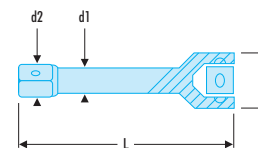


**J - 3/8" drive extensions**

- NF ISO 3316, ISO 3316, DIN 3123, ASME B107.10
- Finish: bright chrome.

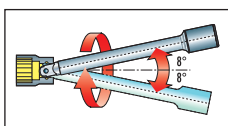
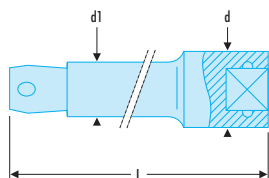


	d [mm]	d1 [mm]	d2 [mm]	L [mm]	ΔΔ [g]
<b>J.208</b>	18	10	12,6	50	65
<b>J.209</b>	18	10	12,6	75	85
<b>J.210</b>	18	10	12,6	125	130
<b>J.215</b>	18	10	12,6	250	230
<b>J.217</b>	18	10	12,6	500	445



ACCESSORIES 3/8"

J.S - 3/8" drive wobble extensions

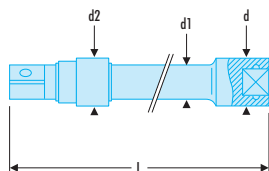


- Square drive profile gives 8° working angle.
- Useful where access is limited.
- Finish: bright chrome.



Part No.	d [mm]	d1 [mm]	L [mm]	ΔΔ [g]
J.209S	18	12,5	75	80
J.210S	18	12,5	125	130

J.RC - 3/8" drive locking extensions



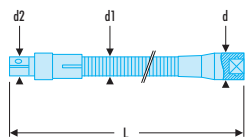
NF ISO 3316, ISO 3316, DIN 3123, ASME B107.10

- Locking mechanism
- Finish : bright chrome



Part No.	d [mm]	d1 [mm]	d2 [mm]	L [mm]	ΔΔ [g]
J.210RC	18	12,5	18	125	135
J.215RC	18	12,5	18	250	240
J.217RC	18	12,5	18	500	490

3/8" wobble extension



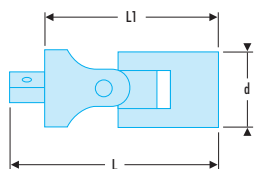
ASME B107.10

- Maximum access.
- Unsuitable for high torques.
- Finish: bright chrome.



Part No.	d [mm]	d1 [mm]	d2 [mm]	L [mm]	ΔΔ [g]
J.216	18	12,6	15	200	145

3/8" universal joint



NF ISO 3316, ISO 3316, DIN 3123, ASME B107.10

- Spring-stiffened joints.
- Finish: bright chrome.



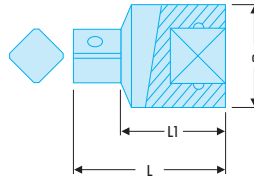
Part No.	d [mm]	L [mm]	L1 [mm]	ΔΔ [g]
J.240A	19	50,7	38,7	60

■ **3/8" to 1/4" coupler**

NF ISO 3316, ISO 3316, DIN 3123, ASME B107.10

- For adapting 1/4" drive sockets.
- Max. torque 62 N.m.
- Finish: bright chrome.

Part No.	d [mm]	L [mm]	L1 [mm]	ΔΔ [g]
J.230	17,5	24,5	17	25

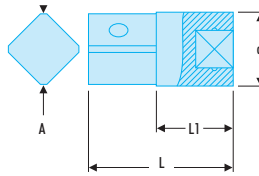


■ **3/8" to 1/2" coupler**

NF ISO 3316, ISO 3316, DIN 3123, ASME B107.10

- For adapting 1/2" drive sockets.
- Finish: bright chrome.

Part No.	A [mm]	d [mm]	L [mm]	L1 [mm]	ΔΔ [g]
J.232	16,5	18	34,5	19	45



■ **Set of 3 couplers**

- Allows use of square drivers smaller than socket drive sizes:
  - 1/4" square drive + D.169RJ --> 3/8" socket.
  - 3/8" square drive + D.169JS --> 1/2" socket.
  - 1/2" square drive --> 3/4" socket.
- Compactness means that fewer tools are needed for in situ maintenance operations.
- Magnetic retainer and locking system (JS and SK).
- Knurl allows hand tightening where access is difficult.

Part No.	ΔΔ [g]
D.169	100

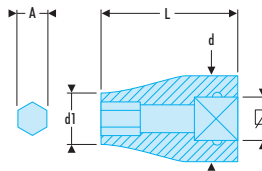


■ **J - 3/8" bit holder sockets with retaining clip**

NF ISO 2725-1, NF ISO 1173, ISO 2725-1, ISO 1173, DIN 3124

- Spring clip for frequent bit changes.
- For frequent removals.
- Finish: bright chrome.
- J.235: 1/4 bits.
- J.236: 5/16 bits.

Part No.	A ["]	d [mm]	d1 [mm]	L [mm]	Square ["]	ΔΔ [g]
J.235	1/4	18,0	11,311,3	30	3/8	28
J.236	5/16	18,0	14,0,0	30	3/8	30

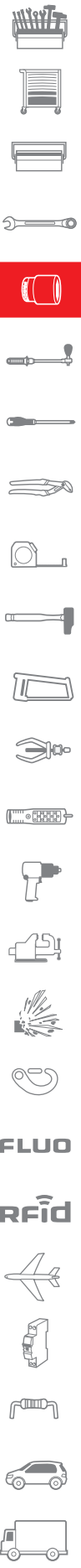


■ **3/8" bit holder socket with locking ring**

NF ISO 2725-1, NF ISO 1173, ISO 2725-1, ISO 1173, DIN 3124

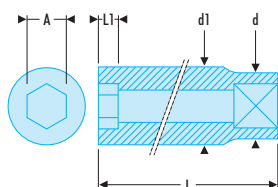
- Bit lock.
- Square drive has side-hole for ball or plunger lock.

Part No.	A ["]	L [mm]	Square ["]	ΔΔ [g]
EF.J	1/4	43	3/8	50



SOCKETS 3/8"

J.H - 3/8" metric 6-point sockets

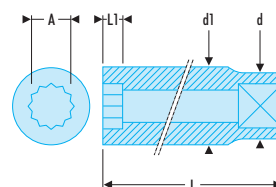


NF ISO 2725-1, NF ISO 1711-1, ISO 2725-1, ISO 1711-1, DIN 3124, ASME B107.5

- OGV® profile: more powerful tightening, preserves fasteners.
- Finish: bright chrome.

⌘	A [mm]	d [mm]	d1 [mm]	L [mm]	L1 [mm]	⊙ [mm]	ΔΔ [g]
J.7H	7	17,6	11,0	27	6,0	6	24
J.8H	8	17,6	12,2	27	6,5	6	25
J.9H	9	17,6	13,5	27	6,7	6	25
J.10H	10	17,6	14,7	27	7,8	6	26
J.11H	11	17,6	16,0	27	9,0	6	27
J.12H	12	17,6	17,2	27	9,5	6	26
J.13H	13	17,4	18,3	30	10,4	6	36
J.14H	14	17,6	19,5	30	10,5	6	34
J.15H	15	18,9	20,8	30	12,0	6	38
J.16H	16	19,9	22,0	30	12,0	6	45
J.17H	17	21,7	23,4	30	13,0	6	52
J.18H	18	21,7	24,7	33	13,0	6	69
J.19H	19	22,7	26,0	33	14,0	6	62
J.20H	20	22,2	27,2	33	15,0	6	70
J.21H	21	23,5	28,5	33	16,0	6	75
J.22H	22	24,7	29,7	33	16,5	6	80
J.23H	23	26,0	31,0	33	16,5	6	90
J.24H	24	26,3	31,3	33	16,5	6	86

J - 3/8" metric 12-point sockets

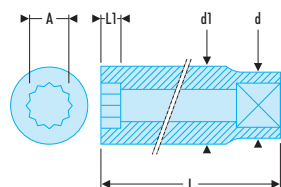


NF ISO 2725-1, NF ISO 1711-1, ISO 2725-1, ISO 1711-1, DIN 3124, ASME B107.5

- OGV® profile: more powerful tightening, preserves fasteners.
- Finish: bright chrome.

⌘	A [mm]	d [mm]	d1 [mm]	L [mm]	L1 [mm]	⊙ [mm]	ΔΔ [g]
J.7	7	17,6	11,0	27	6,0	12	24
J.8	8	17,6	12,2	27	6,5	12	25
J.9	9	17,6	13,5	27	6,7	12	25
J.10	10	17,6	14,7	27	7,8	12	26
J.11	11	17,6	16,0	27	9,0	12	27
J.12	12	17,6	17,2	27	9,5	12	26
J.13	13	17,5	18,3	30	10,4	12	36
J.14	14	17,7	19,5	30	10,5	12	34
J.15	15	19,0	20,8	30	12,0	12	38
J.16	16	20,0	22,0	30	12,0	12	45
J.17	17	21,7	23,4	30	13,0	12	52
J.18	18	21,7	24,7	33	13,0	12	69
J.19	19	22,7	26,0	33	14,0	12	62
J.20	20	22,2	27,2	33	15,0	12	70
J.21	21	23,5	28,5	33	16,0	12	75
J.22	22	24,7	29,7	33	16,5	12	80
J.23	23	26,0	31,0	33	16,5	12	90
J.24	24	26,3	31,3	33	16,5	12	86

J - 3/8" inch 12-point sockets



ASME B107.1

- OGV® profile: more powerful tightening, preserves fasteners.
- Available as rack sets (Ref J.40U).
- Finish: bright chrome.

⌘	A ["]	d [mm]	d1 [mm]	L [mm]	L1 [mm]	⊙ [mm]	ΔΔ [g]
J.1/4	1/4	17,5	10,0	27	6,0	12	24
J.5/16	5/16	17,5	11,9	27	6,5	12	25
J.3/8	3/8	17,6	14,1	27	7,5	12	26
J.7/16	7/16	17,5	16,0	27	9,0	12	27
J.1/2	1/2	17,5	18,1	30	10,4	12	36
J.9/16	9/16	17,7	19,5	30	10,5	12	34
J.5/8	5/8	20,0	22,0	30	12,0	12	46
J.11/16	11/16	21,0	24,0	33	13,0	12	74
J.3/4	3/4	22,7	26,0	33	14,0	12	76
J.13/16	13/16	23,0	28,0	33	16,0	12	79
J.7/8	7/8	24,7	29,7	33	16,5	12	104
J.15/16	15/16	26,3	31,3	33	16,5	12	136
J.1P	1	28,3	33,3	33	16,5	12	156

JB - 3/8" inch 12-point sockets

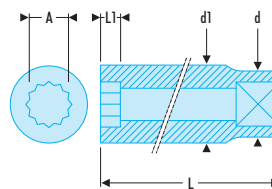


ASME B107.1

- OGV® profile: more powerful tightening, preserves fasteners.
- Built to aeronautical specifications.
- Finish: bright chrome.



Ref	A ["]	d [mm]	d1 [mm]	L [mm]	L1 [mm]	12 [mm]	ΔΔ [g]
JB.1/4	1/4	16,7	9,7	27	6,0	12	20
JB.5/16	5/16	16,7	11,7	27	6,8	12	21
JB.11/32	11/32	16,7	12,7	27	6,8	12	22
JB.3/8	3/8	16,7	13,7	27	7,5	12	23
JB.7/16	7/16	16,7	15,6	27	9,0	12	24
JB.1/2	1/2	16,7	17,6	30	10,4	12	27
JB.9/16	9/16	18,5	19,6	30	10,5	12	33
JB.5/8	5/8	20,0	21,6	30	12,0	12	42
JB.11/16	11/16	22,0	23,6	32	13,0	12	50
JB.3/4	3/4	22,8	25,4	32	15,0	12	55
JB.13/16	13/16	24,0	27,4	32	16,0	12	68
JB.7/8	7/8	24,0	29,4	32	16,0	12	68



J.HLA - 3/8" long-reach metric 6-point sockets

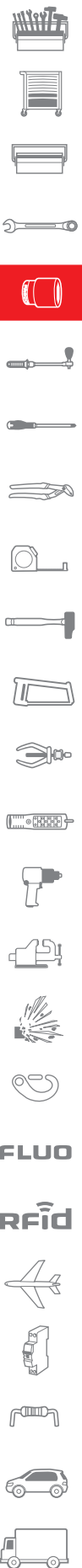
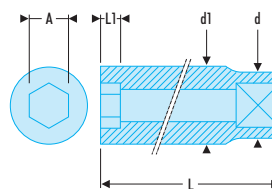


NF ISO 2725-1, NF ISO 1711-1, ISO 2725-1, ISO 1711-1, DIN 3124, ASME B107.5

- OGV® profile: more powerful tightening, preserves fasteners.
- Long-reach sockets for long recess or thread access.
- Available as rack set Ref JL.40E (7 --> 15 mm) and Ref RL.41E (16 --> 24 mm).
- Finish: bright chrome.

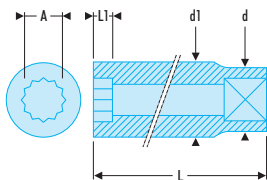


Ref	A [mm]	d [mm]	d1 [mm]	L [mm]	L1 [mm]	6 [mm]	ΔΔ [g]
J.7HLA	7	17,3	10,6	55	6,0	6	44
J.8HLA	8	17,3	12,0	55	7,5	6	46
J.9HLA	9	17,3	13,0	55	7,5	6	47
J.10HLA	10	17,3	14,5	55	9,0	6	50
J.11HLA	11	17,3	16,0	55	10,5	6	53
J.12HLA	12	17,2	16,8	55	12,0	6	53
J.13HLA	13	17,0	18,0	55	12,0	6	54
J.14HLA	14	18,0	20,0	55	15,0	6	60
J.15HLA	15	20,0	21,0	60	15,0	6	75
J.16HLA	16	20,0	22,0	60	15,0	6	85
J.17HLA	17	22,0	23,5	60	15,0	6	102
J.18HLA	18	23,0	24,5	60	18,0	6	109
J.19HLA	19	24,0	25,0	60	18,0	6	110
J.21HLA	21	26,0	27,0	60	18,0	6	123
J.22HLA	22	28,0	29,0	60	21,0	6	150
J.24HLA	24	30,0	31,0	60	24,0	6	176



SOCKETS 3/8"

J.LA - 3/8" long-reach metric 12-point sockets

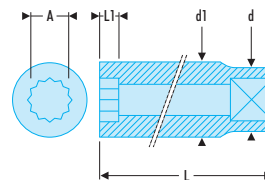


NF ISO 2725-1, NF ISO 1711-1, ISO 2725-1, ISO 1711-1, DIN 3124, ASME B107.5

- OGV® profile: more powerful tightening, preserves fasteners.
- Long-reach sockets for long recess or thread access.
- Available as rack sets (Ref JL.40U).
- Finish: bright chrome.

➤	A [mm]	d [mm]	d1 [mm]	L [mm]	L1 [mm]	12 [mm]	ΔΔ [g]
J.7LA	7	17,3	10,6	55	6,0	12	44
J.8LA	8	17,3	12,0	55	7,5	12	46
J.9LA	9	17,3	13,0	55	7,5	12	47
J.10LA	10	17,3	14,5	55	9,0	12	50
J.11LA	11	17,3	16,0	55	10,5	12	53
J.12LA	12	17,3	16,8	55	12,0	12	53
J.13LA	13	17,2	18,0	55	12,0	12	54
J.14LA	14	17	20,0	55	15,0	12	60
J.15LA	15	18	21,0	55	15,0	12	75
J.16LA	16	20	22,0	60	15,0	12	85
J.17LA	17	20	23,5	60	15,0	12	102
J.18LA	18	22	24,5	60	18,0	12	109
J.19LA	19	23	25,0	60	18,0	12	110
J.21LA	21	24	27,0	60	18,0	12	123
J.22LA	22	26	29,0	60	21,0	12	150
J.24LA	24	30	31,0	60	21,0	12	176

J.LA - 3/8" inch 12-point sockets



ASME B107.1

- OGV® profile: more powerful tightening, preserves fasteners.
- Long-reach sockets for long recess or thread access.
- Finish: bright chrome.

➤	A ["]	d [mm]	d1 [mm]	L [mm]	L1 [mm]	12 [mm]	ΔΔ [g]
J.1/4LA	1/4	17,5	10,6	44,7	4,0	12	36
J.5/16LA	5/16	17,5	12,4	44,7	4,3	12	36
J.3/8LA	3/8	17,5	14,3	44,7	4,7	12	41
J.7/16LA	7/16	17,5	16,2	44,7	6,2	12	45
J.1/2LA	1/2	18,2	18,2	44,7	7,4	12	50
J.9/16LA	9/16	20,5	20,5	48,0	9,0	12	72
J.5/8LA	5/8	22,3	22,3	63,8	10,2	12	104
J.11/16LA	11/16	23,8	23,8	63,8	10,2	12	113
J.3/4LA	3/4	25,3	25,3	63,8	11,8	12	127
J.13/16LA	13/16	27,0	27,0	63,8	12,3	12	140
J.7/8LA	7/8	30,2	30,2	63,8	12,7	12	181
J.15/16LA	15/16	31,8	31,8	63,8	12,7	12	185
J.1PLA	1	33,4	33,4	63,8	12,7	12	185

Sets of 3/8" sockets in metallic rack



➤	A ["]	A [mm]	6 12 [mm]	Torx [No]	Contents	Qtés	ΔΔ [kg]
J.40E		J. 7 - 8 - 9 - 10 - 11 - 12 - 13 - 14 - 15 - 16	12		CKS.94	10	0,380
JL.40E		J.LA 7 - 8 - 9 - 10 - 11 - 12 - 13 - 14 - 15	12		CKS.94	9	0,615
JL.41E		J.LA 16 - 17 - 18 - 19 - 21 - 22 - 24	12		CKS.94	7	0,975
J.40U	J. 1/4 - 5/16 - 3/8 - 7/16 - 1/2 - 9/16 - 5/8 - 11/16		12		CKS.94	8	0,365
JL.40U	J. 1/4 - 5/16 - 3/8 - 7/16 - 1/2 - 9/16 - 5/8 - 11/16		12		CKS.94	10	0,850
JTX.40			TORX®	JTX. E8 - E10 - E12 - E14 - E16	CKS.91	5	0,350
JT.40		JT. 4 - 5 - 6 - 7 - 8 - 10	6		CKS.91	6	0,305

J - 3/8" socket set in box



Box BP.MBOXM.

➤	A [mm]	Contents	Qtés	ΔΔ [kg]
J.400	J. 7 - 8 - 9 - 10 - 11 - 12 - 13 - 14 - 15 - 16 - 17 - 18 - 19 - 21 - 22 - 23 - 24	PL.M20	17	1,540
J.401	J.H 7 - 8 - 9 - 10 - 11 - 12 - 13 - 14 - 15 - 16 - 17 - 18 - 19 - 21 - 22 - 23 - 24	PL.M20	17	1,540
J.404	J.LA 7 - 8 - 9 - 10 - 11 - 12 - 13 - 14 - 15 - 16 - 17 - 18 - 19 - 21 - 22 - 24	PL.M21	16	2,150
J.405	7 - 8 - 9 - 10 - 11 - 12 - 13 - 14 - 15 - 16 - 17 - 18 - 19 - 21 - 22 - 24	PL.M21	16	2,150

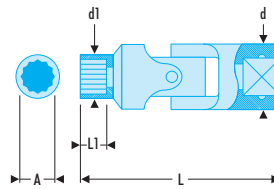


■ J.F - 3/8" drive hinged inch 12-point sockets

ASME B107.1

- OGV® profile: more powerful tightening, preserves fasteners.
- Compact solution used instead of universal joint.
- Finish: bright chrome.

⚙️	A ["]	d [mm]	d1 [mm]	L [mm]	L1 [mm]	12 [mm]	ΔΔ [g]
J.3/8F	3/8	19	14,0	27	8,3	12	26
J.7/16F	7/16	19	15,8	27	9,8	12	27
J.1/2F	1/2	19	18,3	30	11,3	12	36
J.9/16F	9/16	19	19,5	30	11,3	12	34
J.5/8F	5/8	19	22,00	30	12,8	12	46
J.11/16F	11/16	19	24,00	33	13,8	12	74
J.3/4F	3/4	19	25,8	33	15,8	12	76

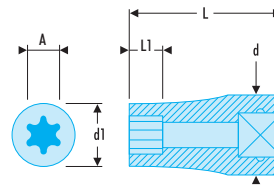


TORX® SOCKETS 3/8"

■ JTX - 3/8" Torx® sockets

- For Torx® fasteners.
- Available as metal rack set (Ref JTX.40).
- Finish: bright chrome.

⚙️	A [mm]	d [mm]	d1 [mm]	L [mm]	L1 [mm]	Torx [No]	ΔΔ [g]
JTX.8	7,29	17,3	9,9	26	5,6	E8	40
JTX.10	9,19	17,3	11,8	26	6,4	E10	40
JTX.12	10,95	17,3	14,5	26	8,0	E12	40
JTX.14	12,67	17,3	15,7	26	8,8	E14	50
JTX.16	14,70	17,3	18,0	26	9,6	E16	100

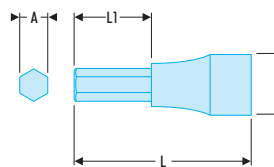


SCREWDRIVER SOCKETS 3/8"

■ JT - 3/8" drive metric bit sockets

- Removable bits.
- J.235 socket.
- Finish: bright chrome with phosphate-hardened tip.
- Available as rack set Ref JT.40.

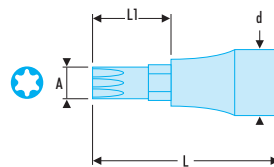
⚙️	A [mm]	d [mm]	L [mm]	L1 [mm]	Socket	Bits	ΔΔ [g]
JT.3	3	18	45,0	15,0	J.235	EH.103	31
JT.4	4	18	45,0	15,0	J.235	EH.104	31
JT.5	5	18	45,0	15,0	J.235	EH.105	32
JT.6	6	18	45,0	15,0	J.235	EH.106	33
JT.7	7	18	45,0	15,0	J.235	EH.107	34
JT.8	8	18	47,5	17,5	J.236	EH.208	43
JT.10	10	18	47,5	17,5	J.236	EH.210	50













■ JX - 3/8" Torx® drive sockets

- Removable bits.
- J.236 socket.
- Finish: bright chrome with phosphate-hardened tip.

⚙️	A [mm]	L [mm]	L1 [mm]	Torx [No]	Socket	Bits	No.	ΔΔ [g]
JX.10	2,72	46,0	16,0	T10	J.235	EX.110	T10	34
JX.15	3,26	46,0	16,0	T15	J.235	EX.115	T15	34
JX.20	3,84	46,0	16,0	T20	J.235	EX.120	T20	34
JX.25	4,40	46,0	16,0	T25	J.235	EX.125	T25	34
JX.27	4,96	46,0	16,0	T27	J.235	EX.127	T27	34
JX.30	5,49	46,0	16,0	T30	J.235	EX.130	T30	34
JX.40	6,60	52,5	22,5	T40	J.236	EX.240	T40	45
JX.45	7,77	52,5	22,5	T45	J.236	EX.245	T45	45
JX.50	8,79	52,5	22,5	T50	J.236	EX.250	T50	18
JX.55	11,17	52,5	22,5	T55	J.236	EX.255	T55	61



SETS OF 1/2" METRIC 'DETECTION BOX' SOCKETS

		S.161DBOX1	SL.DBOX1	SL.DBOX112	SL.DBOX500	SL.DBOX501	S.360DBOX1	S.360DBOX112	SXL.DBOX1
Socket		S.161B 6	SL.161 6	SL.161 12	SL.171 6	SL.171 12	S.360 6	S.360 12	SXL.161 6
mm									
8		•	•	•	•	•	•	•	•
9									
10		•	•	•	•	•	•	•	•
11		•	•	•	•	•	•	•	•
12		•	•	•	•	•	•	•	•
13		•	•	•	•	•	•	•	•
14		•	•	•	•	•	•	•	•
15		•	•	•	•	•	•	•	•
16		•	•	•	•	•	•	•	•
17		•	•	•	•	•	•	•	•
18		•	•	•	•	•	•	•	•
19		•	•	•	•	•	•	•	•
21		•	•	•	•	•	•	•	•
22		•	•	•	•	•	•	•	•
23									
24		•	•	•	•	•	•	•	•
27		•	•	•	•	•	•	•	•
30		•	•	•	•	•	•	•	•
32		•	•	•	•	•	•	•	•
S.210		•	•	•			•	•	
S.215		•	•	•			•	•	
S.210RC					•	•			
S.215RC					•	•			
S.210S									•
S.240A		•	•	•	•	•	•	•	•
S.120A									
		BV.S1NANO							
		340 x 180 x 58 mm							
		3,535 Kg	3,575 Kg		3,630 Kg		3,705 Kg		3,850 Kg



S.161DBOX1



SL.DBOX1



SL.DBOX112



SL.DBOX500



SL.DBOX501



S.360DBOX1
















S.360DBOX112



SXL.DBOX1



SETS OF 1/2" METRIC 'DETECTION BOX' SOCKETS

		SL.DBOX4	SL.DBOX412	S.360DBOX4	S.360DBOX112	SXL.DBOX2	SXL.DBOX3
  <b>Socket</b>		SL.161 Standard	SL.161 Standard	S.360 Standard	S.360 Standard	SXL.161 Standard	SXL.171 Standard
 mm	8	•	•	•	•		
	9	•	•	•	•		
	10	•	•	•	•	•	•
	11	•	•	•	•	•	•
	12	•	•	•	•	•	•
	13	•	•	•	•	•	•
	14	•	•	•	•	•	•
	15	•	•	•	•	•	•
	16	•	•	•	•	•	•
	17	•	•	•	•	•	•
	18	•	•	•	•	•	•
	19	•	•	•	•	•	•
	21	•	•	•	•	•	•
	22	•	•	•	•	•	•
	23	•	•	•	•	•	•
24	•	•	•	•	•	•	
25							
26							
27	•	•	•	•	•	•	
28							
29							
30	•	•	•	•	•	•	
32	•	•	•	•	•	•	
 S.210							
 S.215					•		
 S.210RC						•	
 S.215RC						•	
 S.210S	•	•	•	•	•	•	
 S.240A							
 S.120A	•	•	•	•	•	•	
 S.232B							
 BV.S2NANO	BV.S2NANO			BV.S3NANO			
	340 x 480 x 58 mm						
	3,435 Kg		3,565 Kg		3,705 Kg	3,835 Kg	



SL.DBOX4



SL.DBOX412



S.360DBOX4



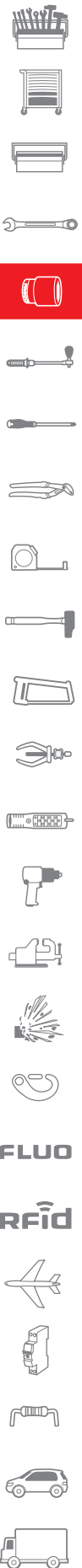
S.360DBOX412



SXL.DBOX2



SXL.DBOX3



SETS OF 1/2" METRIC MBOX SOCKETS

15  
PIEZAS



6 12 8 9 10 11 12 13 14 15 16 17 18 19  
20 21 22 23 24 26 27 28 29 30 32 34

130 mm 250 mm

Part No.	Accessories	Quantity	Material	Code	Dimensions	Weight
S.151-1P6	S.151B	6	BP.MBOXM	PL.M03	329 x 219 x 59 mm	2.250
S.151-1P12	S.151B	12	BP.MBOXM	PL.M03	329 x 219 x 59 mm	2.250

19  
PIEZAS



6 12 8 9 10 11 12 13 14 15 16 17 18 19  
20 21 22 23 24 26 27 28 29 30 32 34

130 mm 250 mm

Part No.	Accessories	Quantity	Material	Code	Dimensions	Weight
S.151-2P6	S.151B	6	BP.MBOXM	PL.M02	329 x 219 x 59 mm	2.970
S.151-2P12	S.151B	12	BP.MBOXM	PL.M02	329 x 219 x 59 mm	2.970
S.161-2P6	S.161B	6	BP.MBOXM	PL.M02	329 x 219 x 59 mm	2.980
S.161-2P12	S.161B	12	BP.MBOXM	PL.M02	329 x 219 x 59 mm	2.980
SL.161-2P6	SL.161	6	BP.MBOXM	PL.M02	329 x 219 x 59 mm	3.020
SL.161-2P12	SL.161	12	BP.MBOXM	PL.M02	329 x 219 x 59 mm	3.020

23  
PIEZAS



6 12 8 9 10 11 12 13 14 15 16 17 18 19  
20 21 22 23 24 26 27 28 29 30 32 34

130 mm 250 mm

Part No.	Accessories	Quantity	Material	Code	Dimensions	Weight
S.161-3P6	S.161B	6	BP.MBOXM	PL.M01	329 x 219 x 59 mm	3.600
S.161-3P12	S.161B	12	BP.MBOXM	PL.M01	329 x 219 x 59 mm	3.600
SL.161-3P6	SL.161	6	BP.MBOXM	PL.M01	329 x 219 x 59 mm	3.640
SL.161-3P12	SL.161	12	BP.MBOXM	PL.M01	329 x 219 x 59 mm	3.640
SL.171-3P6	SL.171	6	BP.MBOXM	PL.M01	329 x 219 x 59 mm	3.705
SL.171-3P12	SL.171	12	BP.MBOXM	PL.M01	329 x 219 x 59 mm	3.705
S.360-3P6	S.360	6	BP.MBOXM	PL.M01	329 x 219 x 59 mm	3.770
S.360-3P12	S.360	12	BP.MBOXM	PL.M01	329 x 219 x 59 mm	3.770

SETS OF 1/2" METRIC MBOX SOCKETS

**26**  
PIEZAS



6 12 8 9 10 11 12 13 14 15 16 17 18 19  
20 21 22 23 24 26 27 28 29 30 32 34

130 mm 250 mm

			6 12				ΔΔ [kg]
S.161-4P6	S.161B		6	BP.MBOXL	PL.L02	434 x 270 x 70 mm	3.790
S.161-4P12	S.161B		12	BP.MBOXL	PL.L02	434 x 270 x 70 mm	3.790
SL.161-4P6	SL.161		6	BP.MBOXL	PL.L02	434 x 270 x 70 mm	3.830
SL.161-4P12	SL.161		12	BP.MBOXL	PL.L02	434 x 270 x 70 mm	3.830
SL.171-4P6	SL.171		6	BP.MBOXL	PL.L02	434 x 270 x 70 mm	3.895
SL.171-4P12	SL.161		12	BP.MBOXL	PL.L02	434 x 270 x 70 mm	3.895
S.360-4P6	S.360		6	BP.MBOXL	PL.L02	434 x 270 x 70 mm	3.960
S.360-4P12	S.360		12	BP.MBOXL	PL.L02	434 x 270 x 70 mm	3.960
SXL.161-4P6	SXL.161		6	BP.MBOXL	PL.L02	434 x 270 x 70 mm	5.100
SXL.161-4P12	SXL.161		12	BP.MBOXL	PL.L02	434 x 270 x 70 mm	5.100

**30**  
PIEZAS



6 12 8 9 10 11 12 13 14 15 16 17 18 19  
20 21 22 23 24 26 27 28 29 30 32 34

130 mm 250 mm

			6 12				ΔΔ [kg]
S.161-5P6	S.161B		6	BP.MBOXL	PL.L03	434 x 270 x 70 mm	5.755
S.161-5P12	S.161B		12	BP.MBOXL	PL.L03	434 x 270 x 70 mm	5.755
SL.161-5P6	SL.161		6	BP.MBOXL	PL.L03	434 x 270 x 70 mm	5.795
SL.161-5P12	SL.161		12	BP.MBOXL	PL.L03	434 x 270 x 70 mm	3.795



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SETS OF 1/2" INCH MBOX SOCKETS

15  
PIECES



6 12 3/8 7/16 1/2 9/16 19/32 5/8 21/32  
11/16 3/4 25/32 13/16 7/8 15/16 31/32  
1' 1' 1/16 1' 1/8 1' 3/16 1' 1/4

130 mm 250 mm

			6 12				ΔΔ [kg]
<b>S.161-1P6U</b>	S.161B		6	BP.MBOXM	PL.M05	329 x 219 x 59 mm	2.645
<b>S.161-1P12U</b>	S.161B		12	BP.MBOXM	PL.M05	329 x 219 x 59 mm	2.645
<b>SL.161-1P6U</b>	SL.161		6	BP.MBOXM	PL.M05	329 x 219 x 59 mm	2.685
<b>SL.161-1P12U</b>	SL.161		12	BP.MBOXM	PL.M05	329 x 219 x 59 mm	2.685

22  
PIECES



6 12 3/8 7/16 1/2 9/16 19/32 5/8 21/32  
11/16 3/4 25/32 13/16 7/8 15/16 31/32  
1' 1' 1/16 1' 1/8 1' 3/16 1' 1/4

130 mm 250 mm

			6 12				ΔΔ [kg]
<b>S.161-2P6U</b>	S.161B		6	BP.MBOXL	PL.L05	434 x 270 x 70 mm	4.410
<b>S.161-2P12U</b>	S.161B		12	BP.MBOXL	PL.L05	434 x 270 x 70 mm	4.410
<b>SL.161-2P6U</b>	SL.161		6	BP.MBOXL	PL.L05	434 x 270 x 70 mm	4.450
<b>SL.161-2P12U</b>	SL.161		12	BP.MBOXL	PL.L05	434 x 270 x 70 mm	4.450

25  
PIECES



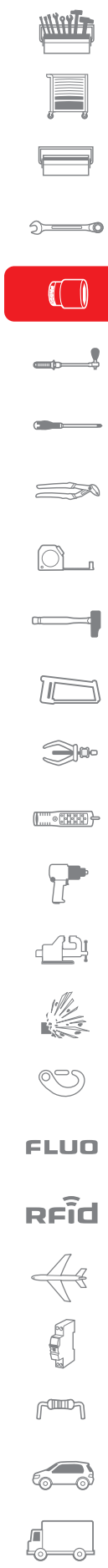
6 12 3/8 7/16 1/2 9/16 19/32 5/8 21/32  
11/16 3/4 25/32 13/16 7/8 15/16 31/32  
1' 1' 1/16 1' 1/8 1' 3/16 1' 1/4

130 mm 250 mm

			6 12				ΔΔ [kg]
<b>S.161-3P6U</b>	S.161B		6	BP.MBOXL	PL.L06	434 x 270 x 70 mm	5.115
<b>S.161-3P12U</b>	S.161B		12	BP.MBOXL	PL.L06	434 x 270 x 70 mm	5.115
<b>SL.161-3P6U</b>	SL.161		6	BP.MBOXL	PL.L06	434 x 270 x 70 mm	5.155
<b>SL.161-3P12U</b>	SL.161		6	BP.MBOXL	PL.L06	434 x 270 x 70 mm	5.155

SETS OF 1/2" METRIC AND INCH MBOX SOCKETS

















Socket		S.447ADP	S.446ADP	S.851	S.850	S.450EP	S.450UP
mm   inch		S.161B mm Standard	S.161B mm Standard	S.161B mm Standard	S.161B mm Standard	S.161B + S.156 mm Std + long	S.161B + S.156 Inch Std + long
	8	•	•	•	•	•	•
	9	•	•	•	•	•	•
	10	•	•	•	•	•	•
	11	•	•	•	•	•	•
	12	•	•	•	•	•	•
	13	•	•	•	•	•	•
	14	•	•	•	•	•	•
	15	•	•	•	•	•	•
	16	•	•	•	•	•	•
	17	•	•	•	•	•	•
	18	•	•	•	•	•	•
	19	•	•	•	•	•	•
	20	•	•	•	•	•	•
	21	•	•	•	•	•	•
	22	•	•	•	•	•	•
	23	•	•	•	•	•	•
	24	•	•	•	•	•	•
	26	•	•	•	•	•	•
	27	•	•	•	•	•	•
	28	•	•	•	•	•	•
29	•	•	•	•	•	•	
30	•	•	•	•	•	•	
32	•	•	•	•	•	•	
	EP			•	•		
	+			•	•		
				•	•		
	EH			•	•		
	30 mm : 70 mm			•	•		
	5	•	•	•	•		
	6	•	•	•	•		
	7	•	•	•	•		
	8	•	•	•	•		
	10	•	•	•	•		
12	•	•	•	•			
14	•	•	•	•			
	ED			•	•		
	+			•	•	•	•
				•	•		
				•	•		
	ES			•	•		
	5,5			•	•		
	6,5			•	•		
	8			•	•		
	10			•	•		
	12			•	•		
14					•	•	
16					•	•	
	EXR			•	•		
	+			•	•		
				•	•		
				•	•		
				•	•		
				•	•		
				•	•		
				•	•		
				•	•		
				•	•		
	S.210	•	•	•	•	•	•
	S.215	•	•	•	•	•	•
	S.240A	•	•	•	•	•	•
	S.120A	•	•	•	•	•	•
	S.236	•	•	•	•	•	•
	S.237	•	•	•	•	•	•
	S.110	•	•	•	•	•	•
	S.141A	•	•	•	•	•	•
	S.234	•	•	•	•	•	•
		PL.L07		PL.L08		PLT.11, PL.23A, PL.24A	PLT.11, PL.23A, PL.25A
		BPMBOXL 434 x 270 x 70 mm				BT.108 452 x 284 x 111 mm	
		5,075 Kg		4,540 Kg		14,750 Kg	13,350 Kg



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SETS OF 1/2" METRIC MBOX SOCKETS

		 S.401B	 S.400B	 S.405AE	 S.404AE	 STM.J9A	 AMEX.3A
		 TORX®					 TORX®
Socket	mm	Standard	Standard	Long	Long	Hexagonal bit socket	TORX® bit socket
	8	•	•				
	9	•	•				
	10	•	•				
	11	•	•				
	12	•	•	•	•		
	13	•	•	•	•		
	14	•	•	•	•		
	15	•	•	•	•		
	16	•	•	•	•		
	17	•	•	•	•		
	18	•	•	•	•		
	19	•	•	•	•		
	20						
	21	•	•	•	•		
	22	•	•	•	•		
	23	•	•	•	•		
	24	•	•	•	•		
	25						
	26	•	•	•	•		
	27	•	•	•	•		
	28	•	•				
	29	•	•				
	30	•	•	•	•		
	32	•	•	•	•		
	STM						
	5					•	
	6					•	
	7					•	
	8					•	
	10					•	
	12					•	
	14					•	
	17					•	
	19					•	
	SXM						
	T20						•
	T25						•
	T27						•
	T30						•
	T40						•
	T45						•
	T50						•
	T55						•
	T60						•
		PL.M04 BP.MBOXM 329 x 219 x 59 mm 2,900 Kg		PL.L09 BP.MBOXL 434 x 270 x 70 mm 4,620 Kg		PL.S02 BP.MBOXS 210 x 139 x 59 mm 1,150 Kg	0,970 Kg

S.401B  
S.400B



S.405AE  
S.404AE



STM.J9A



AMEX.3A





SETS OF 1/4" AND 1/2" METRIC MBOX SOCKETS

Socket		mm	RSX.427AP	RS.161-1	RS.360-1	RS.161-2
			R.161B S.161B Torx Torx Standard	R.161B S.161B 6 1/4" 1/2" Standard	R.360 S.161B 6 1/4" 1/2" Standard	R.161B S.161B 6 1/4" 1/2" Standard
	mm	5,5		•	•	•
		6		•	•	•
		7		•	•	•
		8		•	•	•
		9		•	•	•
		10		•	•	•
		11		•	•	•
		12		•	•	•
		13		•	•	•
		14		•	•	•
		15		•	•	•
		16		•	•	•
		17		•	•	•
		18		•	•	•
		19		•	•	•
21		•	•	•		
22		•	•	•		
24		•	•	•		
27		•	•	•		
30		•	•	•		
32		•	•	•		
	Torx socket 1/4" STX	E4	•			
		E5	•			
		E6	•			
		E7	•			
		E8	•			
	Torx socket 1/2" STX	E10	•			
		S12	•			
		E14	•			
		E16	•			
	EP	1			•	
		2			•	
		3			•	
	EH	3			•	
		4			•	
		5			•	
		mm	6			•
	ED	7			•	
		3			•	
	ES	4,5			•	
		6,5			•	
		8			•	
	EX Torx - EXR Résistox	T8	•			
		T10	•			
		TT10	•			
		T15	•			
		TT15	•			
		T20	•			
		TT20	•			
		T25	•			
TT25	•					
	R.209 R.210 R.240A R.235 R.236A AM.H S.210 S.240A				•	
				•		
			•			
			•			
			•			
			•			
			•			
			•			
	PL.M24 PL.M25 BP.MBOXM BP.MBOXL				•	
				•		
				•		
			329 x 219 x 59 mm 2,100 Kg	329 x 215 x 59 mm 2,890 Kg	434 x 270 x 70 mm 4,020 Kg	

RSX.427AP



RS.161-1



RS.360-1




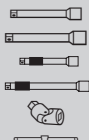

RS.161-2



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1/2" MODULES IN THERMOFORMED TRAYS METRIC

		MOD.S161-36	MOD.SL161-36	MOD.S161-46	MOD.SL161-46
		S.161B	SL.161	S.161B	SL.161
		Standard	Standard	Standard	Standard
	mm				
	8	•	•	•	•
	9	•	•	•	•
	10	•	•	•	•
	11	•	•	•	•
	12	•	•	•	•
	13	•	•	•	•
	14	•	•	•	•
	15	•	•	•	•
	16	•	•	•	•
	17	•	•	•	•
	18	•	•	•	•
	19	•	•	•	•
	21	•	•	•	•
	22	•	•	•	•
	23	•	•	•	•
	24	•	•	•	•
26					
27	•	•	•	•	
28					
29					
30	•	•	•	•	
32	•	•	•	•	
	S.210	•	•	•	•
	S.215	•	•	•	•
	S.210RC				
	S.215RC				
	S.240A	•	•	•	•
S.120A					
		PL.M01		PL.L02	
		309 x 188 mm		410 x 188 mm	
		2,985 Kg	3,025 Kg	3,680 Kg	3,720 Kg

MOD.S161-36



MOD.SL161-36











MOD.S161-46



MOD.SL161-46



1/2" MODULES IN THERMOFORMED TRAYS INCH

		MOD.S161-112U	MOD.SL161-112U	MOD.S161-212U	MOD.SL161-212U
Socket	 inch	S.161B Standard	SL.161 Standard	S.161B Standard	SL.161 Standard
	 3/8	•	•	•	•
	7/16	•	•	•	•
	1/2	•	•	•	•
	9/16	•	•	•	•
	19/32	•	•	•	•
	5/8	•	•	•	•
	21/32	•	•	•	•
	11/16	•	•	•	•
	3/4	•	•	•	•
	13/16	•	•	•	•
	7/8	•	•	•	•
	15/16	•	•	•	•
	1	•	•	•	•
	1 1/16	•	•	•	•
	1 1/8	•	•	•	•
	1 3/16	•	•	•	•
	1 1/4	•	•	•	•
	S.210	•	•	•	•
	S.215	•	•	•	•
	S.210RC	•	•	•	•
	S.215RC	•	•	•	•
	S.240A	•	•	•	•
	S.120A	•	•	•	•
		PL.M05 309 x 188 mm		PL.L05 410 x 188 mm	
		2,030 Kg	2,070 Kg	3,300 Kg	3,340 Kg

MOD.S161-112U



MOD.SL161-112U




MOD.S161-212U



MOD.SL161-212U



1/2" MODULES IN THERMOFORMED TRAYS HEXAGONAL, TORX, XZN

		MOD.HLB	MOD.TX1A	MOD.CH	MOD.SHPA
		Torx		Hex + Torx + XZN	Hex + Torx + XZN
Socket	mm	3/8" 1/2" Long sockets	3/8" 1/2" Sockets + wrenches	3/8" 1/2" Sockets + long sockets	3/8" 1/2" Sockets + bit sockets
	7	•			
	8	•			
	9	•			
	10	•			
	11	•			
	12		•		
	13		•		
	14		•		
	15		•		
	16		•		
Torx sockets 3/8" JTX	E8		•	•	
	E10		•	•	
	E12		•		
	E14		•		
	E16		•		
Tox sockets 1/2" STX	E12			•	
	E14			•	
	E16			•	
	E18		•	•	
Torx wrenches 59	E6 x E8		•		
	E10 x E12		•		
	E14 x E16		•		
	E18 x E20		•		
Resistorx bits EXR.1	TT10		•		•
	TT15		•		
	TT20		•		
	TT25		•		
	TT27		•		
Torx bits EXR.2	TT30		•		•
	TT40		•		•
	T40		•		•
	T45		•		•
Hexagonal bit sockets SHP.LA	T50		•		•
	T55		•		•
	5			•	•
	6			•	•
	7			•	•
Spline sockets D.34BL	8			•	•
	10			•	•
	12			•	•
	14			•	•
XZN sockets SV.LB	16			•	•
	M6			•	•
	M8			•	•
	M10			•	•
	M12			•	•
	M14			•	•
	M16			•	•
Bit sockets SX.LA	M18			•	•
	T40			•	•
	T45			•	•
	T55			•	•
R.235 J.235 S.236	T70			•	•
	R.235		•		
	J.235		•		
	S.236		•		
		PL.M06	PL.M08	PL.663	PL.336A
		309 x 188 x 55 mm		410 x 188 x 55 mm	
		1,445 Kg	1,100 Kg	2,750 Kg	2,150 Kg

MOD.HLB



MOD.TX1A







MOD.CH



MOD.SHPA



1/2" MODULES IN THERMOFORMED TRAYS METRIC

		MODM.S161-36	MODM.SL161-36	MODM.SL171-36	MODM.S1A	MODM.SL1
 Socket	mm	S.161B	SL.161	SL.171	S.161B	SL.161
		6 mm Standard	6 mm Standard	6 mm Standard	6 mm Standard	6 mm Standard
	8	•	•	•	•	•
	9	•	•	•	•	•
	10	•	•	•	•	•
	11	•	•	•	•	•
	12	•	•	•	•	•
	13	•	•	•	•	•
	14	•	•	•	•	•
	15	•	•	•	•	•
	16	•	•	•	•	•
	17	•	•	•	•	•
	18	•	•	•	•	•
	19	•	•	•	•	•
	21	•	•	•	•	•
	22	•	•	•	•	•
	23	•	•	•	•	•
	24	•	•	•	•	•
	26	•	•	•	•	•
27	•	•	•	•	•	
28						
29						
30	•	•	•	•	•	
32	•	•	•	•	•	
 S.210 S.215 S.210RC S.215RC  S.240A S.120A	S.210	•	•	•	•	•
	S.215	•	•	•	•	•
	S.210RC			•		
	S.215RC			•		
	S.240A	•	•	•	•	•
S.120A				•	•	
PM.MODS161-3				PM.MODS1A		
410 x 188 x 55 mm						
		2,840 Kg	2,880 Kg	3,030 Kg	3,150 Kg	3,190 Kg

MOD.S161-36



MOD.SL161-36



MOD.SL1








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SOCKETS 1/2"

1/2" MODULES IN FOAM TRAYS INCH

		MODM.S161-212U	MODM.SL161-212U
Socket		S.161B Standard	SL.161 Standard
	inch	inch	inch
	3/8	•	•
	7/16	•	•
	1/2	•	•
	9/16	•	•
	19/32	•	•
	5/8	•	•
	21/32	•	•
	11/16	•	•
	3/4	•	•
	13/16	•	•
	7/8	•	•
	15/16	•	•
	1	•	•
	1'1/16	•	•
1'1/8	•	•	
1'3/16	•	•	
1'1/4	•	•	
	J.210	•	•
	J.215	•	•
	J.210RC		
	J.215RC		
	J.240A	•	•
	J.120A	•	•
		PM.MODS161-2U	
		410 x 188 x 55 mm	
		1,450 Kg	1,490 Kg

MODM.S161-212U





MODM.SL161-212U



Sets of 1/2" sockets in metallic rack

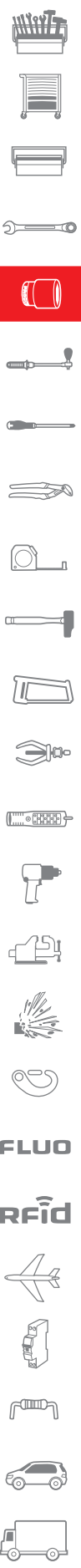


	A ["]	A [mm]		Torx [No]	Contents	Qtés	ΔΔ [kg]
S.40E		S. 8 - 9 - 10 - 11 - 12 - 13 - 14 - 15 - 16	12		CKS.95	9	0,560
S.41E		S. 17 - 18 - 19 - 20 - 21 - 22 - 23 - 24	12		CKS.95	8	0,790
S.40U		S. 3/8' - 7/16' - 1/2' - 9/16' - 19/32' - 5/8'	12		CKS.97	21	0,475
S.41U		S. 11/16' - 3/4' - 13/16' - 7/8' - 15/16' - 1'	12		CKS.95	22	0,645
STX.40			HCI	STX. E12 - E14 - E16 - E18 - E20	CKS.90	5	0,385



1/2" MODULES IN FOAM TRAYS, METRIC, HEXAGONAL, TORX, XZN

		MODM.HLA		MODM.CHA		MODM.SHP	
		3/8" 1/2" Long sockets		Hex + Torx + XZN 3/8" 1/2" Sockets + long sockets		Hex + Torx + XZN 1/2" Sockets + bit sockets	
Socket	mm						
	7	•					
	8	•					
	9	•					
	10	•					
	11	•					
	12			•			
	13			•			
	14			•			
	15			•			
	16			•			
	17			•			
	18			•			
19			•				
Douilles Torx 1/4" RTX	E8			•			
	Sockets Torx 3/8" JTX	E8		•			
	E10			•			
	E12						
	E14						
	E16						
	Sockets Torx 1/2" STX	S12			•		
	E14				•		
	E16				•		
	E18				•		
	E20				•		
Hexagonal bit sockets STM	5					•	
	6					•	
	7					•	
	8					•	
	10					•	
	12					•	
	14					•	
Hexagonal bit sockets SHP.LA	5				•		
	6				•		
	7				•		
	8				•		
	10				•		
Bit sockets XZN SVLB	M6				•		
	M8				•		
	M10				•		
	M12				•		
	M14				•		
	M16				•		
Bit sockets SX.LA	T40				•		
	T45				•		
	T55				•		
	T70				•		
		PM.MODHLA		PM.MODCHAIM17		PM.SHP	
		410 x 188 x 55 mm		2,580 Kg		1,480 Kg	
		1,385 Kg					



MAINTENANCE OF 1/2" RATCHETS



Kit : 151B		<input checked="" type="checkbox"/>	151 style 151B style	161 style 161B style
Kit : 161B			S.151B-KIT : S.151, S.151B, S.154	S.161B-KIT : S.161, S.161B, S.143A, S.153A, S.155A, S.157A, S.158A
			1/2" 12.7 mm	

RATCHETS 1/2"

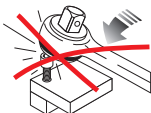
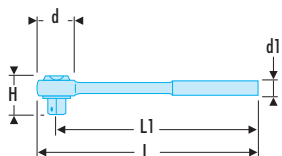
1/2" fast action twist handle ratchet



NF ISO 3315, ISO 3315, DIN 3122, ASME B107.10

1/2" fast action twist handle ratchet

- Rotating handle jack: work twice as fast in confined spaces.
- 6° increments for final tightening.
- Socket safety locking = no sockets lost in your machines.
- Palm control system - allows the operator to press down on the head avoiding risk of accidental reverse.



	d [mm]	d1 [mm]	H [mm]	L [mm]	L1 [mm]	ΔΔ [g]
<b>S.360</b>	45	37	41	251	230	570

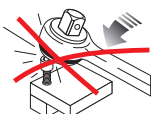
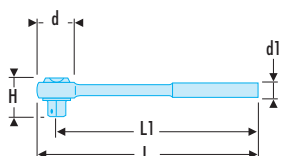
1/2" maintenance free pear head locking ratchet



NF ISO 3315, ISO 3315, DIN 3122, ASME B107.10

1/2" maintenance free pear head locking ratchet

- Socket locking and quick release system.
- Dust proof, maintenance free mechanism.
- 72 teeth mechanism for 5° increments.
- Drive direction switch allows easy reversal even with gloved or greasy hands.
- Palm control system - allows the operator to press down on the head avoiding risk of accidental reverse
- Ultra-compact head.
- Hook for hanging when working at height.
- Ergonomic comfort grip handle design resistant to workshop chemicals and solvents.
- Finish: bright chrome.
- Présentation : chromée brillante.



	d [mm]	d1 [mm]	H [mm]	L [mm]	L1 [mm]	ΔΔ [g]
<b>SL.171</b>	37	32	37	262	245	450

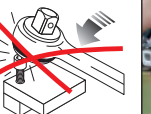
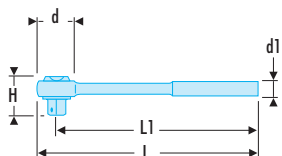
1/2" maintenance free pear head ratchet



NF ISO 3315, ISO 3315, DIN 3122, ASME B107.10

1/2" maintenance free pear head ratchet

- Dust proof, maintenance free mechanism.
- 72 teeth mechanism for 5° increments.
- Drive direction switch allows easy reversal even with gloved or greasy hands.
- Palm control system - allows the operator to press down on the head avoiding risk of accidental reverse
- Ultra-compact head.
- Hook for hanging when working at height.
- Ergonomic comfort grip handle design resistant to workshop chemicals and solvents.
- Présentation : chromée brillante.



	d [mm]	d1 [mm]	H [mm]	L [mm]	L1 [mm]	ΔΔ [g]
<b>SL.161</b>	37	32	37	262	245	445

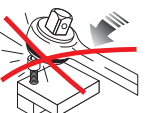
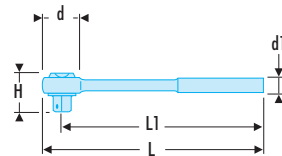
High performance sealed 1/2" ratchet



NF ISO 3315, ISO 3315, DIN 3122, ASME B107.10

High performance sealed 1/2" ratchet

- Very long durability regardless of working conditions. Mechanism sealed to industrial dust.
- 72 tooth mechanism for 5° increments.
- Reversing by rotating cap.
- Ultra-compact head.
- Bi-material elastomer grip: high resistance to abrasion and the most severe workshop solvents: SP95, SP98, diesel fuel, acetone, brake fluid, Skydrol, Jet Oil, kerosene.
- Hole in the handle for strapping when working in high places.
- Easy maintenance: spare parts kit S.161B-KIT.
- Finish: chromed.



	d [mm]	d1 [mm]	H [mm]	L [mm]	L1 [mm]	ΔΔ [g]
<b>S.161B</b>	38,5	18,1 / 33,1	38,2	260	244	410

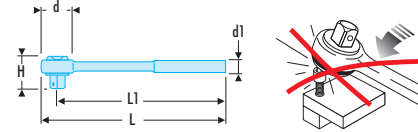


Original 1/2" ratchet

- 72 tooth mechanism for 5° increments.
- Reversing by rotating cap.
- Ultra-compact head.
- Single material elastomer grip: high resistance to abrasion and the most severe workshop solvents: SP95, SP98, diesel fuel, acetone, brake fluid, Skydrol, Jet Oil, kerosene.
- Hole in the handle for strapping when working in high places.
- Easy maintenance: spare parts kit S.151B-KIT.
- Finish: mat chrome.



	d [mm]	d1 [mm]	H [mm]	L [mm]	L1 [mm]	ΔΔ [g]
<b>S.151B</b>	38,5	31,3 / 33,7	38,2	260	244	400

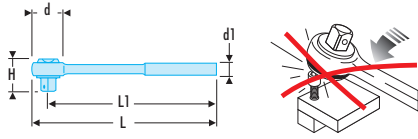


Long-reach 1/2" ratchet

- Long-reach 1/2" ratchet
- 72 teeth mechanism for 5° increments.
  - Reversing by rotating cap.
  - Length: 400 mm (applies more torque and reduces effort).



	d [mm]	d1 [mm]	H [mm]	L [mm]	L1 [mm]	ΔΔ [g]
<b>S.154</b>	40	30	40	404	38	780



1/2" extendable ratchet

- 1 ratchet instead of 2.
- Short setting: standard use, easy storage.
- Long setting: more torque, less effort.
- Easy to use & strong extension mechanism.
- Watertight: no maintenance.
- High accuracy: 72 teeth, 5° increments.
- Présentation : chromée satinée.



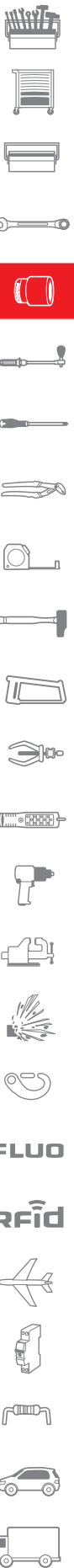
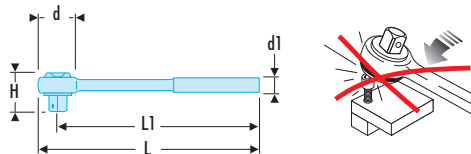
	d [mm]	d1 [mm]	H [mm]	L [mm]	L1 [mm]	ΔΔ [g]
<b>SXL161</b>	37	38	37	264	397	720

Flexible head 1/2" locking extendable ratchet

- 2 in 1 extendable ratchet. Standard use and easy storage in closed position. More torque, less effort and maximum accessibility when used lying.
- Total length 304 to 437 mm. 8 settings positions with secured extension mechanism.
- 180° hinged head and socket locking: allows to keep position with an already engaged socket.
- Extended lifetime whatever the working conditions. No service needed. Dust proof.
- 72 teeth mechanism for 5° increments.
- Socket locking system : prevents tools loss in machines.
- Ring reversing : easy to use even with a gloved hand. Allows viewing rotating direction
- "Hand palm" system allows pressing the head while tightening avoiding accidental reversal of rotating direction.
- Ultra compact head.
- Bi material elastomer handle : high resistance to abrasion and solvents in the most severe conditions: fuel, diesel, gasoline, acetone, brake fluid, Skydrol, Jet Oil, kerosene.
- FME compatible hanging system.
- Chrome Satin finish.

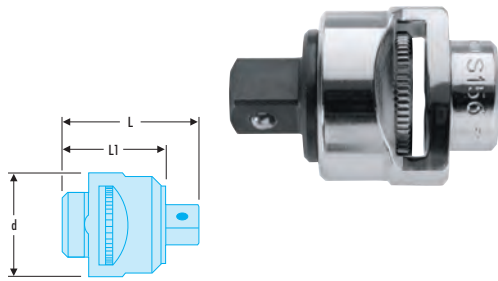


	d [mm]	d1 [mm]	H [mm]	L [mm]	L1 [mm]	ΔΔ [g]
<b>SXL171</b>	37	38	37	304	437	830



ACCESSORIES 1/2"

1/2" offset ratchet

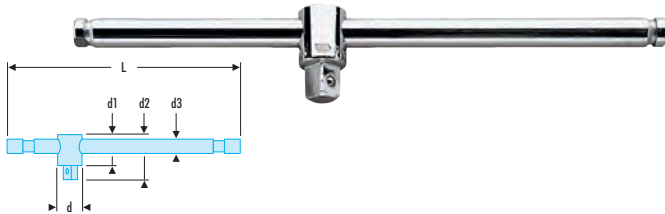


- Female square drive bit 1/2".
- Male square drive bit 1/2".
- Increment: 5°.
- Finish: bright chrome with phosphate-hardened square drive.



🔧	d [mm]	L [mm]	L1 [mm]	ΔΔ [g]
<b>S.156</b>	39	59	41	230

1/2" drive sliding tee

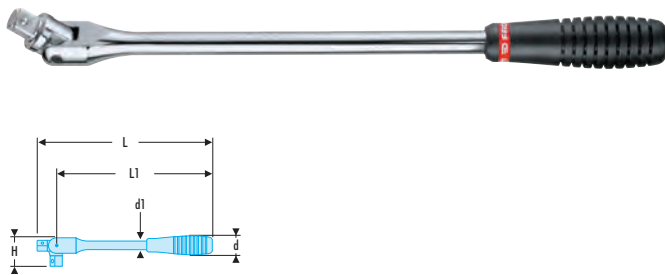


- NF ISO 3315, ISO 3315, DIN 3122, ASME B107.10
- Friction-head allows bar to form a T or L-handle.
  - Finish: bright chrome.



🔧	d [mm]	d1 [mm]	d2 [mm]	d3 [mm]	L [mm]	ΔΔ [g]
<b>S.120A</b>	24	29	45	14	275	275

1/2" drive hinged handle

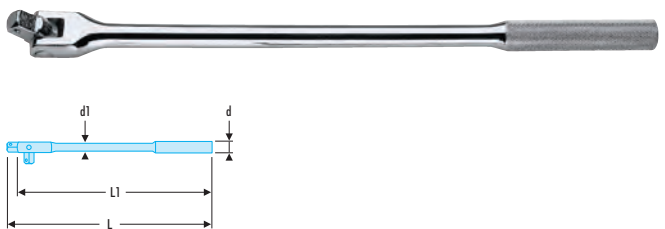


- NF ISO 3315, ISO 3315, DIN 3122, ASME B107.10
- 180° hinged and secured head to maintain the position even with a socket engaged.
  - Bi-material elastomer grip: high resistance to abrasion and the most severe workshop solvents: SP95, SP98, diesel fuel, acetone, brake fluid, Skydrol, Jet Oil, kerosene.



🔧	d [mm]	d1 [mm]	H [mm]	L [mm]	L1 [mm]	ΔΔ [g]
<b>S.141A</b>	31	14	41	381	349,5	595

1/2" drive metal-grip hinged handle



- NF ISO 3315, ISO 3315, DIN 3122, ASME B107.10
- 180° hinged and secured head to maintain the position even with a socket engaged.
  - Metal handle with knurled handle.



🔧	d [mm]	d1 [mm]	L [mm]	L1 [mm]	ΔΔ [g]
<b>S.145</b>	20	15	410	392	740

Hinged extendable handle 1/2"



- 1 handle instead of 2.
- Short setting: standard use, easy storage.
- Long setting: more torque, less effort.
- Easy to use & strong extension mechanism.

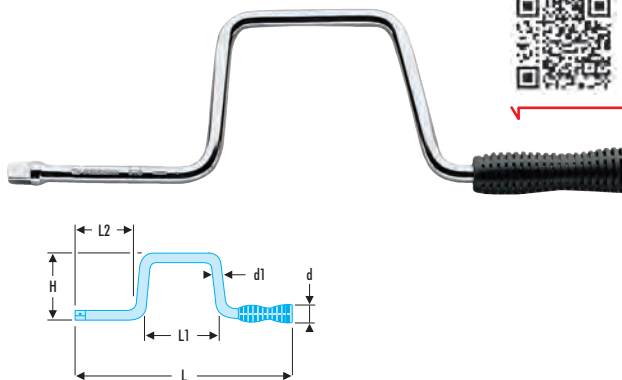


🔧	H [mm]	L [mm]	L1 [mm]	ΔΔ [g]
<b>SXL.180</b>	54	246	280 / 413	660

1/2" drive speed brace

NF ISO 3315, ISO 3315, DIN 3122, ASME B107.10

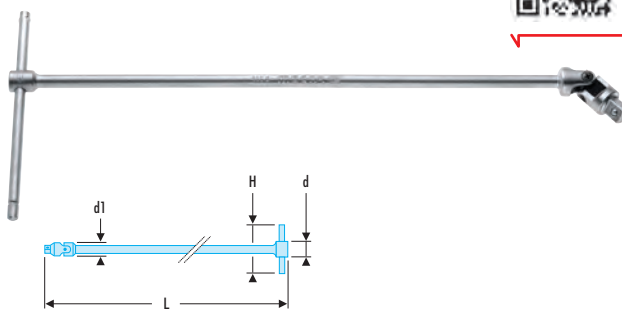
- Significant time-savings whenever space allows.
- PVC rotating handle.
- Finish: bright chrome.



	d [mm]	d1 [mm]	H [mm]	L [mm]	L1 [mm]	L2 [mm]	ΔΔ [g]
<b>S.110</b>	29	12	115	402	130	130	510

1/2" drive tee with universal joint

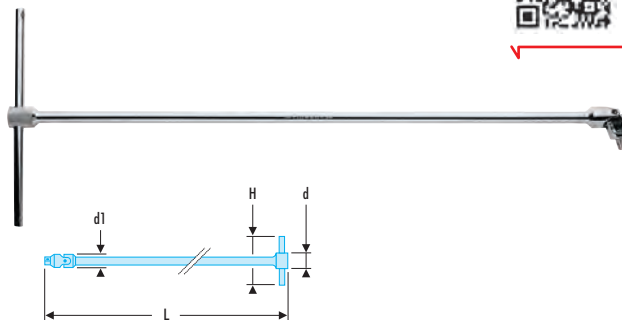
- Universal joint for high torques.
- Finish: bright chrome.



	d [mm]	d1 [mm]	H [mm]	L [mm]	ΔΔ [g]
<b>S.229A</b>	18	24	180	495	550

1/2" extra-long drive tee with universal joint

- Extended reach of tee-handle is ideal for particularly deep recesses.
- Finish: bright chrome.

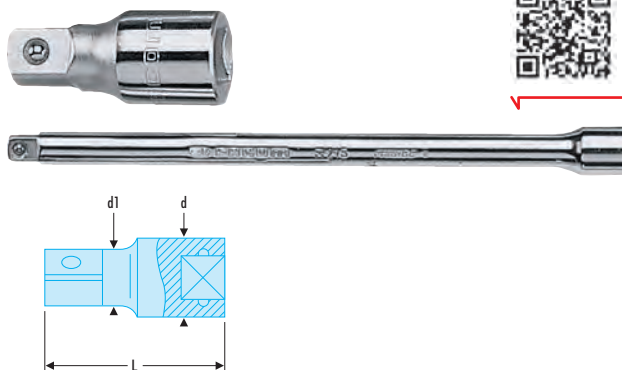


	d [mm]	d1 [mm]	H [mm]	L [mm]	ΔΔ [g]
<b>S.228</b>	24	25	240	700	1200

S - 1/2" drive extensions

NF ISO 3316, ISO 3316, DIN 3123, ASME B107.10

- Finish: bright chrome.



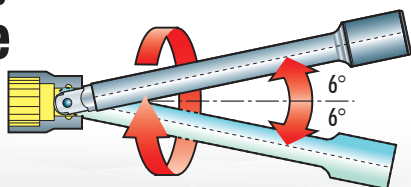
	d [mm]	d1 [mm]	L [mm]	Square ["]	ΔΔ [g]
<b>S.206</b>	23	16,5	52,5	1/2	90
<b>S.208</b>	23	16,5	75	1/2	130
<b>S.210</b>	23	16,5	130	1/2	225
<b>S.215</b>	23	16,5	250	1/2	420
<b>S.217</b>	23	16,5	500	1/2	840



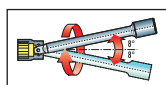
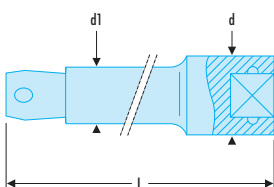
ACCESSORIES 1/2"

WOBBLE EXTENSION

Hard to access with a socket or universal joint?  
Use a wobble extension!



S.S - 1/2" wobble drive extensions

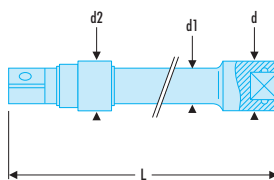


- Square drive rounded profile gives 8° working angle.
- Useful where access is limited.
- Finish: bright chrome.

	d [mm]	d1 [mm]	L [mm]	Square ["]	ΔΔ [g]
<b>S.208S</b>	23	16,5	75	1/2	130
<b>S.210S</b>	23	16,5	130	1/2	225
<b>S.215S</b>	23	16,5	250	1/2	420



S.RC - 1/2" drive locking extensions



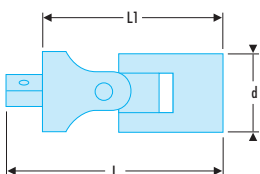
NF ISO 3316, ISO 3316, DIN 3123, ASME B107.10

- Total safety as lock system prevents socket loss.
- Safety and instant release, by retracting knurled ring, for total user confidence.
- Positive locking for use with sockets with internal ball notch.
- Finish: bright chrome with phosphate-hardened ring.

	d [mm]	d1 [mm]	d2 [mm]	L [mm]	Square ["]	ΔΔ [g]
<b>S.210RC</b>	23	16,5	23	130	1/2	250
<b>S.215RC</b>	23	16,5	23	250	1/2	450
<b>S.217RC</b>	23	16,5	23	500	1/2	860



1/2" universal joint



NF ISO 3316, ISO 3316, DIN 3123, ASME B107.10

- Spring-stiffened joint.
- Stays in position when reaching for fasteners.
- Significant time savings.
- Finish: bright chrome.

	d [mm]	L [mm]	L1 [mm]	ΔΔ [g]
<b>S.240A</b>	25	68.2	52.2	150



1/2" to 3/8" coupler

NF ISO 3316, ISO 3316, DIN 3123, ASME B107.10

- Double 3/8" coupler
- Permet l'utilisation de douilles et accessoires 3/8".
- Max torque: 212 N.m.
- Finish: bright chrome.



Part No.	d [mm]	L [mm]	L1 [mm]	ΔΔ [g]
S.230	23	33,5	23	55

1/2" to CDX® coupler

NF ISO 3316, ISO 3316, DIN 3123, ASME B107.10

- 1/2" female to CDX® male square drive.
- Double "CDX®" coupler.
- Finish: bright chrome.



Part No.	d [mm]	L [mm]	L1 [mm]	ΔΔ [g]
S.231	22	37	12	65

1/2" to 3/4" coupler

NF ISO 3316, ISO 3316, DIN 3123, ASME B107.10

- 1/2" female to 3/4" male square drive with plunger.
- For adapting sockets and accessories 3/4".
- Male square drive with plunger for positive locking of sockets and accessories.
- Finish: satin chrome.



Part No.	d [mm]	L [mm]	L1 [mm]	ΔΔ [g]
S.232B	25	49	26	135

Set of 3 couplers

- Allows use of square drivers smaller than socket drive sizes:
  - 1/4" square drive + D.169RJ --> 3/8" socket (ø 1/4" : 28,7 - R 1/4" : 13 mm).
  - 3/8" square drive + D.169JS --> 1/2" socket (ø 3/8" : 37,8 - R 3,8" : 16 mm).
  - 1/2" square drive --> 3/4" socket (ø 1/4" : 43,9 - R 1/8" : 22).
- Compactness means that fewer tools are needed for in situ maintenance operations.
- Magnetic retainer and locking system (JS and SK).
- Knurl allows hand tightening where access is difficult.



Part No.	ΔΔ [g]
D.169	100

1/2" drive offset adaptor

- 1/2" female to 1/2" male square drive.
- Offset centrelines for enhanced accessibility.
- Finish: bright chrome.
- S.236: for 5/16 bits.
- S.237: for 1/2 bits.



Part No.	E [mm]	E1 [mm]	L [mm]	L1 [mm]	ΔΔ [g]
S.234	15	25	65	40	165

S - 1/2" drive spring-clip bit holders

NF ISO 2725-1, NF ISO 1173, ISO 2725-1, ISO 1173, DIN 3124

- S.236: for 5/16 bits.
- S.237: for 1/2 bits.
- Finish: bright chrome.



Part No.	A ["]	d [mm]	d1 [mm]	L [mm]	Square ["]	ΔΔ [g]
S.236	5/16	23,0	14	36	1/2	54
S.237	1/2	23	20,5	44	1/2	70

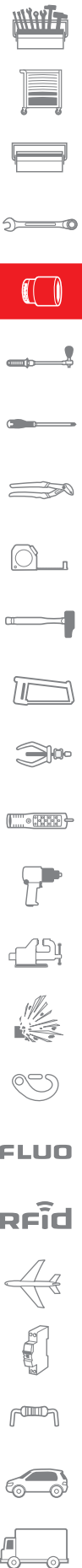
1/2" drive lock-ring bit holder

NF ISO 2725-1, NF ISO 1173, ISO 2725-1, ISO 1173, DIN 3124

- Bit lock.
- Square drive has side-hole for ball or plunger lock.

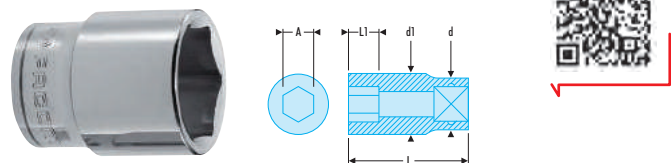


Part No.	A ["]	L [mm]	Square ["]	ΔΔ [g]
ERS	1/4	50	1/2	90



SOCKETS 1/2"

S.H - 1/2" metric 6-point sockets

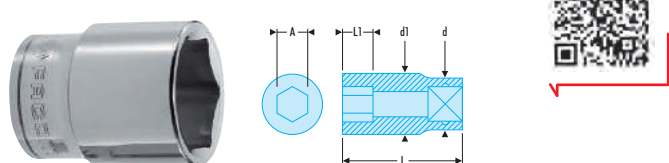


NF ISO 2725-1, NF ISO 1711-1, ISO 2725-1, ISO 1711-1, DIN 3124, ASME B107.5

- OGV® profile: more powerful tightening, preserves fasteners.
- Finish: bright chrome.

⚙️	A [mm]	d [mm]	d1 [mm]	L [mm]	L1 [mm]	6 [mm]	ΔΔ [g]
S.8H	8	22,8	13,1	36	6,5	6	45
S.9H	9	22,8	13,8	36	6,5	6	50
S.10H	10	22,8	15,3	36	7,8	6	50
S.11H	11	22,8	16,5	36	9,0	6	50
S.12H	12	22,8	17,8	36	9,5	6	50
S.13H	13	22,8	18,9	36	10,4	6	50
S.14H	14	22,8	20,2	36	10,5	6	55
S.15H	15	22,8	21,4	36	12,0	6	55
S.16H	16	21,6	22,6	36	12,0	6	55
S.17H	17	23,1	24,1	36	13,0	6	65
S.18H	18	23,4	25,5	36	13,0	6	70
S.19H	19	24,6	26,6	36	14,0	6	75
S.20H	20	25,4	27,4	36	14,0	6	80
S.21H	21	25,1	29,1	38	16,0	6	85
S.22H	22	26,4	30,4	38	16,5	6	95
S.23H	23	27,6	31,6	38	16,5	6	105
S.24H	24	28,7	32,7	38	16,5	6	115
S.25H	25	27,7	34,1	38	16,5	6	125
S.26H	26	29,0	35,4	38	16,5	6	135
S.27H	27	29,2	36,6	44	19,0	6	160
S.28H	28	30,5	37,9	44	20,0	6	175
S.29H	29	31,3	38,7	44	20,0	6	190
S.30H	30	33,0	40,4	44	20,0	6	200
S.31H	31	34,2	41,6	44	20,0	6	205
S.32H	32	35,1	42,6	44	20,0	6	210
S.34H	34	37,5	44,9	44	20,0	6	240

S.H - 1/2" inch 6-point sockets

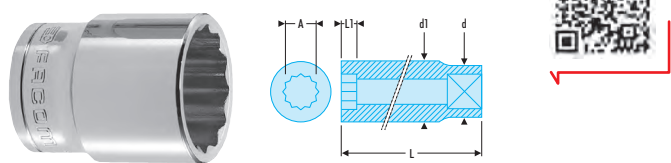


ASME B107.1

- OGV® profile: more powerful tightening, preserves fasteners.
- Finish: bright chrome.

⚙️	A ["]	d [mm]	d1 [mm]	L [mm]	L1 [mm]	6 [mm]	ΔΔ [g]
S.3/8H	3/8	22,8	14,7	36	7,8	6	50
S.7/16H	7/16	22,8	16,5	36	9,0	6	50
S.1/2H	1/2	22,8	18,9	36	10,4	6	50
S.9/16H	9/16	22,8	20,2	36	10,5	6	50
S.19/32H	19/32	22,8	21,4	36	12,0	6	55
S.5/8H	5/8	21,6	22,6	36	12,0	6	60
S.21/32H	21/32	23,1	24,1	36	13,0	6	60
S.11/16H	11/16	22,6	24,6	36	13,0	6	65
S.3/4H	3/4	25,0	27,0	36	14,0	6	75
S.25/32H	25/32	25,9	27,9	36	14,0	6	80
S.13/16H	13/16	24,6	28,6	38	16,0	6	80
S.7/8H	7/8	26,4	30,4	38	16,5	6	90
S.15/16H	15/16	28,7	32,7	38	16,5	6	115
S.31/32H	31/32	27,7	34,1	38	16,5	6	115
S.1PH	1	28,3	34,7	38	16,5	6	120
S.1P1/16H	1 1/16	29,2	36,6	44	19,0	6	150
S.1P1/8H	1 1/8	31,3	38,7	44	20,0	6	170
S.1P3/16H	1 3/16	33,0	40,4	44	20,0	6	180
S.1P1/4H	1 1/4	35,1	42,5	44	20,0	6	205

S - 1/2" inch 12-point sockets

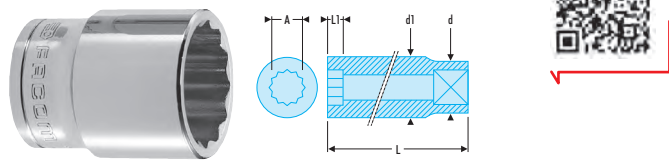


ASME B107.1

- OGV® profile: more powerful tightening, preserves fasteners.
- Available as rack set Ref S.40U (3/8" --> 21/32") and Ref S.41U (11/16" --> 1").
- Finish: bright chrome.

⚙️	A ["]	d [mm]	d1 [mm]	L [mm]	L1 [mm]	12 [mm]	ΔΔ [g]
S.3/8	3/8	22,8	14,7	36	7,8	12	50
S.7/16	7/16	22,8	16,5	36	9,0	12	50
S.1/2	1/2	22,8	18,9	36	10,4	12	50
S.9/16	9/16	22,8	20,2	36	10,5	12	50
S.19/32	19/32	22,8	21,4	36	12,0	12	55
S.5/8	5/8	21,6	22,6	36	12,0	12	60
S.21/32	21/32	23,1	24,1	36	13,0	12	60
S.11/16	11/16	22,6	24,6	36	13,0	12	65
S.3/4	3/4	25,0	27,0	36	14,0	12	75
S.25/32	25/32	25,9	27,9	36	14,0	12	80
S.13/16	13/16	24,6	28,6	38	16,0	12	80
S.7/8	7/8	26,4	30,4	38	16,5	12	90
S.15/16	15/16	28,7	32,7	38	16,5	12	115
S.31/32	31/32	27,7	34,1	38	16,5	12	115
S.1'	1	28,3	34,7	38	16,5	12	120
S.1'1/16	1 1/16	29,2	36,6	44	19,0	12	150
S.1'1/8	1 1/8	31,3	38,7	44	20,0	12	170
S.1'3/16	1 3/16	33,0	40,4	44	20,0	12	180
S.1'1/4	1 1/4	35,1	42,5	44	20,0	12	205

S - 1/2" metric 12-point sockets

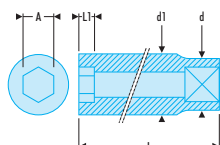


NF ISO 2725-1, NF ISO 1711-1, ISO 2725-1, ISO 1711-1, DIN 3124, ASME B107.5

- OGV® profile: more powerful tightening, preserves fasteners.
- Finish: bright chrome.
- Supplied on metal rack. Ref S.40E (8 --> 16 mm) and Ref S.41E (17 --> 24 mm).

⚙️	A [mm]	d [mm]	d1 [mm]	L [mm]	L1 [mm]	12 [mm]	ΔΔ [g]
S.8	8	22,8	13,1	36	6,5	12	45
S.9	9	22,8	13,8	36	6,5	12	50
S.10	10	22,8	15,3	36	7,8	12	50
S.11	11	22,8	16,5	36	9,0	12	50
S.12	12	22,8	17,8	36	9,5	12	50
S.13	13	22,8	18,9	36	10,4	12	50
S.14	14	22,8	20,2	36	10,5	12	55
S.15	15	22,8	21,4	36	12,0	12	55
S.16	16	21,6	22,6	36	12,0	12	55
S.17	17	23,1	24,1	36	13,0	12	65
S.18	18	23,4	25,5	36	13,0	12	70
S.19	19	24,6	26,6	36	14,0	12	75
S.20	20	25,4	27,4	36	14,0	12	80
S.21	21	25,1	29,1	38	16,0	12	85
S.22	22	26,4	30,4	38	16,5	12	95
S.23	23	27,6	31,6	38	16,5	12	105
S.24	24	28,7	32,7	38	16,5	12	115
S.25	25	27,7	34,1	38	16,5	12	125
S.26	26	29,0	35,4	38	16,5	12	135
S.27	27	29,2	36,6	44	19,0	12	160
S.28	28	30,5	37,9	44	20,0	12	175
S.29	29	31,3	38,7	44	20,0	12	190
S.30	30	33,0	40,4	44	20,0	12	200
S.31	31	34,2	41,6	44	20,0	12	205
S.32	32	35,1	42,6	44	20,0	12	210
S.34	34	37,5	44,9	44	20,0	12	240

■ S.HLA - 1/2" long-reach metric 6-point sockets

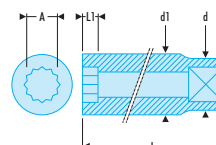


NF ISO 2725-1, NF ISO 1711-1, ISO 2725-1, ISO 1711-1, DIN 3124, ASME B107.5

- OGV® profile: more powerful tightening, preserves fasteners.
- Long-reach sockets for long recess or thread access.
- Finish: bright chrome.

⇒	A [mm]	d [mm]	d1 [mm]	L [mm]	L1 [mm]	6 [mm]	ΔΔ [g]
S.12HLA	12	21,8	17,8	77	12	6	105
S.13HLA	13	21,8	19,0	77	12	6	115
S.14HLA	14	21,8	20,3	77	15	6	120
S.15HLA	15	21,8	21,5	77	15	6	125
S.16HLA	16	22,0	22,8	77	15	6	130
S.17HLA	17	23,0	24,0	77	15	6	140
S.18HLA	18	24,0	25,0	77	18	6	160
S.19HLA	19	25,0	26,5	77	18	6	160
S.21HLA	21	27,0	29,0	77	18	6	200
S.22HLA	22	28,0	30,0	77	21	6	215
S.23HLA	23	29,0	31,5	77	21	6	235
S.24HLA	24	30,0	32,8	77	24	6	255
S.26HLA	26	32,0	35,0	77	24	6	280
S.27HLA	27	33,0	36,5	77	27	6	310
S.28HLA	28	34,0	37,8	77	27	6	330
S.29HLA	29	35,0	39,0	77	27	6	355
S.30HLA	30	36,0	40,0	77	30	6	355
S.32HLA	32	38,0	42,8	77	33	6	410

■ S.LA - 1/2" long-reach metric 12-point sockets



NF ISO 2725-1, NF ISO 1711-1, ISO 2725-1, ISO 1711-1, DIN 3124, A SME B107.5

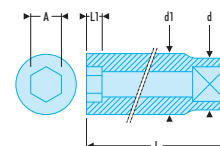
- OGV® profile: more powerful tightening, preserves fasteners.
- Long-reach sockets for long recess or thread access.
- Finish: bright chrome.

⇒	A [mm]	d [mm]	d1 [mm]	L [mm]	L1 [mm]	12 [mm]	ΔΔ [g]
S.12LA	12	21,8	17,8	77	12	12	105
S.13LA	13	21,8	19,0	77	12	12	115
S.14LA	14	21,8	20,3	77	15	12	120
S.15LA	15	21,8	21,5	77	15	12	125
S.16LA	16	22,0	22,8	77	15	12	130
S.17LA	17	23,0	24,0	77	15	12	140
S.18LA	18	24,0	25,0	77	18	12	160
S.19LA	19	25,0	26,5	77	18	12	160
S.21LA	21	27,0	29,0	77	18	12	200
S.22LA	22	28,0	30,0	77	21	12	215
S.23LA	23	29,0	31,5	77	21	12	235
S.24LA	24	30,0	32,8	77	24	12	255
S.26LA	26	32,0	35,0	77	24	12	280
S.27LA	27	33,0	36,5	77	27	12	310
S.28LA	28	34,0	37,8	77	27	12	330
S.29LA	29	35,0	39,0	77	27	12	355
S.30LA	30	36,0	40,0	77	30	12	355
S.32LA	32	36,0	42,8	77	33	12	410

■ S.LA - 1/2" inch 12-point sockets

ASME B107.1

- OGV® profile: more powerful tightening, preserves fasteners.
- Long-reach sockets for long recess or thread access.
- Finish: bright chrome.

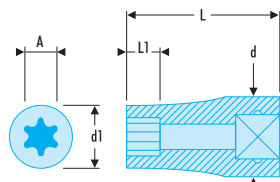


⇒	A ["]	d [mm]	d1 [mm]	L [mm]	L1 [mm]	12 [mm]	ΔΔ [g]
S.1/2LA	1/2	22,3	19,0	82,2	8,1	12	135
S.9/16LA	9/16	22,3	20,6	82,2	9,6	12	140
S.5/8LA	5/8	22,3	22,3	82,2	10,9	12	150
S.11/16LA	11/16	24,4	24,4	82,2	10,9	12	160
S.3/4LA	3/4	26,9	26,9	82,2	12,4	12	165
S.13/16LA	13/16	28,7	28,7	82,2	12,9	12	175
S.7/8LA	7/8	30,2	30,2	82,2	14,0	12	200
S.15/16LA	15/16	31,7	31,7	82,2	15,0	12	225
S.1PLA	1	33,3	33,3	82,2	15,2	12	255
S.1P1/16LA	1 1/16	36,5	36,5	82,2	16,0	12	320
S.1P1/8LA	1 1/8	38,1	38,1	82,2	16,7	12	350
S.1P1/4LA	1 1/4	42,9	42,9	82,2	16,7	12	430



TORX® SOCKETS 1/2"

STX - 1/2" Torx® sockets



- For Torx® fasteners.
- Finish: bright chrome.
- Available as rack set Ref STX.40 (E12 --> E20) and Ref RSX.J6 (E6 --> E16).



Ref	A [mm]	d [mm]	d1 [mm]	L [mm]	L1 [mm]	Torx [No]	No.	ΔΔ [g]
STX.12	10,95	21	15,0	37	8,0	E12	E12	50
STX.14	12,67	21	16,3	37	8,8	E14	E14	50
STX.16	14,70	22	18,8	37	9,6	E16	E16	60
STX.18	16,38	22	20,4	37	11,1	E18	E18	60
STX.20	18,16	22	22,9	37	12,7	E20	E20	65
STX.24	21,84	22	26,5	37	16,1	E24	E24	100

SCREWDRIVER SOCKETS 1/2"

21-piece set of 1/4" and 1/2" Torx® sockets and bits



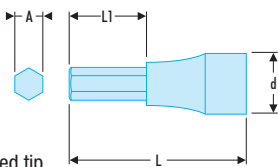
Comprises:

- 4 x 1/4" Torx® sockets: RTX. E6 - E7 - E8 - E10.
- 5 x 1/2" Torx® sockets: STX. E10 - E14 - E16 - E18 - E20.
- 1 x 1/4" socket bit holder with retaining pin - standard for 1/4" bits - 6.35 mm: R.235.
- 1 x 1/2" socket bit holder with retaining pin - standard for 5/16" bits - 7.94 mm: S.236.
- 7 x bits - 1/4" drive bit - 6.35 mm - L 25 mm:
  - EXR.1 for Resistorx® screws: TT 10 - TT 15 - TT 20 - TT 25 - TT 27 - TT 30 - TT 40.
- 3 x bits - 5/16" drive bit - 7.94 mm - L 35 mm:
  - EX.2 for Torx® screws: T 45 - T 50 - T 55.
- Empty case: BP.MBOXS.
- Thermoformed tray S (188 x 105 mm): PL.S05.



Ref	ΔΔ [kg]
RSX.19B	0,840

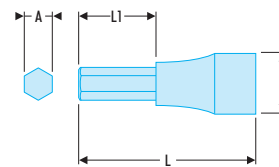
STM - 1/2" drive metric hexagon bit sockets



- Standard length series.
- For hexagon socket heads.
- Non-removable bit.
- Finish: bright chrome with phosphate-hardened tip.
- Available in case set (Ref STM.J9).

Ref	A [mm]	d [mm]	L [mm]	L1 [mm]	ΔΔ [g]
STM.4	4	22,8	60	24	60
STM.5	5	22,8	60	24	60
STM.6	6	22,8	60	24	60
STM.7	7	22,8	60	24	65
STM.8	8	22,8	60	24	70
STM.10	10	22,8	60	24	80
STM.12	12	23,1	60	24	100
STM.14	14	23,1	60	24	120
STM.17	17	23,4	60	24	140
STM.19	19	23,4	60	24	160

ST - 1/2" drive inch hexagon bit sockets



- Standard length series.
- For hexagon socket heads.
- Non-removable bit.
- Finish: bright chrome with phosphate-hardened tip.

Ref	A ["]	d [mm]	L [mm]	L1 [mm]	Socket	Bits	ΔΔ [g]
ST.1/4	1/4	23	54	17	S.236	EH.201/4	70
ST.5/16	5/16	23	54	17	S.236	EH.205/16	70
ST.3/8	3/8	23	54	17	S.236	EH.203/8	75
ST.7/16	7/16	23	70	31	S.237	ENH.307/16	110
ST.1/2	1/2	23	70	31	S.237	ENH.301/2	120
ST.9/16	9/16	23	70	31	S.237	ENH.309/16	125
ST.5/8	5/8	23	70	31	S.237	ENH.305/8	145
ST.3/4	3/4	23	70	31	S.237	ENH.303/4	165



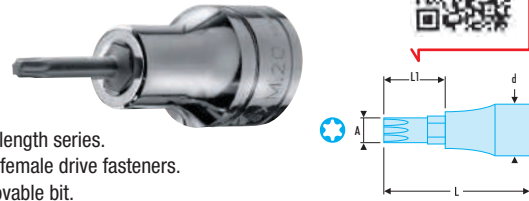
■ **SHP.LA - 1/2" drive long and extra-long reach metric hexagon bit sockets**



- Long and extra long reach series
- For hexagon socket heads.
- Non-removable bit.
- Finish: bright chrome with phosphate-hardened tip.

⌘	A [mm]	L [mm]	L1 [mm]	ΔΔ [g]
SHP.6LA	6	100	64	80
SHP.7LA	7	100	64	80
SHP.8LA	8	100	64	80
SHP.10LA	10	140	104	135
SHP.12LA	12	100	64	145
SHP.5ELA	5	180	144	110
SHP.6EL1A	6	140	104	95
SHP.6EL2A	6	220	184	130

■ **SXM - 1/2" drive Torx® bit sockets**



- Standard length series.
- For Torx® female drive fasteners.
- Non-removable bit.
- Finish: bright chrome with phosphate-hardened tip.
- Also available in case set (Ref AMEX.3).

⌘	A [mm]	d [mm]	L [mm]	L1 [mm]	Torx [No]	ΔΔ [g]
SXM.20	3,84	22,8	60	24	T20	60
SXM.25	4,40	22,8	60	24	T25	60
SXM.27	4,96	22,8	60	24	T27	60
SXM.30	5,49	22,8	60	24	T30	60
SXM.40	6,60	22,8	60	24	T40	65
SXM.45	7,77	22,8	60	24	T45	65
SXM.50	8,79	22,8	60	24	T50	75
SXM.55	11,17	22,8	60	24	T55	95
SXM.60	13,17	23,1	60	24	T60	115

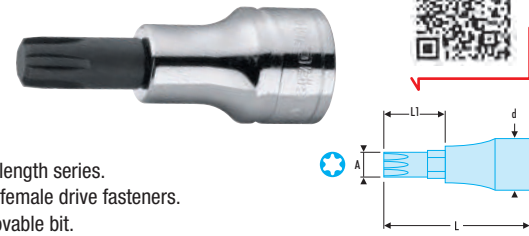
■ **SX.LA - 1/2" drive long-reach Torx® bit sockets**



- Long-reach series.
- For Torx® female drive fasteners.
- Non-removable bit.
- Finish: bright chrome with phosphate-hardened tip.

⌘	A [mm]	d [mm]	L [mm]	L1 [mm]	Torx [No]	ΔΔ [g]
SX.40LA	6,60	22,8	120	84	T40	95
SX.45LA	7,77	22,8	120	84	T45	95
SX.55LA	11,17	22,8	140	104	T55	220
SX.70LA	15,49	23,1	140	104	T70	280

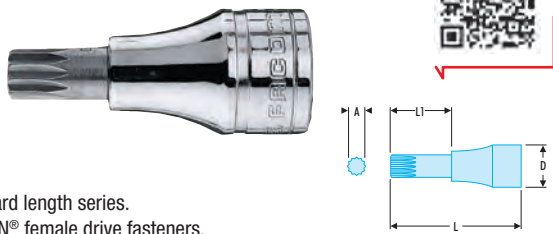
■ **D.B - Long-reach spline driver sockets**



- Standard length series.
- For Torx® female drive fasteners.
- Non-removable bit.
- Finish: bright chrome with phosphate-hardened tip.

⌘	A [mm]	d [mm]	Width l [mm]	L [mm]	L1 [mm]	ΔΔ [g]
D.34B7	7	7	60	60	15	70
D.34B7L	7	7	100	100	63	120
D.34B9L	9	9	100	100	63	130
D.34B10	10	10	60	60	15	75
D.34B12L	12	12	100	100	63	140
D.34B14L	14	14	100	100	63	150
D.34B16L	16	16	100	100	63	160

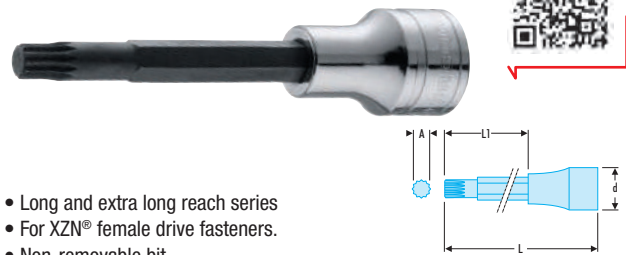
■ **SV.B - 1/2" drive XZN® spline bit sockets**



- Standard length series.
- For XZN® female drive fasteners.
- Non-removable bit.
- Finish: bright chrome with phosphate-hardened tip.

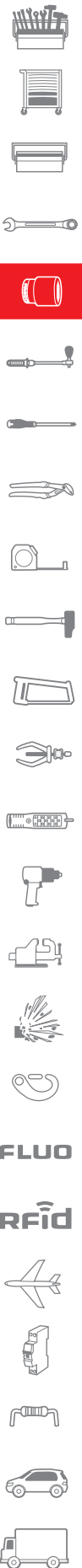
⌘	A [mm]	d [mm]	L [mm]	L1 [mm]	ΔΔ [g]
SV.6B	M6	22,8	60	24	60
SV.8B	M8	22,8	60	24	60
SV.10B	M10	22,8	60	24	70
SV.12B	M12	22,8	60	24	80
SV.14B	M14	22,8	60	24	100
SV.16B	M16	23,1	60	24	110
SV.18B	M18	21,8	60	24	170

■ **SV.LB - 1/2" drive long-reach XZN® spline bit sockets**



- Long and extra long reach series
- For XZN® female drive fasteners.
- Non-removable bit.
- Finish: bright chrome with phosphate-hardened tip.

⌘	A [mm]	d [mm]	L [mm]	L1 [mm]	ΔΔ [g]
SV.6LB	M6	22,8	100	64	80
SV.8LB	M8	22,8	100	64	80
SV.10LB	M10	22,8	100	64	90
SV.10ELB	M10	22,8	120	120	110
SV.12LB	M12	22,8	100	64	120
SV.12ELB	M12	22,8	140	104	150
SV.14LB	M14	22,8	100	64	150
SV.16LB	M16	22,8	100	64	160
SV.18LB	M18	22,8	100	64	180




## SCREWDRIVER SOCKETS 1/2"

### 7-piece set of 1/2" short-reach XZN® screwdriver sockets

Comprises:

- 7 x 1/2" screwdriver sockets for XZN hollow screws - L 60 mm:  
SV.B M6 - M8 - M10 - M12 - M14 - M16 - M18.
- Empty case: BP.MBOXS.
- Thermoformed tray S (188 x 105 mm): PL.S03.

	$\Delta\Delta$ [kg]
<b>SV.J7A</b>	0,925



### 7-piece set of 1/2" long-reach XZN® screwdriver sockets

Comprises:

- 7 x 1/2" screwdriver sockets for XZN hollow screws - L 100 mm:  
SV.LB M6 - M8 - M10 - M12 - M14 - M16 - M18.
- Empty case: BP.MBOXS.
- Thermoformed tray S (188 x 105 mm): PL.S03.

	$\Delta\Delta$ [kg]
<b>SVL.J7A</b>	1,205



### 8-piece set of 1/2" short- and long-reach XZN® screwdriver sockets

Comprises:

- 4 x 1/2" screwdriver sockets for XZN hollow screws - L 60 mm:  
SV.B M6 - M8 - M10 - M12.
- 4 x 1/2" screwdriver sockets for XZN hollow screws - L 100 mm:  
SV.LB M6 - M8 - M10 - M12.
- Empty case: BP.MBOXS.
- Thermoformed tray S (188 x 105 mm): PL.S04.

	$\Delta\Delta$ [kg]
<b>SV.J8B</b>	0,945



### 6-piece set of 1/2" long-reach and extra long-reach XZN® screwdriver sockets











Comprises:

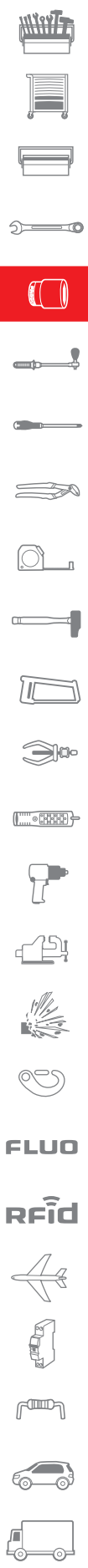
- 4 x 1/2" screwdriver sockets for XZN hollow screws - L 100 mm:  
SV.LB M6 - M8 - M10 - M12.
- 2 x 1/2" screwdriver sockets for XZN hollow screws - L 120 mm:  
SV.ELB M10 - M12.
- Empty case: BP.MBOXS.
- Thermoformed tray S (188 x 105 mm): PL.S08.

	$\Delta\Delta$ [kg]
<b>SV.LJ6B</b>	0,930



1/2" AND 3/4" SETS METRIC AND INCH DIMENSIONS









		SK.453N		SK.452N		SK.452U		
		S.161B + K.151B		S.161B + K.151B		S.161B + K.151B		
		6		12		12		
Socket type	mm / inch	1/2"	3/4"	1/2"	3/4"	1/2"	3/4"	
		Standard sockets		Standard sockets		Standard sockets		
	mm	8	•	•				
		9	•	•				
		10	•	•				
		11	•	•				
		12	•	•				
		13	•	•				
		14	•	•				
		15	•	•				
		16	•	•				
		17	•	•				
		18	•	•				
		19	•	•				
		21	•	•				
		22	•	•		•		
		23	•	•		•		
		24	•	•		•		
		26	•	•		•		
		27	•	•		•		
		28	•	•		•		
		29	•	•		•		
30	•	•		•				
32	•	•		•				
34		•		•				
36		•		•				
41		•		•				
46		•		•				
50		•		•				
	inch	3/8				•		
		7/16				•		
		1/2				•		
		9/16				•		
		19/32				•		
		5/8				•		
		21/32				•		
		11/16				•		
		3/4				•		
		25/32				•		
		13/16				•		
		7/8				•		
		15/16				•		
		31/32				•		
		1'				•		
		1'1/16				•	•	
		1'1/8				•	•	
		1'3/16				•	•	
		1'1/4				•	•	
		1'3/8				•	•	
1'7/16				•	•			
1'1/2				•	•			
1'5/8				•	•			
1'13/16				•	•			
2'				•	•			
	S.210	•		•		•		
	S.215	•		•		•		
	S.240A	•		•		•		
	S.120A	•		•		•		
	S.110	•		•		•		
	K.210B		•		•		•	
	K.215B		•		•		•	
	K.120B		•		•		•	
		P.22						
		1 x C.K422CA + 2 x CK422EA						
		BT.6A						
		468 x 190 x 160 mm						
		17,200 Kg			16,200 Kg			



FLUO

RFid

3/4" SOCKET SETS IN METAL RACKS

		K.421N	K.420N	K.433E	K.432E	KL.411	KL.500	KL.501	K.437E	K.436E
 Socket type		K.151B Standard mm	K.151B Standard mm	K.151B Standard mm	K.151B Standard mm	KL.161 Standard mm	KL.161 Standard mm	KL.161 Standard mm	K.151B Standard mm	K.151B Standard mm
mm										
	19					•			•	•
	21					•			•	•
	22	•	•			•	•	•	•	•
	23									
	24	•	•			•	•	•	•	•
	26									
	27	•	•			•	•	•	•	•
	30	•	•	•	•	•	•	•	•	•
	32	•	•	•	•	•	•	•	•	•
	33									
	34	•	•	•	•	•	•	•	•	•
	36	•	•	•	•	•	•	•	•	•
	38									
	41	•	•	•	•	•	•	•	•	•
	42									
46	•	•	•	•	•	•	•	•	•	
50	•	•	•	•	•	•	•	•	•	
54										
55										
 K.210B	•	•	•	•	•	•	•	•	•	•
 K.215B	•	•	•	•	•	•	•	•	•	•
 K.240A										
 K.120B	•	•	•	•	•	•	•	•	•	•
	PL.42	PL.42	PL.40	PL.40	PL.438	-	-	PL.87A		
	BT.103					BV.COMPO-KA		BT.103		
	643 x 230 x 111 mm					565 x 420 x 85 mm		643 x 230 x 111 mm		
	12,900 Kg		16,300 Kg		15,200 Kg	14,900 Kg		15,500 Kg		

K.421N



K.433E



K.420N



K.432E



KL.500



KL.411



K.436E



KL.501

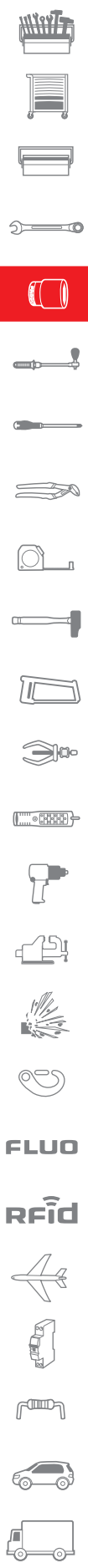


K.437E



SETS OF 3/4" METRIC METAL, PLASTIC AND THERMOFORMED










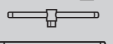

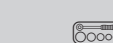
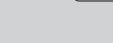
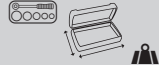
		<b>K.441A</b>	<b>K.442A</b>	<b>SK.453N</b>	<b>SK.452N</b>	<b>MOD.K1</b>	<b>MOD.KL2</b>	<b>K.415E</b>	<b>K.405E</b>
		K.151B 6 Standard 3/4"	K.151B 12 Standard 3/4"	K.151B 6 Standard 1/2" 3/4"	K.151B 12 Standard 1/2" 3/4"	K.151B 6 Standard 3/4"	KL.161 6 Standard 3/4"	K.151B 6 Long 3/4"	- 6 Long 3/4"
Socket type									
mm									
	8			•	•				
	9			•	•				
	10			•	•				
	11			•	•				
	12			•	•				
	13			•	•				
	14			•	•				
	15			•	•				
	16			•	•				
	17			•	•				
	18			•	•				
	19	•	•	•	•				
	21	•	•	•	•				
	22	•	•	•	•			•	•
	23	•	•	•	•			•	•
	24	•	•	•	•			•	•
	26			•	•			•	•
	27	•	•	•	•			•	•
	28			•	•			•	•
	29			•	•			•	•
	30	•	•	•	•			•	•
	32	•	•	•	•			•	•
	33			•	•			•	•
	34	•	•	•	•	•	•	•	•
	36	•	•	•	•	•	•	•	•
	38	•	•	•	•	•	•	•	•
	41	•	•	•	•	•	•	•	•
	42			•	•			•	•
	46	•	•	•	•	•	•	•	•
	50	•	•	•	•	•	•	•	•
	54	•	•	•	•	•	•	•	•
	55	•	•	•	•	•	•	•	•
	K.210B	•	•	•	•	•	•	•	•
	K.215B	•	•		•			•	
	K.240A	•	•				•		
	K.120B	•	•	•	•	•		•	
	K.125A	•	•						
	K.140A	•	•						
	K.230B					•			
	S.210			•	•				
	S.215			•	•				
	S.240A			•	•				
	S.120A			•	•				
	S.110			•	•				
		-	-	P.22		PL.324	PL.662A	PL.43	PL.60A
		1 x C.K422CA + 2 x CK422EA				-	-	-	-
		BT.6A				-	-	BT.103G	BT.111
		468 x 190 x 160 mm				396 x 224 x 84	410 x 188 x 84	643 x 230 x 111	396 x 224 x 82
		17,000 Kg		17,200 Kg		7,700 Kg	7,200 Kg	16,270 Kg	9,300 Kg



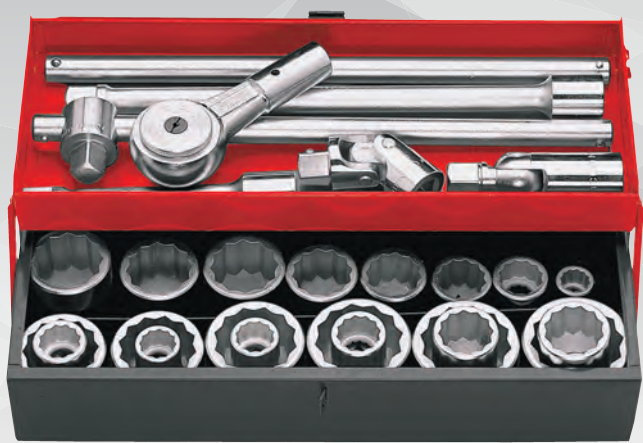
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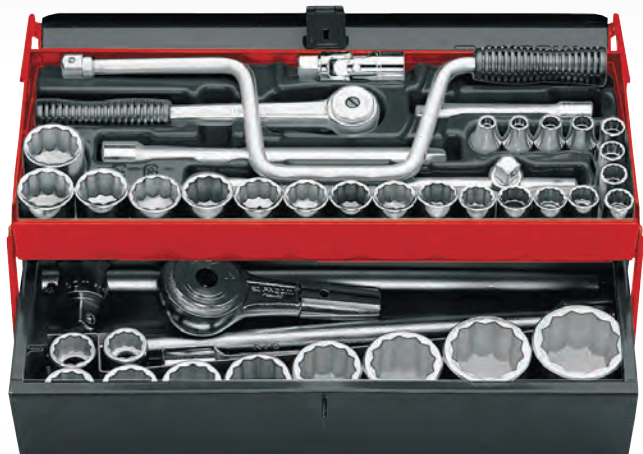
3/4" SOCKET SETS IN METAL RACKS

  <b>Socket type</b>		<b>K.442U</b> K.151B  12 Inch Standard 3/4"	<b>SK.452U</b> K.161B + K.151B  12 Inch Standard 1/2" 3/4"
	mm		
	3/8		•
	7/16		•
	1/2		•
	9/16		•
	19/32		•
	5/8		•
	21/32		•
	11/16		•
	3/4	•	•
	25/32		•
	13/16		•
	7/8	•	•
	15/16	•	•
	31/32		•
	1"	•	•
	1 1/16	•	•
	1 1/8	•	•
	1 3/16		•
	1 1/4	•	•
	1 5/16	•	•
	1 3/8	•	•
1 7/16		•	
1 1/2	•	•	
1 5/8	•	•	
1 11/16	•	•	
1 3/4	•	•	
1 13/16		•	
1 7/8	•	•	
2"	•	•	
2 1/8	•	•	
2 3/16	•	•	
2 1/4	•	•	
       	S.210		•
	S.215		•
	S.240A		•
	S.120A		•
	S.110		•
	K.210B	•	•
	K.215B	•	•
	K.120B	•	•
K.125A	•	•	
K.140A	•	•	
	-		P22
	1 x C.K422CA + 2 x CK422EA		
BT.6A			
468 x 190 x 160 mm			
22,100 Kg		16,200 Kg	

K.442U



SK.452U



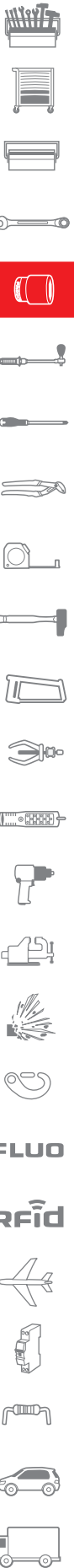
RATCHETS 3/4"

RATCHET 3/4" KL.161



**Extremely compact and lightweight ratchet for difficult access**

- One-piece ratchet and hands ergonomic grip: allows applying more strength
- Dustproof for greater lifetime
- Precision: 120 teeth mechanism for 3° increments
- Reverse lever: easy even with gloved hand.



High performance sealed 3/4" ratchet

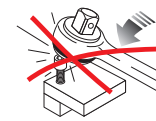
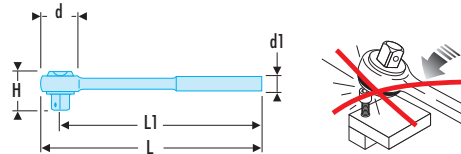


NF ISO 3315, ISO 3315, DIN 3122, ASME B107.10

- Very long durability regardless of working conditions. Maintenance-free. Mechanism sealed to industrial dust.
- 120 tooth mechanism for 3° increments.
- Lever reversing: easy even when wearing gloves. Visible rotation direction.
- "Palm control" system, to press the ratchet head when tightening or loosening without risk of accidental reversing of the rotation direction.
- Ultra-compact head.
- Bi-material elastomer grip: high resistance to abrasion and the most severe workshop solvents: SP95, SP98, diesel fuel, acetone, brake fluid, Skydrol, Jet Oil, kerosene.
- Hole in the handle for strapping when working in high places.
- Finish: mat chrome.



	d [mm]	d1 [mm]	H [mm]	L [mm]	L1 [mm]	ΔΔ [kg]
<b>KL.161</b>	60	31/35	52	512	481	1.47



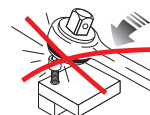
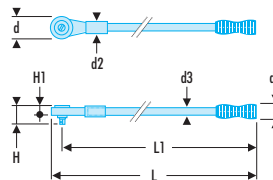
3/4" drive ratchet with removable handle



- 72 teeth mechanism for 5° increments.
- Rotating cap inversion.
- Safety lock by diver.
- Removable handle K.154AM.
- Single-material elastomer handle: high resistance to abrasion and solvents in the most severe conditions: fuel, diesel, gasoline, acetone, brake fluid, Skydrol, Jet Oil, kerosene
- Satin chrome finish

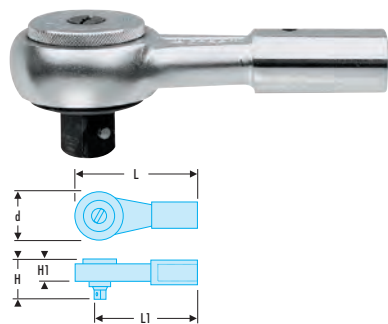


	d [mm]	d1 [mm]	d2 [mm]	d3 [mm]	H [mm]	H1 [mm]	L [mm]	L1 [mm]	ΔΔ [kg]
<b>K.154B</b>	68	40	30	20	61	37	548	514	2.4



RATCHETS - SOCKETS

3/4" drive ratchet without handle



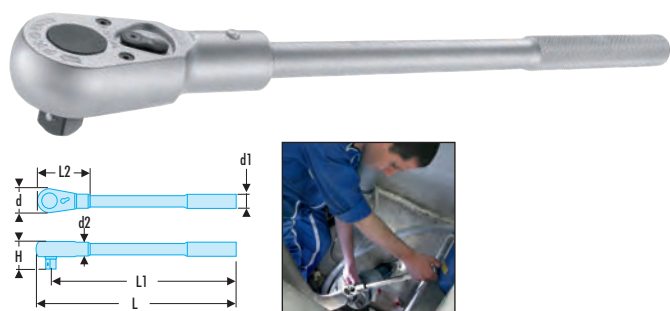
NF ISO 3315, ISO 3315, DIN 3122, ASME B107.10

- Precise increment: 5°.
- 72-tooth mechanism.
- For use with bars K.125 or K.126 and handle K.154AM.
- Plunger lock.
- Bi-material elastomer grip: high resistance to abrasion and the most severe workshop solvents: SP95, SP98, diesel fuel, acetone, brake fluid, Skydrol, Jet Oil, kerosene.
- Finish: chromed.



	d [mm]	H [mm]	H1 [mm]	L [mm]	L1 [mm]	ΔΔ [kg]
<b>K.151B</b>	68	61	37	170	136	1.2

3/4" drive "heavy duty" ratchet



NF ISO 3315, ISO 3315, DIN 3122, ASME B107.10

- Suitable for outdoor working:
  - Sturdy mechanism protected against dirt.
  - Recessed reversing switch.
  - 9° increments.
  - 40 tooth mechanism.
  - Removable handle K.149M..
- Plunger lock.
- Finish: mat chrome.



	d [mm]	d1 [mm]	d2 [mm]	H [mm]	L [mm]	L1 [mm]	ΔΔ [kg]
<b>K.149</b>	65,5	25	32	62	510	475	2.9

Handle for 3/4" ratchet K.151B



- Handle for 3/4" ratchets Ref K.154B and K.151B
- Single material elastomer grip: high resistance to abrasion and the most severe workshop solvents: SP95, SP98, diesel fuel, acetone, brake fluid, Skydrol, Jet Oil, kerosene.
- Satin chrome finish.



	ΔΔ [kg]
<b>K.154AM</b>	1.130

MAINTENANCE OF 3/4" RATCHETS

- Ratchet maintenance is straightforward: for continued serviceability, simply clean and replace worn parts periodically.

	K.151	K.151A	K.151B	K.154A	K.154B	K.149
<b>Caps</b>						
<b>M.151C</b>	•					
<b>K.151BC</b>		•	•	•	•	
<b>Spare part kit</b>						
<b>K.151RN</b>	•	•	•	•	•	
<b>Rotors</b>						
<b>K.150AR</b>						
<b>K.151AR</b>		•	•	•	•	
<b>Repair kit</b>						
<b>K.149RN</b>						•



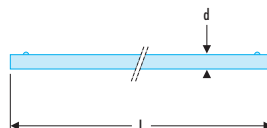
ACCESSORIES 3/4"

■ K.A - Bar for 3/4" ratchet



- For use as extension handles on ratchet K.151B, as well as on handles K.140A and K.200E.
- Finish: satin chrome.

Part No.	d [mm]	L [mm]	ΔΔ [kg]
K.125A	20	425	1.0
K.126A	20	500	1.2



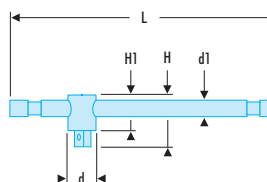
■ 3/4" drive sliding tee



NF ISO 3315, ISO 3315, DIN 3122, ASME B107.10

- Ball-steadied head.
- T or L-handle.
- Finish: satin chrome.

Part No.	d [mm]	d1 [mm]	H [mm]	H1 [mm]	L [mm]	ΔΔ [kg]
K.120B	36	20	62	37	425	1.3

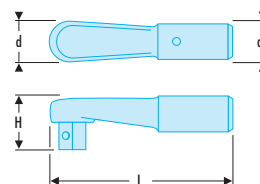


■ 3/4" drive fixed adaptor



- For use with bars K.125A or K.126A.
- For power loosening without damaging the ratchet.
- Finish: satin chrome.

Part No.	d [mm]	d1 [mm]	H [mm]	L [mm]	ΔΔ [g]
K.200E	35	30	40	152	630

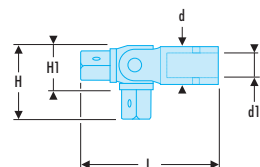


■ 3/4" drive hinged adaptor



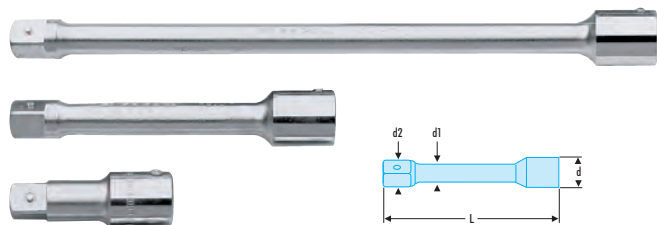
- For use with bars K.125 or K.126.
- Fastener rotation from any angle over 180°.
- Joint 180°.
- Spring-steadied in any position.
- Finish: satin chrome.

Part No.	d [mm]	d1 [mm]	H [mm]	H1 [mm]	L [mm]	ΔΔ [g]
K.140A	40	20	70	46	125	760



ACCESSORIES 3/4"

■ K.B - 3/4" drive extensions



NF ISO 3316, ISO 3316, DIN 3123, ASME B107.10

- Ideal when space is at a premium with multiple extensions sizes
- Satin chrome finish



🔧	C [mm]	d [mm]	d1 [mm]	d2 [mm]	L [mm]	ΔΔ [g]
K.208B	25	36	25	25	100	410
K.210B	25	36	20	25	200	620
K.215B	25	36	20	25	400	1100

■ 3/4" universal joint



NF ISO 3316, ISO 3316, DIN 3123, ASME B107.10

- Spring-stiffened joints.
- Significant time savings.
- Finish: satin chrome.



🔧	d [mm]	L [mm]	L1 [mm]	ΔΔ [g]
K.240A	40	105	82	550

■ 3/4" to 1/2" coupler



NF ISO 3316, ISO 3316, DIN 3123, ASME B107.10

- For adapting sockets and accessories 1/2".
- Interchangeable 1/2" male square ref. K.230B1.
- Max. torque 512 N.m.
- Finish: satin chrome, phosphate square.



🔧	d [mm]	L [mm]	L1 [mm]	ΔΔ [g]
K.230B	36	58,5	43	250

■ Interchangeable 1/2" male drive



- Interchangeable 1/2" male drive for 3/4" to 1/2" coupler reference K.230B.
- Finish: satin chrome.



🔧	ΔΔ [g]
K.230B1	35

■ 3/4" to 1" coupler



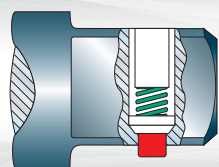
NF ISO 3316, ISO 3316, DIN 3123, ASME B107.10

- For adapting sockets and accessories 1".
- Finish: satin chrome.



🔧	d [mm]	L [mm]	L1 [mm]	ΔΔ [g]
K.232A	36	67	39	340

LOCKING SOCKETS AND ACCESSORIES 3/4" - 1"



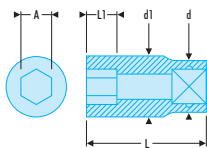
Safety and comfort !

- Lock system prevents accidental socket loss during use.
- Quick release simply by pressing the plunger.
- Compatible with the standard ball-lock tools.



SOCKETS 3/4"

■ K.HB 3/4" drive metric 6-point sockets

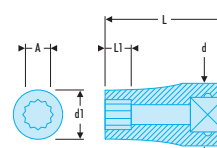


NF ISO 2725-1, NF ISO 1711-1, ISO 2725-1, ISO 1711-1, DIN 3124, ASME B107.5

- OGV® profile: more powerful tightening, preserves fasteners.
- Secure attachment of plunger lock accessories
- Quick release button.
- Finish: satin chrome.

➤	A [mm]	d [mm]	d1 [mm]	L [mm]	L1 [mm]	⌀ [mm]	ΔΔ [g]
K.19HB	19	36	30,1	51,0	14	6	207
K.21HB	21	36	32,0	51,0	14	6	208
K.22HB	22	36	33,4	51,0	14	6	221
K.23HB	23	36	36,0	52,5	14	6	244
K.24HB	24	36	36,0	52,5	16	6	237
K.26HB	26	36	38,9	52,5	16	6	231
K.27HB	27	36	39,7	52,5	18	6	232
K.28HB	28	36	41,0	52,5	18	6	239
K.29HB	29	36	42,0	52,5	18	6	245
K.30HB	30	36	43,2	59,0	20	6	282
K.32HB	32	36	45,9	59,0	22	6	301
K.33HB	33	36	48,1	59,0	22	6	330
K.34HB	34	36	48,4	59,0	24	6	322
K.35HB	35	36	50,1	59,0	24	6	344
K.36HB	36	36	51,0	59,0	24	6	347
K.38HB	38	40	54,3	66,9	27	6	478
K.40HB	40	40	56,0	66,9	27	6	493
K.41HB	41	40	57,3	66,9	27	6	504
K.42HB	42	40	59,5	66,9	27	6	552
K.43HB	43	40	60,7	66,9	27	6	560
K.44HB	44	40	61,9	66,9	28	6	587
K.46HB	46	40	63,5	75,0	30	6	641
K.50HB	50	40	68,5	75,0	33	6	725
K.54HB	54	45	74,0	75,0	36	6	880
K.55HB	55	45	74,7	75,0	36	6	875

■ K.B 3/4" drive metric 12-point sockets



NF ISO 2725-1, NF ISO 1711-1, ISO 2725-1, ISO 1711-1, DIN 3124, ASME B107.5

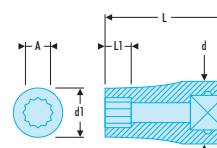
- OGV® profile: more powerful tightening, preserves fasteners.
- Secure attachment of plunger lock accessories
- Quick release button.
- Finish: satin chrome.

➤	A [mm]	d [mm]	d1 [mm]	L [mm]	L1 [mm]	⌀ [mm]	ΔΔ [g]
K.19B	19	36	30,1	51,0	14	12	207
K.21B	21	36	32,0	51,0	14	12	208
K.22B	22	36	33,4	51,0	14	12	221
K.23B	23	36	36,0	52,5	14	12	244
K.24B	24	36	36,0	52,5	16	12	237
K.26B	26	36	38,9	52,5	16	12	231
K.27B	27	36	39,7	52,5	18	12	232
K.28B	28	36	41,0	52,5	18	12	239
K.29B	29	36	42,0	52,5	18	12	245
K.30B	30	36	43,2	59,0	20	12	282
K.32B	32	36	45,9	59,0	22	12	301
K.33B	33	36	48,1	59,0	22	12	330
K.34B	34	36	48,4	59,0	24	12	322
K.35B	35	36	50,1	59,0	24	12	344
K.36B	36	36	51,0	59,0	24	12	347
K.38B	38	40	54,3	66,9	27	12	478
K.40B	40	40	56,0	66,9	27	12	493
K.41B	41	40	57,3	66,9	27	12	504
K.42B	42	40	59,5	66,9	27	12	552
K.43B	43	40	60,7	66,9	28	21	301
K.44B	44	40	61,9	66,9	28	12	587
K.46B	46	40	63,5	75,0	30	12	641
K.50B	50	40	68,5	75,0	33	12	725
K.54B	54	45	74,0	75,0	36	12	880
K.55B	55	45	74,7	75,0	36	12	875

■ K.B 3/4" drive inch 12-point sockets

ASME B107.1

- OGV® profile: more powerful tightening, preserves fasteners.
- Secure attachment of plunger lock accessories
- Quick release button.
- Finish: satin chrome.



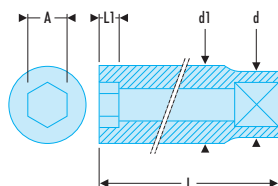
➤	A ["]	d [mm]	d1 [mm]	L [mm]	L1 [mm]	⌀ [mm]	ΔΔ [g]
K.3/4B	3/4	36	30,1	51,0	14	12	207
K.7/8B	7/8	36	33,6	51,0	14	12	220
K.15/16B	15/16	36	35,7	52,5	14	12	233
K.1PB	1"	36	38,0	52,5	14	12	250
K.1P1/16B	1 1/16"	36	39,7	52,5	18	12	232
K.1P1/8B	1 1/8"	36	41,6	52,5	18	12	241
K.1P3/16B	1 3/16"	36	43,2	59,0	20	12	280
K.1P1/4B	1 1/4"	36	45,9	59,0	22	12	304
K.1P5/16B	1 5/16"	36	48,1	59,0	22	12	326
K.1P3/8B	1 3/8"	36	50,1	59,0	24	12	343
K.1P7/16B	1 7/16"	36	51,0	59,0	24	12	339

➤	A ["]	d [mm]	d1 [mm]	L [mm]	L1 [mm]	⌀ [mm]	ΔΔ [g]
K.1P1/2B	1 1/2"	40	54,3	66,9	27	12	478
K.1P9/16B	1 9/16"	40	56,0	66,9	27	12	498
K.1P5/8B	1 5/8"	40	57,3	66,9	27	12	498
K.1P11/16B	1 11/16"	40	60,7	66,9	27	12	564
K.1P3/4B	1 3/4"	40	62,2	66,9	28	12	586
K.1P13/16B	1 13/16"	40	63,5	75,0	30	12	641
K.1P7/8B	1 7/8"	40	66,2	75,0	33	12	699
K.2PB	2"	40	68,5	75,0	33	12	698
K.2P1/8B	2 1/8"	45	74,0	75,0	36	12	880
K.2P3/16B	2 3/16"	45	74,7	75,0	36	12	855
K.2P1/4B	2 1/4"	45	77,1	75,0	36	12	913



SOCKETS 3/4"

■ K.LA 3/4" long-reach metric 6-point sockets



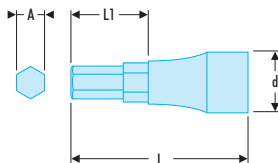
NF ISO 2725-1, NF ISO 1711-1, ISO 2725-1, ISO 1711-1, DIN 3124, ASME B107.5

- OGV® profile: more powerful tightening, preserves fasteners.
- Secure attachment of plunger lock accessories
- Quick release button.
- Finish: satin chrome.



⚙️	A [mm]	d [mm]	d1 [mm]	L [mm]	L1 [mm]	6 [mm]	ΔΔ [g]
K.19LA	19	36	30,1	90	18	6	339
K.21LA	21	36	32,0	90	18	6	367
K.22LA	22	36	33,4	90	21	6	391
K.23LA	23	38	36,0	90	21	6	461
K.24LA	24	38	36,0	90	24	6	400
K.26LA	26	36	38,9	90	24	6	474
K.27LA	27	38	39,7	90	27	6	480
K.29LA	29	40	42,0	90	27	6	505
K.30LA	30	40	43,2	90	30	6	530
K.32LA	32	40	45,9	90	33	6	540
K.33LA	33	45	48,1	90	33	6	600
K.34LA	34	45	48,4	90	33	6	656
K.35LA	35	45	50,1	90	33	6	707
K.36LA	36	45	51,0	90	36	6	672
K.38LA	38	45	54,3	90	36	6	772
K.41LA	41	45	57,3	90	40	6	778
K.42LA	42	45	59,5	90	40	6	863

■ KT.A 3/4" drive metric bits for hexagon socket heads



- Interchangeable bits with plunger lock.
- Finish: chrome with phosphate bit.

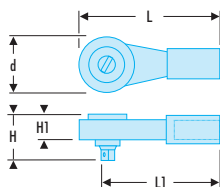


⚙️	A [mm]	d [mm]	L [mm]	L1 [mm]	ΔΔ [g]
KT.14A	14	36	74,5	25	297
KT.17A	17	36	74,5	25	307
KT.19A	19	36	74,5	25	314
KT.22A	22	36	74,5	25	314

MAMMOTH 1" RANGE

RATCHETS AND ACCESSORIES 1"

■ 1" drive ratchet without handle



NF ISO 3315, ISO 3315, DIN 3122, ASME B107.10

- 5° increment.
- 72-tooth mechanism.
- For use with bars M.125 or M.126 and handle M.120.
- Finish: satin chrome.
- Présentation : chromée satinée.



⚙️	d [mm]	H [mm]	H1 [mm]	L [mm]	L1 [mm]	ΔΔ [kg]
M.151	73	77	45	197	161	2.1

■ M.A - Bars for 1" ratchet M.151

- Used as extension handles on ratchet M.151.
- Finish: satin chrome.



Part No.	d [mm]	L [mm]	ΔΔ [kg]
M.125A	25	500	1.9
M.126A	25	700	2.7



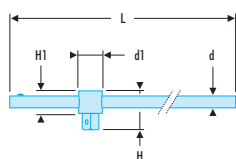
■ 1" drive sliding tee

NF ISO 3315, ISO 3315, DIN 3122, ASME B107.10

- Friction-head allows bar to form a T or L-handle.
- Fitted with a lock by plunger.
- Finish: satin chrome.



Part No.	d [mm]	d1 [mm]	H [mm]	H1 [mm]	L [mm]	[kg]
M.120A	25	42	79	49,5	500	2.4



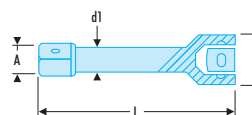
■ M.A - 1" drive extensions

NF ISO 3315, ISO 3315, DIN 3122, ASME B107.10

- Safety plunger lock.
- Finish: satin chrome.



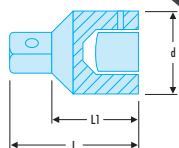
Part No.	A [mm]	C [mm]	d [mm]	d1 [mm]	L [mm]	ΔΔ [kg]
M.210A	33	33	48	25	200	1.1
M.215A	33	33	48	25	415	2.0



■ 1" to 3/4" coupler

NF ISO 3316, ISO 3316, DIN 3123

- For adapting 3/4" drive sockets.
- Interchangeable 3/4" male square ref. M.230C1.
- Finish: satin chrome, with burnished square.



Part No.	ΔΔ [kg]
M.230C	0.415

■ Interchangeable 3/4" male drive

- Maximum torque 1412 N.m.
- Interchangeable 1/3" male square attaches to 1" to 3/4" coupler reference M.230C.



Part No.	ΔΔ [kg]
M.230C1	110



1" SOCKETS

M.HA - 1" drive metric 6-point sockets



NF ISO 2725-1, NF ISO 1711-1, ISO 2725-1, ISO 1711-1, DIN 3124

- Thinner, lighter body.
- Secure attachment of plunger lock accessories.
- Push-button release.
- Finish: satin chrome.

⊞	A [mm]	d [mm]	d1 [mm]	L [mm]	L1 [mm]	6 [mm]	ΔΔ [kg]
M.41HA	46	51,3	64,4	76	30	6	0,850
M.46HA	41	51,3	56,9	74	25	6	0,685
M.50HA	50	51,3	69,4	80	33	6	0,970
M.54HA	54	56,3	74,4	84	31	6	1,260
M.55HA	55	56,3	75,4	84	36	6	1,260
M.58HA	58	56,3	79,6	85	35	6	1,350
M.60HA	60	56,3	82,4	87	39	6	1,430
M.63HA	63	58,3	85,4	92	35	6	1,545
M.65HA	65	58,3	88,4	92	42	6	1,650
M.67HA	67	58,3	90,4	92	39	6	1,690
M.70HA	70	56,3	95,0	96	45	6	1,920
M.71HA	71	56,3	96,0	96	45	6	1,900
M.75HA	75	63,3	101,0	100	48	6	2,260
M.77HA	77	63,3	108,0	100	51	6	2,750
M.80HA	80	63,3	108,0	106	52	6	2,800
M.82HA	82	63,3	110,8	110	52	6	2,880
M.85HA	85	71,3	114,0	110	52	6	3,225
M.90HA	90	71,3	121,0	110	56	6	3,555
M.95HA	95	71,3	127,0	110	56	6	3,800
M.100HA	100	71,3	133,0	115	56	6	4,225

M.HA - 1" drive inch 6-point sockets



ASME B107.1

- Thinner, lighter body.
- Secure attachment of plunger lock accessories.
- Push-button release.
- Finish: satin chrome.

⊞	A ["]	d [mm]	d1 [mm]	L [mm]	L1 [mm]	6 [mm]	ΔΔ [kg]
M.1P7/8HA	1" 7/8	51,3	70,4	80	31	6	1,0
M.2PHA	2"	56,3	74,4	84	31	6	1,260
M.2P1/8HA	2" 1/8	56,3	74,4	84	31	6	1,3
M.2P3/16HA	2" 3/16	56,3	75,4	84	35	6	1,3
M.2P1/4HA	2" 1/4	56,3	78,5	84	35	6	1,4
M.2P3/8HA	2" 3/8	56,3	82,4	87	39	6	1,4
M.2P1/2HA	2" 1/2	58,3	86,4	92	35	6	1,6
M.2P5/8HA	2" 5/8	58,3	90,4	92	39	6	1,7
M.2P3/4HA	2" 3/4	94,4	58,3	96	45	6	1,9
M.3PHA	3"	65,3	103,4	100	51	6	2,4
M.3P1/8HA	3" 1/8	65,3	107,4	106	51	6	2,8
M.3P3/8HA	3" 3/8	73,3	113,4	110	56	6	3,2

1" drive 12-point sockets



ASME B107.1

- Thinner, lighter body.
- Secure attachment of plunger lock accessories.
- Push-button release.
- Finish: chromed.

⊞	A [mm]	d [mm]	d1 [mm]	L [mm]	L1 [mm]	12 [mm]	ΔΔ [kg]
M.65B	65	58,3	85,4	92	42	12	1,7

1" METRIC SOCKET SETS

Set of 1" drive 6-point sockets 42 to 82 mm



- Including:
- Ratchet: M.151.
- Sockets: M.46HA - M.50HA - M.54HA - M.55HA - M.58HA - M.60HA - M.63HA - M.65HA - M.67HA - M.70HA - M.71HA - M.75HA - M.77HA - M.80HA - M.82HA - M46HA-M1P13/16HA.
- Accessories: M.120A - M.210A - M.215A.
- Metal case BT.101
- Tray PL.57.

Σ	H [mm]	P [mm]	L [mm]	ΔΔ [kg]
M.431E	158	344	768	46.5

Set of 1" drive 6-point sockets 41 to 80 mm



- Including:
- 1 x Ratchet: M.151.
- 15 x Sockets: M.58HA - M.60HA - M.63HA - M.65HA - M.67HA - M.70HA - M.71HA - M.75HA - M.77HA - M.80HA - M.82HA - M.85HA - M.90HA - M.95HA - M.100HA.
- Accessories: M.120A - M.210A - M.215A.
- Metal case BT.104, dim.
- Tray PL.85.

Σ	H [mm]	P [mm]	L [mm]	ΔΔ [kg]
M.423E	123	344	568	29.7

Set of 1" drive 6-point sockets 58 to 100 mm



- Including:
- Ratchet: M.151.
- Sockets: M.58HA - M.60HA - M.63HA - M.65HA - M.67HA - M.70HA - M.71HA - M.75HA - M.77HA - M.80HA - M.82HA - M.85HA - M.90HA - M.95HA - M.100HA.
- Accessories: M.120A - M.210A - M.215A.
- Metal case BT.101.
- Tray PL.54.

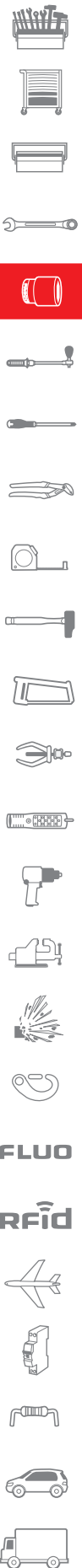
Σ	H [mm]	P [mm]	L [mm]	ΔΔ [kg]
M.441E	158	344	768	63.1

Set of 1" drive sockets 17/8" to 33/8"



- Including:
- 1 x Ratchet: M.151.
- 12 x Sockets: M.1"7/8HA - M.2"1/2HA - M.2"1/4HA - M.2"3/16HA - M.2"3/4HA - M.2"3/8HA - M.2"5/8HA - M.2"HA - M.3"1/8HA - M.3"3/8HA - M.3"HA - M.2"1/8HA.
- Accessories: M.120A - M.210A - M.215A.
- Metal case BT.101.
- Tray PL.58.

Σ	H [mm]	P [mm]	L [mm]	ΔΔ [kg]
M.431U	344	158	768	29.7



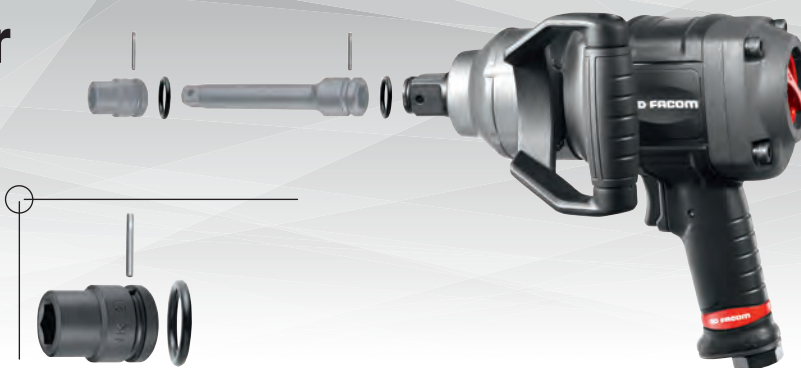
IMPACT SOCKETS 3/8"

IMPACT SOCKETS AND ACCESSORIES

Developed for your power tools

Pins	Ø	L (mm)
GA.15B	2,5	14,8
GA.18B	2,5	17,8
GA.19B	2,5	19,0
GA.20B	3,0	20,0
GA.22B	3,0	22,0
GA.25B	3,0	25,0
GA.31B	4,0	31,0
GA.35B	4,0	35,0
GA.45B	5,0	45,0
GA.77B	5,0	77,0
GA.75B	6,0	75,0
GA.84B	6,0	84,0

Rings	Ø	L (mm)
BA.15B	3,5	15,0
BA.18B	3,5	18,0
BA.19B	3,5	19,0
BA.20B	4,0	20,0
BA.22B	4,0	22,0
BA.25B	4,0	25,0
BA.30B	5,0	30,0
BA.36B	5,0	36,0
BA.45B	7,0	45,0
BA.76B	7,0	76,0
BA.74B	10,0	74,0
BA.84B	10,0	84,0



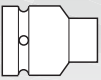


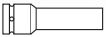
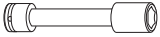




Performance

- Specially designed to resist the stresses from impact (section 14). Their special steel and heat treatment ensure a very high yield strength and wear resistance.

Safety

- All sockets and accessories feature a groove and side-hole to UNI ISO 2725. Locking is ensured by a through-pin and retaining ring (to be ordered separately). Never fit chrome-finished manual sockets Impact tools.

CHOOSING IMPACT TOOLS

TYPE OF TOOL	DRIVE	SIZES
Sockets 	☑ 3/8" ☑ 1/2" ☑ 3/4" ☑ 1" ☑ 1 1/2"	6 > 19 mm 8 > 36 mm ; 3/8" > 1 1/16 17 > 46 mm ; 3/4" > 1 5/8 22 > 77 mm 55 > 120 mm 12 16 > 22 mm
TORX® 	☑ 1/2"	E10 > E24
TORX® Long-reach 	☑ 1/2" ☑ 3/4"	E10 > E24
Socket 	☑ 1/2" ☑ 3/4" ☑ 1"	6 > 32 mm 17 > 46 mm 22 > 70 mm 12 8 > 36 mm 17 > 46 mm
Long-reach socket 	☑ 1"	32 - 33 mm
Extra-long-reach socket 	☑ 1/2"	
Monobloc bit 	☑ 3/4"	
1 model per drive 	☑ 3/8" ☑ 1/2" ☑ 3/4" ☑ 1" ☑ 1 1/2"	☑ 3/8" > ☑ 1/2" ☑ 1/2" > ☑ 3/4" ☑ 3/4" > ☑ 1" ☑ 1" > ☑ 1 1/2" ☑ 1 1/2" > ☑ 2 1/2" ☑ 1/2" > ☑ 3/8" ☑ 3/4" > ☑ 1/2" ☑ 1" > ☑ 3/4" ☑ 1 1/2" > ☑ 1"
Coupler Impact screwdrivers 	☑ 3/8" ☑ 1/2"	200 Nm 400 Nm

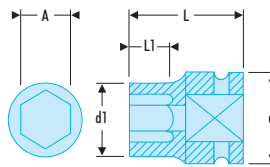


**NJ.A - 3/8" drive metric 6-point impact sockets**

NF ISO 2725-2, NF ISO 1711-2, ISO 2725-2, ISO 1711-2, DIN 3129, ASME B107.33

• For your safety, use impact sockets and accessories with the appropriate rings and pins.

⚙️	A [mm]	BA	GA	d [mm]	d1 [mm]	H3 [mm]	L [mm]	L1 [mm]	⚙️	ΔΔ [g]
NJ.6A	6	BA.15B	GA.15B	20	11,5	6	30	4,0	6	40
NJ.7A	7	BA.15B	GA.15B	20	12,5	8	30	4,0	6	45
NJ.8A	8	BA.15B	GA.15B	20	14,0	8	30	5,2	6	45
NJ.9A	9	BA.15B	GA.15B	20	15,0	8	30	5,0	6	45
NJ.10A	10	BA.15B	GA.15B	20	16,5	8	30	6,0	6	45
NJ.11A	11	BA.15B	GA.15B	20	17,5	9	30	7,0	6	50
NJ.12A	12	BA.15B	GA.15B	20	19,0	9	30	8,0	6	50
NJ.13A	13	BA.18B	GA.18B	22	20,0	10	30	8,0	6	50
NJ.14A	14	BA.18B	GA.18B	22	21,5	11,5	30	10,0	6	65
NJ.15A	15	BA.18B	GA.18B	22	22,0	11	30	10,0	6	70
NJ.16A	16	BA.18B	GA.18B	22	24,0	12,5	30	10,0	6	70
NJ.17A	17	BA.18B	GA.18B	22	26,0	12,5	30	10,0	6	70
NJ.18A	18	BA.18B	GA.18B	22	26,0	12,5	30	12,0	6	75
NJ.19A	19	BA.18B	GA.18B	22	27,8	14	30	12,0	6	80

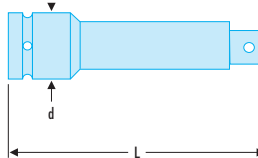


**NJ.A - 3/8" drive impact extensions**

ASME B107.2

• For your safety, use impact extensions and accessories with the appropriate rings and pins.

⚙️	BA	GA	d [mm]	L [mm]	ΔΔ [g]
NJ.210A	BA.16A	GA.15A	19	75	95
NJ.211A	BA.16A	GA.15A	19	150	170

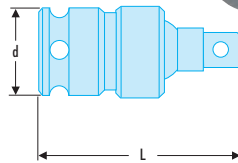


**3/8" drive impact universal joint**

ASME B107.2

• For your safety, use impact universal joints with the appropriate rings and pins.

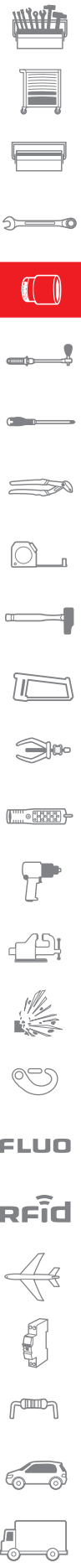
⚙️	BA	GA	d [mm]	L [mm]	ΔΔ [g]
NJ.240A	BA.19B	GA.19B	24	51	85



**3/8" to 1/2" impact coupler**

• For your safety, use impact couplers with the appropriate rings and pins.

⚙️	d [mm]	L [mm]	ΔΔ [g]
NJ.232A	22	36	95



IMPACT ACCESSORIES 3/8"

NJ.A - 3/8" bit holder impact sockets



NF ISO 1711-2, ISO 1711-2, DIN 3121

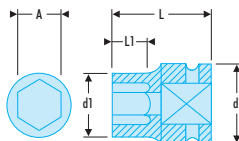
- NJ.236A: for 5/16 bits.
- NJ.237A: for 1/2 bits.



↻	A ["]	BA	GA	d ["]	d [mm]	d1 [mm]	L [mm]	Square ["]	$\Delta\Delta$ [g]
NJ.236A	5/16	BA.18B	-	1/2	22	14	37	3/8	35
NJ.237A	1/2	-	GA.18B	1/2	22	22	37	3/8	45

IMPACT SOCKETS 1/2" AND ACCESSORIES

NS.A - 1/2" drive metric 6-point impact sockets

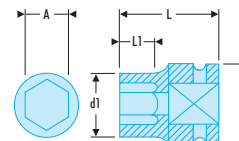


NF ISO 2725-2, NF ISO 1711-2, ISO 2725-2, ISO 1711-2, DIN 3129, ASME B107.33

- For your safety, use impact sockets and accessories with the appropriate rings and pins.

↻	A [mm]	BA	GA	d [mm]	d1 [mm]	L [mm]	L1 [mm]	6 [mm]	$\Delta\Delta$ [g]
NS.8A	8	BA.20B	GA.20B	24	15	38	21	6	70
NS.9A	9	BA.20B	GA.20B	24	16	38	21	6	70
NS.10A	10	BA.20B	GA.20B	24	16	38	21	6	75
NS.11A	11	BA.20B	GA.20B	24	18	38	21	6	75
NS.12A	12	BA.20B	GA.20B	24	20	38	21	6	75
NS.13A	13	BA.20B	GA.20B	24	21	38	21	6	75
NS.14A	14	BA.20B	GA.20B	24	22	38	21	6	85
NS.15A	15	BA.20B	GA.20B	24	24	38	21	6	105
NS.16A	16	BA.20B	GA.20B	24	24	38	21	6	105
NS.17A	17	BA.20B	GA.20B	25	26	38	21	6	110
NS.18A	18	BA.20B	GA.20B	25	28	38	21	6	110
NS.19A	19	BA.20B	GA.20B	25	28	38	21	6	110
NS.20A	20	BA.20B	GA.20B	25	30	38	21	6	110
NS.21A	21	BA.20B	GA.20B	25	30	38	21	6	150
NS.22A	22	BA.25B	GA.25B	30	32	38	21	6	150
NS.23A	23	BA.25B	GA.25B	30	34	38	21	6	150
NS.24A	24	BA.25B	GA.25B	30	34	38	21	6	160
NS.26A	26	BA.25B	GA.25B	30	36	42	23	6	180
NS.27A	27	BA.25B	GA.25B	30	38	43	23	6	200
NS.28A	28	BA.25B	GA.25B	30	40	44	25	6	260
NS.29A	29	BA.25B	GA.25B	30	40	44	25	6	260
NS.30A	30	BA.25B	GA.25B	30	42	44	25	6	270
NS.32A	32	BA.25B	GA.25B	30	44	44	25	6	280

NS.A - 1/2" drive inch 6-point impact sockets



ASME B107.2

- For your safety, use impact sockets and accessories with the appropriate rings and pins.

↻	A ["]	BA	GA	d [mm]	d1 [mm]	L [mm]	L1 [mm]	6 [mm]	$\Delta\Delta$ [g]
NS.3/8A	3/8	BA.20B	GA.20B	24	16,0	38	17	6	75
NS.7/16A	7/16	BA.20B	GA.20B	24	18,0	38	17	6	75
NS.1/2A	1/2	BA.20B	GA.20B	24	21,0	38	17	6	75
NS.9/16A	9/16	BA.20B	GA.20B	24	22,0	38	17	6	80
NS.5/8A	5/8	BA.25B	GA.20B	24	24,0	38	17	6	105
NS.11/16A	11/16	BA.20B	GA.20B	25	25,0	38	21	6	110
NS.3/4A	3/4	BA.25B	GA.20B	25	28,0	38	21	6	120
NS.13/16A	13/16	BA.20B	GA.20B	25	30,0	38	21	6	105
NS.7/8A	7/8	BA.25B	GA.25B	30	32,0	38	21	6	160
NS.15/16A	15/16	BA.25B	GA.25B	30	34,0	38	21	6	160
NS.1PA	1"	BA.25B	GA.25B	30	36,0	42	23	6	180
NS.1P1/16A	1" 1/16	BA.25B	GA.25B	30	38,0	43	23	6	205

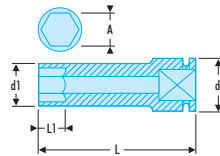
■ NSD.B - 1/2" drive metric 12-point impact sockets



⇒	A [mm]	d [mm]	d1 [mm]	L [mm]	L1 [mm]	12 [mm]	ΔΔ [g]
NSD.8B	8	21,9	14,5	38	3,6	12	50
NSD.9B	9	21,9	15,6	38	4,1	12	50
NSD.10B	10	21,9	16,7	38	4,6	12	53
NSD.11B	11	21,9	18	38	5,5	12	54
NSD.12B	12	21,9	19	38	6,1	12	54
NSD.13B	13	23,9	20,2	38	6,8	12	70
NSD.14B	14	23,9	21,5	38	8,4	12	70
NSD.15B	15	24,9	23,0	38	8,4	12	80
NSD.16B	16	24,9	24,9	38	9,6	12	80
NSD.18B	18	26,9	26,9	38	10,2	12	100
NSD.17B	17	25,9	25,9	38	9,6	12	90
NSD.19B	19	29,9	29,9	38	11,2	12	130
NSD.20B	20	29,9	29,9	38	11,5	12	130
NSD.21B	21	31,7	31,7	38	11,7	12	150
NSD.22B	22	31,9	31,9	38	12,5	12	150
NSD.23B	23	33,9	33,9	42	12,7	12	180
NSD.24B	24	35,9	35,9	42	13,9	12	200
NSD.26B	26	35,9	37,9	42	14,6	12	230
NSD.27B	27	38,0	39,8	46	15,8	12	270
NSD.28B	28	38,0	39,8	46	16,7	12	270
NSD.29B	29	38,0	41,9	46	16,7	12	280
NSD.30B	30	38,0	41,9	46	16,7	12	280
NSD.32B	32	38,0	43,9	46	18,3	12	280
NSD.34B	34	38,0	45,8	46	20,0	12	300
NSD.35B	35	38,0	49,8	50	20,0	12	410
NSD.36B	36	38,0	49,8	50	20,0	12	420



■ NS.LA - 1/2" drive long-reach metric 6-point impact sockets

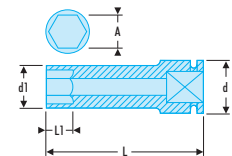


NF ISO 2725-2, NF ISO 1711-2, ISO 2725-2, ISO 1711-2, DIN 3129, ASME B107.33

- For your safety, use impact sockets and accessories with the appropriate rings and pins.

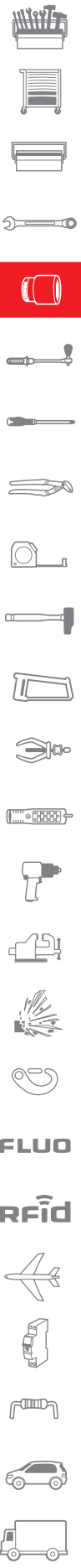
⇒	A [mm]	BA	GA	d [mm]	d1 [mm]	L [mm]	L1 [mm]	6 [mm]	ΔΔ [g]
NS.8LA	8	BA.20B	GA.20B	24	15,0	78	21	6	130
NS.10LA	10	BA.20B	GA.20B	24	17,0	78	21	6	150
NS.11LA	11	BA.20B	GA.20B	24	18,0	78	21	6	160
NS.12LA	12	BA.20B	GA.20B	24	20,0	78	21	6	165
NS.13LA	13	BA.20B	GA.20B	24	21,0	78	21	6	185
NS.14LA	14	BA.20B	GA.20B	24	22,0	78	21	6	200
NS.15LA	15	BA.20B	GA.20B	24	24,0	79	21	6	210
NS.16LA	16	BA.20B	GA.20B	24	24,0	78	21	6	220
NS.17LA	17	BA.20B	GA.20B	26	26,0	78	21	6	250
NS.18LA	18	BA.20B	GA.20B	25	28,0	78	21	6	275
NS.19LA	19	BA.20B	GA.20B	25	28,0	78	21	6	270
NS.21LA	21	BA.20B	GA.20B	25	30,0	78	21	6	280
NS.22LA	22	BA.25B	GA.25B	30	32,0	78	26	6	290
NS.23LA	23	BA.25B	GA.25B	30	34,0	78	24	6	300
NS.24LA	24	BA.25B	GA.25B	30	34,0	78	24	6	300
NS.26LA	26	BA.25B	GA.25B	30	36,0	78	24	6	305
NS.27LA	27	BA.25B	GA.25B	30	38,0	78	24	6	310
NS.28LA	28	BA.25B	GA.25B	30	40,0	78	24	6	315
NS.29LA	29	BA.25B	GA.25B	30	40,0	78	24	6	330
NS.30LA	30	BA.25B	GA.25B	30	42,0	78	24	6	340
NS.32LA	32	BA.25B	GA.25B	30	44,0	78	24	6	340

■ NSB - 1/2" drive long-reach metric thin-wall 6-point impact sockets



- For your safety, use impact sockets and accessories with the appropriate rings and pins.
- Thin wall for better access.
- 6-point convex pattern for increased resilience.

⇒	A [mm]	BA	GA	d [mm]	d1 [mm]	L [mm]	L1 [mm]	6 [mm]	ΔΔ [g]
NSB.10	10	BA.20B	GA.20B	24	17,0	80	78	6	170
NSB.13	13	BA.20B	GA.20B	24	21,0	80	78	6	210
NSB.15	15	BA.20B	GA.20B	24	24,0	80	78	6	220
NSB.16	16	BA.20B	GA.20B	24	24,0	80	78	6	230
NSB.17	17	BA.20B	GA.20B	26	26,0	80	78	6	245
NSB.18	18	BA.20B	GA.20B	25	28,0	80	78	6	245
NSB.19	19	BA.20B	GA.20B	25	28,0	80	78	6	240
NSB.21	21	BA.20B	GA.20B	25	30,0	80	78	6	245
NSB.22	22	BA.25B	GA.25B	30	32,0	85	78	6	250
NSB.24	24	BA.25B	GA.25B	30	34,0	85	78	6	280
NSB.27	27	BA.25B	GA.25B	30	38,0	85	78	6	325
NSB.30	30	BA.25B	GA.25B	30	42,0	85	78	6	330
NSB.32	32	BA.25B	GA.25B	30	44,0	85	78	6	335



IMPACT SOCKETS 1/2" AND ACCESSORIES

SOCKETS FOR ALLOY WHEELS



**NSIL.3 = set of 3 deep impact sockets with protective plastic sleeves to prevent damage to polished chrome or alloy wheels.**

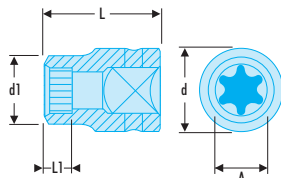
Protective sleeve brings 4 to 5 times superior lifetime compared to standard long socket

NSD.L - 1/2" drive metric long-reach metric 12-point impact sockets



Part No.	A [mm]	d [mm]	d1 [mm]	L [mm]	L1 [mm]	12 [mm]	ΔΔ [g]
NSD.8L	8	21.9	14.5	82	3.6	12	121
NSD.10L	10	21.9	16.7	82	4.6	12	121
NSD.11L	11	21.9	18	82	5.5	12	123
NSD.12L	12	21.9	19	82	6.1	12	124
NSD.14L	14	23.9	21.5	82	8.4	12	186
NSD.16L	16	24.9	24.9	82	9.6	12	193
NSD.17L	17	25.9	25.9	82	9.6	12	209
NSD.18L	18	26.9	26.9	82	10.2	12	221
NSD.19L	19	29.9	29.9	82	11.2	12	300
NSD.21L	21	31.7	31.7	82	11.7	12	320
NSD.22L	22	31.9	31.9	82	12.5	12	320
NSD.23L	23	33.9	33.9	82	12.7	12	350
NSD.24L	24	35.9	35.9	82	13.9	12	400
NSD.26L	26	37.9	37.9	82	14.6	12	435
NSD.27L	27	38.0	39.8	82	15.8	12	485
NSD.28L	28	38.0	39.8	82	16.7	12	455
NSD.29L	29	38.0	41.9	82	16.7	12	490
NSD.30L	30	38.0	41.9	82	16.7	12	455
NSD.32L	32	38.0	43.9	82	18.3	12	535
NSD.34L	34	38.0	45.8	90	20.0	12	540
NSD.35L	35	38.0	49.8	90	20.0	12	685
NSD.36L	36	38.0	49.8	90	20.0	12	635

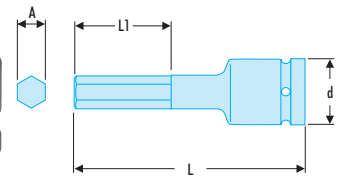
NSTX Torx® 1/2" impact sockets



- For your safety, use impact sockets and accessories with the appropriate rings and pins.
- For Torx® male drive fasteners.

Part No.	A [mm]	BA	GA	d [mm]	d1 [mm]	L [mm]	Torx [No]	ΔΔ [g]
NSTX.10	9,19	BA.20B	GA.20B	25	14,2	38	E10	85
NSTX.12	10,95	BA.20B	GA.20B	25	15,2	38	E12	85
NSTX.14	12,67	BA.20B	GA.20B	25	18,2	38	E14	90
NSTX.16	14,70	BA.20B	GA.20B	25	19,2	38	E16	90
NSTX.18	16,38	BA.20B	GA.20B	25	22,2	38	E18	90
NSTX.20	18,16	BA.25B	GA.25B	30	24,2	38	E20	135
NSTX.24	21,84	BA.25B	GA.25B	30	28,2	40	E24	140

NSTX.L - Torx® 1/2" female impact sockets



- For your safety, use impact sockets and accessories with the appropriate rings and pins.
- For Torx® male drive fasteners.

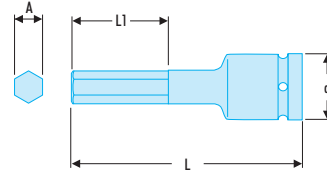
Part No.	A [mm]	BA	GA	d [mm]	L [mm]	L1 [mm]	Torx [No]	ΔΔ [g]
NSTX.10L	9,37	BA.20B	GA.20B	25	70	7,11	E10	95
NSTX.12L	11,12	BA.20B	GA.20B	25	70	8,25	E12	100
NSTX.14L	12,85	BA.20B	GA.20B	25	70	9,52	E14	105
NSTX.16L	14,71	BA.20B	GA.20B	25	70	10,79	E16	120
NSTX.18L	16,64	BA.20B	GA.20B	25	70	11,94	E18	140
NSTX.20L	18,41	BA.20B	GA.20B	25	70	13,33	E20	150
NSTX.22L	20,24	BA.20B	GA.20B	25	70	14,48	E22	160
NSTX.24L	22,09	BA.20B	GA.20B	25	70	15,00	E24	170

■ **NSX.B 1/2" drive impact bits for Torx® heads**

- For your safety, use impact sockets and accessories with the appropriate rings and pins.
- For Torx® male drive fasteners.



⚙️	A [mm]	BA	GA	d [mm]	L [mm]	L1 [mm]	Torx [No]	ΔΔ [g]
<b>NSX.30B</b>	5,58	BA.20B	GA.20B	25	55	15	T30	90
<b>NSX.40B</b>	6,67	BA.20B	GA.20B	25	55	15	T40	95
<b>NSX.45B</b>	7,85	BA.20B	GA.20B	25	55	15	T45	95
<b>NSX.50B</b>	8,89	BA.20B	GA.20B	25	55	15	T50	100
<b>NSX.55B</b>	11,28	BA.20B	GA.20B	25	55	15	T55	105
<b>NSX.60B</b>	13,36	BA.20B	GA.20B	25	55	15	T60	110

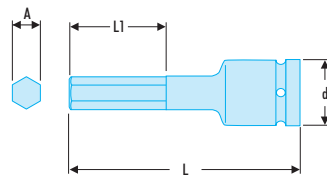


■ **NSX.L - Torx® 1/2" male impact sockets**

- For your safety, use impact sockets and accessories with the appropriate rings and pins.
- For Torx® female drive fasteners.
- Monobloc driver socket.



⚙️	A [mm]	BA	GA	d [mm]	L [mm]	L1 [mm]	Torx [No]	ΔΔ [g]
<b>NSX.20L</b>	3,84	BA.20B	GA.20B	25	78	15	T20	80
<b>NSX.25L</b>	4,4	BA.20B	GA.20B	25	78	15	T25	80
<b>NSX.30L</b>	5,49	BA.20B	GA.20B	25	78	15	T30	80
<b>NSX.40L</b>	6,6	BA.20B	GA.20B	25	78	15	T40	80
<b>NSX.45L</b>	7,77	BA.20B	GA.20B	25	78	15	T45	85
<b>NSX.50L</b>	8,79	BA.20B	GA.20B	25	78	15	T50	90
<b>NSX.55L</b>	11,17	BA.20B	GA.20B	25	78	15	T55	105
<b>NSX.60L</b>	13,2	BA.20B	GA.20B	25	78	15	T60	120
<b>NSX.70L</b>	15,49	BA.20B	GA.20B	25	78	15	T70	135

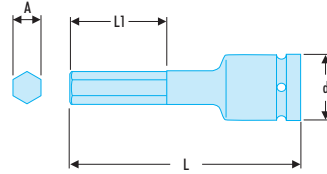


■ **NSHM 1/2" drive metric impact bits for hexagon socket heads**

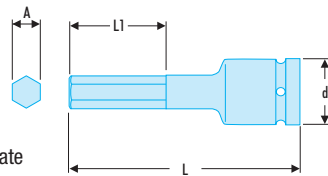
- For your safety, use impact sockets and accessories with the appropriate rings and pins.
- Monobloc driver socket.



⚙️	A [mm]	BA	GA	d [mm]	L [mm]	L1 [mm]	6 [mm]	ΔΔ [g]
<b>NSHM.5</b>	5	BA.20B	GA.20B	25	79	16	6	70
<b>NSHM.6</b>	6	BA.20B	GA.20B	25	79	16	6	70
<b>NSHM.8</b>	8	BA.20B	GA.20B	25	79	25	6	90
<b>NSHM.10</b>	10	BA.20B	GA.20B	25	79	27	6	110
<b>NSHM.12</b>	12	BA.20B	GA.20B	25	79	27	6	130
<b>NSHM.14</b>	14	BA.20B	GA.20B	25	79	27	6	130
<b>NSHM.17</b>	17	BA.20B	GA.20B	25	79	27	6	170
<b>NSHM.19</b>	19	BA.20B	GA.20B	25	79	27	6	190



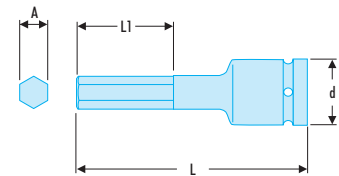
■ **NSV - XZN® 1/2" male impact sockets**



- For your safety, use impact sockets and accessories with the appropriate rings and pins.
- For XZN® female drive fasteners.

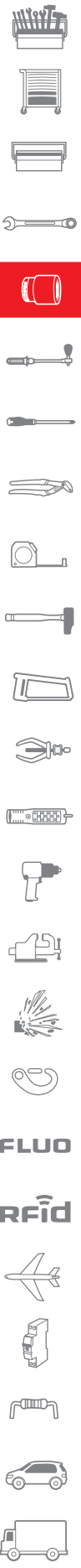
⚙️	A [mm]	BA	GA	d [mm]	L [mm]	L1 [mm]	XZN [No]	ΔΔ [g]
<b>NSV.6</b>	5,97	BA.20B	GA.20B	25	50	1515	6	60
<b>NSV.8</b>	7,16	BA.20B	GA.20B	25	50	15	8	65
<b>NSV.10</b>	9,56	BA.20B	GA.20B	25	50	15	10	70
<b>NSV.12</b>	11,36	BA.20B	GA.20B	25	50	15	12	75
<b>NSV.14</b>	13,17	BA.20B	GA.20B	25	50	15	14	80
<b>NSV.16</b>	15,58	BA.20B	GA.20B	25	50	15	16	90
<b>NSV.18</b>	16,79	BA.20B	GA.20B	25	50	15	18	95

■ **NSV.L - XZN® 1/2" male long-reach impact sockets**



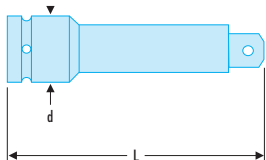
- For your safety, use impact sockets and accessories with the appropriate rings and pins.
- For XZN® female drive fasteners.

⚙️	A [mm]	BA	GA	d [mm]	L [mm]	L1 [mm]	XZN [No]	ΔΔ [g]
<b>NSV.10L</b>	9,56	BA.20B	GA.20B	25	78	1515	10	95
<b>NSV.12L</b>	11,36	BA.20B	GA.20B	25	78	15	12	105
<b>NSV.14L</b>	13,17	BA.20B	GA.20B	25	78	15	14	120
<b>NSV.16L</b>	15,58	BA.20B	GA.20B	25	78	1515	16	140
<b>NSV.18L</b>	16,79	BA.20B	GA.20B	25	78	1515	18	150



IMPACT SOCKETS 1/2" AND ACCESSORIES

■ NS.A - 1/2" drive impact extensions



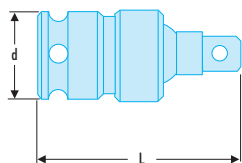
ASME B107.2

- For your safety, use impact extensions and accessories with the appropriate rings and pins.



🔗	BA	GA	d [mm]	L [mm]	ΔΔ [g]
<b>NS.210A</b>	BA.20B	GA.20B	24	7575	130
<b>NS.215A</b>	BA.20B	GA.20B	24	125	230
<b>NS.219A</b>	BA.20B	GA.20B	24	250	510

■ 1/2" drive impact universal joint



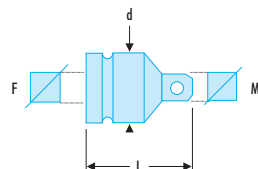
ASME B107.2

- For your safety, use impact universal joints with the appropriate rings and pins.



🔗	BA	GA	d [mm]	L [mm]	ΔΔ [g]
<b>NS.240A</b>	BA.22B	GA.22B	28	60	205

■ 1/2" to 3/8" impact coupler



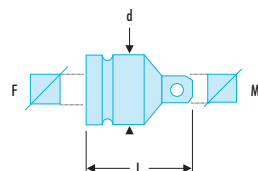
ASME B107.2

- For your safety, use impact sockets and accessories with the appropriate rings and pins.



🔗	BA	GA	d [mm]	L [mm]	Square ["]	ΔΔ [g]
<b>NS.230A</b>	BA.20B	GA.20B	24	35	F = 1/2" - M = 3/8"	35

■ 1/2" to 3/4" impact coupler



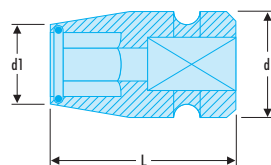
ASME B107.2

- For your safety, use impact couplers with the appropriate rings and pins.



🔗	BA	GA	d [mm]	L [mm]	Square ["]	ΔΔ [g]
<b>NS.232B</b>	BA.25B	GA.25B	30	48	F = 1/2" - M = 3/4"	170

■ NS.A - 1/2" impact bit holder sockets



NF ISO 1711-2, ISO 1711-2, DIN 3121

- For 1/2" bits.
- NS.236: for 5/16" bits.
- NS.237: for 1/2" bits.



🔗	A ["]	BA	GA	d ["]	d [mm]	d1 [mm]	L [mm]	Square ["]	ΔΔ [g]
<b>NS.236A</b>	5/16				24	15,5	40	1/2	60
<b>NS.237A</b>	1/2			1/2	24	20	40	1/2	40

## IMPACT RANGE

### IMPACT SOCKETS 3/4" AND ACCESSORIES

#### Set of 3/4" impact sockets 19 to 42 mm

- For your safety, use impact sockets and accessories with the appropriate rings and pins.
- Comprising:
- 16 x Sockets: NK.19A - 21 - 22 - 23 - 24 - 26 - 27 - 28 - 29 - 30 - 32 - 34 - 36 - 38 - 41 - 42 mm.
- 2 x Accessories: NK.210A and NK.240A.
- 1 x Rings: BA.36B and 1 x Pins: GA.35B.
- Metal case BT.111, dim. (L. x D. x H.): 396 x 224 x 82 mm.
- Tray PL.79A.



	H [mm]	L [mm]	ΔΔ [kg]
<b>NK.500E</b>	82	396	11

### IMPACT SOCKETS 3/4" AND ACCESSORIES

#### 16-piece set of 3/4" impact sockets 19 to 42 mm

- For your safety, use impact sockets with suitable rings and pins.
- 16 3/4" sockets: 19-21-22-23-24-26-27-28-29-30-32-34-36-38-41-42 mm.
- NK.210A - 175 mm extension
- Universal joint NK.240A.
- BA.36B (x1) ring and GA.35B associated pin
- Square drive bit 3/4".
- Set BT.111.
- Tray PL.79A.



	ΔΔ [kg]
<b>NKD.500</b>	11

#### Set of 3/4" impact sockets size 3/4" to 1"5/8

- For your safety, use impact sockets and accessories with the appropriate rings and pins.
- Comprising:
- 12 x Sockets: NK. 3/4'A - 13/16' - 7/8'
- 15/16' - 1' - 1'1/16 - 1'1/8 - 1'1/4 - 1'5/16 - 1'7/16 - 1'1/2 - 1'5/8.
- 1 x Pin: GA.37A and 1 x Ring: BA.38A.
- 2 x Accessories: NK.210A and NK.240A.
- Metal case BT.111, dim.(L. x D. x H.): 396 x 224 x 82 mm.
- Tray PL.80A.

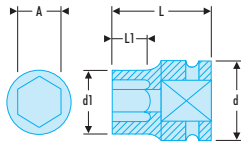


	H [mm]	L [mm]	ΔΔ [kg]
<b>NK.500U</b>	82	396	8.9



IMPACT SOCKETS 3/4" AND ACCESSORIES

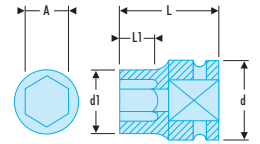
**NK.A - 3/4" drive metric 6-point impact sockets**



• For your safety, use impact sockets and accessories with the appropriate rings and pins.

	A [mm]	BA	GA	d [mm]	d1 [mm]	L [mm]	L1 [mm]	⊕ [mm]	ΔΔ [g]
NK.17A	17	BA.30B	GA.31B	38	28,5	50	14	6	300
NK.18A	18	BA.30B	GA.31B	38	29,0	50	14	6	310
NK.19A	19	BA.30B	GA.31B	38	29,5	50	14	6	315
NK.21A	21	BA.30B	GA.31B	38	32,0	50	14	6	330
NK.22A	22	BA.30B	GA.31B	38	34,0	50	14	6	345
NK.23A	23	BA.30B	GA.31B	38	35,0	50	17	6	350
NK.24A	24	BA.30B	GA.31B	38	36,0	50	17	6	350
NK.26A	26	BA.30B	GA.31B	38	38,0	52	18	6	480
NK.27A	27	BA.30B	GA.31B	38	42,0	52	18	6	480
NK.28A	28	BA.30B	GA.31B	38	42,0	52	18	6	520
NK.29A	29	BA.30B	GA.31B	38	42,0	52	18	6	520
NK.30A	30	BA.30B	GA.31B	38	42,0	52	20	6	545
NK.32A	32	BA.30B	GA.31B	38	46,0	55	22	6	620
NK.33A	33	BA.30B	GA.31B	44	48,0	57	22	6	650
NK.34A	34	BA.30B	GA.31B	44	48,0	57	22	6	680
NK.35A	35	BA.30B	GA.31B	44	50,0	57	24	6	680
NK.36A	36	BA.30B	GA.31B	44	52,0	57	24	6	705
NK.38A	38	BA.30B	GA.31B	44	56,0	57	26	6	890
NK.41A	41	BA.30B	GA.31B	44	58,0	63	27	6	890
NK.42A	42	BA.30B	GA.31B	44	62,0	63	27	6	925
NK.46A	46	BA.30B	GA.31B	44	65,0	68	30	6	1000

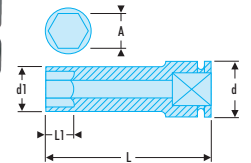
**NK.A - 3/4" drive inch 6-point impact sockets**



• For your safety, use impact sockets and accessories with the appropriate rings and pins.

	A ["]	BA	GA	d [mm]	d1 [mm]	L [mm]	L1 [mm]	⊕ [mm]	ΔΔ [g]
NK.3/4A	3/4	BA.30B	GA.31B	38	29,5	50	14	6	315
NK.13/16A	13/16	BA.30B	GA.31B	38	32,0	50	14	6	330
NK.7/8A	7/8	BA.30B	GA.31B	38	34,0	50	14	6	345
NK.15/16A	15/16	BA.30B	GA.31B	38	36,0	50	17	6	350
NK.1PA	1"	BA.30B	GA.31B	44	41	50	18	6	480
NK.1P/16A	1' 1/16	BA.30B	GA.31B	44	43	54	23	6	480
NK.1P1/8A	1' 1/8	BA.30B	GA.31B	44	44	54	23	6	520
NK.1P1/4A	1' 1/4	BA.30B	GA.31B	44	49	56	23	6	620
NK.1P5/16A	1' 5/16	BA.30B	GA.31B	44	53	56	23	6	680
NK.1P7/16A	1' 7/16"	BA.30B	GA.31B	44	55	56	24	6	515
NK.1P1/2A	1' 1/2	BA.30B	GA.31B	44	57	58	26	6	890
NK.1P5/8A	1' 5/8	BA.30B	GA.31B	44	60	58	28	6	890

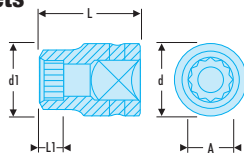
**NK.LA - 3/4" drive metric long-reach metric 6-point impact sockets**



• For your safety, use impact sockets and accessories with the appropriate rings and pins.

	A [mm]	BA	GA	d [mm]	d1 [mm]	L [mm]	L1 [mm]	⊕ [mm]	ΔΔ [g]
NK.17LA	17	BA.30B	GA.31B	44	31	90	20	6	550
NK.19LA	19	BA.30B	GA.31B	44	33	90	24	6	620
NK.21LA	21	BA.30B	GA.31B	44	35	90	24	6	600
NK.22LA	22	BA.30B	GA.31B	44	37	90	24	6	780
NK.23LA	23	BA.30B	GA.31B	44	38	90	24	6	780
NK.24LA	24	BA.30B	GA.31B	44	39	90	40	6	820
NK.26LA	26	BA.30B	GA.31B	44	41	90	40	6	800
NK.27LA	27	BA.30B	GA.31B	44	43	90	40	6	810
NK.29LA	29	BA.30B	GA.31B	44	45	90	40	6	890
NK.30LA	30	BA.30B	GA.31B	44	47	90	40	6	900
NK.32LA	32	BA.30B	GA.31B	44	48	90	45	6	930
NK.33LA	33	BA.30B	GA.31B	44	48	90	45	6	980
NK.34LA	34	BA.30B	GA.31B	44	48	90	45	6	1100
NK.35LA	35	BA.30B	GA.31B	44	50	90	45	6	1240
NK.36LA	36	BA.30B	GA.31B	44	52	90	45	6	1240
NK.38LA	38	BA.30B	GA.31B	44	56	90	45	6	1220
NK.41LA	41	BA.30B	GA.31B	44	58	90	48	6	1470
NK.42LA	42	BA.30B	GA.31B	44	62	90	48	6	1450
NK.46LA	46	BA.30B	GA.31B	44	65	100	48	6	1500

**NKD.A - 3/4" drive metric 12-point impact sockets**



• For your safety, use impact sockets and accessories with the appropriate rings and pins.

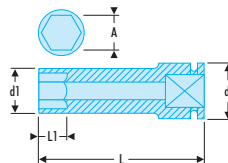
	A [mm]	BA	GA	d [mm]	d1 [mm]	L [mm]	L1 [mm]	⊕ [mm]	ΔΔ [g]
NKD.16A	16	BA.30B	GA.31B	38	38	50	14	12	185
NKD.17A	17	BA.30B	GA.31B	38	30,0	50	14	12	190
NKD.18A	18	BA.30B	GA.31B	38	38	50	14	12	215
NKD.19A	19	BA.30B	GA.31B	38	32,5	50	14	12	220
NKD.21A	22	BA.30B	GA.31B	38	36,5	50	14	12	230
NKD.22A	21	BA.30B	GA.31B	38	50	50	14	12	230
NKD.23A	23	BA.30B	GA.31B	39,9	50	50	12,7	12	248
NKD.24A	24	BA.30B	GA.31B	39,9	50	50	13,9	12	249
NKD.26A	26	BA.30B	GA.31B	40,9	50	50	14,6	12	297
NKD.27A	27	BA.30B	GA.31B	40,9	50	50	15,8	12	297
NKD.28A	28	BA.30B	GA.31B	43,9	50	50	16,3	12	330
NKD.29A	29	BA.30B	GA.31B	44	50	50	16,7	12	410
NKD.30A	30	BA.30B	GA.31B	44	50	50	16,7	12	410
NKD.32A	32	BA.30B	GA.31B	44	50	50	18,3	12	410
NKD.33A	33	BA.30B	GA.31B	44	56	56	19,1	12	500
NKD.34A	34	BA.30B	GA.31B	44	56	56	20,0	12	500
NKD.35A	35	BA.30B	GA.31B	44	56	56	20,1	12	520
NKD.36A	36	BA.30B	GA.31B	44	56	56	21,5	12	540
NKD.38A	38	BA.30B	GA.31B	44	56	56	22,3	12	540
NKD.41A	41	BA.30B	GA.31B	45	62	62	24,9	12	618
NKD.42A	42	BA.30B	GA.31B	45	62	62	25,4	12	679
NKD.46A	46	BA.30B	GA.31B	45	63	63	28,6	12	814



■ **NKB - 3/4" drive long-reach metric thin-wall 6-point impact sockets**

- For your safety, use impact sockets and accessories with the appropriate rings and pins.
- Thin wall for better access.
- 6-point convex pattern for increased resilience.

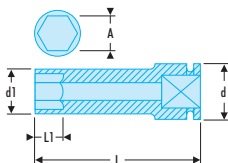
🔗	A [mm]	BA	GA	d [mm]	d1 [mm]	L [mm]	L1 [mm]	6 [mm]	ΔΔ [g]
NKB.21	21	BA.36B	GA.35B	44	35	90	24	6	600
NKB.22	22	BA.36B	GA.35B	44	37	90	24	6	600
NKB.24	24	BA.36B	GA.35B	44	39	90	40	6	640
NKB.27	27	BA.36B	GA.35B	44	43	90	40	6	670
NKB.30	30	BA.36B	GA.35B	44	47	90	40	6	700
NKB.32	32	BA.36B	GA.35B	44	48	90	65	6	706
NKB.33	33	BA.36B	GA.35B	44	48	90	45	6	750
NKB.36	36	BA.36B	GA.35B	44	52	90	45	6	765



■ **NKD.L - 3/4" drive metric long-reach metric 12-point impact sockets**

- For your safety, use impact sockets and accessories with the appropriate rings and pins.

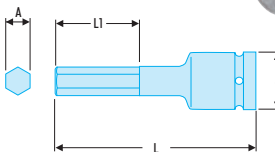
🔗	A [mm]	BA	GA	d [mm]	d1 [mm]	L [mm]	L1 [mm]	12 [mm]	ΔΔ [g]
NKD.17L	17	BA.30B	GA.31B	40	28,6	85	9,3	12	450
NKD.19L	19	BA.30B	GA.31B	30,5	30	85	11,1	12	450
NKD.21L	21	BA.30B	GA.31B	40	34,5	85	11,7	12	450
NKD.22L	22	BA.30B	GA.31B	40	35,0	85	12,5	12	470
NKD.23L	23	BA.30B	GA.31B	40	38,0	85	12,7	12	490
NKD.24L	24	BA.30B	GA.31B	40	38,0	85	13,9	12	490
NKD.26L	26	BA.30B	GA.31B	40	40,9	85	14,6	12	500
NKD.27L	27	BA.30B	GA.31B	40	40,9	85	15,8	12	500
NKD.29L	29	BA.30B	GA.31B	44	43,9	85	16,7	12	570
NKD.30L	30	BA.30B	GA.31B	44	45,7	85	16,7	12	640
NKD.32L	32	BA.30B	GA.31B	44	48,0	85	18,3	12	640
NKD.33L	33	BA.30B	GA.31B	44	50,7	85	19,1	12	750
NKD.34L	34	BA.30B	GA.31B	44	50,7	85	20,0	12	750
NKD.35L	35	BA.30B	GA.31B	44	51,7	85	20,1	12	750
NKD.36L	36	BA.30B	GA.31B	44	53,7	85	21,5	12	780
NKD.38L	38	BA.30B	GA.31B	44	53,7	85	22,3	12	820
NKD.41L	41	BA.30B	GA.31B	45	60,0	85	24,9	12	910
NKD.42L	42	BA.30B	GA.31B	45	62,0	85	25,4	12	950
NKD.46L	46	BA.30B	GA.31B	45	67,0	85	28,6	12	1260



■ **NKHM - 3/4" drive metric impact bits for hexagon socket head**

- For your safety, use impact sockets and accessories with the appropriate rings and pins.
- Non-removable bits.

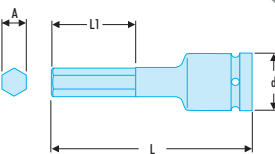
🔗	A [mm]	BA	GA	d [mm]	L [mm]	L1 [mm]	6 [mm]	ΔΔ [g]
NKHM.17	17	BA.36B	GA.35B	44	100	21	6	600
NKHM.19	19	BA.36B	GA.35B	44	100	21	6	600
NKHM.22	22	BA.36B	GA.35B	44	100	21	6	600
NKHM.24	24	BA.36B	GA.35B	44	100	21	6	600



■ **NKTX.L - Torx® 3/4" female impact sockets**

- For your safety, use impact sockets and accessories with the appropriate rings and pins.
- For Torx® male drive fasteners.

🔗	A [mm]	BA	GA	d [mm]	d1 [mm]	L [mm]	L1 [mm]	Torx [No]	ΔΔ [g]
NKTX.18L	16.64	BA.36B	GA.35B	44	21,5	100	11,94	E18	440
NKTX.20L	18.41	BA.36B	GA.35B	44	23,5	100	13,33	E20	455
NKTX.22L	20.24	BA.36B	GA.35B	44	25,0	100	14,48	E22	460
NKTX.24L	22.09	BA.36B	GA.35B	44	28,0	100	15,00	E24	480



IMPACT SOCKETS 3/4" AND ACCESSORIES

■ **NKVR - XZN® 3/4" Tamper impact sockets**



• For your safety, use impact sockets and accessories with the appropriate rings and pins.



⚙️	A [mm]	BA	GA	d [mm]	L [mm]	L1 [mm]	XZN [No]	ΔΔ [g]
<b>NKVR.16</b>	16	BA.36B	GA.35B	44	50	19	16	220
<b>NKVR.18</b>	18	BA.36B	GA.35B	44	50	19	18	225

■ **NKXR - Torx® 3/4" Tamper impact sockets**

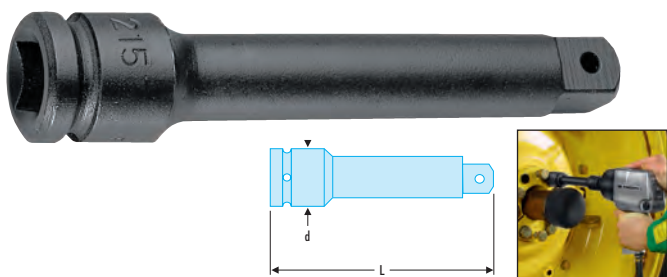


• For your safety, use impact sockets and accessories with the appropriate rings and pins.



⚙️	A [mm]	BA	GA	d [mm]	L [mm]	L1 [mm]	Torx [No]	ΔΔ [g]
<b>NKXR.70</b>	15.49	BA.36B	GA.35B	44	50	16	70	230
<b>NKXR.80</b>	17.51	BA.36B	GA.35B	44	50	16	80	230
<b>NKXR.90</b>	19.88	BA.36B	GA.35B	44	50	16	90	240
<b>NKXR.100</b>	22.09	BA.36B	GA.35B	44	50	16	100	255

■ **NK.A - 3/4" drive impact extensions**



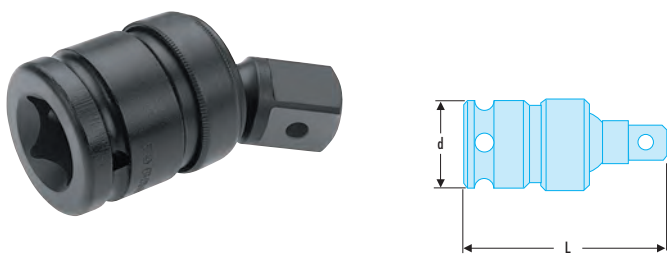
**ASME B107.2**

• For your safety, use impact extensions and accessories with the appropriate rings and pins.



⚙️	BA	GA	d [mm]	L [mm]	ΔΔ [g]
<b>NK.210A</b>	BA.30B	GA.31B	38	175	105
<b>NK.215A</b>	BA.30B	GA.31B	38	252	120
<b>NK.218A</b>	BA.30B	GA.31B	38	330	150

■ **3/4" drive impact universal joint**



**ASME B107.2**

• For your safety, use impact universal joints with the appropriate rings and pins.



⚙️	BA	GA	d [mm]	L [mm]	ΔΔ [g]
<b>NK.240A</b>	BA.36B	GA.35B	44	90	720

■ **3/4" to 1/2" impact coupler**



**ASME B107.2**

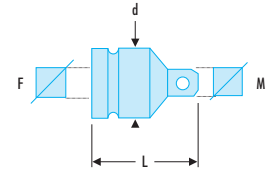
• For your safety, use impact couplers with the appropriate rings and pins.



⚙️	BA	GA	d [mm]	L [mm]	Square ["]	ΔΔ [g]
<b>NK.230A</b>	BA.36B	GA.35B	44	54	F = 3/4" - M = 1/2"	210

3/4" to 1" impact coupler

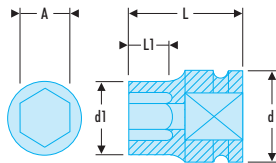
- For your safety, use impact sockets and accessories with the appropriate rings and pins.



BA	GA	d [mm]	L [mm]	Square ["]	ΔΔ [g]	
<b>NK.232A</b>	BA.36B	GA.35B	44	68	F = 3/4" - M = 1"	375

IMPACT SOCKETS 1" AND ACCESSORIES

NM.A - 1" drive metric 6-point impact sockets

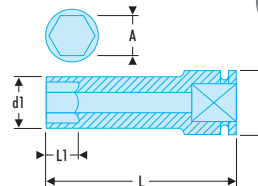


NF ISO 2725-2, NF ISO 1711-2, ISO 2725-2, ISO 1711-2, DIN 3129, ASME B107.33

- For your safety, use impact sockets and accessories with the appropriate rings and pins.

	A [mm]	BA	GA	d [mm]	d1 [mm]	L [mm]	L1 [mm]	⊕ [mm]	ΔΔ [kg]
<b>NM.22A</b>	22	BA.45B	GA.45B	54	40	60	17	6	0,500
<b>NM.24A</b>	24	BA.45B	GA.45B	54	42	60	18	6	0,500
<b>NM.26A</b>	26	BA.45B	GA.45B	54	42	60	18	6	0,520
<b>NM.27A</b>	27	BA.45B	GA.45B	54	44	60	18	6	0,520
<b>NM.28A</b>	28	BA.45B	GA.45B	54	44	60	18	6	0,520
<b>NM.29A</b>	29	BA.45B	GA.45B	54	46	60	18	6	0,520
<b>NM.30A</b>	30	BA.45B	GA.45B	54	48	63	20	6	0,750
<b>NM.32A</b>	32	BA.45B	GA.45B	54	50	63	22	6	0,760
<b>NM.33A</b>	33	BA.45B	GA.45B	54	52	63	22	6	0,750
<b>NM.34A</b>	34	BA.45B	GA.45B	54	52	63	22	6	0,750
<b>NM.35A</b>	35	BA.45B	GA.45B	54	54	63	24	6	0,800
<b>NM.36A</b>	36	BA.45B	GA.45B	54	56	65	24	6	0,840
<b>NM.38A</b>	38	BA.45B	GA.45B	54	58	65	26	6	0,840
<b>NM.41A</b>	41	BA.45B	GA.45B	54	63	70	27	6	1,040
<b>NM.42A</b>	42	BA.45B	GA.45B	54	66	70	30	6	1,040
<b>NM.46A</b>	46	BA.45B	GA.45B	54	68	70	30	6	1,500
<b>NM.50A</b>	50	BA.45B	GA.45B	54	73	75	33	6	1,650
<b>NM.52A</b>	52	BA.45B	GA.45B	54	75	80	36	6	1,750
<b>NM.54A</b>	54	BA.45B	GA.45B	54	78	80	36	6	1,790
<b>NM.55A</b>	55	BA.45B	GA.45B	54	80	80	36	6	1,840
<b>NM.56A</b>	56	BA.45B	GA.45B	54	83	82	39	6	2,060
<b>NM.58A</b>	58	BA.45B	GA.45B	54	85	82	39	6	2,190
<b>NM.60A</b>	60	BA.45B	GA.45B	54	87	82	39	6	2,370
<b>NM.65A</b>	65	BA.45B	GA.45B	54	93	87	45	6	2,730
<b>NM.70A</b>	70	BA.45B	GA.45B	54	99	94	45	6	2,980
<b>NM.75A</b>	75	BA.76B	GA.77B	86	106	100	48	6	3,300
<b>NM.77A</b>	77	BA.76B	GA.77B	86	108	100	52	6	3,500

NM.LA - 1" drive long-reach metric 6-point impact sockets



NF ISO 2725-2, NF ISO 1711-2, ISO 2725-2, ISO 1711-2, DIN 3129, ASME B107.33

- For your safety, use impact sockets and accessories with the appropriate rings and pins.

	A [mm]	BA	GA	d [mm]	d1 [mm]	L [mm]	L1 [mm]	⊕ [mm]	ΔΔ [kg]
<b>NM.22LA</b>	22	BA.45B	GA.45B	54	40	100	17	6	1,0
<b>NM.24LA</b>	24	BA.45B	GA.45B	54	42	100	18	6	1,0
<b>NM.27LA</b>	27	BA.45B	GA.45B	54	46	100	18	6	1,1
<b>NM.29LA</b>	29	BA.45B	GA.45B	54	49	100	18	6	1,2
<b>NM.30LA</b>	30	BA.45B	GA.45B	54	50	100	20	6	1,2
<b>NM.32LA</b>	32	BA.45B	GA.45B	54	50	100	22	6	1,3
<b>NM.33LA</b>	33	BA.45B	GA.45B	54	52	100	22	6	1,3
<b>NM.34LA</b>	34	BA.45B	GA.45B	54	52	100	22	6	1,3
<b>NM.35LA</b>	35	BA.45B	GA.45B	54	54	100	24	6	1,3
<b>NM.36LA</b>	36	BA.45B	GA.45B	54	56	100	24	6	1,5
<b>NM.38LA</b>	38	BA.45B	GA.45B	54	58	100	26	6	1,5
<b>NM.41LA</b>	41	BA.45B	GA.45B	54	63	100	27	6	1,7
<b>NM.42LA</b>	42	BA.45B	GA.45B	54	64	100	27	6	1,7
<b>NM.46LA</b>	46	BA.45B	GA.45B	54	68	100	30	6	1,6
<b>NM.50LA</b>	50	BA.45B	GA.45B	54	73	100	33	6	1,9
<b>NM.54LA</b>	54	BA.45B	GA.45B	54	78	100	36	6	1,8
<b>NM.55LA</b>	55	BA.45B	GA.45B	54	80	100	36	6	1,9
<b>NM.60LA</b>	60	BA.45B	GA.45B	54	87	120	39	6	2,2
<b>NM.65LA</b>	65	BA.45B	GA.45B	54	93	120	45	6	2,2
<b>NM.70LA</b>	70	BA.45B	GA.45B	54	99	125	45	6	2,2



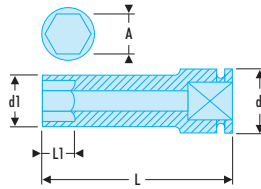
IMPACT SOCKETS 1" AND ACCESSORIES

**NMB - Long-reach 6-point thin-wall sockets**



NF ISO 2725-2, NF ISO 1711-2, ISO 2725-2, ISO 1711-2, DIN 3129, ASME B107.33

- Thin wall for better access.
- For your safety, use impact sockets and accessories with the appropriate rings and pins.
- 6-point convex pattern for increased resilience.

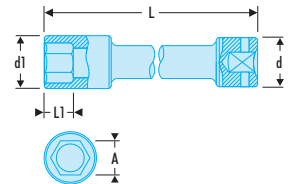


Socket	A [mm]	BA	GA	d [mm]	d1 [mm]	L [mm]	L1 [mm]	6	ΔΔ [kg]
NMB.24	24	BA.45B	GA.45B	54	42	100	18	6	0.940
NMB.27	27	BA.45B	GA.45B	54	46	100	18	6	1.0
NMB.30	30	BA.45B	GA.45B	54	50	100	20	6	1.0
NMB.32	32	BA.45B	GA.45B	54	50	100	22	6	1.0
NMB.33	33	BA.45B	GA.45B	54	52	100	22	6	1.0
NMB.36	36	BA.45B	GA.45B	54	56	100	24	6	1.1
NMB.46	46	BA.45B	GA.45B	54	68	100	30	6	1.5
NMB.50	50	BA.45B	GA.45B	54	73	100	33	6	1.5

**NM.ELA - 1" drive extra-long reach metric 6-point impact sockets**



- For your safety, use impact extensions and accessories with the appropriate rings and pins.



Socket	A [mm]	BA	GA	d [mm]	d1 [mm]	L [mm]	L1 [mm]	6	ΔΔ [kg]
NM.32ELA	32	BA.45B	GA.45B	54	52	270	32	6	2.6
NM.33ELA	33	BA.454B	GA.45B	54	53	270	33.0	6	2.6

**12-point 1" impact socket**



- Dimensions 65 mm.
- Special hubs.

Socket	A [mm]	d [mm]	d1 [mm]	L [mm]	L1 [mm]	12 [mm]	ΔΔ [g]
NMD.65A	65	62	93	80	35	12	1.850

**NM.A - 1" drive impact extensions**

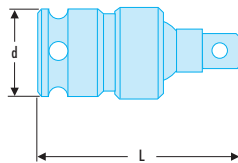


ASME B107.2

- For your safety, use impact couplers with the appropriate rings and pins.

Extension	BA	GA	d [mm]	L [mm]	ΔΔ [kg]
NM.209A	BA.45B	GA.45B	54	125	1.2
NM.210A	BA.45B	GA.45B	54	200	1.6
NM.215A	BA.45B	GA.45B	54	330	2.5

**1" drive impact universal joint**

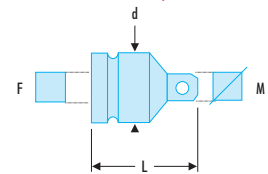


ASME B107.2

- For your safety, use impact couplers with the appropriate rings and pins.

Joint	BA	GA	d [mm]	L [mm]	ΔΔ [kg]
NM.240A	BA.45B	GA.45B	54	110	2.0

**NM.A - 1" to 3/4" impact couplers**



ASME B107.2

- For your safety, use impact couplers with the appropriate rings and pins.

Coupler	BA	GA	d [mm]	L [mm]	Square ["]	ΔΔ [kg]
NM.230A	BA.45B	GA.45B	54	75	F = 1" - M = 3/4"	0.540
NM.231A	BA.45B	GA.45B	54	154	F = 1" - M = 3/4"	1.0

IMPACT SOCKETS 1" 1/2 AND ACCESSORIES

1" to 1/2" impact coupler



ASME B107.2

For your safety, use impact couplers with the appropriate rings and pins.

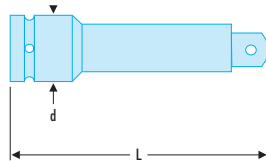
SE	BA	GA	d [mm]	d1 [mm]	ΔΔ [kg]
NM.232A	BA.45B	GA.45B	54	90	1,50

NG.A - 1 1/2" drive impact extensions



ASME B107.2

For your safety, use impact extensions and accessories with the appropriate rings and pins.



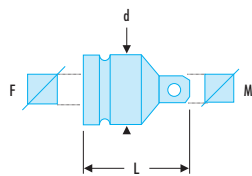
SE	BA	GA	d [mm]	L [mm]	ΔΔ [kg]
NG.210A	BA.74B	GA.75B	86	250	5.6

1 1/2" to 1" impact coupler



ASME B107.2

For your safety, use impact universal joints with the appropriate rings and pins.



SE	BA	GA	d [mm]	L [mm]	Square ["]	ΔΔ [kg]
NG.230A	BA.74B	GA.75B	86	98	F = 1" 1/2 - M = 1"	2.2

NG.A - 1 1/2" drive metric 6-point impact sockets

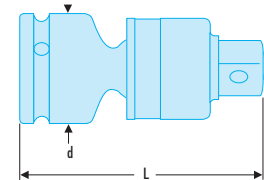


NF ISO 2725-2,  
NF ISO 1711-2,  
ISO 2725-2, ISO 1711-2,  
DIN 3129, ASME B107.33

For your safety, use impact sockets and accessories with the appropriate rings and pins.

SE	A [mm]	BA	GA	d [mm]	d1 [mm]	L [mm]	L1 [mm]	6 [mm]	ΔΔ [kg]
NG.55A	55	BA.74B	GA.75B	86	87	90	38	6	2.5
NG.60A	60	BA.74B	GA.75B	86	94	92	38	6	2.9
NG.65A	65	BA.74B	GA.75B	86	100	95	40	6	3.2
NG.70A	70	BA.74B	GA.75B	86	106	100	43	6	3.8
NG.75A	75	BA.74B	GA.75B	86	112	103	45	6	3.9
NG.80A	80	BA.74B	GA.75B	86	119	110	51	6	4.6
NG.85A	85	BA.74B	GA.75B	86	125	118	52	6	5.4
NG.90A	90	BA.74B	GA.75B	86	131	118	52	6	5.7
NG.95A	95	BA.74B	GA.75B	95	137	118	52	6	6.6
NG.100A	100	BA.74B	GA.75B	95	144	125	59	6	7.2
NG.105A	105	BA.74B	GA.75B	95	150	125	59	6	7.8
NG.110A	110	BA.74B	GA.75B	95	156	125	59	6	8.6
NG.115A	115	BA.74B	GA.75B	95	162	135	67	6	9.7
NG.120A	120	BA.74B	GA.75B	95	169	135	67	6	9.5

1 1/2" impact universal joint



ASME B107.2

For your safety, use impact universal joints with the appropriate rings and pins.

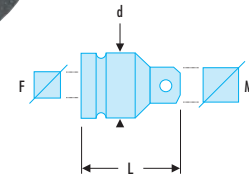
SE	BA	GA	d [mm]	L [mm]	ΔΔ [kg]
NG.240A	BA.74B	GA.75B	86	172	4.2

1 1/2" to 2 1/2" impact coupler

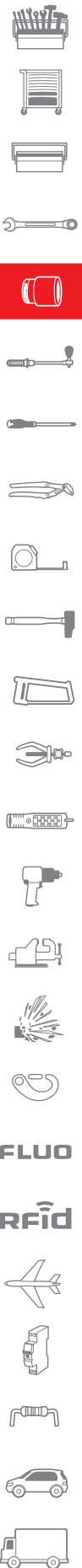


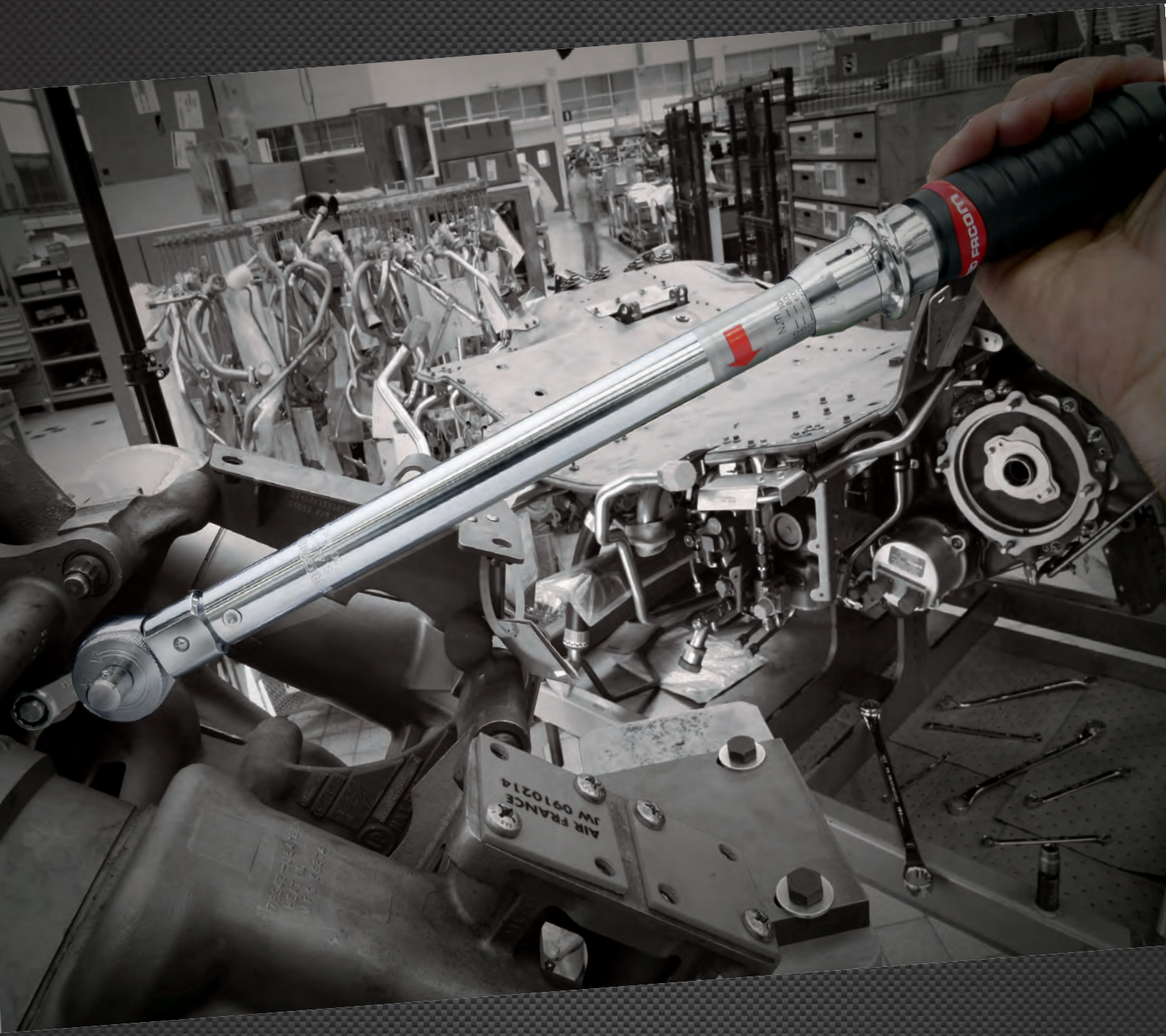
ASME B107.2

For your safety, use impact universal joints with the appropriate rings and pins.



SE	BA	GA	d [mm]	L [mm]	Square ["]	ΔΔ [kg]
NG.232A	BA.74B	GA.75B	86	120	F = 1" 1/2 - M = 2" 1/2	3.9





# TORQUE CONTROL

**SERVICES**

Selection guide	366
Torque control guide	368
Controlled torquing services	370

**TORQUE WRENCHES**

"High performance" click wrenches	374
"Multi-purpose" click wrenches	380
Manual reset wrenches	381
High-torque wrenches	383
Torque multiplier	384
"Non vernier" adjustable wrenches	386

**ELECTRONIC TORQUE WRENCHES**

Electronic torque wrenches and adapters	388
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**RELEASE TYPE TORQUE DRIVER**

Release type torque driver	392
"Non vernier" release type torque driver	395

**ELECTRONIC TORQUE SCREWDRIVERS**

Electronic torque screwdrivers	396
--------------------------------	-----

**ACCESSORIES**

Accessories 9 x 12 mm	398
Accessories 14 x 18 mm	400
Accessories 20 x 7 mm	402
Crowfoot accessories	403
Set of accessories	406

**ANGULAR TIGHTENING WRENCHES**

Angular tightening wrenches	410
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**TORQUE CONTROLLERS**

Torque controllers	411
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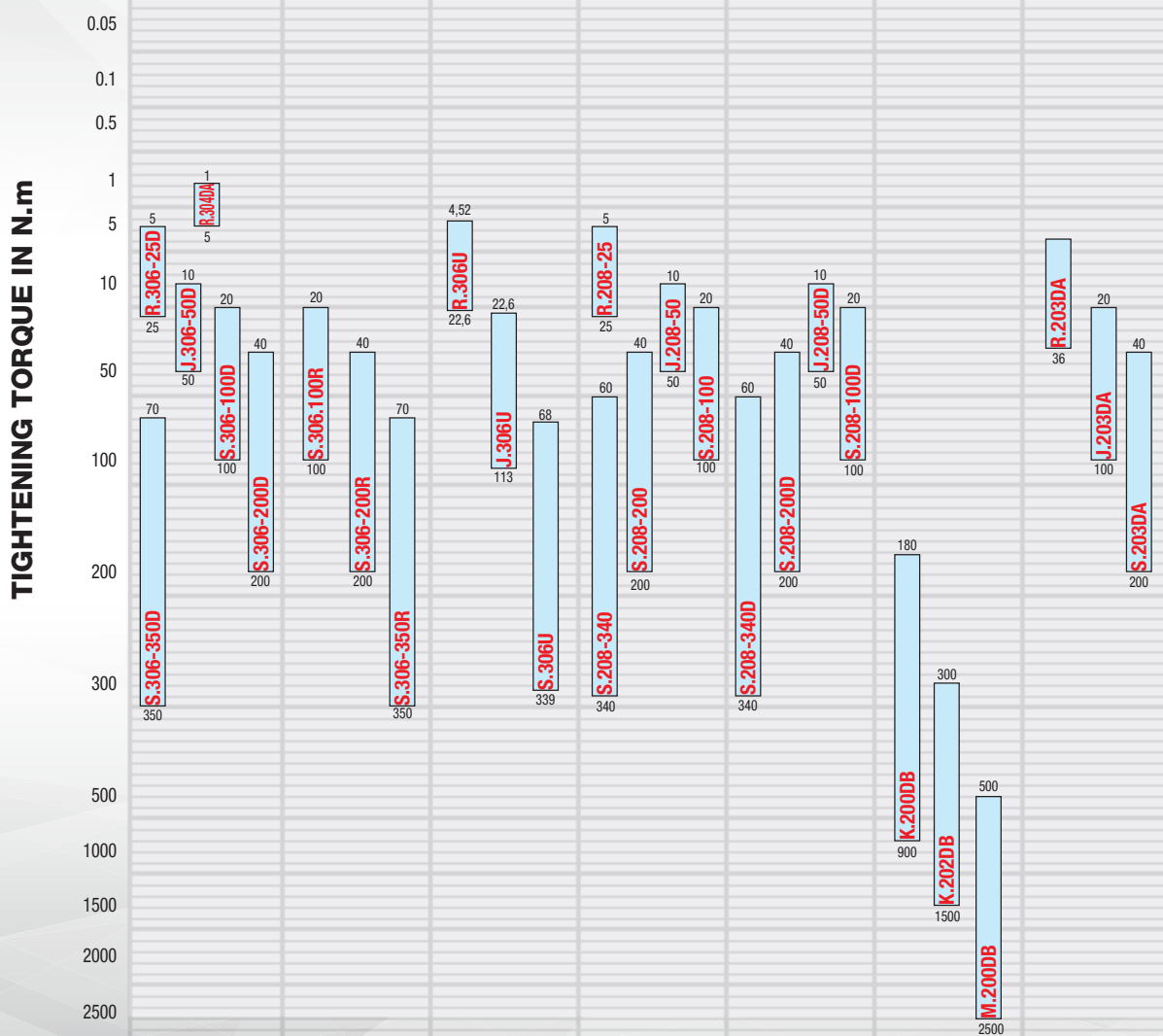
### SELECTION GUIDE

# To find the right wrench for your application:

1 Choose the type of application

2 Choose the torque-setting method

1	<b>VERNIER: VARIABLE TORQUE ADJUSTMENT</b>						
2	5° RELEASE ANGLE					AUDIBLE AND VISUAL INDICATION	MANUAL RESET
3	50,000 Cycles ± 2% 9x12, 14x18, Ø30	50,000 Cycles ± 2% 20x7	50,000 Cycles ± 2% 9x12, 14x18 lbf.in or lbf.ft	25,000 Cycles ± 4% Fixed ratchet	25,000 Cycles ± 4% 9x12, 14x18	15,000 Cycles ± 4% Ø30	100,000 Cycles ± 6% 20x7, Fixed drive
4							
0	<b>306D</b>	<b>306R</b>	<b>306U</b>	<b>208</b>	<b>208D</b>	<b>200</b>	<b>203</b>





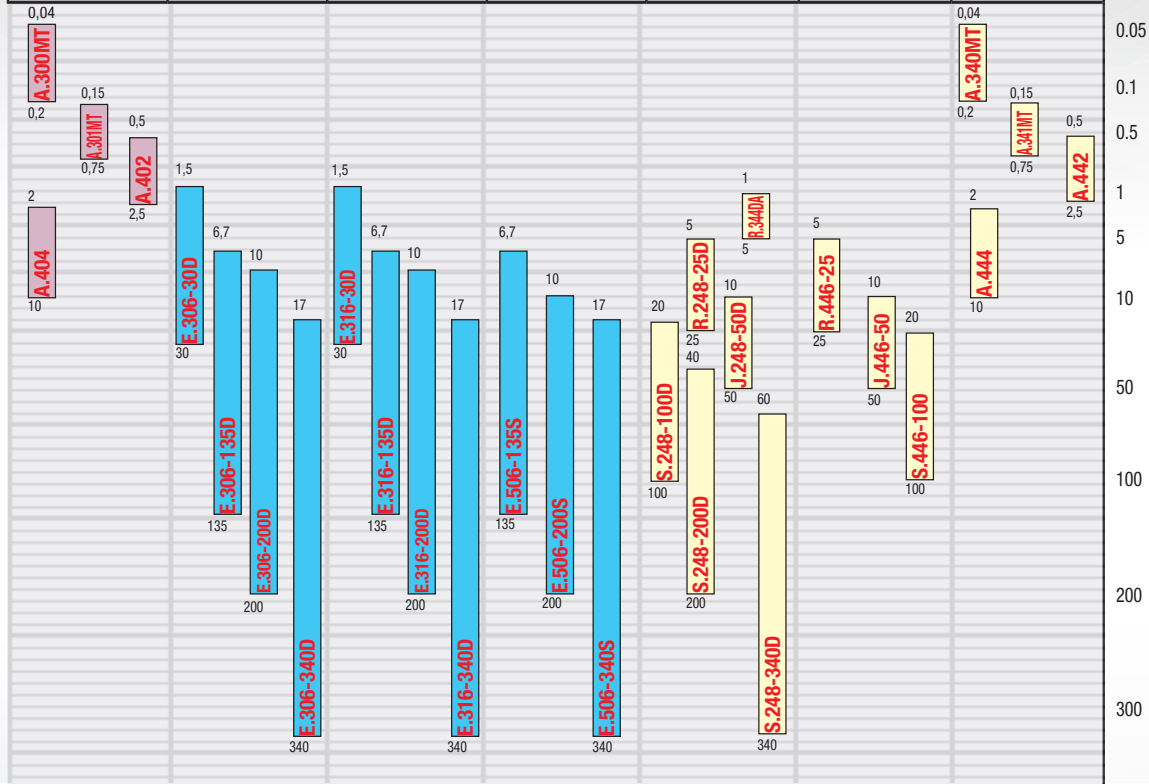
# SELECTION GUIDE

### 3 Choose its characteristics

(Number of cycles, accuracy, end fitting)

### 4 Choose the torque range

	TORQUE READING			NON VERNIER: REPETITIVE TIGHTENING TO THE SAME TORQUE		
RELEASE	DIAL	ELECTRONIC		MECHANICAL		RELEASE
				5° "CLICK"	20° "BREAK"	
100 000 Cycles +/- 6% ○ 4 mm, 1/4"	20 000 Cycles +/- 4% Fixed drive	25 000 Cycles +/- 2% 9x12, 14x18	10 000 Cycles +/- 3% Fixed drive	100 000 Cycles +/- 4% 9x12, 14x18	50 000 Cycles +/- 8% 9x12, 20x7	100 000 Cycles +/- 6% ○ 4 mm, 1/4"
<b>A.400 / A.300MT</b>	<b>E.306</b>	<b>E.316</b>	<b>E.506</b>	<b>248</b>	<b>446</b>	<b>A.440 / A.340MT</b>

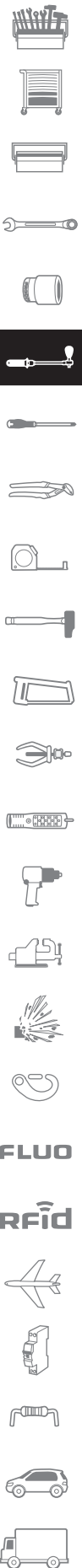
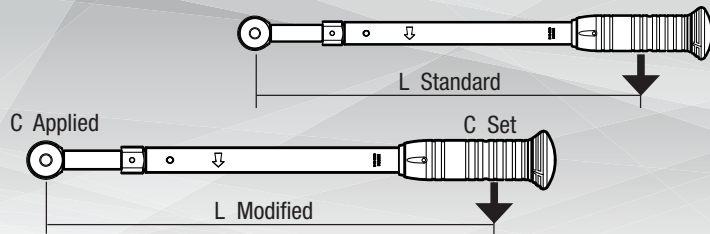


TIGHTENING TORQUE IN N.m

## CALCULATION OF THE CORRECTION RATIO

When using a non-standard accessory or crowfoot, torque applied does not match torque set.

**Torque applied =**  
**Torque set to x**  $\frac{L \text{ Modified}}{L \text{ Standard}}$



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# TORQUE CONTROL GUIDE



## Tightening torque and tensile load

- Application of the correct force (tensile load) is essential for a reliable assembly:
  - under-tightened fasteners: can work loose
  - over-tight fasteners: may distort components to be connected, or shear the fastener.
- Tensile load depends on tightening torque applied to the fastener and the friction coefficient.

### Tensile load (Fo)

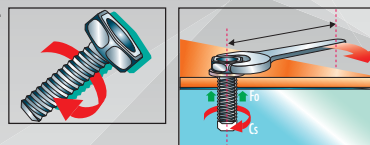
The force in Newtons (N) which maintains pressure contact between assembled components.

### Tightening torque (Cs)

The product of a force and the leverage length at which it is applied: Torque (N.m) = Force (in Newtons) x length (in metres).

## 3. Tightening torque (Cs).

Torque values are listed in Newton-meters (Nm) for each type of fastener. In the example given, the fastener would be tightened to a torque of 36 Nm.



## Conversion table

The internationally accepted unit is the Newton-metre (Nm).

### 1. To convert Nm

- Newton-metres to Kilogramme-force metres: 1 N.m = 0.102 kgf.m
- Newton-metres to Pound-force feet: 1 N.m = 0.738 lbf.ft
- Newton-metres to Pound-force inches: 1 N.m = 8.851 lbf.in
- Newton-metres to Ounce-force inches: 1 N.m = 141.61 ozf.in

### 2. To convert kgf.m

- Kilogramme-force metres to Newton-metres: 1 kgf.m = 9.81 N.m
- Kilogramme-force metres to Pound-force feet: 1 kgf.m = 7.23 lbf.ft
- Kilogramme-force metres to Pound-force inches: 1 kgf.m = 86.8 lbf.in

### 3. To convert lbf.ft

- Pound-force feet to Newton-metres: 1 lbf.ft = 1.35 N.m
- Pound-force feet to Kilogramme-force metres: 1 lbf.ft = 0.138 kgf.m
- Pound-force feet to Pound-force inches: 1 lbf.ft = 12 lbf.in

### 4. To convert lbf.in

- Pound-force inches to Newton-metres: 1 lbf.in = 0.1129 N.m
- Pound-force inches to Kilogramme-force metres: 1 lbf.in = 0.0115 kgf.m
- Pound-force inches to Pound-force feet: 1 lbf.in = 0.083 lbf.ft
- Pound-force inches to Ounce-force inches: 1 lbf.in = 16 ozf.in

## Tightening torque table:

Torque values are given for 85% fastener yield strength (documentation E 25-030).

### 1. Friction coefficient

Choose the appropriate table according to type of fasteners used (0.10, 0.15, or 0.20). Example:  $\mu = 0.10$

### 2. Fastener grade

The grade of a fastener denotes its quality (best is 12.9). Check the appropriate column for the fasteners used. Example: fastener dia. 10, fastener grade

ISO 272			Steel fastener grades to ISO 898-1													
d mm	ISO mm	mm	5,6		5,8		6,8		8,8*		9,8**		10,9		12,9	
			Cs	Fo	Cs	Fo	Cs	Fo	Cs	Fo	Cs	Fo	Cs	Fo		
1,6**	0,35	3,2	0,06	260	0,084	364	0,096	416	0,128	555	0,144	624	0,189	815	0,221	954
2**	0,4	4	0,126	432	0,177	604	0,202	690	0,27	921	0,303	1 036	0,396	1 352	0,463	1 582
2,5**	0,45	5	0,261	718	0,365	1 006	0,417	1 150	0,556	1 533	0,626	1 724	0,82	2 251	0,96	2 634
3	0,5	5,5	0,44	1 077	0,62	1 508	0,71	1 724	0,95	2 298	1,09	2 586	1,4	3 376	1,64	3 951
4	0,7	7	1,03	1 868	1,44	2 615	1,65	2 988	2,2	3 985	2,49	4 484	3,23	5 853	3,78	6 849
5	0,8	8	2,03	3 053	2,85	4 275	3,25	4 885	4,34	6 514	4,92	7 335	6,3	9 568	7,4	11 196
6	1	10	3,53	4 310	4,95	6 034	5,6	6 896	7,5	9 195	8,53	10 336	11	13 506	12,9	15 805
8	1,25	13	8,5	7 904	11,9	11 066	13,6	12 647	18,2	16 863	20,63	18 968	26	24 768	31	28 984
10	1,5	16	16,8	12 580	23	17 612	27	20 128	36	26 838	41	30 197	52	39 418	61	46 128
12	1,75	18	29	18 337	40	25 672	46	29 339	62	39 119	70	44 022	91	57 457	106	67 236
14	2	21	46	25 175	65	35 245	74	40 280	99	53 707	111	60 251	145	78 882	170	92 309
16	2	24	71	34 597	100	48 436	115	55 356	153	73 808	173	83 165	225	108 406	263	126 858
18	2,5	27	99	42 094	139	58 932	159	67 351	220	92 440			313	131 897	366	154 348
20	2,5	30	140	54 059	196	75 682	225	86 494	311	119 003			440	169 385	515	198 216
22	2,5	34	192	67 511	269	94 515	307	108 017	424	148 374			602	211 534	704	247 540
24	3	36	241	77 845	338	108 983	387	124 552	534	171 437			758	243 914	887	285 432
27	3	41	355	102 393	498	143 350	569	163 829	784	225 110			1 114	320 832	1 304	375 442
30	3,5	46	483	124 491	677	174 287	773	199 185	1 067	274 030			1 515	390 072	1 773	456 467
33	3,5	50	653	155 083	915	217 116	1 046	248 132	1 442	341 347			2 048	485 926	2 397	568 637
36	4	55	841	182 032	1 177	254 845	1 346	291 252	1 855	400 571			2 636	570 369	3 085	667 453
39	4	60	1 088	218 667	1 523	306 135	1 741	349 868	2 399	481 158			3 410	685 159	3 990	801 782
42**	4,5	65	1 348	250 311	1 887	350 435	2 156	400 497	2 965	550 683			4 223	784 306	4 941	917 805
45**	4,5	70	1 681	292 970	2 353	410 158	2 690	468 752	3 698	644 534			5 267	917 973	6 164	1 074 223
48**	5	75	2 032	329 254	2 845	460 956	3 251	526 807	4 470	724 359			6 367	1 031 663	7 450	1 207 265
52**	5	80	2 608	395 006	3 651	553 008	4 172	632 009	5 737	869 013			8 171	1 237 685	9 562	1 448 354
56**	5,5	85	3 255	456 159	4 557	638 622	5 208	729 854	7 161	1 003 549			10 199	1 429 298	11 935	1 672 582
60**	5,5	90	4 032	532 893	5 645	746 050	6 451	852 629	8 871	1 172 365			12 634	1 669 732	14 785	1 953 941
64**	6	95	4 856	602 793	6 798	843 911	7 769	964 470	10 683	1 326 146			15 215	1 888 753	17 805	2 210 243

$\mu = 0.10$  tightening torques for phosphated or galvanised fasteners with full lubrication ( $\mu =$  average friction coefficient)



## TORQUE SERVICES

# Expertise is the key of trust

## EA and bilateral recognition agreements

ACCREDITATION STANLEY  
BLACK&DECKER FRANCE  
N° 2-6503(\*).  
Scope available  
on [www.cofrac.fr](http://www.cofrac.fr)



**STANLEY BLACK&DECKER FRANCE has its own control laboratory at its site Morangis, France. This laboratory is accredited by COFRAC, signatory of the EA multilateral recognition agreement.**

### STANLEY BLACK&DECKER laboratory is your partner:

- For accurate torquing.
- For calibrating and regularly checking your tools in accordance with ISO requirements.
- For mutually recognised validity of tool calibration and inspection with European and other countries based on multilateral or bilateral recognition agreements (EA ; ILAC).
- For relating your tools back to the national and international (SI) system of units.



### Periodical checking of your tools ensures peace of mind.

Note 1: For more details on the services offered by the laboratory, refer to the after-sales catalogue or the web site [www.facom.com](http://www.facom.com)  
Note 2: A calibration certificate issued with the COFRAC-ETALONNAGE logotype guarantees the results are related to the SI international unit system.

### Signatories of the EA multilateral recognition agreement

- |  |  |
|--|--|
| <b>COFRAC</b> , Comité Français d'Accréditation                                  | <b>NA</b> Norwegian Accreditation                          |
| <b>DKD</b> Deutscher Akkreditierungsrat  | <b>RVA</b> Raad voor Accreditatie                          |
| <b>ÖKD</b> Bundes Ministerium für wirtschaftliche Angelegenheiten                | <b>IPAC</b> Instituto Português de Acreditação             |
| <b>BKO</b> Belgische Kalibratie Organisatie oboe Organisation Belge d'Etalonnage | <b>CAI</b> Czech Accreditation Institute                   |
| <b>DANAK</b> Danish Accreditation National Agency of Industry & Trade            | <b>UKAS</b> United Kingdom Accreditation Service           |
| <b>ENAC</b> Entidad Nacional de Acreditacion                                     | <b>SWEDAC</b> Swedish Board for Accreditation & Conformity |
| <b>FINAS</b> Finnish Accreditation Service                                       | <b>SAS</b> Swiss Accreditation Service                     |
| <b>NAB</b> National Accreditation Board  | <b>ESYD</b> Hellenic Accreditation System                  |
| <b>ACCREDIA</b> Ente Italiano di Accreditamento                                  | <b>PCA</b> Polskie Centrum Akredytacji                     |

### Signatories to bilateral recognition agreements

- |   |  |
|---|--|
| <b>NATA</b> National Association of Testing Authorities             | <b>A2AL</b> American Association for Laboratory  |
| <b>SANAS</b> South Africa National Laboratory Accreditation Service | <b>SAC</b> Singapore Confederation of Industries |



**REMINDER:** When a tool sent under guarantee is functional and complies with our prescriptions, a manufacturer compliance certificate is supplied with the product, however this certificate cannot be used in lieu and place of a calibration certificate, nor control report. When a COFRAC accredited service is requested, it is invoiced, even when the wrench cannot be repaired. This service will not be invoiced when a new machine package (FMN) following this check has been accepted. Information on COFRAC accredited services is valid on the day the catalogue is printed.

(\*) The use of COFRAC brand is submitted to strict rules. Any use needs previous approval.

## COFRAC TORQUE SERVICES

Our laboratory offers different services within its COFRAC N° 2-6503 accreditation for measuring torque. The COFRAC calibration logotype guarantees direct relation of the results with the I.S. international unit system (linked with national and international calibres).

ACCREDITATION STANLEY  
BLACK&DECKER FRANCE  
N° 2-6503<sup>(\*)</sup>.  
Scope available  
on [www.cofrac.fr](http://www.cofrac.fr)



### 1. COFRAC calibration certificate with declaration of conformity (3 or 10 points) for graduated tools by FACOM or other brands. In the 0.04 N.m to 3000 N.m accreditation range as per the ISO 6789 standard (\*)

- Direct reading torque wrenches (type 1)- Dial- Electronic
- Vernier torque wrenches (type 2).
- Vernier torque drivers 0.04 N.m to 10 N.m.



### 2. Adjustment to the torque requested with Calibration certificate with COFRAC declaration of conformity (1 point). In the 0.04 N.m to 3000 N.m accreditation range as per the ISO 6789 standard (\*)

- Non-vernier click torque wrenches (type 2) 1 N.m to 350 N.m.
- Vernier torque drivers 0.04 N.m to 10 N.m.



### 3. COFRAC calibration certificate for FACOM torque testers (please consult us for other makes). Within the 0.04 N.m to 5000 N.m accreditation range

- Electronic type E.4000 and E.5000- 0.1 N.m to 3,000 N.m.
- Electronic type E.2000- 2.5 N.m to 1000 N.m.
- Mechanical type CDS- 0.05 N.m to 12 N.m.



(\*) : For manual control torque tools with a maximum torque below or equal to 10 N.m, the means uncertainty (see p.7) can exceed ±1% specified in the ISO 6789 standard. In this case, the tolerance acceptable for the tool is reduced accordingly to guarantee conformity of the tool.

In case of partial request, an offer will be issued and the wrench kept for six weeks maximum. Then it will be returned.

(\*) The use of COFRAC brand is submitted to strict rules. Any use needs previous approval.



## COFRAC ACCREDITED SERVICES

**Caution! The name of the user company must be specified when ordering a COFRAC calibration certificate.**


ACCREDITATION STANLEY  
BLACK&DECKER FRANCE  
N° 2-6503(\*).  
Scope available  
on [www.cofrac.fr](http://www.cofrac.fr)



## FACOM make or other make


### Torque wrenches and screwdrivers



Description	Uncertainty Method and means	Measuring range	
COFRAC 3-point calibration certificate with declaration of conformity for graduated tools	see table on next page	0.04 N.m to 360 N.m	<b>CVC.RJS</b>
		360 N.m to 3000 N.m	<b>CVC.KM</b>
COFRAC 10-point calibration certificate with declaration of conformity for graduated tools	see table on next page	0.04 N.m to 3000 N.m	<b>CEC10.RJS</b>
		360 N.m to 3000 N.m	<b>CEC10.KM</b>
Presetting with COFRAC1-point calibration certificate with declaration of conformity	see table on next page	0.04 N.m to 3000 N.m	<b>PRER.CO</b>

### Torque controllers



Description	Uncertainty Method and means	Measuring range	
COFRAC calibration certificate torque meter 1 direction	see table on next page	0.04 N.m to 1000 N.m	<b>CEC11</b>
COFRAC calibration certificate torque meter 2 direction	see table on next page	0.04 N.m to 1000 N.m	<b>CEC12</b>
Facom E.5000 torque meter, 1 directions	see table on next page	10 N.m to 1000 N.m	<b>CEC31</b>
Facom E.5000 torque meter, 2 directions	see table on next page	10 N.m to 1000 N.m	<b>CEC32</b>

After analysis, any tool outside these accredited services may be given rise to writing an offer.

#### 1 - Within the guarantee, this package includes:

The check as per procedures, NF EN ISO 6789 (except § 5.1.6: overload test and § 5.1.7: endurance test which are not applied) or specific procedures, validated by COFRAC.

Overhauling the tool if necessary.

A document with the values before and after intervention.

COFRAC calibration certificate with declaration of conformity for graduated tools or COFRAC calibration certificate in the case of torque meters.

Carriage to the distributor.

#### 2 - For FACOM tools outside the framework of the guarantee and out of tolerance, overhauling will be subject to an offer.

If it is accepted: the cost of the service will correspond to the price of the repair package + price of the COFRAC calibration certificate with declaration of conformity for graduated tools or COFRAC calibration certificate in the case of torque meters.

If it is refused: the cost of the service will correspond, if the tool is functional, to the price of the COFRAC calibration certificate with declaration of conformity for graduated tools or COFRAC calibration certificate in the case of torque meters.

(\* ) The use of COFRAC brand is submitted to strict rules. Any use needs previous approval.

## TABLES OF UNCERTAINTIES AND COFRAC ACCREDITED METHODS



ACCREDITATION STANLEY  
BLACK&DECKER FRANCE  
N° 2-6503<sup>(\*)</sup>.  
Scope available  
on [www.cofrac.fr](http://www.cofrac.fr)



### 1. Calibration of manual control torque tools

Measuring range	Uncertainty of the means	Methods and means used
0.04 N.m to 1 N.m	$\pm (1.2 \cdot 10^{-3} \text{ N.m} + 4 \cdot 10^{-3} \cdot C)$	Comparison with the CALS 010 sensor no. 0108
0.5 N.m to 5 N.m	$\pm (6 \cdot 10^{-3} \text{ N.m} + 4 \cdot 10^{-3} \cdot C)$	Comparison with the CCS05 sensor no. 5191
1 N.m to 10 N.m	$\pm (6 \cdot 10^{-3} \text{ N.m} + 4 \cdot 10^{-3} \cdot C)$	Comparison with the CS1 sensor no. 1248
5 N.m to 50 N.m	$\pm 1 \cdot 10^{-2} \cdot C$	Comparison with the CS50 sensor no. 166
10 N.m to 100 N.m	$\pm 1 \cdot 10^{-2} \cdot C$	Comparison with the CS 100 sensor no. 135
15 N.m to 150 N.m	$\pm 1 \cdot 10^{-2} \cdot C$	Comparison with the CS 150 sensor no. 74
40 N.m to 400 N.m	$\pm 1 \cdot 10^{-2} \cdot C$	Comparison with the CS 400 sensor no. 134
100 N.m to 1000 N.m	$\pm 1 \cdot 10^{-2} \cdot C$	Comparison with the CS 1000 sensor no. 142
150 N.m to 1500 N.m	$\pm 1 \cdot 10^{-2} \cdot C$	Comparison with the CS 1500 sensor no.150-8
400 N.m to 3000 N.m	$\pm 1 \cdot 10^{-2} \cdot C$	Comparison with the CS 3000 sensor no.300-11

### 2. Calibration of torquemeters (torque measurement devices)

Measuring range	Uncertainty of the means	Methods and means used
0.04 N.m to 1 N.m	$\pm (10 \cdot 3 \text{ N.m} + 2 \cdot 10 \cdot 3 \cdot C)$	Suspended weight and disc system disc no.21400
0.5 N.m to 50 N.m	$\pm (5 \cdot 10 \cdot 3 \text{ N.m} + 2 \cdot 10 \cdot 3 \cdot C)$	Suspended weight and arm system no.21420
10 N.m to 150 N.m	$\pm (0.02 \text{ N.m} + 2 \cdot 10 \cdot 3 \cdot C)$	Suspended weight and arm system no.21421
20 N.m to 1000 N.m	$\pm (0.06 \text{ N.m} + 2 \cdot 10 \cdot 3 \cdot C)$	Suspended weight and arm system no.21428
150 N.m to 5000 N.m	$\pm (0.20 \text{ N.m} + 2 \cdot 10 \cdot 3 \cdot C)$	Suspended weight and arm system no.21515
10 N.m to 100 N.m	$\pm (0.05 \text{ N.m} + 5 \cdot 10 \cdot 3 \cdot C)$	Comparison with a torquemeter reference HBM TB1A/100 no. 061730083 associated with the measurement bridge HBM MGC plus no. 019783
100 N.m to 1000 N.m	$\pm (0.05 \text{ N.m} + 5 \cdot 10 \cdot 3 \cdot C)$	Comparison with a torquemeter reference HBM TB1A/1000 no. 052830025 associated with the measurement bridge HBM MGC plus no. 019783

C = torque applied.

These 2 tables give indications on the measurement range of the means, the absolute uncertainty of the means, the method and means used to perform a task. Example: Torque wrench reference S.306-200D capacity 40 N.m to 200 N.m. Service requested (product designation): COFRAC calibration certificate FACOM graduated wrench.

- Service reference: CEC10.RJS Mark no.1 corresponds for the link with the tables.

Mark no.1 is located in table 1 containing the following indications:

- Means measurement range: 40 N.m to 400 N.m,
- Absolute uncertainty of the means:  $\pm 1 \cdot 10^{-2} \cdot C$
- Method and means used: Comparison with the CS 400 sensor no. 134

**CAUTION !** In case of partial request, an offer will be issued and the wrench kept for six weeks maximum. Then it will be returned.

(\*) The use of COFRAC brand is submitted to strict rules. Any use needs previous approval.



FLUO

RFid

**SERIES 306 CLICK WRENCHES "HIGH PERFORMANCE"**



**ISO 6789 Type II - Class A  
Precision itself in heavy duty!**

**HIGH PERFORMANCE**

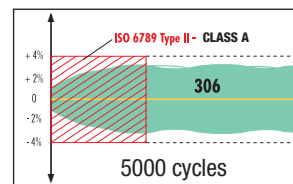
- Intensive use: reliability of mechanism tested to 50,000 cycles.
- Durable accuracy: remains within ISO 6789 tolerances after more than 5,000 cycles.
- Accuracy set at  $\pm 2\%$  ex works.

**SAFE**

- Accurate, tamper-proof vernier. Easy to read and set for error-free adjustment.
- Automatically locking torque adjustment, no risk of accidental release.

**ERGONOMIC**

- Ergonomic handle.
- Increased length for improved torque transfer and accuracy.
- Hanging ring for storage.





"HIGH PERFORMANCE" CLICK WRENCHES

306A - Click wrenches with removable ratchet

NF EN ISO 6789, ISO 6789, DIN EN ISO 6789

- Factory accuracy: ± 2% except:
  - R.306-25D - K306-600D - K306-1000D (± 4%).
  - R.304DA (± 6%).
- Reliability of mechanism: 50 000 cycles (wrenches up to 200 N.m).
- Use possible with accessories:
  - End fitting: 9 x 12 or 14 x 18 mm.
  - Diameter: 30 mm.
- One-way wrenches usable for unscrewing by reversing the bits.
- Numbered wrenches supplied with ISO 6789 calibration certificate.
- Supplied in a plastic box with ratchet and hinged handle (except Ref R.306A25 - R.301A - K.306A600 - K.306A1000).

REF	L [mm]	Attachment	Box	Capacity [N.m]	Wrench	Ratchet	Graduation [N.m]	Knob	ΔΔ [kg]
R.301A	185	9 x 12	BP.102	1 - 5	R.304DA	R.372	0,05	-	0.290
R.306A25	271	9 x 12	BP.D1	5 - 25	R.306-25D	R.372	0,10	-	0.450
J.306A50	357	9 x 12	BP.D2	10 - 50	J.306-50D	J.372	1,00	S.305P	0.930
J.306A100	437	9 x 12	BP.D2	20 - 100	S.306-100D	J.372	1,00	S.305P	1.0
S.306A100	437	9 x 12	BP.D2	20 - 100	S.306-100D	S.372	1,00	S.305P	1.0
S.306A200	515	14 x 18	BP.D3	40 - 200	S.306-200D	S.382	1,00	S.305P	1.3
S.306A350	725	14 x 18	BP.D3	70 - 350	S.306-350D	S.382	2,00	S.305P	1.8
K.306A600	990	14 x18	BP.D600	120 - 600	K.306-600D	K.382	2,00	-	5.2
K.306A1000	1280	Ø 30 mm	BP.D1000	200 - 1000	K.306-1000D	K.151B	4,00	-	5.9

K.306A

J.306A



306D - Click wrenches without accessories

NF EN ISO 6789, ISO 6789, DIN EN ISO 6789

- Factory accuracy: ± 2% except:
  - R.306-25D - K.306A600 - K.306A1000 (± 4%).
  - R.304DA (± 6%).
- Reliability of mechanism: 50 000 cycles (wrenches up to 200 N.m).
- Use possible with accessories:
  - End fitting: 9 x 12 or 14 x 18 mm.
  - Diameter: 30 mm.
- One-way wrenches usable for unscrewing by reversing the bits.
- Numbered wrenches supplied with ISO 6789 calibration certificate.
- Supplied in plastic box.

REF	L [mm]	Attachment	Box	Capacity [N.m]	Graduation [N.m]	ΔΔ [kg]
R.304DA	185	9 x 12	BP.102	1 - 5	0,05	0.290
R.306-25D	271	9 x 12	BP.D1	5 - 25	0,10	0.450
J.306-50D	357	9 x 12	BP.D2	10 - 50	1,00	0.930
S.306-100D	437	9 x 12	BP.D2	20 - 100	1,00	1.0
S.306-200D	515	14 x 18	BP.D3	40 - 200	1,00	1.3
S.306-350D	725	14 x 18	BP.D3	70 - 350	2,00	1.8
K.306-600D	945	14 x 18	BP.D600	120 - 600	2,00	4.6
K.306-1000D	1280	Ø 30 mm	BP.D1000	200 - 1000	4,00	5.9

K.306D

S.306D



■ "Low torque" click wrench with fixed ratchet



NF EN ISO 6789, ISO 6789, DIN EN ISO 6789

- Factory accuracy: ± 2%.
- Reliability of mechanism: 50,000 cycles.
- Compact wrench for confined access.
- Ratchet with 72 teeth (5°) for use with sockets.
- One-way wrench.
- Numbered wrench supplied with ISO 6789 calibration certificate.
- Supplied in a box, dim. (L. x W.): 205 x 120 mm.

ED	L [mm]	Box	Capacity [N.m]	Square ["]	Graduation [N.m]	ΔΔ [g]
R.306-5	197	BP.102	1 - 5	1/4	0,05	300

■ S.306R - Click wrenches with attachment 20 x 7 mm



NF EN ISO 6789, ISO 6789, DIN EN ISO 6789

- Factory accuracy: ± 2%.
- Reliability of mechanism: 50,000 cycles (wrenches --> 200 N.m).
- Use possible with accessories attachment 20 x 7 mm.
- One-way wrenches usable for unscrewing by reversing the bits.
- Numbered wrenches supplied with ISO 6789 calibration certificate.
- Wrenches supplied in plastic protection tube.

ED	L [mm]	Attachment	Capacity [N.m]	Graduation [N.m]	ΔΔ [kg]
S.306-100R	420	20 x 7	20 - 100	1	1.0
S.306-200R	510	20 x 7	40 - 200	1	1.3
S.306-350R	698	20 x 7	70 - 350	2	1.9

■ R-J-S.306U - Click wrenches with dual lbf.in or lbf.ft and N.m graduation.



NF EN ISO 6789, ISO 6789, DIN EN ISO 6789

- 72 tooth mechanism for 5° increments.
- Factory accuracy: ± 2% .
- Reliability of mechanism: 50,000 cycles.
- Click wrenches with dual lbf.in or lbf.ft and N.m graduation.
- Reversible model.
- Full metal wrenches with knurled handle.
- Numbered wrenches supplied with ISO 6789 calibration certificate.
- Supplied in plastic box with ratchet.

ED	L [mm]	Attachment	Box	Capacity [lbf.ft]	Capacity [lbf.in]	Square ["]	Graduation [lbf.ft]	Graduation [lbf.in]	ΔΔ [kg]
R.306U	285	9 x 12	BP.D1	-	40 - 200	1/4	-	1	0.460
J.306U	379	9 x 12	BP.D2	-	200 - 1000	3/8	-	5	1.0
S.306U	600	14 x 18	BP.D3	30 - 250	-	1/2	1	-	1.6

306 SERIES WRENCH SETS

Each modular set comes in a steel case with one or two empty compartments that can each hold an additional module of sockets or other accessories.

**Building a set:**





1. Check which size modules ("Modules" column) the set will take; e.g. S.300B takes 2 modules size C (C+C).
2. Choose modules of the correct size. For the S.300B, with 9 x 12 end fittings, one can choose e.g. S.300-2 and J.300-3 (both size C modules). See below.

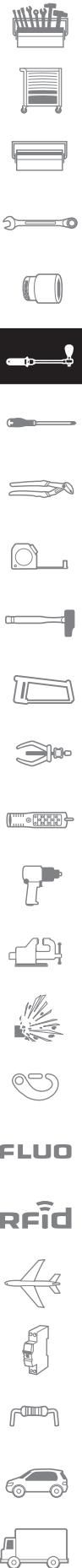


R.300B



J.300B - J.310B - S.300B

MODULES / mm	A 9 x 5 mm	B 14 x 5 mm	C 15 x 10 mm	
	<b>R.300-1</b> <input checked="" type="checkbox"/> 1/4" Sockets 7-8-10-11-13 mm R.209 150 g		<b>J.300-1</b> <input checked="" type="checkbox"/> 3/8" Sockets 10-11-13-15-16-17-18-19 J.210 ΔΔ 540 g <b>J.300-11</b> <input checked="" type="checkbox"/> 3/8" Sockets 11-13-15-16-17-18-19-21-22 J.210 ΔΔ 680 g	<b>S.300-1</b> <input checked="" type="checkbox"/> 1/2" Sockets 11-13-15-16-17-18-19-21-22 S.210 ΔΔ 850 g <b>S.300-11</b> <input checked="" type="checkbox"/> 1/2" Sockets 16-17-18-19-21-22-24-27 S.210 ΔΔ 980 g
		<b>R.300-2</b> Open ends no.10: 8-10-11-12-13 mm ΔΔ 200 g	<b>J.300-2</b> Open ends no. 10: 11-13-15-16-17-18-19 mm ΔΔ 380 g	<b>S.300-2</b> Open ends no.10: 11-13-15-16-17-18-19 mm ΔΔ 350 g
		<b>R.300-3</b> Ring ends no.12: 8-10-11-12-13 mm ΔΔ 200 g	<b>J.300-3</b> Ring ends no.12: 10-11-13-15-16-17-18-19 mm ΔΔ 380 g	<b>S.300-3</b> Ring ends no.12: 11-13-15-16-17-18-19 mm ΔΔ 350 g
		<b>R.300-4</b> <input checked="" type="checkbox"/> 1/4" Hex bits RT: 3-4-5-6 mm ΔΔ 100 g	<b>J.300-4</b> <input checked="" type="checkbox"/> 3/8" Hex bits JT: 5-6-8-10 mm ΔΔ 190 g	<b>S.300-4</b> <input checked="" type="checkbox"/> 1/2" Hex bits ST: 6-8-10-12 mm ΔΔ 330 g







### 300B SERIES MODULAR SETS

#### Contents of 300B series modular sets:

- 1 306D series wrench, 1 ratchet, 1 square drive, 1 pivot knob S.305P (except R.300B),
- 1 steel case with storage tray, (2 free compartments for modules).
- S.310B

➤	Capacity N.m	End fitting	Wrench	Content Ratchet	Square	Box set	Storage module	Kit	☒ "	Module	ΔΔ kg
<b>R.300B</b>	5-25	9 x 12	R.306-25D	R.372	R.373	BP.115	PL.141A	322 x 128 x 50	1/4	A+B	1,5
<b>J.300B</b>	10-50	9 x 12	J.306-50D	J.372	J.373	BT.118	PL.140	470 x 175 x 55	3/8	C+C	3,1
<b>J.310B</b>	20-100	9 x 12	S.306-100D	J.372	J.373	BT.118	PL.137	470 x 175 x 55	3/8	C+C	3,3
<b>S.300B</b>	20-100	9 x 12	S.306-100D	S.372	S.373	BT.118	PL.137	470 x 175 x 55	1/2	C+C	3,3
<b>S.310B</b>	40-200	14 x 18	S.306-200D	S.382	S.383	BT.119	PL.138	625 x 175 x 55	1/2	C+E	4,4
<b>S.320B</b>	70-350	14 x 18	S.306-350D	S.382	S.383	BT.120	PL.139	770 x 175 x 55	1/2	D+F	5,3



MODULES / mm	<b>D</b> 24 x 10 mm	<b>E</b> 28 x 10 mm	<b>F</b> 39 x 10 mm
 <b>S.300-21</b> ☒ 1/2" Sockets 17-18-19-21-22-24-27-30-32 mm S.210 ΔΔ 1300 g			
 <b>K.300-2</b> Open ends 11: 22-24-27-30-32 mm ΔΔ 1020 g	<b>S.300-12</b> Open ends 11: 16-17 18-19-21-22-24-27 mm ΔΔ 1280 g	<b>S.300-22</b> Open ends 11: 17-18-19-21-22-24-27-30-32 mm ΔΔ 1580 g	
 <b>S.300-13</b> Ring ends 13: 16-17 - 18-19-21-22-24-27 mm ΔΔ 1140 g		<b>S.300-23</b> Open ends 13: 17-18-19-21-22-24-27-30-32 mm ΔΔ 1,440 g <b>K.300-3</b> Ring ends 13: 22-24-27-30-32-34-36 mm ΔΔ 1320 g	
 <b>S.300-14</b> ☒ 1/2" Hex. bits ST: 8-10-12 -14 mm ΔΔ 400 g		<b>S.300-24</b> ☒ 1/2" Hex. Bits ST: 8-10-12-14-17 mm ΔΔ 540 g	

SERIES 208 CLICK WRENCH "MULTI-PURPOSE"



ISO 6789  
Type II - CLASS A  
The compact  
wrench for all  
applications

**Heavy-duty**

- Reliability of mechanism tested to 25000 cycles.
- Resistant to all hydrocarbons for use in garages or industrial environments.

**2 series:**



• With fixed ratchet.



• With removable ratchet.



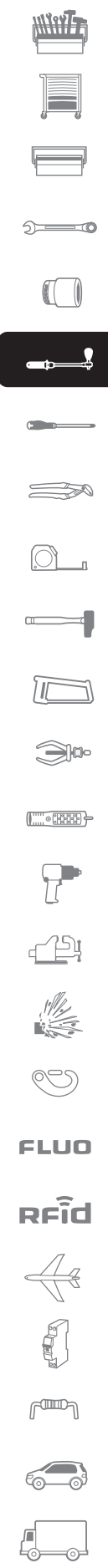
**Reliable**

- Accurate to within  $\pm 4\%$  in accordance with ISO 6789.
- Long-lasting accuracy.
- Double (coarse and fine) vernier adjustment.



**Compact**

- Shorter and lighter for working in congested spaces.
- Fixed ratchet version with a smaller head.



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"MULTI-PURPOSE" CLICK WRENCHES

■ R-J-S.208 - Click wrenches with fixed ratchet



NF EN ISO 6789, ISO 6789, DIN EN ISO 6789

- Accuracy: ± 4%.
- Reliability of mechanism 25 000 cycles.
- Ratchet with 72 teeth (5° increment) for use with sockets.
- One-way wrenches.
- Sensitive sound click when reaching torque.
- Automatic reset.
- Supplied with ISO 6789 calibration certificate.
- Supplied in plastic protection tube.



ED	L [mm]	Capacity [N.m]	Square ["]	Graduation [N.m]	ΔΔ [kg]
R.208-25	300	5 - 25	1/4	0,1	0.500
J.208-50	357	10 - 50	3/8	0,5	0.780
S.208-100	416	20 - 100	1/2	1,0	1.0
S.208-200	479	40 - 200	1/2	2,0	1.2
S.208-340	632	60 - 340	1/2	2,0	1.5

■ J-S.208D - Click wrenches without accessories



NF EN ISO 6789, ISO 6789, DIN EN ISO 6789

- Accuracy: ± 4%.
- Reliability of mechanism 25 000 cycles.
- End fitting: 9 x 12 or 14 x 18 mm for accessories (ratchets, polygon and open end bits).
- One-way wrenches usable for unscrewing by reversing the bits.
- Sensitive sound click when reaching torque.
- Automatic reset.
- Supplied with ISO 6789 calibration certificate.
- Supplied in plastic protection tube.



ED	L [mm]	Attachment	Capacity [N.m]	Graduation [N.m]	ΔΔ [kg]
J.208-50D	337	9 x 12	10 - 50	0,5	0.780
S.208-100D	396	9 x 12	20 - 100	1,0	0.920
S.208-200D	466	14 x 18	40 - 200	2,0	1.1
S.208-340D	618	14 x 18	60 - 340	2,0	1.4

■ J-S.208A - Click wrenches with removable ratchet



NF EN ISO 6789, ISO 6789, DIN EN ISO 6789

- Accuracy: ± 4%.
- Reliability of mechanism 25 000 cycles.
- End fitting: 9 x 12 or 14 x 18 mm for accessories (ratchets, polygon and open end bits).
- One-way wrenches usable for unscrewing by reversing the bits.
- Sensitive sound click when reaching torque.
- Automatic reset.
- Supplied with ISO 6789 calibration certificate.
- Supplied in plastic protection tube with ratchet.



ED	L [mm]	Attachment	Capacity [N.m]	Square ["]	Wrench	Ratchet	Graduation [N.m]	ΔΔ [kg]
J.208A50	337	9 x 12	10 - 50	3/8	J.208-50D	J.372V	0,5	0.780
S.208A100	396	9 x 12	20 - 100	1/2	S.208-100D	S.372V	1,0	0.920
S.208A200	466	14 x 18	40 - 200	1/2	S.208-200D	S.382V	2,0	1.1
S.208A340	618	14 x 18	60 - 340	1/2	S.208-340D	S.382V	2,0	1.4

MANUAL RESET WRENCHES

MANUAL RESET WRENCH



# The simple, heavy-duty wrench

### Simple and reliable

- Strong, dependable wrenches.
- Accuracy to within  $\pm 6\%$  of the reading in accordance with ISO 6789.
- Numbered and supplied with a calibration certificate.

### Triple signal

- Release of the rocker when preset torque is reached produces a triple visual, sensory and audible signal.
- Clear graduated scale ensures precise torque settings.
- Scale pointer movement helps to monitor torque increase.



## R-J-S.203DA - Manual reset wrenches

- Accuracy:  $\pm 6\%$ .
- R.203A wrench, graduated in N.m. with fixed square.
- J.203A - S.203A wrenches, graduated in daN.m.
- Supplied in plastic storage case with ISO 6789 calibration certificate.

	L [mm]	Box	Capacity [daN.m]	Square ["]	Graduation	$\Delta\Delta$ [g]
R.203DA	320	BP.D5	0,6 - 3,6	1/4	2,0 N.m	300
J.203DA	440	BP.D5	2 - 10	3/8	0,5 daN.m	800
S.203DA	460	BP.D5	4 - 20	1/2	1,0 daN.m	900



## R-J-S.203A - Manual reset wrenches with square drive and handle

### NF EN ISO 6789, ISO 6789, DIN EN ISO 6789

- Accuracy:  $\pm 6\%$  value displayed.
- R.203A wrench, graduated in N.m.
- J.203A - S.203A wrenches, graduated in daN.m.
- Supplied in plastic storage case with ISO 6789 calibration certificate.



	L [mm]	Box	Capacity [daN.m]	Square	Square ["]	Wrench	Graduation	Knob	$\Delta\Delta$ [kg]
R.203A	320	BP.D5	0,6 - 3,6	-	1/4	R.203DA	2,0 N.m	R.200P	0.400
J.203A	440	BP.D5	2 - 10	J.203E	3/8	J.203DA	0,5 daN.m	S.200P	0.950
S.203A	460	BP.D5	4 - 20	S.203E	1/2	S.203DA	1,0 daN.m	S.200P	1.0



## SJ-K214 - Extension for 203 series wrench

- Can double or triple the capacity of wrenches ref J.203DA - S.203DA.
- Use with:
  - 152 ratchets.
  - Bits series 20: SJ.214.
  - Sockets 3/4": K.214A.



	L [mm]	Capacity [daN.m]	$\Delta\Delta$ [kg]
SJ.214	400	x2	0.680
K.214A	860	x3	3.0

MANUAL RESET WRENCHES

■ J-S.202A - Manual click wrenches with removable ratchet



NF EN ISO 6789, ISO 6789, DIN EN ISO 6789

- Accuracy:  $\pm 6\%$  value displayed.
- 1/4" square wrench: see product ref R.203A.
- Supplied in plastic storage case with ISO 6789 calibration certificate.

	L [mm]	Box	Capacity [daN.m]	Square ["]	Wrench	Ratchet	Graduation	$\Delta\Delta$ [kg]
J.202A	460	BP.D5	2-10	3/8	J.203DA	J.152	0,5 daN.m	1.0
S.202A	470	BP.D5	4-20	1/2	S.203DA	S.152	1,0 daN.m	1.1

■ R-J-S.205E - Modular sets with sockets



NF EN ISO 6789, ISO 6789, DIN EN ISO 6789

- Each of these sets has a free slot for an additional bit module.
- Choice of module and size (refer to the table).
- Supplied with a handle:
  - R.200P (R.205E).
  - S.200P (J.205E - S.205E).
- Supplied with extension SJ.214 (except R.205E).
- Supplied in a grey metal box.

	Box	Capacity [daN.m]	Square ["]	Wrench	Socket	Tray	$\Delta\Delta$ [kg]
R.205E	BT.112G	0,6 - 3,6	1/4	R.203DA	R.300.1	PL.142	1.4
J.205E	BT.118	2 - 10	3/8	J.203DA	J.300.11	PL.136	4.3
S.205E	BT.119	4 - 20	1/2	S.203DA	S.300.11	PL.135	4.7

SERIES 200 HIGH-TORQUE WRENCH



High-torque wrench

Comfort of use

- Large dial.
- Separate N.m and lbf.ft scales.
- Accurate to within  $\pm 4\%$  of the reading in accordance with ISO 6789.
- Light signal on reaching preset torque.

Sturdy

- Large round end fitting  $\varnothing 30$  mm.
- Optional use with jack or lifting gear.

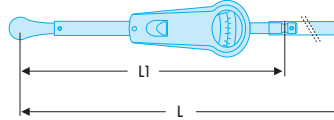


HIGH-TORQUE WRENCHES

■ **KM.B - High-torque wrenches with ratchet and drive square**

NF EN ISO 6789, ISO 6789, DIN EN ISO 6789

- Accuracy: ± 4 % value displayed.
- Two reading scales: N.m and lbf.ft.
- Large size dial.
- Light alarm when reaching torque.
- Cylindrical attachment diameter 30 mm.
- Numbered wrenches supplied with calibration certificate.
- Wrenches supplied in metal case with storage module, dim. (L. x W. x H.): 760 x 220 x 140 mm.

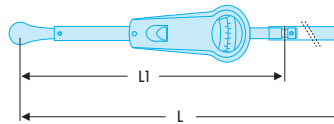


Model	L [mm]	L1 [mm]	Box	Capacity [lbf.in]	Capacity [N.m]	Square	Square ["]	Wrench	Ratchet	Handle	ΔΔ Tray	ΔΔ [kg]
<b>K.201B</b>	1019	595	BT.102	150 - 650	180 - 900	K.200E	3/4	K.200DB	K.151B	K.200MA	PL.549	8.0
<b>K.203B</b>	1019	595	BT.102	250 - 1100	300 - 1500	K.200E	3/4	K.202DB	K.151B	K.202MA	PL.549	8.0
<b>M.201B</b>	-	724	BT.102	300 - 1800	500 - 2500	M.200EA	1	M.200DB	M.151	-	PL.549	18,000

■ **KM.B - High-torque wrenches with drive square**

NF EN ISO 6789, ISO 6789, DIN EN ISO 6789

- Accuracy: ± 4 % value displayed.
- Two reading scales: N.m and lbf.ft.
- Large size dial.
- Light alarm when reaching torque.
- Cylindrical attachment diameter 30 mm.
- Numbered wrenches supplied with calibration certificate.
- Wrenches supplied in metal case with storage module, dim. (L. x W. x H.): 760 x 220 x 140 mm.

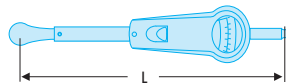


Model	L [mm]	L1 [mm]	Box	Capacity [lbf.ft]	Capacity [N.m]	Square	Square ["]	Wrench	Handle	ΔΔ Tray	ΔΔ [kg]
<b>K.200B</b>	1019	595	BT.102	150 - 650	180 - 900	K.200E	3/4	K.200DB	K.200MA	PL.549	6.2
<b>K.202B</b>	1019	595	BT.102	250 - 1100	300 - 1500	K.200E	3/4	K.202DB	K.202MA	PL.549	6.3
<b>M.200B</b>	-	724	BT.102	300 - 1800	500 - 2500	M.200EA	1	M.200DB	-	PL.549	13,00

■ **KM.DB - High-torque wrenches without accessories**

NF EN ISO 6789, ISO 6789, DIN EN ISO 6789

- Accuracy: ± 4 % value displayed.
- Two reading scales: N.m and lbf.ft.
- Large size dial.
- Light alarm when reaching torque.
- Cylindrical attachment diameter 30 mm.
- Numbered wrenches supplied with calibration certificate.



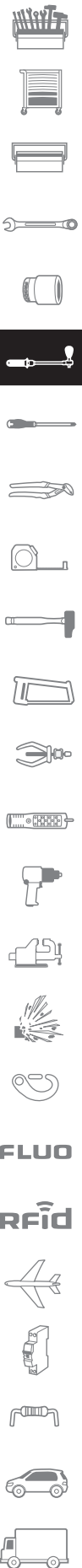
Model	L [mm]	Capacity [lbf.ft]	Capacity [N.m]	Graduation [lbf.ft]	Graduation [N.m]	ΔΔ [kg]
<b>K.200DB</b>	595	150 - 650	180 - 900	25	25	3.6
<b>K.202DB</b>	595	250 - 1100	300 - 1500	50	50	4.7
<b>M.200DB</b>	724	300 - 1800	500 - 2500	100	100	5.7

■ **Handle for wrench M.200DB**

- Telescopic handle gives up to 3m leverage including length of wrench.
- Complete with fasteners.



Model	ΔΔ [kg]
<b>M.200M</b>	8.144



## TORQUE MULTIPLIERS



## For high tightening and loosening torques without an external power source

### More accurate, safer and more compact

- Slow, gentle torque application ensures improved accuracy.
- Reduced lever arm compared to a high-torque wrench ensures operator safety.
- Reduced size allows multipliers to be used where high torque wrenches cannot reach.



### Type MC

- Compact and lightweight for awkward spaces.
- With stop lever.



### Type NP

- Input torque limiter to protect the mechanism.
- Non-return system for increased safety.
- Lifetime-lubricated mechanism for ease of maintenance.
- Supplied with two reaction arms, one straight and one offset.



TORQUE MULTIPLIER

TORQUE MULTIPLIER SELECTION GUIDE

Required input torque:  $\text{input torque} = \frac{\text{output torque}}{\text{multiplying factor}}$

Example: Specified tightening torque: 2000 N.m Model NP.300B  
 -> Input torque =  $2000 / 25 = 80 \text{ N.m}$ .

Model	Input drive	Output drive	Accuracy	Multiplying factor	Max. input torque	Max. output torque
MC.130B	1/2"	3/4"	+/-4%	5	260	1300
MC.270B	3/4"	1"	+/-4%	5	540	2700
NP.100B	1/2"	3/4"	+/-4%	25	40	1000
NP.200B	1/2"	1"	+/-4%	25	80	2000
NP.300B	1/2"	1"	+/-4%	25	120	3000
NP.600B	1/2"	1 1/2"	+/-4%	25	240	6000

**Warning**

- For your safety, use only impact grade sockets and accessories. Always lock sockets with the appropriate pin and ring.
- Never use manual or pneumatic impact wrenches with this type of tool.



MC.B Torque Multiplier

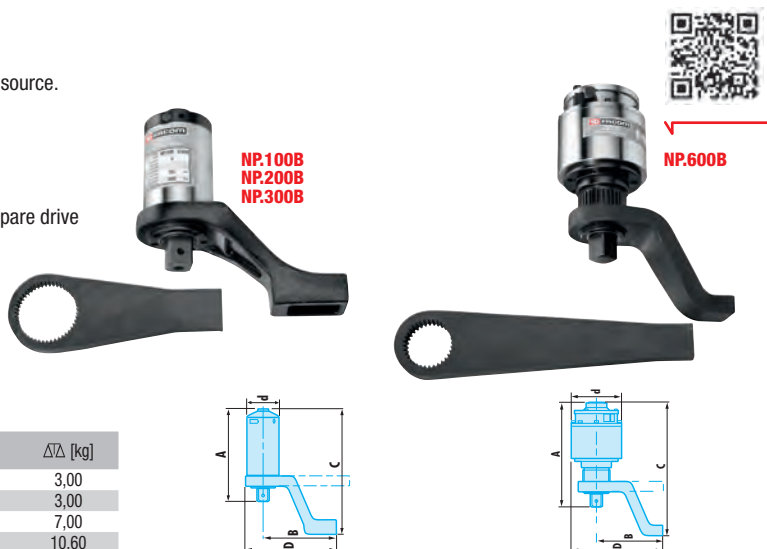
- Compact and lightweight models suited to maintenance work on vans and trucks.
- Multiplication ratio: 5:1.
- Supplied with 2 reaction arms (straight and angled) and one spare drive square.



Model	A [mm]	B [mm]	C [mm]	d [mm]	L [mm]	ΔΔ [kg]
MC.130B	126	263	180	106	396	3.8
MC.270B	128	263	186	106	396	3.8

NP.B - Sets with torque multiplier

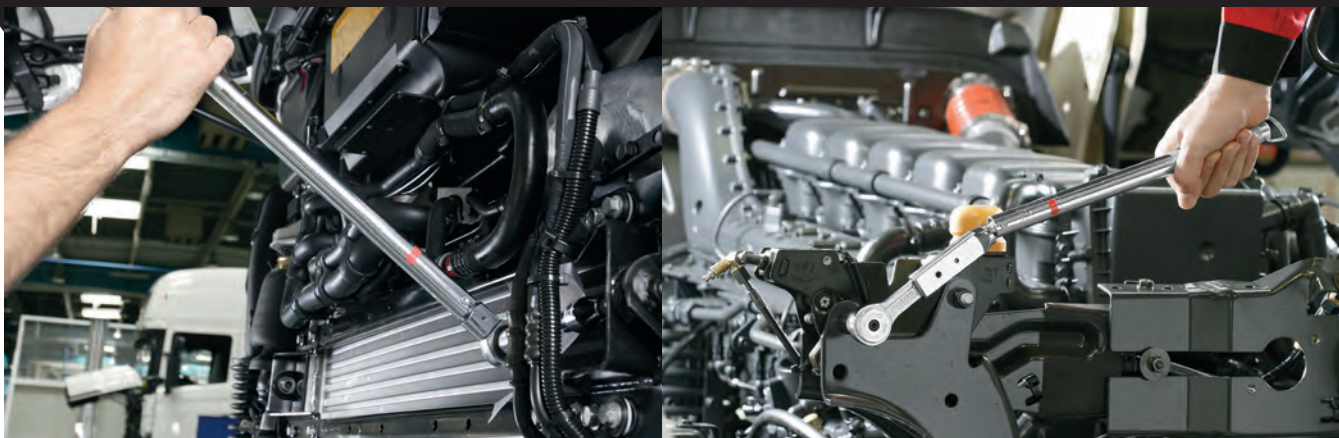
- Powerful tightening and untightening without external energy source.
- Constant multiplication ratio: 25:1.
- Safety: input torque limiter.
- Non-return system.
- Rate = 25:1.
- Supplied with 2 reaction arms (straight and angled) and one spare drive square, with a compliance certificate.



Model	A [mm]	B [mm]	C [mm]	d [mm]	ΔΔ [kg]
NP.100B	174	165	218	72	3,00
NP.200B	174	165	218	72	3,00
NP.300B	224	141	285	108	7,00
NP.600B	271	154	351	119	10,60

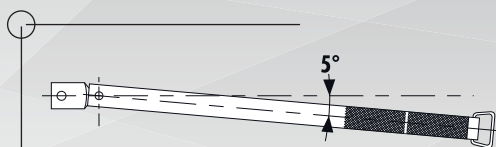


248 AND 446 SERIES ADJUSTABLE WRENCHES "NON GRADUATED"



**Compact, durable production wrenches**

248 series ▶



**248 series**

- 5° release angle.
- 9x12 and 14x18 end fittings.
- Accuracy  $\pm 4\%$ .

**Durable**

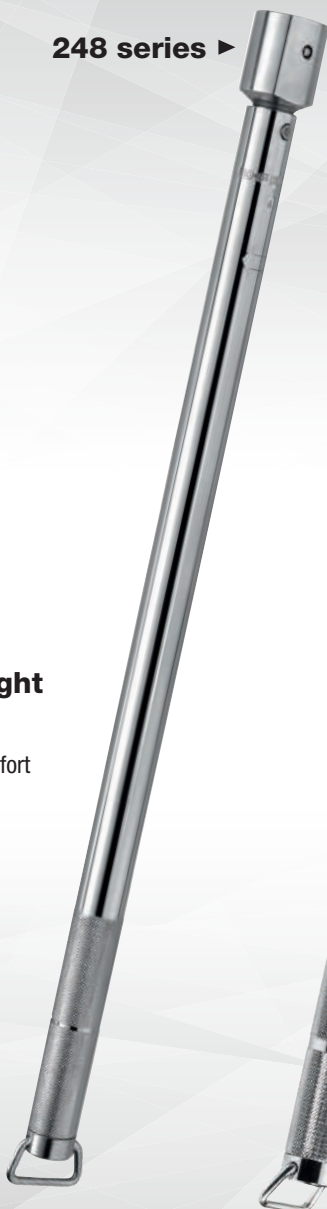
- For intensive and repetitive use, tested to over 100,000 cycles.

**Compact and lightweight**

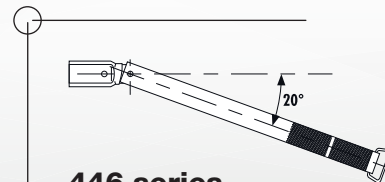
- Shorter and more compact for working in confined spaces.
- Reduced weight for increased comfort when performing intensive tasks.

**Safe**

- Non-graduated preset torque wrenches for production applications.
- Preset with a hex key and a torque meter, no risk of accidentally altering settings.
- Touch and sound signals on release: can be used in noisy and poor visibility conditions.



446 series ▼



**446 series**

- Wide (20°) release angle.
- 20x7 end fitting
- Accuracy  $\pm 8\%$ .



"NON VERNIER" ADJUSTABLE WRENCHES

■ "Non vernier" adjustable click wrenches



NF EN ISO 6789, ISO 6789, DIN EN ISO 6789

- Accuracy: ± 4 %.
- Proven reliability: 100,000 cycles.
- End fitting: 9 x 12 or 14 x 18 mm.
- Wrenches which can be preset and used in tightening and untightening.
- Torque adjustment with a key using a control bench, see range of torque controllers.
- Knurled metal handle.
- Numbered wrenches supplied in plastic protection tube.

⇒	L [mm]	Attachment	Capacity [lbf.ft]	Capacity [lbf.in]	Capacity [N.m]	ΔΔ [kg]
<b>R.344DA</b>	200	9 x 12	-	10 - 50	1 - 5	0.240
<b>R.248-25D</b>	250	9 x 12	-	45 - 220	5 - 25	0.280
<b>J.248-50D</b>	331	9 x 12	-	90 - 440	10 - 50	0.740
<b>S.248-100D</b>	399	9 x 12	15 - 74	-	20 - 100	0.880
<b>S.248-200D</b>	464	14 x 18	30 - 148	-	40 - 200	1.1
<b>S.248-340D</b>	618	14 X 18	44 - 250	-	60 - 340	1.4

■ R-J-S.446 - "Non vernier" wide angle adjustable wrenches



NF EN ISO 6789, ISO 6789, DIN EN ISO 6789

- Accuracy: ± 8%.
- Proven reliability: 50,000 cycles.
- End fitting: 9 x 12 or 20 x 7 mm.
- Wrenches adjustable with a torque meter, see range of torque controllers.
- Wrenches supplied with ISO 6789 calibration certificate.
- Wrenches supplied in plastic protection tube.

⇒	L [mm]	Attachment	Capacity [N.m]	Square ["]	ΔΔ [g]
<b>R.446-25</b>	214	9 x 12	5 - 25	1/4	380
<b>J.446-50</b>	279	20 x 7	10 - 50	3/8	490
<b>S.446-100</b>	407	20 x 7	20 - 100	1/2	840



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**ELECTRONIC RANGE - WRENCHES AND ADAPTERS**



**FACOM offer an electronic range, for high productivity and accuracy. Torque range from 1.5 to 340 N.m.**



**In confined spaces, our wrenches and adapters provide torque or angle increments.**



**E.306 series**  
 • For electronic precision in torque tightening.



**E.316 series**  
 • A single tool for torque & angle tightening for high productivity.



**E.506 series**  
 • For occasional torque & angle tightening.



**E.406 series**  
 • For basic angular tightening.



- The electronic display prevents reading errors.
- Tightening is indicated by the LEDs and buzzer (in all 4 series).
- Easy to use through the same user interface on all models.

**Why use torque/angle tightening ?**

Angle tightening eliminates friction issues related with torque tightening. The movement, and hence fastener tension, is defined by the screw pitch and tightening angle.

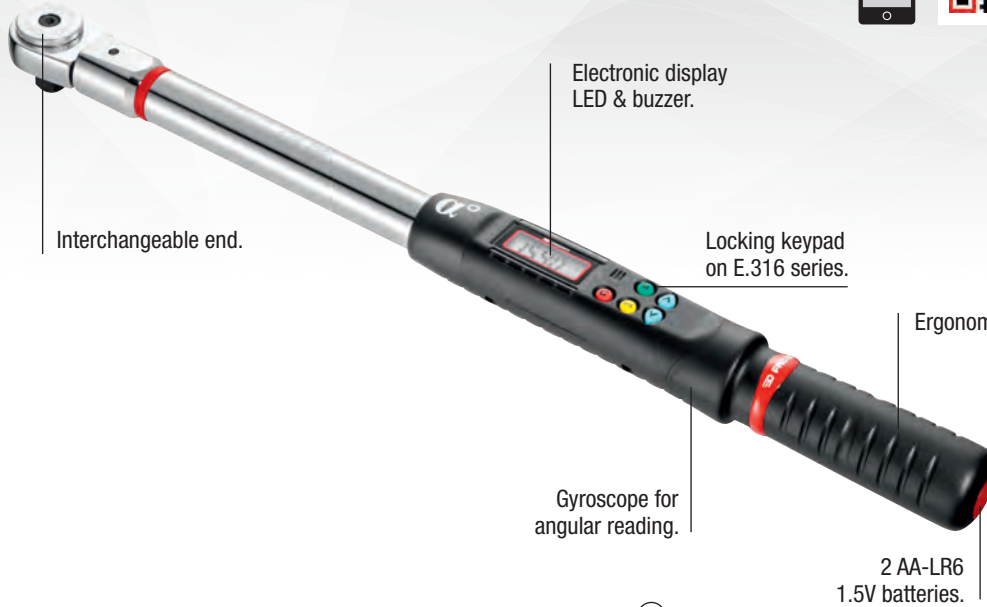
- Torque/angle tightening is performed in 2 steps:
- Pre-torquing to approach the parts and eliminate interface faults.
  - Then tightening at a specific angle. Proper assembly tension prevents the fastener from loosening or breaking.

**ELECTRONIC RANGE - WRENCHES AND ADAPTERS**



**E.306 and E.316 series**

- 9 torque and/or angle values can be preset.
- 250 results can be saved, downloaded via USB.



Interchangeable end.

Electronic display LED & buzzer.

Locking keypad on E.316 series.

Ergonomic handle.

Gyroscope for angular reading.

2 AA-LR6 1.5V batteries.

**E.506 series**

- 9 torque and/or angle values can be preset.
- 50-result memory.



Locking keypad.

Electronic display LED & buzzer.

2 AAA-LR03 1.5V batteries.

Gyroscope for angular reading.

**E.406 series**

- 9 preset angle values.
- 50-result memory.

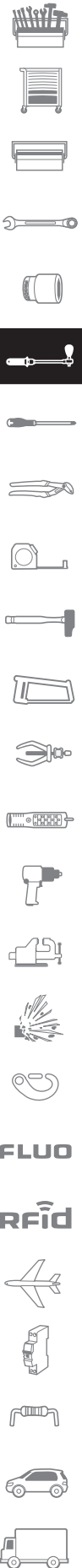


Electronic display LED & buzzer.

2 AAA-LR03 1.5V batteries.

Gyroscope for angular reading.

Magnetised tool (ratchet) fastening.



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ELECTRONIC TORQUE WRENCHES AND ADAPTERS

■ E.306D - Electronic torque wrenches



■ E.306A - Electronic torque wrenches with ratchet



NF EN ISO 6789, ISO 6789, DIN EN ISO 6789

- Accuracy:  $\pm 2\%$  between 20% and 100% wrench capacity.
- Measuring mode: peak or follower.
- Measuring unit: N.m, lbf.ft, lbf.in and kg.cm.
- Bits: 9 x 12 and 14 x 18 mm.
- Numbered wrenches supplied with ISO 6789 calibration certificate.
- Presetting possible of 9 torque values.
- Memory 250 values with PC USB link.
- Supplied in plastic case with foam interior.

Model	L [mm]	Capacity [N.m]	$\Delta\Delta$ [kg]
E.306-30D	360	1,5 - 30,0	1.5
E.306-135D	375	6,7 - 135,0	1.5
E.306-200D	474	10 - 200	2.4
E.306-340D	594	17 - 340	2.6

NF EN ISO 6789, ISO 6789, DIN EN ISO 6789

- Accuracy:  $\pm 2\%$  between 20% and 100% wrench capacity.
- Measuring mode: peak or follower.
- Measuring unit: N.m, lbf.ft, lbf.in and kg.cm.
- Bits: 9 x 12 and 14 x 18 mm.
- Numbered wrenches supplied with ISO 6789 calibration certificate.
- Presetting possible of 9 torque and/or angle values.
- Memory 250 values with PC USB link.
- Supplied in plastic case with foam interior.

Model	L [mm]	Capacity [N.m]	Square ["]	Ratchet	$\Delta\Delta$ [kg]
E.306A30R	390	1,5 - 30,0	1/4	R.372	1.6
E.306A135J	415	6,7 - 135,0	3/8	J.372V	1.7
E.306A135S	415	6,7 - 135,0	1/2	S.372V	1.7
E.306A200S	530	10 - 200	1/2	S.382V	2.7
E.306A340S	650	17 - 340	1/2	S.382V	2.9



**E.316D - Electronic torque / angle wrenches**



NF EN ISO 6789, ISO 6789, DIN EN ISO 6789

- Accuracy:
  - Torque:  $\pm 2\%$  between 20% and 100% wrench capacity.
  - Angle:  $\pm 2^\circ$ .
- End fitting: 9 x 12 and 14 x 18 mm.
- Measuring mode: peak or follower.
- Locking keypad (the operator has access only to program choices and result memorising).
- Measuring unit: N.m, lbf.ft, lbf.in, kg.cm and deg.
- Presetting possible of 9 torque and/or angle values.
- Memory 250 values with PC USB link.
- Supplied with calibration certificate.
- Supplied in plastic case and foam module.

	L [mm]	Capacity [N.m]	$\Delta\Delta$ [kg]
<b>E.316-30D</b>	360	1,5 - 30,0	1.5
<b>E.316-135D</b>	375	6,7 - 135,0	1.5
<b>E.316-200D</b>	474	10 - 200	2.4
<b>E.316-340D</b>	594	17 - 340	2.6

**E.316A - Electronic torque / angle wrenches with ratchet**



NF EN ISO 6789, ISO 6789, DIN EN ISO 6789

- Accuracy:
  - Torque:  $\pm 2\%$  between 20% and 100% wrench capacity.
  - Angle:  $\pm 2^\circ$ .
- End fitting: 9 x 12 and 14 x 18 mm.
- Measuring mode: peak or follower.
- Locking keypad (the operator has access only to program choices and result memorising).
- Measuring unit: N.m, lbf.ft, lbf.in, kg.cm and deg.
- Presetting possible of 9 torque and/or angle values.
- Memory 250 values with PC USB link.
- Supplied with calibration certificate.
- Supplied in plastic case and foam module.

	L [mm]	Capacity [N.m]	Square ["]	Ratchet	$\Delta\Delta$ [kg]
<b>E.316A30R</b>	390	1,5 - 30,0	1/4	R.372	1.6
<b>E.316A135J</b>	415	6,7 - 135,0	3/8	J.372V	1.7
<b>E.316A135S</b>	415	6,7 - 135,0	1/2	S.372V	1.7
<b>E.316A200S</b>	530	10 - 200	1/2	S.382V	2.7
<b>E.316A340S</b>	650	17 - 340	1/2	S.382V	2.9

**E.406 - Electronic angle adapter**



- Accuracy:  $\pm 2^\circ$ .
- Angular range: 1 – 360°.
- Measuring unit: degree.
- Accuracy: 0,1°.
- Presetting possible of 9 angle values.
- Memory 50 values.
- Supplied in plastic case with calibration certificate.

	$\Delta\Delta$ [g]
<b>E.406</b>	388

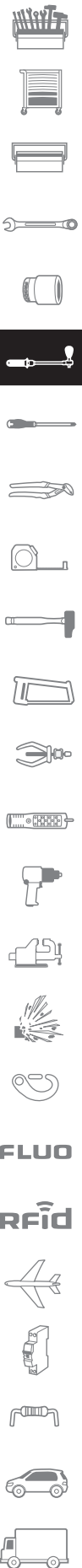
**E.506 - Electronic torque / angle adapter**



NF EN ISO 6789, ISO 6789, DIN EN ISO 6789

- Accuracy:
  - Torque:  $\pm 3\%$  between 20% and 100% wrench capacity.
  - Angle:  $\pm 2^\circ$ .
- Measuring mode: peak or follower.
- Cycle counter.
- Locking keypad (the operator has access only to program choices and result memorising).
- Measuring unit: N.m, lbf.ft, lbf.in, kg.cm and deg.
- Presetting possible of 9 torque and/or angle values.
- Memory 50 values.
- Supplied in plastic case with calibration certificate.

	L [mm]	Capacity [N.m]	Resolution	$\Delta\Delta$ [g]
<b>E.506-135S</b>	80	6,7 - 135,0	0,1	268
<b>E.506-200S</b>	80	10 - 200	0,1	268
<b>E.506-340S</b>	80	17 - 340	0,1	268



## RELEASE TYPE TORQUE DRIVERS



## An accurate, durable low-torque tool

**Reliable, high performance**

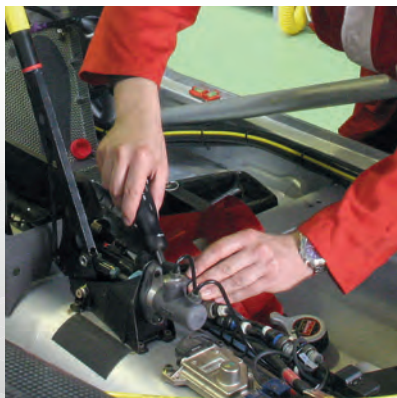
- Reliability of mechanism tested over more than 50,000 operations.
- Accuracy exceeds ISO 6789 specified performance of  $\pm 6\%$ .
- Automatic reset every 120°.

**Safe**

- Automatically releases upon reaching the specified torque, impossible to exceed the set value.
- Protected adjustment system: no risk of accidentally altering settings.
- Flattened profile prevents tool rolling on the work-top.

**A.300MT series****A.400 series****Ergonomic**

- Clear, easy to read vernier.
- Ergonomic handle providing an excellent grip.
- Lightweight.



ISO 6789 Type II -  
CLASS D - CLASS F

RELEASE TYPE TORQUE DRIVER

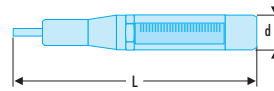
**A.MT - Micro-Tech® "low torque" screwdriver**

NF EN ISO 6789, ISO 6789, DIN EN ISO 6789

- Lightweight and compact screwdriver for low torque load.
- Right-hand torquing.
- Female hex output for use with bits series 0 - 4 mm (1/4" output with ECR.O drive optional).
- Hex key Adjustment .
- Supplied with calibration certificate and adjustment key.



Model	d [mm]	L [mm]	Capacity [cN.m]	Bits	Graduation	Graduation [Cn.m]	ΔΔ [g]
A.300MT	21	96,5	4 - 20	0	0,05	0,05	75
A.301MT	23	130,0	15 - 75	1	0,50	0,5	130



**A.MTJ1 - Micro-Tech® torque screwdriver sets**

NF EN ISO 6789, ISO 6789, DIN EN ISO 6789

- Lightweight and compact screwdriver for low torque load.
- Right-hand torquing.
- Female hex output for use with bits series 0 - 4 mm (1/4" output with ECR.O drive optional).
- Bits series 0 drive 4 mm.
- Adjustment key 4 mm.
- Supplied in case with calibration certificate.



Model	Capacity [cN.m]	Bits	Screwdriver	ΔΔ [g]
A.300MTJ1	4 - 20	Slotted head: 1,8 - 2,5, PH 0,9 - 1,3 - 1,5 - 2 mm, PZ 0 - 1 - 2 mm	A.300MT	300
A.301MTJ1	15 - 75	Slotted head: 4 - 4,5 - 5,5, PH 1,5 - 2,5 - 3 mm, PZ 0 - 1 mm	A.301MT	370

**A.400 - Screwdriver with vernier adjustment**

NF EN ISO 6789, ISO 6789, DIN EN ISO 6789

- Class II type D (A.400 maintenance).
- One-direction screwdriver, right-hand torquing.
- Female hex output for use with 1/4" bit.
- ECR drive 1/4" - 1/4" for sockets and accessories optional.
- 1/4" drive on the handle for use with a ratchet handle type A.300PA.
- Hex key Adjustment .
- Supplied with calibration certificate, adjustment key and individual identification number.



Model	L [mm]	Torque N.m	Graduation [N.m]	ΔΔ [g]
A.402	147	0,5 - 2,5	0,1	280
A.404	147	2 - 10	0,5	400



■ **A.J2 - Torque screwdriver sets**



**NF EN ISO 6789, ISO 6789, DIN EN ISO 6789**

- Class II type D (A.400 maintenance).
- One-direction screwdriver, right-hand torquing.
- Female hex output for use with bits series 1 - 1/4".
- 1/4" drive on the handle for use with a ratchet handle type A.300PA.
- Ratchet handle (A.300PA).
- Adjustment key 4 mm.
- Supplied in case with calibration certificate and individual identification number.



	Box	Wrench	Bits	Tray	Knob	Bit holder	Screwdriver	ΔΔ [g]
<b>A.402J2</b>	BP.102	A.402-20	Slotted head: 4,5 - 6,5 - 8, Hexagon: 3 - 4 - 5 mm, PZ: 1 - 2 - 3 mm	PL.436	A.300PA	EF.1P4	A.402	700
<b>A.404J2</b>	BP.102	A.404-20	Slotted head: 4,5 - 6,5 - 8, Hexagon: 3 - 4 - 5 mm, PZ: 1 - 2 - 3 mm	PL.435	A.300PA	EF.1PA	A.404	830

■ **A.J1 - Torque screwdriver sets - 1/4" sockets**



**NF EN ISO 6789, ISO 6789, DIN EN ISO 6789**

- Class II type D (A.400 maintenance).
- One-direction screwdriver, right-hand torquing.
- Female hex output for use with 1/4" bit.
- 1/4" drive on the handle for use with a ratchet handle type A.300PA.
- Ratchet handle A.300PA.
- ECR drive 1/4" - 1/4" for sockets and accessories.
- Extensions 1/4" (R.210 and R.215).
- Adjustment key 4 mm.
- Supplied in case with calibration certificate and individual identification number.



	Box	Wrench	Socket	Tray	Knob	Screwdriver	ΔΔ [kg]
<b>A.402J1</b>	BP.115	A402 - 20	R.3.2 - 4.0 - 5.0 - 5.5 - 6.0 - 7.0 - 8.0 - 9.0 - 10.0 mm	PL.434	A.300PA	A.402	1,10
<b>A.404J1</b>	BP.115	A404 - 20	R.3.2 - 4.0 - 5.0 - 5.5 - 6.0 - 7.0 - 8.0 - 9.0 - 10.0 mm	PL.433	A.300PA	A.404	1,20

■ **Ratchet handle for torque screwdrivers**



- Adapting ratchet handle: increased tightening power for repeating or high torque tightening.
- For torque screwdrivers capacity 0.50 --> 10 N.m.
- Max torque: 30 N.m.



	ΔΔ [g]
<b>A.300PA</b>	85

■ **Drive socket adapter**



- Bit to use 1/4" sockets with the torque screwdrivers A.300MT - A.340MT.
- 6-point drive 4 mm.

	L [mm]	ΔΔ [g]
<b>ECR.0</b>	22	7

■ **Socket adapter - 1/4"**



**NF ISO 1173, ISO 1173**

- Bit to use 1/4" sockets with the torque screwdrivers A.400 - A.440 - A.301MT - A.341MT.

	L [mm]	ΔΔ [g]
<b>ECR</b>	25	15

"NON VERNIER" RELEASE TYPE TORQUE DRIVER

A.440 AND A.340MT SERIES NON-VERNIER DRIVERS

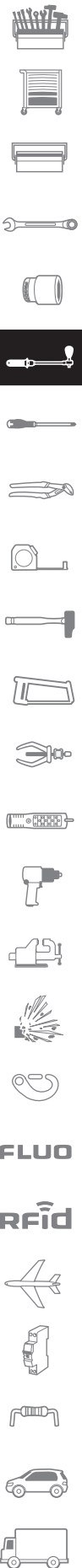


# Drivers designed for production applications

## Same characteristics as A.400 and A.300MT

- Non-vernier adjustment, torque set with a torque-meter.
- Performance exceeds ISO 6789 requirements ( $\pm 6\%$  of the preset value).
- Handle release when required torque is reached, prevents inadvertent overtorquing.
- Automatic reset every  $120^\circ$ .

ISO 6789 Type II - CLASS D - CLASS F

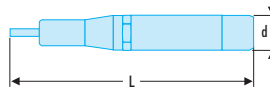


■ A.MT - Micro-Tech® "Production" torque screwdriver

- Screwdriver without vernier: this non graduated screwdriver is adjusted on a control bench.
- Lightweight and compact screwdriver designed specifically for low torque loads.
- One-direction screwdriver, right-hand torquing.
- Female hex output for use with 4 mm bits (1/4" output with ECR.O drive optional).
- Supplied with adjustment key 4 mm.
- Supplied with calibration certificate and individual identification number.



	d [mm]	L [mm]	Capacity [cN.m]	Capacity [lbf.in]	Serie Bits	Outer Size	$\Delta\Delta$ [g]
A.340MT	21	96,5	4 - 20	0,35 - 1,70	0	4 mm	75
A.341MT	23	130,0	15 - 75	1,30 - 6,50	1	1/4"	130



■ A.440 - Micro-Tech® "Production" torque screwdriver

NF EN ISO 6789, ISO 6789, DIN EN ISO 6789

- Class II type F (A.440 production).
- Screwdriver without vernier: this non graduated screwdriver is adjusted on a control bench.
- One-direction screwdriver, right-hand torquing.
- Female hex output for use with bits series 1 - 1/4".
- 1/4" drive on the handle for use with a ratchet handle type A.300PA.
- Supplied with adjustment key 4 mm.
- Supplied with calibration certificate and individual identification number.



	L [mm]	Torque N.m	$\Delta\Delta$ [g]
A.442	147	0,5 - 2,5	300
A.444	168	2 - 10	400



ELECTRONIC TORQUE SCREWDRIVERS

ELECTRONIC SCREWDRIVER SERIES E.S400



# High precision for low torque

This new product offers the high precision and ease of use you'd expect from the FACOM brand. With its traceability functions, it is an ideal tool for maintenance in sectors such as aeronautics, medical, nuclear...

### High performance

- Has a 2% accuracy, between 20% and 100% capacity, much higher than mechanical screwdrivers and the ISO 6789 standard (6% for torque screwdrivers).
- Electronic measure: high repeatability and no wear effect.

### Easy use

- 9 pre-adjustable torque values.
- Measurement units available: cNm, in.lb, kg.cm.
- Sound and visual alarm once the torque is reached.
- Ergonomic: Protwist grip and bit autolocking system.

### Traceability

- Tightening torques are transmitted through the USB cable.
- 250 torque value memory.

■ E.S400 - Torque reading electronic torque screwdrivers



NF EN ISO 6789, ISO 6789, DIN EN ISO 6789

- Accuracy:  $\pm 2\%$  clockwise ( $\pm 3\%$  counter clockwise) between 20% and 100% screwdriver capacity.
- Resolution: 0.1 cN.m.
- Measurement mode: tip or follower.
- 1/4" outlet with auto-locking system for series 1 and series 6 bits.
- Measurement unit: cN.m, in.lb, Kg.cm .
- 9 torque presets available.
- Memory 250 values with PC USB link.
- Locking keypad (program selection and result log only accessible to the operator).
- Hole in the handle for strapping when working in high places.
- Supplied with 1 AAA-LR03 1.5V battery.
- Supplied with an ISO6789 calibration certificate.
- Supplied in plastic case and foam module, dim. (L.xW.xH.): 570x100x70 mm.
- USB cable E.S404-USB and plugs E.S404-KIT set available as spares.



	L [mm]	Capacity [N.m]	$\Delta\Delta$ [g]
E.S401	215	0,1 - 1	630
E.S404	215	0,4 - 4	630

■ E.S400J1 - Electronic torque screwdriver sets - screwing bits



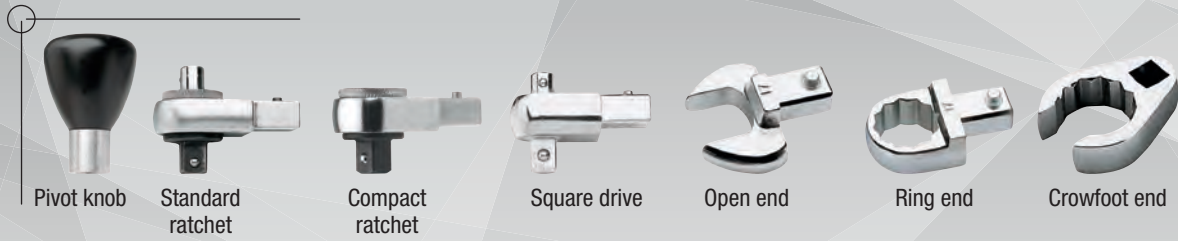
NF EN ISO 6789, ISO 6789, DIN EN ISO 6789

- Accuracy:  $\pm 2\%$  clockwise ( $\pm 3\%$  counter clockwise) between 20% and 100% screwdriver capacity.
- Resolution: 0.1 cN.m.
- Measurement mode: tip or follower.
- 1/4" outlet with auto-locking system for series 1 and series 6 bits.
- Measurement unit: cN.m, in.lb, Kg.cm .
- Presetting possible of 9 torque values.
- Memory 250 values with PC USB link.
- Locking keypad (program selection and result log only accessible to the operator).
- Hole in the handle for strapping when working in high places.
- Supplied with 1 AAA-LR03 1.5V battery.
- Supplied with an ISO6789 calibration certificate.
- Screwdriver length 215 mm.
- 6 series 6 bits with 1/4" groove - length 50 mm: slotted head 3 - 4 - 5.5 and Phillips® High Perf® 1 - 2 - 3.
- Supplied in plastic case and foam module, dim. (L.xW.xH.): 570x100x70 mm.
- USB cable E.S404-USB and plugs E.S404-KIT set available as spares.



	L [mm]	Capacity [N.m]	Screwdriver	$\Delta\Delta$ [kg]
E.S401J1	570	0,1 - 1	E.S401	1.2
E.S404J1	570	0,4 - 4	E.S404	1.2

TORQUE ACCESSORIES

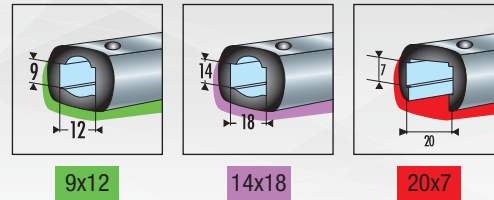


7 TYPES OF ACCESSORY



Wrench fitted with a ratchet J.372, a knob S.305P and a socket.

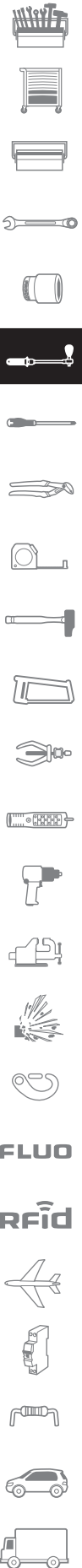
3 types of end fitting:



1. CHOOSE YOUR WRENCH OR DRIVER    2. CHOOSE THE TYPE OF ACCESSORY

306	208	200	203
R.304DA R.306-25D J.306-50D S.306-100D R.306U J.306U	J.208-50D S.208-100D		
S.306-200D S.306-350D S.306U K.306-600D	J.208-200D S.208-340D		
K.306-1000D		K.200DB K.202DB M.200DB	
S.306-100R S.306-200R S.306-350R			R.203DA J.203DA S.203A
E.306	E.316	248	446
E.306-30D E.306-135D	E.316-30D E.316-135D	R.344DA R.248-25D J.248-50D S.248-100D	R.446-25
E.306-200D E.306-340D	E.316-200D E.316-340D	S.248-200D S.248-340D	J.446-50 S.446-100
		A.400 A.300MT	A.440 A.340MT
		A.402 A.404	A.442 A.444
		A.300MT A.301MT	A.340MT A.341MT

9x12	14x18	Ø 30	20x7	9x12	14x18	20 x 7	
J.372 S.372	R.372 J.372V S.372V	R.373 J.373 S.373	Series 10 Series 12	J.372 S.372	R.372 J.372V S.372V	R.373 J.373 S.373	Series 10 Series 12
S.382	S.382V K.382A	S.383 K.383	Series 11 Series 13	S.382	S.382V K.382A	S.383 K.383	Series 11 Series 13
	K.151B M.151	M.151			J.152 S.152	J.203E S.203E	Series 20
Ø 1/4	ECR			Ø 4	ECRO		



FLUO

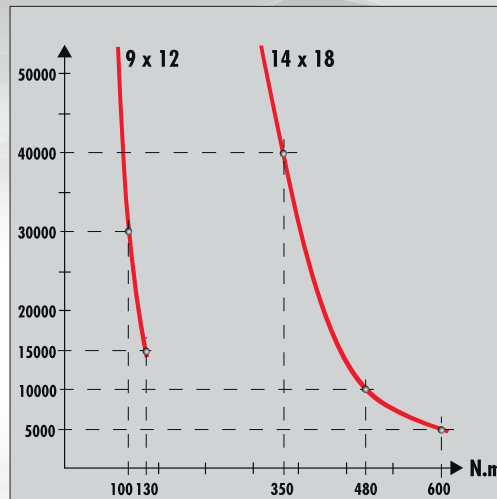
RFid

ACCESSORIES 9 X 12 MM

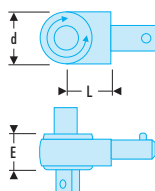
SAFETY OF END FITTINGS

When the wrench releases, the torque accessories are subjected to severe shocks that can cause them to fail after a certain number of cycles.

The diagram below shows the number of cycles not to be exceeded according to the applied torque. The accessory must be replaced before reaching the maximum number of cycles.



Ratchets - drive 9 x 12 mm

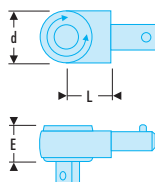


• For use with pivot handle S.305P.



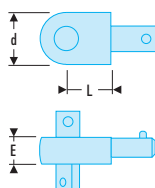
Model	d [mm]	E [mm]	L [mm]	Square ["]	ΔΔ [g]
J.372	37	26	15	3/8	155
S.372	37	26	15	1/2	165

Compact ratchets - drive 9 x 12 mm



Model	d [mm]	E [mm]	L [mm]	Square ["]	ΔΔ [g]
R.372	27	19	15	1/4	70
J.372V	37	26	15	3/8	140
S.372V	37	26	15	1/2	150

Square drive - drive 9 x 12 mm



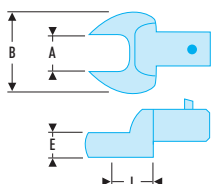
• For use with pivot handle S.305P, except the R.373 model.



Model	d [mm]	E [mm]	L [mm]	Square ["]	ΔΔ [g]
R.373	23	14	15	1/4	55
J.373	26	17	15	3/8	85
S.373	26	17	15	1/2	100

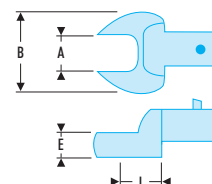


▪ Metric open end bits - drive 9 x 12 mm



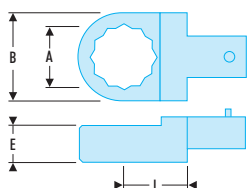
Ø	A [mm]	B [mm]	E [mm]	L [mm]	ΔΔ [g]
10.7	7	21,0	5	17,5	33
10.8	8	22,0	5	17,5	32
10.9	9	23,5	6	17,5	38
10.10	10	24,5	6	17,5	37
10.11	11	26,0	6	17,5	36
10.12	12	27,5	7	17,5	44
10.13	13	29,0	7	17,5	45
10.14	14	31,5	7	20,0	42
10.15	15	33,0	9	20,0	61
10.16	16	35,5	9	20,0	60
10.17	17	37,5	9	20,0	62
10.18	18	39,0	9	20,0	69
10.19	19	41,5	9	20,0	67

▪ Inch open end bits - drive 9 x 12 mm



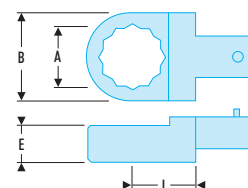
Ø	A ["]	B [mm]	E [mm]	L [mm]	ΔΔ [g]
10.1/4	1/4	19	5	17,5	33
10.5/16	5/16	19	5	17,5	26
10.3/8	3/8	25	6	17,5	38
10.7/16	7/16	25	6	17,5	36
10.1/2	1/2	31	7	17,5	43
10.9/16	9/16	31	7	20,0	41
10.5/8	5/8	37	9	20,0	60
10.11/16	11/16	37	9	20,0	59
10.3/4	3/4	40	9	20,0	69

▪ Polygon drives - drive 9 x 12 mm



Ø	A [mm]	B [mm]	E [mm]	L [mm]	ΔΔ [g]
12.7	7	20	7,9	17,5	33
12.8	8	20	7,9	17,5	33
12.9	9	20	7,9	17,5	32
12.10	10	20	7,9	17,5	36
12.11	11	20	7,9	17,5	34
12.12	12	20	12,1	17,5	41
12.13	13	20	12,1	17,5	40
12.14	14	23,5	12,1	17,5	49
12.15	15	24,5	12,1	17,5	46
12.16	16	26,5	12,9	17,5	54
12.17	17	27,5	13,1	17,5	50
12.18	18	30	13,1	17,5	57
12.19	19	31	13,1	17,5	67

▪ 12 - Inch ring ends - 9 x 12 mm end fitting



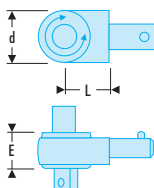
- Straight ring ends, 3/8" drive.
- Allows use in confined spaces.
- 9 dimensions available.

Ø	A ["]	B [mm]	E [mm]	L [mm]
12.1/4	1/4	20	7,9	17,5
12.5/16	5/16	20	7,9	17,5
12.3/8	3/8	20	7,9	17,5
12.7/16	7/16	20	7,9	17,5
12.1/2	1/2	20	12,1	17,5
12.9/16	9/16	23,5	12,1	17,5
12.5/8	5/8	26,5	12,9	17,5
12.11/16	11/16	30	13,1	17,5
12.3/4	3/4	31	13,1	17,5



ACCESSORIES 14 X 18 MM

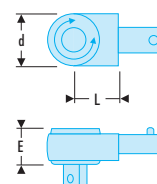
▪ Ratchet - drive 14 x 18 mm



- For use with swivel handle S.305P.
- Square: 1/2".

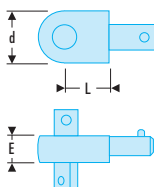
ED	d [mm]	E [mm]	L [mm]	Square ["]	ΔΔ [g]
<b>S.382</b>	41	26	27	1/2	300

▪ Compact ratchets - drive 14 x 18 mm



ED	d [mm]	E [mm]	L [mm]	Square ["]	ΔΔ [g]
<b>S.382V</b>	41	26	27	1/2	285
<b>K.382A</b>	69	35	27	3/4	870

▪ Square drive - drive 14 x 18 mm

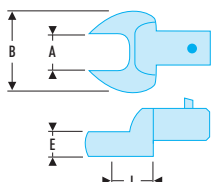


- For use with pivot handle S.305P, except the K.383 model.

ED	d [mm]	E [mm]	L [mm]	Square ["]	ΔΔ [g]
<b>S.383</b>	32	22	27	1/2	160
<b>K.383</b>	38	22	27	3/4	340

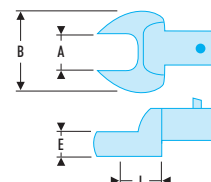


▀ Metric open end bits - drive 14 x 18 mm



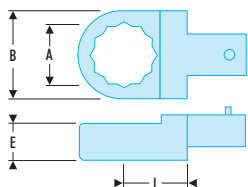
▣	A [mm]	B [mm]	E [mm]	L [mm]	ΔΔ [g]
11.13	13	34	8	25,0	114
11.14	14	34	8	25,0	113
11.15	15	34	8	25,0	111
11.16	16	39	10	25,0	140
11.17	17	39	12	25,0	134
11.18	18	39	12	25,0	136
11.19	19	45	12	25,0	140
11.21	21	45	12	25,0	157
11.22	22	52	14	25,0	161
11.23	23	52	14	25,0	172
11.24	24	52	14	25,0	165
11.27	27	59	16	32,5	222
11.30	30	64	18	32,5	277
11.32	32	64	18	32,5	269

▀ Inch open end bits - drive 14 x 18 mm



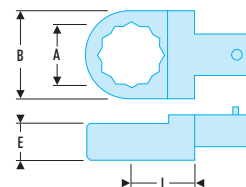
▣	A ["]	B [mm]	E [mm]	L [mm]	ΔΔ [g]
11.1/2	1/2	34	8	25,0	114
11.9/16	9/16	34	8	25,0	111
11.5/8	5/8	39	10	25,0	140
11.11/16	11/16	39	12	25,0	137
11.3/4	3/4	45	12	25,0	156
11.13/16	13/16	45	12	25,0	152
11.7/8	7/8	52	14	25,0	172
11.15/16	15/16	52	14	25,0	167
11.1"1/4	1"1/4	59	16	32,5	266
11.1"1/2	1"1/2	64	18	32,5	221

▀ Polygon drives - drive 14 x 18 mm



▣	A [mm]	d [mm]	E [mm]	L [mm]	ΔΔ [g]
13.13	13	30,0	11	25	113
13.14	14	30,0	11	25	109
13.15	15	30,0	11	25	107
13.16	16	30,0	11	25	127
13.17	17	30,0	12	25	123
13.18	18	30,0	12	25	118
13.19	19	31,0	12	25	141
13.21	21	33,0	12	25	133
13.22	22	35,0	14	25	153
13.23	23	38,0	14	25	157
13.24	24	38,0	14	25	143
13.27	27	41,5	16	31	183
13.30	30	45,0	18	31	223
13.32	32	47,5	18	31	209
13.34	34	51,0	11	31	212
13.36	36	53,0	19	31	193

▀ 13 - Inch polygon bits - drive 14x18



ASME B107.100

- Polygon bits drive 14x18.
- Inch sizes: from 1/2 to 1P1/16.

▣	A ["]	B [mm]	E [mm]	L [mm]	ΔΔ [g]
13.1/2	1/2	30	21,5	60,9	126
13.9/16	9/16	30	21,5	61,4	128
13.5/8	5/8	30	21,5	62,9	134
13.11/16	11/16	30	21,5	63,9	138
13.3/4	3/4	31	21,5	65,4	142
13.13/16	13/16	33	21,5	66,4	150
13.7/8	7/8	35	21,5	67,4	152
13.15/16	15/16	38	21,5	68,4	180
13.1P1/16	1P1/16	41,5	21,5	76,6	204



ACCESSORIES 20 X 7 MM

Swivel handles - drive 20 x 7 mm

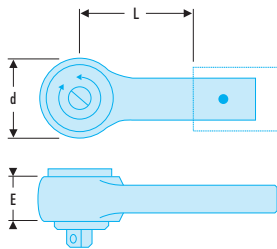


- Allows to maintain the wrench parallel with the tightening plane and contribute to tightening accuracy.
- Used with square bits Ref J.203E - S.203E and torque wrench ref. R.203 DA.



	d [mm]	L [mm]	Wrench	For use on	ΔΔ [g]
<b>R.200P</b>	22	45	R.203DA	R.203DA	20
<b>S.200P</b>	36	55	J.203E - S.203E	J.203E, S.203E	55

Ratchets - drive 20 x 7 mm

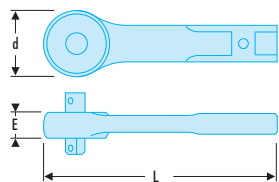


- 5° increment.
- For use on torque wrenches ref. J.203DA - S.203DA - S.306-100R - S.306-200R - S.306-350R.



	d [mm]	E [mm]	L [mm]	Square ["]	Wrench	ΔΔ [g]
<b>J.152</b>	38	25	55	3/8	J.203DA	274
<b>S.152</b>	38	25	55	1/2	S.203DA - S.306-100R - S.306-350R - S.306-200R	275

Square drive - drive 20 x 7 mm



- For use on torque wrenches ref. J.203DA - S.203DA - S.306-100R - S.306-200R - S.306-350R.



	d [mm]	E [mm]	L [mm]	Square ["]	ΔΔ [g]
<b>J.203E</b>	25	11	56	3/8	140
<b>S.203E</b>	25	11	56	1/2	150

Adapters - drive 20 x 7 mm



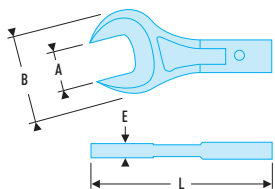
- For use with:
  - bits 9 x 12 mm on wrenches max capacity 100 N.m.
  - bits 14 x 18 mm on wrenches max capacity 600 N.m.



	Attachment	ΔΔ [g]
<b>J.274</b>	9 x 12	135
<b>S.284</b>	14 x 18	145

Open end bits - drive 20 x 7 mm

• For use on torque wrenches series 203, 306R and 446.



➤	A [mm]	B [mm]	E [mm]	L [mm]	ΔΔ [g]
20.10	10	24	6,0	105	60
20.11	11	24	6,0	105	60
20.12	12	29	6,0	106	60
20.13	13	29	6,0	106	60
20.14	14	29	6,0	106	65
20.15	15	40	7,5	109	105
20.16	16	40	7,5	109	105
20.17	17	40	7,5	109	105
20.18	18	40	7,5	109	100

➤	A [mm]	B [mm]	E [mm]	L [mm]	ΔΔ [g]
20.19	19	40	7,5	109	100
20.21	21	53	8,0	112	145
20.22	22	53	8,0	112	145
20.23	23	53	8,0	112	145
20.24	24	53	8,0	112	140
20.27	27	66	9,0	115	185
20.30	30	66	9,0	115	185
20.32	32	66	9,0	115	180
20.36	36	74	10,0	118	220

CROWFOOT ACCESSORIES

Swivel handle

- Allows to maintain the wrench parallel with the tightening plane.
- Use with 3/8" and 1/2" ratchets and drive squares.
- Max diam. size: 45 mm.



➤	L [mm]	ΔΔ [g]
S.305P	66	110

14 - Welding tip

- Welding a tool onto a weld-on tip modifies the centre distance between the tool centre and the wrench. This modification changes the torque value required. Therefore, a torque controller must be used to recalibrate the torque wrench (E.2000).
- Presentation: black finish.
- Hardness: 46-50 HRC.



➤	A [mm]	B [mm]	C [mm]	L [mm]	L1 [mm]
14.9X12	9x12	14,7	17,4	24,5	16,5
14.14X18	14x18	22	26,3	36,5	24,5



CROWFOOT ACCESSORIES

■ J.SPR - 3/8" metric Crowfoot Accessories



AS954

For use on interchangeable head torque wrenches

➤	A [mm]	B [mm]	E [mm]	E1 [mm]	L [mm]	L1 [mm]	ΔΔ [g]
J.7SPR	7	9.4	5.5	11.1	64.9	50.8	24
J.8SPR	8	10.7	5.5	11.1	65.5	50.8	26
J.9SPR	9	12.4	6.5	11.1	66.4	50.8	28
J.10SPR	10	12.4	6.5	11.1	66.4	50.8	30
J.12SPR	12	14.5	7.0	11.1	67.4	50.8	34
J.14SPR	14	16.6	7.9	11.1	68.5	50.8	36
J.16SPR	16	18.7	8.7	11.1	69.5	50.8	38
J.18SPR	18	20.5	9.5	11.1	70.5	50.8	40
J.20SPR	20	23.0	10.3	11.1	71.5	50.8	44

■ J.R - 3/8" inch Crowfoot Accessories



AS954

For use on interchangeable head torque wrenches

➤	A ["]	B [mm]	E [mm]	E1 [mm]	L [mm]	L1 [mm]	ΔΔ [g]
J.1/4R	1/4	10.7	5.5	11.1	65.5	50.8	28
J.5/16R	5/16	12.4	6.5	11.1	66.4	50.8	30
J.3/8R	3/8	14.5	7.1	11.1	67.4	50.8	36
J.7/16R	7/16	16.6	7.9	11.1	68.5	50.8	38
J.1/2R	1/2	18.7	8.7	11.1	69.5	50.8	42
J.9/16R	9/16	20.5	9.5	11.1	70.5	50.8	44
J.5/8R	5/8	23.0	10.3	11.1	71.5	50.8	46

■ R.FLA - 1/4" inch crowfoot box end bits



ASME B107.100

- Thin wall 12-point head.
- Max torque recommended: 8.5 N.m.
- Built to aeronautical specifications.
- Inch sizes: from 1/4" to 3/8".
- Bright chrome finish.

➤	A ["]	B [mm]	C [mm]	E [mm]	L1 [mm]	ΔΔ [g]
R.1/4FLA	1/4	11.9	4.5	5.9	36.3	13
R.5/16FLA	5/16	13.3	5.8	5.9	36.8	12.5
R.3/8FLA	3/8	15.7	7	5.9	38	14

■ R.CF - 1/4" metric crowfoot end bits



ASME B107.100

- Anti-slip design ensuring proper fitting on the fastener.
- Shaped to distribute the contact force over a larger surface.
- Suitable for use in confined spaces.
- Adapted to low torque uses.
- Sizes in mm: from 7 to 14
- Bright chrome finish.

➤	A [mm]	E [mm]	L [mm]	L1 [mm]	ΔΔ [g]
R.7CF	7	5.5	23.6	13.2	9
R.8CF	8	5.5	24.9	16.5	9
R.9CF	9	5.5	25.9	18.3	11
R.10CF	10	5.5	26.8	19.6	14
R.11CF	11	5.5	28.7	22.1	18
R.12CF	12	5.5	29.8	25.4	23
R.13CF	13	5.5	30.3	26.2	25
R.14CF	14	5.5	32.3	27.9	27

■ J.CF - 3/8" inch crowfoot open end bits



ASME B107.100

- Anti-slip design ensuring proper fitting on the fastener.
- Shaped to distribute the contact force over a larger surface.
- Suitable for use in confined spaces.
- Adapted to low torque uses.
- Inch sizes: from 3/8" to 3".
- Bright chrome finish.

➤	A ["]	E [mm]	L [mm]	L1 [mm]	ΔΔ [g]
J.3/8CF	3/8	8	32.3	23.4	27
J.7/16CF	7/16	8	33.1	23.4	29
J.1/2CF	1/2	8	35.8	27.9	32
J.9/16CF	9/16	8	40	31.5	35
J.5/8CF	5/8	8	42.1	34.3	41
J.11/16CF	11/16	8	47.5	39.1	45
J.3/4CF	3/4	8	48.5	40.4	50
J.13/16CF	13/16	8	50	43.7	52
J.7/8CF	7/8	8	51.3	45.2	54
J.15/16CF	15/16	8	52.8	45.7	59
J.1PCF	1P	8	54.1	50.8	70
J.1P1/16CF	1P1/16	8	55.3	53.1	109
J.1P1/8CF	1P1/8	8	56	53.1	115
J.1P3/16CF	1P3/16	8	57.6	53.8	120
J.1P1/4CF	1P1/4	8	59.5	54.6	122
J.1P5/16CF	1P5/16	8	61.9	54.6	125
J.1P3/8CF	1P3/8	8	63.4	61	131
J.1P7/16CF	1P7/16	8	65.3	61	135
J.1P1/2CF	1P1/2	8	67.8	65.8	150
J.1P9/16CF	1P9/16	8	69.3	65.8	154
J.1P5/8CF	1P5/8	8	71.2	69.1	163
J.1P11/16CF	1P11/16	8	73.6	69.1	172
J.1P3/4CF	1P3/4	8	74.5	73.7	177
J.1P13/16CF	1P13/16	8	76.9	73.7	181
J.1P7/8CF	1P7/8	8	77.9	81.3	204
J.1P15/16CF	1P15/16	8	81.1	84.8	222
J.2PCF	2P	11.1	85.2	88.1	322
J.2P1/16CF	2P1/16	11.1	86.8	88.1	331
J.2P1/8CF	2P1/8	11.1	90	91.2	336
J.2P3/16CF	2P3/16	11.1	91.7	92.7	354
J.2P1/4CF	2P1/4	11.1	93.3	99.1	404
J.2P5/16CF	2P5/16	11.1	95	100.8	408
J.2P3/8CF	2P3/8	11.1	99.6	105.4	458
J.2P7/16CF	2P7/16	11.1	103.7	105.4	467
J.2P1/2CF	2P1/2	11.1	106.9	108.7	499
J.2P9/16CF	2P9/16	11.1	108.5	110.2	503
J.2P5/8CF	2P5/8	11.1	112.5	116.6	576
J.2P11/16CF	2P11/16	11.1	114.5	119.9	608
J.2P3/4CF	2P3/4	11.1	117.6	121.4	621
J.2P13/16CF	2P13/16	11.1	121.5	121.4	626
J.2P7/8CF	2P7/8	11.1	123.3	129.3	689
J.2P15/16CF	2P15/16	11.1	124.9	130.8	703
J.3PCF	3P	11.1	125.7	130.8	717

■ R.CF - 1/4" inch crowfoot open end bits



ASME B107.100

- Anti-slip design ensuring proper fitting on the fastener.
- Shaped to distribute the contact force over a larger surface.
- Suitable for use in confined spaces.
- Adapted to low torque uses.
- Inch sizes: from 1/4" to 9/16".
- Bright chrome finish.

➤	A ["]	E [mm]	L [mm]	L1 [mm]	ΔΔ [g]
R.1/4CF	1/4	5.5	23.1	13.5	9
R.5/16CF	5/16	5.5	24.8	16.5	14
R.3/8CF	3/8	5.5	26.4	19.8	16
R.7/16CF	7/16	5.5	28	22.1	18
R.1/2CF	1/2	5.5	29.6	26.2	23
R.9/16CF	9/16	5.5	31.2	28.4	25

■ J.CF - 3/8" metric crowfoot open end bits



ASME B107.100

- Anti-slip design ensuring proper fitting on the fastener.
- Shaped to distribute the contact force over a larger surface.
- Suitable for use in confined spaces.
- Adapted to low torque uses.
- Sizes in mm: from 8 to 32
- Bright chrome finish.

➤	A [mm]	E [mm]	L [mm]	L1 [mm]	ΔΔ [g]
J.8CF	8	8	33.8	22.9	20
J.9CF	9	8	33.6	22.9	22
J.10CF	10	8	34.2	23.6	25
J.11CF	11	8	34.8	23.6	32
J.12CF	12	8	37.4	27.9	35
J.13CF	13	8	37.9	27.9	37
J.14CF	14	8	38.5	30	40
J.15CF	15	8	41.1	34.3	45
J.16CF	16	8	42.2	34.3	49
J.17CF	17	8	43.6	35.8	54
J.18CF	18	8	48.9	40.9	59
J.19CF	19	8	49.5	40.9	61
J.20CF	20	8	52.5	40.9	63
J.21CF	21	8	53.4	43.9	65
J.22CF	22	8	56.3	43.9	68
J.23CF	23	8	59.4	51.3	75
J.24CF	24	8	60.7	51.3	80
J.27CF	27	8	59.8	51.3	90
J.30CF	30	8	62.4	54	100
J.32CF	32	8	61.8	54	110



CROWFOOT ACCESSORIES

▪ J.FL - 3/8" inch crowfoot box end bits



ASME B107.100

- Thin wall 12-point high head for better accessibility.
- Adapted to use in confined spaces inaccessible to ratchets and other wrenches.
- The hole in the drive bit secures the bit during use.
- Built to aeronautical specifications.
- Dimensions in inches: 5/8 to 1P1/16.
- Bright chrome finish.

🔧	A ["]	B [mm]	C [mm]	L [mm]	ΔΔ [g]
J.5/8FL	5/8	24.6	18.3	38	40
J.11/16FL	11/16	27	18.3	41	46
J.3/4FL	3/4	29.4	19.1	43	54
J.13/16FL	13/16	31.4	19.1	45	58
J.7/8FL	7/8	33.7	19.8	48	68
J.15/16FL	15/16	35.7	19.8	49	72
J.1PFL	1P	37.7	20.6	51	74
J.1P1/16FL	1P1/16	39.7	20.6	53	83

▪ Case of 9 x 12 mm metric-size open end bits



Includes:

- 11 x 9x12 mm metric-size open end bits: 10.8 - 10 - 11 - 12 - 13 - 14 - 15 - 16 - 17 - 18 - 19 .
- Foam tray: PM.10J11.
- Empty case: BP.115.

🔧	L [mm]	ΔΔ [g]
10.J11	330	980

▪ Case of 9 x 12 mm inch-size open end bits



Includes:

- 9 x 9x12 mm inch-size open end bits: 10.1/4 - 5/16 - 3/8 - 7/16 - 1/2 - 9/16 - 5/8 - 11/16 - 3/4.
- Foam tray: PM.10J9U.
- Empty case: BP.115.

🔧	L [mm]	ΔΔ [g]
10.J9U	335	866

▪ Case of 14 x 18 mm metric-size open end bits



Includes:

- 11 x 9x12 mm metric-size open end bits: 11.13 - 14 - 15 - 16 - 17 - 18 - 19 - 21 - 22 - 23 - 24 .
- Foam tray: PM.11J11.
- Empty case: BP.109.

🔧	L [mm]	ΔΔ [kg]
11.J11	480	2.5



Case of 14 x 18 mm inch-size open end bits



Includes:

- 8 x 9x12 mm inch-size open end bits: 11.1/2 - 9/16 - 5/8 - 11/16 - 3/4 - 13/16 - 7/8 - 15/16.
- Foam tray: PM.11J8U.
- Empty case: BP.112.

Icon	L [mm]	ΔΔ [kg]
11.J8U	385	1.6

Case of 9 x 12 mm metric-size polygon bits



Includes:

- 11 x 9x12 mm metric-size polygon bits: 12.8 - 10 - 11 - 12 - 13 - 14 - 15 - 16 - 17 - 18 - 19.
- Foam tray: PM.12J11.
- Empty case: BP.115.

Icon	L [mm]	ΔΔ [kg]
12.J11	330	1.0

Case of 9 x 12 mm inch-size polygon bits



Includes:

- 9 x 9x12 mm inch-size polygon bits: 12.1/4 - 5/16 - 3/8 - 7/16 - 1/2 - 9/16 - 5/8 - 11/16 - 3/4.
- Foam tray: PM.12J9U.
- Empty case: BP.115.

Icon	L [mm]	ΔΔ [g]
12.J9U	335	877

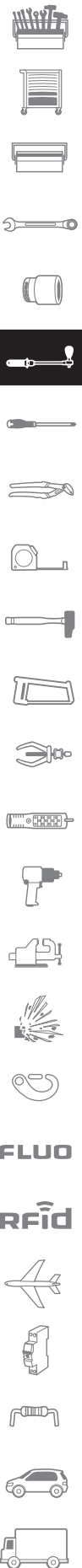
Case of 14 x 18 mm metric-size polygon bits



Includes:

- 10 x 9x12 mm metric-size polygon bits: 11.14 - 15 - 16 - 17 - 18 - 19 - 21 - 22 - 23 - 24.
- Foam tray: PM.13J10.
- Empty case: BP.112.

Icon	L [mm]	ΔΔ [kg]
13.J10	385	1.9



FLUO

RFid

SET OF ACCESSORIES

Case of 14 x 18 mm inch-size polygon bits



Includes:

- 8 x 9x12 mm inch-size polygon bits: 13.1/2 - 9/16 - 5/8 - 11/16 - 3/4 - 13/16 - 7/8 - 15/16.
- Foam tray: PM.13J8U.
- Empty case: BP.112.

FACOM	L [mm]	ΔΔ [kg]
<b>13.J8U</b>	385	1.6

Case of 1/4 crowfoot metric-size open end bits



Includes:

- 8 x 1/4 crowfoot metric-size open end bits: R.7CF - 8CF - 9CF - 10CF - 11CF - 12CF - 13CF - 14CF.
- Foam tray: PM.RJ8CF.
- Empty case: BP.102.

FACOM	L [mm]	ΔΔ [g]
<b>R.J8CF</b>	200	294

Case of 1/4 crowfoot inch-size open end bits



Includes:

- 6 x 1/4 crowfoot inch-size open end bits: R.1/4CF - 5/16CF - 3/8CF - 7/16CF - 1/2CF - 9/16CF.
- Foam tray: PM.RJ6CFU.
- Empty case: BP.102.

FACOM	L [mm]	ΔΔ [g]
<b>R.J6CFU</b>	200	264

Case of 3/8 crowfoot metric-size open end bits



Includes:

- 14 x 3/8 crowfoot metric-size open end bits: J.10CF - 11CF - 12CF - 13CF - 14CF - 15CF - 16CF - 17CF - 18CF - 19CF - 21CF - 22CF - 23CF - 24CF.
- Foam tray: PM.JJ14CF.
- Empty case: BP.112.

FACOM	L [mm]	ΔΔ [kg]
<b>J.J14CF</b>	385	1.4

Case of 3/8 crowfoot inch-size open end bits



Includes:

- 11 x 3/8 crowfoot inch-size open end bits: J.3/8CF - 7/16CF - 1/2CF - 9/16CF - 5/8CF - 11/16CF - 3/4CF - 13/16CF - 7/8CF - 15/16CF - 1PCF.
- Foam tray: PM.JJ11CFU.
- Empty case: BP.112.

Image	L [mm]	ΔΔ [kg]
J.J11CFU	385	1.2

Case of 3/8 piping crowfoot inch-size open end bits



Includes:

- 8 x 3/8 piping crowfoot inch-size open end bits: J.5/8FL - 11/16FL - 3/4FL - 13/16FL - 7/8FL - 15/16FL - 1PFL - 1P1/16FL.
- Foam tray: PM.JJ8FLU.
- Empty case: BP.115.

Image	L [mm]	ΔΔ [g]
J.J8FLU	335	915

Set of 9 1/4" to spline adpators



Includes:

- 11 metric-size open end bits: J.7SPR - 8 - 9 - 10 - 12 - 14 - 16 - 18 - 20.
- Foam tray: PM.JJ9SPR.
- Empty case: BP.115.

Image	L [mm]	ΔΔ [g]
J.J9SPR	327	970

Set of 7 1/4" to spline adpators



Includes:

- 7 x 3/8" inch-size open end bits: J.1/4R - 5/16 - 3/8 - 7/16 - 1/2 - 9/16 - 5/8.
- Foam tray: PM.JJ7RU.
- Empty case BP.102.

Image	L [mm]	ΔΔ [g]
J.J7RU	200	280



## ANGULAR TIGHTENING WRENCHES

## PROTRACTOR ATTACHMENTS



## Designed for cylinder-heads

FACOM offers a complete range of specially designed tools.

### Maximum visibility

- Choice of tapered drum with reverse laser marking. (DMP.360, DM.360L, D.360L) or flat drum with normal marking. (DM.360, DM.370) Set the drum to the value recommended by the manufacturer and stop at zero.

### Easier to attach

- Wide range of drum-locking accessories: Clamp, magnet, 3 limit stops (24, 45 and 65 mm).

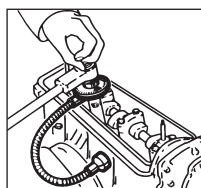
### Compliance with manufacturer's recommendations

- It is essential to apply the manufacturer's recommended cylinder head torques.
- Tightening to the correct torque with a suitable torque wrench.
- Correct torquing sequence and turn angle.

### DM - Angular tightening gauges



- Magnetic attached angle gauge for cylinder heads.
- Allows accurate measurement of angle following tightening with a torque wrench.
- Flat drum with top reading.
- Drum positioning on the value recommended by the manufacturer, then tightening to zero.
- Graduations: 2°.
- Male and female square drive.
- Fixed point by flexible with magnet.



	d [mm]	L [mm]	Square [°]	ΔΔ [g]
<b>DM.360</b>	63	410	1/2	350
<b>DM.370</b>	73	430	3/4	550

TORQUE CONTROLLER

# Easy torque control for all!

E.2000

## Simple and fast

- Easy to use device with minimum settings to avoid errors.
- For testing wrenches before use.

## Safe

- No risk of bad reading by the operator: limit value and tolerance can be preset, indication by orange, green, red LED.
- RS232 output for traceability.



## Wide torque range

- 3 devices covering a wide torque range from 2 to 1000 Nm.



### E.2000 - Torque controllers

- Accuracy:  $\pm 1\%$ ,  $\pm 1$  digit.
- Measuring unit: N.m, lbf.ft, lbf.in.
- Measuring mode: monitor, edge and peak.
- Possible presetting of a limit value and tolerance with orange, green, red LED indicator.
- RS232 PC link.
- Dimensions (L. x W. x H.): 150 x 150 x 90 mm.
- Supplied with a calibration certificate.



FACOM	L [mm]	Capacity [N.m]	Square	Square ["]	$\Delta\Delta$ [kg]
E.2000-50	150	2 - 50	-	3/8"	2.6
E.2000-350	150	10 - 350	-	1/2"	2.6
E.2000-1000	150	100 - 1000	27	-	4.6



## TORQUE CALIBRATION EQUIPMENT

In order to maintain accuracy and correct operation, ISO 6789 requires that all torque tools are calibrated either every 12 months or 5,000 cycles, whichever is sooner.

**FACOMs solution allows users to take control : check and manage your fleet of assets with our powerful ISO compliant modular solution for torque calibration that comprises our custom developed software and precision sensors – add the CD.12A bench for ultimate accuracy.**

### FACOM Calibration Software

- FACOMs unique custom written software allows checking calibration of torque wrenches to ISO 6789.
- Use in manual mode for Peak, Track and Hold checks.
- Guided measure intuitively steps users through a full calibration from check to certification. Either follow the pre-loaded ISO routines or use the drag and drop interface to create a custom procedure to manage your tool database.
- Requires Windows OS, and an E.6000 sensor connected to a USB port.

Download free from [www.facom.com](http://www.facom.com)



### E.6000 Sensors

- USB connected sensors for use with FACOM torque calibration software. Engineered to tight tolerances and individually calibrated, these provide high precision and accuracy to ensure ISO 6789 compliant accuracy < 1% across full range – see table.
- Full range of sensors from 0.04 to 1000Nm
- Our wide range sensor covers from 10-1000Nm in a single unit.

### FACOM Calibration Bench

- ISO 6789 calls for wrenches to be held horizontally and the load to be applied within given time constraints. This bench provides accuracy and repeatability when testing and certifying, to ensure a quality "click".
- A 1200:1 ratio gearbox allows precise manual control of the applied torque, allowing users to comply with the speed requirements from ISO6789
- For use with the E.6000 sensors, the CD.12A is robust and durable. The adjustable loading pin ensures positional accuracy, while the 1200:1 gearbox aids precision during load application.



SKU	Description	Range (N.m)		Accuracy	
		LOW	HIGH	1%	0,50%
<b>E.6000-C1000</b>	High range sensor 10 to 1000 Nm	10	1000	10-99	100-1000
<b>E.6000-C400</b>	Sensor 20 to 400 Nm	20	400	20-39	40-400
<b>E.6000-C50</b>	Sensor 5 to 50 Nm	5	50	N/A	5-50
<b>E.6000-C30</b>	Sensor 1 to 30 Nm	1	30	1-2	3-30

**Torque Calibration Bench**

- Secure and stable fixture to ensure accuracy for calibration to ISO 6789.
- Calibrate wrenches up to 1000N.m capacity.
- Adjustable to ensure precise horizontal location.
- 1200:1 gearbox for precise and controlled loading within prescribed time limits.
- For use with FACOM E.6000 series calibration sensors.



Capacity [N.m]	ΔΔ [g]
<b>CD.12A</b>	1000 1250

**Torque Calibration Sensors**

- Modular system up to 1000 N.m capacity.
- Accuracy exceeds ± 1% in line with ISO 6789.
- Less than 0.5% from 10-100% of the range.
- For use stand alone or with CD12.A calibration bench.
- 2 sets of mounting holes : horizontal or vertical.
- Requires FACOM control software to be installed on a Windows PC with a spare USB port.
- USB connection to host required for data and power.
- Included square drive adaptors accommodate all drive sizes.
- Supplied in a durable blow moulded storage case, with a calibration certificate.



Capacity [N.m]	Square	ΔΔ [kg]	
<b>E.6000-C08</b>	0.04-1	-	0.8
<b>E.6000-C5</b>	0.5-5	-	0.8
<b>E.6000-C30</b>	1-30	1/4"	1
<b>E.6000-C50</b>	5-50	3/8"	1
<b>E.6000-C400</b>	20-400	1/2"	1
<b>E.6000-C1000</b>	10-1000	3/4"	2.5

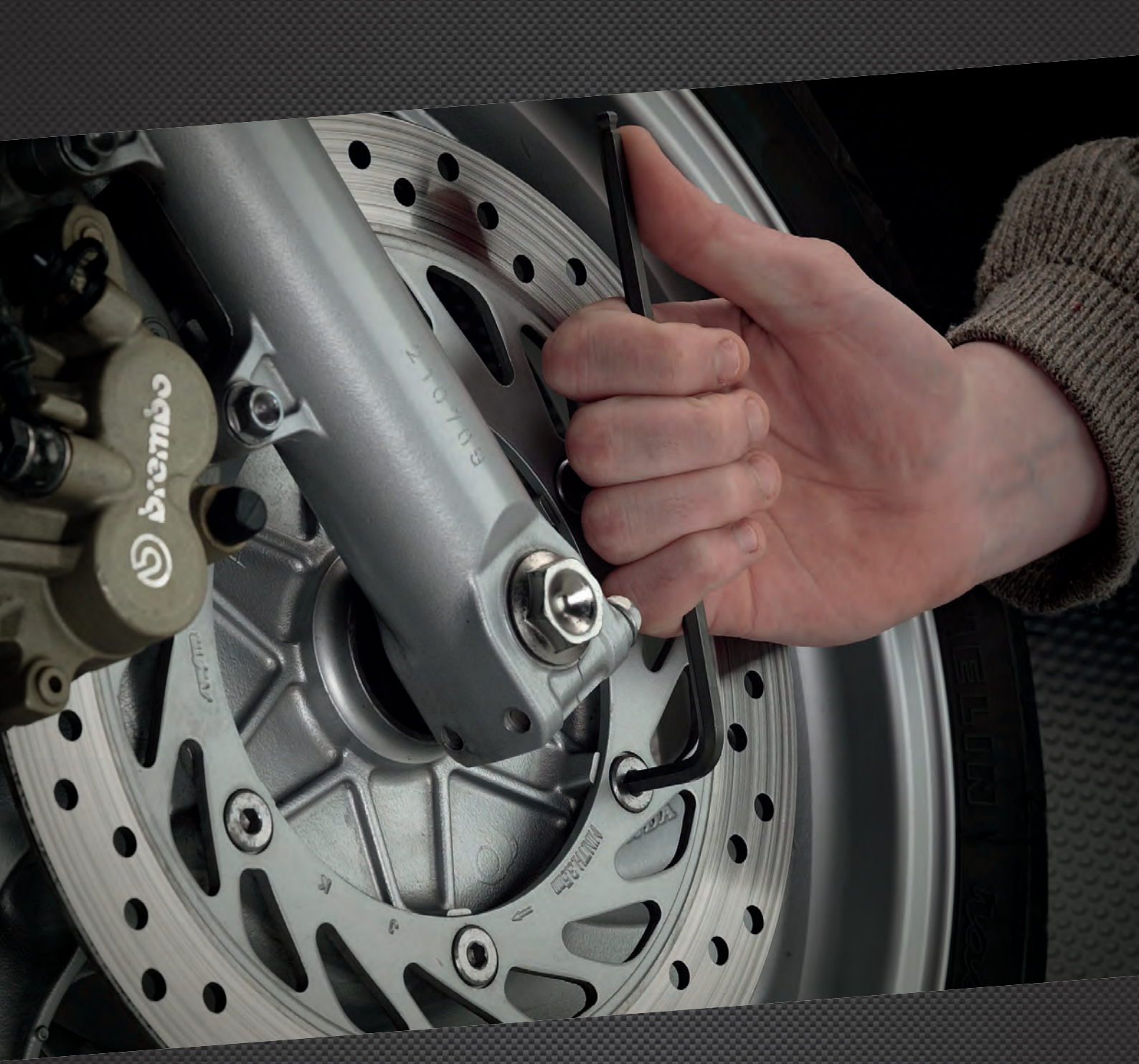
**CDS - Screwdriver torque meters**

- Accuracy: +/- 2% of the read value, between 20% and 100% of the maximum capacity.
- Numbered delivery device with calibration certificate.
- Large dial follower and dial for easy and error-free reading.
- Dimensions: 250 x 150 x 100 mm.
- Delivered with 2 squares.



Capacity [cN.m]	Capacity [lbf.in]	F Square	Male Square	Graduation [Cn.m]	Graduation [lbf.in]	Graduation [N.m]	
<b>CDS.1</b>	7 -> 35	-	1/4"	1/4"	0.5	-	-
<b>CDS.2</b>	26 -> 130	-	1/4"	1/4"	2	-	-
<b>CDS.3</b>	0,8 -> 4	7 -> 36	1/4"	1/4"	-	0.5	0.05
<b>CDS.4</b>	2,4 -> 12	24 -> 120	1/4" - 3/8"	-	-	2	0.2





# SCREWDRIVERS - KEYS - BITS





## SCREWDRIVERS

**416**

PROTWIST® screwdrivers sets and modules	418
PROTWIST® screwdrivers for slotted head screws	419
PROTWIST® screwdrivers for Phillips® screws	422
PROTWIST® screwdrivers for Pozidriv® screws	423
PROTWIST® screwdrivers for square head screws	424
PROTWIST® screwdrivers for Torx® and Resistorx® screws	424
PROTWIST® stainless steel screwdrivers	426
PROTWIST® SHOCK screwdrivers	428
PROTWIST® 1,000 Volt insulated screwdrivers sets and modules	430
PROTWIST® 1,000 Volt insulated screwdrivers	431
PROTWIST® BORNEO® screwdrivers for electrical terminals	433
ISORYL screwdrivers for slotted head screws	434
ISORYL screwdrivers for Phillips® screws	435
ISORYL screwdrivers for Pozidriv® screws	436
Sets of wood handle screwdrivers	436
Wood handle screwdrivers for slotted head screws	437
Wood handle screwdrivers for cross-headed screws	437
Multiblade screwdrivers	438
Bit-holding screwdrivers	441
Voltage-tester screwdrivers	442
Magnetiser - Demagnetiser	442
Screw holder	443
Angled screwdrivers	444



## KEYS

**444**

Key sets in bag	444
Key ringsets	445
Key sets in bag	445
Wallet of keys	447
Sleeve-sets of keys	448
Hexagon keys	449
Stainless steel hexagon keys	451
Torx® hexagon keys	452
Spinner keys - P spinner keys	453
Special profile keys	457



## SCREW BITS

**458**

Standard bits series 0 - drive 4 mm	459
Standard bits series 1 - 1/4" - 6.35 mm drive	460
Sets of standard series 1 bits + bit holder in bag - 1/4" - 6.35 mm drive	464
Modules of standard series 1 bits - 1/4" - 6.35 mm drive	466
High power bits series 1 - 1/4" - 6.35 mm drive	466
High power Titanium bits series 1 - 1/4" - 6.35 mm drive	468
Standard bits series 2 - 5/16" - 7.94 mm drive	469
Standard bits series 6 - 1/4" - 6.35 mm grooved drive	471
Sets of high power series 6 bits - 1/4" - 6.35 mm grooved drive	473
Bit holders and accessories for manual screwing	474
Bit holders and accessories for non impact powered screwing	475
Series 2 impact bits - 5/16" - 7.94 mm drive	476
Impact bits series 3 - 1/2" drive - 12,7 mm	478
Impact bits sets	479
3/8" drive series impact screwdriver	480
1/2" drive series impact screwdriver	481


**FLUO**
**RFid**


HIGH PERFORMANCE SCREWDRIVERS

**PROTWIST®** Next generation  
**+100% Longer tip life\*.**  
**More comfort.**



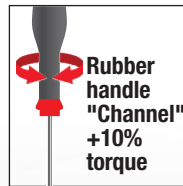
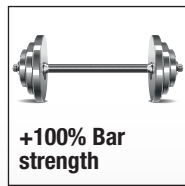
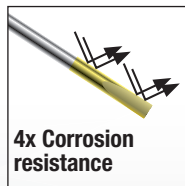
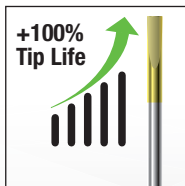
**New handle "Channel"**  
+10% Torque

**Laser marking**  
Virtually permanent marking

**New improved handle material**  
Softer and chemical resistant

**New inline hardening**  
+100% Bar strength\*

**Blade "tri-coating" treatment (Zinc-Nickel-Chromium)**  
4x Corrosion resistance\*

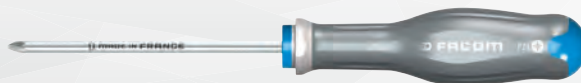


Chemical resistant  
Softer grade

**SPECIFIC RANGES**



**SHOCK**



**STAINLESS**



**1000 VOLTS**  
IN 6900



**RFID FLUO**

\*Versus current FACOM Protwist

CHOOSING THE RIGHT SCREWDRIVER FOR YOUR NEEDS

<b>Model</b>	<b>PROTWIST</b>	<b>POWER</b>	<b>SHOCK</b>	<b>STAINLESS</b>	<b>INSULATED</b>	<b>TETHERED SLS</b>	<b>RFID</b>	<b>FLUO</b>
	AT	ATWH	ATW.CK	AT.ST	AT.VE	AT.SLS	AT.RFID	AT.F
	1. Stubby 2. Standard 3. Long Reach	1. Standard	1. Standard	1. Standard	1. Standard	1. Standard	1. Stubby 2. Standard 3. Long Reach	1. Stubby 2. Standard 3. Long Reach
	2.5mm-12mm	5.5mm-14mm	4mm-14mm	4mm-8mm	2.5mm-12mm SLIM 3.5-6.5mm	2mm-10mm	2mm-10mm	2.5mm-10mm
	0-4	1-4	1-3	1-2	0-4 SLIM 1-2	1-2	0-3	0-3
	0-4	1-4	1-3	1-2	0-3 SLIM 1-2	1-3	0-3	2
	1-3	-	-	-	-	-	-	-
	6-40	-	-	10-40	-	-	10-40	15-20
	10-40	-	-	-	-	-	-	-
	5-40	-	-	-	-	-	-	-
	10-40	-	-	-	-	-	-	-
	-	-	-	-	1-2 PH/1-2 PZ SLIM 1-2 PH/1-2 PZ	-	-	-
	-	-	-	-	-	-	2-8	3-4-5
	-	-	-	-	-	-	PZ1-2. PH1-2 Slotted 2-8	PZ1-2. PH1-2 Slotted 2.5-5.5

<b>Model</b>							
<b>Key market</b>	IA/PRO	IA/PRO	Heavy duty. AutoPro Construction	Food/Marine Aerospace	Electrical	Work at height/mobile contractors	Aerospace
<b>Position</b>	Intensive Long life	Ultimate torque	Unbreakable	No FOD/hygiene	Live work	Tool security	Tool detection
<b>Key feature</b>	New CNC milling* New heat treatment Optimised bar materials	Hex blade and bolster	Through tang impact start	Stainless steel	Fully insulated 1000 volts VDE Slim profile	Tethered	Fluo
<b>Key benefit</b>	+100% Tip life	High torque = harder screwing	Screw release	Rust resistance	Electrical safe Narrow access	No risk of falling tools	High visibility

\*Computer Numerical Control.



PROTWIST® SCREWDRIVERS SETS AND MODULES

PROTWIST® screwdrivers sets



- Inline hardening process
  - +100% tip life and +100% bar strength.
- Handle material
  - softer for more comfort and still remove
  - chemical resistant.
- 4x corrosion resistance.
- Handle "channel" - +10% torque.
- Laser marking - gives virtually permanent marking.
- CNC tip machining - gives better screw fit increasing torque transfer and reducing wear.



➤	Content set	Qty	ΔΔ [g]
<b>ATD.J5</b>	ATD0X75 - ATD1X100 - ATD2X125 - ATD3X150 - ATD4X200	5	750
<b>ATP.J5</b>	ATP0X75 - ATP1X100 - ATP2X125 - ATP3X150 - ATP4X200	5	750
<b>ATX.J6</b>	ATX10X75 - ATX15X75 - ATX20X100 - ATX25X100 - ATX30X125 - ATX40X150	6	680
<b>ATXP.J6</b>	ATXP10X75 - ATXP15X75 - ATXP20X100 - ATXP25X100 - ATXP30X125 - ATXP40X150	6	680
<b>ATXR.J5</b>	ATXR10X75 - ATXR15X75 - ATXR20X100 - ATXR25X100 - ATXR30X125	5	510
<b>ATXRP.J5</b>	ATXRP10X75 - ATXRP15X75 - ATXRP20X100 - ATXRP25X100 - ATXRP30X125	5	450
<b>ATP.J6</b>	AT3,5X75 - AT4X100 - AT5,5X150 - AT6,5X150 - ATP1X100 - ATP2X125	6	590
<b>ATD.J6</b>	AT3,5X75 - AT4X100 - AT5,5X150 - AT6,5X150 - ATD1X100 - ATD2X125	6	600
<b>AT.J10</b>	AT3,5X75 - AT4X100 - AT5,5X150 - ATF6,5X150 - ATWH8X150 - ATWH10X200 - ATP1X100 - ATP2X125 - ATD1X100 - ATD2X125	10	1190
<b>ATWP.J6</b>	AT4X100 - AT5,5X150 - ATWH6,5X150 - ATWH8X200 - ATWPH1X100 - ATWPH2X125	6	720
<b>ATWH.J13</b>	AT3,5X75 - AT4X100 - AT5,5X100 - ATWH6,5X150 - AWH8X150 - AWH10X200 - AT4X25 - AT6,5X35 - ATP1X100 - ATP2X125 - ATP2X35 - ATD1X100 - ATD2X125	13	1400

Screwdriver rack



- Store up to 6 screwdrivers.
- Any size.
- Safe storage with no risk of damage.



➤	H [mm]	L [mm]	ΔΔ [g]
<b>CKS.08A</b>	38	238	40

Thermo-formed PROTWIST® screwdriver module



**XL**

- Drawer tool storage for safety and productivity.
- Tool storage organised in the drawers.
- Thermo-formed pressed polystyrene module.



➤	H [mm]	L [mm]	Tray	Qty	ΔΔ [g]
<b>MOD.AT1</b>	40	418	PL.325	8	985
<b>MOD.AT3</b>	40	418	PL.326	8	785
<b>MOD.ATX</b>	40	418	PL.327	7	840
<b>MOD.ATXR</b>	40	418	PL.327	7	840
<b>MOD.AT2</b>	40	418	PL.631	8	750
<b>MOD.AT4</b>	40	418	PL.676	9	995
<b>MOD.AT5</b>	40	418	PL.677	10	900
<b>MOD.AT6</b>	40	418	PL.678	10	900
<b>MOD.AT7</b>	40	418	PL.325	8	1000

Foam PROTWIST® screwdriver module



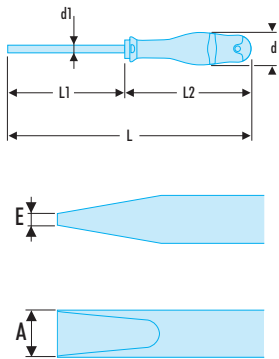
- Tool storage organised in the drawers = productivity, comfort and safety.
- Dual colour high density foam:
  - Instant tool availability check.
  - Resistant to crushing, hydrocarbons, hydraulic fluids and detergents.
- Easy grip thanks to finger holes.
- Optimised tool holding during transport.



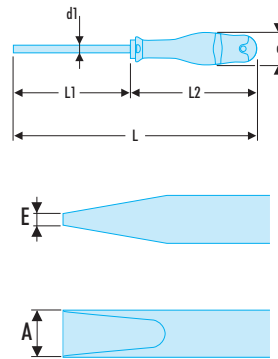
➤	H [mm]	L [mm]	Tray	Qty	ΔΔ [g]
<b>MODM.AT1</b>	45	418	PM.MODAT1	8	900
<b>MODM.AT3</b>	45	418	PM.MODAT3	9	763
<b>MODM.ATXR</b>	45	418	PM.MODATXR	7	763
<b>MODM.AT2</b>	45	418	PM.MODAT2	8	900
<b>MODM.AT4</b>	45	418	PM.MODAT4	9	900
<b>MODM.AT5</b>	45	418	PM.MODAT5	10	900
<b>MODM.AT6</b>	45	418	PM.MODAT6	10	900

PROTWIST® SCREWDRIVERS FOR SLOTTED HEAD SCREWS

■ AT - PROTWIST® screwdrivers for slotted head screws - milled blades



■ ATF - PROTWIST® screwdrivers for slotted head screws - forged blades



NF ISO 2380-1, NF ISO 2380-2, ISO 2380-1, ISO 2380-2, DIN ISO 2380-1, DIN ISO 2380-2, ASME B107.600

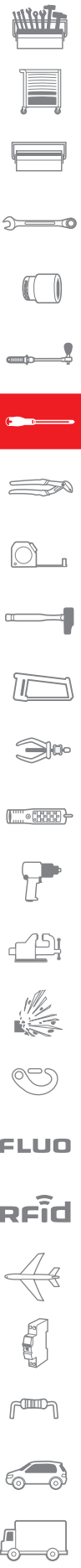
- Round shank for access in holes.
- Extra-long shank up to 300 mm for difficult and remote access.
- Inline hardening process - +100% tip life and +100% bar strength
- Handle material - softer for more comfort and still chemical resistant.
- Blade "tri-coating" treatment (Zinc-Nickel-Chromium) - 4x Corrosion Resistance.
- Handle "Channel" - +10% torque.
- Laser Marking - gives virtually permanent marking.
- CNC tip machining - gives better screw fit increasing torque transfer and reducing wear.

Model	A [mm]	d [mm]	d1 x L1 [mm]	E [mm]	L [mm]	L2 [mm]	ΔΔ [g]
AT2X75	2,0	19	2,0 x 75	0,4	169	94	18
AT2.5X50	2,5	19	2,5 x 50	0,4	144	94	20
AT2.5X75	2,5	19	2,5 x 75	0,4	169	94	21
AT3X75	3,0	19	3,0 x 75	0,5	178	94	32
AT3X100	3,0	19	3,0 x 100	0,5	203	94	33
AT3.5X75	3,5	25	3,5 x 75	0,6	178	103	41
AT3.5X100	3,5	25	3,5 x 100	0,6	203	103	43
AT3.5X250	3,5	25	3,5 x 250	0,6	353	103	55
AT4X100	4,0	25	4,0 x 100	0,8	209	103	47
AT4X150	4,0	25	4,0 x 150	0,8	259	103	52
AT4X200	4,0	25	4,0 x 200	0,8	309	103	57
AT4X300	4,0	25	4,0 x 300	0,8	409	103	120
AT5.5X100	5,5	30	5,5 x 100	1,0	209	109	82
AT5.5X125	5,5	30	5,5 x 125	1,0	234	109	87
AT5.5X150	5,5	30	5,5 x 150	1,0	259	109	91
AT5.5X200	5,5	30	5,5 x 200	1,0	309	109	105
AT5.5X300	5,5	30	5,5 x 300	1,0	409	109	130
AT6.5X125	6,5	36	6,5 x 125	1,2	245	120	132
AT6.5X150	6,5	36	6,5 x 150	1,2	270	120	140
AT6.5X200	6,5	36	6,5 x 200	1,2	320	120	153
AT6.5X300	6,5	36	6,5 x 300	1,2	420	120	180

NF ISO 2380-1, NF ISO 2380-2, ISO 2380-1, ISO 2380-2, DIN ISO 2380-1, DIN ISO 2380-2, ASME B107.600

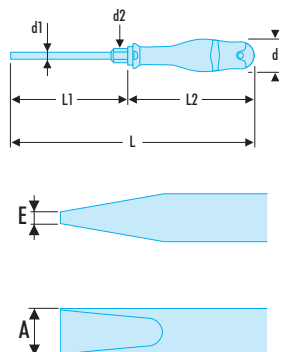
- Forged blade with excellent tip fibre for high torsion strength.
- Extra-long shank up to 250 mm for difficult and remote access.
- Inline hardening process - +100% tip life and +100% bar strength.
- Handle material - softer for more comfort and still chemical resistant.
- Blade "tri-coating" treatment (Zinc-Nickel-Chromium) - 4x Corrosion Resistance.
- Handle "Channel" - +10% torque.
- Laser Marking - gives virtually permanent marking.
- CNC tip machining - gives better screw fit increasing torque transfer and reducing wear.

Model	A [mm]	d [mm]	d1 x L1 [mm]	E [mm]	L [mm]	L2 [mm]	ΔΔ [g]
ATF5.5X100	5,5	30	5,5 x 100	1,0	209	109	76
ATF5.5X150	5,5	30	5,5 x 150	1,0	259	109	84
ATF6.5X100	6,5	36	6,0 x 100	1,2	220	120	120
ATF6.5X150	6,5	36	6,0 x 150	1,2	270	120	131
ATF8X150	8,0	40	7,0 x 150	1,2	275	125	149
ATF8X200	8,0	40	7,0 x 200	1,2	325	125	164
ATF10X200	10,0	40	9,0 x 200	1,6	325	125	214
ATF10X250	10,0	40	9,0 x 250	1,6	375	125	268



PROTWIST® SCREWDRIVERS FOR SLOTTED HEAD SCREWS

■ ATWH - PROTWIST® screwdrivers for slotted head screws - POWER series

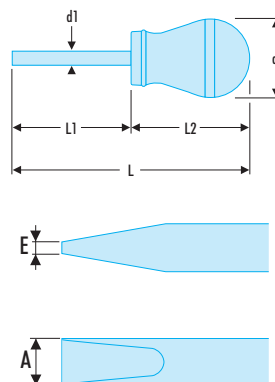


NF ISO 2380-1, NF ISO 2380-2, ISO 2380-1, ISO 2380-2, DIN ISO 2380-1, DIN ISO 2380-2, ASME B107.600

- Hexagonal blade with shoulder to take a wrench.
- Extra-long shank up to 250 mm for difficult and remote access.
- Inline hardening process - +100% tip life and +100% bar strength.
- Handle material - softer for more comfort and still chemical resistant.
- Blade "tri-coating" treatment (Zinc-Nickel-Chromium) - 4x corrosion resistance.
- Handle "Channel" - +10% torque.
- laser marking - gives virtually permanent marking.
- CNC tip machining - gives better screw fit increasing torque transfer and reducing wear.

ED	A [mm]	d [mm]	d1 x L1 [mm]	d2 [mm]	E [mm]	L [mm]	L2 [mm]	ΔΔ [g]
ATWH5.5X125	5,5	30	5 x 125	8	1,0	234	109	90
ATWH6.5X150	6,5	36	6 x 150	10	1,2	270	120	135
ATWH8X175	8,0	40	7 x 175	11	1,2	300	125	160
ATWH8EX175	8,0	40	8 x 175	12	1,6	300	125	220
ATWH10X175	10,0	40	9 x 175	14	1,6	300	125	320
ATWH12X200	12,0	40	10 x 200	14	2,0	325	125	350
ATWH12X250	12,0	40	10 x 250	14	2,0	375	125	375
ATWH14X250	14,0	40	12 x 250	16	2,5	375	125	450

■ AT - PROTWIST® screwdrivers for slotted head screws - short blades



NF ISO 2380-1, NF ISO 2380-2, ISO 2380-1, ISO 2380-2, DIN ISO 2380-1, DIN ISO 2380-2, ASME B107.600

- Short round blade and ball handle for use in confined spaces.
- Inline Hardening Process - +100% Tip Life and +100% Bar Strength.
- Handle Material - Softer for more Comfort and still Chemical Resistant.
- Blade "tri-coating" treatment (Zinc-Nickel-Chromium) - 4x corrosion resistance.
- Handle "Channel" - +10% torque.
- Laser marking - gives virtually permanent marking.
- CNC tip machining - gives better screw fit increasing torque transfer and reducing wear.

ED	A [mm]	d [mm]	d1 x L1 [mm]	E [mm]	L [mm]	L2 [mm]	ΔΔ [g]
AT4X25	4,0	36	4,0 x 25	0,8	81	56	35
AT4X35	4,0	36	4,0 x 35	0,8	91	56	36
AT5.5X35	5,5	36	5,5 x 35	1,0	91	56	41
AT6.5X35	6,5	36	6,5 x 35	1,2	91	56	46

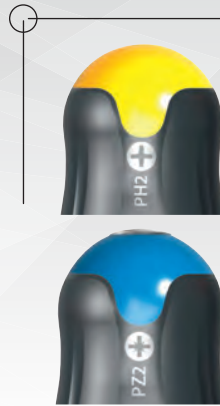
CHOOSING THE RIGHT SCREWDRIVER FOR CROSS-HEADS

Power - Durability - Quality



The two main cross-head types have very different profiles. Choosing the right screwdriver is crucial for:

- Extending tool life.
- Protecting screw patterns.
- Transmitting maximum torque without wear, particularly with difficult fasteners.

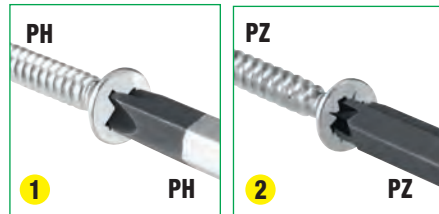


Each tip pattern has a different colour code to help you choose the right screwdriver.

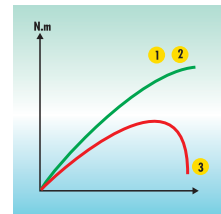
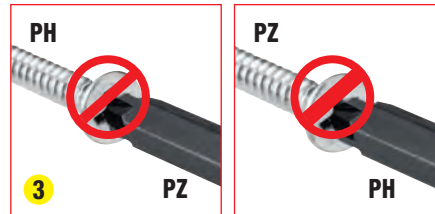
- Yellow for PHILLIPS® screwdrivers and blue for POZIDRIV® screwdrivers.
- A pictogram of the pattern is also shown on the colour coded end.

SMALL DIFFERENCES CAN HAVE A BIG EFFECT

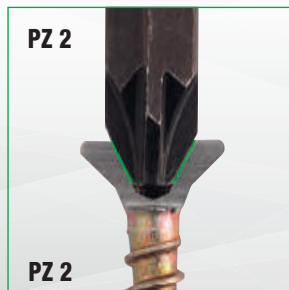
Correct patterns and sizes



Incorrect patterns or sizes



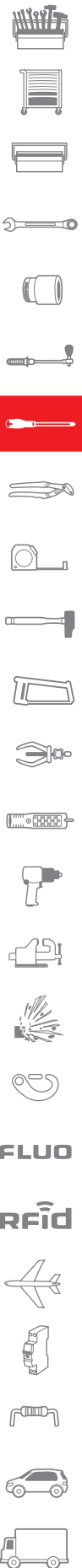
Screwdriver-to-fastener torque transmission.



Using the right screwdriver for the fastener optimises contact areas and transmits maximum torque.



Using the wrong screwdriver reduces contact areas, increases risk of wear or breakage (worn tips, broken fins) which can damage fasteners and assemblies, and may even cause injury.



FLUO

RFid

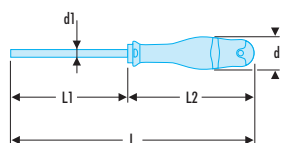
PROTWIST® SCREWDRIVERS FOR PHILLIPS® SCREWS

ATP - PROTWIST® screwdrivers for Phillips® screws - round blades



NF ISO 8764-1, NF ISO 8764-2, ISO 8764-1, ISO 8764-2, DIN ISO 8764-1, DIN ISO 8764-2, ASME B107.600

- Extra-long blade up to 400 mm for difficult and remote access.
- Inline hardening process - +100% tip life and +100% bar strength.
- Handle material - softer for more comfort and still chemical resistant.
- Blade "tri-coating" treatment (Zinc-Nickel-Chromium) - 4x corrosion resistance.
- Handle "Channel" - +10% torque.
- Laser marking - gives virtually permanent marking.
- CNC tip machining - gives better screw fit increasing torque transfer and reducing wear.



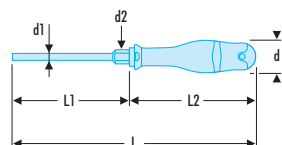
➤	d [mm]	d1 x L1 [mm]	L [mm]	L2 [mm]	Phillips [No]	ΔΔ [g]
ATP0X75	25	3,0 x 75	178	103	PH0	45
ATP1X75	30	4,5 x 75	184	109	PH1	73
ATP1X100	30	4,5 x 100	209	109	PH1	76
ATP1X250	30	4,5 x 250	359	109	PH1	99
ATP2X100	36	6,0 x 100	220	120	PH2	120
ATP2X125	36	6,0 x 125	245	120	PH2	126
ATP2X250	36	6,0 x 250	370	120	PH2	153
ATP2X400	36	6,0 x 400	520	120	PH2	186
ATP3X150	40	8,0 x 150	275	125	PH3	194
ATP4X200	40	10,0 x 200	325	125	PH4	277

ATWPH - PROTWIST® screwdrivers for Phillips® screws - POWER series



NF ISO 8764-1, NF ISO 8764-2, ISO 8764-1, ISO 8764-2, DIN ISO 8764-1, DIN ISO 8764-2, ASME B107.600

- Hexagonal blade with shoulder to take a wrench.
- Inline hardening process - +100% Tip Life and +100% bar strength.
- Handle Material - Softer for more Comfort and still Chemical Resistant.
- Blade "tri-coating" treatment (Zinc-Nickel-Chromium) - 4x corrosion resistance.
- Handle "Channel" - +10% torque.
- Laser marking - gives virtually permanent marking.
- CNC tip machining - gives better screw fit increasing torque transfer and reducing wear.



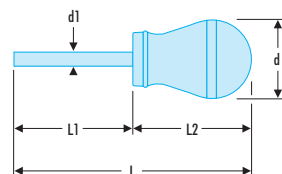
➤	d [mm]	d1 x L1 [mm]	d2 [mm]	L [mm]	L2 [mm]	Phillips [No]	ΔΔ [g]
ATWPH1X100	30	5 x 100	8	209	109	PH1	70
ATWPH2X125	36	6 x 125	10	245	120	PH2	130
ATWPH3X150	40	8 x 150	12	275	125	PH3	200
ATWPH4X200	40	10 x 200	14	325	125	PH4	280

ATP - PROTWIST® screwdrivers for Phillips® screws - short blades



NF ISO 8764-1, NF ISO 8764-2, ISO 8764-1, ISO 8764-2, DIN ISO 8764-1, DIN ISO 8764-2, ASME B107.600

- Short blade and ball handle for use in confined spaces.
- Inline hardening process - +100% tip life and +100% bar strength.
- Handle material - softer for more comfort and still chemical resistant.
- Blade "tri-coating" treatment (Zinc-Nickel-Chromium) - 4x Corrosion Resistance.
- Handle "Channel" - +10% torque.
- Laser Marking - gives virtually Permanent Marking.
- CNC tip machining - gives better Screw Fit increasing Torque Transfer and Reducing Wear.



➤	d [mm]	d1 x L1 [mm]	L [mm]	L2 [mm]	Phillips [No]	ΔΔ [g]
ATP1X25	36	4,5 x 25	81	56	PH1	38
ATP1X35	36	4,5 x 35	91	56	PH1	39
ATP2X35	36	6,0 x 35	91	56	PH2	44



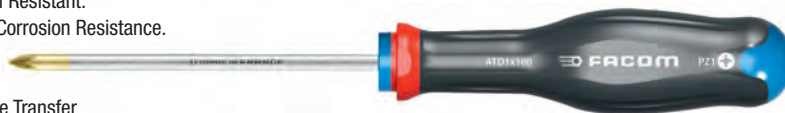
PROTWIST® SCREWDRIVERS FOR POZIDRIV® SCREWS

■ ATD - PROTWIST® screwdrivers for Pozidriv® screws - round blades

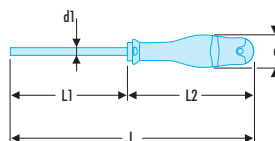


NF ISO 8764-1, NF ISO 8764-2, ISO 8764-1, ISO 8764-2, DIN ISO 8764-1, DIN ISO 8764-2, ASME B107.600

- Inline Hardening Process - +100% Tip Life and +100% Bar Strength.
- Handle Material - Softer for more Comfort and still Chemical Resistant.
- Blade "tri-coating" treatment (Zinc-Nickel-Chromium) - 4x Corrosion Resistance.
- Handle "Channel" - +10% Torque.
- Laser Marking - gives virtually Permanent Marking.
- CNC tip machining - gives better Screw Fit increasing Torque Transfer and Reducing Wear.



Model	d [mm]	d1 x L1 [mm]	L [mm]	L2 [mm]	Pozidriv [No]	ΔΔ [g]
ATD0X75	25	3,0 x 75	178	103	PZ0	45
ATD1X75	30	4,5 x 75	184	109	PZ1	73
ATD1X100	30	4,5 x 100	209	109	PZ1	76
ATD1X250	30	4,5 x 250	359	109	PZ1	99
ATD2X100	36	6,0 x 100	220	120	PZ2	120
ATD2X125	36	6,0 x 125	245	120	PZ2	126
ATD2X250	36	6,0 x 250	370	120	PZ2	153
ATD3X150	40	8,0 x 150	275	125	PZ3	194
ATD4X200	40	10,0 x 200	325	125	PZ4	277



■ ATWDH - PROTWIST® screwdrivers for Pozidriv® screws - POWER series

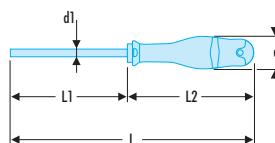


NF ISO 8764-1, NF ISO 8764-2, ISO 8764-1, ISO 8764-2, DIN ISO 8764-1, DIN ISO 8764-2, ASME B107.600

- Hexagonal blade with shoulder to take a wrench.
- Silicon carbon blade: strong and resistant to flexion.
- Bi-material grip resists to impacts, abrasion, and chemicals.
- Blade "tri-coating" treatment (Zinc-Nickel-Chromium) - 4x corrosion resistance.



Model	d [mm]	d1 x L1 [mm]	d2 [mm]	L [mm]	L2 [mm]	Pozidriv [No]	ΔΔ [g]
ATWDH1X100	30	5 x 100	8	209	109	PZ1	209
ATWDH2X125	36	6 x 125	10	245	120	PZ2	245
ATWDH3X150	40	8 x 150	12	275	125	PZ3	275
ATWDH4X200	40	10 x 200	14	325	125	PZ4	325



■ ATD - PROTWIST® screwdrivers for Pozidriv® screws - short blades

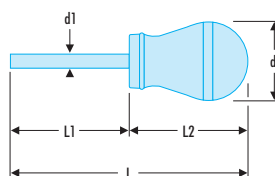


NF ISO 8764-1, NF ISO 8764-2, ISO 8764-1, ISO 8764-2, DIN ISO 8764-1, DIN ISO 8764-2, ASME B107.600

- Short round blade and ball handle for use in confined spaces.
- Inline hardening process - +100% tip life and +100% bar strength.
- Handle Material - Softer for more Comfort and still Chemical Resistant.
- Blade "tri-coating" treatment (Zinc-Nickel-Chromium) - 4x corrosion resistance.
- Handle "Channel" - +10% torque.
- Laser marking - gives virtually permanent marking.
- CNC tip machining - gives better screw fit increasing torque transfer and reducing wear.

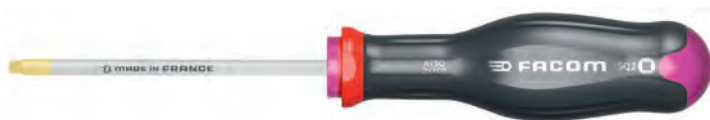


Model	d [mm]	d1 x L1 [mm]	L [mm]	L2 [mm]	Pozidriv [No]	ΔΔ [g]
ATD1X25	36	4,5 x 25	81	56	PZ1	38
ATD1X35	36	4,5 x 35	91	56	PZ1	40
ATD2X35	36	6,0 x 35	91	56	PZ2	45

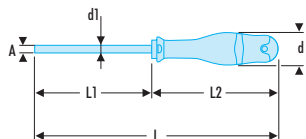


PROTWIST® SCREWDRIVERS FOR SQUARE HEAD SCREWS

■ ATSQ - PROTWIST® screwdrivers for Robertson® square head screws



- Inline hardening process  
- +100% tip life and +100% bar strength.
- Handle material  
- softer for more comfort and still chemical resistant.
- Blade "tri-coating" treatment (Zinc-Nickel-Chromium)  
- 4x corrosion resistance.
- Handle "Channel" - +10% torque.
- Laser marking - gives virtually permanent marking.
- CNC tip machining - gives better screw fit increasing torque transfer and reducing wear.



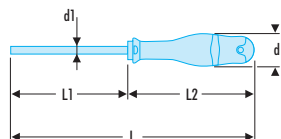
➤	A [mm]	d [mm]	d1 x L1 [mm]	L [mm]	L2 [mm]	Robertson [No]	ΔΔ [g]
<b>ATSQ1X75</b>	4	30	4 x 75	184	109	SQ1	73
<b>ATSQ2X100</b>	5	36	5 x 100	220	120	SQ2	120
<b>ATSQ3X125</b>	6	40	6 x 125	250	125	SQ3	185

PROTWIST® SCREWDRIVERS FOR TORX® AND RESISTORX® SCREWS

■ ATX - PROTWIST® screwdrivers for Torx® screws



- Compliant with Torx® specifications.
- Inline hardening process - +100% tip life and +100% bar strength.
- Handle Material - Softer for more Comfort and still Chemical Resistant.
- Blade "tri-coating" treatment (Zinc-Nickel-Chromium)  
- 4x Corrosion Resistance.
- Handle "Channel" - +10% torque.
- Laser marking - gives virtually permanent marking.
- CNC tip machining - gives better screw fit increasing torque transfer and reducing wear.

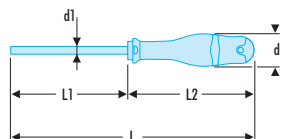


➤	A [mm]	d [mm]	d1 x L1 [mm]	L [mm]	L2 [mm]	Torx [No]	ΔΔ [g]
<b>ATX6X50</b>	1,65	19	2,5 x 50	144	94	T6	20
<b>ATX7X50</b>	1,97	19	2,5 x 50	144	94	T7	20
<b>ATX8X50</b>	2,30	26	2,5 x 50	153	103	T8	35
<b>ATX9X75</b>	2,48	25	3,0 x 75	178	103	T9	45
<b>ATX10X75</b>	2,74	30	3,0 x 75	184	109	T10	50
<b>ATX15X75</b>	3,26	30	3,5 x 75	184	109	T15	61
<b>ATX20X100</b>	3,84	36	4,0 x 100	220	120	T20	67
<b>ATX20X150</b>	3,84	36	4,0 x 150	270	120	T20	73
<b>ATX25X100</b>	4,40	36	5,0 x 100	220	120	T25	113
<b>ATX27X100</b>	4,96	36	5,5 x 100	220	120	T27	113
<b>ATX30X125</b>	5,49	36	6,0 x 125	245	120	T30	126
<b>ATX40X150</b>	6,60	40	7,0 x 150	275	125	T40	173

■ ATXP - PROTWIST® screwdrivers for Torx Plus® screws



- Compliant with Torx Plus® specifications.
- Inline Hardening Process  
- +100% Tip Life and +100% Bar Strength.
- Handle material - softer for more comfort and still chemical resistant.
- Blade "tri-coating" treatment (Zinc-Nickel-Chromium) - 4x corrosion resistance
- Handle "Channel" - +10% torque.
- Laser marking - gives virtually permanent marking.
- CNC tip machining - gives better screw fit increasing torque transfer and reducing wear.



➤	A [mm]	d [mm]	d1 x L1 [mm]	L [mm]	L2 [mm]	Resistorx [No]	ΔΔ [g]
<b>ATXP5X50</b>	1,42	19	2,5 x 50	144	95	IP5	20
<b>ATXP6X50</b>	1,65	19	2,5 x 50	144	95	IP6	20
<b>ATXP7X50</b>	1,97	19	2,5 x 50	144	95	IP7	20
<b>ATXP8X50</b>	2,30	25	2,5 x 50	153	103	IP8	35
<b>ATXP9X75</b>	2,48	25	3,0 x 75	178	103	IP9	45
<b>ATXP10X75</b>	2,74	30	3,0 x 75	184	109	IP10	50
<b>ATXP15X75</b>	3,26	30	3,5 x 75	184	110	IP15	61
<b>ATXP20X100</b>	3,84	36	4,0 x 100	220	120	IP20	67
<b>ATXP25X100</b>	4,40	36	5,0 x 100	220	120	IP25	113
<b>ATXP27X100</b>	4,96	36	5,5 x 100	220	120	IP27	113
<b>ATXP30X125</b>	5,49	36	6,0 x 125	245	120	IP30	126
<b>ATXP40X150</b>	6,60	40	7,0 x 150	275	125	IP40	173

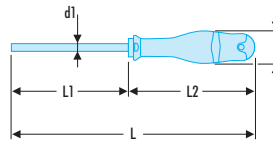
■ **ATXR - PROTWIST® screwdrivers for Resistorx® screws**



- Compliant with Resistorx® specifications.
- Inline hardening process - +100% tip life and +100% bar strength.
- Handle material - softer for more comfort and still chemical resistant.
- Blade "tri-coating" treatment (Zinc-Nickel-Chromium) - 4x corrosion resistance.
- Handle "Channel" - +10% torque.
- Laser marking - gives virtually permanent marking.
- CNC tip machining - gives better screw fit increasing torque transfer and reducing wear.



➤	A [mm]	d [mm]	d1 x L1 [mm]	L [mm]	L2 [mm]	Resistorx [No]	ΔΔ [g]
ATXR10X75	2,74	25	3,0 x 75	184	109	TT10	50
ATXR15X75	3,26	30	3,5 x 75	185	110	TT15	61
ATXR20X100	3,84	36	4,0 x 100	220	120	TT20	67
ATXR25X100	4,40	36	5,0 x 100	220	120	TT25	113
ATXR27X100	4,96	36	5,5 x 100	220	120	TT27	113
ATXR30X125	5,49	36	6,0 x 125	245	120	TT30	126
ATXR40X150	6,60	40	7,0 x 150	275	125	TT40	173



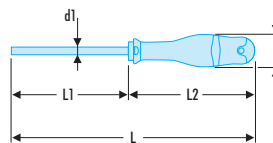
■ **ATXRP - PROTWIST® screwdrivers for Tamper Resistant Torx Plus® screws**



- Compliant with Tamper resistant Torx Plus® specifications.
- Inline hardening process - +100% tip life and +100% bar strength.
- Handle material - softer for more comfort and still chemical resistant.
- Blade "tri-coating" treatment (Zinc-Nickel-Chromium) - 4x corrosion resistance.
- Handle "Channel" - +10% torque.
- Laser Marking - gives virtually permanent marking.
- CNC tip machining - gives better screw fit increasing torque transfer and reducing wear.



➤	A [mm]	d [mm]	d1 x L1 [mm]	L [mm]	L2 [mm]	Resistorx [No]	ΔΔ [g]
ATXRP10X75	2,74	30	3,0 x 75	184	109	IPR10	50
ATXRP15X75	3,26	30	3,5 x 75	185	110	IPR15	61
ATXRP20X100	3,84	36	4,0 x 100	220	120	IPR20	67
ATXRP25X100	4,40	36	5,0 x 100	220	120	IPR25	113
ATXRP27X100	4,96	36	5,5 x 100	220	120	IPR27	113
ATXRP30X125	5,49	36	6,0 x 125	245	120	IPR30	126
ATXRP40X150	6,60	40	7,0 x 150	275	125	IPR40	173



■ **Set of 5 long shank Torx® screwdrivers**

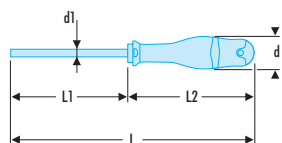


➤	Content set	Qty	ΔΔ [g]
ATX275.J5	T20 x 275 - T25 x 275 - T27 x 275 - T30 x 275 - T40 x 275 mm	5	800



PROTWIST® SCREWDRIVERS FOR TORX® AND RESISTORX® SCREWS

ATX275 - PROTWIST® screwdrivers for Torx® screws



- Compliant with Torx® specifications.
- Inline hardening process
  - +100% tip life and +100% bar strength.
- Handle material
  - Softer for more Comfort and still Chemical Resistant.
- Blade "tri-coating" treatment (Zinc-Nickel-Chromium)
  - 4x corrosion resistance.
- Handle "Channel" - +10% torque.
- Laser marking - gives virtually permanent marking.
- CNC tip machining - gives better screw fit increasing torque transfer and reducing wear.



Ref	A [mm]	d [mm]	d1 x L1 [mm]	L [mm]	L2 [mm]	Torx [No]	ΔΔ [g]
ATX20X275	3,84	36	4,9 x 275	395	120	T20	67
ATX25X275	4,40	36	5,0 X 275	395	120	T25	113
ATX27X275	4,96	36	5,5 X 275	395	120	T27	113
ATX30X275	5,49	36	6,0 X 275	395	120	T30	126
ATX40X275	6,60	40	7,0 X 275	400	125	T40	173

PROTWIST® STAINLESS STEEL SCREWDRIVERS

Applications for stainless steel tools



- Industries sensitive to contamination: agro-food, clean rooms, laboratories, medical facilities.
- Rust-prone outdoor environments: marine environments, buildings (door and window fasteners, terraces).



PROTWIST®

Only use stainless steel screwdrivers to preserve the antirust characteristics of a stainless steel screw

- Standard screwdrivers produce metal particles which rust and contaminate stainless steel fasteners.
- Using a stainless steel screwdriver is the only way to guarantee non-contamination of the fastener, and high resistance to corrosion.

Screwdrivers combining resistance to oxidation, strength and screwing comfort

- Protwist ergonomic grip overmoulded on stainless steel blade, chosen for its high range characteristics and submitted to a precise and controlled thermal treatment.

Stainless steel X46Cr13

- Also used for high range food grade cutlery, surgical tools, brake discs, etc.

Vacuum quenching

- Guarantees mechanical characteristics and resistance to corrosion.

Bacteriological tests passed after sterilisation in autoclave

- 20 min at 120°C, 1 bar over-pressure.



PROTWIST® STAINLESS STEEL SCREWDRIVERS

Set of 6 PROTWIST® stainless steel screwdrivers N°1



- High corrosion resistance of stainless steel tools ensures a longer lifetime in environments prone to rust.
- The stainless steel blade Ref X46Cr13 is used in top range food cutlery, surgical tools, brake discs.
- Bi-material grip resists to impacts, abrasion, and chemicals.

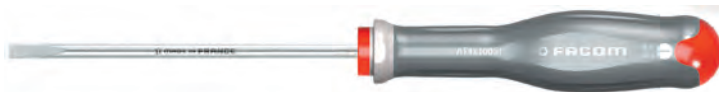


Ref	Content set	Qty	ΔΔ [g]
ATDST.J6	AT4X100ST - AT5.5X100ST - ATF6.5X150ST - ATF8X175ST - ATD1X100ST - ATD2X125ST	6	620
ATPST.J6	AT4X100ST - AT5.5X100ST - ATF6.5150ST - ATF8X175ST - ATP1X100ST - ATP2X125ST	6	620

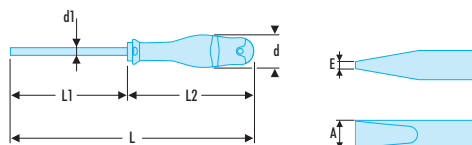
■ **AT.ST - ATF.ST - PROTWIST® stainless steel screwdrivers for slotted head screws**

NF ISO 2380-1, NF ISO 2380-2, ISO 2380-1, ISO 2380-2, DIN ISO 2380-1, DIN ISO 2380-2, ASME B107.600

- High corrosion resistance of stainless steel tools ensures a longer lifetime in environments prone to rust.
- The stainless steel blade Ref X46Cr13 is used in top range food cutlery, surgical tools, brake discs.
- Bi-material grip resists to impacts, abrasion, and chemicals.



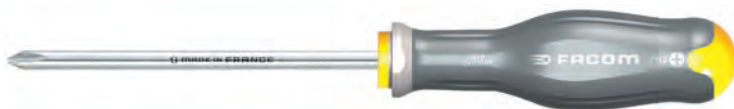
Ref	A [mm]	d [mm]	d1 x L1 [mm]	E [mm]	L [mm]	L2 [mm]	ΔΔ [g]
AT4X100ST	4,0	30	4,0 x 100	0,8	209	109	47
AT5.5X100ST	5,5	30	5,5 x 100	1,0	210	110	82
ATF6.5X150ST	6,5	36	6,5 x 150	1,2	270	120	153
ATF8X175ST	8,0	36	6,5 x 175	1,2	420	120	180



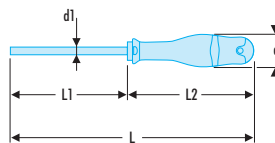
■ **ATP.ST - PROTWIST® stainless steel screwdrivers for Phillips® screws**

NF ISO 8764-1, NF ISO 8764-2, ISO 8764-1, ISO 8764-2, DIN ISO 8764-1, DIN ISO 8764-2, ASME B107.600

- High corrosion resistance of stainless steel tools ensures a longer lifetime in environments prone to rust.
- The stainless steel blade Ref X46Cr13 is used in top range food cutlery, surgical tools, brake discs.
- Bi-material grip resists to impacts, abrasion, and chemicals.



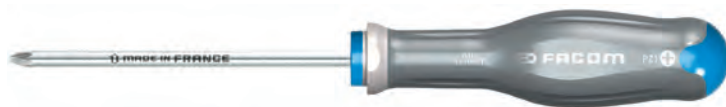
Ref	d [mm]	d1 x L1 [mm]	L [mm]	L2 [mm]	Phillips [No]	ΔΔ [g]
ATP1X100ST	30	4,5 x 100	209	109	PH1	76
ATP2X125ST	36	6,0 x 125	245	120	PH2	126



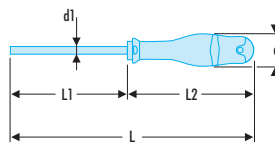
■ **ATD.ST - PROTWIST® stainless steel screwdrivers for Pozidriv® screws**

NF ISO 8764-1, NF ISO 8764-2, ISO 8764-1, ISO 8764-2, DIN ISO 8764-1, DIN ISO 8764-2, ASME B107.600

- High corrosion resistance of stainless steel tools ensures a longer lifetime in environments prone to rust.
- The stainless steel blade Ref X46Cr13 is used in top range food cutlery, surgical tools, brake discs.
- Bi-material grip resists to impacts, abrasion, and chemicals.



Ref	d [mm]	d1 x L1 [mm]	L [mm]	L2 [mm]	Pozidriv [No]	ΔΔ [g]
ATD1X100ST	30	4,5 x 100	209	109	PZ1	76
ATD2X125ST	36	6,0 x 125	245	120	PZ2	126

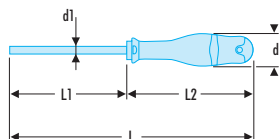


PROTWIST® STAINLESS STEEL SCREWDRIVERS

ATX.ST - PROTWIST® stainless steel for Torx® screws



- High corrosion resistance of stainless steel tools ensures a longer lifetime in environments prone to rust.
- The stainless steel blade Ref X46Cr13 is used in top range food cutlery, surgical tools, brake discs.
- Bi-material grip resists to impacts, abrasion, and chemicals.



	d [mm]	d1 x L1 [mm]	L [mm]	L2 [mm]	Torx [No]	ΔΔ [g]
<b>ATX10X75ST</b>	30	3,0 x 75	184	109	T10	50
<b>ATX15X75ST</b>	30	3,5 x 75	184	109	T15	61
<b>ATX20X100ST</b>	36	4,0 x 100	220	120	T20	67
<b>ATX25X100ST</b>	36	5,0 x 100	220	120	T25	113
<b>ATX30X125ST</b>	36	6,0 x 125	245	120	T30	126
<b>ATX40X150ST</b>	40	7,0 x 150	275	125	T40	173

STAINLESS STEEL KEYS



Stainless steel keys: why?

- Very high resistance to oxidation:
  - No rust on the tool.
  - No fastener contamination.
- Non-coated treated stainless steel key:
  - No risk of flaking.
  - No loss of material.

For details of our complete range of stainless steel keys see p. 451



IMPACT ZONE SCREWDRIVER

Exceptional unlocking power



PROTWIST®

- The shockwave unlocks rusted fasteners for easier unfastening.
- Metal insert added.
- Optimum impact power transmission from the insert to the blade: metal insert associated with the modified polyamide core of the Protwist®.
- Major reduction of blow and vibrations in the hand upon impact: the blade and insert are not in direct contact, but separated by the polyamide.
- Positive grip: Protwist® ergonomic handle and soft material for efficient and comfortable grip.
- High strength: hexagonal blade in high alloy steel and insert to protect the impact zone.



PROTWIST® SHOCK SCREWDRIVERS

■ ATWH.CK - PROTWIST® SHOCK screwdrivers for slotted head screws

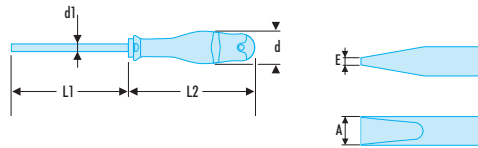


NF ISO 2380-1, NF ISO 2380-2, ISO 2380-1, ISO 2380-2, DIN ISO 2380-1, DIN ISO 2380-2, ASME B107.600

- Impact zone with steel strike - hexagonal blade with 73MO steel.
- Hexagonal blade with shoulder to take a wrench.
- Extra-long blade for use in confined spaces.
- Inline hardening process - +100% tip life and +100% bar strength.
- Handle material - softer for more comfort and still chemical resistant.
- Golden electroplated Tip - 4x corrosion resistance.
- Handle "Channel" - +10% torque.
- Laser marking - gives virtually permanent marking.
- CNC tip machining - gives better screw fit increasing torque transfer and reducing wear.



Model	A [mm]	d [mm]	d1 x L1 [mm]	E [mm]	L [mm]	L2 [mm]	ΔΔ [g]
ATW4X100CK	4,0	25	4,1 x 100	0,8	204	104	57
ATWH5.5X125CK	5,5	25	4 x 100	1,0	204	104	57
ATWH6.5X150CK	6,5	30	5 x 125	1,2	235	110	88
ATWH8X175CK	8,0	36	6 x 150	1,2	270	120	147
ATWH10X175CK	10,0	40	7 x 175	1,6	300	125	195
ATWH12X200CK	12,0	40	10 x 200	2,0	325	125	292
ATWH14X250CK	14,0	40	10 x 250	2,5	375	125	322



■ ATWPH.CK - PROTWIST® SHOCK screwdrivers for Phillips® screws

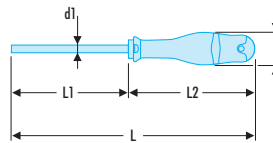


NF ISO 8764-1, NF ISO 8764-2, ISO 8764-1, ISO 8764-2, DIN ISO 8764-1, DIN ISO 8764-2, ASME B107.600

- Impact zone with steel strike - hexagonal blade with 73MO steel.
- Hexagonal blade with shoulder to take a wrench.
- Extra-long blade for use in confined spaces.
- Inline hardening process - +100% tip life and +100% bar strength.
- Handle material - softer for more comfort and still chemical resistant.
- Golden electroplated tip - 4x corrosion resistance.
- Handle "Channel" - +10% torque.
- Laser marking - gives virtually permanent marking.
- CNC tip machining - gives better screw fit increasing torque transfer and reducing wear.



Model	d [mm]	d1 x L1 [mm]	L [mm]	L2 [mm]	Phillips [No]	ΔΔ [g]
ATWPH1X100CK	30	5 x 100	209	109	PH1	70
ATWPH2X125CK	36	6 x 125	245	120	PH2	130
ATWPH3X150CK	40	8 x 150	275	125	PH3	200

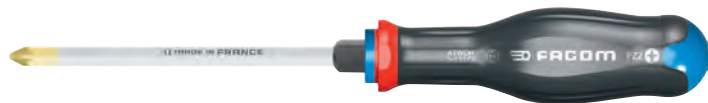


■ ATWDH.CK - PROTWIST® SHOCK screwdriver for Pozidriv® screws

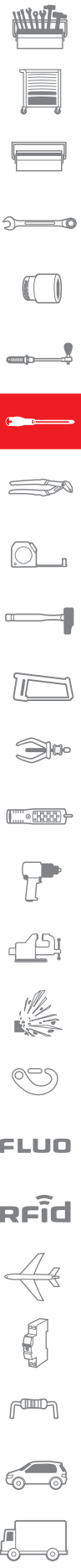
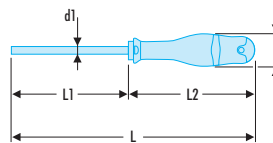


NF ISO 8764-1, NF ISO 8764-2, ISO 8764-1, ISO 8764-2, DIN ISO 8764-1, DIN ISO 8764-2, ASME B107.600

- Impact zone with steel strike - hexagonal blade with 73mo steel.
- Hexagonal blade with shoulder to take a wrench.
- Extra-long blade for use in confined spaces.
- Inline hardening process - +100% tip life and +100% bar strength.
- Handle material - softer for more comfort and still chemical resistant.
- Golden electroplated Tip - 4x corrosion resistance.
- Handle "Channel" - +10% torque.
- Laser marking - gives virtually permanent marking.
- CNC tip machining - gives better screw fit increasing torque transfer and reducing wear.



Model	d [mm]	d1 x L1 [mm]	d2 [mm]	L [mm]	L2 [mm]	Pozidriv [No]	ΔΔ [g]
ATWDH1X100CK	30	5 x 100	8	210	110	PZ1	86
ATWDH2X125CK	36	6 x 125	10	245	120	PZ2	142
ATWDH3X150CK	40	8 x 150	12	275	125	PZ3	211



PROTWIST® 1,000 VOLT INSULATED SCREWDRIVERS SETS AND MODULES

1,000 V INSULATED SCREWDRIVERS

FACOM VE-Series 1,000 V screwdrivers



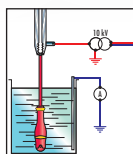
**PROTWIST®**

Tools built for electrical safety to European standard EN 60900 specifications, and designed for working on live components up to 1,000 V AC and 1,500 V DC.

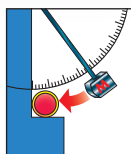
**1000VOLTS**  
EN 60900

For your safety, every screwdriver is tested to 10,000 V for 10 seconds at the end of the manufacturing cycle.

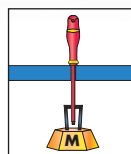
Tests performed in accordance with EN 60900.



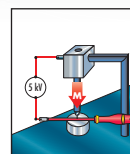
Electrical resistance



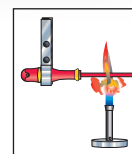
Impact resistance



Pull-off resistance



Penetration resistance



Combustion test

**Safety first**

Working on live components is hazardous. For your safety it is important that you

- Ensure that the insulation is not damaged by:

- heat (-20 to 70° working temperature)
- chemicals
- cuts or perforations.
- Visually check the insulation before use.



AT.VE - Sets of PROTWIST® 1,000 Volt insulated screwdrivers



- For improved safety, each screwdriver is tested individually at 10,000 Volt for 10 seconds VDE approved.
- Inline hardening process - +100% tip life and +100% bar strength.
- Handle material
  - softer for more comfort and still chemical resistant.
- Handle 'Channel' - +10% torque.
- Laser marking - gives virtually permanent marking.
- CNC tip machining - gives better screw fit increasing torque transfer and reducing wear.



	Content set	Qty	ΔΔ [g]
<b>ATD.J5VE</b>	AT3.5X100VE - AT4X100VE - AT5.5X125VE - ATD1X100VE - ATD2X125VE	5	430
<b>ATP.J5VE</b>	AT3.5X100VE - AT4X100VE - AT5.5X125VE - ATP1X100VE - ATP2X125VE	5	430
<b>ATD.J8VE</b>	AT2.5X75VE - AT3X100VE - AT3.5X100VE - AT4X100VE 6 - AT5.5X125VE - AT6.5X150VE - 6ATD1X100VE - 6ATD2X125VE	8	650

Module of 8 PROTWIST® 1,000 Volt insulated screwdrivers



	H [mm]	L [mm]	Tray	Content set	Qty	ΔΔ [kg]
<b>MOD.AT1VE</b>	40	418	PL.325	ATVE 3.5 - 4 - 5.5 - 6.5 - ATP1 x 100VE - ATP2 x 125VE - ATD1 x 100VE - ATD2 x 125VE	8	0.907

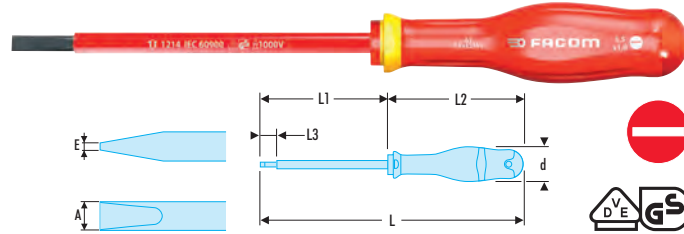


PROTWIST® 1,000 VOLT INSULATED SCREWDRIVERS FOR SLOTTED HEAD SCREWS

■ AT.VE - PROTWIST® 1,000 Volt insulated screwdrivers for slotted-head screws

NF ISO 2380-1, NF ISO 2380-2, NF EN 60900, ISO 2380-1, ISO 2380-2, EN 60900, DIN ISO 2380-1, DIN ISO 2380-2, DIN EN 60900, ASME B107.600

- For improved safety, each screwdriver is tested individually at 10,000 Volt for 10 seconds VDE approved.
- Inline hardening process - +100% tip life and +100% bar strength.
- Handle material - softer for more comfort and still chemical resistant.
- Handle "Channel" - +10% torque.
- Laser marking - gives virtually permanent marking.
- CNC tip machining - gives better screw fit increasing torque transfer and reducing wear.
- Milled blade: --> 5.5 mm included.
- Fillet blade: 6.5 --> 12 mm.



Model	A [mm]	d [mm]	E [mm]	L [mm]	L1 [mm]	L2 [mm]	L3 [mm]	ΔΔ [g]
AT2X75VE	2,0	19	0,4	170	40	95	18	23
AT2.5X50VE	2,5	25	0,4	153	50	103	18	30
AT2.5X75VE	2,5	25	0,4	178	75	103	18	32
AT3X75VE	3,0	25	0,5	178	75	103	18	38
AT3X100VE	3,0	25	0,5	202	100	103	18	39
AT3.5X75VE	3,5	25	0,6	179	75	104	18	42
AT3.5X100VE	3,5	25	0,6	204	100	104	18	44
AT4X100VE	4,0	30	0,8	210	100	110	18	48
AT4X150VE	4,0	30	0,8	260	150	110	18	53

Model	A [mm]	d [mm]	E [mm]	L [mm]	L1 [mm]	L2 [mm]	L3 [mm]	ΔΔ [g]
AT5.5x125VE	5,5	30	1,0	235	125	110	18	88
AT5.5x150VE	5,5	30	1,0	260	150	110	18	92
AT5.5x200VE	5,5	30	1,0	310	200	110	18	106
AT6.5x150VE	6,5	36	1,2	270	150	120	18	120
AT6.5x200VE	6,5	36	1,2	320	200	120	18	170
AT8X150VE	8,0	40	1,2	275	150	125	18	160
AT8X200VE	8,0	40	1,2	325	200	125	18	180
AT10X200VE	10,0	40	1,6	325	200	125	18	240
AT12X250VE	12,0	40	2,0	375	250	125	18	360

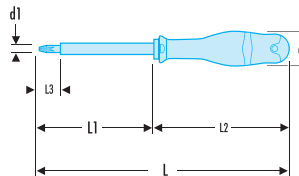
■ ATP.VE - PROTWIST® 1,000 Volt insulated screwdrivers for Phillips® head screws

NF ISO 8764-1, NF ISO 8764-2, NF EN 60900, ISO 8764-1, ISO 8764-2, EN 60900, DIN ISO 8764-1, DIN ISO 8764-2, DIN EN 60900, ASME B107.600

- For improved safety, each screwdriver is tested individually at 10,000 Volt for 10 seconds VDE approved.
- Inline hardening process - +100% tip life and +100% bar strength.
- Handle material - softer for more comfort and still chemical resistant.
- Handle "Channel" - +10% torque.
- Laser marking - gives virtually permanent marking.
- CNC tip machining - gives better screw fit increasing torque transfer and reducing wear.



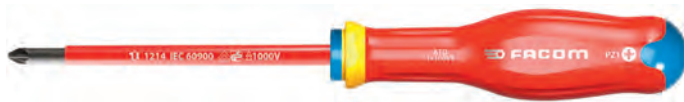
Model	d [mm]	d1 [mm]	L [mm]	L1 [mm]	L2 [mm]	L3 [mm]	Phillips [No]	ΔΔ [g]
ATP0X75VE	25	3,0	179	75	104	18	PH0	46
ATP1X100VE	30	4,5	210	100	110	18	PH1	77
ATP2X125VE	36	6,0	215	125	120	18	PH2	127
ATP3X150VE	40	8,0	275	150	125	18	PH3	195
ATP4X200VE	40	10,0	375	200	125	18	PH4	278



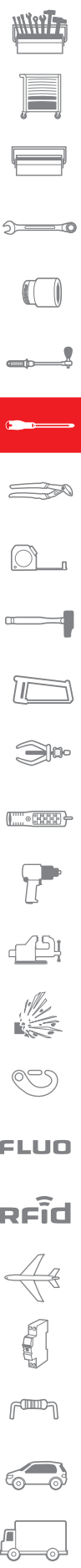
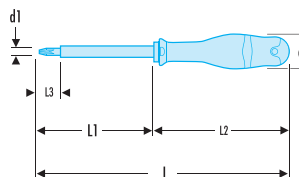
■ ATD.VE - PROTWIST® 1,000 Volt insulated screwdrivers for Pozidriv® head screws

NF ISO 8764-1, NF ISO 8764-2, NF EN 60900, ISO 8764-1, ISO 8764-2, EN 60900, DIN ISO 8764-1, DIN ISO 8764-2, DIN EN 60900, ASME B107.600

- For improved safety, each screwdriver is tested individually at 10,000 Volt for 10 seconds VDE approved.
- Inline hardening process - +100% tip life and +100% bar strength.
- Handle material - softer for more comfort and still chemical resistant.
- Handle "Channel" - +10% torque.
- Laser marking - gives virtually permanent marking.
- CNC tip machining - gives better screw fit increasing torque transfer and reducing wear.



Model	d [mm]	d1 [mm]	L [mm]	L1 [mm]	L2 [mm]	L3 [mm]	Pozidriv [No]	ΔΔ [g]
ATD0X75VE	25	3,0	179	75	104	18	PZ0	46
ATD1X100VE	30	4,5	209	100	109	18	PZ1	77
ATD2X125VE	36	6,0	245	125	120	18	PZ2	127
ATD3X150VE	40	8,0	275	150	125	18	PZ3	195

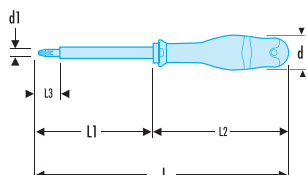


PROTWIST® 1,000 VOLT INSULATED SCREWDRIVERS FOR SLOTTED HEAD SCREWS

AT.TVE - PROTWIST® 1000 Volt insulated screwdrivers for slotted-head screws



- For improved safety, each screwdriver is tested individually at 10,000 Volt for 10 seconds VDE approved.
- Slim profile gives 27% more reach.
- Inline hardening process - +100% tip life and +100% bar strength.
- Handle material - softer for more comfort and still chemical resistant.
- Handle "Channel" - +10% torque.
- Laser marking - gives virtually permanent marking.
- CNC tip machining - gives better screw fit increasing torque transfer and reducing wear.
- Milled blade: --> 5.5 mm included.
- Fillet blade: 6.5 --> 12 mm.



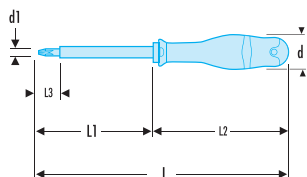
	d [mm]	d1 [mm]	d2 [mm]	d3 [mm]	L [mm]	L1 [mm]	L2 [mm]	L3 [mm]	ΔΔ [g]
AT3.5X100TVE	25	3.5	3.8	5.5	204	100	104	15	46
AT4X100TVE	30	4	4.3	6	210	100	110	15	65
AT5.5X125TVE	30	5.5	5.8	7.5	235	125	110	15	83
AT6.5X150TVE	36	6.5	6.8	8.5	270	150	120	15	134

PROTWIST® 1,000 VOLT INSULATED SCREWDRIVERS FOR PHILLIPS® SCREWS

ATP.TVE - PROTWIST® 1000 Volt insulated screwdrivers for Phillips® head screws



- For improved safety, each screwdriver is tested individually at 10,000 Volt for 10 seconds VDE approved.
- Slim profile gives 27% more reach.
- Inline hardening process - +100% tip life and +100% bar strength.
- Handle material - softer for more comfort and still chemical resistant.
- Handle "Channel" - +10% torque.
- Laser marking - gives virtually permanent marking.
- CNC tip machining - gives better screw fit increasing torque transfer and reducing wear.



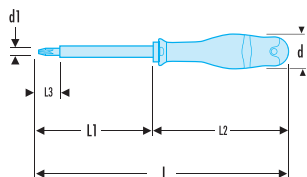
	d [mm]	d1 [mm]	d2 [mm]	d3 [mm]	L [mm]	L1 [mm]	L2 [mm]	L3 [mm]	ΔΔ [g]
ATP1x100TVE	30	4.5	4.8	6.5	210	100	110	18	70
ATP2x125TVE	36	6	6.3	8	245	125	120	18	120

PROTWIST® 1,000 VOLT INSULATED SCREWDRIVERS FOR POZIDRIV® SCREWS

ATD.TVE - PROTWIST® 1000 Volt insulated screwdrivers for Pozidriv® screws



- For improved safety, each screwdriver is tested individually at 10,000 Volt for 10 seconds VDE approved.
- Slim profile gives 27% more reach.
- Inline hardening process - +100% tip life and +100% bar strength.
- Handle material - softer for more comfort and still chemical resistant.
- Handle "Channel" - +10% torque.
- Laser marking - gives virtually permanent marking.
- CNC tip machining - gives better screw fit increasing torque transfer and reducing wear.



	d [mm]	d1 [mm]	d2 [mm]	d3 [mm]	L [mm]	L1 [mm]	L2 [mm]	L3 [mm]	ΔΔ [g]
ATD1x100TVE	30	4.5	4.8	6.5	210	100	110	18	70
ATD2x125TVE	36	6	6.3	8	245	125	120	18	120

PROTWIST® BORNEO® SCREWDRIVER SETS FOR ELECTRICAL TERMINALS

1,000 V INSULATED SCREWDRIVERS



Special screwdrivers for combination pattern heads used on switchgear.

**Special pattern**

- Specific driver pattern suitable for switches, relays, circuit-breakers, boxes, terminals, etc.

**Powerful tightening**

- Torque transmission considerably higher than with a conventional screwdriver.

**Drive integrity**

- More positive coupling preventing slippage, reduced wear of both fastener and screwdriver.
- More secure fit avoiding damage to enclosures and casings.



**1,000 V SAFETY**

- Screwdrivers to European standard EN 60900.
- Most switchgear has combination Pozidriv®/slotted heads (FACOM ADB series screwdrivers), but some uses Phillips®/slotted heads (FACOM APB series screwdrivers). Clean results can only be achieved with correct screwdriver/fastener contact.

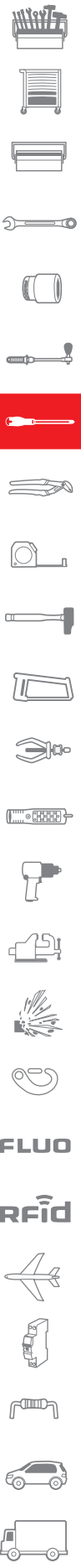


Set of PROTWIST® BORNEO® screwdrivers for mixed heads

- For improved safety, each screwdriver is tested individually at 10,000 Volt for 10 seconds VDE approved.
- Slim profile gives 27% more reach.
- Inline hardening process - +100% tip life and +100% bar strength.
- Handle material - softer for more comfort and still chemical resistant.
- Handle "Channel" - +10% torque.
- Laser marking - gives virtually permanent marking.
- CNC tip machining - gives better screw fit increasing torque transfer and reducing wear.



Content set	Qty	Δ [g]
ATB.J4TVE ATDB1X100TVE - ATDB2X125TVE - ATPB1X100TVE - ATPB2X125TVE	4	432
ATB.J8TVE AT3.5X100VE - AT4X100VE - AT5.5X125VE - AT6.5X150VE - ATDB1X100TVE - ATDB2X125TVE - ATPB1X100TVE - ATPB2X125TVE	8	864



PROTWIST® BORNEO® SCREWDRIVERS FOR ELECTRICAL TERMINALS

ATPB.TVE /ATDB.TVE- PROTWIST® BORNEO® screwdrivers for mixed heads - Phillips®/Pozidriv®



- For improved safety, each screwdriver is tested individually at 10,000 Volt for 10 seconds VDE approved.
- Slim profile gives 27% more reach - SHOW ICON.
- Inline hardening process
  - +100% tip life and +100% bar strength.
- Handle Material
  - softer for more comfort and still chemical resistant.
- Handle "Channel"
  - +10% torque.
- Laser Marking
  - gives virtually permanent marking.
- CNC tip machining
  - gives better screw fit increasing torque transfer and reducing wear.



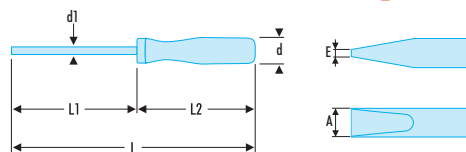
ED	d [mm]	d1 [mm]	L [mm]	L1 [mm]	L2 [mm]	L3 [mm]	Phillips [No]	Pozidriv [No]	ΔΔ [g]
ATPB1x100TVE	30	5	210	100	110	18	PH1		75
ATPB2x125TVE	36	6	245	125	120	18	PH2		121
ATDB1x100TVE	30	5	210	100	110	18		PZ1	75
ATDB2x125TVE	36	6	245	125	120	18		PZ2	121

Sets of ISORYL screwdrivers



ED	Content set	Qty	Organizer for	ΔΔ [kg]
AS.4	AP.0X75 - AP.1X75 - AP.2X100 - AP.3X150 - AP.4X200 - AR.3,5X100 - AR.4X100 - AR.5,5X100 - AR.6,5X150	5	Rack	0,685
AJ.3	- AR.8X150 - ATH.8EX175 - A.3,5X100VE - AP.1X75 - AP.2X100 - AP.3X150 - AD.1X75 - AD.2X100 - AD.3X150 - AF	14	Box	1.2
AS.15	AR.3,5X100 - AR.4X100 - AR.5,5X100 - AR.6,5X100 - AR.8X150 - ATH.8EX175 - A3,5X100VE - AP.1X75 - AP.2X100 - AP.3X150 - AD.1X75 - AD.2X100 - AD.3X150 - AF	14	Rack	1.5

AR - ISORYL screwdrivers for slotted-head screws - milled blade



NF ISO 2380-1, NF ISO 2380-2, ISO 2380-1, ISO 2380-2, DIN ISO 2380-1, DIN ISO 2380-2, ASME B107.600

- Round blade milled for access to the bottom of the well.
- Finish: polished chromed.

ED	A [mm]	d [mm]	d1 x L1 [mm]	E [mm]	L [mm]	L2 [mm]	ΔΔ [g]
AR.2X40	2,0	16	2,0 x 40	0,4	110	70	13,50
AR.2,5X50	2,5	16	2,5 x 50	0,4	120	70	15,00
AR.2,5X75	2,5	16	2,5 x 75	0,4	145	70	16,00
AR.3X75	3,0	16	3,0 x 75	0,5	145	70	17,50
AR.3,5X75	3,5	20,5	3,5 x 75	0,6	155	80	31,00
AR.3,5X100	4,0	20,5	3,5 x 100	0,8	180	80	33,00
AR.4X100	4,0	24	4,0 x 100	0,8	190	90	45,00
AR.4X150	4,0	24	4,0 x 150	0,8	240	90	50,00
AR.5,5X100	5,5	28	5,5 x 100	1,0	200	100	71,00
AR.5,5X150	5,5	28	5,5 x 150	1,0	250	100	80,00
AR.5,5X200	5,5	28	5,5 x 200	1,0	300	100	89,00
AR.6,5X100	6,5	30	6,5 x 100	1,2	210	110	102,00
AR.6,5X150	6,5	30	6,5 x 150	1,2	260	110	114,00
AR.6,5X200	6,5	30	6,5 x 200	1,2	310	110	226,00
AR.8X150	8,0	30	8,0 x 150	1,2	260	110	141,00

ISORYL SCREWDRIVERS FOR SLOTTED HEAD SCREWS

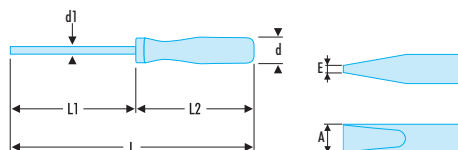
ARA - ISORYL screwdrivers for slotted-head screws - handle with clasp

NF ISO 2380-1, NF ISO 2380-2, ISO 2380-1, ISO 2380-2, DIN ISO 2380-1, DIN ISO 2380-2, ASME B107.600

- Finish: polished chromed.

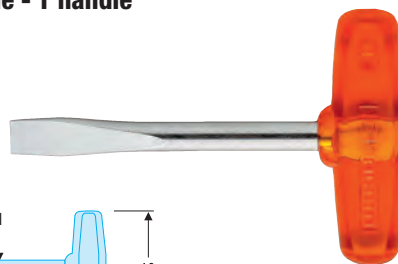


ARA	A [mm]	d [mm]	d1 x L1 [mm]	E [mm]	L [mm]	L2 [mm]	ΔΔ [g]
ARA.2,5X50	2,5	13	2,5 x 50	0,4	110	60	10
ARA.2,5X75	2,5	13	2,5 x 75	0,4	135	60	11
ARA.3,5X50	3,5	13	3,5 x 50	0,6	110	60	12
ARA.3,5X75	3,5	13	3,5 x 75	0,6	135	60	14

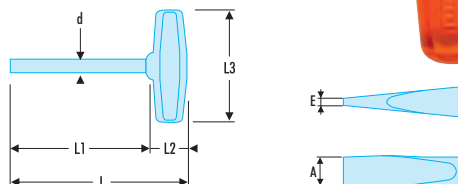


AGT - ISORYL screwdrivers for slotted-head screws - forged blade - T handle

- Transmits high torque.
- Finish: chromed.



AGT	A [mm]	d1 x L1 [mm]	E [mm]	L [mm]	L2 [mm]	L3 [mm]	ΔΔ [g]
AGT.8X100	8	8 x 100	1,2	130	30	85	150
AGT.10X100	10	10 x 100	1,6	130	30	85	160



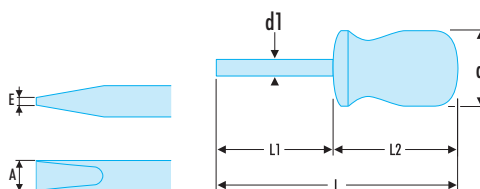
ARB - ISORYL screwdrivers for slotted-head screws - short blade

NF ISO 2380-1, NF ISO 2380-2, ISO 2380-1, ISO 2380-2, DIN ISO 2380-1, DIN ISO 2380-2, ASME B107.600

- For use in confined space.
- Finish: polished chromed.



ARB	A [mm]	d [mm]	d1 x L1 [mm]	E [mm]	L [mm]	L2 [mm]	ΔΔ [g]
ARB.4X40	4,0	29	4,0 x 40	0,8	90	50	38
ARB.5,5X40	5,5	29	5,5 x 40	1,0	90	50	39
ARB.6,5X40	6,5	29	6,5 x 40	1,2	90	50	42



ISORYL SCREWDRIVERS FOR PHILLIPS® SCREWS

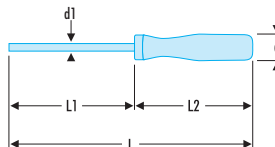
AP - ISORYL screwdrivers for Phillips® screws

NF ISO 8764-1, NF ISO 8764-2, ISO 8764-1, ISO 8764-2, DIN ISO 8764-1, DIN ISO 8764-2, ASME B107.600

- Finish: chromed.

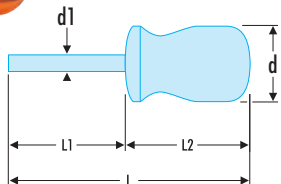


AP	d [mm]	d1 x L1 [mm]	L [mm]	L2 [mm]	Phillips [No]	ΔΔ [g]
AP.0X50	20,5	4 x 50	130	80	PH0	31
AP.0X75	20,5	4 x 75	155	80	PH0	33
AP.1X75	24,0	5 x 75	165	90	PH1	55
AP.1X100	24,0	5 x 100	190	90	PH1	59
AP.2X100	28,0	6 x 100	200	100	PH2	77
AP.2X125	28,0	6 x 125	225	100	PH2	81
AP.3X150	30,0	8 x 150	260	110	PH3	142
AP.4X200	34,0	10 x 200	320	120	PH4	246



ISORYL SCREWDRIVERS FOR PHILLIPS® SCREWS

APB - ISORYL screwdrivers for Phillips® screws - short blade



NF ISO 8764-1, NF ISO 8764-2, ISO 8764-1, ISO 8764-2, DIN ISO 8764-1, DIN ISO 8764-2, ASME B107.600

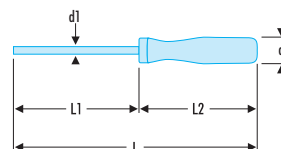
- For use in confined space.
- Finish: chromed.



Model	d [mm]	d1 x L1 [mm]	L [mm]	L2 [mm]	Phillips [No]	ΔΔ [g]
APB.0X40	29	4 x 40	90	50	PH0	33
APB.1X40	29	5 x 40	90	50	PH1	36
APB.2X40	29	6 x 40	90	50	PH2	40

ISORYL SCREWDRIVERS FOR POZIDRIV® SCREWS

AD - ISORYL screwdrivers for Pozidriv® screws



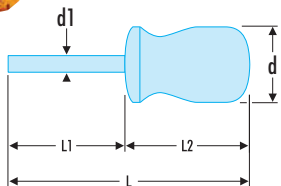
NF ISO 8764-1, NF ISO 8764-2, ISO 8764-1, ISO 8764-2, DIN ISO 8764-1, DIN ISO 8764-2, ASME B107.600

- High strength steel alloy blades.
- Finish: burnt.



Model	d [mm]	d1 x L1 [mm]	L [mm]	L2 [mm]	Pozidriv [No]	ΔΔ [g]
AD.0X50	20,5	4 x 50	130	95	PZ0	31
AD.1X75	24,0	4 x 75	165	95	PZ1	55
AD.2X100	28,0	6 x 100	200	95	PZ2	77
AD.2X125	28,0	6 x 125	225	63	PZ2	81
AD.3X150	30,0	8 x 150	260	63	PZ3	142

ADB - ISORYL screwdrivers for Pozidriv® screws - short blade



NF ISO 8764-1, NF ISO 8764-2, ISO 8764-1, ISO 8764-2, DIN ISO 8764-1, DIN ISO 8764-2, ASME B107.600

- For use in confined space.
- Finish: burnt.



Model	d [mm]	d1 x L1 [mm]	L [mm]	L2 [mm]	Pozidriv [No]	ΔΔ [g]
ADB.1X40	29	5 x 40	90	77	PZ1	38
ADB.2X40	29	6 x 40	90	77	PZ2	44

SETS OF WOOD HANDLE SCREWDRIVERS

Sets of wood handle screwdrivers



Model	Contents	Content set	Qty	ΔΔ [g]
ATHH.JS5	Box	ATHH.5,5X100 - 6,5X125 - 8X150 - 10X175 - 12X200	5	952
ATHH.PJ3	Panel: PK.1	ATHH.P1 - P2 - P3	3	372
ATHH.J7	Box	ATHH.4X90 - 5,5X100 - 6,5X125 - 8X150 - 10X175 - 12X200 - 14X250	7	1262
ATHH.J7	Box	ATHH.5,5X100 - ATHH.6,5X125 - ATHH.8X150 - ATHH.10X175 - ATHH.P1 - ATHH.P2 - ATHH.D1 - ATHH.D2	8	908

WOOD HANDLE SCREWDRIVERS FOR SLOTTED HEAD SCREWS

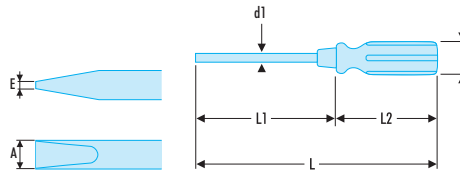
■ **ATH - Wood handle screwdrivers for slotted head screws - forged blade**

NF ISO 2380-1, NF ISO 2380-2, ISO 2380-1, ISO 2380-2,  
DIN ISO 2380-1, DIN ISO 2380-2, ASME B107.600

- Through blade allows separation of locked screws by means of light impacts.
- Impact zone widened by metallic cap.
- Round blade forged and treated over its entire length.
- Handle blade linked by fins.
- Finish: burnt.



ED	A [mm]	d [mm]	d1 x L1 [mm]	E [mm]	L [mm]	L2 [mm]	ΔΔ [g]
ATH.5.5X100	5,5	22	5 x 100	1,0	205	105	65
ATH.6.5X100	6,5	26	6 x 100	1,2	210	110	86
ATH.8X150	8,0	28	7 x 150	1,2	270	120	130
ATH.8EX175	8,0	32	7 x 175	1,6	305	130	177
ATH.10X200	10,0	32	9 x 200	1,6	330	130	222
ATH.12X250	12,0	32	10 x 250	2,0	380	130	335



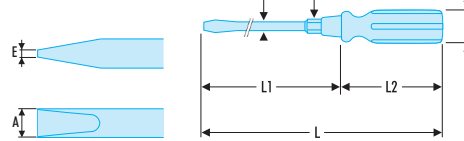
■ **ATHH - Wood handle screwdrivers for slotted head screws - hexagonal forged blade**

NF ISO 2380-1, NF ISO 2380-2, ISO 2380-1, ISO 2380-2, DIN ISO 2380-1,  
DIN ISO 2380-2, ASME B107.600

- Through blade allows separation of locked screws by means of light impacts.
- Forged and treated hexagonal blade for locking or unlocking with a wrench.
- Handle blade linked by fins.
- On the blade side, the handle includes a crimped steel ferrule with dampener, at the opposite side, a copper ring protects wood from impacts.
- Finish: polished chromed.



ED	A [mm]	d [mm]	d1 x L1 [mm]	E [mm]	L [mm]	L2 [mm]	Hex Size [mm]	ΔΔ [g]
ATHH.4X90	4,0	25	4,5 x 90	0,8	195	95	6	49
ATHH.5.5X100	5,5	25	5,5 x 100	1,0	200	100	8	58
ATHH.6.5X125	6,5	26	6,5 x 125	1,2	240	115	10	100
ATHH.6.5X175	6,5	26	6,5 x 175	1,2	290	115	10	110
ATHH.8X150	8,0	28	8,0 x 150	1,2	270	120	13	160
ATHH.10X175	10,0	30	9,0 x 175	1,6	300	125	13	207
ATHH.12X200	12,0	32	10,0 x 200	2,0	330	130	17	278
ATHH.14X250	14,0	32	10,0 x 250	2,5	385	135	17	331



WOOD HANDLE SCREWDRIVERS FOR CROSS-HEADED SCREWS

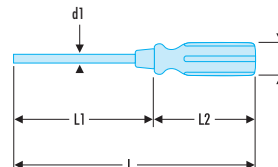
■ **ATHH.P - Wood handle screwdrivers for Phillips® screws - hexagonal blade**

NF ISO 8764-1, NF ISO 8764-2, ISO 8764-1, ISO 8764-2,  
DIN ISO 8764-1, DIN ISO 8764-2, ASME B107.600

- Through blade allows separation of locked screws by means of light impacts.
- Forged and treated hexagonal blade for locking or unlocking with a wrench.
- Handle blade linked by fins.
- On the blade side, the handle includes a crimped steel ferrule with dampener, at the opposite side, a copper ring protects wood from impacts.
- Finish: polished chromed.



ED	d [mm]	d1 x L1 [mm]	L [mm]	L2 [mm]	Hex Size [mm]	Phillips [No]	ΔΔ [g]
ATHH.P1	25	5 x 100	200	100	8	PH1	60
ATHH.P2	26	6 x 125	235	110	10	PH2	92
ATHH.P3	28	8 x 150	270	120	13	PH3	160



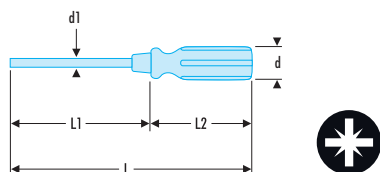
## WOOD HANDLE SCREWDRIVERS FOR CROSS-HEADED SCREWS

## ATHH.D - Wood handle screwdrivers for Pozidriv® screws - hexagonal blade



NF ISO 8764-1, NF ISO 8764-2, ISO 8764-1, ISO 8764-2,  
DIN ISO 8764-1, DIN ISO 8764-2, ASME B107.600

- Through blade allows separation of locked screws by means of light impacts.
- Forged and treated hexagonal blade for locking or unlocking with a wrench.
- Handle blade linked by fins.
- On the blade side, the handle includes a crimped steel ferrule with dampener, at the opposite side, a copper ring protects wood from impacts.
- Finish: polished chromed.



ED	d [mm]	d1 x L1 [mm]	L [mm]	L2 [mm]	Hex Size [mm]	Pozidriv [No]	ΔΔ [g]
ATHH.D1	25	5 x 100	200	100	8	PZ1	60
ATHH.D2	26	6 x 125	240	115	10	PZ2	92
ATHH.D3	28	8 x 150	270	120	13	PZ3	160

## MULTIBLADE SCREWDRIVERS

## AM - PROTWIST® multi-blade screwdriver sets



- Several screwing patterns in a small footprint.
- Each blade has two useful tips.
- Bi-material ergonomic handle for comfortable and reliable screwing.
- The handle drives the blades by the 6-point 1/4" drive.
- A spring holds the blades in the handle.
- Packaging:
  - AM.3 - AM.4: compact bag.



ED	A [mm]	Phillips [No]	Resistorx [No]	Torx [No]	Knob	Qty	ΔΔ [g]
AM.3	AMZ.S3,5 - 4 - AMZ.S5,5 - 6,5	AMZ.P1-3	-	AMZ.X10-15 - AMZ.X20-25 - AMZ.X30-40	AM.D	7	450
AM.4	AMZ.S3,5 - 4 - AMZ.S5,5 - 6,5	-	AMZ.XRP10-15 - AMZ.XRP10-15 - AMZ.XRP27-30	-	AM.D	6	350

## AMZ - Reversible blades



- 1/4" hexagonal reversible blade.
- Length: 175 mm.
- Handle out length: 125 mm.
- Finish: chromed.



ED	L [mm]	Content set	ΔΔ [g]
AMZ.S3,5-4	175	Slotted-head: 0,6 x 3,5 - 0,8 x 4	40
AMZ.S5,5-6,5	175	Slotted-head: 1,0 x 5,5 - 1,2 x 6,5	40
AMZ.P0-1	175	PH0 - PH1	40
AMZ.P2-3	175	PH2 - PH3	40
AMZ.P1-2	175	PH1 - PH2	40
AMZ.D0-1	175	PZ0 - PZ1	40
AMZ.D2-3	175	PZ2 - PZ3	40
AMZ.D1-2	175	PZ1 - PZ2	40
AMZ.H2,5	175	6-point: 2,5	40
AMZ.H3	175	6-point: 3,0	40
AMZ.H4	175	6-point: 4,0	40
AMZ.H5	175	6-point: 5,0	40

ED	L [mm]	Content set	ΔΔ [g]
AMZ.H6	175	6-point: 6,0	40
AMZ.X8-9	175	T8 - T9	40
AMZ.X10-15	175	T10 - T15	40
AMZ.X20-25	175	T20 - T25	40
AMZ.X30-40	175	T30 - T40	40
AMZ.TX10-15	175	TT10 - TT15	40
AMZ.TX20-25	175	TT20 - TT25	40
AMZ.TX30-40	175	TT30 - TT40	40
AMZ.XRP10-15	175	IPR TT+ 10-15	40
AMZ.XRP20-25	175	IPR TT+ 20-25	40
AMZ.XRP27-30	175	IPR TT+ 27-30	40
AMZ.E	175	Bit holder 6-point 1/4"	40



■ **PROTWIST® multi-blade screwdriver sets**

- Bi-material ergonomic handle for comfortable and reliable screwing.
- High quality 45-teeth ratchet = fast screwing, accuracy, strength and longevity.
- 3-position action : screwing, unscrewing and locking.
- Very low blade return torque.
- Storage in handle for six additional 25mm bits (not supplied).
- Hexagonal - 1/4" drive.

Including :

- ACL.2A
- AMZ.E
- AMZ.S3.5-4
- AMZ.S5.5-6.5
- AMZ.P0-1
- AMZ.P2-3
- AMZ.D0-1
- AMZ.D2-3
- AMZ.H2.5
- AMZ.H3
- AMZ.H4
- AMZ.H5
- AMZ.H6
- AMZ.X10-15
- AMZ.X20-25
- AMZ.X30-40



	Contents	Tray	ΔΔ [g]
<b>ACL.2A15</b>	BP.112	PL.307B	440

■ **PROTWIST® 3 in 1 Blade Holder: Ratcheting, T-Handle and stubby Screwdriver**

- **SPEED** : Ratcheting feature for faster task completion.
- **POWER** : T-handle feature to remove difficult screws.
- **COMPACT**: Stubby screwdriver for tight areas.
- Bi-material ergonomic handle for comfortable and reliable screwing.
- High quality 45-teeth ratchet = fast screwing, accuracy, strength and longevity.
- 3-position action : screwing, unscrewing and locking.
- Very low blade return torque.
- Storage in handle for six additional 25mm bits (not supplied).
- Hexagonal - 1/4" drive.



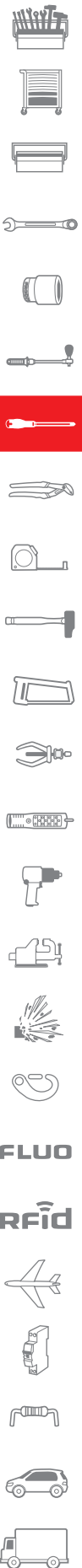
	ΔΔ [g]
<b>ACL.2A</b>	172

■ **PROTWIST® reversible blade holder handle**

- Bi-material ergonomic handle for comfortable and reliable screwing.
- Hexagonal - 1/4" drive.
- Diameter: 35 mm.



	L [mm]	ΔΔ [g]
<b>AM.D</b>	133	100



MULTIBLADE SCREWDRIVERS

"Radio" model multiblade screwdrivers



- Length with blade: 105 mm.
- Supplied with 3 blades for slotted-head screws, diam. 1.5 - 2 - 2.5 mm, stored in the handle.
- Finish: polished chromed.



	L [mm]	ΔΔ [g]
<b>AMR</b>	105	14

"Junior" model multiblade screwdrivers



- Length with blade: 150 mm.
- Supplied with 3 blades for slotted-head screws, diam. 3.5 - 4 - 5.5 mm, stored in the handle.
- Finish: polished chromed.



	L [mm]	ΔΔ [g]
<b>AMJ</b>	150	57

"Standard" model multiblade screwdrivers



- Length with blade: 165 mm.
- Supplied in roll, with 2 reversible blades:
  - Slotted head screws, diam. 5.5 mm and Phillips® no.1.
  - Slotted head screws, diam. 6.5 mm and Phillips® no.2.
- Finish: polished chromed.



	L [mm]	ΔΔ [g]
<b>AMS</b>	165	100

RATCHET BIT DRIVERS



**Ergonomic bi-material Protwist® grip**

- Comfort of use.

**Storage compartment**

- Partly hollow handle for storing additional bits or screws.

**High quality**

- 45 tooth mechanism, 3 positions, low return torque.

**Chrome finished blade 100 mm**

- Resistance to corrosion and access.
- Knurled zone for fast blade screwing.

**Powerful magnetic adaptor**

- Holds the bit and screw.





## BIT-HOLDING SCREWDRIVERS

## Automatic screwdriver with hex 1/4" bit holder



- For long thread screws, reduces screwing and unscrewing times by one third.
- Fast chuck for screwing bits series 1: 1/4" (6.35 mm).
- Ratchet with 3 positions: screwing, unscrewing, locking.
- Bush locking the helical shaft in the retracted position.
- Length: open, 305 mm; closed, 230 mm.
- Finish: polished chromed.



	L [mm]	ΔΔ [g]
<b>AAM.PE</b>	230	345

## VOLTAGE-TESTER SCREWDRIVERS

## AV.BT - Very low voltage detector screwdrivers



AV.BT1

AV.BT2

- For very low voltage.
- 2 models:
  - AV.BT1: Standard model.
  - AV.BT2: Model with clasp.
- Supplied with 50 cm wire with plug and alligator clip.



	d [mm]	L [mm]	Blade Length [mm]	Voltage/Volt	ΔΔ [g]
<b>AV.BT1</b>	4	196	104	6 - 24	53
<b>AV.BT2</b>	3	138	53	6 - 24	27

## AV.HT - Low voltage detector screwdrivers



AV.HT1C

AV.HT2C

- Safety guard width: 5 mm.
- Light indicator.
- Transparent handle.
- Steel blade chrome-plated vanadium.
- Extremity blade in hardened black phosphite.
- AV.HT1C: Standard model.
- AV.HT2C: Model with clasp.
- VDE-GS.



	L [mm]	Blade Length [mm]	Voltage/Volt	ΔΔ [g]
<b>AV.HT1C</b>	190	10	90 - 480	45
<b>AV.HT2C</b>	140	65	110 - 250	20

## MAGNETISER - DEMAGNETISER

## Magnetiser - Demagnetiser



- Magnetise the screwdriver to hold the screw in place.
- Demagnetises the screwdriver after use.

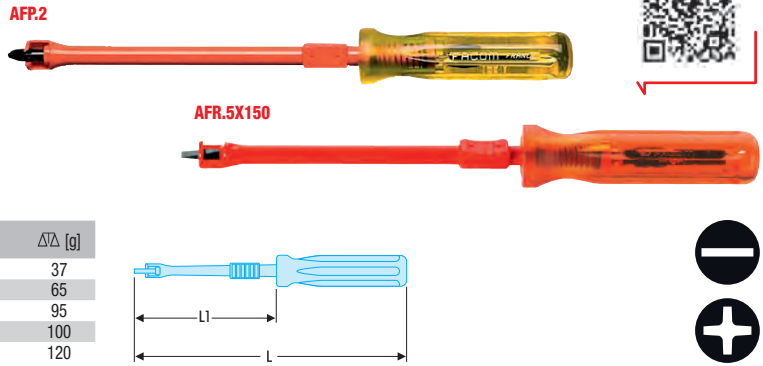


	ΔΔ [g]
<b>837</b>	73

SCREW HOLDER

■ AFR - AFP - Screw holder screwdrivers

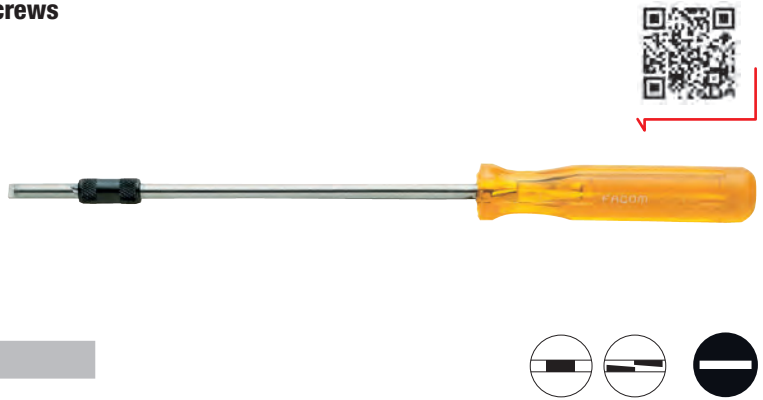
- For slotted and Phillips® head.
- Screw holder and screwing with the same tool.
- The guide is moved with the thumb, the spring holds the screw on the blade.



Model	A [mm]	E [mm]	L [mm]	L1 [mm]	Phillips [No]	ΔΔ [g]
AFR.3X100	3	0,5	190	100	-	37
AFR.4X125	4	0,6	225	125	-	65
AFR.5X150	5	0,7	260	150	-	95
AFP.1	-	-	260	150	PH1	100
AFP.2	-	-	285	175	PH2	120

■ Screw holder screwdrivers for slotted-head screws

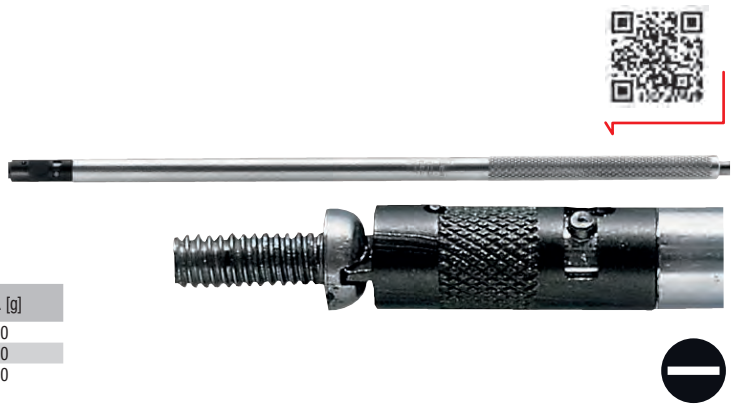
- For slotted head screws 0.5 --> 1.5 mm.
- Sliding bush to lock the two angle half-blades in the slotted screw head.
- Screwdriver required for subsequent tightening or loosening.
- Blade length: 150 mm.
- Total length: 240 mm.



Model	L [mm]	ΔΔ [g]
AF	240	56

■ AFU - Screw holder for slotted-head screws

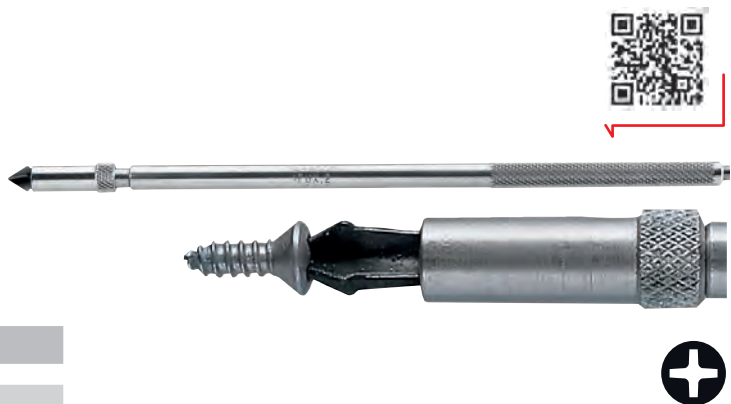
- Bush rotation secures the blade in the slotted screw head.
- Finely knurled steel handle.
- AFU.2 is fitted with a magnet at the end of the handle.



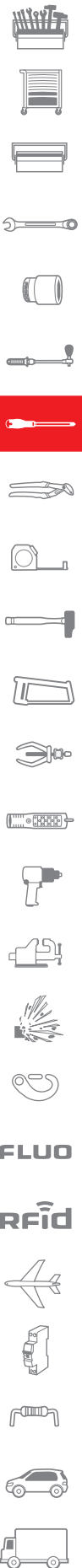
Model	A [mm]	E [mm]	L [mm]	ΔΔ [g]
AFU.0	3,8	0,5	135	20
AFU.1	7,0	0,8	130	20
AFU.2	7,0	0,8	230	30

■ AFUX - Screw holder for Phillips® screws

- Bush rotation secures the blade in the screw head.
- Finely knurled steel handle.
- AFUX.2 is fitted with a magnet at the end of the handle.

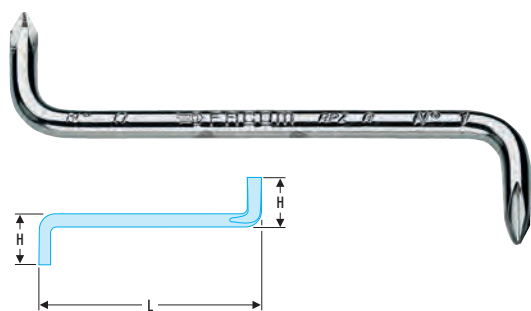


Model	L [mm]	Phillips [No]	ΔΔ [g]
AFUX.1	130	PH1	25
AFUX.2	235	PH2	40



ANGLED SCREWDRIVERS

APZ - Angled screwdrivers - for Phillips® screws



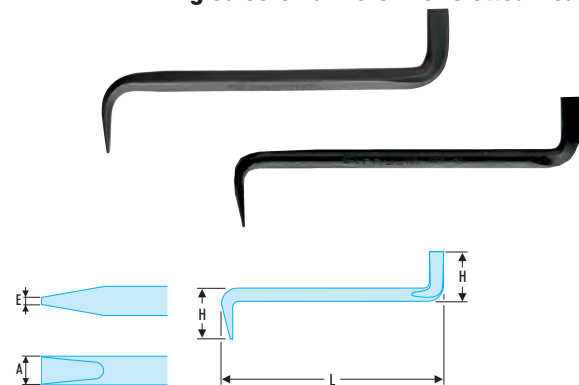
DIN 5008

- A different head at each end.
- For use in confined space.
- Finish: chromed.



➤	H [mm]	L [mm]	Phillips [No]	ΔΔ [g]
APZ.A	18	86	PH0 - PH1	15
APZ.B	20	142	PH1 - PH2	40
APZ.C	22	205	PH3 - PH4	140

ARZ - AKZ - Angled screwdrivers - for slotted-head screws



DIN 5000

- ARZ round blade.
- AKZ square blade.
- Two ends in two planes at 90°.
- Operating by quarter turn flip.
- Finish: burnt.



➤	A [mm]	E [mm]	H [mm]	H3 [mm]	L [mm]	L1 [mm]	ΔΔ [g]
ARZ.4	4,0	0,8	13,0	0,5	86	0,5	10
ARZ.5,5	5,5	1,0	14,0	0,6	95	0,6	20
ARZ.6,5	6,5	1,2	16,0	0,7	110	0,7	30
AKZ.6	8,0	1,2	17,5	0,7	123	0,7	40
AKZ.8	10,0	1,6	20,0	1	175	1,0	90

KEYS

KEY SETS IN BAG

JL - JU - Set of hexagon keys in roll



- 82H: Short keys.
  - 83H: Long keys.
  - 83SH: Spherical head long keys.
- JL = metric key sets.  
JU = inch key sets.



➤	Hex Size ["]	Hex Size [mm]	Wrench	ΔΔ [g]
82H.JE10	-	0,9 - 1,5 - 2,0 - 2,5 - 3,0 - 3,5 - 4,0 - 4,5 - 5,0 - 6,0	82H	122
82H.JL10	-	2,0 - 2,5 - 3,0 - 4,0 - 5,0 - 6,0 - 7,0 - 8,0 - 9,0 - 10,0	82H	433
82H.JL12	-	1,5 - 2,0 - 2,5 - 3,0 - 4,0 - 5,0 - 6,0 - 7,0 - 8,0 - 9,0 - 10,0 - 12,0	82H	600
82H.JL13	-	3 - 4 - 5 - 6 - 7 - 8 - 9 - 10 - 11 - 12 - 14 - 17 - 19	82H	2220
82H.JU7	0,028 - 0,035 - 0,050 - 3/64 - 1/16 - 5/64 - 3/32	-	82H	151
82H.JU10	1/16 - 5/64 - 3/32 - 1/8 - 3/32 - 3/16 - 7/32 - 1/4 - 5/16 - 3/8	-	82H	433
82H.JU13	3/32 - 1/8 - 5/32 - 3/16 - 7/32 - 1/4 - 5/16 - 3/8 - 7/16 - 1/2 - 9/16 - 5/8 - 3/4	-	82H	2080
83H.JL10	-	2,0 - 2,5 - 3,0 - 4,0 - 5,0 - 6,0 - 7,0 - 8,0 - 9,0 - 10,0	83H	585
83H.JL12	-	1,5 - 2 - 2,5 - 3 - 4 - 5 - 6 - 7 - 8 - 9 - 10 - 12	83H	810
83H.JL13	-	3 - 4 - 5 - 6 - 7 - 8 - 9 - 10 - 11 - 12 - 14 - 17 - 19	83H	3040
83H.JU10	1/16 - 5/64 - 3/32 - 1/8 - 5/32 - 3/16 - 7/32 - 1/4 - 5/16 - 3/8	-	83H	440
83SH.JL10	-	2,0 - 2,5 - 3,0 - 4,0 - 5,0 - 6,0 - 7,0 - 8,0 - 9,0 - 10,0	83SH	585
83SH.JL12	-	1,5 - 2,0 - 2,5 - 3,0 - 4,0 - 5,0 - 6,0 - 7,0 - 8,0 - 9,0 - 10,0 - 12,0	83SH	810
83SH.JU8	3/32 - 1/8 - 5/32 - 3/16 - 7/32 - 1/4 - 5/16 - 3/8	-	83SH	435

KEY RINGSETS

87HL - Long hexagon key ringsets

NF ISO 2936, ISO 2936, DIN ISO 2936, ASME B18.3.2M

- Keys from series 83H.
- Silicon steel.
- Finish: phosphate-coated.

⚙️	⬡ [mm]	ΔΔ [g]
87HL.JE8	1,5 - 2,0 - 2,5 - 3,0 - 4,0 - 5,0 - 6,0 - 8,0	150
87HL.JU8	5/64 - 3/32 - 1/8 - 5/32 - 3/16 - 7/32 - 1/4 - 5/16	175



87H - Short hexagon key ringsets

NF ISO 2936, ISO 2936, DIN ISO 2936, ASME B18.3.2M

- Keys from series 82H.
- Silicon steel.
- Finish: phosphate-coated.

⚙️	⬡ ["]	⬡ [mm]	ΔΔ [g]
87H.JE8	-	1,5 - 2,0 - 2,5 - 3,0 - 4,0 - 5,0 - 6,0 - 8,0	150
87H.JU8	5/64 - 3/32 - 1/8 - 5/32 - 3/16 - 7/32 - 1/4 - 5/16	-	175



Torx® key ringsets

- Compliant with Torx® specifications.
- Includes the 8 Torx® keys no.: T8 - T10 - T15 - T20 - T25 - T27 - T30 - T40.

⚙️	ΔΔ [g]
89.JA8	107



KEYS SET IN ROLL

89.JL - Set of Torx® keys in roll

- Compliant with Torx® specifications.

⚙️	Torx [No]	Wrench	ΔΔ [g]
89.JL8	8 - 10 - 15 - 20 - 25 - 27 - 30 - 40	89	110
89.JL12	7 - 8 - 9 - 10 - 15 - 20 - 25 - 27 - 30 - 40 - 45 - 50	89	271



## FACOM HEX KEYS



### Strong and durable:

- Silicon alloy, for strength and wear resistance.

### Guaranteed safe:

- Precise, constant heat treatment controls the hardness of the key, to ensure that, if overloaded, it will fail by twisting before breaking cleanly and without splintering.

### Perfect fit in the screw:

- Keys cut, not sheared, to give a clean, regular face.

### ... and tool holders to suit every need.

- JP sleeve sets of hexagonal and Torx® keys.
- Multi-blade hexagonal and Torx® drivers.
- Ring, wallet or module sets.

### A comprehensive range

- Hexagon keys available in three lengths, with standard and spherical heads (series 82 and 83).
- Torx® and Resistorx® keys (series 89).
- Special pattern keys: XZN®, groove sockets and Bristol (series 80, 81 and 85).
- Hexagonal tee-handle keys (series 84 TC).
- Hexagonal and Torx® tee-handled nut spinners (series 84TZ and 89TX).
- Protwist® hexagonal and spherical head nut spinners (series AWHH and AWSH).



## "EASY LOCK SYSTEM" SLEEVE



### Full access to each key

- Access to each key regardless of the position of the others.
- Easy tool storage and selection.
- Flat sleeve-case, hinged flap.



### Constant key holding over time

- Positive key locking even when sleeve worn.
- No risk of losing keys.



### Convenient hanging hole

- Offset position of the fastening hole.

### Strong and durable

- Elastomer chosen for its wear resistance, good durability and its resistance to chemicals and weather variations.



WALLET OF KEYS

JP - Set of hexagon keys in wallet

- Keys are packaged in a compact wallet for easy selection of the dimension required.
- Sets available in 4 types of keys:
  - 82H: Short keys.
  - 83H: Long keys.
  - 83SH: Spherical head long keys.
  - 83S.L: Spherical head extra-long keys.

JP = metric key sets  
JPU = inch key sets.

Ref	6 [°]	6 [mm]	Wrench	Qty	ΔΔ [g]
82H.JP9A	-	1,5 - 2,0 - 2,5 - 3,0 - 4,0 - 5,0 - 6,0 - 8,0 - 10,0	82H	9	260
83H.JP9A	-	1,5 - 2,0 - 2,5 - 3,0 - 4,0 - 5,0 - 6,0 - 8,0 - 10,0	83H	9	350
83SH.JP7	-	1,5 - 2 - 2,5 - 3 - 4 - 5 - 6	83SH	7	290
83SH.JP9A	-	1,5 - 2,0 - 2,5 - 3,0 - 4,0 - 5,0 - 6,0 - 8,0 - 10	83SH	9	380
83SH.JPAA	-	1,5 - 2,0 - 2,5 - 3,0 - 4,0 - 5,0 - 6,0 - 7,0 - 8,0	83SH	9	270
83SH.JP6U	3/32 - 1/8 - 5/32 - 3/16 - 7/32 - 1/4	-	83SH	6	300
83SH.JP8AU	3/32 - 1/8 - 5/32 - 3/16 - 7/32 - 1/4 - 5/16 - 3/8	-	83SH	8	365
83S.JP9AL	-	1,5 - 2,0 - 2,5 - 3,0 - 4,0 - 5,0 - 6,0 - 8,0 - 10,0	83S.L	9	350
82H.JP8AU	3/32 - 1/8 - 5/32 - 3/16 - 7/32 - 1/4 - 5/16 - 3/8	-	82H	8	235



Set of 6 keys for 6-point safety screws

- Keys are packaged in a compact wallet for easy selection of the dimension required.
- The wallet contains the dimensions: 2 - 2.5 - 3 - 4 - 5 - 6 mm.

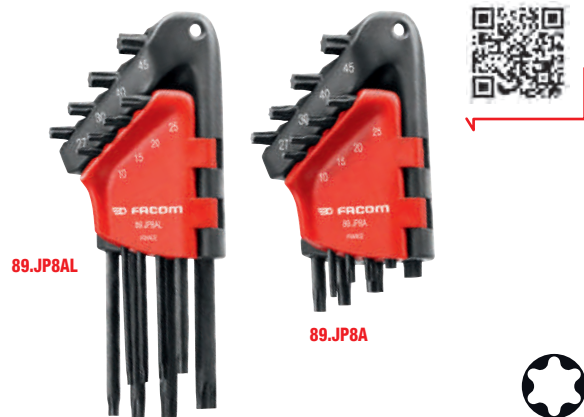
Ref	Qty	ΔΔ [g]
83R.JP6	6	350



89.JP - Set of Torx® keys in wallet

- Compliant with Torx® and Resistorx® specifications.
- Keys are packaged in a compact wallet for easy selection of the dimension required.
  - Sets available in 4 types of keys:
    - 89: Torx® keys.
    - 89L: Long Torx® keys.
    - 89R: Resistorx® keys.
    - 89S: Long - spherical heads.

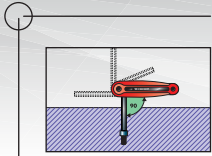
Ref	Torx [No]	Wrench	Qty	ΔΔ [g]
89.JP6	T10 - T15 - T20 - T25 - T30 - T40	89	6	230
89.JP8A	T10 - T15 - T20 - T25 - T27 - T30 - T40 - T45	89	8	330
89.JP8AL	T10 - T15 - T20 - T25 - T27 - T30 - T40 - T45	89L	8	360
89R.JP6	T10 - T15 - T20 - T25 - T30 - T40	89R	6	220
89S.JP8A	T10 - T15 - T20 - T25 - T27 - T30 - T40 - T45	89S	8	260



SLEEVE-SETS OF KEYS

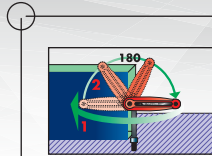
**MULTI-BLADE HANDLE**

**Powerful and ergonomic**



**90° Stop**

- Provides positive leverage for safe and powerful rotation.

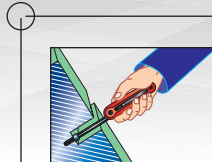


**Blade at 180°**

- For fast pre-tightening in "screwdriver" position.

**Holder swings 180°**

- For fast re-positioning without removing the blade from the fastener.



**Composite construction**

- Metal frame for 30% more strength.
- Resin side pieces for comfortable handling.
- For hexagon and Torx® keys.



■ **86H - Hexagon keys on sleeve**



- Very compact sleeve.
- Positive grip.
- Keys on 90° end stop for tightening.
- Keys in silicon steel issued from 82h series.
- Finish: phosphate-coated.

	d [mm]	d1 [mm]	L [mm]	L1 [mm]	6 ["]	6 [mm]	Qty	ΔΔ [g]
<b>86H.JE7A</b>	30	24	138	32	-	2,5 - 3,0 - 4,0 - 5,0 - 6,0 - 8,0 - 10,0	7	405
<b>86H.JE7B</b>	22	18	118	28	-	1,5 - 2,0 - 2,5 - 3,0 - 4,0 - 5,0 - 6,0	7	145
<b>86H.JU6</b>	30	24	138	32	5/32 - 3/16 - 7/32 - 1/4 - 5/16 - 3/8	-	6	420
<b>86H.JU7</b>	22	18	118	28	1/16 - 5/64 - 3/32 - 1/8 - 5/32 - 3/16 - 1/4	-	7	142

■ **89.JM - Hexagon Torx® keys on sleeve**

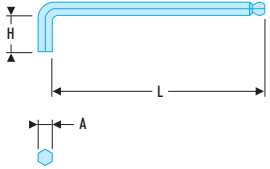


- Compliant with Torx® and Resistorx® specifications.
- Highly compact sleeve, positive grip.
- 89A.JM8: Torx® (T).
- 89R.JM8: Resistorx® (TT).

	d [mm]	d1 [mm]	L [mm]	L1 [mm]	Torx [No]	Qty	ΔΔ [g]
<b>89A.JM8</b>	30	24	138	32	T8 - 10 - 15 - 20 - 25 - 27 - 30 - 40	8	170
<b>89R.JM8</b>	30	24	138	32	TT8 - 10 - 15 - 20 - 25 - 27 - 30 - 40	8	160

HEXAGON KEYS

83SH - Long metric keys - spherical head

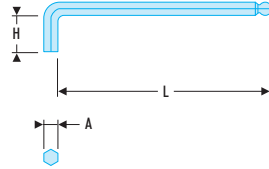


NF ISO 2936, ISO 2936, DIN ISO 2936, ASME B18.3.2M

- Manufactured in silicon steel.
- The spherical head allows to handle screws with a tilt angle up to 30°.
- Finish: phosphate-coated.

⊞	A [mm]	H [mm]	H x L [mm]	L [mm]	ΔΔ [g]
83SH.1,5	1,5	14	14 x 62	62	1
83SH.2	2,0	16	16 x 75	75	2
83SH.2,5	2,5	18	18 x 85	85	4
83SH.3	3,0	20	20 x 90	90	7
83SH.4	4,0	25	25 x 100	100	15
83SH.5	5,0	28	28 x 115	115	24
83SH.6	6,0	32	32 x 135	135	42
83SH.7	7,0	34	34 x 140	140	57
83SH.8	8,0	36	36 x 150	150	80
83SH.9	9,0	38	38 x 160	160	110
83SH.10	10,0	40	40 x 170	170	140
83SH.12	12,0	45	45 x 190	190	225

83SH - Long inch keys - spherical head



ASME B18.3

- Manufactured in silicon steel.
- The spherical head allows to handle screws with a tilt angle up to 30°.
- Finish: phosphate-coated.

⊞	A ["]	H [mm]	H x L [mm]	L [mm]	ΔΔ [g]
83SH.3/32	3/32	17	17 x 85	86	4
83SH.1/8	1/8	19	20 x 90	95	7
83SH.5/32	5/32	21	25 x 100	105	13
83SH.3/16	3/16	24	28 x 115	114	22
83SH.7/32	7/32	26	32 x 135	124	34
83SH.5/16	5/16	32	36 x 150	152	80
83SH.3/8	3/8	35	38 x 170	172	128

83S.L - Extra long keys - spherical head

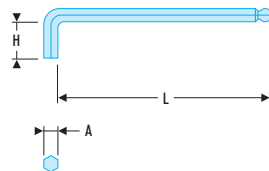


NF ISO 2936, ISO 2936, DIN ISO 2936, ASME B18.3.2M

- Higher lengths: more lever, higher power, improved line access.
- Finish: phosphate-coated.



⊞	A [mm]	H [mm]	H x L [mm]	L [mm]	ΔΔ [g]
83S.2L	2,0	16	16 x 100	100	4
83S.2,5L	2,5	18	18 x 111	111	6
83S.3L	3,0	20	20 x 124	124	10
83S.4L	4,0	25	25 x 138	138	20
83S.5L	5,0	28	28 x 159	159	36
83S.6L	6,0	32	32 x 179	179	58
83S.8L	8,0	36	36 x 198	198	115
83S.10L	10,0	40	40 x 221	221	200



HEXAGON KEYS

83H - Long metric keys



NF ISO 2936,  
ISO 2936,  
DIN ISO 2936, ASME B18.3.2M

- Manufactured in silicon steel.
- Finish: phosphate-coated.



Ø	A [mm]	H [mm]	L [mm]	ΔΔ [g]
83H.1,5	1,5	14	62	1
83H.2	2,0	16	75	2
83H.2,5	2,5	18	85	4
83H.3	3,0	20	90	7
83H.3,5	3,5	25	95	10
83H.4	4,0	25	100	15
83H.4,5	4,5	26	110	18
83H.5	5,0	28	115	24
83H.6	6,0	32	135	42
83H.7	7,0	34	140	57
83H.8	8,0	36	150	80
83H.9	9,0	38	160	110
83H.10	10,0	40	170	140
83H.11	11,0	42	180	180
83H.12	12,0	45	190	225
83H.13	13,0	50	200	286
83H.14	14,0	56	215	361
83H.15	15,0	58	225	435
83H.16	16,0	60	235	515
83H.17	17,0	63	245	602
83H.18	18,0	66	255	713
83H.19	19,0	70	265	830
83H.22	22,0	80	275	1010
83H.23	23,0	85	285	1160
83H.24	24,0	90	299	1310
83H.27	27,0	100	315	1380
83H.32	32,0	125	64	1470

83H - Long inch keys

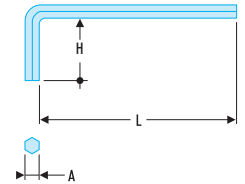


ASME B18.3

- Manufactured in silicon steel.
- Finish: phosphate-coated.



Ø	A ["]	H [mm]	L [mm]	ΔΔ [g]
83H.3/64	3/64	14	58	1,00
83H.1/16	1/16	13	62	2,00
83H.5/64	5/64	16	75	3,00
83H.3/32	3/32	17	85	4,00
83H.7/64	7/64	18	90	5,00
83H.1/8	1/8	20	90	7,00
83H.9/64	9/64	22	95	10,00
83H.5/32	5/32	25	100	13,00
83H.3/16	3/16	28	115	22,00
83H.7/32	7/32	32	135	34,00
83H.1/4	1/4	32	140	46,00
83H.5/16	5/16	36	150	80,00
83H.3/8	3/8	38	170	128,00
83H.7/16	7/16	42	180	186,00
83H.1/2	1/2	45	190	263,00
83H.9/16	9/16	56	215	376,00



82H - Short metric keys



NF ISO 2936, ISO 2936,  
DIN ISO 2936,  
ASME B18.3.2M

- Manufactured in silicon steel.
- Finish: phosphate-coated.



Ø	A [mm]	H [mm]	L [mm]	ΔΔ [g]
82H.0,9	0,9	12	38	0,3
82H.1,3	1,3	13	45	0,7
82H.1,5	1,5	13	45	0,9
82H.2	2	16	50	2
82H.2,5	2,5	17	62	3
82H.3	3	20	65	5
82H.3,5	3,5	22	66	8
82H.4	4	25	70	10
82H.4,5	4,5	26	75	15
82H.5	5	28	80	20
82H.6	6	32	90	30
82H.7	7	34	95	45
82H.8	8	36	100	60
82H.9	9	38	105	80
82H.10	10	40	112	100
82H.11	11	42	118	130
82H.12	12	45	125	165
82H.13	13	50	135	205
82H.14	14,0	55	140	260
82H.15	15,0	58	150	310
82H.16	16,0	60	154	370
82H.17	17,0	63	160	440
82H.18	18,0	66	170	540
82H.19	19,0	70	180	640
82H.22	22,0	80	200	950
82H.23	23,0	85	210	1100
82H.24	24,0	90	224	1300
82H.27	27,0	100	250	1300
82H.32	32,0	125	315	1400

82H - Short inch keys

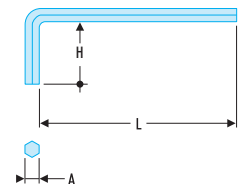


ASME B18.3

- Manufactured in silicon steel.
- Finish: phosphate-coated.



Ø	A ["]	H [mm]	L [mm]	ΔΔ [g]
82H.050	0,5	12	38	0,4
82H.3/64	3/64	12	38	0,5
82H.1/16	1/16	13	45	0,7
82H.5/64	5/64	16	50	2
82H.3/32	3/32	17	62	3
82H.7/64	7/64	18	60	4
82H.1/8	1/8	20	65	6
82H.9/64	9/64	22	66	8
82H.5/32	5/32	25	70	10
82H.3/16	3/16	28	80	16
82H.7/32	7/32	32	90	24
82H.1/4	1/4	32	90	33
82H.5/16	5/16	36	100	59
82H.3/8	3/8	40	112	90
82H.7/16	7/16	42	118	135
82H.1/2	1/2	45	125	200
82H.9/16	9/16	55	140	273
82H.5/8	5/8	60	160	383
82H.11/16	11/16	63	170	540
82H.3/4	3/4	70	175	623
82H.7/8	7/8	80	200	955
82H.1'	1'	90	235	1500



STAINLESS STEEL HEXAGON KEYS

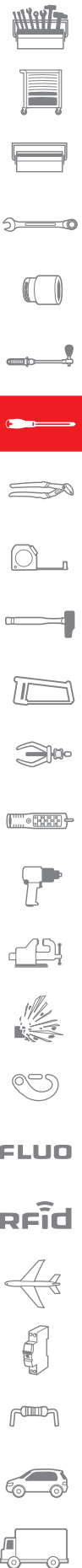
STAINLESS STEEL KEYS



**Stainless steel X46Cr13**  
 • Also used for high range food grade cutlery, surgical tools, brake discs, etc.

**Vacuum quenching**  
 • Guarantees mechanical characteristics and resistance to corrosion.

**Bacteriological tests passed after sterilisation in autoclave**  
 • 20 min at 120°C, 1 bar over-pressure.

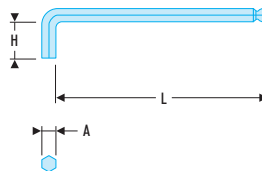


■ 83SH.ST - Stainless steel keys - hexagonal

- NF ISO 2936, ISO 2936, DIN ISO 2936, ASME B18.3.2M
- Stainless steel Ref X46Cr13. Also used for high range food grade cutlery, surgical tools, brake discs, etc.
  - Vacuum quenching guarantees mechanical characteristics and resistance to corrosion.
  - Bacteriological tests conclusive after autoclave sterilisation (20 min at 120°C, overpressure 1 bar).



83SH	A [mm]	H [mm]	L [mm]	ΔΔ [g]
83SH.1.5ST	1,5	14	62	1
83SH.2ST	2,0	16	75	2
83SH.2.5ST	1,5	18	85	4
83SH.3ST	3,0	20	90	7
83SH.4ST	4	25	100	15
83SH.5ST	5,0	28	115	24
83SH.6ST	6,0	32	135	42
83SH.8ST	8,0	36	150	80
83SH.10ST	10,0	40	170	140



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## STAINLESS STEEL HEXAGON KEYS

## Set of 9 hexagonal stainless steel keys



- Stainless steel Ref X46Cr13. Also used for high range food grade cutlery, surgical tools, brake discs, etc.
- Vacuum quenching guarantees mechanical characteristics and resistance to corrosion.
- Bacteriological tests conclusive after autoclave sterilisation (20 min at 120°C, overpressure 1 bar).



83SHST.JP9	6 [mm]	Wrench	ΔΔ [g]
	1,5 - 2,0 - 2,5 - 3,0 - 4,0 - 5,0 - 6,0 - 8,0 - 10,0	9	365

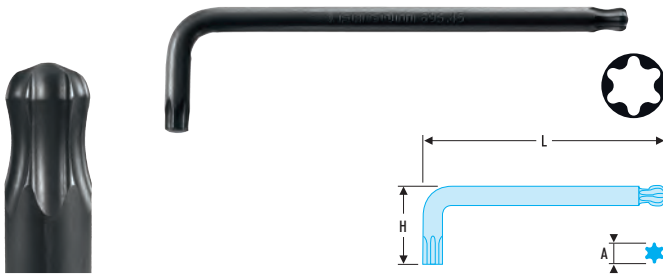
## STAINLESS STEEL SCREWDRIVERS

# Stainless steel screwdriver range available p. 426



## TORX® HEXAGON KEYS

## 89S - Long Torx® keys - spherical head

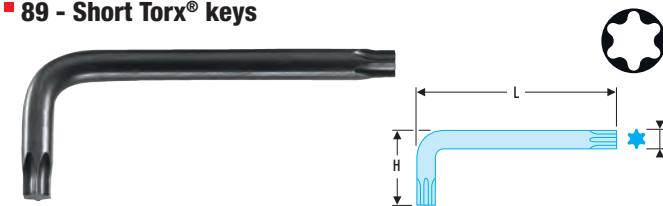


- Compliant with Torx® specifications.
- The spherical head allows for a deflection up to 20° for use in confined spaces.
- Finish: burnt.



	A [mm]	H [mm]	L [mm]	Torx [No]	ΔΔ [g]
89S.15	3,26	22	93,5	T15	8
89S.20	3,84	23	99	T20	10
89S.25	4,40	25	105	T25	18
89S.27	4,96	27	110,5	T27	23
89S.30	5,49	30	120	T30	30
89S.40	6,60	33	131	T40	45
89S.45	7,70	27	141	T45	63

## 89 - Short Torx® keys



- Compliant with Torx® specifications.
- Finish: burnt.



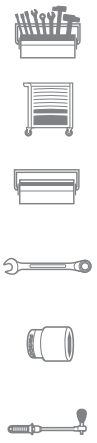
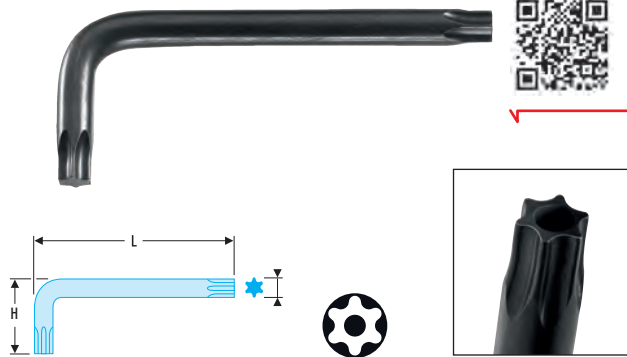
	A [mm]	H [mm]	L [mm]	Torx [No]	ΔΔ [g]
89.6	1,65	18,0	51,0	T6	3
89.7	1,97	18,0	51,5	T7	3
89.8	2,30	18,0	51,5	T8	3
89.9	2,48	19,5	51,5	T9	4
89.10	2,72	19,5	53,0	T10	4
89.15	3,26	21,5	57,0	T15	6
89.20	3,84	24,0	61,0	T20	8

	A [mm]	H [mm]	L [mm]	Torx [No]	ΔΔ [g]
89.25	4,40	25,5	63,5	T25	11
89.27	4,96	27,0	67,5	T27	16
89.30	5,49	30,0	76,0	T30	20
89.40	6,60	34,0	83,5	T40	31
89.45	7,70	37,0	88,5	T45	43
89.50	8,79	41,0	106,0	T50	62
89.55	11,17	48,0	121,0	T55	70

■ 89R - Short Resistorx® keys

- Compliant with Resistorx® specifications.
- For security screws.
- Finish: burnt.

89R	A [mm]	H [mm]	L [mm]	Torx [No]	ΔΔ [g]
89R.10	2,72	20	54	T10	4
89R.15	3,26	21	57	T15	6
89R.20	3,84	24	61	T20	8
89R.25	4,40	25	65	T25	11
89R.30	5,49	30	76	T30	20
89R.40	6,60	33	83	T40	31



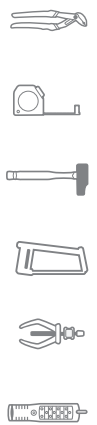
"P" HANDLE HEX KEYS



**Durable steel blade :**  
 • High torque resistance and long tip life (ISO 2936)



**Soft grip handle for better comfort :**  
 • High torque transfer and better control.



SPINNER KEYS - "P" SPINNER KEYS

■ Set of 7 "P" Handled Hex Keys with ball end - Metric

- 84TZ.3 mm.
- 84TZ.3 mm.
- 84TZS.4 - 5 - 6 - 7 - 8 - 10 mm.

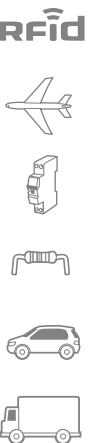
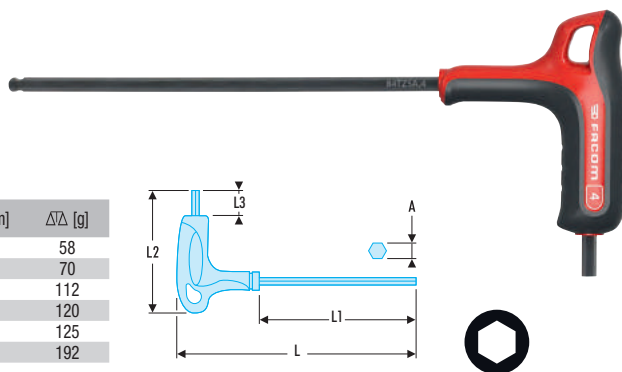
84TZ	H [mm]	L [mm]	Tray	Qtés	ΔΔ [g]
MOD.84TZSA	40	418	PL329	7	996



■ 84TZSA - "P" Handled Hex Keys with ball end - Metric

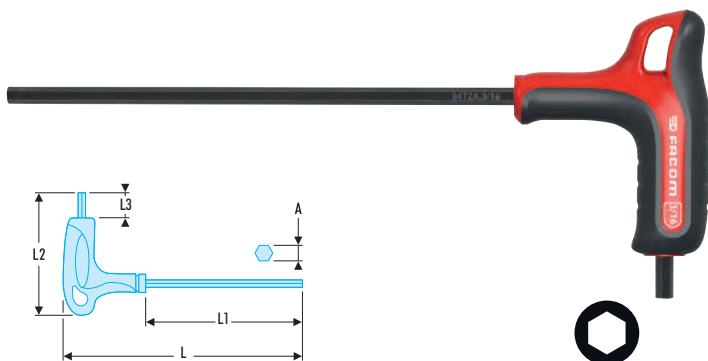
- Carbon silicon steel for longer life.
- Soft grip handle for comfort and to apply more torque.
- Spherical head allows for fast screwing up to 30° angle.
- Short end for high torque / tightening.
- Finish: polished, phosphate-coated.

84TZSA	A [mm]	L [mm]	L1 [mm]	L2 [mm]	L3 [mm]	ΔΔ [g]
84TZSA.4	4	183	130	77	12	58
84TZSA.5	5	183	130	77	12	70
84TZSA.6	6	240	175	95	15	112
84TZSA.7	7	240	175	95	15	120
84TZSA.8	8	240	175	95	15	125
84TZSA.10	10	240	175	95	15	192



## SPINNER KEYS - "P" SPINNER KEYS

## 84TZA - "P" Handled Hex Keys - Metric

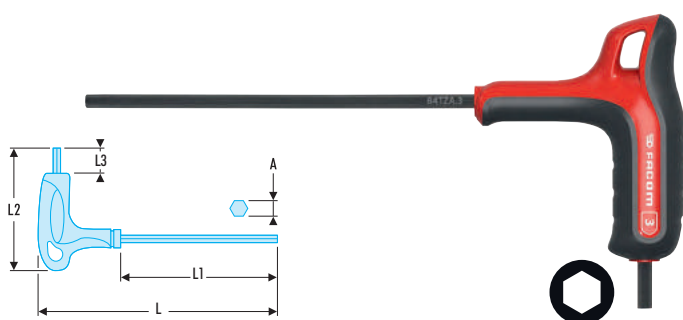


- Carbon silicon steel for longer life
- Soft grip handle for comfort and to apply more torque
- Spherical head allows for fast screwing up to 30° angle.
- Short end for high torque / tightening.
- Finish: polished, phosphate-coated.



⌘	A [mm]	L [mm]	L1 [mm]	L2 [mm]	L3 [mm]	ΔΔ [g]
<b>84TZA.2.5</b>	2.5	133	90	63	11	9
<b>84TZA.3</b>	3	133	90	63	11	12
<b>84TZA.4</b>	4	183	130	77	12	58
<b>84TZA.5</b>	5	183	130	77	12	70
<b>84TZA.6</b>	6	240	175	95	15	112
<b>84TZA.8</b>	8	240	175	95	15	125
<b>84TZA.10</b>	10	240	175	95	15	192

## 84TZA - "P" Handled Hex Keys - Imperial



- Carbon silicon steel for longer life
- Soft grip handle for comfort and to apply more torque
- Spherical head allows for fast screwing up to 30° angle.
- Short end for high torque / tightening.
- Finish: polished, phosphate-coated.



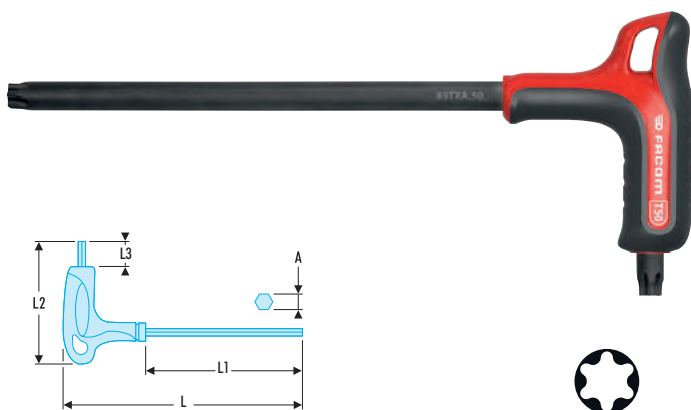
⌘	A ["]	L [mm]	L1 [mm]	L2 [mm]	L3 [mm]	ΔΔ [g]
<b>84TZA.5/32</b>	5/32	183	130	77	12	58
<b>84TZA.3/16</b>	3/16	183	130	77	12	65
<b>84TZA.7/32</b>	7/32	240	175	95	15	80
<b>84TZA.1/4</b>	1/4	240	175	95	15	115
<b>84TZA.5/16</b>	5/16	240	175	95	15	125
<b>84TZA.3/8</b>	3/8	240	175	95	15	180

## Set of 7 "P" Handled Hex Keys - TORX®



⌘	H [mm]	L [mm]	Content set	Tray	Qty	ΔΔ [g]
<b>MOD.89TXA</b>	40	418	89TX.10 - 15 - 20 - 25 - 27 - 30 - 40	PL328	7	648

## 89TXA - "P" Handled Hex Keys - TORX®



- Carbon silicon steel for longer life
- Soft grip handle for comfort and to apply more torque
- Spherical head allows for fast screwing up to 30° angle.
- Short end for high torque / tightening.
- Finish: chromed shot-blasted.



⌘	A [mm]	L [mm]	L1 [mm]	L2 [mm]	L3 [mm]	Torx [No]	ΔΔ [g]
<b>89TXA.6</b>	1,65	133	90	63	11	T6	7
<b>89TXA.7</b>	1,97	133	90	63	11	T7	8
<b>89TXA.8</b>	2,30	133	90	63	11	T8	9
<b>89TXA.9</b>	2,48	133	90	63	11	T9	10
<b>89TXA.10</b>	2,72	133	90	63	12	T10	12
<b>89TXA.15</b>	3,26	133	130	77	12	T15	15
<b>89TXA.20</b>	3,84	183	130	77	12	T20	40
<b>89TXA.25</b>	4,40	183	130	77	15	T25	55
<b>89TXA.27</b>	4,96	183	175	95	15	T27	60
<b>89TXA.30</b>	5,49	240	175	95	15	T30	90
<b>89TXA.40</b>	6,60	240	175	95	15	T40	105
<b>89TXA.45</b>	7,77	240	175	95	15	T45	125
<b>89TXA.50</b>	8,79	240	175	95	15	T50	170



■ Set of 5 "T" spinner hexagon keys

- Including the wrenches 84TC.3 - 4 - 5 - 6 - 8 mm.

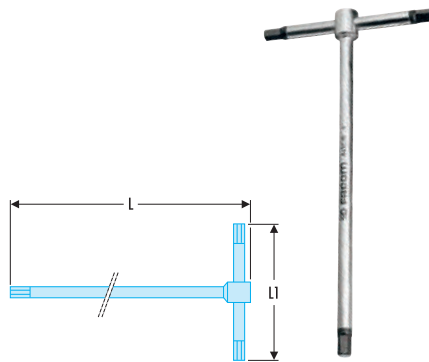


Content set	Qty	ΔΔ [g]
84TC.JE5 84TC.3 - 4 - 5 - 6 - 8 mm	5	519

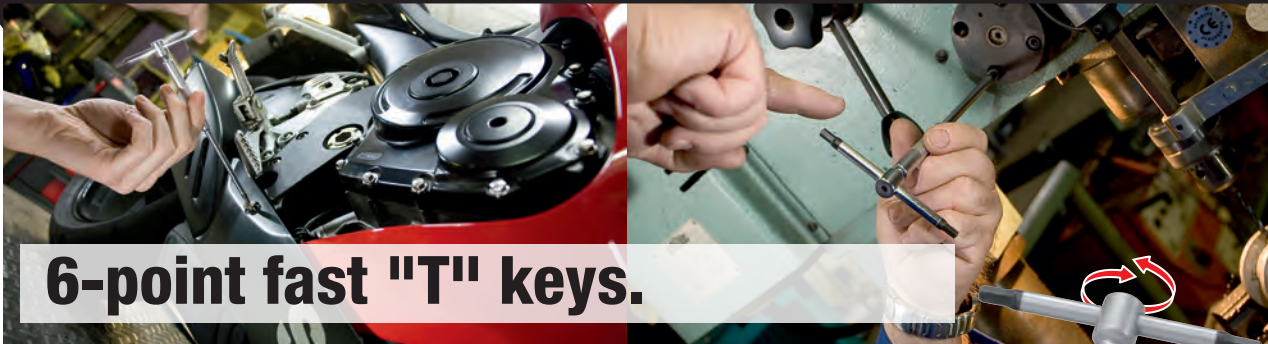
■ 84TC - "T" spinner metric hexagon keys

- Hexagon profile at the 3 ends.
- Finish: chromed, burnt ends.

	L [mm]	L1 [mm]	Hex Size [mm]	ΔΔ [g]
84TC.2	125	62,5	2,0	22
84TC.2,5	125	62,5	2,5	22
84TC.3	150	75,0	3,0	26
84TC.4	180	90,0	4,0	63
84TC.5	210	105,0	5,0	100
84TC.6	210	105,0	6,0	145
84TC.8	250	125,0	8,0	220
84TC.10	300	150,0	10,0	440
84TC.12	320	160,0	12,0	645
84TC.14	340	170,0	14,0	680



"T" SOCKET WRENCH WITH SLIDE BAR



6-point fast "T" keys.

Two times faster than a standard wrench = incredible work ergonomics.

**Usage:**

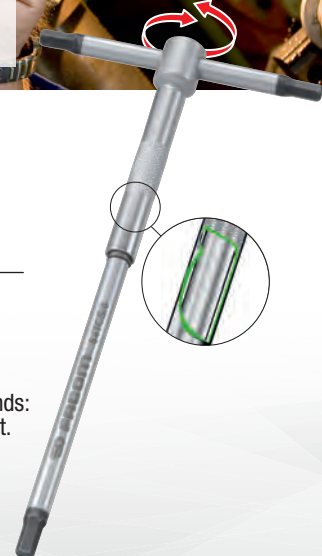
- Hold the tube.
- Launch the wrench.
- The wrench is guided properly and turns much faster than when holding it between the fingers: "rolling effect".

**Access:**

- The long-reaching body provides better access than with a traditional 6-point wrench.
- Easy access to screws requiring depth.

**Powerful tightening/loosening:**

- 6-point key at the 3 ends: for a "lever arm" effect.



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## SPINNER KEYS - P SPINNER KEYS

## Set of 6 "T" wrenches with sliding bar

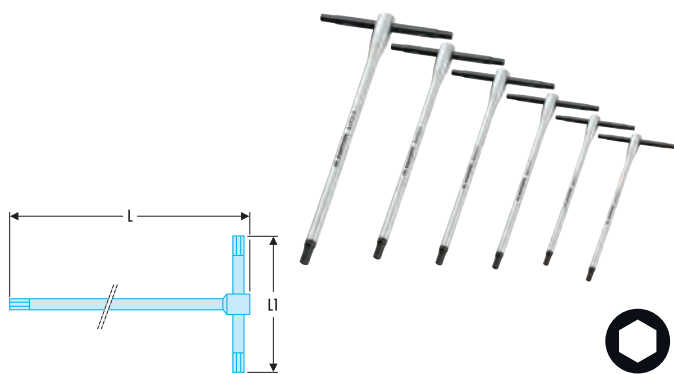


- Set of 6 male Tee wrenches



Content set	Qty	$\Delta\Delta$ [g]
<b>84TCD.J6</b> 84TCD.2,5 - 3 - 4 - 5 - 6 and 8 mm	6	500

## 84TCD - Sliding "T" keys



Suited for main applications such as motorbike repair, auto assembly and industrial maintenance.

- Available in six sizes, from 2.5 mm to 8 mm.
- Sliding transverse bar with tee for better access.
- Safety pin to prevent the bar from being extracted.
- Phosphate tips perfectly adapted to screws for better accuracy.
- Chrome vanadium steel for durability.
- Chrome finish with polished tips on the shank.



	L [mm]	L1 [mm]	$\Delta\Delta$ [g]
<b>84TCD.2.5</b>	125	63	20
<b>84TCD.3</b>	150	63	22
<b>84TCD.4</b>	175	76	47
<b>84TCD.5</b>	195	87	76
<b>84TCD.6</b>	215	99	117
<b>84TCD.8</b>	250	122	219

## Set of 6 spherical head spinner hexagon keys



Content set	Qty	$\Delta\Delta$ [g]
<b>AWSH.JT6</b> AWH2X75 - 2.5X75 - 3X75 - 4X75 - 5X100 - 6X100 mm	6	375



## AWSH - Spherical head spinner hexagon keys



- The spherical head allows to handle screws with a tilt angle up to 30°.
- Bi-material ergonomic PROTWIST® handle for comfortable and reliable screwing.



	d [mm]	d1 x L1 [mm]	L [mm]	L2 [mm]	Hex Size [mm]	$\Delta\Delta$ [g]
<b>AWSH2X75</b>	19	2,0 x 75	169	94	2,0	31
<b>AWSH2,5X75</b>	19	2,5 x 75	169	94	2,5	33
<b>AWSH3X75</b>	19	3,0 x 75	169	94	3,0	35
<b>AWSH4X75</b>	25	4,0 x 75	178	103	4,0	45
<b>AWSH5X100</b>	30	5,0 x 100	208	109	5,0	80
<b>AWSH6X100</b>	36	6,0 x 100	220	120	6,0	120
<b>AWSH8X100</b>	36	8,0 x 100	220	120	8,0	180

Set of 6 hexagon spinner keys



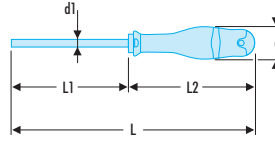
	Content set	Qty	ΔΔ [g]
<b>AWHH.JT6</b>	AWHH 2X75 - 2.5X75 - 3X75 - 4X75 - 5X100 - 6X100 mm	6	375

AWHH - Spinner hexagon keys

- Bi-material ergonomic PROTWIST® handle for comfortable and reliable screwing.



	d [mm]	L [mm]	L2 [mm]	Hex Size [mm]	ΔΔ [g]
<b>AWHH2X75</b>	19	169	94	2,0	31
<b>AWHH2,5X75</b>	19	169	94	2,5	33
<b>AWHH3X75</b>	19	169	94	3,0	35
<b>AWHH4X75</b>	25	178	103	4,0	45
<b>AWHH5X100</b>	30	209	109	5,0	80
<b>AWHH6X100</b>	36	220	120	6,0	120
<b>AWHH8X100</b>	36	220	120	8,0	180



SPECIAL PROFILE KEYS

80 - Short XZN keys®

- Compliant with XZN® specifications.
- Finish: chromed.

	A [mm]	XZN [No]	ΔΔ [g]
<b>80.5</b>	5	M5	16
<b>80.6</b>	6	M6	25
<b>80.8</b>	8	M8	46
<b>80.10</b>	10	M10	80
<b>80.12</b>	12	M12	131
<b>80.14</b>	14	M14	198
<b>80.16</b>	16	M16	300



Set of 7 angled keys for multiple XZN teeth



	Content set	Qty	ΔΔ [g]
<b>80.JL7</b>	M5 - M6 - M8 - M10 - M12 - M14 - M16	7	918



## RANGE OF FACOM SCREWING BITS

# Quality - Durability - Economy

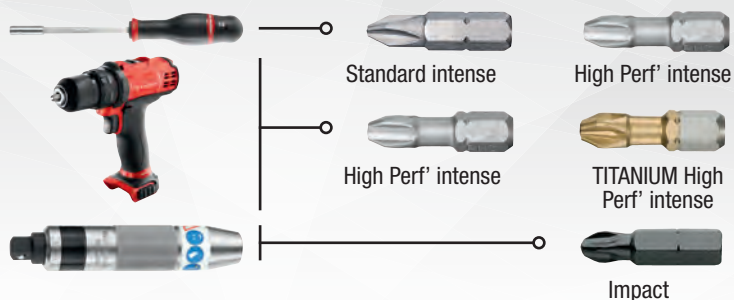
To choose your screwing bits, Facom offers different types of packaging:

- Per unit.
- Packaged by 3.
- 3 bits of the same type.
- 3 different bits.

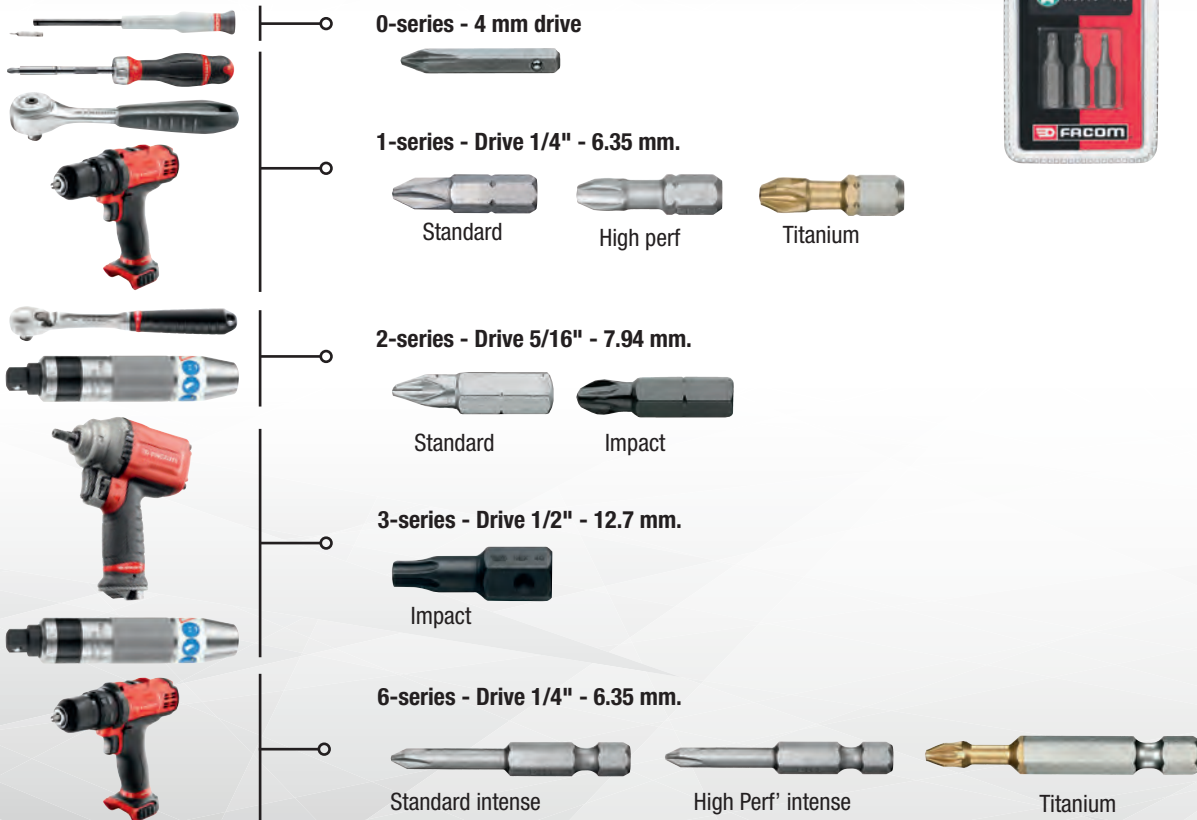


### Choosing the right bit for your needs:

- 1-According to the type of screw-driving method used:

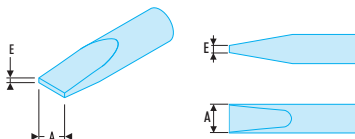


- 2-According to the hexagon drive:



STANDARD BITS SERIES 0 - DRIVE 4 MM

■ ES.0 - Screw bits for slotted head screws



- For manual high precision screwing.
- Drive 4 mm.
- For use with the Micro-Tech® bit holder screwdriver AEM.M.
- For use with the Micro-Tech® torque screwdrivers series A.300MT and A.340MT.



ES	E [mm]	E x l [mm]	L [mm]	A [mm]	ΔΔ [g]
ES.002	0,4	0,4 x 2,0	28	2,0	3
ES.002,5	0,4	0,4 x 2,5	28	2,5	3
ES.003	0,5	0,5 x 3,0	28	3,0	3
ES.004	0,5	0,5 x 4,0	28	4,0	3
ES.004,5	0,6	0,6 x 4,5	28	4,5	3

■ EP.0 - Screw bits for Phillips® screws



- For manual high precision screwing.
- Drive 4 mm.
- For use with the Micro-Tech® bit holder screwdriver AEM.M.
- For use with the Micro-Tech® torque screwdrivers series A.300MT and A.340MT.



EP	L [mm]	Phillips [No]	ΔΔ [g]
EP.0X2	28	PH.00	3
EP.000	28	PH.0	3

■ ED.0 - Screw bits for Pozidriv® screws



- For manual high precision screwing.
- Drive 4 mm.
- For use with the Micro-Tech® bit holder screwdriver AEM.M.
- For use with the Micro-Tech® torque screwdrivers series A.300MT and A.340MT.



ED	L [mm]	Pozidriv [No]	ΔΔ [g]
ED.0X2	28	PZ.00	3
ED.000	28	PZ.0	3
ED.001	28	PZ.1	3

■ EH.0 - Screw bits for countersunk hex head screws



- For manual high precision screwing.
- Drive 4 mm.
- For use with the Micro-Tech® bit holder screwdriver AEM.M.
- For use with the Micro-Tech® torque screwdrivers series A.300MT and A.340MT.



EH	L [mm]	Hex Size [mm]	ΔΔ [g]
EH.000,9	28	0,9	3
EH.001,3	28	1,3	3
EH.001,5	28	1,5	3
EH.002	28	2,0	3
EH.002,5	28	2,5	3

■ ETS.0 - Screw bits for countersunk hex spherical head screws

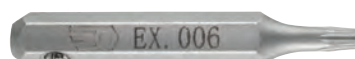


- For manual high precision screwing.
- Drive 4 mm.
- For use with the Micro-Tech® bit holder screwdriver AEM.M.



ETS	L [mm]	Hex Size [mm]	ΔΔ [g]
ETS.001,5	28	1,5	3
ETS.002	28	2,0	3
ETS.002,5	28	2,5	3

■ EX.0 - Screw bits for Torx® screws



- For manual high precision screwing.
- Drive 4 mm.
- For use with the Micro-Tech® bit holder screwdriver AEM.M.
- For use with the Micro-Tech® torque screwdrivers series A.300MT and A.340MT.



EX	L [mm]	Torx [No]	ΔΔ [g]
EX.006	28	T6	2
EX.007	28	T7	2
EX.008	28	T8	2
EX.010	28	T10	2



STANDARD BITS SERIES 0 - DRIVE 4 MM

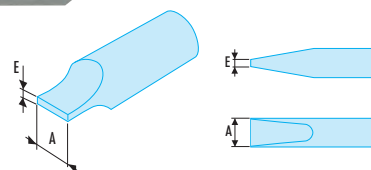
Socket holder bit 4mm - 1/4"



- Bit to use 1/4" "radio" series sockets with the Micro-Tech® torque screwdrivers A.300MT and A.340MT.
- Drive 4 mm (hex).
- Length: 22 mm.

Part No.	L [mm]	ΔΔ [g]
ECR.0	22	7

ES.1 - Standard bits series 1 for slotted head screws



- NF ISO 2351-1, NF ISO 1173, ISO 2351-1, ISO 1173, DIN ISO 2351-1
- For manual screwing.
  - Drive 1/4" - 6.35 mm.

Part No.	A [mm]	E [mm]	L [mm]	ΔΔ [g]
ES.133	3	0,5	25	5

EP.1 - Standard bits series 1 for Phillips® screws



- NF ISO 2351-2, NF ISO 1173, ISO 2351-2, ISO 1173, DIN ISO 2351-2
- For manual screwing.
  - Drive 1/4" - 6.35 mm.

Part No.	L [mm]	Phillips [No]	ΔΔ [g]
EP.100	25	PH0	7
EP.111	50	PH1	14
EP.122	50	PH2	14

ED.1 - Standard bits series 1 for Pozidriv® screws



- NF ISO 2351-2, NF ISO 1173, ISO 2351-2, ISO 1173, DIN ISO 2351-2
- For manual screwing.
  - Drive 1/4" - 6.35 mm.

Part No.	L [mm]	Pozidriv [No]	ΔΔ [g]
ED.100	25	PZ0	6
ED.111	50	PZ1	11
ED.112	50	PZ2	12

ECAR.1 - Standard bits series 1 for ROBERTSON square head screws



- NF ISO 1173, ISO 1173
- For manual screwing.
  - Drive 1/4" - 6.35 mm.

Part No.	d [mm]	L [mm]	square [No]	Square [°]	ΔΔ [g]
ECAR.101	3,5	25	1	1	8
ECAR.102	6,0	25	2	2	10
ECAR.103	6,0	25	3	3	12

EX.1 - Standard bits series 1 for Torx® screws



- NF ISO 1173, ISO 1173
- Compliant with Torx® specifications.
  - For manual screwing.
  - Drive 1/4" - 6.35 mm.

Part No.	A [mm]	L [mm]	Torx [No]	ΔΔ [g]
EX.106	1,65	25	T6	5
EX.107	1,97	25	T7	5
EX.108	2,30	25	T8	5
EX.109	2,48	25	T9	5
EX.110	2,72	25	T10	5
EX.115	3,26	25	T15	5
EX.120	3,84	25	T20	6
EX.125	4,40	25	T25	6
EX.127	4,96	25	T27	6
EX.130	5,49	25	T30	6
EX.140	6,60	25	T40	6

STANDARD BITS SERIES 1 - 1/4" - 6.35 MM DRIVE

EX1 - Set of 3 series 1 Torx® bits



- For Torx® screws.
- For manual screwing.
- Drive 1/4" - 6.35 mm.



	L [mm]	Torx [No]	Content set	ΔΔ [g]
EX108.J3	25	T8	EX.108 (x3)	19
EX110.J3	25	T10	EX.110 (x3)	19
EX115.J3	25	T15	EX.115 (x3)	19
EX120.J3	25	T20	EX.120 (x3)	24
EX125.J3	25	T25	EX.125 (x3)	21
EX127.J3	25	T27	EX.127 (x3)	20
EX130.J3	25	T30	EX.130 (x3)	21
EX140.J3	25	T40	EX.140 (x3)	24

Set of 3 series 1 Torx® bits T8-10-15



- Drive 1/4" - 6.35 mm.
- For manual screwing.
- For Torx® screws.
- Including 3 bits:
  - EX.108 (T8).
  - EX.110 (T10).
  - EX.115 (T15).
- Length: 25mm.



	Bits	ΔΔ [g]
EX11.J3	EX.125	80

Set of 3 series 1 Torx® bits T20-25-30



- Drive 1/4" - 6.35 mm.
- For manual screwing.
- For Torx® screws.
- Including 3 bits:
  - EX.120 (T20).
  - EX.125 (T25).
  - EX.130 (T30).
- Length: 25 mm.



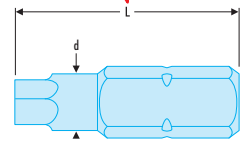
	Bits	ΔΔ [g]
EX12.J3	EX.127	41

EXP.1 - Standard bits series 1 for Torx Plus® screws



NF ISO 1173, ISO 1173

- Compliant with Torx Plus® specifications.
- For manual screwing.
- Drive 1/4" - 6.35 mm.

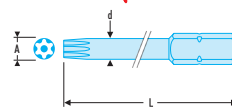


	L [mm]	Resistorx [No]	ΔΔ [g]
EXP.106	25	IP6	5
EXP.107	25	IP7	5
EXP.108	25	IP8	5
EXP.109	25	IP9	5
EXP.110	25	IP10	5
EXP.115	25	IP15	5
EXP.120	25	IP20	6
EXP.125	25	IP25	6
EXP.127	25	IP27	6
EXP.130	25	IP30	6
EXP.140	25	IP40	6

EXR.1 - Standard bits series 1 for Resistorx® screws

NF ISO 1173, ISO 1173

- Compliant with Resistorx® specifications.
- For manual screwing.
- Drive 1/4" - 6.35 mm.
- Long bits 70 mm are low cut for access to screws inserted in the wells.



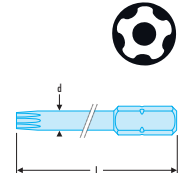
	A [mm]	d [mm]	L [mm]	Resistorx [No]	ΔΔ [g]
EXR.110	2,72	-	25	TT10	5
EXR.115	3,26	-	25	TT15	6
EXR.120	3,84	-	25	TT20	6
EXR.125	4,40	-	25	TT25	6
EXR.127	4,96	-	25	TT27	6
EXR.130	5,59	-	25	TT30	6
EXR.140	6,60	-	25	TT40	6
EXR.110L	2,72	5,2	70	TT10	8
EXR.115L	3,26	5,2	70	TT15	8
EXR.120L	3,84	5,6	70	TT20	9
EXR.125L	4,40	5,6	70	TT25	11
EXR.130L	5,59	6,0	70	TT30	14
EXR.140L	6,60	7,1	70	TT40	17

EXRP.1 - Standard bits series 1 for Tamper Resistant Torx Plus® screws

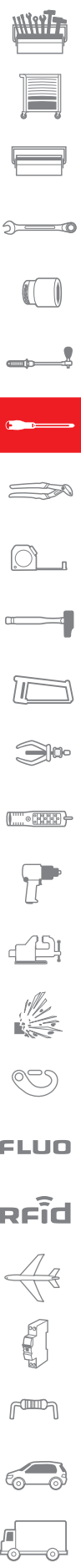


NF ISO 1173, ISO 1173

- Compliant with Tamper Resistant Torx Plus® specifications.
- For manual screwing.
- Drive 1/4" - 6.35 mm.



	L [mm]	Tamper [No]	ΔΔ [g]
EXRP.108	25	IPR8	5
EXRP.110	25	IPR10	5
EXRP.115	25	IPR15	6
EXRP.120	25	IPR20	6
EXRP.125	25	IPR25	6
EXRP.127	25	IPR27	6
EXRP.130	25	IPR30	6
EXRP.140	25	IPR40	6



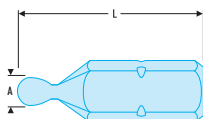
STANDARD BITS SERIES 1 - 1/4" - 6.35 MM DRIVE

ETS.1 - Standard bits series 1 with spherical head for countersunk hex screws



NF ISO 1173, ISO 1173

- The spherical head allows for screwing with a tilt angle up to 30°.
- For manual screwing.
- Drive 1/4" - 6.35 mm.



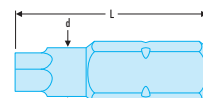
ETS	L [mm]	6 [mm]	ΔΔ [g]
ETS.102,5	25	2,5	5
ETS.103	25	3,0	5
ETS.104	25	4,0	5
ETS.105	25	5,0	6
ETS.106	25	6,0	6

EH.1 - Screw bits series 1 for metric countersunk hex head screws



NF ISO 2351-3, NF ISO 1173, ISO 2351-3, ISO 1173, DIN ISO 2351-3

- For manual screwing.
- Drive 1/4" - 6.35 mm.



EH	L [mm]	6 [mm]	ΔΔ [g]
EH.101,5	25	1,5	5
EH.102	25	2,0	5
EH.102,5	25	2,5	5
EH.103	25	3,0	5
EH.104	25	4,0	5
EH.105	25	5,0	6
EH.106	25	6,0	7
EH.107	25	7,0	8
EH.108	25	8,0	9
EH.110	25	10,0	11

EH.10 - Set of 3 screw bits series 1 for metric countersunk hex head screws



- For manual screwing.
- Drive 1/4" - 6.35 mm.

EH	L [mm]	6 [mm]	Set contents	ΔΔ [g]
EH102.J3	25	2,0	EH.102 (x3)	15
EH102,5.J3	25	2,5	EH.102,5 (x3)	19
EH103.J3	25	3,0	EH.103 (x3)	18
EH104.J3	25	4,0	EH.104 (x3)	17
EH105.J3	25	5,0	EH.105 (x3)	20
EH106.J3	25	6,0	EH.106 (x3)	24
EH108.J3	25	8,0	EH.108 (x3)	31

Set of 3 screw bits series 1 for metric countersunk hex head screws



- For manual screwing.
- Drive 1/4" - 6.35 mm.
- Including 3 bits:
  - EH.104 (4 mm).
  - EH.105 (5 mm).
  - EH.106 (6 mm).

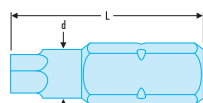
EH	L [mm]	ΔΔ [g]
EH1.J3	25	19

EH.1 - Screw bits series 1 for inch countersunk hex head screws



NF ISO 1173, ISO 1173

- For manual screwing.
- Drive 1/4" - 6.35 mm.



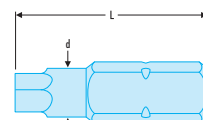
EH	A ["]	L [mm]	ΔΔ [g]
EH.101/8	1/8	25	5
EH.105/32	5/32	25	5
EH.103/16	3/16	25	5
EH.107/32	7/32	25	6
EH.101/4	1/4	25	7

EV.1 - Standard bits series 1 for XZN multiple teeth head screws



NF ISO 1173, ISO 1173

- For manual screwing.
- Drive 1/4" - 6.35 mm.



EV	L [mm]	XZN [No]	ΔΔ [g]
EV.104	25	M4	5
EV.105	25	M5	5
EV.106	25	M6	6
EV.108	25	M8	7
EV.110	25	M10	8



ETRI.1 - Standard bits series 1 for Tri-wing head screws



NF ISO 1173, ISO 1173  
 • For manual screwing.  
 • Drive 1/4" - 6.35 mm.



Bit	L [mm]	6 [mm]	ΔΔ [g]
ETRI.101	25	1	5,5
ETRI.102	25	2	5,5
ETRI.103	25	3	5,5
ETRI.104	25	4	5,5
ETRI.105	25	5	5,5

EBNA.1 - Standard bits series 1 for BNAE head screws



NF ISO 1173, ISO 1173  
 • For manual screwing.  
 • Drive 1/4" - 6.35 mm.



Bit	L [mm]	BNAE [No]	ΔΔ [g]
EBNA.104	25	4	5
EBNA.105	25	5	5
EBNA.106	25	6	6

ETOR - Standard bits series 1 for Torq Set® head screws



NF ISO 1173, ISO 1173  
 • For manual screwing.  
 • Drive 1/4" - 6.35 mm.



Bit	L [mm]	6 [mm]	ΔΔ [g]
ETOR.100	25	0	5,5
ETOR.101	25	1	5,5
ETORM.101/4	32	1/4	13
ETORM.102	25	2	6
ETORM.103	25	3	6
ETORM.104	25	4	6
ETORM.105	25	5	6
ETORM.106	25	6	6
ETORM.108	25	8	6
ETORM.110	25	10	6

AME.B - Sets of 9 High Perf' bits + bit holder



- For intense manual screwing.
- AME.B3: Slotted head, Phillips®, Pozidriv®.
- AME.B4: Slotted head, Pozidriv®, hex.
- AME.B5: Slotted head, Phillips®, Torx®.
- AME.B6: Torx®, Resistorx®.
- Supplied with clasp bit holder (Ref EF.6P1).
- Compact box, dim.

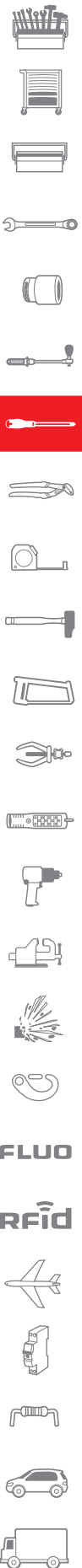
Bit	6 [mm]	A [mm]	Phillips [No]	Pozidriv [No]	Resistorx [No]	Torx [No]	ΔΔ [g]
AME.B3	-	0,6 x 4,5 - 1,0 x 5,5 - 1,2 x 6,5	1 - 2 - 3	1 - 2 - 3	-	-	100
AME.B4	2,5 - 3,0 - 4,0 - 5,0 - 6,0	0,6 x 4,5 - 1,0 x 5,5	-	1 - 2	-	-	100
AME.B5	-	0,6 x 4,5 - 1,0 x 5,5	1 - 2	-	-	T10 - T15 - T20 - T25 - T30	100
AME.B6	-	-	-	-	TT10 - TT15 - TT20 - TT25 - TT27 - TT30 - TT40	8 - 9	125

"Pocket" bit holder handle

- Equivalent to 6 screwdrivers in 1.
- Built-in bit storage = 3 slotted head bits and 3 Pozidriv® for manual screwing.
- Magnetic 1/4" bit holder blade.
- Compact volume in closed position.



Bit	A [mm]	Pozidriv [No]	ΔΔ [g]
FPZ	4,5 - 6,5 - 8,0	1 - 2 - 3	200



FLUO

Rfid

SETS OF STANDARD SERIES 1 BITS + BIT HOLDER IN BAG - 1/4" - 6.35 MM DRIVE

SCREW BITS BOX

# Exclusive design: compact and easy to use

## Polyamide case (PA66)

- High impact resistance.
- Bits held effectively and durably.
- Good resistance to chemicals.



- 1 Easy opening/closing.
- 2 Effective and easy bit push-out system on the rear face.
- 3 Easy selection: bits visible on the front face + pattern symbols.



Combined set of 10 bits 1/4" - 25 mm + bit holder - No.2



- Including:
  - Bits for manual screwing.
  - Slotted head bits: ES.134,5T - ES.136,5T - ES.148T.
  - Pozidriv® bits: ED.101T - ED.102T - ED.103T.
  - 6-point bits: EH.103 - EH.104 - EH.105 - EH.106.
  - Bit holder: EF.6P1.
- Supplied in compact high strength and chemical resistant polyamide case.

	$\Delta\Delta$ [g]
E.111	119

Combined set of 10 bits 1/4" - 25 mm + bit holder - No.1



- Including:
  - Bits for manual screwing.
  - Slotted head bits: ES.134,5T - ES.135,5T - ES.136,5T - ES.148T.
  - Phillips® bits: EP.101T - EP.102T - EP.103T.
  - Pozidriv® bits: ED.101T - ED.102T - ED.103T.
  - Bit holder: EF.6P1.
- Supplied in compact high strength and chemical resistant polyamide case.

	$\Delta\Delta$ [g]
E.110	115

Combined set of 10 Torx® bits 1/4" - 25 mm + bit holder



- Including:
  - Bits for manual screwing.
  - Bits: EX.108 - EX.109 - EX.110 - EX.115 - EX.120 (x2) - EX.125 - EX.127 - EX.130 - EX.140.
  - Bit holder: EF.6P1.
- Supplied in compact high strength and chemical resistant polyamide case.

	$\Delta\Delta$ [g]
E.112	121

Combined set of 10 Resistorx® bits 1/4" - 25 mm + bit holder



- Including:
  - Bits for manual screwing.
  - Bits: EXR.110 - EXR.115 - EXR.120 (X2) - EXR.125 (X2) - EXR.127 - EXR.130 (X2) - EXR.140.
  - Bit holder: EF.6P1.
- Supplied in compact high strength and chemical resistant polyamide case.

	$\Delta\Delta$ [g]
E.113	100



MODULES OF STANDARD SERIES 1 BITS - 1/4" - 6.35 MM DRIVE

Module with 20 screw bits



Module	H [mm]	L [mm]	Set contents	Tray	Qty	ΔΔ [kg]
MOD.E20L	40	418	EH.204L, 205L, 206L, 207L, 208L, 210L, EV.205L, 206L, 208L, 210L, EX.230L, 240L, 245L, 250L - EXR.110L, 115L, 120L, 125L, 130L, 140L - J.236	PL.624	20	0.755

Module with 41 screw bits



Module	H [mm]	L [mm]	Set contents	Tray	Qty	ΔΔ [kg]
MOD.E41	40	418	ED.101T-102T-103T - EH.104-105-106-107 - EH.204L-205L-206L-207L-208L-210L - EH.208-210 - EV.205L-206L-208L-210L - EV.206-208-210 - EX.230L-240L-245L-250L - EX.245-250-255	PL.621	44	0.895

ES.1T - High Perf' bits series 1 for slotted head screws



NF ISO 2351-1, NF ISO 1173, ISO 2351-1, ISO 1173, DIN ISO 2351-1

- For intense manual screwing.
- Drive 1/4" - 6.35 mm.

Model	A [mm]	E [mm]	L [mm]	ΔΔ [g]
ES.134T	4,0	0,5	25	2
ES.134,5T	4,5	0,6	25	3
ES.135,5T	5,5	0,8	25	3
ES.145,5T	5,5	1,0	25	4
ES.136,5T	6,5	1,2	25	4
ES.148T	8,0	1,6	25	8

EP.1T - High Perf' bits series 1 for Phillips® screws



NF ISO 2351-2, NF ISO 1173, ISO 2351-2, ISO 1173, DIN ISO 2351-2

- For intense manual screwing.
- Drive 1/4" - 6.35 mm.

Model	L [mm]	Phillips [No]	ΔΔ [g]
EP.101T	25	PH1	3
EP.102T	25	PH2	4
EP.103T	25	PH3	4

HIGH POWER BITS SERIES 1 - 1/4" - 6.35 MM DRIVE

ED.1T - High Perf' bits series 1 for Pozidriv® screws



NF ISO 2351-2, NF ISO 1173, ISO 2351-2, ISO 1173, DIN ISO 2351-2

- For intense manual screwing.
- Drive 1/4" - 6.35 mm.

Model	L [mm]	Pozidriv [No]	ΔΔ [g]
ED.101T	25	PZ1	3
ED.102T	25	PZ2	4
ED.103T	25	PZ3	4

ES13T - ES14T - Set of 3 High Perf' bits series 1 for slotted head screws



- For intense manual screwing.
- Drive 1/4" - 6.35 mm.

ES	E [mm]	L [mm]	Set contents	ΔΔ [g]
ES134T.J3	0,5	25	ES.134T (x3)	17
ES134,5T.J3	0,6	25	ES.134.5T (x3)	17
ES135,5T.J3	0,8	25	ES.135.5T (x3)	19
ES136,5T.J3	1,2	25	ES.136.5T (x3)	21
ES148T.J3	1,5	25	ES.148T (x3)	20

EP10T - Sets of 3 High Perf' bits series 1 - 25 mm



- For intense manual screwing.
- Drive 1/4" - 6.35 mm.

EP	L [mm]	Phillips [No]	Set contents	ΔΔ [g]
EP101T.J3	25	PH1	EP.101T (x3)	17
EP102T.J3	25	PH2	EP.102T (x3)	17
EP103T.J3	25	PH3	EP.103T (x3)	16

ED10T - Sets of 3 High Perf' bits series 1 for Pozidriv® screws



- For intense manual screwing.
- Drive 1/4" - 6.35 mm.

ED	L [mm]	Pozidriv [No]	Content set	ΔΔ [g]
ED101T.J3	25	PZ1	ED.101T (x3)	17
ED102T.J3	25	PZ2	ED.102T (x3)	17
ED103T.J3	25	PZ3	ED.103T (x3)	20

Set of 3 High Perf' bits for slotted head screws



- For intense manual screwing.
- Drive 1/4" - 6.35 mm.
- Length: 25 mm.
- Including 3 bits:
  - ES.134.5 (4.5 mm).
  - ES.136.5 (6.5 mm).
  - ES.148T (8 mm).

ES	L [mm]	ΔΔ [g]
ES1.J3	25	17

Set of 3 High Perf' bits for Phillips® screws



- NF ISO 1173, ISO 1173
- For intense manual screwing.
  - Drive 1/4" - 6.35 mm.
  - Length: 25 mm.
  - Including 3 bits:
    - EP.101 (PH1).
    - EP.102 (PH2).
    - EP.103 (PH3).

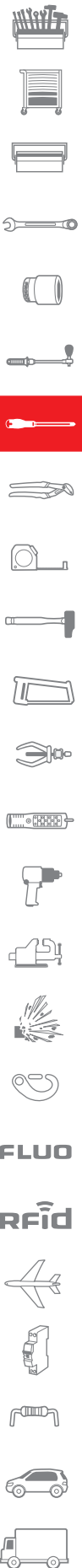
EP	L [mm]	ΔΔ [g]
EP1.J3	25	19

Set of 3 High Perf' bits for Pozidriv® screws



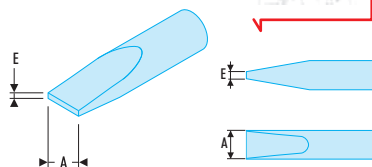
- For intense manual screwing.
- Drive 1/4" - 6.35 mm.
- Length: 25 mm.
- Including 3 bits:
  - ED.101 (PZ1).
  - ED.102 (PZ2).
  - ED.103 (PZ3).

ED	L [mm]	ΔΔ [g]
ED1.J3	25	18



HIGH POWER TITANIUM BITS SERIES 1 - 1/4" - 6.35 MM DRIVE

ES.12T - High Perf' Titanium bits series 1 for slotted head screws



- NF ISO 2351-1, NF ISO 1173, ISO 2351-1, ISO 1173, DIN ISO 2351-1
- For use on power or pneumatic nutrunners (except impact wrenches).
- Drive 1/4" - 6.35 mm.



ES	A [mm]	E [mm]	L [mm]	ΔΔ [g]
ES.124,5T	4,5	0,6	25	3
ES.125,5T	5,5	0,8	25	3
ES.175,5T	5,5	1,0	25	4
ES.126,5T	6,5	1,2	25	4
ES.128T	8,0	1,6	25	8

EP.13T - High Perf' Titanium bits series 1 for Phillips® screws



- NF ISO 2351-2, NF ISO 1173, ISO 2351-2, ISO 1173, DIN ISO 2351-2
- For use on power or pneumatic nutrunners (except impact wrenches).
- Drive 1/4" - 6.35 mm.



EP	L [mm]	Phillips [No]	ΔΔ [g]
EP.131T	25	PH1	3
EP.132T	25	PH2	4
EP.133T	25	PH3	4

EED.13T - High Perf' Titanium bits series 1 for Pozidriv® screws



- NF ISO 2351-2, NF ISO 1173, ISO 2351-2, ISO 1173, DIN ISO 2351-2
- For use on power or pneumatic nutrunners (except impact wrenches).
- Drive 1/4" - 6.35 mm.



EED	L [mm]	Pozidriv [No]	ΔΔ [g]
EED.131T	25	PZ1	3
EED.132T	25	PZ2	4
EED.133T	25	PZ3	4

EP13T - Sets of 3 High Perf' Titanium bits series 1 - 25 mm



- For use on power or pneumatic nutrunners (except impact wrenches).
- Drive 1/4" - 6.35 mm.

EP	L [mm]	Phillips [No]	Set contents	ΔΔ [g]
EP131T.J3	25	PH1	EP.131T (x3)	16
EP132T.J3	25	PH2	EP.132T (x3)	18
EP133T.J3	25	PH3	EP.133T (x3)	17



ED13T - Sets of 3 High Perf' Titanium bits series 1 - 25 mm - Titanium



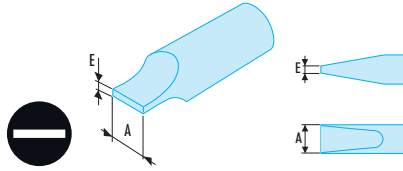
- NF ISO 2351-2, NF ISO 1173, ISO 2351-2, ISO 1173, DIN ISO 2351-2
- For use on power or pneumatic nutrunners (except impact wrenches).
- Drive 1/4" - 6.35 mm.

ED	L [mm]	Pozidriv [No]	Set contents	ΔΔ [g]
ED131T.J3	25	PZ1	ED.131T (x3)	17
ED133T.J3	25	PZ3	ED.133T (x3)	19



STANDARD BITS SERIES 2 - 5/16" - 7.94 MM DRIVE

ES.2 - Standard bits series 2 for slotted head screws

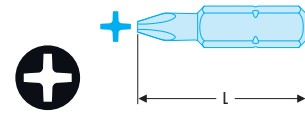


NF ISO 2351-1, NF ISO 1173, ISO 2351-1, ISO 1173, DIN ISO 2351-1

- For manual screwing.
- Drive 5/16" - 7.94 mm.

Ref	A [mm]	E [mm]	L [mm]	ΔΔ [g]
ES.206,5	6,5	1,2	41	11
ES.208	8,0	1,2	41	13
ES.210	10,0	1,6	41	19
ES.212	12,0	2,0	41	23

EP.2 - Standard bits series 2 for Phillips® screws

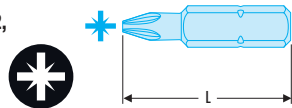


NF ISO 2351-2, NF ISO 1173, ISO 2351-2, ISO 1173, DIN ISO 2351-2

- For manual screwing.
- Drive 5/16" - 7.94 mm.

Ref	L [mm]	Phillips [No]	ΔΔ [g]
EP.201	32	PH1	10
EP.202	32	PH2	11
EP.203	32	PH3	11
EP.204	32	PH4	14

ED.2 - Standard bits series 2 for Pozidriv® screws



NF ISO 2351-2, NF ISO 1173, ISO 2351-2, ISO 1173, DIN ISO 2351-2

- For manual screwing.
- Drive 5/16" - 7.94 mm.

Ref	L [mm]	Pozidriv [No]	ΔΔ [g]
ED.201	32	PZ1	10
ED.202	32	PZ2	11
ED.203	32	PZ3	11
ED.204	32	PZ4	12

EX.2 - Standard bits series 2 for Torx® screws

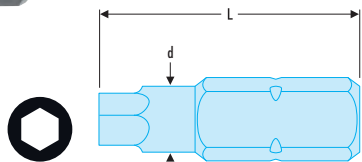


NF ISO 1173, ISO 1173

- Compliant with Torx® specifications.
- For manual screwing.
- Drive 5/16" - 7.94 mm.

Ref	d [mm]	L [mm]	Torx [No]	ΔΔ [g]
EX.220	-	35	T20	13
EX.225	-	35	T25	13
EX.227	-	35	T27	13
EX.230	-	35	T30	15
EX.240	-	35	T40	15
EX.245	-	35	T45	15
EX.250	-	35	T50	18
EX.255	-	35	T55	31
EX.220L	5,6	70	T20	25
EX.225L	5,6	70	T25	25
EX.230L	6,0	70	T30	30
EX.240L	7,0	70	T40	30
EX.245L	Hex.7,94	70	T45	40
EX.250L	Hex.7,94	70	T50	55

EH.2 - Standard bits series 2 for countersunk hex screws

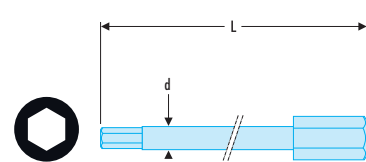


NF ISO 2351-3, NF ISO 1173, ISO 2351-3, ISO 1173, DIN ISO 2351-3

- For manual screwing.
- Drive 5/16" - 7.94 mm.

Ref	L [mm]	6 pans ["]	6 pans [mm]	ΔΔ [g]
EH.204	30	-	4	8
EH.205	30	-	5	9
EH.206	30	-	6	11
EH.208	30	-	8	13
EH.210	30	-	10	17
EH.201/4	30	1/4	-	12
EH.205/16	30	5/16	-	15
EH.203/8	30	3/8	-	19

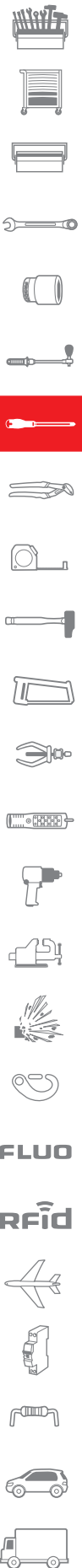
EH.2L - Standard long bits series 2 for countersunk hex screws



NF ISO 1173, ISO 1173

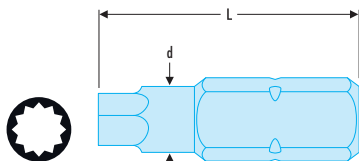
- For manual screwing.
- Drive 5/16" - 7.94 mm.

Ref	d [mm]	L [mm]	6 pans [mm]	ΔΔ [g]
EH.204L	4,8	70	4	15
EH.205L	6,0	70	5	19
EH.206L	7,0	70	6	23
EH.207L	8,9	70	7	28
EH.208L	8,9	70	8	29
EH.210L	11,3	70	10	42



STANDARD BITS SERIES 2 - 5/16" - 7.94 MM DRIVE

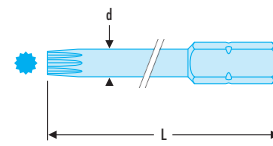
EV.2 - Standard bits series 2 for XZN multiple teeth head screws



NF ISO 1173, ISO 1173  
 • For manual screwing.  
 • Drive 5/16" - 7.94 mm.

Item	L [mm]	XZN [No]	ΔΔ [g]
EV.206	28	M6	9
EV.208	28	M8	10
EV.210	32	M10	15
EV.212	36	M12	21

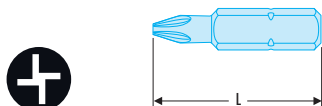
EV.L - Standard long bits series 2 for XZN multiple teeth head screws



NF ISO 1173, ISO 1173  
 • For manual screwing.  
 • Drive 5/16" - 7.94 mm.

Item	d [mm]	L [mm]	XZN [No]	ΔΔ [g]
EV.205L	6,0	70	M5	26
EV.206L	7,0	70	M6	27
EV.208L	7,5	70	M8	28
EV.210L	10,0	70	M10	39

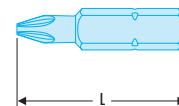
ETORM.2 - Standard bits series 2 for Torq Set® head screw



NF ISO 1173, ISO 1173  
 • For manual screwing.  
 • Drive 5/16" - 7.94 mm.

Item	L [mm]	Screw Size [mm]	ΔΔ [g]
ETORM.201/4	1/4	1/4	14
ETORM.203/8	3/8	3/8	14
ETORM.205/16	5/16	5/16	14
ETORM.208	8	8	14
ETORM.210	10	10	14

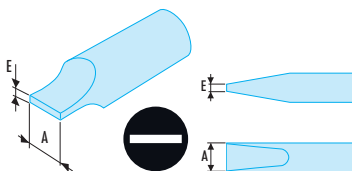
EBNA.2 - Standard bits series 2 for BNAE head screws



NF ISO 1173, ISO 1173  
 • For manual screwing.  
 • Drive 5/16" - 7.94 mm.

Item	L [mm]	BNAE [No]	ΔΔ [g]
EBNA.204	35	4	9
EBNA.205	35	5	9
EBNA.206	35	6	10
EBNA.208	35	8	10

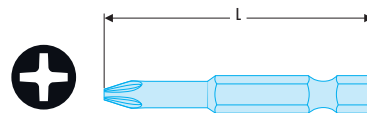
ES.6 - Standard bits series 6 for slotted head screws



NF ISO 2351-1, NF ISO 1173, ISO 2351-1, ISO 1173, DIN ISO 2351-1  
 • Drive 1/4" - 6.35 mm with groove.

Item	A [mm]	E [mm]	L [mm]	ΔΔ [g]
ES.603	3,0	0,5	50	8
ES.603,5	3,5	0,6	50	8
ES.604	4,0	0,5	50	9
ES.604,5	4,5	0,6	50	9
ES.605,5	5,5	0,8	50	10
ES.606,5	6,5	1,2	50	11
ES.608	8,0	1,2	70	13,70
ES.623	3,0	0,5	70	9
ES.623,5	3,5	0,6	70	9
ES.624	4,0	0,8	70	11
ES.625,5	5,5	1,0	70	14

EP.6 - Standard bits series 6 for Phillips® screws



NF ISO 2351-2, NF ISO 1173, ISO 2351-2, ISO 1173, DIN ISO 2351-2  
 • Drive 1/4" - 6.35 mm with groove.

Item	L [mm]	Phillips [No]	ΔΔ [g]
EP.661	70	PH1	12
EP.662	70	PH2	14
EP.663	70	PH3	15
EP.691	90	PH1	16
EP.692	90	PH2	18

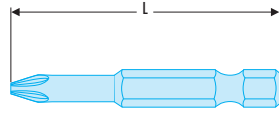


STANDARD BITS SERIES 6 - 1/4" - 6.35 MM GROOVED DRIVE

ED.6 - Standard bits series 6 for Pozidriv® screws



NF ISO 2351-2, NF ISO 1173, ISO 2351-2, ISO 1173, DIN ISO 2351-2  
• Drive 1/4" - 6.35 mm with groove.

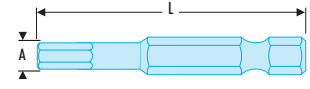


ED	L [mm]	Pozidriv [No]	ΔΔ [g]
ED.661	70	PZ1	12
ED.662	70	PZ2	14
ED.663	70	PZ3	15
ED.691	90	PZ1	16
ED.692	90	PZ2	18
ED.693	90	PZ3	19

EX.6 - Standard bits series 6 for Torx® screws



NF ISO 1173, ISO 1173  
• Compliant with Torx® specifications.  
• Drive 1/4" - 6.35 mm with groove.

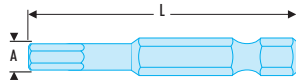


EX	A [mm]	d [mm]	L [mm]	Torx [No]	ΔΔ [g]
EX.610	2,72	5,2	70	T10	8
EX.615	3,26	5,2	70	T15	9
EX.620	3,84	5,6	70	T20	10
EX.625	4,40	5,6	70	T25	11
EX.627	4,96	5,8	70	T27	13
EX.630	5,59	6,0	70	T30	14
EX.640	6,60	7,1	70	T40	18

EH.6 - Standard bits series 6 for countersunk hex screws



NF ISO 2351-3, NF ISO 1173, ISO 2351-3, ISO 1173, DIN ISO 2351-3  
• Drive 1/4" - 6.35 mm with groove.



EH	L [mm]	Hex Size [mm]	ΔΔ [g]
EH.603	50	3	14
EH.604	50	4	14
EH.605	50	5	15
EH.606	50	6	15
EH.608	50	8	18

EH60 - Sets of 3 standard bits series 6



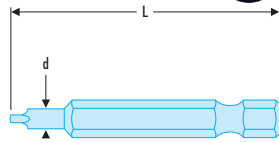
• For hex screws.  
• Drive 1/4" - 6.35 mm.

EH	L [mm]	Hex Size [mm]	Set contents	ΔΔ [g]
EH603.J3	50	3	EH.603 (x3)	30
EH604.J3	50	4	EH.604 (x3)	32
EH605.J3	50	5	EH.605 (x3)	38
EH606.J3	50	6	EH.606 (x3)	44

ECAR.6 - Standard bits series 6 for ROBERTSON square head screws



NF ISO 1173, ISO 1173  
• Drive 1/4" - 6.35 mm with groove.

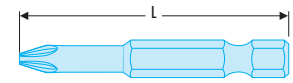


ECAR	L [mm]	Square ["]	ΔΔ [g]
ECAR.601	50	1	10
ECAR.602	50	2	12
ECAR.603	50	3	15

ETORM.6 - Standard bits series 6 for Torq set® head screws



NF ISO 1173, ISO 1173  
• Drive 1/4" - 6.35 mm with groove.



ETORM	L [mm]	Torq-set [No]	ΔΔ [g]
ETORM.601/4	50	1/4	12
ETORM.602	50	2	12
ETORM.603	50	3	12
ETORM.604	50	4	12
ETORM.605	50	5	12
ETORM.606	50	6	12
ETORM.608	50	8	12
ETORM.610	50	10	12



STANDARD BITS SERIES 6 - 1/4" - 6.35 MM GROOVED DRIVE

EF.6DM - Magnetic sockets for hex screws



NF ISO 1173, ISO 1173

- Holds the screw with a magnet.
- Drive 1/4" - 6.35 mm with groove.

EF	A [mm]	L [mm]	ΔΔ [g]
EF.6DM5,5L	5,5	70	31
EF.6DM7L	7,0	70	36
EF.6DM8L	8,0	70	42
EF.6DM10L	10,0	70	49
EF.6DM13L	13,0	70	63

EF.6D - Sockets for hex screws



NF ISO 1173, ISO 1173

- Drive 1/4" - 6.35 mm with groove.

EF	A [mm]	L [mm]	ΔΔ [g]
EF.6D5,5L	5,5	70	26
EF.6D7L	7,0	70	32
EF.6D8L	8,0	70	37
EF.6D10L	10,0	70	44
EF.6D13L	13,0	70	58

ES60 - Sets of 3 bits for slotted head screws - High Perf'



- Drive 1/4" - 6.35 mm.

ES	E [mm]	L [mm]	Set contents	ΔΔ [g]
ES603.J3	0,5	50	ES.603 (x3)	35
ES604.J3	0,5	50	ES.604 (x3)	30
ES604,5.J3	0,6	50	ES.604,5 (x3)	31
ES605,5.J3	0,8	50	ES.605,5 (x3)	36
ES606,5.J3	1,2	50	ES.606,5 (x3)	40
ES608.J3	1,2	50	ES.608 (x3)	45

EX6 - Sets of 3 bits for Torx® screws



- Drive 1/4" - 6.35 mm.

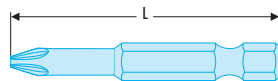
EX	L [mm]	Torx [No]	Set contents	ΔΔ [g]
EX610.J3	50	T10	EX.610 (x3)	30
EX615.J3	50	T15	EX.615 (x3)	29
EX620.J3	50	T20	EX.620 (x3)	32
EX625.J3	50	T25	EX.625 (x3)	39
EX630.J3	70	T30	EX.630 (x3)	40
EX640.J3	50	T40	EX.640 (x3)	43

EP.60T - For Phillips® screws



NF ISO 2351-2, NF ISO 1173, ISO 2351-2, ISO 1173, DIN ISO 2351-2

- Drive 1/4" - 6.35 mm with groove.



EP	L [mm]	Phillips [No]	ΔΔ [g]
EP.601T	50	PH1	9
EP.603T	50	PH3	11

ED.60T - For Pozidriv® screws



NF ISO 2351-2, NF ISO 1173, ISO 2351-2, ISO 1173, DIN ISO 2351-2

- Drive 1/4" - 6.35 mm with groove.



ED	L [mm]	Pozidriv [No]	ΔΔ [g]
ED.601T	50	PZ1	9
ED.603T	50	PZ3	11

SETS OF HIGH POWER SERIES 6 BITS - 1/4" - 6.35 MM GROOVED DRIVE

EP60T - Sets of 3 bits for Phillips® screws - High Perf'



ED60T - Sets of 3 bits for Pozidriv® screws - High Perf'



• Drive 1/4" - 6.35 mm with groove.

	L [mm]	Phillips [No]	Set contents	ΔΔ [g]
EP601T.J3	50	PH1	EP.601T (x3)	35
EP603T.J3	50	PH3	EP.603T (x3)	40

• Drive 1/4" - 6.35 mm.

	L [mm]	Pozidriv [No]	Set contents	ΔΔ [g]
ED601T.J3	50	PZ1	ED.601T (x3)	35
ED603T.J3	50	PZ3	ED.603T (x3)	38

EP.6T - High Perf' titanium bits series 6 for Phillips® screws



ED.6T - High Perf' titanium bits series 6 for Pozidriv® screws



NF ISO 2351-2, NF ISO 1173, ISO 2351-2, ISO 1173, DIN ISO 2351-2

- For use on power or pneumatic nutrunners (except impact wrenches).
- Drive 1/4" - 6.35 mm with groove.

	L [mm]	Phillips [No]	ΔΔ [g]
EP.631T	50	PH1	9
EP.632T	50	PH2	10
EP.633T	50	PH3	11

NF ISO 2351-2, NF ISO 1173, ISO 2351-2, ISO 1173, DIN ISO 2351-2

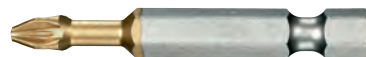
- For use on power or pneumatic nutrunners (except impact wrenches).
- Drive 1/4" - 6.35 mm with groove.

	L [mm]	Pozidriv [No]	ΔΔ [g]
ED.631T	50	PZ1	9
ED.632T	50	PZ2	10
ED.633T	50	PZ3	11

EP63T - Sets of 3 High Perf' titanium grooved bits series 6 - 50 mm



ED63T - Sets of 3 High Perf' titanium bits series 6 for Pozidriv® screws



- For use on power or pneumatic nutrunners (except impact wrenches).
- Drive 1/4" - 6.35 mm.

	L [mm]	Phillips [No]	Set contents	ΔΔ [g]
EP631T.J3	50	PH1	EP.631T (x3)	27
EP632T.J3	50	PH2	EP.632T (x3)	30
EP633T.J3	50	PH3	EP.633T (x3)	33

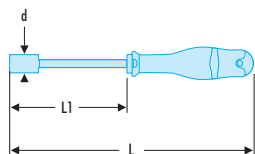
- For use on power or pneumatic nutrunners (except impact wrenches).
- Drive 1/4" - 6.35 mm.

	L [mm]	Pozidriv [No]	Set contents	ΔΔ [g]
ED631T.J3	50	PZ1	ED.631T (x3)	27
ED632T.J3	50	PZ2	ED.632T (x3)	30
ED633T.J3	50	PZ3	ED.633T (x3)	33



BIT HOLDERS AND ACCESSORIES FOR MANUAL SCREWING

AM - PROTWIST® bit holder screwdrivers



- Hexagonal - 1/4" - 6.35 mm drive.
- AM.H Snap-ring model.
- AM.M1 Short magnetic model.
- AM.M2 Long magnetic model.



Ref	d [mm]	L [mm]	L1 [mm]	ΔΔ [g]
AM.H	11	180	75	80
AM.M1	10	180	63	120
AM.M2	10	245	125	150

Socket holder bit - square 1/4"



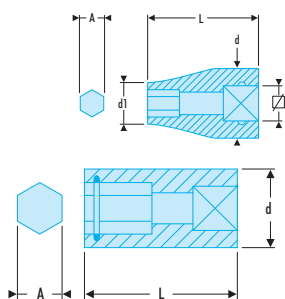
NF ISO 1173, ISO 1173

- Bit to use 1/4" sockets with the torque screwdrivers series A.400 - A.440 - A.301MT - A.341MT.
- Hexagonal - 1/4" - 6.35 mm drive.



Ref	L [mm]	ΔΔ [g]
ECR	25	15

Snap ring bit holder sockets



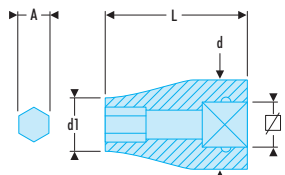
NF ISO 2725-1, NF ISO 1173, ISO 2725-1, ISO 1173, DIN 3124

- For bits series 1 - 1/4" - 6.35 mm drive.
- The sockets Ref R.235 - J.235 - SJ.235 include a standard clip for frequent removal.
- The socket Ref R.245 includes a retaining clip ensuring the bits are held firmly. For rare removal, the drive is fitted with a hole for ball or plunger locking.



Ref	A ["]	d [mm]	L [mm]	Square ["]	ΔΔ [g]
R.235	1/4	11,3	22	1/4	10
R.245	1/4	11,3	22	1/4	10
J.235	1/4	18,0	30	3/8	28
SJ.235	1/4	18,6	30	CDX	28

J-SJ-S - Snap ring bit for bits series 2



NF ISO 2725-1, NF ISO 1173, ISO 2725-1, ISO 1173, DIN 3124

- For bits series 2 - 5/16" - 7.94 mm drive.
- Manual use.



Ref	A ["]	d [mm]	d1 [mm]	L [mm]	Square ["]	ΔΔ [g]
J.236	5/16	18,0	14	30	3/8	30
SJ.236	5/16	18,6	14	30	CDX	32
S.236	5/16	23,0	14	36	1/2	54

BIT HOLDERS AND ACCESSORIES FOR NON IMPACT POWERED SCREWING

EF - Snap ring bit holder sockets

NF ISO 2725-1, NF ISO 1173, ISO 2725-1, ISO 1173, DIN 3124

- For bits series 1 - 1/4" - 6.35 mm drive.

EF	A ["]	L [mm]	Square ["]	ΔΔ [g]
EF.R	1/4	30	1/4	25
EF.J	1/4	43	3/8	50
EF.S	1/4	50	1/2	88



Magnetic ring bit holder

NF ISO 1173, ISO 1173

- Drive 1/4" - 6.35 mm.
- Fast bit change.
- Holds the screw on the bit with a magnet.

EF	L [mm]	ΔΔ [g]
EF.6P6	77	41



Locking ring bit holder

NF ISO 1173, ISO 1173

- Drive 1/4" - 6.35 mm.
- Fast bit change.

EF	L [mm]	ΔΔ [g]
EF.6P5	51	31



Short snap ring bit holder

NF ISO 1173, ISO 1173

- Drive 1/4" - 6.35 mm.

EF	L [mm]	ΔΔ [g]
EF.6P1	57	30



Magnetic snap ring bit holder - berilium

NF ISO 1173, ISO 1173

- Berilium.

EF	L [mm]	ΔΔ [g]
EF.6P3	74	39



Magnetic snap ring bit holder

NF ISO 1173, ISO 1173

- Drive 1/4" - 6.35 mm.

EF	L [mm]	ΔΔ [g]
EF.6P4	75	36



BIT HOLDERS AND ACCESSORIES FOR NON IMPACT POWERED SCREWING

Socket holder - 1/4" square drive



- NF ISO 1173, ISO 1173**
- Drive 1/4" - 6.35 mm.
  - Locking by plunger.



🔧	L [mm]	ΔΔ [g]
<b>EF.6R</b>	50	16

Long socket holder - 1/4" square drive



- NF ISO 1173, ISO 1173**
- Drive 1/4" - 6.35 mm.
  - Locking by plunger.



🔧	L [mm]	ΔΔ [g]
<b>EF.6RL</b>	100	38

Socket holder - 3/8" square drive



- NF ISO 1173, ISO 1173**
- 3/8" drive.
  - Locking by plunger.



🔧	L [mm]	ΔΔ [g]
<b>EF.6J</b>	50	25

Long socket holder - 3/8" square drive

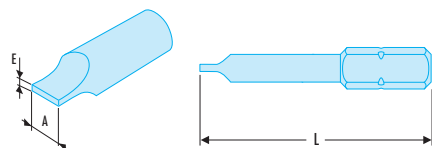


- NF ISO 1173, ISO 1173**
- 3/8" drive.
  - Locking by plunger.



🔧	L [mm]	ΔΔ [g]
<b>EF.6JL</b>	100	80

ENS.2 - Impact bits series 2 for slotted head screws

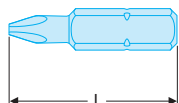


- NF ISO 1173, ISO 1173**
- Use with impact screwdrivers.
  - Drive 5/16" - 7.94 mm.
  - Finish: burnt.



🔧	A [mm]	E [mm]	L [mm]	ΔΔ [g]
<b>ENS.205,5</b>	5,5	0,8	41	10
<b>ENS.206,5</b>	6,5	1,2	41	12
<b>ENS.208</b>	8,0	1,2	41	14
<b>ENS.210</b>	10,0	1,6	41	19
<b>ENS.212</b>	12,0	2,0	41	22
<b>ENS.214</b>	14,0	2,5	41	28

ENP.2 - Impact bits series 2 for Phillips® screws



- NF ISO 1173, ISO 1173**
- Use with impact screwdrivers.
  - Drive 5/16" - 7.94 mm.
  - Finish: burnt.



🔧	L [mm]	Phillips [No]	ΔΔ [g]
<b>ENP.201</b>	32	PH1	14
<b>ENP.202</b>	32	PH2	14
<b>ENP.203</b>	32	PH3	14
<b>ENP.204</b>	32	PH4	14

SERIES 2 IMPACT BITS - 5/16" - 7.94 MM DRIVE

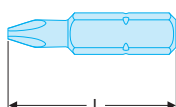
■ END.2 - Impact bits series 2 for Pozidriv® screws

NF ISO 1173, ISO 1173

- Use with impact screwdrivers.
- Drive 5/16" - 7.94 mm.
- Finish: burnt.



END	L [mm]	Pozidriv [No]	ΔΔ [g]
END.201	32	PZ1	10
END.202	32	PZ2	10
END.203	32	PZ3	11
END.204	32	PZ4	12



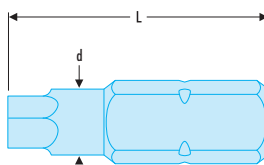
■ ENH.2 - Impact bits series 2 for hex countersunk screws

NF ISO 1173, ISO 1173

- Use with impact screwdrivers.
- Drive 5/16" - 7.94 mm.
- Finish: burnt.



ENH	L [mm]	6 [mm]	ΔΔ [g]
ENH.204	30	4	9
ENH.205	30	5	10
ENH.206	30	6	11
ENH.208	30	8	13
ENH.210	30	10	17



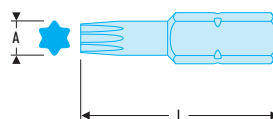
■ ENX.2 - Impact bits series 2 for Torx® screws

NF ISO 1173, ISO 1173

- Compliant with Torx® specifications.
- Use with impact screwdrivers.
- Finish: burnt.



ENX	A [mm]	L [mm]	Torx [No]	ΔΔ [g]
ENX.220	3,84	35	T20	13
ENX.225	4,40	35	T25	13
ENX.227	4,96	35	T27	13
ENX.230	5,49	35	T30	15
ENX.240	6,60	35	T40	15
ENX.245	7,77	35	T45	15
ENX.250	8,79	35	T50	18
ENX.255	11,77	35	T55	31



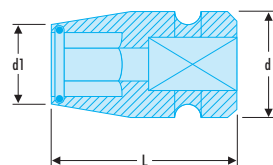
■ NJ-NS.236A - Bit holder impact sockets

NF ISO 1711-2, ISO 1711-2, DIN 3121,

- For your safety, use the locking rings and pins.
- Finish: burnt.

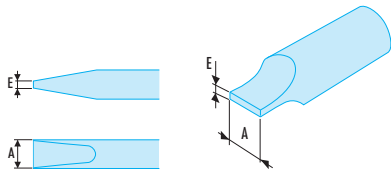


END	A ["]	BA	GA	d [mm]	d1 [mm]	L [mm]	Square ["]	ΔΔ [g]
NJ.236A	5/16	18B	18B	22	14	37	3/8	35
NS.236A	5/16	18B	18B	24	15,5	40	1/2	60



IMPACT BITS SERIES 3 - 1/2" DRIVE - 12,7 MM

■ ENS.3 - Impact bits series 3 for slotted head screws

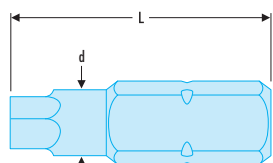


- NF ISO 1173, ISO 1173**
- Use with impact wrenches.
  - Finish: burnt.
  - Drive 1/2" - 12.7 mm.



🔧	E [mm]	L [mm]	ΔΔ [g]
ENS.312	2,0	50	40
ENS.314	2,5	50	46
ENS.316	2,5	50	59

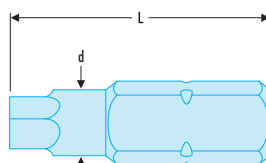
■ ENH.3 - Impact bits series 3 for metric hex countersunk screws



- NF ISO 1173, ISO 1173**
- Use with impact wrenches.
  - Drive 1/2" - 12.7 mm.
  - Finish: burnt.

🔧	A [mm]	L [mm]	ΔΔ [g]
ENH.303	3	50	20
ENH.304	4	50	22
ENH.305	5	50	22
ENH.306	6	50	24
ENH.307	7	50	24
ENH.308	8	50	24
ENH.310	10	50	30
ENH.311	11	50	40
ENH.312	12	50	45
ENH.314	14	50	55
ENH.317	17	50	73
ENH.319	19	50	86

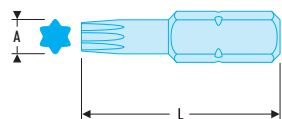
■ ENH.3 - Impact bits series 3 for inch hex countersunk screws



- NF ISO 1173, ISO 1173**
- Use with impact wrenches.
  - Drive 1/2" - 12.7 mm.
  - Finish: burnt.

🔧	A ["]	L [mm]	ΔΔ [g]
ENH.301/2	1/2	50	48
ENH.309/16	9/16	50	57
ENH.305/8	5/8	50	65
ENH.303/4	3/4	50	86
ENH.307/16	7/16	50	40

■ NEX - Impact bits series 3 for Torx® screws



- NF ISO 1173, ISO 1173**
- Compliant with Torx® specifications.
  - Use with impact wrenches.
  - Drive 1/2" - 12.7 mm.



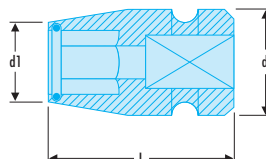
🔧	A [mm]	L [mm]	Torx [No]	ΔΔ [g]
NEX.25A	4,40	50	T25	18
NEX.27A	4,96	50	T27	18
NEX.30A	5,49	50	T30	20
NEX.40A	6,60	50	T40	25
NEX.45A	7,77	50	T45	25
NEX.50A	8,79	50	T50	30
NEX.55A	11,17	50	T55	38
NEX.60A	13,20	50	T60	45
NEX.70A	15,49	50	T70	55



**NJ-NS.237A - Bit holder impact sockets**

NF ISO 1711-2, ISO 1711-2, DIN 3121,

- Use with impact wrenches.
- For your safety, use the locking rings and pins.
- Finish: burnt.



ED	A ["]	BA	GA	d [mm]	d1 [mm]	L [mm]	Square ["]	ΔΔ [g]
NJ.237A	1/2	18B	18B	22	22	37	3/8	45
NS.237A	1/2	20B	20B	24	20	40	1/2	40

**IMPACT BITS SETS**

**Case with 14 impact 3/8" bits**

- Including:
- 2 bit holder sockets 3/8" drive, 1/2" and 5/16" hex (NJ.236A - NJ.237A).
- 6 hex impact bits: 6 - 7 - 8 - 10 - 12 - 14 mm (ref. ENH.306 - ENH.307 - ENH.308 - ENH.310 - ENH.312 - ENH.314).
- 5 Torx® impact bits: T30 - T40 - T45 - T50 - T55 (Ref. NEX.30A - NEX.40A - NEX.45A - NEX.50A - NEX.55A).
- 3 Phillips® impact bits: PH2 - PH3 - PH4 (Ref. ENP.202 - ENP.203 - ENP.204).
- Plastic case BP.102
- Heat-formed tray PL.501.



ED	H [mm]	L [mm]	ΔΔ [kg]
JHX.14A	52	205	0.76

**Case with 14 impact 1/2" bits**

- Including:
- 2 bit holder sockets 1/2", 1/2" and 5/16" hex drive.
- 6 hex: 6 - 7 - 8 - 10 - 12 - 14 mm.
- Torx® no. 30 - 40 - 45 - 50 - 55.
- Phillips® no. 2 - 3 - 4.
- Plastic case BP.102.
- Heat-formed tray PL.501.



ED	H [mm]	L [mm]	ΔΔ [kg]
NHX.14B	55	205	0.85



3/8" DRIVE SERIES

IMPACT SCREWDRIVERS



**For loosening seized, rusted or stuck fasteners quickly and in complete safety**

- Choose the correct bit for the screw head pattern and hit the driver with a mallet.
- Hitting the handle of the driver compresses a spring that fires the bit into rotation to loosen the screw. As there is no hard, repeated impact as is the case with impact wrenches, there is less risk of damage to the screw pattern.
- Also suitable for tightening.

**Safety first**

- Do not use anything other than a dead-blow hammer to avoid damaging the driver (see section 10).
- Wear eye protection (See section 15).



■ Impact screwdriver 3/8" drive



- 3/8" drive = 9.53 mm.
- Torque: 200 N.m.
- Diameter: 32 mm.
- Finish: chromed.



	L [mm]	Bits	ΔΔ [g]
<b>NJ.260</b>	160	ENH.309/16	795

■ Set of 12 impact screwdrivers



- Including:
  - END no. 2 - 3: Pozidrv® bits.
  - ENP no. 2 - 3: Phillips® bits.
  - ENS: 6.5 - 8 - 10 mm: Slotted head screw bits.
  - ENH: 5 - 6 - 8 mm: Hex bits.
  - NJ.236A.
  - NJ.260.
  - Plastic case BP.115.
  - Heat-formed tray PL.72A.



	ΔΔ [kg]
<b>NJ.261M</b>	1.72

■ Set of 16 impact screwdrivers



- Including:
  - END no. 2 - 3 - 4: Pozidrv® bits.
  - ENP no. 2 - 3 - 4: Phillips® bits.
  - ENS: 6.5 - 8 - 10 mm: Slotted head screw bits.
  - ENX no. 20 - 25 - 27 - 30 - 40: Torx® impact bits.
  - NJ.236A.
  - NJ.260.
  - Plastic case BP.115.
  - Heat-formed tray PL.73A.



	ΔΔ [kg]
<b>NJ.262</b>	1.78

## 1/2" DRIVE SERIES

### Impact screwdriver 1/2" drive

- 1/2" drive = 12.7 mm.
- Torque: 400 N.m.
- Diameter: 32 mm.
- Finish: chromed.

Model	L [mm]	ΔΔ [g]
NS.260A	165	800



### Set of 13 impact screwdrivers

- Including:
  - END no. 2 - 3 - 4: Pozidriv® bits.
  - ENS: 8 - 10 - 12 - 14 mm: Slotted head screw bits.
  - ENH: 5 - 6 - 8 - 10 mm: Hex bits.
  - NS.236A.
  - NS.260A.
  - Plastic case BP.115.
  - Thermoformed module PL.49A.

Model	ΔΔ [kg]
NS.263M	1.78



### Impact screwdriver module

- Including:
  - NS.260A: Impact screwdriver 1/2" drive.
  - NS.236A: Bit holder socket with 1/2" to 5/16" drive bit.
  - 15 impact bits: ENH.5 - ENH.6 - ENH.8 - ENH.10 - END.2-2 - END.2-3 - ENP.2-2 - ENP.2-3 - ENP.2-4 - ENX.2-20 - ENX.2-25 - ENX.2-30 - ENX.2-40 - ENX.2-45 - ENX.2-55.
  - Heat-formed tray PL380.

Model	H [mm]	L [mm]	ΔΔ [kg]
MOD.NS260	40	418	1.3



### Set of 21 impact screwdrivers

- 1/2" drive = 12.7 mm.
- Torque: 400 N.m.
- Including:
  - END no. 2 - 3 - 4: Pozidriv® bits.
  - ENP no. 2 - 3 - 4: Phillips® bits.
  - ENS no. 8 - 10 - 12 - 14 mm: Slotted head screw bits.
  - ENH no. 5 - 6 - 8 - 10 mm: Hex bits.
  - ENX no. 20 - 30 - 40 - 45 - 50: Torx® impact bits.
  - NS.236A: Bit holder impact socket.
  - NS.260A: Impact screwdriver socket.
  - Plastic case BP.115.
  - Heat-formed tray PL50A.

Model	ΔΔ [kg]
NS.265M	1.92



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# PLIERS - CIRCLIPS® PLIERS - LOCKGRIP PLIERS



### ULTRA-HIGH LEVERAGE CUTTING PLIER

484

Ultra-high leverage cutting plier

484



### CPE SERIES PLIERS

486

Diagonal cutters 487  
 End cutters 487  
 Half-round nose pliers 489  
 Flat-nose pliers 490  
 Round nose pliers 490  
 Standard wire strippers 491



### G SERIES PLIERS

491

Diagonal cutters 491  
 End cutters 491  
 Half-round nose pliers 492  
 Combination pliers 492  
 Flat-nose pliers 493



### ELECTRICAL ENGINEERS PLIERS

493

Cutting pliers 493  
 Flat-nose pliers 494  
 Half-round nose pliers 494  
 Wire strippers 494



### VE SERIES 1,000 VOLT PLIERS

495

Diagonal cutters 496  
 End cutters 496  
 Half-round nose pliers 497  
 Combination pliers 497  
 Flat-nose pliers 498  
 Round nose pliers 498  
 Standard wire strippers 498



### ENGINEERS MULTIGRIP PLIERS

499

Locking multigrip pliers 499  
 Automatic multigrip pliers 503  
 Notch-joint multigrip pliers 503



### CIRCLIPS® PLIERS

504

Inside circlips® pliers 504  
 Outside circlips® pliers 505  
 High-performance pliers 507  
 Reversible pliers 508  
 Removable tip pliers 508  
 Snap-ring pliers 509



### LOCKING-WIRE PLIERS

510

Locking-wire pliers 510



### LOCK-GRIP PLIERS

511

Large-capacity lock-grip pliers 512  
 Single-setting lock-grip pliers 514  
 "Metalworking" lock-grip pliers 515  
 Bar clamp lock-grip pliers 516



### END NIPPERS

517

Heavy-duty end nippers 517



### SPECIAL PLIERS

517

Plastics cutters 517  
 Extra-long reach half-round nose pliers 518  
 Low-effort cutters 519  
 "Connector" pliers 519



### PLIERS SETS AND MODULES

520

Pliers sets 520  
 Modules 522



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## FACOM ULTRA-HIGH LEVERAGE CUTTING PLIERS

# The ultimate diagonal cutting pliers

The FACOM patented ultra-high leverage diagonal cutting pliers fuses two patented designs to create the most efficient, high performance FACOM cutting pliers ever!

Extreme cutting performance.



- ① **Patented cam-curve system**  
Sub categories need to be capitals.
- ② **Striking head profile**  
designed to reduce stress points and provide durability.
- ③ **Sculptured upper section with finger-guard**  
provides a natural fit between index finger and thumb to aid grip.
- ④ **Concealed spring return system**  
reduces total user effort and strain.
- ⑤ **Patented 3-Arm cam-curve design**  
multiplies the cutting force whilst maintaining a compact span that fits the hand.
- ⑥ **Bi-material grips resistant**  
to industrial, automotive and aerospace chemicals (incl. Skydrol, chloroethane, acetone, petrol, etc.).
- ⑦ **Hanging hole for convenience.**



FACOM ULTRA-HIGH LEVERAGE CUTTING PLIERS

# The ultimate diagonal cutting pliers



**50% less cutting effort\***

- Extreme patented performance.
- Patented cam-curve design multiplies the cutting force while maintaining a compact span that fits the hand.

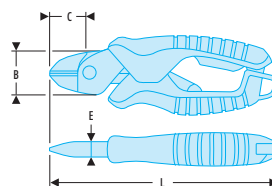
**Ergonomic and compact**

- Soft grip for improved comfort.

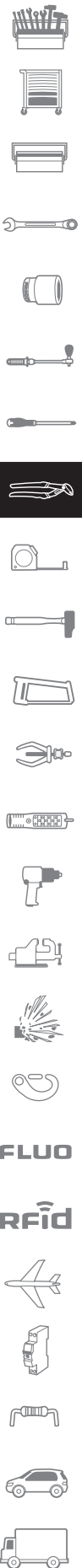
\*Compared with FACOM diagonal cutting pliers 180 mm (192.18CPE).

■ Ultra-High leverage diagonal cutting pliers

- Patented cam-curve system cutting edge to cut up to 3.0mm piano wire.
- Striking head profile designed to reduce stress points and provide durability.
- Sculptured upper section with finger-guard provides a natural fit between index finger and thumb to aid grip.
- Concealed spring return system reduces total user effort and strain.
- Patented 3-Arm cam-curve design multiplies the cutting force whilst maintaining a compact span that fits the hand.
- High durability Carbon alloy steel, with induction hardened cutting edges.
- Bi-Material ergonomic grips resistant to chemical agents featuring:
  - No slide button.
  - Tether ready point.
- Chrome finish for corrosion resistance.



FACOM	B [mm]	C [mm]	E [mm]	L [mm]	ΔΔ [g]
192T.18UPE	34	21	11	173	350



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NEW CPE PLIERS

Increased durability: longer life performance

Independently tested by :



- ① Sculptured upper section with finger guard provides a natural fit aid grip.
- ② Wide lower section to increase contact with the plier aiding both grip and comfort.
- ③ Return spring reduces total user effort and strain.
- ④ Chrome plating provides maximum corrosion resistance.
- ⑤ Hanging hole.



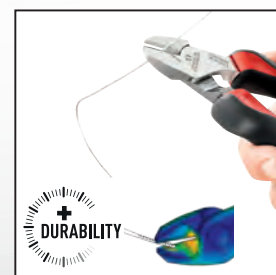
**Less effort**

- Cutting requires less force.



**Soft grip**

- For improved comfort.
- Ergonomic hand.



**Increased durability**

- Longer life performance.



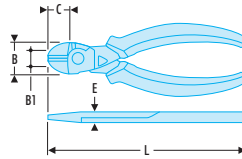
DIAGONAL CUTTERS

192A.CPE High-performance diagonal cutters

NF ISO 5749, ISO 5749, DIN ISO 5749, ASME B107.500

- New head design to increase durability and cutting capacity
- Cutting edges designed to cleanly cut all types of wire: soft wires and modern materials to a maximum piano wire specification of:
  - 192A.16CPE : 2.0mm 210 kg/mm<sup>2</sup>
  - 192A.18CPE : 2.2mm 205 kg/mm<sup>2</sup>
  - 192A.20CPE : 2.5mm 200 kg/mm<sup>2</sup>
- High Mechanical advantage due to off-set rivet and cutting edge geometry reducing effort.
- High durability Carbon alloy steel, with induction hardened cutting edges.
- Bi-Material ergonomic grips resistant to chemical agents featuring:
  - Return spring
  - Tether ready point
 (Tether point adds 10mm to nominal length)
- Chrome finish for corrosion resistance.

	B [mm]	C [mm]	Ø maxi [mm]	E [mm]	L [mm]	ΔΔ [g]
192A.16CPE	24,0	180	2,0	10,0	160	200
192A.18CPE	26,0	20,0	2,2	11,0	180	260
192A.20CPE	28,0	22,0	2,5	11,5	200	320

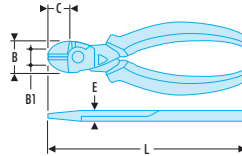


391A.CPE - Electricians diagonal cutters

NF ISO 5749, ISO 5749, DIN ISO 5749, ASME B107.500

- Snipe nose for confined space (electrical cabinets, wiring).
- Semi-flush cutting edges, designed to cleanly cut through all types of wire: piano wires, thin copper wires, modern materials.
- Long lever arm, offset pivot for minimum cutting effort.
- High durability Chrome-Molybdenum-Vanadium steel, very hard cutting edges 61/63 HRC.
- Ergonomic grips resistant to chemical agents.
- Return spring.
- Finish: chromed.

	B [mm]	C [mm]	Ø maxi [mm]	E [mm]	L [mm]	L1 [mm]	ΔΔ [g]
391A.14CPE	21,5	15,5	1,4	9,5	145	9	160
391A.16CPE	19	21	1,6	10	165	9	190



END CUTTERS

190A.CPE - High-performance end cutters

NF ISO 5748, ISO 5748, DIN ISO 5748, ASME B107.500

- Cutting edges designed to cleanly cut all types of wire: soft wires and modern materials to a maximum piano wire specification of:
  - 190A.16CPE : 2.0mm 210 kg/mm<sup>2</sup>
  - 190A.20CPE : 2.5mm 200 kg/mm<sup>2</sup>
- High Mechanical advantage due to off-set rivet and cutting edge geometry reducing effort.
- High durability carbon alloy steel, with induction hardened cutting edges.
- Bi-Material ergonomic grips resistant to chemical agents featuring:
  - Return spring
  - Tether ready point
 (Tether point adds 10mm to nominal length)
- Chrome finish for corrosion resistance.

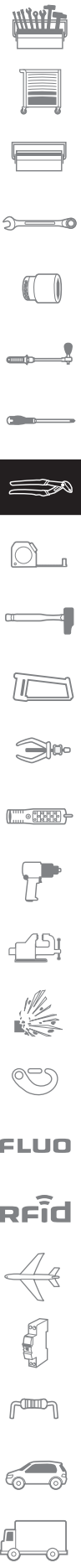
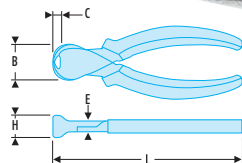
	A [mm]	B [mm]	C [mm]	Ø maxi [mm]	E [mm]	L [mm]	[g]
190A.16CPE	6,5	28	6,5	2,0	11,5	160	200
190A.20CPE	7,5	31	7,5	2,5	13,5	200	340



190A.16CPE



190A.20CPE



## FACOM HALF-ROUND NOSE PLIERS

# A comprehensive range to suit every need!



### High-performance.

- FACOM's half-round nose pliers are precision made, machined on numerically controlled robotic production machinery.
- For gripping and manipulating all types of components or wires, even in difficult-to-reach places.
- Perfectly finished, with no sharp edges, offers comfortable and safe contact to the user's second hand.

### Straight and 40° angled long-nose pliers.

- Reinforced, serrated tips (0.8mm pitch), with a tube grip and side wire-cutter. For mechanics, industrial maintenance, automotive trades, etc. Finishes CPE and varnished.
- Narrow, finely serrated tips (0.5mm pitch), with a side wire-cutter. For electricians, electrical fitters, delicate tasks. Finishes G and VE (1,000 V insulated – EN60900).

### Straight and 40° angled short-nose pliers.

- Narrow, finely serrated tips (0.5mm pitch), with a side wire-cutter.

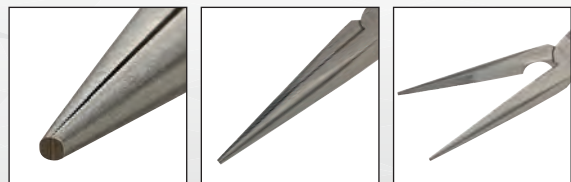
### Guaranteed cutting accuracy and consistency.

- For cleanly cutting thin copper wire and modern materials, hard wires (max. 1.6mm diameter at 160 kg/mm<sup>2</sup>).

### Industrial, automotive applications, etc...



### Electrical, electromechanical applications, etc...



HALF-ROUND NOSE PLIERS

185A-195A.CPE - Long half-round nose pliers

NF ISO 5745, ISO 5745, DIN ISO 5745, ASME B107.500

- Narrow, finely serrated tips with oval pipe-grip and side cutting edges.
- Cutting edges for copper and hard steel wire to a maximum specification of 1.6mm 160 kg/mm<sup>2</sup>.
- 185A: straight nose.
- 195A: 40° angled nose.
- High durability Carbon alloy steel, with induction hardened cutting edges.
- Bi-Material ergonomic grips resistant to chemical agents featuring:
  - Return spring
  - Tether ready point
 (Tether point adds 10mm to nominal length)
- Chrome finish for corrosion resistance.



	B [mm]	C [mm]	d [mm]	d max [mm]	E [mm]	E1 [mm]	L [mm]	ΔΔ [g]
185A.20CPE	18	75	2,9	-	3,6	9	200	192
195A.20CPE	18	69	2,9	-	3,6	9	200	192
195A.16CPE	17	50	-	2,5	3	9	160	177

183A-183AE.CPE - Half-round long snipe-nose pliers

NF ISO 5745, ISO 5745, DIN ISO 5745, ASME B107.500

- Extra Narrow, finely serrated tips with induction hardened cutting edges.
- 183A: 40° angled tip and side cutting edges.
- 183AE: straight long thin nose with wire stripping & gripping 1.5mm<sup>2</sup> - 2.5mm<sup>2</sup> - 4mm<sup>2</sup>.
- Cutting edges for copper and hard steel wire to maximum specification of 1.6mm 160 kg/mm<sup>2</sup>.
- High durability Carbon alloy steel,
- with induction hardened cutting edges.
- Bi-Material ergonomic grips resistant to chemical agents featuring:
  - Return spring
  - Tether ready point
 (Tether point adds 10mm to nominal length)
- Chrome finish for corrosion resistance.



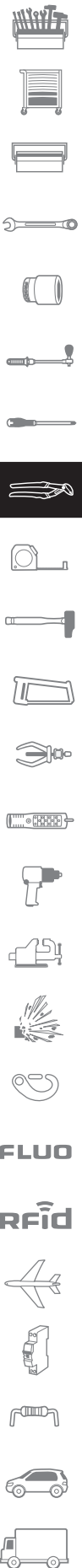
	C [mm]	E [mm]	E1 [mm]	E2 [mm]	L [mm]	L1 [mm]	ΔΔ [g]
183A.20CPE	69	3	18	9	200	2,5	185
183AE.20CPE	69	3	18	9	200	2,5	185

Short half-round nose plier

- Narrow, finely serrated tips with side cutting edges.
- Cutting edges for copper and hard steel wire to a maximum specification of 1.6mm 160 kg/mm<sup>2</sup>.
- High durability Carbon alloy steel, with induction hardened cutting edges.
- Bi-Material ergonomic grips resistant to chemical agents featuring:
  - Return spring
  - Tether ready point
 (Tether point adds 10mm to nominal Length)
- Chrome finish for corrosion resistance.



	B [mm]	C [mm]	d max [mm]	E [mm]	E1 [mm]	L [mm]	ΔΔ [g]
193A.16CPE	17	50	2,5	3	9	160	177



FLUO

Rfid

COMBINATION PLIERS

187A.CPE - Combination pliers



NF ISO 5746, ISO 5746, DIN ISO 5746, ASME B107.500

- Serrated flat and and oval pipe/cable gripping surfaces combined with a high performance cutting edges.
- Cutting edges designed to cleanly cut all types of wire: soft wires and modern materials to a maximum piano wire specification of:
  - 187A.16CPE : 1.8mm 215 kg/mm<sup>2</sup>
  - 187A.18CPE : 2.0mm 210 kg/mm<sup>2</sup>
  - 187A.20CPE : 2.2mm 205 kg/mm<sup>2</sup>
  - 187AP.20CPE : 2.2mm 205 kg/mm<sup>2</sup>
- 187AP features nail & screw gripping channels
- High Mechanical advantage due to off-set rivet and cutting edge geometry reducing effort.
- High durability Carbon alloy steel, with induction hardened cutting edges.
- Bi-Material ergonomic grips resistant to chemical agents featuring:
  - Return spring
  - Tether ready point (Tether point adds 10mm to nominal length)
- Chrome finish for corrosion resistance.



➤	B [mm]	C [mm]	E [mm]	L [mm]	Piano Diameter [mm]	ΔΔ [g]
187A.16CPE	21	34	9,5	165	1,8	195
187A.18CPE	23	36	10,0	185	2,0	225
187A.20CPE	26	42	11,5	205	2,2	300
187AP.20CPE	26	42	11,5	205	2,2	300

FLAT-NOSE PLIERS

188A.CPE - Flat nose pliers



NF ISO 5745, ISO 5745, DIN ISO 5745, ASME B107.500

- Narrow flat shaped and finely serrated nose for a firm grip and accessibility
  - 188A: Straight Nose
  - 188AC: Bent Nose
- High durability Carbon alloy steel.
- Bi-Material ergonomic grips resistant to chemical agents featuring:
  - Return spring
  - Tether ready point (Tether point adds 10mm to nominal Length)
- Chrome finish for corrosion resistance.



➤	B [mm]	E [mm]	E1 [mm]	E2 [mm]	L [mm]	L1 [mm]	ΔΔ [g]
188A.16CPE	46	4,0	18	9	168	6,5	140
188A.20CPE	75	4,0	18	9	200	6,5	200
188AC.16CPE	46	4,0	18	9	168	6,5	140

ROUND NOSE PLIERS

Round nose pliers



NF ISO 5745, ISO 5745, DIN ISO 5745, ASME B107.500

- For shaping loops, bends or rings.
- Finely serrated jaws for a positive grip.
- Diameter of each nose at the end: 2 mm.
- High durability Carbon alloy steel.
- Bi-Material ergonomic grips resistant to chemical agents featuring:
  - Return spring
  - Tether ready point (Tether point adds 10mm to nominal Length)
- Chrome finish for corrosion resistance.



➤	C [mm]	d [mm]	E [mm]	E1 [mm]	E2 [mm]	L [mm]	ΔΔ [g]
189A.17CPE	41	2	4	18	9	170	135

G SERIES PLIERS

STANDARD WIRE STRIPPERS

Wire strippers

ASME B107.500

- For single and multi-core wires 0.5 to 6 mm<sup>2</sup>.
- Adjustment screw with lock nut.
- Metal return spring.
- High durability Carbon alloy steel.
- Bi-Material ergonomic grips resistant to chemical agents featuring:
  - Tether ready tether point. (Tether point adds 10mm to nominal length)
- Chrome finish for corrosion resistance.

	B [mm]	Ø mini - maxi [mm]	E [mm]	L [mm]	ΔΔ [g]
<b>194A.17CPE</b>	17	0,5 - 6,0	8,5	170	185



DIAGONAL CUTTERS

SERIES "G" VARNISHED, POLISHED PLIERS

- High durability Carbon alloy steel, with induction hardened cutting edges.
- Mono-Material ergonomic grips maintaining accessibility benefits of classic dip grips, resistant to workshop chemical agents
- Varnish finish to help prevent rusting.

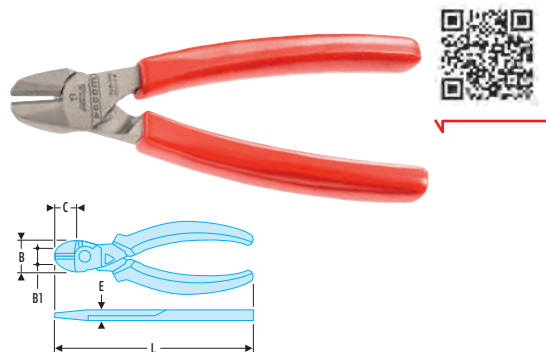


192A.G - High-performance diagonal cutters

NF ISO 5749, ISO 5749, DIN ISO 5749, ASME B107.500

- New head design to increase durability and cutting capacity
- Cutting edges designed to cleanly cut all types of wire: soft wires and modern materials to a maximum piano wire specification of:
  - 192A.16G : 2.0mm 210 kg/mm<sup>2</sup>
  - 192A.18G : 2.2mm 205 kg/mm<sup>2</sup>
  - 192A.20G : 2.5mm 200 kg/mm<sup>2</sup>
- High Mechanical advantage due to off-set rivet and cutting edge geometry reducing effort.

	B [mm]	C [mm]	d maxi [mm]	E [mm]	L [mm]	ΔΔ [g]
<b>192A.16G</b>	24,0	18,0	2,0	10,0	160	170
<b>192A.18G</b>	26,0	20,0	2,2	11,0	180	230
<b>192A.20G</b>	28,0	22,0	2,5	11,5	200	290

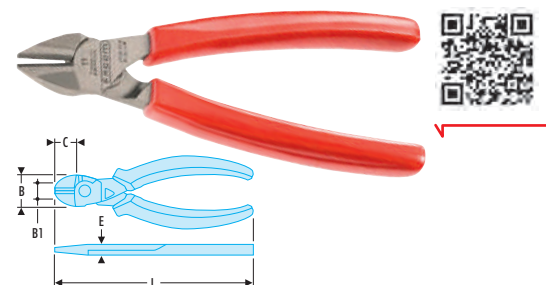


391A.G - Electricians diagonal cutters

NF ISO 5749, ISO 5749, DIN ISO 5749, ASME B107.50

- Snipe nose for confined space (electrical cabinets, wiring).
- Semi-flush cutting edges, designed to cleanly cut through all types of wire: piano wires (max. 200 kg/mm<sup>2</sup>), thin copper wires, modern materials.
- Long lever arm, offset pivot for minimum cutting effort.

	B [mm]	C [mm]	E [mm]	L [mm]	ΔΔ [g]
<b>391A.14G</b>	21,5	15,5	9,5	145	130
<b>391A.16G</b>	19	21	10	165	160



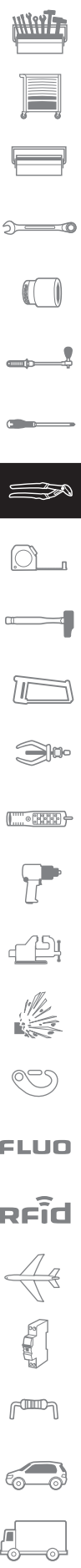
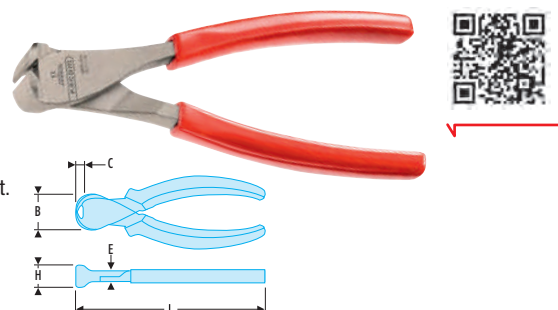
END CUTTERS

190A.G - High-performance end cutters

NF ISO 5748, ISO 5748, DIN ISO 5748, ASME B107.500

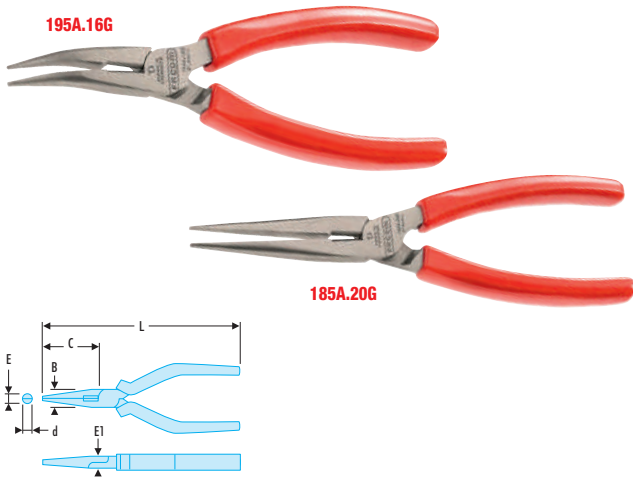
- Cutting edges designed to cleanly cut all types of wire: soft wires and modern materials to a maximum piano wire specification of:
  - 190A.16G : 2.0mm 210 kg/mm<sup>2</sup>
  - 190A.20G : 2.5mm 200 kg/mm<sup>2</sup>
- High Mechanical advantage due to off-set rivet and cutting edge geometry reducing effort.

	B [mm]	C [mm]	d maxi [mm]	E [mm]	H [mm]	L [mm]	ΔΔ [g]
<b>190A.16G</b>	28	6,5	2,0	11,5	23	160	170
<b>190A.20G</b>	31	7,5	2,5	13,5	29	200	310



HALF-ROUND NOSE PLIERS

185A-195A.G - Long half-round nose pliers



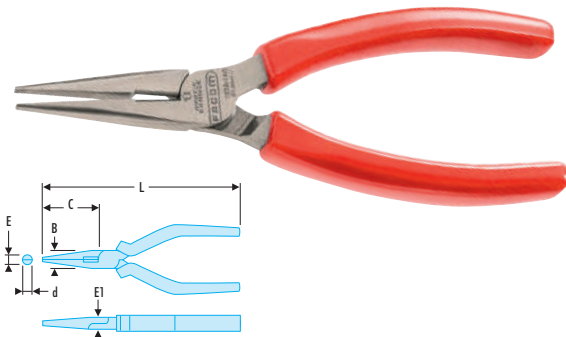
NF ISO 5745, ISO 5745, DIN ISO 5745, ASME B107.500

- Narrow, finely serrated tips with side cutting edges.
- Cutting edges for copper and hard steel wire to a maximum specification of 1.6mm 160 kg/mm<sup>2</sup>.
  - 183AE: straight long thin nose with wire stripping & gripping 1.5mm<sup>2</sup> - 2.5mm<sup>2</sup> - 4mm<sup>2</sup>.
  - 185: straight nose.
  - 195: 40° angled nose.
- High durability carbon alloy steel, with induction hardened cutting edges.
- Mono-Material ergonomic grips maintaining accessibility benefits of classic dip grips, resistant to workshop chemical agents
- Varnish finish to help prevent rusting.



Model	B [mm]	C [mm]	d [mm]	E [mm]	E1 [mm]	L [mm]	ΔΔ [g]
185A.20G	18	75	2,9	3,6	9	200	192
195A.16G	17	50	2,5	3,0	9	160	177
195A.20G	18	69	2,9	3,6	9	200	192

Short half-round nose plier



NF ISO 5745, ISO 5745, DIN ISO 5745, ASME B107.500

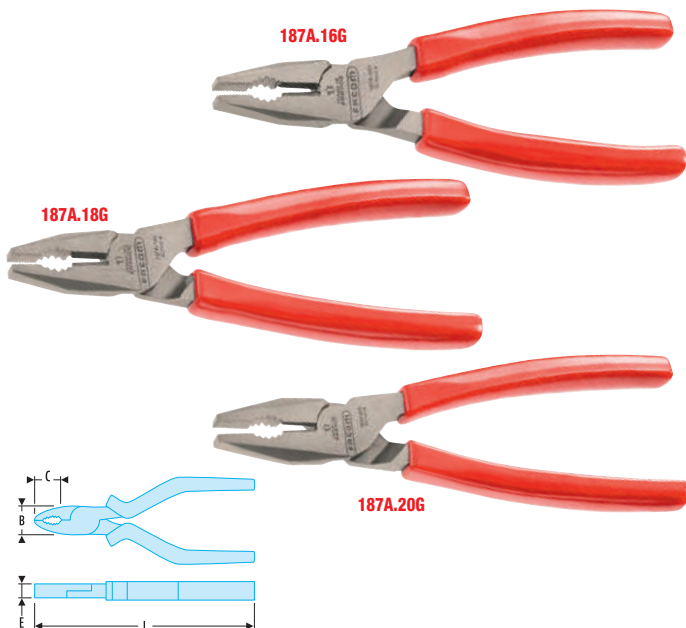
- Narrow, finely serrated tips with side cutting edges.
- Cutting edges for copper and hard steel wire to a maximum specification of 1.6mm 160 kg/mm<sup>2</sup>.
- High durability carbon alloy steel, with induction hardened cutting edges.
- Mono-Material ergonomic grips maintaining accessibility benefits of classic dip grips, resistant to workshop chemical agents
- Varnish finish to help prevent rusting.



Model	B [mm]	C [mm]	d [mm]	E [mm]	E1 [mm]	L [mm]	ΔΔ [g]
193A.16G	17	50	2,5	3	9	160	177

COMBINATION PLIERS

187A.G - Combination pliers



NF ISO 5746, ISO 5746, DIN ISO 5746, ASME B107.500

- Serrated flat and oval pipe/cable gripping surfaces combined with a high performance cutting edges.
- Cutting edges designed to cleanly cut all types of wire: soft wires and modern materials to a maximum piano wire specification of:
  - 187A.16G : 1.8mm 215 kg/mm<sup>2</sup>
  - 187A.18G : 2.0mm 210 kg/mm<sup>2</sup>
  - 187A.20G : 2.2mm 205 kg/mm<sup>2</sup>
- High Mechanical advantage due to off-set rivet and cutting edge geometry reducing effort.
- High durability carbon alloy steel, with induction hardened cutting edges.
- Mono-Material ergonomic grips maintaining accessibility benefits of classic dip grips, resistant to workshop chemical agents
- Varnish finish to help prevent rusting.



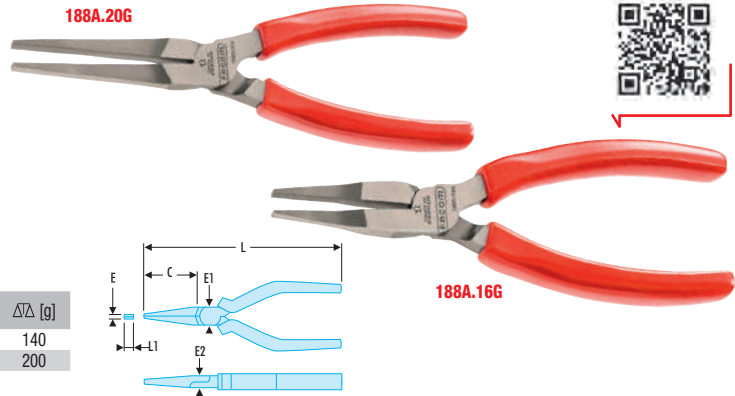
Model	B [mm]	C [mm]	E [mm]	E1 [mm]	L [mm]	ΔΔ [g]
187A.16G	21	34	21	9,5	165	195
187A.18G	23	36	23	10,0	185	225
187A.20G	26	42	26	11,5	205	300

FLAT-NOSE PLIERS

188A.G - Flat nose pliers

NF ISO 5745, ISO 5745, DIN ISO 5745, ASME B107.500

- Narrow flat shaped and finely serrated nose for a firm grip and accessibility.
- High durability carbon alloy steel.
- Mono-Material ergonomic grips maintaining accessibility benefits of classic dip grips, resistant to workshop chemical agents.
- Varnish finish to help prevent rusting.



	C [mm]	E [mm]	E1 [mm]	E2 [mm]	L [mm]	L1 [mm]	ΔΔ [g]
188A.16G	46	4	18	9	168	6,5	140
188A.20G	75	4	18	9	200	6,5	200

CUTTING PLIERS

PRECISION CUTTERS

3 types of cut:

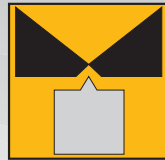
AXIAL

Hard cutting edges for all materials.



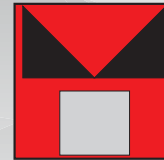
SEMI-FLUSH

Clean cut in semi-hard materials.



FLUSH

Smooth burr-free finish.

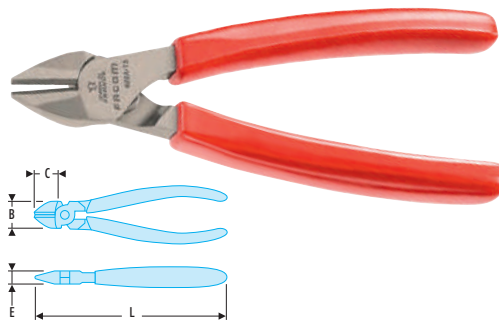


Micro-Tech® electronic pliers. See Electronic Section p.974

"Compact" diagonal cutter

NF ISO 5749, ISO 5749, DIN ISO 5749, ASME B107.500

- Capacity:
  - Hard wire 160 kg/mm<sup>2</sup>: diameter 1.6 mm.
  - Semi-hard wire 100 kg/mm<sup>2</sup>: diameter 1.8 mm.
- Mono-Material ergonomic grips maintaining accessibility benefits of classic dip grips, resistant to workshop chemical agents.
- Varnish finish to help prevent rusting.

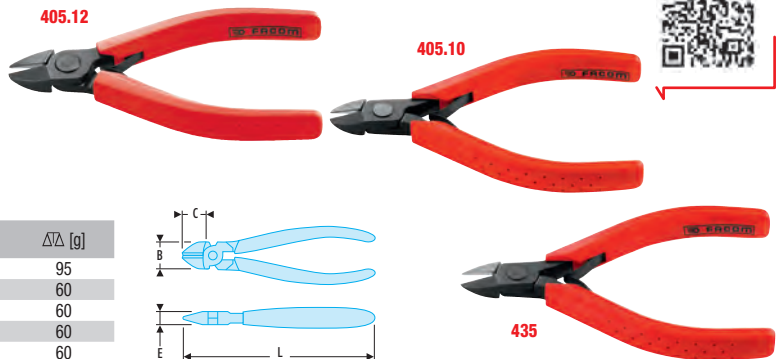


	B [mm]	C [mm]	E [mm]	L [mm]	ΔΔ [g]
405A.15	24,0	18,0	10,0	160	160

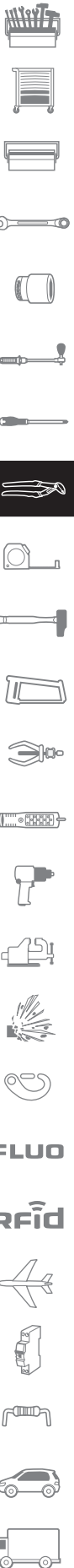
405-416-425-435- Diagonal cutters

NF ISO 5749, ISO 5749, DIN ISO 5749, ASME B107.500

- 405: Axial cut.
- 416 - 435: Semi-flush cut, slim nose.
- 425: Flush cut, nose extended 13 mm.
- Finish: Matt burnished finish, red grips - return spring.
- Copper only (for 405.10 and 405.12).

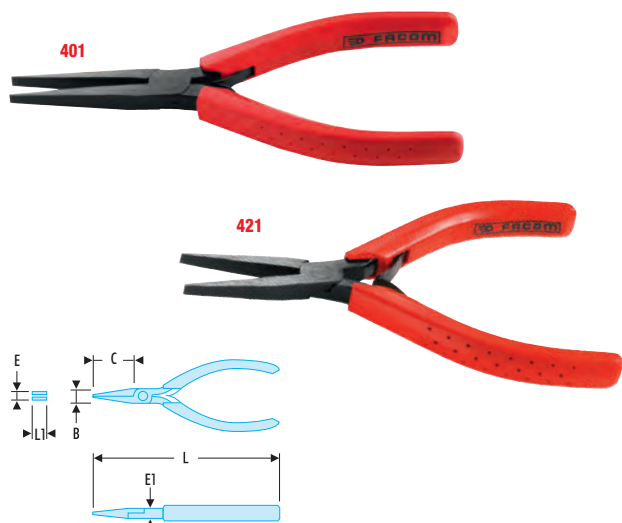


	B [mm]	C [mm]	E [mm]	L [mm]	ΔΔ [g]
405.12	16,0	16,0	16,0	120	95
405.10	11,5	10,5	10,5	110	60
435	13,0	10,5	10,5	110	60
416	11,5	10,5	10,5	110	60
425	13,0	10,5	10,5	110	60



FLAT-NOSE PLIERS

401-421 - Flat nose pliers



NF ISO 9655, ISO 9655, DIN ISO 9655, ASME B107.500

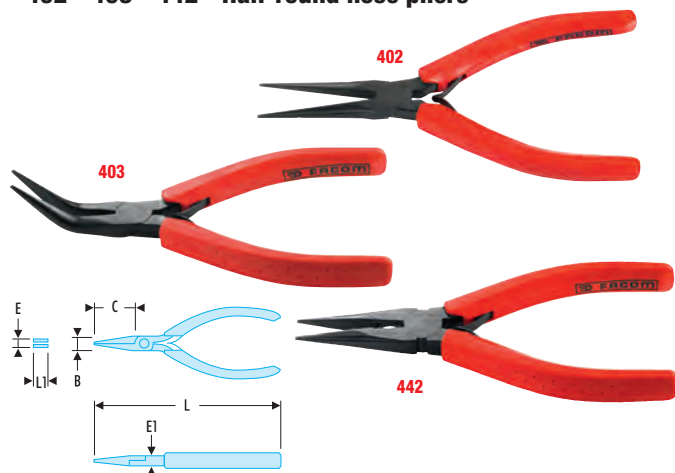
- Smooth jaws with contoured inside edges to protect components.
- Finish: Matt burnished finish, red grips.



Model	B [mm]	C [mm]	E [mm]	E1 [mm]	L [mm]	L1 [mm]	ΔΔ [g]
401	48	14	5	1	160	8	80
421	33	11	3	1	130	7	70

HALF-ROUND NOSE PLIERS

402 - 403 - 442 - Half-round nose pliers



NF ISO 5745, ISO 5745, DIN ISO 5745, ASME B107.500

- 402: Short smooth jaws.
- 403: Smooth jaws, angled 40°.
- 442: Short serrated jaws with side wire-cutter (2 mm dia. copper, 1 mm dia. steel 100 kg/mm²).
- Finish: Matt burnished finish, red grips - return spring.



Model	B [mm]	C [mm]	E [mm]	E1 [mm]	L [mm]	L1 [mm]	ΔΔ [g]
402	48	14	14	1,5	160	8	76
403	45	14	14	1,2	155	8	75
442	42	14	14	3,8	150	8	88

WIRE STRIPPERS

Fine wire strippers



- Max. AWG 14.
- For light-gauge wire.
- Narrow blades.
- Cutting depth presetting.
- Single and multi-core wire diameter: 1,5 mm.
- Cross-section: 1,8 mm².
- Length: 130 mm.
- Finish: burnished, PVC grip.



Model	L [mm]	ΔΔ [g]
194.12	130	70



PLIERS

NEW 1,000 VOLTS INSULATED PLIERS

Increased durability:  
longer life performance



**Less effort**

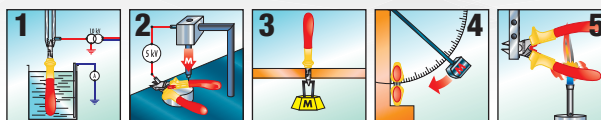
- Cutting requires less force, return spring reduces total user effort and strain.



**Insulation tests**

Tools to EN 60900 specifications

- 1 Immersion test
- 2 Penetration test
- 3 Insulation adhesion test
- 4 Impact test
- 5 Non-flammability test



- Sculptured upper section with finger-guard provides a natural fit to aid grip.

- Wide lower section to increase contact with the plier aiding both grip and comfort.



**Soft grip**  
• For improved comfort.

**Information**

- Compliance with European standard EN 60900.
- For working on live components up to 1,000 volt AC.
- Each and every tool is tested to 10,000 volt for 10 seconds at the end of the manufacturing cycle.
- Our production site is accredited and certified to produce insulated tools.

**Safety**

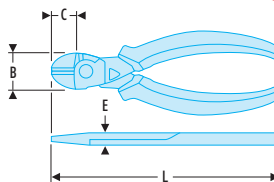
- Prevent damage to insulation from:
  - Heat (-20 to +70°C working temperature)
  - Chemicals
  - Cuts or perforations.
- Check insulation is sound before using a tool.
- Wear insulating gloves and eye protection.



■ 192A.VE - 1,000 Volt insulated high-performance diagonal cutters

NF ISO 5749, ISO 5749, DIN ISO 5749, ASME B107.500, NF EN 60900, EN 60900, DIN EN 60900

- For your safety, all pliers are tested individually at 10,000 Volt for 10 seconds, at the end of the manufacturing cycle.
- New head design to increase durability and cutting capacity
- Cutting edges designed to cleanly cut all types of wire: soft wires and modern materials to a maximum piano wire specification of:
  - 192A.16VE : 2.0mm 210 kg/mm<sup>2</sup>
  - 192A.18VE : 2.2mm 205 kg/mm<sup>2</sup>
- High mechanical advantage due to off-set rivet and cutting edge geometry reducing effort.
- High durability carbon alloy steel, with induction hardened cutting edges.
- Bi-Material ergonomic grips resistant to chemical agents.
  - Return spring.
  - Tether ready (Tether point adds 10mm to nominal length).
- Varnish finish to help prevent rusting.



	B [mm]	C [mm]	d maxi [mm]	E [mm]	L [mm]	Cu - Ø max [mm <sup>2</sup> ]	ΔΔ [g]
192A.16VE	24,0	18,0	2,0	10,0	160	0,7 - 4,0	200
192A.18VE	26,0	20,0	2,2	11,0	180	0,7 - 4,5	260



DIAGONAL CUTTERS

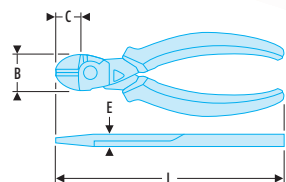
■ 391A.VE - 1,000 volt insulated electricians diagonal cutters



391A.14VE



391A.16VE



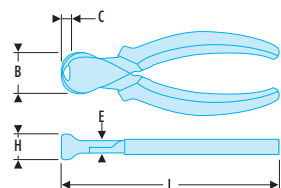
NF ISO 5749, ISO 5749, DIN ISO 5749, ASME B107.500

- Snipe nose for confined space (electrical cabinets, wiring).
- Cutting edges designed to cleanly cut all types of wire: soft wires and modern materials to a maximum piano wire specification of:
  - 391A.14VE : 1.4mm 225 kg/mm<sup>2</sup>
  - 391A.16VE : 1.6mm 220 kg/mm<sup>2</sup>
- High mechanical advantage due to off-set rivet and cutting edge geometry reducing effort.
- High durability chrome-molybdenum-vanadium steel, with induction hardened cutting edges.
- Bi-Material ergonomic grips resistant to chemical agents.
  - Return spring
  - Tether ready
 (Tether point adds 10mm to nominal length)

391A.VE	B [mm]	C [mm]	E [mm]	L [mm]	L1 [mm]	ΔΔ [g]
391A.14VE	21,5	15,5	9,5	145	9	190
391A.16VE	19	21	10	165	9	190

END CUTTERS

■ 1,000 Volt insulated high-performance end cutters



NF ISO 5748, ISO 5748, DIN ISO 5748, ASME B107.500

- Cutting edges designed to cleanly cut all types of wire: soft wires and modern materials to a maximum piano wire specification of:
  - 190A.16VE: 2.0mm 210 kg/mm<sup>2</sup>
- High mechanical advantage due to off-set rivet and cutting edge geometry reducing effort.
- High durability Carbon alloy steel, with induction hardened cutting edges.
- Bi-Material ergonomic grips resistant to chemical agents.
  - Positive return spring
  - Tether ready tether point
 (Tether point adds 10mm to nominal length)

190A.VE	A [mm]	B [mm]	C [mm]	d maxi [mm]	E [mm]	L [mm]	ΔΔ [g]
190A.16VE	6,5	28	6,5	2,0	11,5	160	200

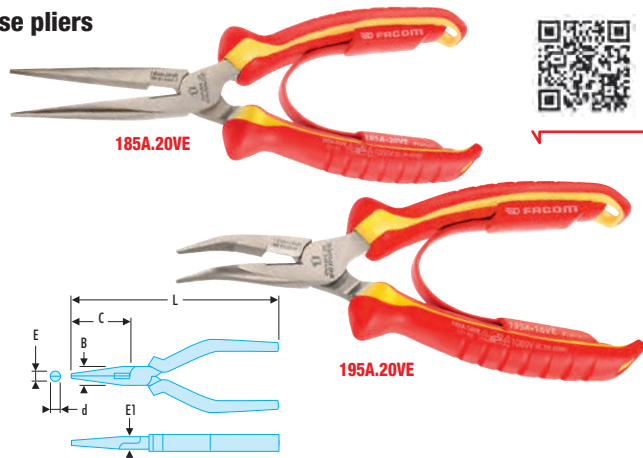
HALF-ROUND NOSE PLIERS

■ 185A-195A.VE - 1,000 Volt insulated long half-round nose pliers

NF ISO 5745, ISO 5745, DIN ISO 5745, ASME B107.500, NF EN 60900, EN 60900, DIN EN 60900

- For your safety, all pliers are tested individually at 10,000 Volt for 10 seconds, at the end of the manufacturing cycle.
- Slim, fine serrated noses.
- Lateral wire cutter for copper and hard steel wire.
- 185A.20VE: straight nose.
- 195A.20VE: 40° angled nose.
- Return spring.
- Ergonomic anti-slip grips.
- Finish: polished, varnished.

	B [mm]	C [mm]	d [mm]	E [mm]	E1 [mm]	L [mm]	160 kg/mm <sup>2</sup> [Ø mm]	Cu - Ø max [mm <sup>2</sup> ]	ΔΔ [g]
185A.20VE	18	75	2,9	3,6	9	200	1,6	0,7 - 3,5	192
195A.20VE	18	69	2,9	3,6	9	200	1,6	0,7 - 3,5	192

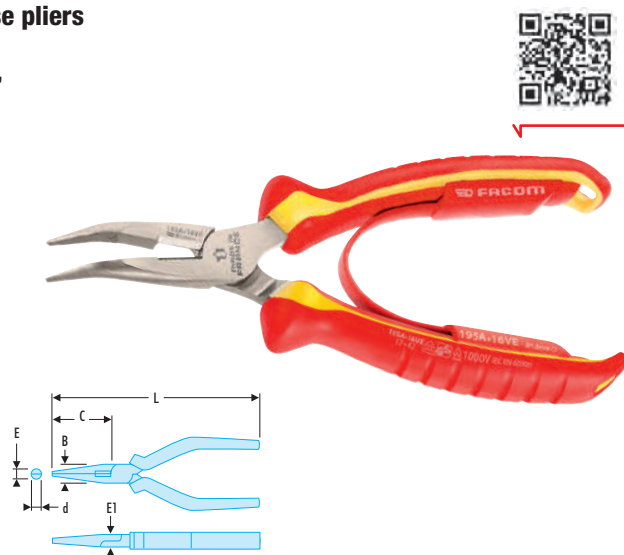


■ 193A-195A.VE - 1,000 Volt insulated short half-round nose pliers

NF ISO 5745, ISO 5745, DIN ISO 5745, ASME B107.500, NF EN 60900, EN 60900, DIN EN 60900

- For your safety, all pliers are tested individually at 10,000 Volt for 10 seconds, at the end of the manufacturing cycle.
- Narrow, finely serrated tips with side cutting edges.
  - 193.VE: straight nose.
  - 195.VE: 40° angled nose.
- Cutting edges for copper and hard steel wire to a maximum specification of 1.6mm 160 kg/mm<sup>2</sup>.
- High durability carbon alloy steel, with induction hardened cutting edges.
- Bi-Material ergonomic grips resistant to chemical agents featuring:
  - Return spring
  - Tether ready
 (Tether point adds 10mm to nominal length)
- Varnish finish to help prevent rusting.

	B [mm]	C [mm]	d [mm]	E [mm]	E1 [mm]	L [mm]	160 kg/mm <sup>2</sup> [Ø mm]	Cu - Ø max [mm <sup>2</sup> ]	ΔΔ [g]
193A.16VE	17	50	2,5	3	9	160	1,6	0,7 - 3,0	177
195A.16VE	17	50	2,5	3	9	160	1,6	0,7 - 3,0	177



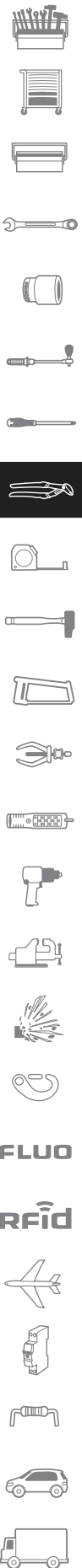
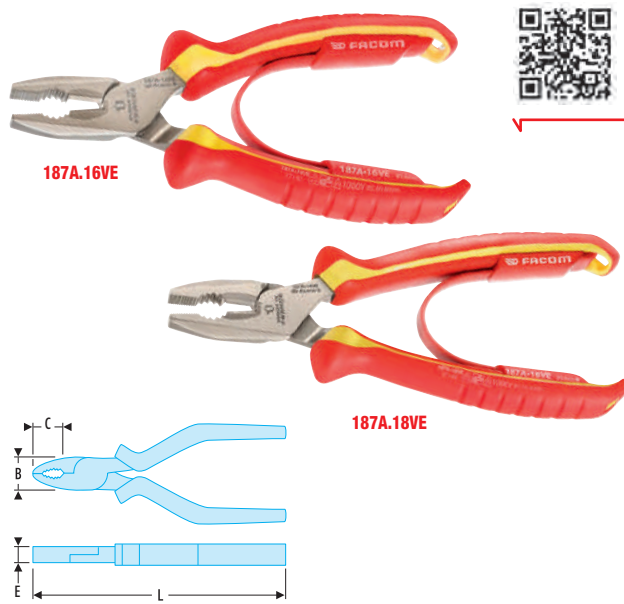
COMBINATION PLIERS

■ 187A.VE - 1,000 Volt insulated combination pliers

NF ISO 5746, ISO 5746, DIN ISO 5746, ASME B107.500, NF EN 60900, EN 60900, DIN EN 60900

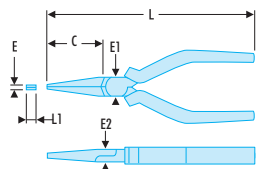
- For your safety, all pliers are tested individually at 10,000 Volt for 10 seconds, at the end of the manufacturing cycle.
- Serrated flat and oval pipe/cable gripping surfaces combined with a high performance cutting edges.
- Cutting edges designed to cleanly cut all types of wire: soft wires and modern materials to a maximum piano wire specification of:
  - 187A.16VE : 1.8mm 215 kg/mm<sup>2</sup>
  - 187A.18VE : 2.0mm 210 kg/mm<sup>2</sup>
- High mechanical advantage due to off-set rivet and cutting edge geometry reducing effort.
- High durability carbon alloy steel, with induction hardened cutting edges.
- Bi-Material ergonomic grips resistant to chemical agents featuring:
  - Return spring
  - Tether ready
 (Tether point adds 10mm to nominal length)
- Varnish finish to help prevent rusting.

	B [mm]	C [mm]	d max [mm]	E [mm]	L [mm]	ΔΔ [g]
187A.16VE	21	34	1,8	9,5	165	195
187A.18VE	23	36	2,0	10,0	185	225



FLAT-NOSE PLIERS

■ 188A.VE - 1,000 Volt insulated flat nose pliers



NF ISO 5745, ISO 5745, DIN ISO 5745, ASME B107.500, NF EN 60900, EN 60900, DIN EN 60900

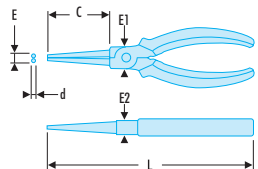
- For your safety, all pliers are tested individually at 10,000 Volt for 10 seconds, at the end of the manufacturing cycle.
- Narrow flat shaped and finely serrated nose for a firm grip and accessibility
- High durability carbon alloy steel.
- Bi-Material ergonomic grips resistant to chemical agents featuring:
  - Return spring
  - Tether ready (Tether point adds 10mm to nominal length)
- Varnish finish to help prevent rusting.



	B [mm]	E [mm]	E1 [mm]	E2 [mm]	L [mm]	L1 [mm]	ΔΔ [g]
188A.16VE	46	4	18	9	168	6,5	140
188A.20VE	75	4	18	9	200	6,5	200

ROUND NOSE PLIERS

■ 1,000 Volt insulated round nose pliers



NF ISO 5745, ISO 5745, DIN ISO 5745, ASME B107.500, NF EN 60900, EN 60900, DIN EN 60900

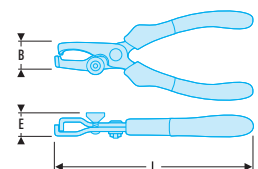
- For your safety, all pliers are tested individually at 10,000 Volt for 10 seconds, at the end of the manufacturing cycle.
- For shaping loops, bends or rings.
- Finely serrated jaws for a positive grip.
- Diameter of each nose at the end: 2 mm.
- High durability carbon alloy steel.
- Bi-Material ergonomic grips resistant to chemical agents featuring:
  - Return spring
  - Tether ready tether point (Tether point adds 10mm to nominal length)
- Varnish finish to help prevent rusting



	C [mm]	d [mm]	E [mm]	E1 [mm]	E2 [mm]	L [mm]	ΔΔ [g]
189A.17VE	41	2	4	18	9	170	135

STANDARD WIRE STRIPPERS

■ 1,000 Volt insulated strippers



NF EN 60900, EN 60900, DIN EN 60900

- For your safety, all pliers are tested individually at 10,000 Volt for 10 seconds, at the end of the manufacturing cycle.
- For single and multi-core wires 0.5 to 6 mm<sup>2</sup>.
- Adjustment screw with lock nut.
- Metal return spring
- High durability Carbon alloy steel.
- Bi-Material ergonomic grips resistant to chemical agents featuring:
  - Tether ready point (Tether point adds 10mm to nominal length)
- Varnish finish to help prevent rusting.



	B [mm]	E [mm]	L [mm]	ΔΔ [g]
194A.17VE	17	8,5	170	185

MULTIGRIP PLIERS 180.VE - RIVETED PIVOT



Find the 180.VE pliers p. 952

MULTIGRIP PLIERS



Power and precision

**POWERFUL**

- The closed position of the ergonomic comfort grip handles increases the tightening power.



**STURDY**

- Accurate and strong thanks to its rack and offset pin.



**SLIM-LINE NOSE**

- With self-gripping teeth.



2 finishes available



**CPE version:**

- Chrome-finished.
- Bi-material ergonomic grips.



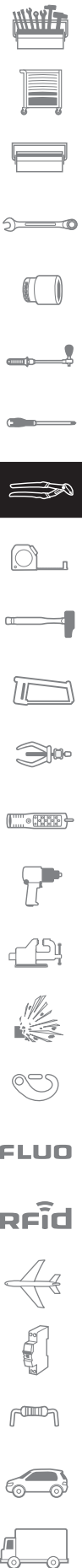
**G version:**

- Varnished.
- Ergonomic grips.



**181EF version:**

- Long nose



LOCKING MULTIGRIP PLIERS

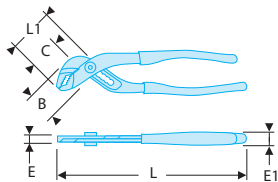
181A - Locking twin slip-joint multigrip pliers



181A.25CPE



181A.18G



NF ISO 8976, ISO 8976, DIN ISO 8976

- Fast, precise push-button adjustment with safety lock.
- 12-position notches.
- The closed position of the ergonomic comfort grip handles increases the tightening power.
- High torsional strength.
- Slim-profile self-gripping nose.
- 62 HRC high-frequency treated jaws.
- Finish:
  - Chrome, bi-material ergonomic grips: 181A.CPE.
  - Varnish finish, mono-material grips: 181A.G.

ED	B [mm]	C [mm]	E [mm]	E1 [mm]	L [mm]	L1 [mm]	Capacity Nuts [mm]	Capacity Maxi Tube [mm]	ΔΔ [g]
181A.18CPE	22	24	7,5	20,0	185	48	36	36	230
181A.25CPE	28	28	7,5	22,5	245	54	41	42	360
181A.18G	22	24	7,5	20,0	185	48	36	36	225
181A.25G	28	28	7,5	19,0	245	54	41	42	350
181A.30G	35	33	9,0	22,5	300	73	46	49	680

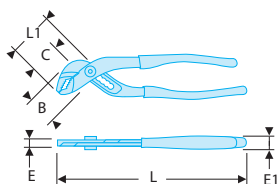
181EF- Locking twin slip-joint multigrip pliers



181EF.25CPE



181EF.25G



NF ISO 8976, ISO 8976, DIN ISO 8976

- Long slim nose for improved reach in confined spaces.
- Fast, precise push-button adjustment with safety lock.
- 12-position notches.
- The closed position of the ergonomic comfort grip handles increases the tightening power.
- High torsional strength.
- Slim-profile self-gripping nose.
- 62 HRC high-frequency treated jaws.
- Packaging:
  - Chromed, bi-material ergonomic grips: 181EF.25CPE.
  - Varnish finish, PVC grips: 181EF.25G.

ED	B [mm]	C [mm]	E [mm]	E1 [mm]	L [mm]	L1 [mm]	Capacity Nuts [mm]	Capacity Maxi Tube [mm]	ΔΔ [g]
181EF.25CPE	25	37,5	7,5	22,5	256	63	41	42	350
181EF.25G	25	37,5	7,5	19,0	256	63	41	42	340

180 - SLIP-JOINT MULTIGRIP PLIERS - RIVETED PIVOT PIN



Ideal for confined spaces!

- Long slim nose for improved reach in confined spaces.
- 7 positions.
- Capacity (parallel jaws): 44 mm.



Safety

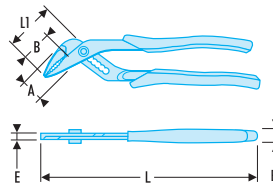


- Finger clearance.
- Insulated VE model for working on or near live components up to 1,000V AC.
- To European standard EN60900.

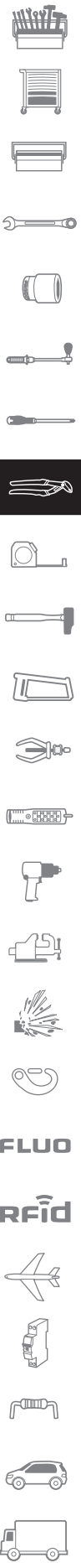
180 - High-performance multigrip pliers

NF ISO 8976, ISO 8976, DIN ISO 8976

- Capacity: 44 mm.
- Ideal for confined spaces: long reach thin noses.
- Double heat-treated tips: high wear resistance, hardness 60/62 HRc.
- 3 options:
  - 180.CPE: Chrome finish, ergonomic grips.
  - 180: Chrome finish.
  - 180A.VE: Varnish finish, 1,000V insulated grips designed for electrical safety to EN 60 900 and qualified for working on or near live components.



Model	A [mm]	B [mm]	C [mm]	E [mm]	E1 [mm]	L [mm]	L1 [mm]	ΔΔ [g]
180	30	30	35	8	14	250	58	320
180.CPE	30	30	35	8	22	250	58	360
180.VE	30	30	35	8	22	250	58	360



LOCKING MULTIGRIP PLIERS

SLIP-JOINT MULTIGRIP PLIERS

Self-tightening pliers



- Teeth self-gripping on pipes.
- Tightens and loosens nuts without damage.
- Capacity: 40 mm. (170A.25)
- Safe: finger protection.
- Riveted pivot.

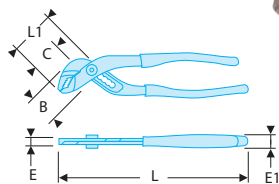


170A - Standard multigrip pliers



NF ISO 8976, ISO 8976, DIN ISO 8976, ASME B107.500

- Ergonomic handle for comfortable use.
- Self-gripping teeth.
- Antipinch finger protection.
- 8 positions (6 for the 170A.18).
- Smooth rack and pinion system reduces the risk of jamming
- PVC grips.



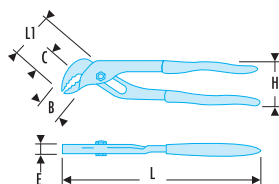
	B [mm]	C [mm]	E [mm]	E1 [mm]	H [mm]	L [mm]	L1 [mm]	Capacity Nuts [mm]	Capacity Maxi Tube [mm]	ΔΔ [g]
170A.18	27	24	8	14	53	180	43	30	30	220
170A.25	34	34	8	17	58	250	54	40	44	330
170A.30	34	34	8,6	17	74	310	75	55	55	650

484 - Twin slip-joint multigrip pliers



NF ISO 8976, ISO 8976, DIN ISO 8976, ASME B107.500

- Inter-slotted jaws distribute load either side of central pin.
- 2 heavy-gauge slots for optimum safety and durability.
- 7 positions.
- Capacity:
  - 484A: 34 mm.
  - 484A.30: 43 mm.
- Finish: satin surface.



	A [mm]	B [mm]	C [mm]	E [mm]	H [mm]	L [mm]	L1 [mm]	ΔΔ [g]
484A	33	33	38	7,0	50	240	60	345
484A.30	38	38	40	9,5	52	300	66	560

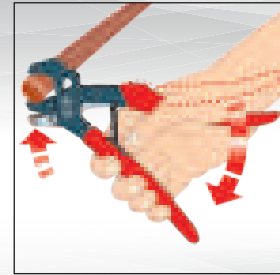


AUTOMATIC MULTIGRIP PLIERS

SELF-ADJUSTING MULTIGRIP PLIERS

Fast adjustment

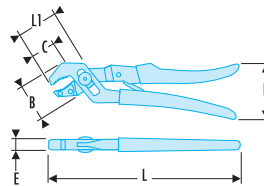
- Instant automatic setting with one hand while clamping.



485 - Automatic multigrip pliers



- Instant automatic setting with one hand while clamping.
- Capacity:
  - 485.17: diameter 28 mm, 6-point 23 mm.
  - 485.23: diameter 45 mm, 6-point 38 mm.
- Finish: burnished, PVC grip.



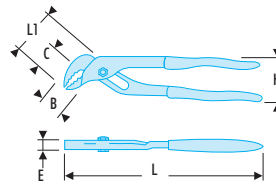
	A [mm]	B [mm]	C [mm]	E [mm]	H [mm]	L [mm]	L1 [mm]	ΔΔ [g]
485.17	28	28	23	7	42	170	42	150
485.23	40	40	30	10	70	230	57	380

NOTCH-JOINT MULTIGRIP PLIERS

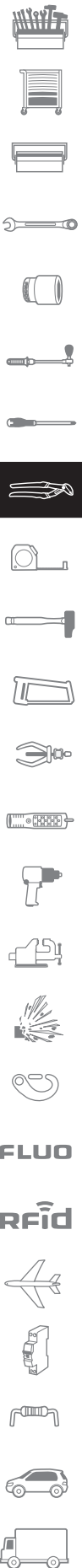
"Extra-wide capacity" straight-jaw pliers



- NF ISO 8976, ISO 8976, DIN ISO 8976, ASME B107.500
- Straight serrated jaw.
  - Notch joint.
  - 11 positions.
  - Capacity: 105 mm.
  - Finish: chrome finish, PVC grip.



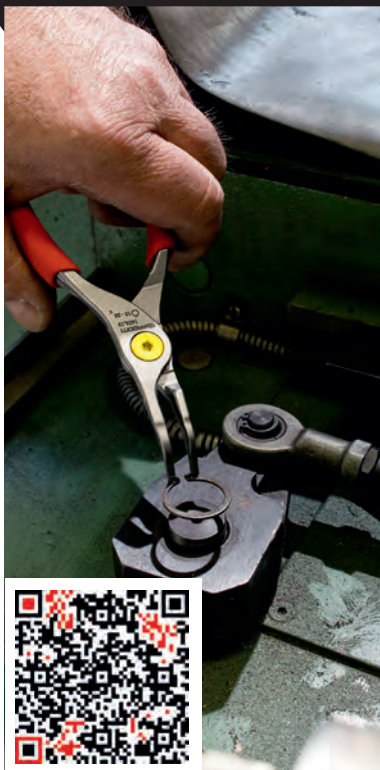
	B [mm]	C [mm]	E [mm]	H [mm]	L [mm]	L1 [mm]	ΔΔ [kg]
481.40	56	50	14	102	412	90	1.1



INSIDE CIRCLIPS® PLIERS

FACOM CIRCLIPS® PLIERS

Packed with features!



**Performance and safety**

- Piano wire tips:
  - Resistant to deformation.
  - Reinforced to limit risks of breakage.
- Integral spring: optimum flexibility of use:
  - Spring protection.
  - Limits risks of spring loss and/or ejection.
- Tips extended and angled at 10°:
  - Better circlip holding.
  - Reduces risks of circlips warping and falling.

**Slim-line and accessibility**

- Slim-line head and nose for easy access even in crowded spaces.



Opening

Closing

**Comfort and ergonomics**

- Grips in anti-slip granite PVC.
- Reduces risks of slipping or falling during use.
- Improves ergonomics during intensive operations.
- Easy to clean.

**Productivity**

- Colour code: opening / closing.
- Improved productivity thanks to faster identification of the pliers in the tool box.

INSIDE CIRCLIPS® PLIERS

- Straight, 45° or 90° tip profiles.
- Chrome finish.

**SAFETY**



Eye protection is recommended.



179A - Straight nose inside Circlips® pliers



NF E 73-130, DIN 5256, ASME B107.500

- For Circlips® 8 --> 200 mm.
- Piano wire tips: high distortion resistance.
- Long 10° angled tips for optimum circlip holding.
- Identification colour code: saves time.
- Grips in anti-slip granite PVC.



➤	d [mm]	d mini - maxi [mm]	L [mm]	ΔΔ [g]
179A.9	0,9	8 - 13	140	115
179A.13	1,3	12 - 25	140	115
179A.18	1,8	19 - 60	185	215
179A.23	2,2	40 - 100	215	300
179A.32	3,2	85 - 200	310	565

169A - 45° angled nose inside Circlips® pliers

NF E 73-130, ASME B107.500

- For Circlips® 8 --> 100 mm
- Piano wire tips: high distortion resistance.
- Long 10° angled tips for optimum circlip holding.
- Identification colour code: saves time.
- Grips in anti-slip granite PVC.

Ø	d [mm]	d mini - maxi [mm]	L [mm]	ΔΔ [g]
169A.9	0,9	8 - 13	140	115
169A.13	1,3	12 - 25	140	115
169A.18	1,8	19 - 60	180	215
169A.23	2,2	40 - 100	215	300

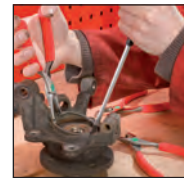


199A - 90° angled nose inside Circlips® pliers

NF E 73-130, DIN 5256, ASME B107.500

- For Circlips® 8 --> 200 mm.
- Piano wire tips: high distortion resistance.
- Long 10° angled tips for optimum circlip holding.
- Identification colour code: saves time.
- Grips in anti-slip granite PVC.

Ø	d [mm]	d mini - maxi [mm]	L [mm]	ΔΔ [g]
199A.9	0,9	8 - 13	130	115
199A.13	1,3	12 - 25	130	115
199A.18	1,8	19 - 60	170	215
199A.23	2,2	40 - 100	205	300
199A.32	3,2	85 - 200	290	565



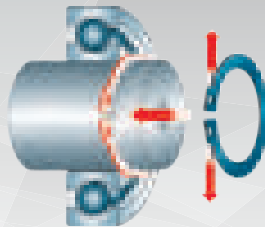
OUTSIDE CIRCLIPS® PLIERS

- Straight, 45° or 90° profiles.
- Chrome finish.

**SAFETY**



Eye protection is recommended.



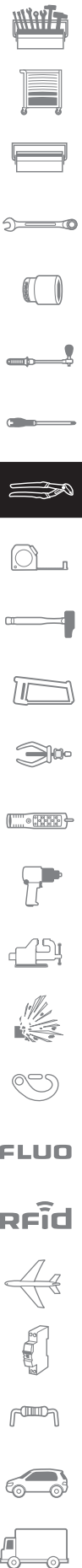
OUTSIDE CIRCLIPS® PLIERS

177A - Straight nose outside Circlips® pliers

NF E 73-130, DIN 5254, ASME B107.500

- For Circlips® 3 --> 200 mm.
- Piano wire tips: high distortion resistance.
- Long 10° angled tips for optimum circlip holding.
- Identification colour code: saves time.
- Grips in anti-slip granite PVC.

Ø	d [mm]	d mini - maxi [mm]	L [mm]	ΔΔ [g]
177A.9	0,9	3 - 10	150	105
177A.13	1,3	10 - 25	150	105
177A.18	1,8	19 - 60	180	175
177A.23	2,2	40 - 100	215	280
177A.32	3,2	85 - 200	310	600



OUTSIDE CIRCLIP® PLIERS

167A - 45° angled nose outside Circlips® pliers



NF E 73-130ASME B107.500

- For Circlips® 3 --> 100 mm.
- Piano wire tips: high distortion resistance.
- Long 10° angled tips for optimum circlip holding.
- Identification colour code: saves time.
- Grips in anti-slip granite PVC.



🔗	d [mm]	d mini - maxi [mm]	L [mm]	ΔΔ [g]
167A.9	0.9	3 - 10	145	105
167A.13	1.3	10 - 25	145	105
167A.18	1.8	19 - 60	175	175
167A.23	2.2	40 - 100	215	280

197A - 90° angled nose outside Circlips® pliers



NF E 73-130, DIN 5254, ASME B107.500

- For Circlips® 3 --> 200 mm.
- Piano wire tips: high distortion resistance.
- Long 10° angled tips for optimum circlip holding.
- Identification colour code: saves time.
- Grips in anti-slip granite PVC.



🔗	d [mm]	d mini - maxi [mm]	L [mm]	ΔΔ [g]
197A.9	0,9	3 - 10	140	105
197A.13	1,3	10 - 25	140	105
197A.18	1,8	19 - 60	170	175
197A.23	2,2	40 - 100	200	280
197A.32	3,2	85 - 200	290	600

Set of 4 straight and 90° angled nose Circlips® pliers - 18 to 60 mm



- Including:
- 177A.18: Straight nose outside Circlip® pliers for Circlips® 19 --> 60 mm.
- 197A.18: 90° angled nose outside Circlip® pliers for Circlips® 19 --> 60mm.
- 179A.18: Straight nose inside Circlip® pliers for Circlips® 19 --> 60 mm.
- 199A.18: 90° angled nose inside Circlip® pliers for Circlips® 19 --> 60 mm.



🔗	ΔΔ [g]
PCJ4	860

Set of 4 straight nose Circlips® pliers - 10 to 60 mm



- Including:
- 177A.13: Straight nose outside Circlip® pliers for Circlips® 10 --> 25 mm.
- 177A.18: Straight nose outside Circlip® pliers for Circlips® 19 --> 60 mm.
- 179A.13: Straight nose inside Circlip® pliers for Circlips® 12 --> 25 mm.
- 179A.18: Straight nose inside Circlip® pliers for Circlips® 19 --> 60 mm.



🔗	ΔΔ [g]
PCSNJ4	740

HIGH-PERFORMANCE PLIERS

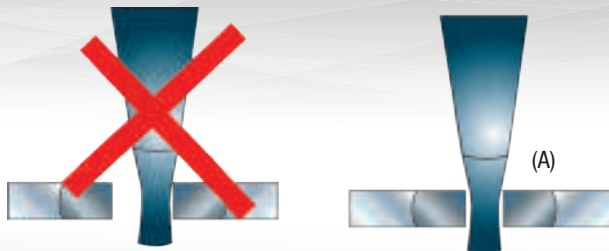
CHOOSING THE RIGHT CIRCLIPS® PLIERS

- Always select the nearest tip diameter to the size of Circlip® holes (A).
- Never attempt to reshape the tips of the pliers.

**SAFETY FIRST**



Always wear eye protection when handling circlips®.



■ 499 - 479 - Rack-type "compression" pliers for inside Circlips®

ASME B107.500

- Interchangeable tip.
- Rack holds circlips® compressed for easy fitting and removal (with release trigger).
- Finish: chrome finish, red PVC grips.



Ref	d [mm]	d mini - maxi [mm]	L maxi [mm]	L [mm]	Tips	ΔΔ [g]
499.32	3,2	85 - 200	310	310	45°	480
479.32	3,2	85 - 200	310	310	Straight	480

■ 477-497 Rack-type "expansion" pliers for outside Circlips®

ASME B107.500

- Interchangeable tip.
- Rack holds circlips® compressed for easy fitting and removal (with release trigger).
- Finish: chrome finish, red PVC grips.



Ref	d [mm]	d mini - maxi [mm]	L [mm]	Tips	ΔΔ [g]
477.32	3,2	85 - 200	310	45°	480
497.32	3,2	85 - 200	310	Straight	480

■ 490.SE - Spare tips for pliers 477 to 499

- Each reference includes 2 tips and 2 screws.



Ref	d [mm]	d mini - maxi [mm]	Tips
490.SE28-1	2,8	65 - 120	Straight
490.SE32-1	3,2	85 - 200	Straight
490.SE38-1	3,8	120 - 200	45°
490.SE28-2	2,8	65 - 120	45°
490.SE32-2	3,2	85 - 200	45°
490.SE38-2	3,8	120 - 200	45°

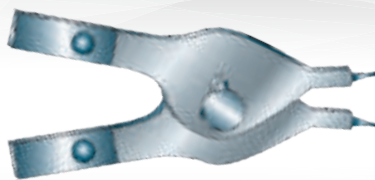


REVERSIBLE PLIERS

REVERSIBLE CIRCLIPS® PLIERS

Reversible Circlips® pliers 475A

- Single tool for both inside and outside Circlips®.
- Quick thumbscrew position setting.



Position 1 for outside Circlips®.



Position 2 for inside Circlips®.

475A - Reversible inside and outside Circlips® pliers



- Single tool for both inside and outside Circlips®.
- Finish: burnished, PVC grip.



	d [mm]	d mini - maxi [mm]	L [mm]	ΔΔ [g]
475A.15	1,0	10 --> 30 - 10 --> 18	150	75
475A.20	1,8	20 --> 48 - 19 --> 45	200	155

Set of two reversible pliers



- Including:
  - 475A.15: for inside Circlips®, diam. 10 --> 30 mm and outside, diam. 10 --> 18 mm.
  - 475A.20: for inside Circlips®, diam. 20 --> 48 mm and outside, diam. 19 --> 45 mm.
- Supplied in a case, dim. (L. x W. x H.): 245 x 135 x 35 mm.



	ΔΔ [g]
475A.J1	430

REMOVABLE TIP PLIERS

Inside and outside Circlips® pliers



- Interchangeable tips for:
  - diam. 8 --> 63 mm, for inside Circlips®.
  - diam. 3 --> 63 mm, for outside Circlips®.
- Including:
  - 469.PA: Inside Circlips® pliers.
  - 467.PA: Outside Circlips® pliers.
  - 82H.2.5: Key.
- Set of 18 removable tips.
- Supplied in a plastic case.



	ΔΔ [g]
470	1500

■ Inside Circlips® pliers

- Interchangeable tips for a capacity of diam. 8 --> 63 mm.
- Thumbscrew position setting.
- Opening return spring.
- Finish: chrome finish, red PVC grips.
- Supplied in a case with key and set of bits E1 - E2 - E3 - E5 - E6 - E8 - E9.

	$\Delta\Delta$ [g]
469	160



■ Outside Circlips® pliers

NF E 73-130, DIN 5254, ASME B107.500


- Interchangeable tips for a capacity of diam. 3 --> 63 mm.
- Thumbscrew position setting.
- Opening return spring.
- Finish: chrome finish, red PVC grips.
- Supplied in a case with key and set of bits E1 - E2 - E3 - E5 - E6 - E8 - E9.

	$\Delta\Delta$ [g]
467	160



■ 470.E - Spare tips for Circlips® pliers 467 and 469

- Available as straight, 45° and 90° tip.
- Each reference includes a set of 2 tips.

	d [mm]	d mini - maxi [mm]	Tips
470.E1	0,9	8 --> 12 - 3 --> 10	Straight
470.E2	0,9	8 --> 12 - 3 --> 10	45°
470.E3	0,9	8 --> 12 - 3 --> 10	90°
470.E5	1,3	12 --> 25 - 10 --> 25	Straight
470.E6	1,3	12 --> 25 - 10 --> 25	45°
470.E7	1,3	12 --> 25 - 10 --> 25	90°
470.E8	1,8	19 --> 63 - 19 --> 63	Straight
470.E9	1,8	19 --> 63 - 19 --> 63	45°
470.E10	1,8	19 --> 63 - 19 --> 63	90°



■ Spare tips

- For products Ref: 467 - 469 - 470.

	$\Delta\Delta$ [g]
467.01AJ2	5



SNAP-RING PLIERS

■ 411A - Outside snap-ring pliers

ASME B107.500

- Special tips for snap-rings and spring clips.
- Finish: chrome finish, PVC grip.

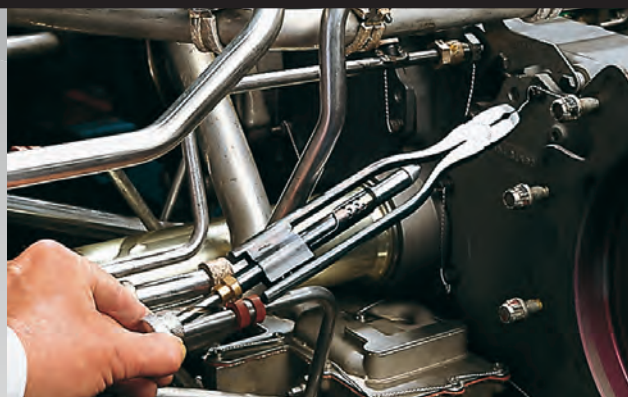
	d mini - maxi [mm]	L [mm]	$\Delta\Delta$ [g]
411A.17	15 - 62	150	190
411A.20	60 - 160	190	275



LOCKING-WIRE PLIERS

FACOM LOCKING-WIRE PLIERS

# Fast twist in lock-wire securing assemblies subject to vibration



1 Both wire ends gripped in nose. Lock the pliers.



2 Pull to twist lock-wire. Push back for more travel if required.



3 Finish job with side cutter.

- For stainless and Inconel wire Ø 1 mm.
- Side wire cutter.
- Slim nose-tip for optimum manoeuvrability.
- 10" model: 3 turns, 125 mm travel.
- 8" model: 2.5 turns, 95 mm travel.



### Automatic model

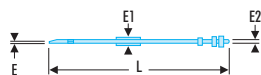
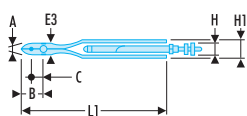
- Automatic-reset model for simplicity and time-saving.

## 445 - Short locking-wire pliers 8"



### ASME B107.500

- «automatic» model.
- Side wire-cutter: stainless steel diameter 1 mm.
- 2.5 turns: 95 mm length.



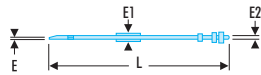
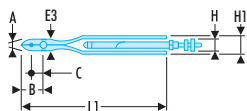
	A [mm]	B [mm]	C [mm]	E [mm]	E1 [mm]	E2 [mm]	E3 [mm]	H [mm]	H1 [mm]	L [mm]	L1 [mm]	ΔΔ [g]
445.8R	3	20	7	2,5	15	10,5	15	22	37	215	170	245

## 445 - Locking-wire pliers 10"



### ASME B107.500

- «automatic» model.
- Side wire-cutter: stainless steel diameter 1 mm.
- 3 turns: 125 mm length.



	A [mm]	B [mm]	C [mm]	E [mm]	E1 [mm]	E2 [mm]	E3 [mm]	H [mm]	H1 [mm]	L [mm]	L1 [mm]	ΔΔ [g]
445.10R	3	30	11	2,5	15,5	11,5	19	25	40	360	230	400



LOCK GRIPS

**Simplicity -  
safety - strength**  
**FACOM reinvents  
the lock grip**



**Parallel jaws  
with teeth over entire depth**

- The part does not slip. No movement whatever the type of part, for high strength tightening.

**Forged reinforced jaws**

- Powerful tightening. Excellent dynamic properties.
- Machined groove in upper jaw holds small round sections.

**5-Position slip joint**

- High capacity and easy adjustment.

**Patented innovative  
slip joint opening  
system**

- Immediate opening for improved time gain.
- Very fast adjustment on any type of part.

**Patented  
release trigger**

- Safety: single-handed smooth release, no accidental opening.



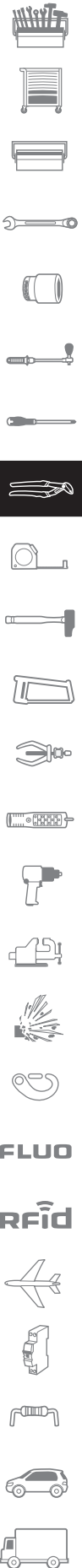
**Safety lock system  
compatible**

- Secured fastening when working in high locations.
- FME compatible (Nuclear).



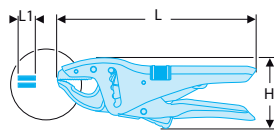
**Ergonomic handles**

- Precise and comfortable grip, with or without gloves.



LARGE-CAPACITY LOCK-GRIP PLIERS

Short-nose lock-grip pliers



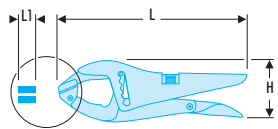
ASME B107.500

- 5 positions slip joint system.
- Unlock trigger allowing smooth & safe release.
- Easy to use & secure. Usable with 1 hand.
- Nose width 17 mm.
- Machined groove in upper to grip cylindrical sections, bolt & screw shafts, nails.
- Chromed finish.



	H [mm]	L [mm]	L1 [mm]	ΔΔ [g]
<b>500A</b>	81	230	17	740

Long-nose lock-grip pliers



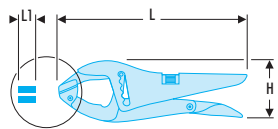
ASME B107.500

- 5 positions slip joint system.
- Unlock trigger allowing smooth & safe release.
- Easy to use & secure. Usable with 1 hand.
- Nose width 17 mm.
- Machined groove in upper to grip cylindrical sections, bolt & screw shafts, nails.
- Chromed finish.



	H [mm]	L [mm]	L1 [mm]	ΔΔ [g]
<b>501A</b>	81	250	17	770

Hinged long-nose lock-grip pliers



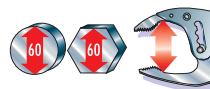
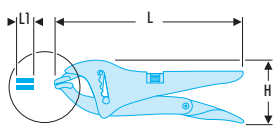
ASME B107.500

- 5 positions slip joint system.
- Unlock trigger allowing smooth & safe release.
- Easy to use & secure. Usable with 1 hand.
- Nose width 17 mm.
- Machined groove in upper to grip cylindrical sections, bolt & screw shafts, nails.
- Chromed finish.



	H [mm]	L [mm]	L1 [mm]	ΔΔ [g]
<b>506A</b>	81	250	17	790

Single-setting lock-grip pliers



ASME B107.500

- Unlock trigger allowing smooth & safe release.
- Easy to use & secure. Usable with 1 hand.
- Machined groove in upper to grip cylindrical sections, bolt & screw shafts, nails.
- Chromed finish.

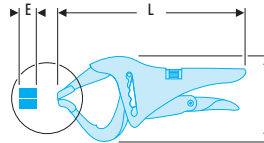


	H [mm]	L [mm]	L1 [mm]	ΔΔ [g]
<b>501AMP</b>	81	248	17	758

Large-capacity lock-grip pliers

ASME B107.500

- 5 positions slip joint system.
- Unlock trigger allowing smooth & safe release.
- Easy to use & secure. Usable with 1 hand.
- Capacity up to 135 mm.
- Nose width 17 mm.
- Machined groove in upper to grip cylindrical sections, bolt & screw shafts, nails.
- Chromed finish.



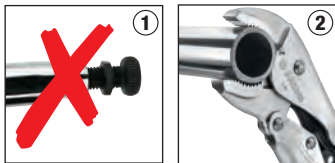
	H [mm]	L [mm]	L1 [mm]	ΔΔ [g]
505A	85	274	17	814

SERIES 580 AUTOMATIC LOCK-GRIP PLIERS

Ideal for saving time and for production work

No adjustment!

- 1 - Just adjust the pressure no readjustment required.
- 2 - The tool automatically adjusts from thick parts to thin and from thin parts to thick.



Patented automatic closing mechanism.

- 3 - Automatically adjusts the jaws to the component, regardless of size and with the same pressure.



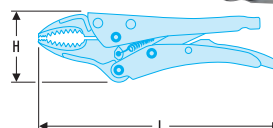
Pressure adjustment



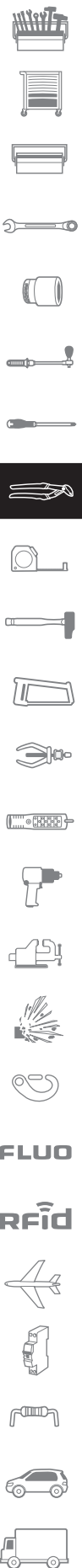
580 - Multi-purpose angle-nose lock-grip pliers

ASME B107.500

- Suitable for industrial and automotive production and maintenance applications.
- Automatically adjusts the jaws to the component, regardless of size and with the same pressure.
- Forged in Chrome Molybdenum steel: with treated jaws for longer working life.
- Non-slip chequered handle.
- One-hand unlocking by internal opening lever.
- Finish: chromed, burnished mechanism (patented).



	A [mm]	B [mm]	C [mm]	H [mm]	L [mm]	ΔΔ [g]
580.6	30	21	8	45	150	235
580.10	38	30	12	63	250	642

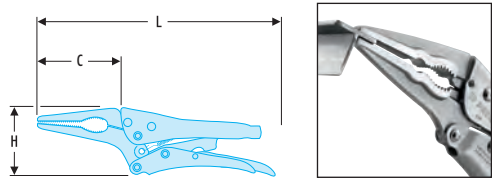


FLUO

Rfid

LARGE-CAPACITY LOCK-GRIP PLIERS

Long-nose automatic lock-grip pliers



ASME B107.500

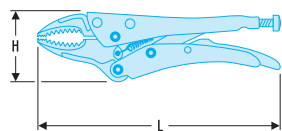
- For holding, placing or removing components where access is difficult.
- Tips designed for holding flat or circular sections.
- Automatically adjusts the jaws to the component, regardless of size and with the same pressure.
- Forged in Chrome Molybdenum steel: with treated jaws for longer working life.
- Non-slip chequered handle.
- One-hand unlocking by internal opening lever.
- Finish: chromed, burnished mechanism (patented).



➤	A [mm]	B [mm]	C [mm]	E [mm]	H [mm]	L [mm]	ΔΔ [g]
582.7	45	61	5,5	61	45	175	256

SINGLE-SETTING LOCK-GRIP PLIERS

513 - Standard curved Jaw lock-grip pliers



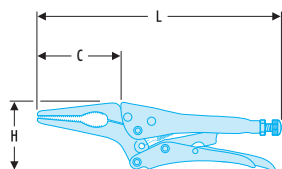
ASME B107.500

- Slim jaws.
- Hand-screw adjustment.
- Finish: black cataphoretic finish.



➤	A [mm]	B [mm]	C [mm]	H [mm]	L [mm]	ΔΔ [g]
513.5	25	18	6,4	49	140	180
513A.7	35	27	9,0	59	190	380
513.10	55	35	10,3	71	235	628

517 - Standard long nose lock-grip pliers



ASME B107.500

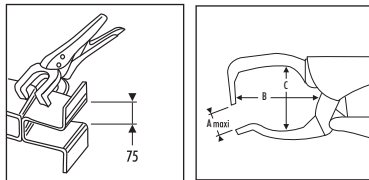
- For reaching and gripping components in confined spaces.
- Hand-screw adjustment.
- Finish: chromed.



➤	A maxi [mm]	C [mm]	H [mm]	L [mm]	ΔΔ [g]
517.6	55	50	48	165	200
517.10	70	80	60	235	430

"METALWORKING" LOCK-GRIP PLIERS

Arc-welding lock-grip pliers

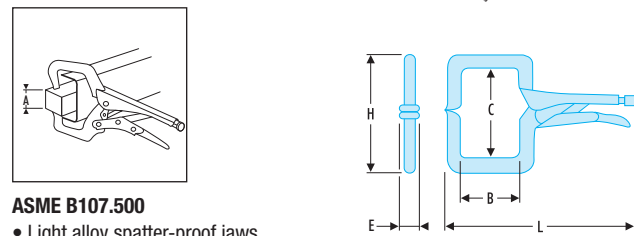


ASME B107.500

- Light alloy spatter-proof jaws.
- Steel body.
- Secure and precise alignment of work pieces.
- Ample clearance for the welding tool.
- Hand-screw adjustment.
- Dimensions: 280 x 82 x 70 mm.
- Finish: chrome.

ASME B107.500	A maxi [mm]	B [mm]	C [mm]	H [mm]	L [mm]	ΔΔ [g]
502A	75	65	50	82	280	735

"C-clamp" arc-welding lock-grip pliers

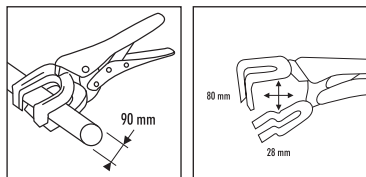


ASME B107.500

- Light alloy spatter-proof jaws.
- Steel body.
- Secure clamp for welding shaped or angled sections, and channels.
- Hand-screw adjustment.
- Finish: chrome.

ASME B107.500	A maxi [mm]	B [mm]	C [mm]	E [mm]	H [mm]	L [mm]	ΔΔ [g]
504A.100	80	65	100	12	147	280	655
504A.180	125	120	180	20	240	350	927

Lock-grip pliers for round sections

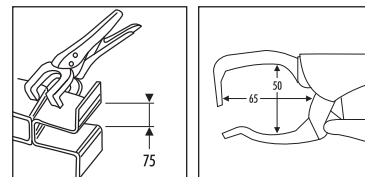


ASME B107.500

- Secure clamping of round sections.
- Pressed-steel jaws and body.
- Hand-screw adjustment.
- Dimensions: 280 x 85 x 68 mm.
- Finish: chrome.

ASME B107.500	A maxi [mm]	B [mm]	C [mm]	H [mm]	L [mm]	ΔΔ [g]
503	90	80	28	85	280	945

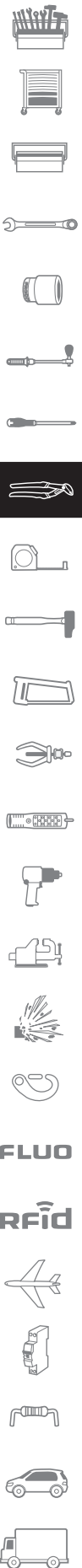
Lock-grip pliers for angle sections



ASME B107.500

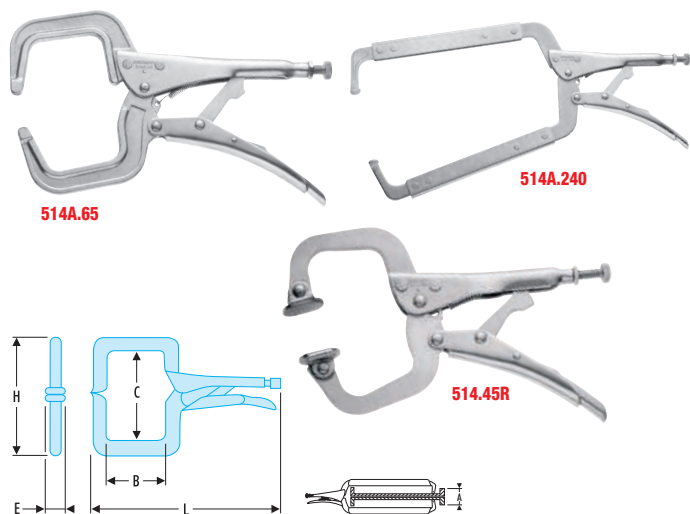
- Secure clamping of angle and channel sections.
- Pressed-steel jaws and body.
- Hand-screw adjustment.
- Dimensions: 280 x 85 x 70 mm.
- Finish: chrome.

ASME B107.500	A maxi [mm]	B [mm]	C [mm]	H [mm]	L [mm]	ΔΔ [g]
512	75	65	50	85	280	953



"METALWORKING" LOCK-GRIP PLIERS

■ Long-reach C-clamp lock-grip pliers



ASME B107.500

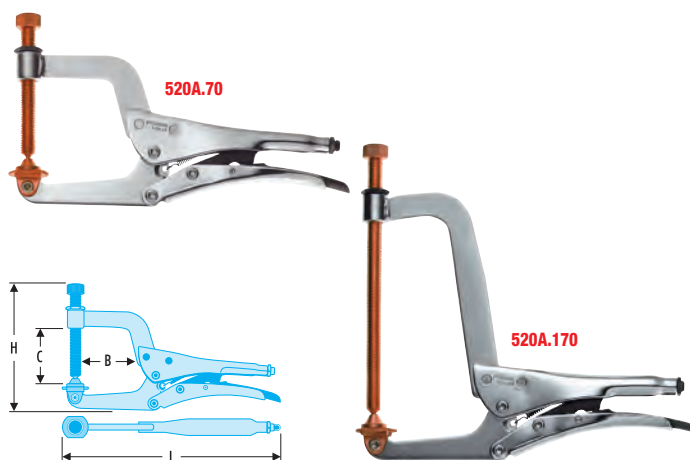
- Special forged-steel jaws for secure clamping of angle sections and deep channels
- Pressed-steel body.
- «R» models have hinged shoes at their tips.
- Hand-screw adjustment.
- Finish: chrome.



➤	A maxi [mm]	B [mm]	C [mm]	E [mm]	H [mm]	L [mm]	ΔΔ [g]
514.45R	45	45	60	19	90	175	270
514A.65	70	65	100	12	150	300	905
514A.240	230	240	100	20	165	460	1400
514A.240R	230	240	100	32	165	460	1500
514A.400	370	400	100	20	165	630	1700

BAR CLAMP LOCK-GRIP PLIERS

■ 520A - G-clamp lock-grip pliers



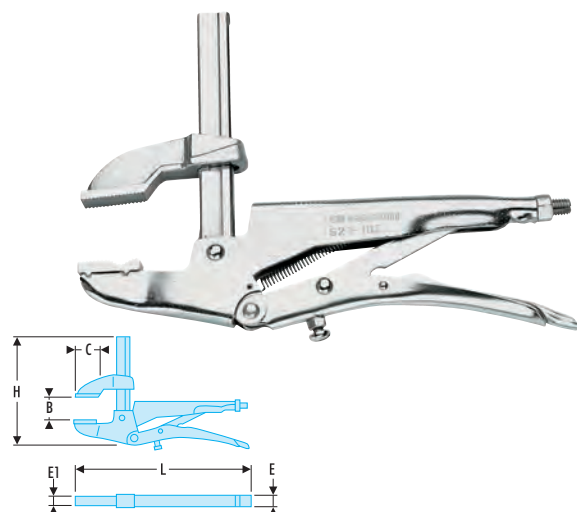
ASME B107.500

- Coppered screw with swivel shoe.
- Fine setting with locknut.
- Finish: chrome.



➤	B [mm]	C [mm]	H [mm]	L [mm]	ΔΔ [kg]
520A.70	70	70	165	280	1.0
520A.100	70	100	196	280	1.1
520A.170	70	170	270	280	1.3

■ 521 - G-clamp pliers with sliding jaw



ASME B107.500

- Clamping force: 4000 N, adjustable.
- Zinc-plated, forged and hardened sliding jaw.
- Case-hardened and chromed teeth.
- Lower jaw angle screw-adjustable through 9°.
- Finish: chrome.



➤	B [mm]	C [mm]	E [mm]	E1 [mm]	H [mm]	L [mm]	ΔΔ [kg]
521.100	100	65	28	15	190	260	1.0
521.150	150	65	28	15	240	260	1.1
521.200	200	65	28	15	290	260	1.2

HEAVY-DUTY END NIPPERS

HIGH PERFORMANCE NIPPERS AND CUTTERS

Cutting effort reduced to a minimum

For tying and cutting in one operation

- Clean cut.
- Cutting edges sharpened after heat treatment for cleanly cutting lacing cord.

Maximum cutting power

- Offset pivot.
- Maximum accessibility.
- Tapered shape.



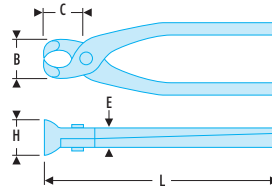
495A - Heavy-duty end nippers

NF ISO 9242, ISO 9242, DIN ISO 9242

- Rounded, semi-rigid handles designed to turn quickly in the hand.
- 60/62 HRC high-frequency hardened cutting edges for long life.
- Cutting capacity:
  - To diameter 4.5 mm on soft wire (300 mm model).
  - Max. on hard wire 160 kg/mm<sup>2</sup>.
- Finish: burnished, polished head.



	B [mm]	C [mm]	E [mm]	H [mm]	L [mm]	ΔΔ [g]
495A.20EL	28	10,0	12	20	200	240
495A.22EL	31	10,5	13	23	220	310
495A.25EL	35	12,0	14	25	250	390
495A.28EL	35	12,0	14	25	280	450
495A.30EL	35	12,0	14	25	300	510



PLASTICS CUTTERS

Special cutters to remove tails and burrs from injection-moulded components.

- HF hardened cutting edges and flush cut for clean result.



SPECIAL PLIERS

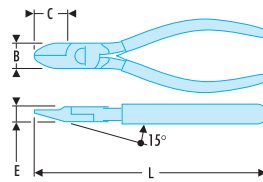
PLASTICS CUTTERS

395 - Diagonal plastics cutters



- Two joint and length sizes.
- Opening return spring.
- Finish: polished burnish, PVC grip.

	B [mm]	C [mm]	d maxi [mm]	E [mm]	L [mm]	ΔΔ [g]
395.14	16	20	6	10	140	115
395.16	18	22	7	11	160	150

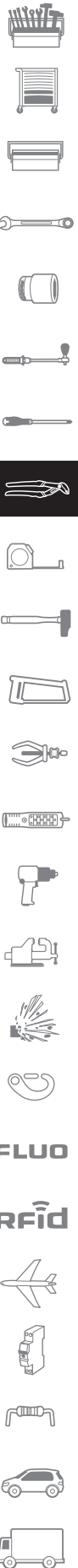
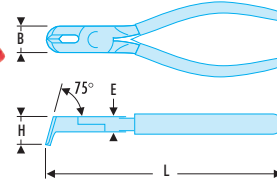


75° plastics cutters



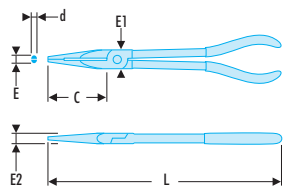
- 75° cutting edges.
- Opening return spring.
- Finish: polished burnish, red PVC grips.

	B [mm]	E [mm]	H [mm]	L [mm]	ΔΔ [g]
396	18	9	24,3	150	145



EXTRA-LONG REACH HALF-ROUND NOSE PLIERS

Double jointed extra long half-round nose pliers

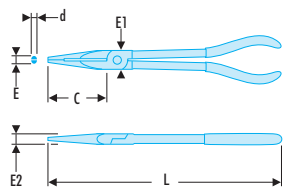


- Length 340 mm.
- Double joint and slim profile, for working in awkward zones, even single-handed.
- Serrated nose for good grip.
- Ergonomic handle for easy grip.
- Polished with plastic sheath finish.



	C [mm]	d [mm]	E [mm]	E1 [mm]	L [mm]	ΔΔ [g]
<b>185.34L</b>	81	6	3	19	340	350

Double jointed extra long half-round nose pliers - 45° angle

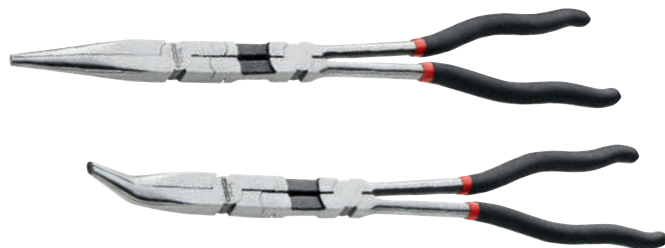


- Length 340 mm.
- 45° angle for better accessibility.
- Double joint and slim profile, for working in awkward zones, even single-handed.
- Serrated nose for good grip.
- Ergonomic handle for easy grip.
- Polished with plastic sheath finish.



	C [mm]	d [mm]	E [mm]	E1 [mm]	L [mm]	ΔΔ [g]
<b>195.34L</b>	77	6	3	19	340	350

Set of 2 double jointed extra long half-round nose pliers

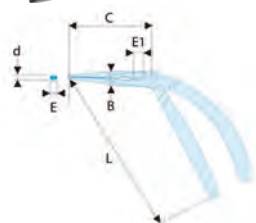


- Double joint and slim profile extra long pliers for working in awkward zones, even single-handed.
- Polished with plastic sheath finish.



	ΔΔ [g]
<b>185.2L</b>	882

Angled combination pliers



- Angled 45° semi-round noses to work in awkward zones. The plier angle provides good visibility on the part and prevents muscle pain in the wrist.
- 3-in-1 combination pliers: tube clamp, grip, cutting.
- Long slim noses for better access.
- Ergonomic handle for easy grip.
- Polished with plastic sheath finish.



	B [mm]	C [mm]	d [mm]	E [mm]	E1 [mm]	L [mm]	ΔΔ [g]
<b>193.20G</b>	14.7	82.5	3	3	9.9	200	280

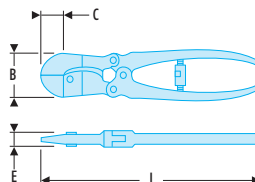


LOW-EFFORT CUTTERS

Diagonal cutters

NF ISO 5749, ISO 5749, DIN ISO 5749, ASME B107.500

- "Leveraged" system for increased capacity with minimum cutting effort. piano wire 200 kg/mm<sup>2</sup>, diameter 2.5 mm.
- Finish: red paint finish.

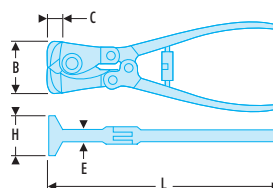


	B [mm]	C [mm]	E [mm]	L [mm]	ΔΔ [g]
<b>171.20EL</b>	37	22	16	200	515

End-cutters

NF ISO 5748, ISO 5748, DIN ISO 5748, ASME B107.500

- Compound leverage for increased capacity with minimum cutting effort. piano wire 200 kg/mm<sup>2</sup>, diameter 2.5 mm.
- Finish: red paint finish.



	B [mm]	C [mm]	d maxi [mm]	E [mm]	H [mm]	L [mm]	ΔΔ [g]
<b>191A.22EL</b>	48	9	2,5	17	34	210	660

"CONNECTOR" PLIERS

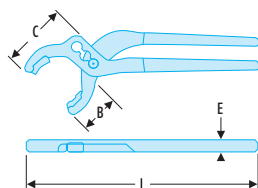
410 - "Connector" pliers

ASME B107.500

- For handling fragile round components, e.g. screwed connector sleeves, tubes, lamps or wire looms, etc.
- Wide capacity from 3-position slip joint: max. diameter 55 mm.
- Replaceable plastic jaws available in 2 jaw hardness options:
  - 410: hard jaws - 70 shore B.
  - 410.S: soft jaws - 55 shore B.
- Finish: polished chrome, red PVC grips.

Spare jaws:

- 410.1: Set of 2 jaws with screws (hard).
- 410.S1: Set of 2 jaws with screws (soft).



	B [mm]	C [mm]	E [mm]	L [mm]	ΔΔ [g]
<b>410</b>	68	47	10	230	320
<b>410.S</b>	68	47	10	230	320



PLIERS SETS

Set of 3 CPE pliers



- Including:
  - Locking multigrip pliers 181A.25CPE.
  - Diagonal cutters 192A.16CPE.
  - Half-round nose pliers 185A.20CPE.
- Supplied in a cardboard box.



	$\Delta\Delta$ [g]
CPE.A3	790

Set of 4 CPE pliers



- Including:
  - Locking multigrip pliers 181A.25CPE.
  - Diagonal cutters 192A.16CPE.
  - Half-round nose pliers 185A.20CPE.
  - Combination pliers 187A.18CPE.
- Supplied in a cardboard box.



	$\Delta\Delta$ [g]
CPE.A4	1.02

■ **Set of 3 1,000 Volt pliers**

- 1,000V insulated tools to EN 60900900.
- Including:
  - Multigrip pliers 180.VE.
  - Diagonal cutters 391A.16VE.
  - Angled half-round nose pliers 195A.20VE.
- Supplied in a cardboard box.



	$\Delta\Delta$ [g]
VE.A3	790

■ **"Mechanics" Heavy duty set of 3 pliers**

- Comprising 3 tools:
  - Combination pliers 187A.20G.
  - Diagonal cutting pliers 192A.18G.
  - Half-round nose pliers 185A.20G.
- Supplied in a cardboard box.



	$\Delta\Delta$ [g]
GJPA3	750

■ **"Mechanics" Standard set of 4 pliers**

- Comprising 3 tools:
  - Diagonal cutting pliers 192A.16G.
  - Half-round nose pliers 185A.20G.
  - Half-round nose pliers 195A.20G.
  - Slip-joint multi-grip pliers 170A.25.
- Supplied in a cardboard box.



	$\Delta\Delta$ [g]
GJPA4	950



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MODULES

Module of 3 "maintenance" pliers



- Including:
  - Half-round nose pliers 185A.20CPE.
  - Combination pliers 187A.18CPE.
  - Diagonal cutters 192A.16CPE.

MOD.CPEAO	H [mm]	L [mm]	Tray	ΔΔ [kg]
MOD.CPEAO	40	418	PL.MODCPEAO	0.942

Module of 5 pliers



- Including:
  - Diagonal cutters 192A.16CPE.
  - Half-round nose pliers 185A.20CPE.
  - Half-round nose pliers 195A.20CPE.
  - Locking twin slip-joint multigrip pliers 181A.25CPE.
  - Large-capacity lock-grip pliers 501A.

MOD.CPEA5	H [mm]	L [mm]	Tray	ΔΔ [g]
MOD.CPEA5	40	418	PL.MODCPEA5	2060

Module of 3 EN 60900-compliant 1,000 Volt VE pliers



- 1,000V insulated tools to EN 60900.
- Including:
  - Slip-joint locking multigrip pliers 180.VE.
  - Diagonal cutters 391A.16VE.
  - Standard wire strippers 194A.17VE.

MOD.VEAO	H [mm]	L [mm]	Tray	ΔΔ [kg]
MOD.VEAO	40	418	PL.MODVEAO	0.951

2-piece adjustable plier module



- Including:
  - Multigrip pliers 180.CPE.
  - Multigrip lock-grip pliers 501AMP.

MOD.PR4	H [mm]	L [mm]	Tray	ΔΔ [kg]
MOD.PR4	40	418	PL.330	1.2

Module of 2 adjustable pliers



- Including:
  - Multigrip pliers 180.CPE.
  - Short-nose lock-grip pliers 500A.

MOD.PR8	H [mm]	L [mm]	Tray	ΔΔ [kg]
MOD.PR8	40	418	PL.330	2.010

Module of 2 adjustable pliers



- Including:
  - Locking multigrip pliers 181A.25CPE.
  - Long-nose lock-grip pliers 501A.

MOD.PR9	H [mm]	L [mm]	Tray	ΔΔ [kg]
MOD.PR9	40	418	PL.330	0.504

Module of 2 adjustable pliers



- Including:
  - Locking multigrip pliers 181A.25CPE.
  - Multigrip lock-grip pliers 501AMP.

Icon	H [mm]	L [mm]	Tray	ΔΔ [kg]
	40	418	PL.330	1.2

Module of 2 adjustable pliers



- Including:
  - Locking multigrip pliers 181A.25CPE.
  - Angled nose lock-grip pliers 580.10.

Icon	H [mm]	L [mm]	Tray	ΔΔ [kg]
	40	418	PL.330	1.2

Module of 4 Circlips® pliers



- Including:
  - Straight external pliers 177A.13 & 177A.18.
  - Straight internal pliers 179A.13 & 179A.18.

Icon	H [mm]	L [mm]	Tray	ΔΔ [kg]
	40	418	PL.683	0.842

Module of 4 Circlips® pliers



- Including:
  - Straight external pliers 177A.18.
  - 90° external pliers 197A.18.
  - Straight internal pliers 179A.18
  - 90° internal pliers 199A.18.

Icon	H [mm]	L [mm]	Tray	ΔΔ [kg]
	40	418	PL.332A	0.842



MODULES

■ Foam module of 3 pliers



- Including:
  - Diagonal cutters 192A.16CPE.
  - Half-round nose pliers 185A.20CPE.
  - Combination pliers 187A.18CPE.

	Tray	ΔΔ [g]
 <b>MODM.CPEAO</b>	PM.MODCPEAO	975

■ Foam module of 4 pliers



- Including:
  - Diagonal cutters 192A.16CPE.
  - Half-round nose pliers 185A.20CPE.
  - Locking twin slip-joint multigrip pliers 181A.25CPE.
  - Large-capacity lock-grip pliers 501A.

	Tray	ΔΔ [g]
 <b>MODM.CPEA1</b>	PM.MODCPEA1	1580

■ Foam module of 4 pliers & Shears



- Including:
  - Diagonal cutters 192A.16CPE.
  - Half-round nose pliers 185A.20CPE.
  - Locking twin slip-joint multigrip pliers 181A.25CPE.
  - Multi-purpose shears 980C.

	Tray	ΔΔ [g]
 <b>MODM.CPEA2</b>	PM.MODCPEA2	974

■ Foam module of 3 pliers

- Including:
  - Wire Stripping Plier 194A.17CPE.
  - Locking twin slip-joint multigrip pliers 181A.25CPE.
  - Large-capacity lock-grip pliers 500A.



	Tray	ΔΔ [g]
<b>MODM.CPEA3</b>	PM.MODCPEA3	1280

■ Foam module of 2 lock grip pliers

- Including:
  - Large-capacity lock-grip pliers 501AMP.
  - Large-capacity lock-grip pliers 501A.



	Tray	ΔΔ [g]
<b>MODM.501A</b>	PM.MOD501A	1920

■ Foam module of 4 Circlips® pliers

- Including:
  - Straight external pliers 177A.13 & 177A.18.
  - Straight internal pliers 179A.13 & 179A.18.



	Tray	ΔΔ [g]
<b>MODM.PCSN</b>	PM.MODPCSN	946





# METROLOGY - MEASURING





**DIGITAL METROLOGY**

**528**

- Laser 528
- Calipers 531
- Depth gauge 532
- Micrometer 532
- Dial gauge 532



**MECHANICAL METROLOGY**

**533**

- Mechanical calipers 533
- Mechanical depth gauges 534
- Mechanical micrometers 535
- Metrology sets 536
- Mechanical dial gauges 537
- Magnetic bases 537
- Surface gauges 538
- Surface plates and V-block 538



**FEELER GAUGES AND GAUGES**

**539**

- Radius gauges 539
- Screw pitch gauges 539



**RULERS**

**540**

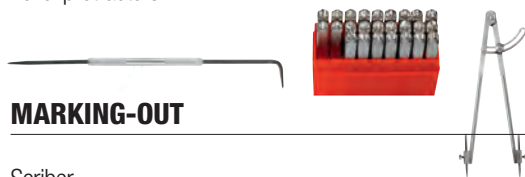
- Engineers rules 541
- Class II rules 541



**SQUARES AND BEVEL PROTRACTORS**

**543**

- Precision squares 543
- Other squares 545
- Bevel protractors 546



**MARKING-OUT**

**547**

- Scriber 547
- Measuring marking out set 548
- Steel scribers 549
- Letter and digit punches 549



**SHORT LENGTH TAPE MEASURES**

**550**

- Grip series 550
- ABS series 551
- Metal series 551
- Export series mm and inch (not for sale in France) 551



**LONG TAPE MEASURES**

**552**

- Tape treated anticorrosion Class I 552
- Tape treated anticorrosion Class II 553



**LEVELS**

**553**

- Engineers levels 552
- Trapezoidal levels 553
- Tubular-section levels 555



**FOLDING RULES**

**556**

- Synthetic folding rule 556



**BUILDERS SQUARES**

**556**

- Squares 556
- False squares 556



**BUILDERS MARKING-OUT**

**556**

- Chalk line reels 557
- Chalk sticks 557



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E.LM30

New laser distance measurer



**FACOM industrial design**

Compact, lightweight design for easy storage.

**Easy reading**

Black display with white letters.

**Measuring range:**  
0,165 -> 30m.

**Measure accuracy:**  
+/- 3mm -> 10m.

**Auto power switch off:**  
after 180s.



**Easy operation**

One button for both hold measurements and continuous measuring.



	<b>LASER 2</b>	
≤1.0mW @ 620-690nm IEC 60825-1: 2014		

LASER

■ Laser distance measurer

IEC/EN60825-1: 2014

- Compact, lightweight design for easy storage.
  - One button for simple operation.
  - Press one button for both hold measurements and continuous measuring.
  - Range: 0,165 -> 30m.
  - Measuring accuracy: +/- 3 mm -> 10m.
  - Smallest unit displayed: 1 mm.
  - Laser class: Class 2 (IEC/EN60825-1: 2014).
  - Laser type: 620-690 nm, power < 1mW.
  - Unit automatic switch-off: After 180 s.
  - Battery life (2x AAA): up to 3000 measurements.
  - Storage temperature: - 10°C -+ 60°C.
  - Operating temperature range: 0°C - + 40°C.
- \*Including batteries.



	H [mm]	L [mm]	W [mm]	ΔΔ [kg]
<b>E.LM30</b>	120	46	30	0.112*



FLUO

RFid



## METROLOGY INTRODUCTION TO THE STANDARDS

### DIN 862 - Vernier and digital caliper measurements from 0 to 2,000 mm.

Vernier or circular scale reading to 0.1 / 0.05 / 0.02 mm.

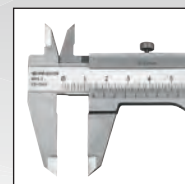
- Dimensional standard

Rule length (mm)	Height of lower jaw a1 (mm)	Height of upper jaw a1 (mm)	Total thickness for inside measurement a1 (mm)	Extent of depth gauge a1 (mm)
160	40	8	5	100
200	60	8	10	100
250	75	10	10	100
300	90	10	10	100

- Accuracy

Rule length (mm)	Limit of error in $\mu\text{m}$			
	Accuracy			Digital reading
	0.1 / 1/10 <sup>th</sup>	0.05 / 1/20 <sup>th</sup>	0.02 / 1/50 <sup>th</sup>	0.01 / 1/100 <sup>th</sup>
50		50	20	20
100		50	20	20
200		50	30	30
300		50	30	30

- Hardness of measuring surfaces. +/- 53 HRC for stainless steel.
- Digital display measurements:
  - Rate of displacement > standard (0.5m/s).
  - Error notification in case of: - Excessive speed.
  - Low power.



### DIN 863 - Part 1 - Outside micrometers - Standard design

#### Mechanical and digital display micrometer.

- Dimensional standard: - Anvil diameter 6.5 - 7.5 or 8 mm.
- Tolerance of flatness of measuring surfaces 0.6  $\mu\text{m}$ .
- The locking lever must not alter the reading by more than 2  $\mu\text{m}$ .
- Thimble graduation.

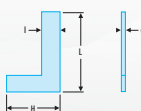
Measurement range (mm)	Bias error ( $\mu\text{m}$ )	Parallelism tolerance Applied force = 10N ( $\mu\text{m}$ )	Frame bending tolerance Applied force = 10N ( $\mu\text{m}$ )
0-25	4	2	2
25-50	4	2	2
50-75	5	3	3
75-100	5	3	3

#### Other specifications covered by the standard.

- Maximum force applied to the measured component between 5 and 10 N.
- The quality of the materials used and their elasticity under load.

### DIN 875 - Engineers square.

- Accuracy class.
- Perpendicularity tolerance of 2 surfaces.
- Flatness of edges.
- Legal markings.



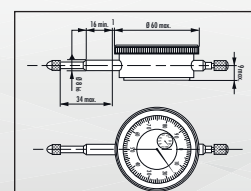
Dim. (L) mm	Perpendicularity tolerance ( $\mu\text{m}$ )		
	Accuracy class		
	0	1	2
75	7	14	28
100	7	15	30
150	8	18	35
200	9	20	40
250	10	23	45
300	11	25	50
500	15	35	70

Dim. (L) mm	Height	
	Class 00/0/1	Class 2
75	50	50
100	70	70
150	100	100
200	130	130
250	165	165
300	200	175
500	330	250

L x H mm	Flatness tolerance ( $\mu\text{m}$ )		
	Accuracy class		
	0	1	2
50	3	5	10
70	3	5	11
75	3	6	11
100	3	6	12
130	3	7	13
150	4	7	14
165	4	7	15
200	4	8	16
250	5	9	18
300	5	10	20
330	5	11	-
500	7	14	28

### DIN 878 Dial gauges to 1/100 mm.

- Dimensional standard.
- Definition of accuracy.
- Measuring force - between 0.3 N and 1.5 N.



DIGITAL CALIPER



Easy, efficient and reliable!

Easy to use

- Clear, easy-to-read LCD screen.
- More intuitive use.
- Quick and easy to operate.
- Easier data transmission.

Reliable

- DIN 862.
- Ingress protection (IP) – IEC529.
  - Protection against dust and liquids. For perfect reliability under all operating conditions.
  - IP 6x = No dust penetration.
  - IP x5 = Protected against water jets from any direction for 3 minutes.
- Patented inductive measuring system.
- RS 232 connection. PC data transmission utility.

Efficient data transmission

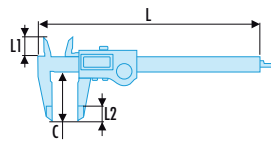
- Gagewedge utility program developed for FACOM.
- Reliable data recording.
- Saves time, simple and easy to use.
- Compatible with the entire FACOM digital range.
- Easy RS232 cable connection between the measuring instrument and the PC.

CALIPERS

Digital display calipers - 1/100th

NF EN ISO 13385-1, ISO 13385-1, DIN 862

- Accuracy: 1/100th - 0.01 mm.
- Repeatability: 10 µm.
- Protection rating IP 65:
  - IP 6: full dust protection.
  - IP 5: fluid spray protection.
- Rectified stainless steel mechanical assembly.
- Reading rule with patented induction system.
- Flat depth gauge.
- LCD digital display 6 mm.
- Floating zero.
- Metric / imperial conversion.
- Automatic power off.
- Compatibility with Gagewedge software, RS232 output.
- Operating time: about 3500 hours.
- Supplied in case with compliance certificate.

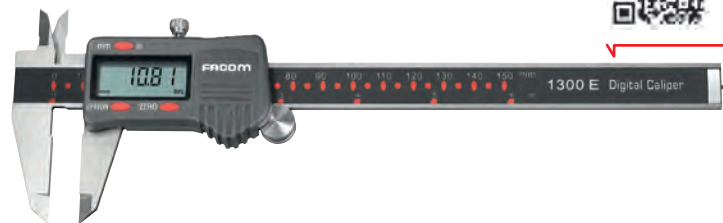


	C [mm]	L [mm]	L1 [mm]	L2 [mm]	Capacity [mm]	Bias error [µm]	ΔΔ [g]
1320	50	290	20	14	200	30	680

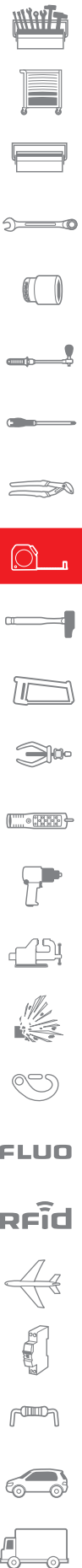
Workshop digital display caliper 150 mm - 1/100th

NF EN ISO 13385-1, ISO 13385-1, DIN 862

- Pocket-size caliper to be used in the workshop.
- Accuracy: 1/100th - 0.01 mm.
- Digital display for easy reading (resolution 0.01mm).
- Measurements: mm / inch. Inside / outside / depth measurement.
- Protection rating IP 20.
- Supplied with CR2032 battery.

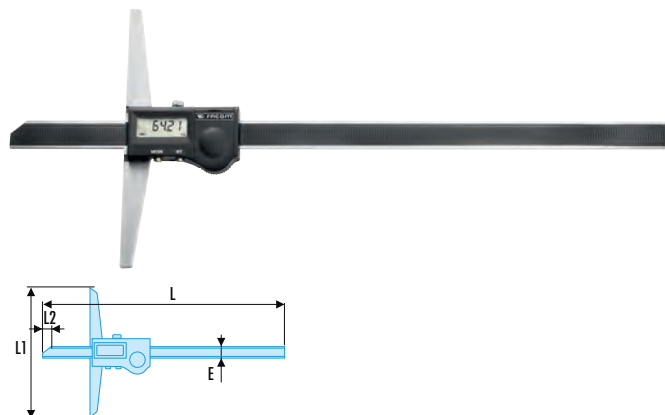


	L [mm]	Capacity [mm]	ΔΔ [g]
1300EA	235	150	420



DEPTH GAUGE

■ Digital display depth gauge 300 mm - 1/100th



NF EN ISO 13385-1, ISO 13385-1, DIN 862

- Accuracy: 1/100th - 0.01 mm.
- Repeatability: 10 µm.
- Protection rating IP 65:
  - IP 6: full dust protection.
  - IP 5: fluid spray protection.
- Rectified stainless steel mechanical assembly.
- Reading rule with patented induction system.
- LCD digital display 6 mm.
- Floating zero.
- Metric / imperial conversion.
- Compatible with Gagewedge software, RS232 output.
- Automatic power off.
- Operating time: about 3500 hours.
- Supplied in case with compliance certificate.



	E [mm]	L [mm]	L1 [mm]	L2 [mm]	Capacity [mm]	Bias error [µm]	ΔΔ [g]
<b>1350</b>	16	372	150	10	300	20	928

MICROMETER

■ Digital display micrometer 25 mm



NF EN ISO 3611, ISO 3611, DIN 863

- Accuracy: 0.001 mm.
- Measurement range: 0 - 25 mm.
- Adjustable measuring force: 10 N (DIN 863).
- Protection rating IP 65:
  - IP 6: full dust protection.
  - IP 5: fluid spray protection.
- Automatic standby after 20 min.
- Stand by position without loss of origin.
- Fast forward: Drum forward 12 mm / turn.
- Compatibility with Gagewedge software, RS232 output.
- Operating time: 10 000 hours continuous.
- Supplied in case with compliance certificate.



	Capacity [mm]	ΔΔ [g]
<b>1355A</b>	0 - 25	270

DIAL GAUGE

■ Digital display dial gauge



DIN 878

- Accuracy: 0.001 mm.
- Measurement range: 0 - 12.5 mm.
- Metric / imperial conversion.
- Protection rating IP 51.
- LCD display 6 mm.
- Fastening bush (Ø 8 mm).
- Interchangeable plunger tip (M2.5).
- Display pivots through 270°.
- Floating zero.
- Change of origin for any tip position.
- Measurement possible with two different references.
- Measurement save (frozen display).
- Compatibility with Gagewedge software, RS232 output.
- Supplied with FACOM compliance certificate.



	Capacity [mm]	ΔΔ [g]
<b>1365</b>	0 - 12,5	120

MECHANICAL CALIPERS

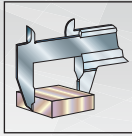
MECHANICAL METROLOGY

Improved performance

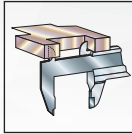


Extra service

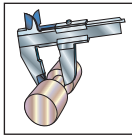
Have your measuring instruments inspected each year by an accredited organisation to guarantee their accuracy.



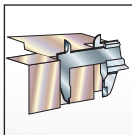
Outside measurement.



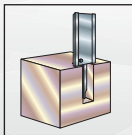
Inside measurement.



Throat measurement.



Step measurement.



Depth measurement.

Compliance with DIN 862

- Dimensional regulation.
- Hardness of measuring faces.
- Accuracy and limit of error in  $\mu\text{m}$ .
- Standard of quality and readability of graduations.

Technical specifications

- Ground stainless steel.
- Lock screw for reliable readings without risk of slippage.
- Vernier with guide. Natural hand position.
- Increased comfort.

Perfect reading quality

- Good contrast and anti-reflection.
- Excellent readability.
- Chemically formed graduation markings for perfect resistance to wear and chemical agents.

Accuracy

- To 1/50 – 1/20 – 1/10 mm.

Traceability

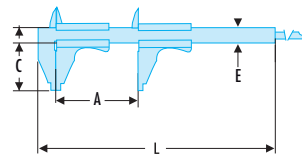
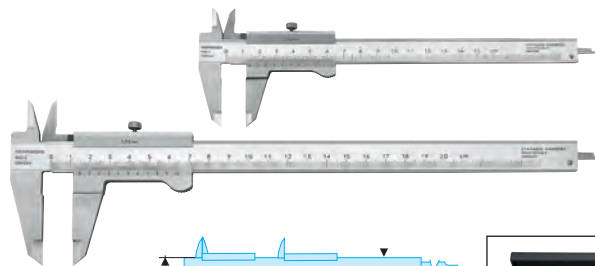
- Supplied with a numbered certificate of conformity.

805 - Universal calipers class 0 - 1/50th

NF EN ISO 13385-1, ISO 13385-1, DIN 862

- Accuracy: 1/50th - 0.02 mm.
- Interior, exterior, depth measurement.
- Stainless steel rule - mat finish.
- Rule hardness: 40 HRC minimum.
- Flat depth gauge.
- Vernier with guide for better thumb position.
- Vernier endurance: 20 000 cycles minimum.
- Vernier screw locking.
- Supplied in case with compliance certificate.

	A [mm]	C [mm]	E [mm]	L [mm]	Bias error [ $\mu\text{m}$ ]	Accuracy [mm]	$\Delta\Delta$ [g]
805.1	150	40	16	228	20	0,02	290
805.2	200	50	17	290	30	0,02	419

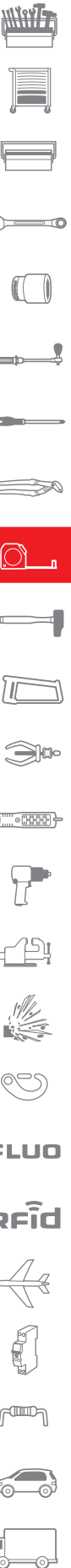
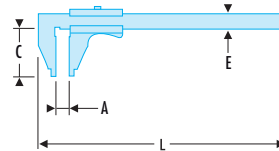


Caliper class 0 - 1/50th

NF EN ISO 13385-1, ISO 13385-1, DIN 862

- Accuracy: 1/50th - 0.02 mm.
- Measurement capacity: 200 mm.
- Interior, exterior measurement (bore exceeding 10 mm).
- Stainless steel rule - mat finish.
- Rule hardness: 40 HRC minimum.
- Vernier with guide for better thumb position.
- Vernier endurance: 20 000 cycles minimum.
- Vernier screw locking.
- Graduations resistant to chemicals.
- Perfect contrast guaranteeing optimum reading quality.
- Supplied in case with compliance certificate.

	A [mm]	C [mm]	E [mm]	L [mm]	Bias error [ $\mu\text{m}$ ]	Accuracy [mm]	$\Delta\Delta$ [g]
805.M	200	60	17	290	30	0,02	423

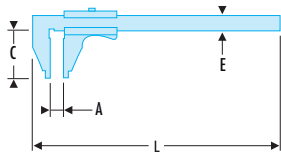


FLUO

Rfid

MECHANICAL CALIPERS

■ Universal caliper - 150mm - 1/20th

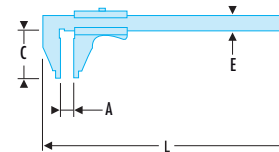
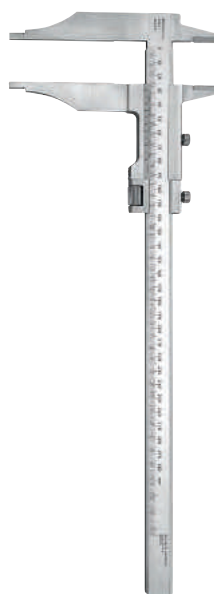


NF EN ISO 13385-1, ISO 13385-1, DIN 862

- Accuracy: 1/20th - 0.05 mm.
- Interior, exterior, depth measurement.
- Stainless steel rule - mat finish.
- Rule hardness: 40 HRC minimum.
- Flat depth gauge.
- Vernier with guide for better thumb position.
- Vernier endurance: 20 000 cycles minimum.
- Vernier screw locking.
- Supplied in case with compliance certificate.

Part No.	A [mm]	C [mm]	E [mm]	L [mm]	Bias error [µm]	Accuracy [mm]	ΔΔ [g]
816	150	40	16	228	50	0,05	288

■ Universal caliper - 300 mm - 1/50th



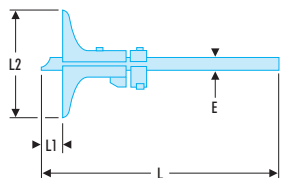
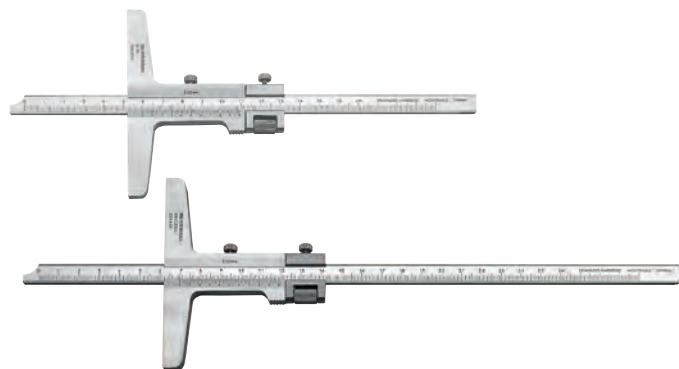
NF EN ISO 13385-1, ISO 13385-1, DIN 862

- Accuracy: 1/50th - 0.02 mm.
- Measurement capacity: 300 mm.
- Interior, exterior measurement (bore exceeding 10 mm).
- Stainless steel rule - mat finish.
- Rule hardness: 40 HRC minimum.
- Vernier with guide for better thumb position.
- Vernier endurance: 20 000 cycles minimum.
- Vernier screw locking.
- Precision adjustment screw.
- Supplied in case with compliance certificate.

Part No.	A [mm]	C [mm]	E [mm]	L [mm]	Bias error [µm]	Accuracy [mm]	ΔΔ [g]
805.S	300	100	20	418	30	0,02	941

MECHANICAL DEPTH GAUGES

■ 811 - Depth gauges class 0 - 1/50th



NF EN ISO 13385-2, ISO 13385-2, DIN 862

- Accuracy: 1/50th - 0.02 mm.
- Stainless steel rule - mat finish.
- Rule hardness: 40 HRC minimum.
- Measurement surface hardness: 53 HRC minimum.
- Vernier with guide for better thumb position.
- Vernier endurance: 20 000 cycles minimum.
- Vernier locking by precision adjustment screw.
- Supplied in case with compliance certificate.

Part No.	A [mm]	E [mm]	L [mm]	L1 [mm]	L2 [mm]	Bias error [µm]	Accuracy [mm]	ΔΔ [g]
811B	160	10	240	160	100	20	0,02	465
811C.250	250	10	330	250	100	30	0,02	491



MECHANICAL MICROMETERS

806 - Micrometers  
1/100th mm accuracy



NF EN ISO 3611, ISO 3611, DIN 863

- Accuracy: 1/100th - 0.01 mm.
- Accuracy: 0.01 mm.
- Carbide plunger tip: Ø 6.5 mm.
- Ratchet drum with torque limiter.
- Force applied on the part included strictly between 5 and 10 Nm.
- Drum: Ø 18 mm.
- Drum with 50 divisions (one drum turn: 0.5 mm).
- Isothermal pads.
- Supplied with:
  - Pin and hook calibration wrench.
  - Calibration shim wrench from model 806C.50.
- Calibration shims:
  - 806C.50: 25 mm ± 1.5 µm.
  - 806C.75: 50 mm ± 2 µm.
  - 806C.100: 75 mm ± 2.5 µm.
- Supplied in plastic case.
- Supplied with compliance certificate.

806	Bias error [µm]	Parallelism of measuring faces [µm]	Measuring range [mm]	Flatness of measuring surfaces/Max.[µm]	ΔΔ [g]
806.C25	4	2	0 - 25	0,4	310
806C.50	4	2	25 - 50	0,4	482
806C.75	5	3	50 - 75	0,4	631
806C.100	5	3	75 - 100	0,4	744

Exterior friction micrometer  
1/100th mm accuracy



NF EN ISO 3611, ISO 3611, DIN 863

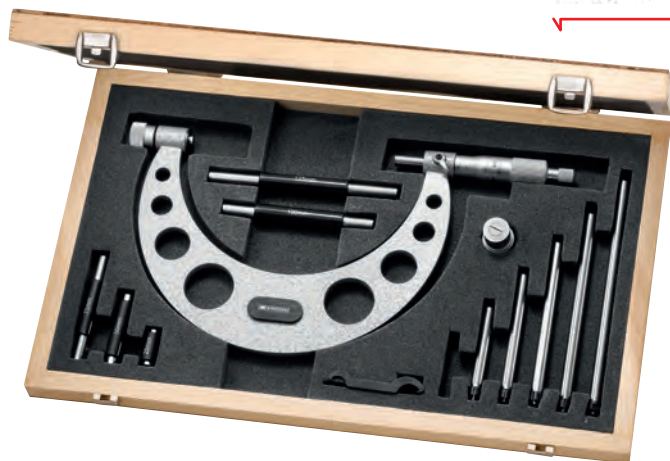
- Accuracy: 1/100th - 0.01 mm.
- Accuracy: 0.01 mm.
- Carbide plunger tip: Ø 6.5 mm.
- Ratchet drum with torque limiter.
- Force applied on the part included strictly between 5 and 10 N.m.
- Drum = Ø 18 mm.
- Plunger tip lock.
- Supplied in plastic case.
- Supplied with compliance certificate.

806.F	Capacity [mm]	Bias error [µm]	Parallelism of measuring faces [µm]	Flatness of measuring surfaces/Max.[µm]	ΔΔ [g]
806.F	0 - 25	4	2	0,4	273

Exterior micrometer with extension 1/100th mm accuracy

NF EN ISO 3611, ISO 3611, DIN 863

- Accuracy: 1/100th - 0.01 mm.
- Reading range 0 to 150 mm.
- Accuracy: 0.01 mm.
- Ratchet drum with torque limiter.
- Force applied on the part included strictly between 5 and 10 N.m.
- Drum: Ø 18 mm.
- Carbide plunger tip: Ø 6.5 mm.
- Interchangeable fixed plunger tip.
- Supplied with a set of 5 extensions.
- Supplied with the 5 calibration shims.
- Calibration shims:
  - 807.CALE25: 25 mm ± 1.5 µm.
  - 807.CALE50: 50 mm ± 2 µm.
  - 807.CALE75: 75 mm ± 2.5 µm.
  - 807.CALE100: 100 mm ± 3 µm.
  - 807.CALE125: 125 mm ± 3.5 µm.
- Isothermal pads.
- Plunger tip lock.
- Supplied in wood case.
- Supplied with compliance certificate.



807C	ΔΔ [kg]
807C	1800



METROLOGY SETS

■ Metrology module



- 805.1: mechanical caliper capacity 1/50 mm.
- 806.F: palmer 1/100 mm capacity 25 mm.
- 814.M: screw pitch gauge 23 blades, 25 to 300.
- 804: metric feeler gauges 4/100 to 1 mm.
- Thermoformed module PL634.



	H [mm]	l [mm]	L [mm]	ΔΔ [g]
<b>MOD.MET</b>	40	175	418	930

■ Metrology-control case 8 tools



Including:

- 805.M: caliper to 1/50 mm (capacity: 200 mm).
- DELA.1051.300: stainless rule 300 mm.
- 811: depth gauge 1/50 mm (capacity: 160 mm), fine adjustment by return screw.
- 818B.15: simple square 150 mm (accuracy class: 1).
- 236: carbide scriber.
- 256.4: punch.
- 806.C25: micrometer 1/100 mm (capacity: 25 mm).
- 1901.05: straight scriber (capacity: 150 mm).



	H [mm]	L [mm]	P [mm]	ΔΔ [kg]
<b>809.J2</b>	30	365	260	2.1

■ Metrology-control case 10 tools



Including:

- 805.M: caliper 1/50 mm (capacity 200 mm).
- 806.C25: micrometer 1/100 mm (capacity: 25 mm).
- 806C.50: micrometer 1/100 mm (capacity: 25 - 50 mm).
- 811: depth gauge 1/50 mm (capacity: 160 mm), fine adjustment by return screw.
- 818B.15: simple square 150 mm (accuracy class 1).
- 819B.15: flanged square 150 mm (accuracy class 1).
- 1901.05: straight scriber 150 mm.
- 236: carbide scriber.
- DELA.1051.300: stainless rule 300 mm.
- 256.4: punch.



	H [mm]	L [mm]	P [mm]	ΔΔ [kg]
<b>809.J3</b>	40	410	280	3.6

MECHANICAL DIAL GAUGES

■ Dial gauge 1/100th mm accuracy



- Accuracy: 1/100th - 0.01 mm.
- Travel 10 mm saved with totaller.
- Pivot dial: Ø 57 mm.
- Interchangeable plunger tip.  
812B.1AC: Steel ball plunger for 812B.AC dial gauge

	$\Delta\Delta$ [g]
812B.AC	345

■ Lever dial gauge 1/100th mm accuracy



- Accuracy: 1/100th - 0.01 mm.
- Travel: 0.8 mm.
- Pivot dial: Ø 31 mm.
- Supplied with 2 fastening rods: Ø 4 and 8 mm.
- Plunger tip: Ø 2 mm.

	$\Delta\Delta$ [g]
812B.P	154

■ Dial gauge-magnetic base set



- Dial gauge 812B.AC supplied with the hinged magnetic holder 812.3.

	$\Delta\Delta$ [kg]
812A	2.245

■ Dial gauge-hinged magnetic base set



- Radius of action: 280 mm.
- Vertical tear strength: 600 N (60 kg).
- Threading Ø: M8.
- Base: 50 x 55 x 60 mm.

	$\Delta\Delta$ [kg]
812.3	1.9



SURFACE GAUGES

■ Precision surface gauge 300 mm - 1/50th



- Class 0.
- Precision 1/50th - 0.02 mm.
- Accuracy error:  $\pm 28\mu\text{m}$ .
- Reliability error:  $\pm 12\mu\text{m}$ .
- Stainless steel rule - mat anti-reflection finish:
  - Width: 25 mm.
  - Hardness 40 HRc minimum.
- Maximum measurement capacity: 300 mm.
- Steel alloy scriber:
  - Hardness 53 HRc minimum.
  - Better scribing quality.
  - 796B.04: serial no. A02 0001 --> march 01.
  - 796C.04: serial no. A02 0001 --> A04 0001.
- Fine adjustment by return screw.
- Repositionable magnifying glass.
- Dial gauge base supplied in standard:
  - for dial gauge with  $\varnothing 8$  mm rod (DIN 878 standard).
- Total dimensions: 455 mm x 90 mm.
- Supplied with compliance certificate.

	$\Delta\Delta$ [kg]
<b>796B</b>	3.280

■ Engineers surface gauges



- Model without graduation.
- Fine adjustment by pivot strip using a push screw.
- Cast iron base.
- Vertical face with 90° V groove.
- Rod:  $\varnothing 10$  mm.

	$\Delta\Delta$ [kg]
<b>795A</b>	1.745

SURFACE PLATES AND V-BLOCK

■ Cast iron surface plates



- DIN 876**
- Class II.



	Dimension [mm]	$\Delta\Delta$ [kg]
<b>1200.50</b>	500 x 300	22

■ 1202.00 - Pair of steel V-blocks - 20 microns



- ISO 8512-1, DIN 876**
- Pair of vees with 4 90° notches.
  - Paired vees, identification number punched on the upper face.



	Dimension [mm]	$\Delta\Delta$ [kg]
<b>1202</b>	30 x 40 x 50 x 60	7.4
<b>1202.00</b>	20 x 30 x 40 x 50	2.8

RADIUS GAUGES

DELA - Radius gauges



- To check the radii of fillets and connections.
- Tempered steel blades.
- 3 models for concave and convex radii 1 to 25 mm.

DE	A [mm]	Content set	Number of Blades	ΔΔ [g]
<b>DELA.1786.00</b>	1,0 --> 7,0	1,00 - 1,25 - 1,50 - 1,75 - 2,00 - 2,25 - 2,50 - 2,75 - 3,00 - 3,50 - 4,00 - 4,50 - 5,00 - 5,50 - 6,00 - 6,50 - 7,00	34	600
<b>DELA.1787.00</b>	7,5 --> 15,0	7,50 - 8,00 - 8,50 - 9,00 - 9,50 - 10,00 - 10,50 - 11,00 - 11,50 - 12,00 - 12,5 - 13,00 - 13,50 - 14,00 - 14,50 - 15,00	32	720
<b>DELA.1790.00</b>	15,5 --> 25,0	15,50 - 16,00 - 16,50 - 17,00 - 17,50 - 18,00 - 18,50 - 19,00 - 19,50 - 20,00 - 21,00 - 22,00 - 23,00 - 24,00 - 25,00	30	350

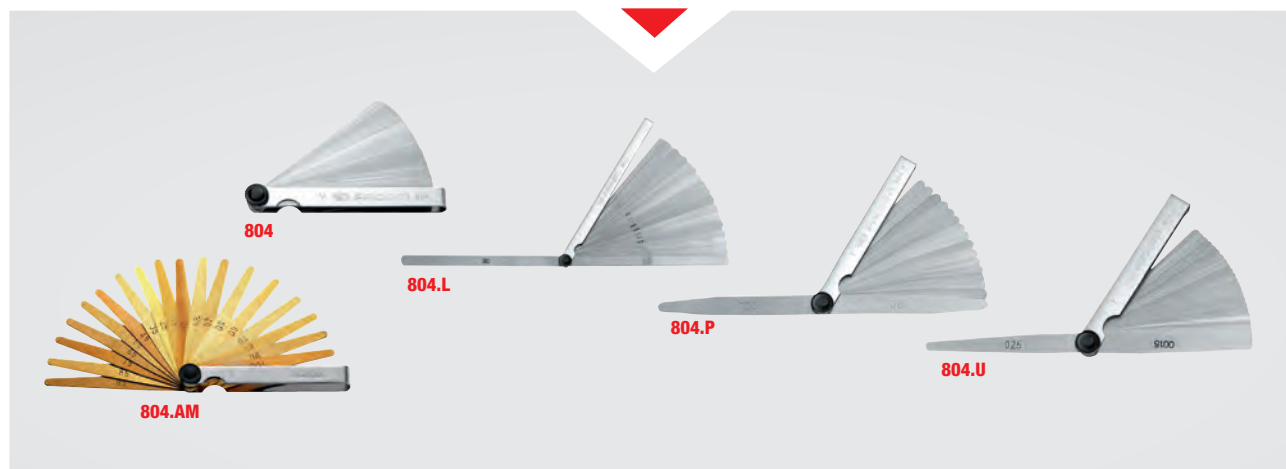
SCREW PITCH GAUGES

814 - Screw pitch gauges



DE	Content set	Number of Blades	Thread Forms	ΔΔ [g]
<b>814.M</b>	25 - 30 - 35 - 40 - 45 - 50 - 55 - 60 - 65 - 70 - 75 - 80 - 85 - 90 - 100 - 110 - 120 - 125 - 130 - 140 - 150 - 160 - 170 - 175 - 180 - 190 - 200 - 225 - 250 - 275 - 300	60° cutting gauge + 31 blades	Metric thread	53
<b>814.NI</b>	0,25 - 0,30 - 0,35 - 0,40 - 0,45 - 0,50 - 0,60 - 0,70 - 0,75 - 0,80 - 1,00 - 1,25 - 1,50 - 1,75 - 2,00 - 2,50 - 3,00 - 3,50 - 4,00 - 4,50 - 5,00 - 5,50 - 6,00 - 6,50 - 7,00	60° cutting gauge + 25 blades	I.S.O thread	420
<b>814.WH</b>	4 - 4,5 - 5 - 6 - 7 - 8 - 9 - 10 - 11 - 12 - 13 - 14 - 16 - 18 - 19 - 20 - 22 - 24 - 25 - 26 - 28 - 30 - 32 - 34 - 36 - 38 - 40 - 48 - 60	55° cutting gauge + 29 blades	Whitworth thread	40
<b>814.G</b>	Filets intérieurs : 11 - 14 - 19 - 28 Filets extérieurs : 11 - 14 - 19 - 28	8 blades	Gas thread	150

SEE THE FEELER GAUGES SECTION 23



## RULERS

## A FACOM specialty, rigorous expertise

Tight production control: our rulers have been produced in our plants located in France since 1918.



### Chemical engraving

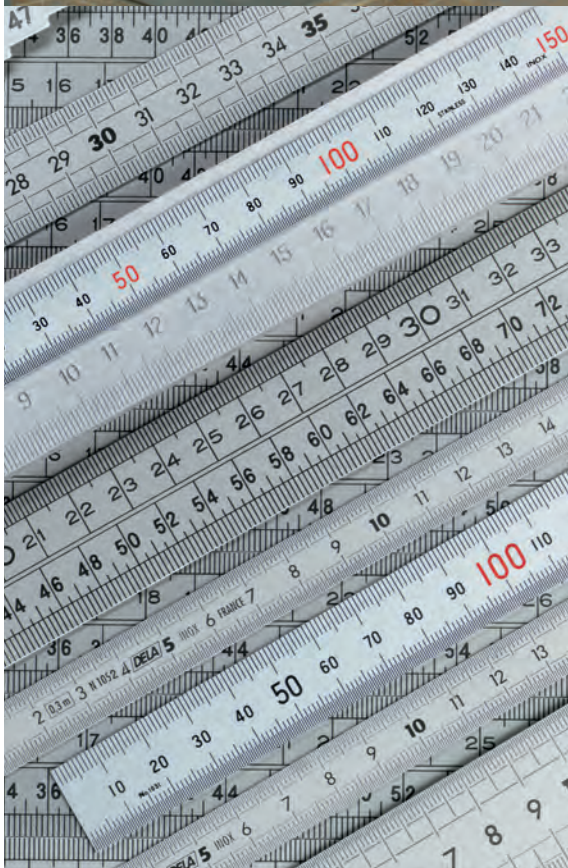
- Deep markings.
- Perfect contrast.
- Resistant to wear and chemical agents.

### Rigorous selection of materials guaranteeing the highest quality

- Compromise between rigidity and flexibility.
- Mat surface for perfect readability.
- Smooth finish for fine, clean markings.

### A range of over 20 references

- Stainless steel or duralumin.
- Rigid, semi-rigid, flexible.
- Graduation mm – 1/2 mm.



### INFORMATION

European directive 2004/22/EC, necessary harmonisation and change.

- Measuring Instrument Directive - Annex MI-008 – material measures.
- Harmonisation of the regulations for the 25 Member States.
- Entry into force in France on 30 October 2006.
- Gradule implementation as pattern approvals expire.
- NB: Only measurements > 500 mm are considered in legal metrology (OIML 35).

No pattern and regulatory marking approvals are required for measurements < 500 mm.

ENGINEERS RULE

■ Non graduated solid stainless steel ruler

NF E 11-104, DIN 874

- Class I, flatness:  $4 + L/60 \mu\text{m}$  (L being the length in mm).
- Stainless steel.
- Supplied in wood case.



809.IN500	L [mm]	Section [mm <sup>2</sup> ]	$\Delta\Delta$ [g]
809.IN500	500	50 x 10	40

■ Graduated solid stainless steel ruler

NF E 11-105, DIN 874

- Class I, flatness:  $4 + L/60 \mu\text{m}$  (L being the length in mm).
- With offset zero graduation.
- Supplied in wood case.



809.ING500	L [mm]	Section [mm <sup>2</sup> ]	$\Delta\Delta$ [kg]
809.ING500	500	50 x 10	2.900

■ 809 - Stainless steel filament rulers

NF E 11-104, DIN 874

- To check a surface or an edge.
- Tempered stainless steel with insulating handle.
- Supplied in wallet.

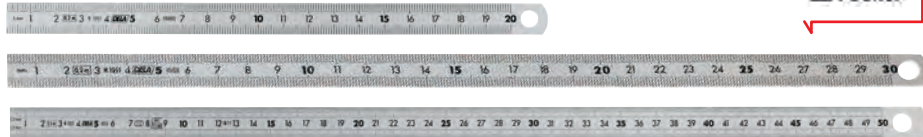


	L [mm]	Flatness of measuring surfaces/Max. [μm]	$\Delta\Delta$ [g]
809.75	75	2	80
809.100	100	2	125
809.150	150	3	200
809.200	200	3	280

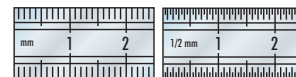
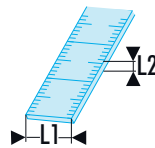
CLASS II RULES

■ DELA.1051 - Stainless steel rulers - 2 sides

- Engraved on both sides.
- One edge in mm - One edge in 1/2 mm.
- Stainless steel 18 % Cr - 8 % Ni.
- Anti-reflection treatment.
- Class II as per regulations applies to rules with a length above or equal to 500 mm.



	L [mm]	L1 x L2 [mm]	$\Delta\Delta$ [g]
DELA.1051.150	150	13 x 0,5	124
DELA.1051.200	200	13 x 0,5	11
DELA.1051.300	300	13 x 0,5	16
DELA.1051.500	500	20 x 0,5	40

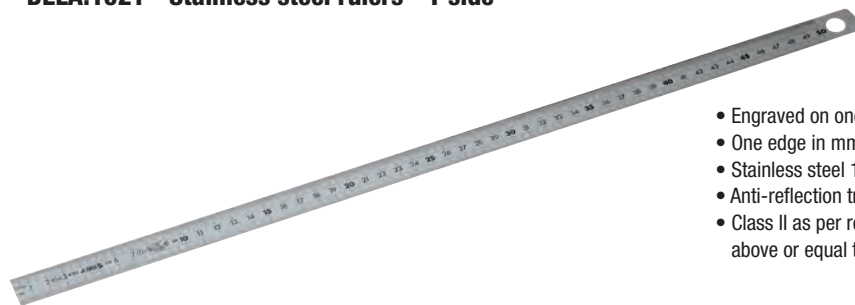


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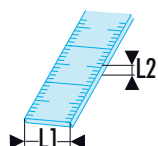
RFid

CLASS II RULE

DELA.1021 - Stainless steel rulers - 1 side



- Engraved on one side.
- One edge in mm - One edge in 1/2 mm.
- Stainless steel 18 % Cr - 8 % Ni.
- Anti-reflection treatment.
- Class II as per regulations applies to rules with a length above or equal to 500 mm.

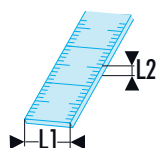


➤	L [mm]	L1 x L2 [mm]	ΔΔ [g]
DELA.1021.1000	1000	25 x 0,5	100
DELA.1021.1500	1500	25 x 0,5	152
DELA.1021.2000	2000	25 x 0,5	200

DELA.1056 - Stainless steel semi-rigid short rulers - 2 sides



- Engraved on both sides.
- One edge in mm - One edge in 1/2 mm.
- Stainless steel 18 % Cr - 8 % Ni.
- Anti-reflection treatment.
- Class II as per regulations applies to rules with a length above or equal to 500 mm.

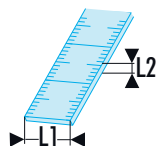


➤	L [mm]	L1 x L2 [mm]	ΔΔ [g]
DELA.1056.300	300	30 x 0,8	60
DELA.1056.500	500	30 x 0,8	120

DELA.1056 - Stainless steel semi-rigid long rulers - 1 side



- Engraved on one side.
- One edge in mm - One edge in 1/2 mm.
- Stainless steel 18 % Cr - 8 % Ni.
- Anti-reflection treatment.
- Class II as per regulations applies to rules with a length above or equal to 500 mm.



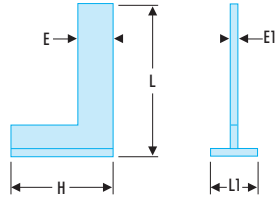
➤	L [mm]	L1 x L2 [mm]	ΔΔ [g]
DELA.1056.1000	1000	30 x 0,8	100
DELA.1056.1500	1500	30 x 0,8	8,5
DELA.1056.2000	2000	30 x 0,8	11





PRECISION SQUARES

Basic flanged squares - Class I

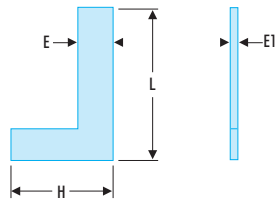


NF E 11-103, DIN 875

- Ground sides and chamfers.
- Screwed flange.
- XC12 steel.
- Supplied with compliance certificate.

REF	E x E1 [mm]	H [mm]	L [mm]	L1 [mm]	ΔΔ [kg]
819B.15	24 x 6	100	150	25	0,470

DELA.1256 - Basic squares - Class II

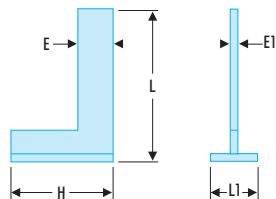


NF E 11-103, DIN 875

- Basic 90° squares.

REF	E x E1 [mm]	H [mm]	L [mm]	ΔΔ [kg]
DELA.1256.02	20 x 5	70	100	0,125
DELA.1256.04	20 x 5	100	150	0,290
DELA.1256.06	30 x 7	130	200	0,515
DELA.1256.07	30 x 7	165	250	0,580
DELA.1256.08	30 x 7	200	300	0,700
DELA.1256.10	40 x 7	330	500	1,800

DELA.1257 - Basic flanged squares - Class II



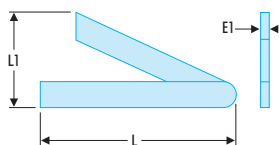
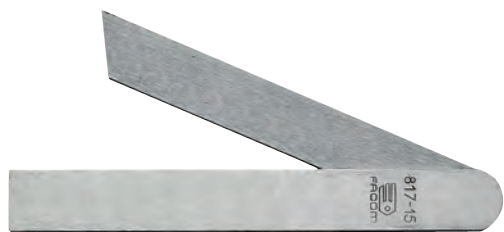
NF E 11-103, DIN 875

- Screwed flange.
- Perfect bearing of heel and side.

REF	E x E1 [mm]	H [mm]	L [mm]	L1 [mm]	ΔΔ [kg]
DELA.1257.02	20 x 5	70	100	20	0,200
DELA.1257.04	20 x 5	100	150	20	0,390
DELA.1257.06	30 x 7	130	200	30	0,715
DELA.1257.08	40 x 8	200	300	40	1,020
DELA.1257.10	40 x 7	330	500	40	2,600

OTHER SQUARES

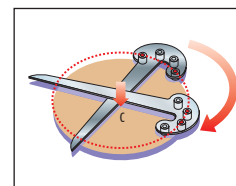
817 - Dummy squares



• Surface and edges in ground steel.

🔗	E1 [mm]	L [mm]	L1 [mm]	ΔΔ [g]
817.15	15	150	19 - 145	465
817.20	15	200	24 - 195	491
817.25	15	250	24 - 240	300
817.30	15	300	24 - 285	480

Centering square



• Steel square with 4 symmetrical studs.  
• Allows to determine the center of an arc of circle in two operations.

🔗	ΔΔ [g]
DELA.1290.00	100

DELA.1272 - Flanged double tab squares

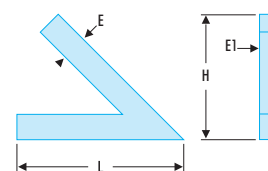


NF E 11-103, DIN 875

• Angles 30°, 45°, 60°, 90°.

🔗	L [mm]	L1 [mm]	ΔΔ [g]
DELA.1272.01	100	78	663
DELA.1272.03	150	105	880
DELA.1272.04	200	142	300

Flanged square 45°



🔗	E x E1 [mm]	H [mm]	L [mm]	ΔΔ [g]
DELA.1292.00	26 x 7	150	150	105



BEVEL PROTRACTORS

Bevel protractor

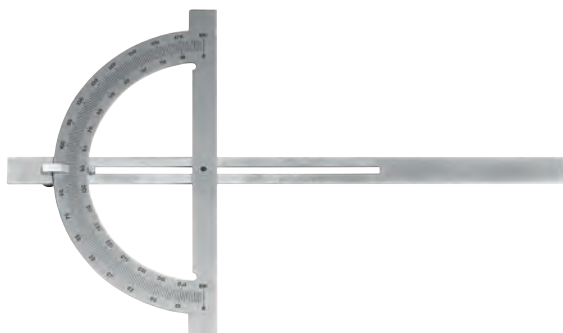


- Ground stainless steel.
- Base of the sector divided in mm.
- Double division reversed from 0 to 180°.
- Sector Ø: 85 mm.
- Rule length: 170 mm.
- Easy reading by an index inside a port.



➤	L [mm]	ΔΔ [g]
1885.00	170	150

High capacity bevel protractor



- Tempered steel.
- Graduations in degrees.
- Empty sector for measuring angles from 10 to 170°.
- Sector Ø: 200 mm.
- Rule length: 400 mm.
- Slide rule, screw locking.



➤	L [mm]	ΔΔ [g]
DELA.1880.00	400	420

Simplified bevel protractor

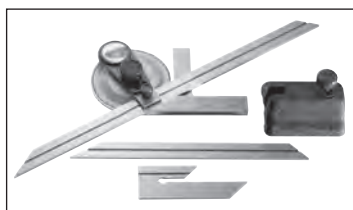


- Stainless steel model without square.
- Accuracy: 5 mn arc.
- Length: 300 mm.
- Supplied in case (L. x D. x H.): 370 x 145 x 35 mm.



➤	L [mm]	ΔΔ [g]
DELA.1897.02	300	400

High precision bevel protractor



- Tempered stainless steel bevel protractor.
- Anti-reflection mat chrome reading surface.
- Measurement range 0 - 360°.
- Minimum reading: 5° arc on vernier.
- Dial diameter: 70 mm.
- Dimensions (L. x D. x H.): 315 x 75 x 20 mm.
- Dial pivots with vernier and dial locking screw.
- 2 End rules cut at 45° and 60°, including:
  - 1 short rule 200 mm x 16 mm.
  - 1 long rule 300 mm x 16 mm.
- Rule offset by 85 mm x 16 mm.
- Slide rules locking screw.
- Magnifying glass.
- Cast iron base: 70 mm x 30 mm.

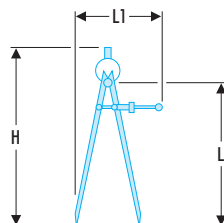


➤	H [mm]	L [mm]	P [mm]	ΔΔ [kg]
813B.S	20	315	75	1,466

SCRIBER

DELA.1901 - Dry tip scriber

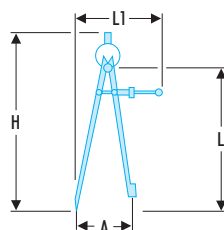
DELA	H [mm]	L [mm]	L1 [mm]	ΔΔ [g]
DELA.1901.05	195	150	85	90
DELA.1901.07	245	200	100	160
DELA.1901.08	300	250	125	200



Pen holder scriber

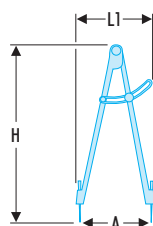
• Pen: Ø 8 mm.

DELA	A [mm]	H [mm]	L [mm]	L1 [mm]	ΔΔ [g]
DELA.1905.05	250	300	250	125	210



1/4" circle scriber

DELA	A [mm]	H [mm]	L1 [mm]	ΔΔ [g]
823.25	250	250	94	370



MEASURING MARKING OUT SET

Measuring marking out set



- 257G: automatic centre punch.
- 234: scriber.
- 893B.319: tape measure 3 m.
- DELA.1051.05: rule 300 mm.
- 1885.00: bevel protractor.
- DELA.1051.300: straight square and tab 300 mm.
- Thermoformed module PL633.



🔪	H [mm]	l [mm]	L [mm]	ΔΔ [kg]
<b>MOD.234</b>	40	175	418	1,050

STEEL SCRIBERS

Steel scriber



- Tip treated in chrome vanadium steel.
- Tip: Ø 4 mm.



🔪	L [mm]	ΔΔ [g]
<b>234</b>	190	20

Interchangeable steel tip scribe



- Tip treated in fast steel.
  - Tips: Ø 4 mm.
  - Body: Ø 8 mm.
- Set of 2 spare tips: 234.SP2.



🔪	L [mm]	ΔΔ [g]
<b>234A.S</b>	260	58

Pen type carbide scriber



- Steel hexagonal body with a staple.
- Resharpenable tip:
  - Length: 12 mm.
  - Ø: 2.5 mm.



🔪	L [mm]	ΔΔ [g]
<b>DELA.1589.00A</b>	150	100

STEEL SCRIBERS

One-piece carbide scriber

- Rungsten carbide offset tip for scribing on tempered parts: Ø 2 mm.
- Octogon-shape body: Ø 12 mm.
- Length: 180 mm.



Icon	L [mm]	ΔΔ [g]
	180	30
<b>236</b>		

Square tips

- Square blade treated steel tip.
- Protwist ergonomic handle.
- For tapping hole, chamfering, deburring, etc.



Icon	L [mm]	Blade	Handle	ΔΔ [g]
	190	6 x 80	30 x 110	80
<b>AP6X80</b>				
	245	8 x 125	36 x 125	120
<b>AP8x125</b>				

LETTER AND DIGIT PUNCHES

292A - Set of 26 letter punches and punch

DIN 7353

- Letter heights: 3 to 8 mm.
- Carbon steel 60 HRC.
- Supplied in plastic box.



Icon	A [mm]	L [mm]	Dimension [mm]	Cross-section [mm]	ΔΔ [g]
	3	70	110 x 40 x 80	8 x 8	800
<b>292A.3</b>					
	4	70	110 x 40 x 80	8 x 8	800
<b>292A.4</b>					
	5	75	110 x 40 x 80	10 x 10	1340
<b>292A.5</b>					
	6	75	110 x 40 x 80	10 x 10	1350
<b>292A.6</b>					
	8	83	145 x 55 x 90	13 x 13	2520
<b>292A.8</b>					

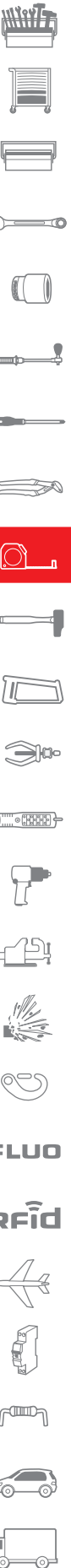
293A - Set of 9 digit punches

DIN 7353

- Digit heights: 2 to 8 mm.
- Carbon steel 60 HRC.
- Supplied in plastic box.



Icon	A [mm]	L [mm]	Dimension [mm]	Cross-section [mm]	ΔΔ [g]
	2	70	40 x 40 x 80	8 x 8	265
<b>293A.3</b>					
	4	75	40 x 40 x 80	8 x 8	275
<b>293A.4</b>					
	5	75	40 x 40 x 80	10 x 10	460
<b>293A.5</b>					
	6	75	40 x 40 x 80	10 x 10	460
<b>293A.6</b>					
	8	83	55 x 55 x 90	13 x 13	925
<b>293A.8</b>					



GRIP SERIES

897A - HIGH PERFORMANCE TAPE MEASURE

**Bi-material casing**

- Soft gum coating: comfort and longevity.
- Metal place insert.
- High strenght.

**Wide hook with 3-point fastening**

**High quality extra wide mylar tape**

- 19 mm for 3 meter measurements.
- 28 mm for 4 and 8 meters measurements.
- Extreme rigidity (up to over 3 m).
- Resistance to abrasion.

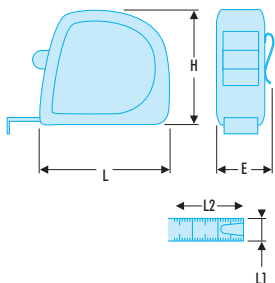
**Belt clip**



**Locking button with automatic return**



897A - ABS body tape measure Grip



- Soft coating withstanding impacts and intense conditions of use.
- Very high durability, anti-reflection mat, Mylar coating.
- 897A.319: 2-rivet blade covering with stainless steel reinforcement plate.
- 897A.528 - 897A.828: 3-rivet blade covering with stainless steel reinforcement plate.
- Horizontal and vertical tape rigidity see dimension table.
- Stainless belt clip.

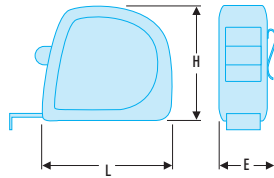


FACOM	E [mm]	H [mm]	L [mm]	L1 [mm]	L2 [m]	Rigidity Max Horizontal [m]	ΔΔ [g]
<b>897A.319</b>	40	61,6	65	19	3	1,7	14
<b>897A.528</b>	54	71,2	74	28	5	3,1	33
<b>897A.828</b>	54	80,5	83,5	28	8	3,1	48

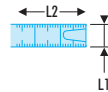


ABS SERIES

893B - ABS body tape measure



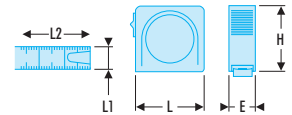
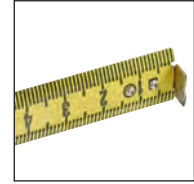
- Ergonomic, ABS material.
- Tape with mat anti-reflection nylon tape.
- High strength tape.
- High strength cover hook:
  - 2 rivets with stainless steel stiffening plate on 2 and 3 m.
  - 3 rivets with stainless steel stiffening plate on 5 and 8 m.
- Double-sided printed tape for use as a rule.



	E [mm]	H [mm]	L [mm]	L1 [mm]	L2 [mm]
<b>893B.213</b>	31	59,2	60	16	2
<b>893B.319</b>	35,2	59,2	60	16	3
<b>893B.519</b>	35,2	65,1	70	19	5
<b>893B.825</b>	42,1	78,1	80	25	8

METAL SERIES

Stainless body 2 meter tape measures



- Compact.
- Width: 16 mm.
- Tape with 2 rivets.
- Rigidity up to 1.10 m.

	A [mm]	E [mm]	H [mm]	L1 [mm]	L2 [m]	ΔΔ [g]
<b>800A.216</b>	50	21,4	50	16	2	90

EXPORT SERIES MM AND INCH (NOT FOR SALE IN FRANCE)

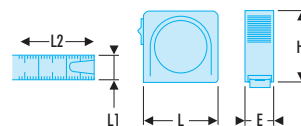
METRIC AND INCH EXPORT TAPE

- Hardened steel blade, concave for stiffness.
- Yellow background, protective coating.
- Identical casing to equivalent metric series.
- Double marking tapes are not for sale in the French territory.

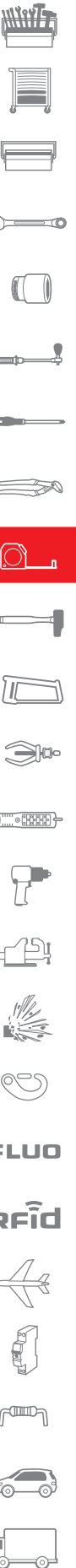


ABS body tape measure - mm and inches

- Metric and imperial double graduation tape measure (not for sale in France).

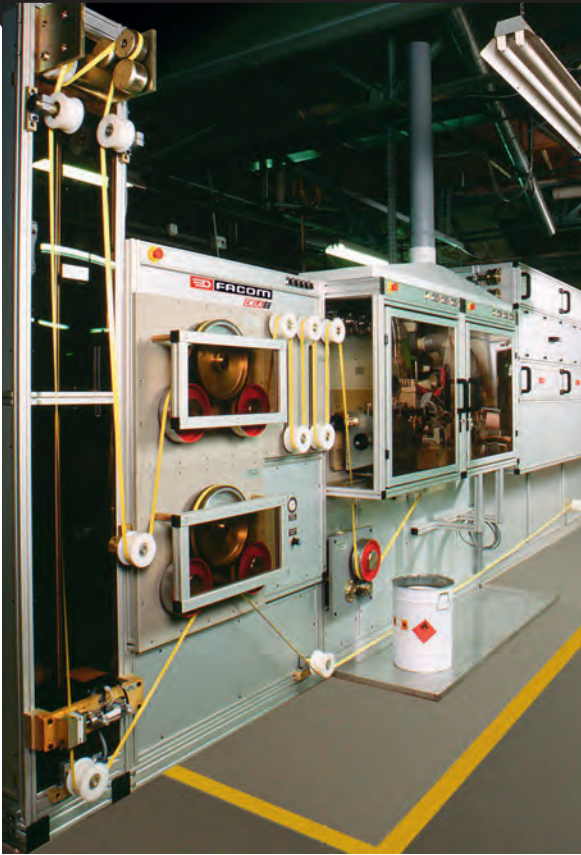


	E [mm]	H [mm]	L1 [mm]	L2 ["]	L2 [m]	ΔΔ [g]
<b>DELA.35.00EX</b>	33	62	16	10	3	345



TAPE TREATED ANTICORROSION CLASS I

LONG TAPE MEASURES



Plastiver tapes are ideal for "outdoor" applications (e.g. building sites...). Stringent inspection procedures ensure that our tapes conform to precision class I, II or III.



**STEEL TAPE:  
Class I and II**

- Hard-wearing coating
- Yellow finish
- Corrosion protection
- Hardened steel



**PLASTIVER TAPE:  
Class III**

32 glass-fibre strands coated with PVC, centimeters marked in black and metres in red for excellent readability.

CORROSION RESISTANT STEEL TAPE



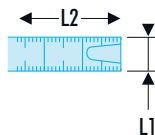
**Definition of class I**

The particularly exacting tolerances of class I are limited to  $\pm 1/10$  millimeter per metre. Class I tapes are supplied complete with a COFRAC calibration certificate. They have the "zero mark" approximately 10 cm after the beginning of the tape.

**Calibration certificate**

These tapes come with a COFRAC-approved calibration certificate. This certificate is in line with ISO 9000 certification procedures. - For 10m and 20m tapes, checks are made every metre. - For 30m and 50m tapes, checks are at 5-metre intervals.

■ Cutout body tape measure 20 m



- Tape treated anticorrosion Class I.
- Lacquered steel body with folding crank.
- Tape guide rollers.
- Loop with folding hook.
- "Line" measurement, the zero starts 10 cm after the loop.

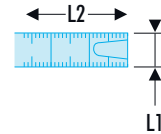


	L1 [mm]	L2 [m]	$\Delta\Delta$ [g]
DELA.62881.02C	13	20	420

TAPE TREATED ANTICORROSION CLASS II

■ Tape measure 50 m

- Tape treated anticorrosion Class II.
- Revolver handle, ergonomic with folding crank.
- Loop with folding hook.
- Supplied in case dimensions (L. x D. x H.): 325 x 275 x 56 mm.



	L1 [mm]	L2 [m]	ΔΔ [g]
<b>DELA.2883.04</b>	13	50	240

LEVELS

ENGINEERS LEVELS

■ Two-vial level

- Accuracy: 0.4 mm/m.
- Dressed steel with grooves for cylindrical surfaces.
- Adjustable and protected longitudinal vial.

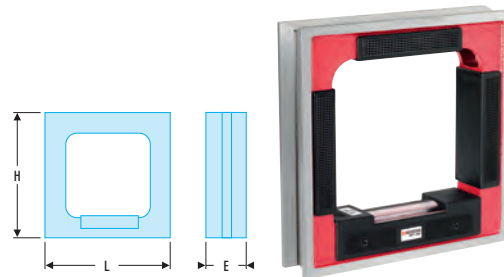


	L [mm]	ΔΔ [g]
<b>DELA.3151.01</b>	200	400

■ Cross-test level

DIN 877

- Stabilised cast iron level.
- Accuracy: 0.04 mm/m.
- Sides with anti-slip insulating pads.
- Vials protected by colourless plexiglas.
- Prismatic base with 140° Vee.
- Liquid: ether.
- Supplied in wood case with compliance certificate.



	E [mm]	H [mm]	L [mm]	ΔΔ [kg]
<b>3071.200</b>	42,5	200	200	4,300

■ DELA.3180 - Round laid levels

- Spherical vial levels.
- Checking horizontal surfaces along two axes.
- Nickel-plated brass.



	d [mm]	ΔΔ [g]
<b>DELA.3180.03</b>	30	20
<b>DELA.3180.05</b>	50	80



ENGINEERS LEVELS

3067 - High accuracy straight levels



DIN 877

- Stabilised cast iron levels.
- Accuracy: 0.04 mm/m.
- Sides with anti-slip insulating pads.
- Vials protected by colourless plexiglas.
- Prismatic base with 140° Vee.
- Liquid: ether.
- supplied in wood case with compliance certificate.



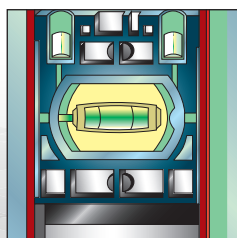
ED	H [mm]	L [mm]	L1 [mm]	ΔΔ [kg]
3067.200	42,5	200	40	1,620
3067.300	47,0	300	50	2,580

LEVELS

Easy-to-use, professional grade tools!

Accuracy

- The accuracy of a level is defined by 2 elements:
  - The quality of machining of the flat faces,
  - The quality and positioning of the vial.
- Vial integral with the body of the level.



Readability

- Vial machined from a solid acrylic block:
  - Anti-reflective.
  - Anti-parallax.
- Does not become clouded over time.
- High impact resistance.



Durability

- Unbreakable synthetic caps.
- Impact-protection system providing maximum protection to the face.
- Rigid.
- Leak proof and highly impact-resistant acrylic glass.



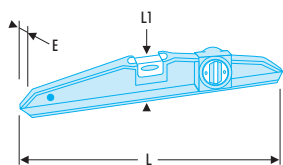
TRAPEZOIDAL LEVELS

307BM - Magnetic trapezoidal levels



DIN 877

- In reverse position, accuracy 0.75 mm/m.
- Massive light alloy body, pressure moulded.
- Electrostatic powder protective coating.



ED	E [mm]	L [mm]	L1 [mm]	ΔΔ [g]
307BM.25	22	250	45	200
307BM.40	23	400	50	420
307BM.60	23	600	50	500

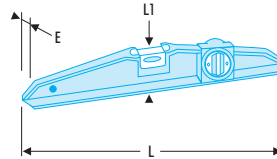
307B - Standard trapezoidal levels

DIN 877

- In reverse position, accuracy 0.75 mm/m.
- Massive light alloy body, pressure moulded.
- Electrostatic powder protective coating.



Model	E [mm]	L [mm]	L1 [mm]	ΔΔ [g]
307B.25	22	250	45	200
307B.40	23	400	50	420
307B.60	23	600	50	680



TUBULAR-SECTION LEVELS

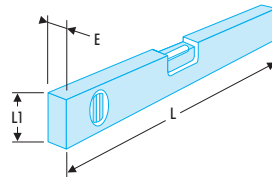
320B - Standard levels, 1 machined sole plate

DIN 877

- In reverse position, accuracy 0.75 mm/m.
- Light alloy body, drawn.
- Electrostatic powder coating.
- Vertical vial and horizontal vial.



Model	E [mm]	L [mm]	L1 [mm]	ΔΔ [g]
320B.40	21	400	50	96
320B.60	21	600	50	106



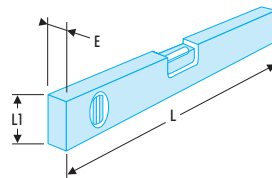
309BM - Magnetic levels

DIN 877

- In reverse position, accuracy 1 mm/m.
- Light alloy body, drawn.
- Smooth anodized surfaces (easy cleaning).
- Vertical vial and horizontal vial.



Model	E [mm]	L [mm]	L1 [mm]	ΔΔ [g]
309BM.40	21	400	50	300
309BM.60	21	600	50	80



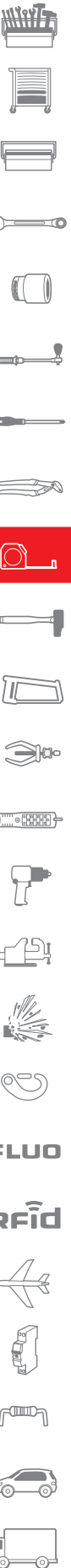
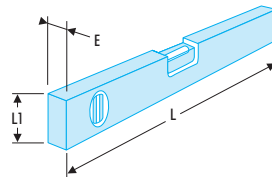
311B - Magnetic levels, 1 machined sole plate

DIN 877

- In reverse position, accuracy 0.5 mm/m.
- Fitted with a vertical vial, horizontal vial, and a declivity vial.

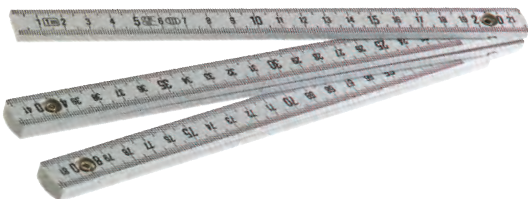


Model	E [mm]	L [mm]	L1 [mm]	ΔΔ [g]
311B.60	25	600	54	184
311B.80	25	800	54	378



SYNTHETIC FOLDING RULE

■ Synthetic blade rule Class III 2 meters - 10 branches



- Recto verso graduatiron on the 2 edges in mm.
- Clicked branches 90° or 180°.
- Washable.

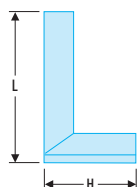
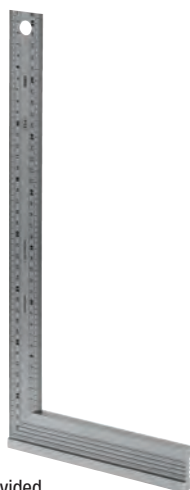


	Width l [mm]	ΔΔ [g]
DELA.401.00	16	105

BUILDERS SQUARES

SQUARES

■ DELA.1223 - Stainless steel joiners squares



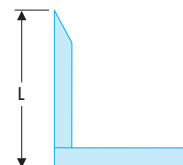
NF E 73-205

- Stainless steel blade divided in recto-verso protected by a sleeve.
- Anti-reflection.
- Deep engravings.
- Anodised aluminium heel.

	H [mm]	L [mm]	ΔΔ [g]
DELA.1223.01	120	200	160
DELA.1223.02	140	250	200
DELA.1223.03	170	300	240
DELA.1223.04	200	400	300

FALSE SQUARES

■ DELA.1208 - Dummy squares and dummy sliding squares



- Wood heel, steel blade, brass lining.
- 1208: sliding dummy square

	L [mm]	ΔΔ [g]
DELA.1208.02	250	120
DELA.1208.03	300	140

BUILDERS MARKING-OUT

■ Plumb-bob



- Engineers plumb-bob.
- Diameter: 16 mm.
- Supplied with 4 m Ø 2 mm line.



	ΔΔ [g]
DELA.3224.00	125

**CHALK LINE REELS**

■ **DELA.3298 - Chalk line reels, plum-bob**

- Metal container with chalk line locking by folding the crank.
- Chalk line reel: Ø 1.5 mm.

DE	L [m]	ΔΔ [g]
<b>DELA.3298.15</b>	15	65
<b>DELA.3298.30</b>	30	80



■ **DELA.13299 - Profile chalk line reels**



- Ergonomic alu body, anti-wear wire guide.
- Fast winding.
- Polycotton line Ø 1mm with hook.  
Spare line 100 m: DELA.3226.01.CORD.

DE	L [m]	ΔΔ [g]
<b>DELA.13299.15</b>	15	125
<b>DELA.13299.30</b>	30	265

■ **Grodel chalk line reel**



- Builders carcass and public works.
- High strength synthetic body with folding crank.
- High capacity container.
- Chalk line reel: Ø 3 mm.

DE	L [m]	ΔΔ [g]
<b>DELA.3400.00</b>	30	140

**CHALK STICKS**

■ **Natural "Briançon" chalk sticks**

- Natural cut greasy chalk for marking on metal.
- Cross-section: 10 x 10 mm.
- Length: 100 mm.
- Colour: white.
- Box of 50 units.

DE	L [mm]	ΔΔ [g]
<b>DELA.3310.00</b>	100	1300



**FLUO**

**RFid**



# HAMMERS - IMPACT TOOLS





**HAMMERS -  
SLEDGE HAMMERS**

Graphite handle hammer  
Hickory handle hammers

**560**

560  
562



**CLUB HAMMERS**

Dead-blow hammers  
Adaptable-tip mallets  
Punches and nail sets

**567**

567  
568  
570



**IMPACT TOOLS**

Multi-impact tool sets  
Sheathed series  
Drifts  
Nail sets  
Flat chisels - Cape chisels

**571**

571  
572  
575  
577  
578



**IMPACT  
TOOLS MODULES**

Impact tools modules

**580**

580



HAMMER WITH GRAPHITE HANDLE



The safe hammer

A combination of 3 materials for a perfect result

**1 - Graphite:**

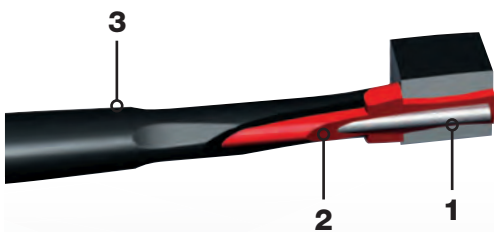
For strength. No risk of breakage.

**2 - Polypropylene:**

For reduced vibration.

**3 - Elastomer:**

For a perfect grip and excellent resistance to corrosive workshop liquids.



200 C



205 C



Maximum safety.

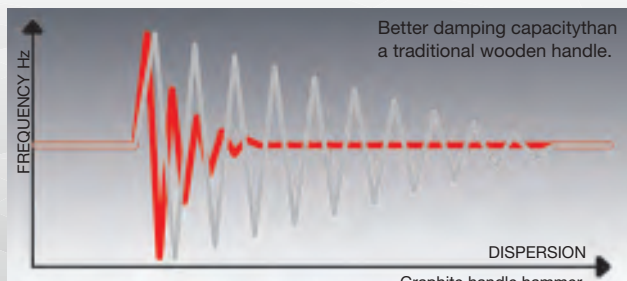
- Permanent epoxy resin head-to-handle connection Unbreakable.

Total comfort

- Anti vibration : absorbent material and narrow upper handle profile to reduce vibration.

Positive grip

- Soft elastomer handle for a comfortable hold.
- Wide guard to prevent loss of grip.



Better damping capacity than a traditional wooden handle.

— Graphite handle hammer.  
— Wood handle hammer.

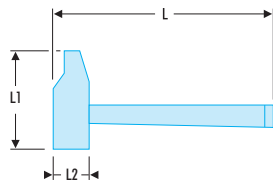
SAFETY FIRST

Wear eye protection.



GRAPHITE HANDLE HAMMER

200C - Graphite handle riveting engineers hammer

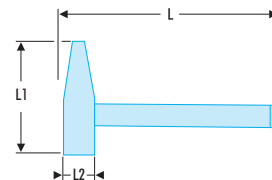


NF ISO 15601, ISO 15601

• Ergonomic safety handle with graphite core.

Model	L [mm]	L1 [mm]	L2 [mm]	ΔΔ [g]
200C.26	245	80	25	345
200C.28	270	88	28	380
200C.30	270	93	30	470
200C.32	300	100	32	585
200C.36	300	106	35	725
200C.40	330	108	40	1000
200C.42	330	117	42	1100
200C.50	360	138	50	1900
200C.60	380	151	60	2800

205C - Graphite handle DIN engineers hammer



NF ISO 15601, ISO 15601, DIN 1041

• Ergonomic safety handle with graphite core.

Model	L [mm]	L1 [mm]	L2 [mm]	ΔΔ [g]
205C.20	280	96	19	250
205C.30	300	106	23	380
205C.50	320	122	27	580
205C.80	350	132	33	960
205C.100	360	137	36	1200



**WOOD HANDLE HAMMER**

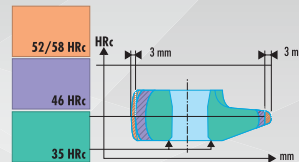
**Safe, ergonomic and comfortable**

**HEAD. "High security" triple wedge handle attachment:**

- 2 steel + 1 wooden wedge for a better distribution of contact surfaces between the handle and the head.

**Head very firmly secured on the handle:**

- Precise heat treatment of the head for ultimate safety and durability.



**HANDLE. Hickory:**

- Excellent mechanical strength. Unaffected by climatic differences.

**Octagonal handle profile:**

- Exclusive to FACOM. Best compromise between mechanical strength and absorption of vibration.

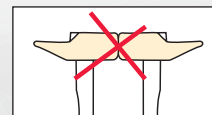
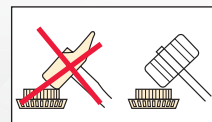
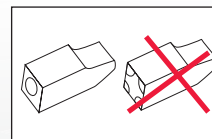
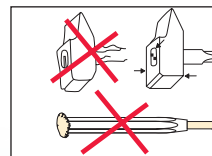


**Growth ring**

Our handles are made only from blocks with a strictly defined number of growth rings : as this determines the rate of growth of the tree. Fast growth, few rings, low density wood and thus low mechanical strength.



- Always inspect a hammer before use. If damaged in any way, discard it.
- Watch out for:  
Excessively worn or mushroomed head.  
Suspect fit.  
Scored handle.
- For safety, the hammer should hit dead square in the centre of the face. Steady precise blows extend tool life. Flying chips are dangerous.
- Never hammer materials harder than 46 HRc. Use a FACOM mallet instead.



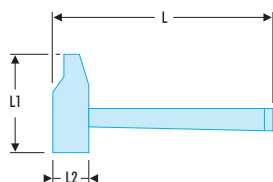
**Safety first**

Wear eye protection



HICKORY HANDLE HAMMERS

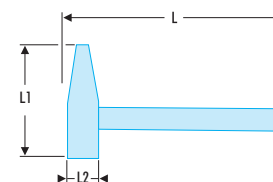
200H - Riveting engineers hammers



- NF ISO 15601, ISO 15601
- "High safety" hickory handle, triple fit: 2 steel wedges and 1 wood wedge.

Model	L [mm]	L1 [mm]	L2 [mm]	Handle	ΔΔ [g]
200H.26	245	80	25	210.MHB01	345
200H.28	270	88	28	210.MHB02	380
200H.30	270	93	30	210.MHB03	470
200H.32	300	100	32	210.MHB04	585
200H.36	300	106	35	210.MHB04	725
200H.40	330	108	40	210.MHB05	1000
200H.42	330	117	42	210.MHB05	1100
200H.50	360	138	50	210.MHB06	1900
200H.60	380	151	60	210.MHB27	2800

205H - DIN engineers hammers



- NF ISO 15601, ISO 15601, DIN 1041
- "High safety" hickory handle, triple fit: 2 steel wedges and 1 wood wedge.

Model	L [mm]	L1 [mm]	L2 [mm]	Handle	ΔΔ [g]
205H.20	280	96	19	210.MHB12	250
205H.30	300	106	23	210.MHB13	380
205H.50	320	122	27	210.MHB14	580
205H.80	350	132	33	210.MHB15	960
205H.100	360	137	36	210.MHB16	1200



WOOD HANDLE HAMMERS

Impact tool safety

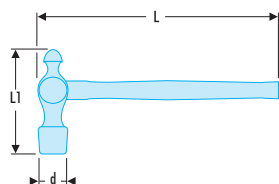
- Check the condition of the tool before use.
  - Do not use tools with traces of wear, mushrooming, scaling or cracks.
  - Wear eye protection and gloves.



FLUO

RFid

202H - Ball head engineers hammers

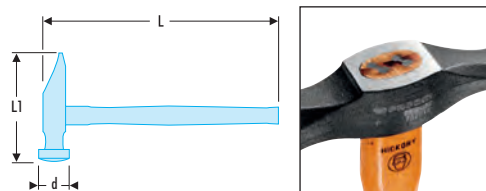


NF ISO 15601, ISO 15601, ASME B107.400

- "High safety" hickory handle, steel wedge.

ED	d [mm]	L [mm]	L1 [mm]	Handle	ΔΔ [g]
202H.1/4	20	275	65	210.MHB07	140
202H.1/2	26	297	84	210.MHB08	280
202H.1	31	322	104	210.MHB09	430
202H.1'1/2	37	363	123	210.MHB10	840
202H.2	40	394	128	210.MHB11	1100

860H - Dinging hammers, round face

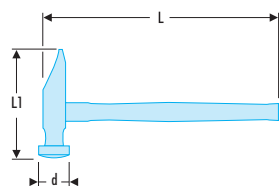


NF ISO 15601, ISO 15601

- "High safety" hickory handle, triple fit: 2 steel wedges and 1 wood wedge.

ED	d [mm]	L [mm]	L1 [mm]	Handle	ΔΔ [g]
860H.26	26	297	114	210.MHB26	340
860H.28	28	297	118	210.MHB26	370
860H.30	30	314	123	210.MHB28	440
860H.32	32	339	134	210.MHB29	570
860H.36	36	339	139	210.MHB29	700
860H.40	40	377	149	210.MHB31	920

Dinging hammer, square face



NF ISO 15601, ISO 15601

- "High safety" hickory handle, triple fit: 2 steel wedges and 1 wood wedge.

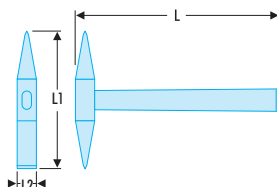
ED	d [mm]	L [mm]	L1 [mm]	Handle	ΔΔ [g]
859H.28	28	319	140	210.MHB34	560

213H - Welders chipping hammers

NF ISO 15601, ISO 15601, DIN 6465

- "High safety" hickory handle, triple fit: 2 steel wedges and 1 wood wedge.

🔪	L [mm]	L1 [mm]	L2 [mm]	Handle	ΔΔ [g]
213H.30	270	170	21	210.MHB32	340
213H.40	270	180	21	210.MHB32	480

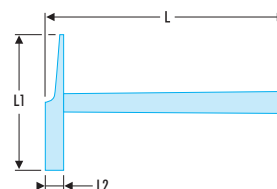


203H - Electricians hammer

NF ISO 15601, ISO 15601

- "High safety" hickory handle, triple fit: 2 steel wedges and 1 wood wedge.

🔪	L [mm]	L1 [mm]	L2 [mm]	ΔΔ [g]
203H.16	237	141	16	160
203H.18	237	142	18	200

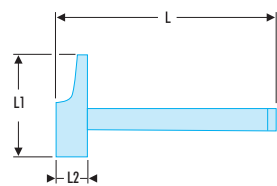


215H - Joiners hammers

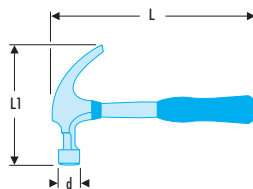
NF ISO 15601, ISO 15601

- "High safety" hickory handle, triple fit: 2 steel wedges and 1 wood wedge.

🔪	L [mm]	L1 [mm]	L2 [mm]	ΔΔ [g]
215H.20	264	91	20	210
215H.22	283	99	22	270
215H.26	285	109	26	360



■ **Carpenters hammer**



**ASME B107.400**

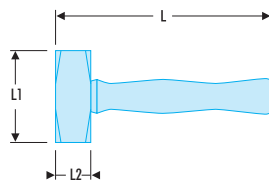
- Safety fit tubular handle, PVC grip.
- Head balanced with nail-puller peen.
- Presentation: polished finish.

🔪	d [mm]	L [mm]	L1 [mm]	ΔΔ [g]
<b>204</b>	30	335	130	810

■ **High load club hammer**



■ **1262H - Beveled edge club hammers**



**NF ISO 15601, ISO 15601, DIN 6475**

- "High safety" hickory handle, triple fit: 2 steel wedges and 1 wood wedge.

🔪	L [mm]	L1 [mm]	L2 [mm]	Handle	ΔΔ [kg]
<b>1262H.100</b>	245	100	40	210.MHB22	1.0
<b>1262H.125</b>	248	105	43	210.MHB23	1.3
<b>1262H.150</b>	254	115	45	210.MHB24	1.5

**NF ISO 15601, ISO 15601, DIN 6475**

- "High safety" hickory handle.

🔪	H [mm]	L [mm]	L1 [mm]	L2 [mm]	Handle	ΔΔ [kg]
<b>1263H.400</b>	60	880	175	60	210.MHB35	4.8



DEAD-BLOW HAMMERS

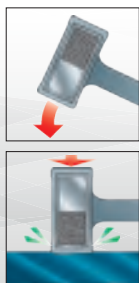
DEAD-BLOW HAMMERS



Safe, ergonomic and comfortable

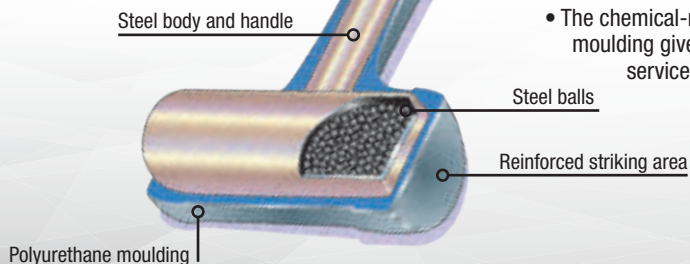
Deadening the blow

The head is half-filled with steel balls, the mass of which has sufficient inertia to counteract any tendency to bounce back. After striking, the face of the hammer remains in position, without the damaging effects of rebound when hammering home an accurate fit. The nylon or polyurethane striking faces remove the risk of lying chips when hitting hard metal objects.

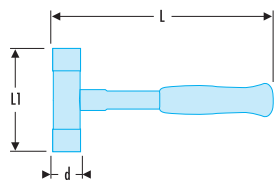


"Monobloc" hammer in polyurethane

- In addition to the dead-blow feature the soft-face hammer 216 is fully moulded in a polyurethane shell.
- This monobloc design protects the head from splitting and the balls escaping in the workshop.
- The chemical-resistant polyurethane moulding gives the tips a far longer service life than conventional soft-faced hammers.



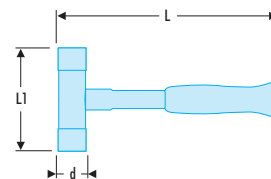
216 - One-piece dead-blow hammers



- Dead-blow hammer with steel microballs.
- Body and handle in steel coated with polyurethane.
- D45 ± 5 shore hardness impact surface.
- Ergonomic PVC grip.

⇒	d [mm]	L [mm]	L1 [mm]	ΔΔ [g]
216.40	40	298	110	657
216.50	50	308	115	888
216.60	60	316	120	1300

212A - Dead-blow hammers, interchangeable tips



- Fiberglass handle.
- Steel body.
- Easily replaceable, special nylon tips shore hardness D74 ± 5.
- Ergonomic PVC grip.
- Presentation: black epoxy.
- Spare tip: 212.E35 to E60.

⇒	d [mm]	L [mm]	L1 [mm]	ΔΔ [g]
212A.35	35	305	112	700
212A.40	40	310	117	840
212A.50	50	320	120	1200
212A.60	60	330	145	1700



## ADAPTABLE-TIP MALLETS

## INTERCHANGEABLE-TIP MALLETS

## Impact tool safety

- Check the condition of the tool before use.
- Do not use tools with traces of wear, mushrooming, scaling or cracks.
- Wear eye protection and gloves.



### 207A-208A - Adaptable-tip mallets



- 207A: Aluminum body "light" series hammers.
- 208A: Steel body "heavy" series hammers.
- Mallets are available with a limited number of tip combinations only, but you can customize your mallet by selecting a body and two tips of your choice.
- Tips available:
  - EA series: neoprene.
  - EB series: polyurethane.
  - EC series: nylon.

Ref	d [mm]	Bits	Finish	$\Delta\Delta$ [kg]
<b>207A.25CB</b>	25	EC - EB	Aluminium	0,135
<b>207A.32CB</b>	32	EC - EB	Aluminium	0,210
<b>207A.40CB</b>	40	EC - EB	Aluminium	0,350
<b>207A.50CB</b>	50	EC - EB	Aluminium	0,560
<b>207A.60CB</b>	60	EC - EB	Aluminium	0,840
<b>208A.25CBA</b>	25	EC - EB	Brass	0,220
<b>208A.32CBA</b>	32	EC - EB	Brass	0,345
<b>208A.32BBA</b>	32	EB - EB	Brass	0,350
<b>208A.40CBA</b>	40	EC - EB	Brass	0,615
<b>208A.40CCA</b>	40	EC - EC	Brass	0,620
<b>208A.50CBA</b>	50	EC - EB	Brass	1,000
<b>208A.60CBA</b>	60	EC - EB	Brass	1,550

207A-208A - Mallet tips

- 207A: Lightweight aluminum body, hickory handle.
- 208A: Heavyweight steel body, hickory handle.



ED	d [mm]	L [mm]	Handle	Finish	ΔΔ [g]
207A.25	25	280	210.MHB12	Aluminium	110
207A.32	32	300	210.MHB13	Aluminium	160
207A.40	40	323	210.MHB14	Aluminium	270
207A.50	50	350	210.MHB15	Aluminium	410
207A.60	60	363	210.MHB16	Aluminium	610
208A.25A	25	280	210.MHB12	Brass	200
208A.32A	32	300	210.MHB13	Brass	295
208A.40A	40	323	210.MHB14	Brass	510
208A.50A	50	350	210.MHB15	Brass	830
208A.60A	60	363	210.MHB16	Brass	1300



EA-EB-EC - Spare tips for mallets

- Tips:
  - EA: neoprene tips, hardness shore A75. Replaces rubber mallets.
  - EB: thermoplastic polyurethane tips (TPU), hardness shore D56. Replaces wood and leather mallets.
  - EC: nylon tips, hardness shore D68. Replaces soft metal mallets (copper, lead, brass, aluminum).



ED	d [mm]	Color	Bits
EA.25	25	Black	Neopreen
EA.32	32	Black	Neopreen
EA.40	40	Black	Neopreen
EA.50	50	Black	Neopreen
EA.60	60	Black	Neopreen
EB.25	25	Red	TPU
EB.32	32	Red	TPU
EB.40	40	Red	TPU
EB.50	50	Red	TPU
EB.60	60	Red	TPU
EC.25	25	White	Nylon
EC.32	32	White	Nylon
EC.40	40	White	Nylon
EC.50	50	White	Nylon
EC.60	60	White	Nylon



EA



EB



EC



## PUNCHES AND NAIL SETS

## 214 - Standard drifts



- Steel body.
- Replaceable nylon tips shore hardness D74.
- Use with a hammer or by hand to fit or extract small parts or bearings.
- Replaces bronze or brass drifts.



ED	d [mm]	L [mm]	Bits	ΔΔ [g]
<b>214.10</b>	10	166	212.E10	100
<b>214.15</b>	15	175	212.E15	200

## 214.R - Dead-blow drifts



- Steel body with dead-blow design: the body is filled with steel balls preventing rebound after the shock.
- Replaceable nylon tips shore hardness D74.
- These large drifts can be used directly by hand to place parts delicately.



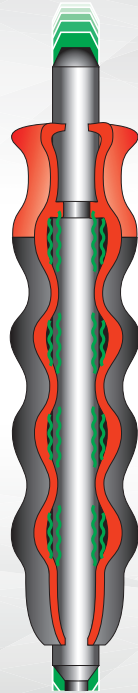
ED	d [mm]	L [mm]	Bits	ΔΔ [g]
<b>214.R20</b>	20	150	212.E20	220
<b>214.R25</b>	25	153	212.E25	330
<b>214.R30</b>	30	157	212.E30	460
<b>214.R35</b>	35	157	212.E35	620

MULTI-IMPACT TOOL SETS

MULTI-IMPACT SYSTEM



# Drifts and punches



### Parts protection

- Interchangeable tips of different hardness for parts that must not be marked.
- High quality, precision tools.

### Multi-solution

- Tips of 3 different materials: brass, aluminium and polyamide.
- Extensive range of sizes.

### Comfort and safety

- Exclusive sheathed, shock-absorbing handle.
- Slide-action for an increased shock-absorbency.
- Positive grip.



## Drifts set - 3 materials: Brass-Polyamide-Aluminum

- Capacity Ø 10 to 20 mm.
- Sets of 19 pieces comprising:
  - 1 anti-vibration sheathed grip 217.G16.
  - 5 aluminum drift punch tips Ø 10, 12, 14, 16, 18 mm; useful length: 60 mm.
  - 3 brass tips Ø 12, 16, 20 mm; useful length: 40 mm.
  - 3 polyamide tips Ø 12, 16, 20 mm; useful length: 40 mm.
  - one extension useful length 100 mm.
  - 3 bits for extension: brass Ø 12, 16, 18 mm; useful length: 20 mm.
  - 3 bits for extension: polyamide Ø 12, 16, 18 mm; useful length: 20 mm.
- Packaged in plastic case 265 x 230 x 50.



Icon	H [mm]	L [mm]	l [mm]	ΔΔ [kg]
217.GJ1	50	265	230	1.4

## Extension

- M8 threaded bit holder extension.



Icon	d [mm]	L [mm]	ΔΔ [g]
217.R12	12	125	105



SHEATHED SERIES

SHEATHED SERIES - A STEP FORWARD



## New ultra-comfortable anti-roll sheath



### Ergonomic

- Shock-absorbing.
- Elastic sheath.
- Partly free-sliding sheath.
- More stable, more positive grip.
- Protects the hand.

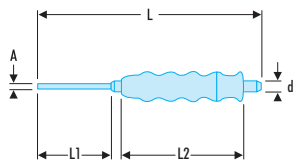
### Safe

- Choice of best steels.
- Very precise heat treatment with different harnesses. DIN 7255. FACOM specifications.
- Better shock absorbance and elasticity to avoid the risk of breakage.

### Precise and Powerful

- Comfortable grip ensures an accurately aimed blow.
- Stability of tool ensures a more powerful blow.

249G - Sheathed drift punches

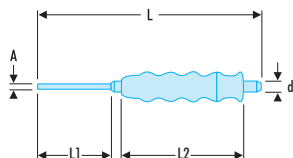


- Long shank.
- Head hardened to 43 HRc.
- Shank hardened to 58 HRc.



Ref	A [mm]	d [mm]	L [mm]	L1 [mm]	L2 [mm]	ΔΔ [g]
249.G2	1,95	8	140	35	105	88
249.G3	2,95	8	150	45	105	90
249.G4	3,95	10	190	60	105	94
249.G5	4,95	10	200	70	105	98
249.G6	5,90	12	210	80	105	142
249.G8	7,90	12	216	86	105	158
249.G10	9,80	14	230	100	105	181
249.G12	11,80	16	280	130	105	380
249.G14	13,80	18	290	140	105	490
249.G16	15,70	18	310	160	105	580

247G - Sheathed nail sets



- Head hardened to 36 - 44 HRc.
- Tip hardened to 52 - 60 HRc.



Ref	A [mm]	d [mm]	L [mm]	L1 [mm]	L2 [mm]	ΔΔ [g]
247.G2	1,9	10	185	55	105	102
247.G3	2,9	10	185	55	105	106
247.G4	3,9	10	185	55	105	109
247.G5	4,9	10	185	55	105	112
247.G6	5,9	10	185	55	105	115
247.G8	7,8	12	185	55	105	173



SHEATHED SERIES

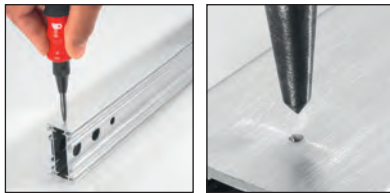
SHEATHED SERIES

# Impact tool safety

- Check the condition of the tool before use.
- Do not use tools with traces of wear, mushrooming, scaling or cracks.
- Wear eye protection and gloves.



Sheathed automatic centre punch

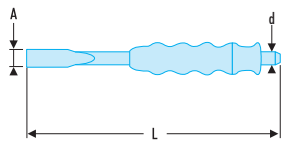


- Simply press the end to release spring impact.
- Impact adjustable from 15 to 25 kg.
- Ergonomic Facom handle.
- Tip hardened to 57 - 60 HRC.



	$\Delta\Delta$ [g]
257.G	175

263.G - Sheathed chisels

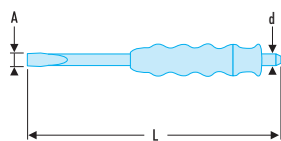


- Engineers chisels.
- Hardness:
  - Tip hardened to 57 - 60 HRC.
  - Head hardened to 36 - 44 HRC.
- Cutting angle: 60°.



	A [mm]	d [mm]	L [mm]	$\Delta\Delta$ [g]
263.G19	15	12	190	165
263.G20	20	16	200	305
263.G22	25	18	220	415

Sheathed cape chisels



- Hardness:
  - Edge: 57-60 HRC.
  - Impact head: 36- 44 HRC.



	A [mm]	d [mm]	L [mm]	$\Delta\Delta$ [g]
265.G18	10	10	180	110



Set of sheathed tools

- Comprising:
  - 3 chisels: 263.G19 - 20 - 22.
  - 1 cape chisel: 265.G18.
- Supplied on cardboard box.



Code	$\Delta\Delta$ [kg]
263.GJ4	1.0

Sheathed drift punches foam module

- Comprising:
  - 249.G 2 - 3 - 4 - 5 - 6 - 8 mm: 6 drift punches.
  - 247.G 4 - 5 - 6 - 8 mm: 4 nail sets.
  - 255.G6: punch accuracy 6 mm.



Code	H [mm]	L [mm]	Content	$\Delta\Delta$ [kg]
MODM.CG	45	418	Tray PM.MODCG	1.5

DRIFTS

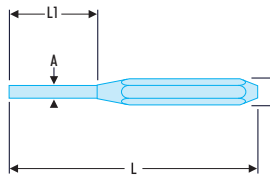
249 - Standard drift punches

NF E 71-211, DIN 6450, ASME B107.410

- Hexagonal shank, high-strength steel tip, hardened to 53-58 HRc.
- Zinc-plated finish.



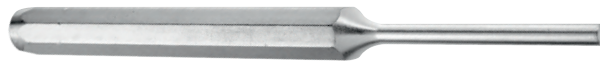
Code	A [mm]	d [mm]	L [mm]	L1 [mm]	$\Delta\Delta$ [g]
249.2	1,9	8	115	30	30
249.3	2,9	8	125	40	35
249.4	3,9	10	150	50	65
249.5	4,9	10	165	50	75
249.6	5,9	12	180	50	120
249.8	7,9	12	200	50	160
249.10	9,9	16	200	50	220



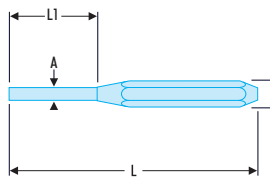
248 - One-piece drift punches

NF E 71-211, DIN 6450

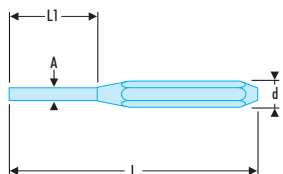
- Octagon-shaped, high-strength steel tip, hardened to 53-55 HRc.
- Zinc-plated finish.



Code	A [mm]	d [mm]	L [mm]	L1 [mm]	$\Delta\Delta$ [g]
248.2	1,9	8	150	30	45
248.3	2,9	8	150	40	50
248.4	3,9	10	150	50	55
248.5	4,9	10	150	50	65
248.6	5,9	10	150	50	70
248.8	7,9	12	150	50	100
248.10	9,9	12	150	50	120



246 - Drift punches for spring pins

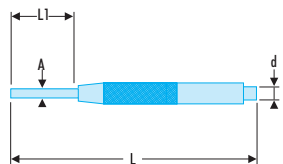
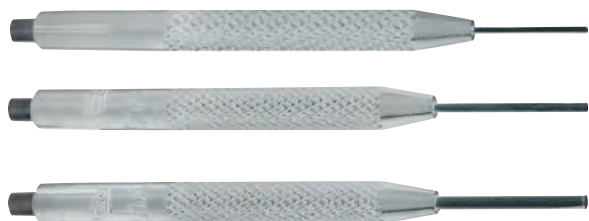


- Octagon-shaped body.
- Zinc-plated finish.
- Shouldered tip accurately centers into split pins.
- Hardened to 53 to 58 HRc guaranteeing perfect absorption of the shockwave.



⇒	A [mm]	d [mm]	L [mm]	L1 [mm]	ΔΔ [g]
246.2	1,9	8	150	30	45
246.3	2,9	8	150	40	45
246.4	3,9	10	150	50	60
246.5	4,9	10	150	50	60
246.6	5,9	10	150	50	70
246.8	7,9	12	150	50	100

251A - Precision sleeved drift punches



- The centre slides within a guide to prevent distortion, even in smaller sizes.
- Shank hardened to 52 to 57 HRc.
- Zinc-plated body, burnished body.



⇒	A [mm]	d [mm]	L [mm]	L1 [mm]	ΔΔ [g]
251A.1	0,9	3	70	14	5
251A.1,5	1,4	3,5	83	21	10
251A.2	1,9	3,5	88	26	10
251A.2,5	2,4	4,5	93	22	18
251A.3	2,9	4,5	93	22	20
251A.3,5	3,4	5,5	96	25	25
251A.4	3,9	5,5	96	28	30
251A.5	4,9	7	107	33	45
251A.6	5,9	9	112	36	65

SETS

Impact tools set



- JS Presentation on holder.
- JT Presentation as roll sets.



⇒	Content set	Dimension [mm]	Quantity	ΔΔ [g]
249.JS7	249.2-3-4-5-6-8-10	120x195x45	7	868
249.JT7	249.2-3-4-5-6-8-10	230x120	7	755
248.JS6	248.2-3-4-5-6-8	120x190x45	6	588
248.JT6	248.2-3-4-5-6-8-10	265 x 120	7	695
246.JS6	246.2-3-4-5-6-8	120x190x45	6	593
246.JT6	246.2-3-4-5-6-8	200x165	6	545
251A.JS9	251A.1-1.5-2-2.5-3-3.5-4-5-6	120x115x45	9	354
251A.JT9	251A.1-1.5-2-2.5-3-3.5-4-5-6	180 x 120	9	260
247.249JS12	247.2-3-4-5-6-8 / 249.2-3-4-5-6-8	120x180x47	12	1000
247.265JT10	247.3-4-5 / 256.4-6 / 249.3-4-5 / 263.20 / 265.18	180x120 / 240x60	10	1200

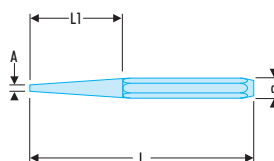
NAIL SETS

247 - Nail sets

- Octagon-shaped body.
- Shank hardened to 54 - 58 HRC.
- Zinc-plated finish.



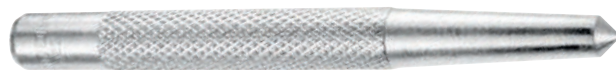
Code	A [mm]	d [mm]	L [mm]	L1 [mm]	ΔΔ [g]
247.2	2	10	120	40	62
247.3	3	10	120	40	63
247.4	4	10	120	40	65
247.5	5	10	120	40	65
247.6	6	10	120	40	70
247.8	8	12	120	40	100



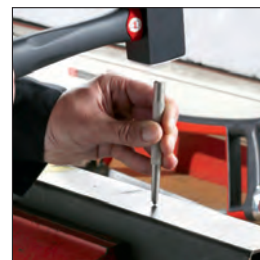
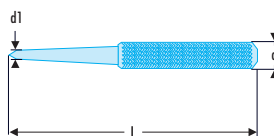
DRIFT PUNCHES

256 - Precision centre punches

- Chrome-vanadium steel forged, hardened to 52 to 58 HRC.
- Presentation: knurled body.
- Zinc-plated finish.

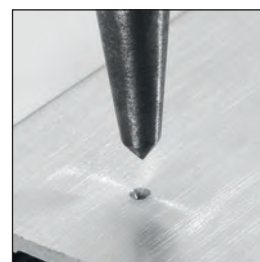


Code	A [mm]	d [mm]	L [mm]	ΔΔ [g]
256.2,5	2,5	7	100	25
256.4	4	8	105	35
256.6	6	10	115	60
256.8	8	12	130	100
256.10	10	14	130	135



Automatic centre punch

- Simply press the end to release spring impact.
- Impact adjustable by turning the knurled head.
- Acceptable load: 11 to 22 kg.
- Presentation: chrome body, greased tip.
- Length: 163 mm, body Ø 16 mm, shank Ø 7 mm.
- Interchangeable tip: 257.07.
- Spare tip: 257.10A.

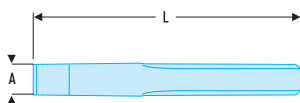


Code	L [mm]	ΔΔ [g]
257A	163	135



FLAT CHISELS - CAPE CHISELS

263 - Slim chisels



- Constant-profile cape chisel
- Chrome vanadium forged steel; differentiated heat treatment - edge 54 - 58 HRC - impact head 38 - 46 HRC to prevent head effect.
- Edge resharpening with grinder.
- Presentation: lacquered.

➤	A [mm]	L [mm]	ΔΔ [g]
263.15	21	150	200
263.18	21	180	250
263.20	24	200	350
263.22	24	220	380
263.25	27	250	500
263.30	27	300	610

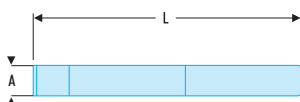
263P - Chisels with guard



- Chisels with guard, diameter: 85 mm.
- Chrome vanadium forged steel; differentiated heat treatment: edge 54 - 58 HRC - impact head 38 - 46 HRC to prevent head effect.
- Edge resharpening with grinder.
- Presentation: lacquered.

➤	A [mm]	L [mm]	ΔΔ [g]
263.P25	27	250	610
263.P30	27	300	710

Slim-profile chisels



- Slim profile chisel.
- Chrome vanadium forged steel, treated 57 HRC on edge and 40 HRC on impact head.
- Blade width: 26 mm.
- Length: 235 mm.
- Presentation: lacquered.

➤	L [mm]	ΔΔ [g]
259	235	240

Slim-profile chisel with guard



- Chisel with guard, diameter: 85 mm.
- Chrome vanadium forged steel, treated 57 HRC on edge and 40 HRC on impact head.
- Blade width: 26 mm.
- Length: 235 mm.
- Presentation: lacquered.

➤	L [mm]	ΔΔ [g]
259.P	235	400

265 - Cape chisels



- Constant-profile cape chisels.
- Chrome vanadium forged steel; differentiated heat treatment: edge 54 - 58 HRC - impact head 38 - 46 HRC to prevent head effect.
- Edge resharpening with grinder.
- Presentation: lacquered.

Part No.	A [mm]	L [mm]	ΔΔ [g]
265.18	8	180	240
265.20	10	200	310
265.22	10	220	370

Wide chisel with guard



- Chisel with guard, diameter: 85 mm.
- Chrome vanadium forged steel and hardened to 57 HRC on edge.
- Edge resharpening with grinder.
- Head hardened to prevent head effect.
- Blade width: 60 mm. • Length: 250 mm.
- Presentation: lacquered.

Part No.	L [mm]	ΔΔ [g]
260.P	250	630

Set of chisels and cape chisels on holder



Part No.	Content set	Dimension [mm]	ΔΔ [kg]
263.265.JS5	263.15-20-25 265.18-22	255 x 180 x 30	1.9

262A - Ribbed chisels, round head

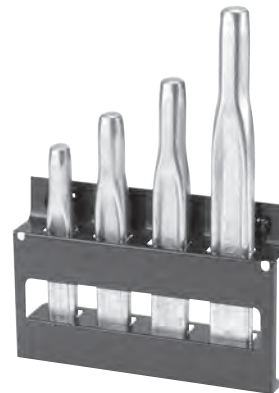


- Forged chisels with rounded edges for better handling.
- Cylinder-shaped head for safer impact.
- Cutting edge hardness: 57 to 59 HRC.
- Cutting edge angle: 60°.
- Presentation: zinc-plated finish.



Part No.	A [mm]	d [mm]	L [mm]	ΔΔ [g]
262A.15	21	16	150	170
262A.18	24	18	180	250
262A.20	26	18	200	340
262A.25	29	21	260	500

Set of ribbed chisels on holder



Part No.	Content set	Dimension [mm]	ΔΔ [kg]
262A.JS4	262A.15-18-20-25	180 x 30 x 250	1.5



## IMPACT TOOLS MODULES

## Impact tools module



- Comprising:
  - 205C.50: composite hammer 500 g.
  - 208A.32CBA: steel mallet 32 mm.
  - 248. 4-5-6 mm: long drift punches.
  - 263.18: chisel.
  - 256.6: punch.



	H [mm]	L [mm]	Contents	Qty	$\Delta\Delta$ [kg]
<b>MOD.MI7</b>	40	418	Tray PL.333	7	1.7

## Impact tools foam module



- Comprising:
  - 200C.40: composite riveting hammer 40 mm.
  - 208A.32CBA: steel mallet 32 mm.
  - 256.6: punch accuracy 6 mm.
  - 263.G19: sheathed chisel 190 mm.
  - 249.G 4 - 5 - 6 mm: sheathed drift punches.



	H [mm]	L [mm]	Contents	Qty	$\Delta\Delta$ [kg]
<b>MODM.MI6</b>	45	418	Tray PM.MODMI6	7	2.2

## Impact tools 205C long drift punches foam module



- Comprising:
  - 205C.50: DIN composite hammer 500 g.
  - 208A.32CBA: steel mallet 32 mm.
  - 256.6: punch accuracy 6 mm.
  - 263.18: chisel.
  - 248. 4 - 5 - 6 mm: long drift punches.



	H [mm]	L [mm]	Contents	Qty	$\Delta\Delta$ [kg]
<b>MODM.MI7</b>	45	418	Tray PM.MODMI7	7	1.7

## Impact tools 205C long sheathed drift punches foam module



- Comprising:
  - 205C.50: DIN composite hammer 500 g.
  - 208A.32CB: steel mallet 32 mm.
  - 263.G19: sheathed chisel 190 mm.
  - 256.6: punch accuracy 6 mm.
  - 249.G 4 - 5 - 6 mm: 3 long-reach sheathed drift punches.



	H [mm]	L [mm]	Contents	Qty	$\Delta\Delta$ [kg]
<b>MODM.MI5</b>	45	418	Tray PM.MODMI5	7	1.8

Impact tools 200 H module



- Comprising:
  - 200H.32: hickory riveting hammer 32 mm.
  - 208A.32CBA: steel mallet 32 mm.
  - 263.20: chisel.
  - 256.6: punch.
  - 248. 4 - 5 - 6 mm: long drift punches.

	H [mm]	L [mm]	Contents	Qty	ΔΔ [kg]
<b>MOD.MI1</b>	40	418	Tray PL.333	7	1.8

Impact tools 200H foam module



- Comprising:
  - 200H.40: hickory riveting hammer 40 mm.
  - 208A.32CBA: Steel mallet 32mm.
  - 263.20: chisel.
  - 256.6: punch accuracy 6 mm.
  - 248. 4 - 5 - 6 mm: 3 long drift punches.

	H [mm]	L [mm]	Contents	Qty	ΔΔ [kg]
<b>MODM.MI1</b>	45	418	Tray PM.MODMI1	7	1.8

Impact tools 205H module



- Comprising:
  - 205H.50: DIN 500 g hickory hammer.
  - 208A.32CBA: steel mallet 32 mm.
  - 263.18: chisel.
  - 256.6: punch.
  - 248. 4 - 5 - 6 mm: 3 long drift punches.

	H [mm]	L [mm]	Contents	Qty	ΔΔ [kg]
<b>MOD.MI3</b>	40	418	Tray PL.333	7	1.7

Impact tools 205H foam module



- Comprising:
  - 205H.100: DIN 1 kg hickory hammer.
  - 208A.32CBA: steel mallet 32mm.
  - 263.20: chisel.
  - 256.6: punch accuracy 6 mm.
  - 248. 4 - 5 - 6 mm: 3 long drift punches.

	H [mm]	L [mm]	Contents	Qty	ΔΔ [kg]
<b>MODM.MI3</b>	45	418	Tray PM.MODMI3	7	1.8

Impact tools 202H module



- Comprising:
  - 202H.1/2: hickory American hammer.
  - 208A.32CBA: steel mallet 32 mm.
  - 263.18: chisel.
  - 256.6: punch.
  - 248. 4 - 5 - 6 mm: 3 long drift punches.

	H [mm]	L [mm]	Contents	Qty	ΔΔ [kg]
<b>MOD.MI4</b>	40	418	Tray PL.333	7	1.5

Impact tools 202H foam module



- Comprising:
  - 202H.1: 1LB/454g: hickory American hammer.
  - 208A.32CB: steel mallet 32 mm.
  - 263.20: chisel.
  - 256.6: punch accuracy 6 mm.
  - 248. 4 - 5 - 6 mm: 3 long drift punches.

	H [mm]	L [mm]	Contents	Qty	ΔΔ [kg]
<b>MODM.MI4</b>	45	418	Tray PM.MODMI4	7	1.8





# SAWING - DRILLING - CUTTING





## SAWING

584

Hacksaw frame  
Hacksaw blades

584

587



## FILES

588

File sets  
Engineers files  
Wood rasps  
Precision files

589

591

597

597



## WORKSHOP DRILL BITS, TAPS AND DIES

598

Taps  
Dies  
Threading and tapping tool sets  
Tools for taps and dies  
Workshop drill bits

598

599

600

601

602



## HOLESAWS

605

Variable pitch hole saws

605



## MILLS, SCRAPERS

606

Mills  
Scrapers

606

606



## METAL SHEARS

608

Metal shears

608



## BOLT CROPPERS

610

Bolt croppers

610



## CABLE CUTTERS

612

Copper and aluminium cable cutters  
Steel cable cutters

612

613



## UTILITY KNIVES

615

Utility knives

615



## SCISSORS - KNIVES

619

Scissors - knives  
Knives

619

620



## PUNCH KIT

623

Punch kit

623



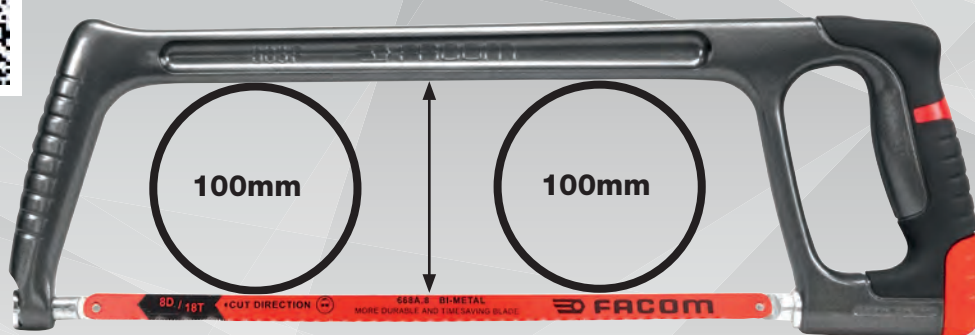
FLUO

RFid

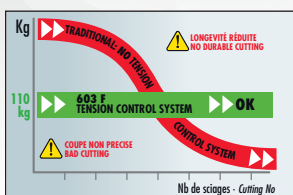


## HACKSAW FRAME

## HIGH PERFORMANCE HACKSAW FRAME 603F

**OPTIMUM AND DURABLE CUT**

- Constant blade tension: 110 kg controlled automatically.
- Rigid aluminium bow.
- Bi-material ergonomic handle to reduce vibrations.

**SAVE TIME**

- Cutting capacity 100 mm over the full bow length.
- Ultra-fast blade changing.
- 8 cutting positions (every 45°).

**EXACT CUTTING**

- For a perfect tension control (110 kg), turn the button till **CLICK**.



■ "High performance" hacksaw frame

**NF E 73-073, DIN 6473**

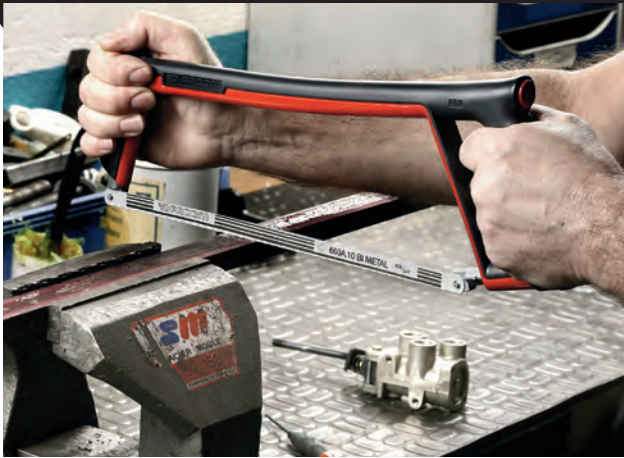
- Optimum and durable automatic blade tension control at 110 kg.
- Aluminium bow for maximum stiffness.
- Ergonomic handle for maximum cutting comfort.
- 8 blade positions.
- Ultra-fast blade changing.
- Takes 300 mm blade.
- Dimensions (L. x W.): 440 x 145 mm.
- Supplied with one blade.
- Spare blades: 668A.



FACOM	L [mm]	ΔΔ [g]
603F	440	830

HACKSAW FRAME

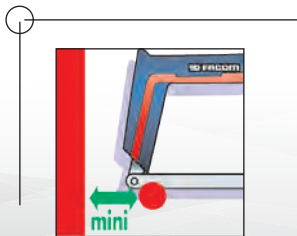
"TRAVELLING" HACKSAW FRAME 601



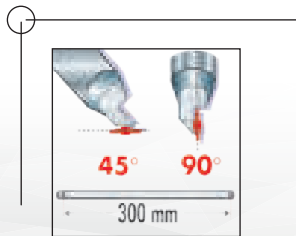
Practical and compact



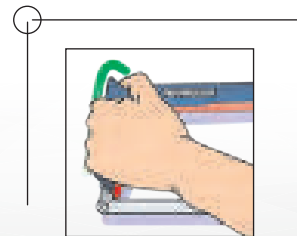
Compact: stored in a 5-compartment box and in roller-cabinet modules.



- Minimum clearance to start cutting.



- 2 blade positions on machined and shouldered pins.



- Left-hand rest.

Compact hacksaw frame

NF E 73-073, DIN 6473

- Impact-resistant steel/resin construction compact and lightweight.
- Blade tension 80 kg.
- 2 blade positions: 45° and 90°.
- Takes 300 mm blade.
- Dimensions (L x W): 385 x 145 mm.
- Supplied with one blade.
- Spare blades: 668A.

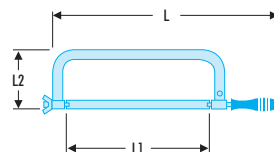


Icon	L [mm]	ΔΔ [g]
601	385	590

Flat bow frame - adjuster fitting

NF E 73-073, DIN 6473

- Wood handle.
- Takes 300 mm blade.
- Spare blades: 668A.



Icon	L [mm]	L1 [mm]	L2 [mm]	ΔΔ [g]
599	520	300	130	600

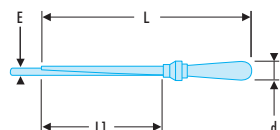


## HACKSAW FRAME

## Straight frame with blade backing



- Blade can be set to protrude beyond the backing to allow insertion into narrow gaps.
- Takes 300 mm blade.
- Spare blades: 668A.

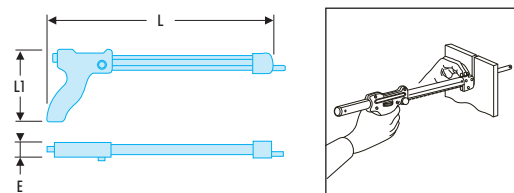


	d [mm]	E [mm]	L [mm]	L1 [mm]	$\Delta\Delta$ [g]
<b>606A</b>	33	16	350	190	410

## Revolver frame with sliding blade-guide



- Sliding guide steadies blade throughout cutting stroke.
- A thumbscrew can lock the guide to keep blade end clear.
- Takes 300 mm blade.
- Spare blades: 668A.



	E [mm]	L [mm]	L1 [mm]	$\Delta\Delta$ [g]
<b>605.B</b>	30	370	130	780

## Foam tray saw, tape measure and files



- Comprising:
  - 234.S: Scriber.
  - 603F: Alu hacksaw.
  - 893B.319: Tape measure.
  - CAR.MD200EMA: Flat second-cut file 200 mm with grip.
  - DRD.MD250EMA: Half-round second-cut file 200 mm with grip.
  - PAM.B250EMA: Flat bastard file 200 mm with grip.
  - TRI.MD200EMA: Triangle-shaped second-cut file 200 mm with grip.
  - Foam tray PM.MOD603F.



	H [mm]	Width I [mm]	L [mm]	$\Delta\Delta$ [kg]
<b>MODM.603F</b>	45	325	418	2.3

HACKSAW BLADES

■ Saw, tape measure and files module



- Comprising:
  - 601: Hacksaw frame.
  - 668A.10: Saw blades (10 teeth per cm).
  - 234.S: Scriber.
  - DELA.1051.300M: Stainless steel 2-face rule 300 mm.
  - 893B.319: Tape measure 3m.
  - 5 files with handle:
    - PAM.B250EMA (flat bastard file)
    - DRD.MD250EMA (half-round, half-smooth)
    - CAR.MD200EMA (square file, half-smooth)
    - TRI.MD200EMA (triangular file, half-smooth)
    - RD.MD200EMA (round file, half-smooth).
- Tray PL.335.



	H [mm]	L [mm]	ΔΔ [kg]
<b>MOD.601</b>	40	600	2.3

HACKSAW BLADES 668A



Made from cobalt steel



- Higher heat resistance, reduced teeth wear.
- Equal performance throughout blade lifecycle.
- Enhanced flexibility and neater cut.
- Suited to all materials.
- Available in 8, 10 and 12 teeth.

■ 668A - Cobalt steel bimetal saw blades

- Characteristics:
  - 668A.8: for thick semi-hard steels - thickness recommended: 6 - 25 mm.
  - 668A.10: for special or alloy steels - thickness recommended: 3 - 6 mm.
  - 668A.12: for stainless steel, copper - thickness recommended: 1 - 3 mm.
- Blade in cobalt steel: higher heat resistance, reduced teeth wear.
- Equal performance throughout blade lifecycle.
- Enhanced flexibility and neater cut.
- Suited to all materials.
- Blade length 300 mm.
- Minimum order: 10 blades.



	Teeth [cm]	Contents	ΔΔ [kg]
<b>668A.8</b>	8	Plastic box	0,020
<b>668A.10</b>	10	Plastic box	0,018
<b>668A.12</b>	12	Plastic box	0,018



FLUO

Rfid

## FILE SELECTION GUIDE



## FACOM technical specifications

- Made from high carbon-content steels.
- Optimum heat treatment for each application.
  - 64 to 66 HRC for engineers files.
  - 53 to 56 HRC for rasps.
  - 65 to 67 HRC for sharpening files.

## File selection guide

## Four criteria apply :

1. Shape or cross-section.
2. Pattern according to material.
3. Grade according to operation.
  - Standard files: - B: Bastard cut for rough filing.
    - MD: Second cut for general purpose.
  - Precision files: - TOA: Bastard cut for rough filing.
    - T2A: for normal smooth filing.

Pattern selection according to material		Steel	Cast Iron	Brass	Hard plastics, wood etc.	Aluminium and soft materials
Double cut for steel and metals.		●	●	●	●	
Single cut for good surface finish, sharpening saws, lathe filling and fitters' requirements.		●				
Dreadnaught, for soft materials, sheet metal, etc. Leaves a smooth finish.		●	●	●	●	●
Rasp for soft materials and wood. Produces a rough surface.					●	●

FLAT PAM		
HALF-ROUND 	DRD ROUND RD 	THREE- 
SQUARE TRI 	SQUARE CAR 	

4. File length.
  - Lengths quoted are always without tang.
  - Main shapes

## SELECTION GUIDE: WOOD HANDLES FOR FILES AND RASPS



Files	100 mm	125 mm	150 mm	200 mm	250 mm	300 mm
PAM: Flat hand	MAN.3	-	MAN.3	MAN.2	MAN.1	MAN.0
DRD: Half-round	MAN.3	-	MAN.3	MAN.2	MAN.1	MAN.0
TRI: Three-square	MAN.4	MAN.3	MAN.3	MAN.2	MAN.1	MAN.1
RD: Round	MAN.4	MAN.4	MAN.4	MAN.3	MAN.2	MAN.0
CAR: Square	MAN.4	MAN.4	MAN.4	MAN.3	MAN.2	MAN.1
CT: Knife	MAN.3	MAN.3	MAN.2	MAN.2	MAN.1	MAN.1
PIL: Pillar	MAN.3	-	MAN.2	MAN.2	MAN.1	-
PDE: Fat warding	MAN.3	MAN.3	MAN.2	MAN.2	MAN.1	MAN.1
BAR: Barette	MAN.3	-	MAN.2	MAN.2	MAN.1	-
FRC / FRO: Tapered	-	-	-	-	-	MAN.0
TRO: Round for chainsaws	-	-	MAN.4	MAN.4	-	-
Type of rasps	100 mm	125 mm	150 mm	200 mm	250 mm	300 mm
RAB.DRD: Half-round	-	-	-	-	MAN.1	MAN.0
RAB.P: Flat	-	-	-	-	MAN.1	MAN.0
RAB.RD: Round	-	-	-	-	MAN.1	MAN.0

FILE SETS

MAN - Wood handles for files and rasps

- Varnished wood handles with nickel-plated steel ferrule.
- Supplied singly.



File	d [mm]	L [mm]	ΔΔ [g]
MAN.0	34	132	55
MAN.1	32	124	45
MAN.2	28	110	40
MAN.3	25	102	30
MAN.4	22	98	25

SELECTION GUIDE: PLASTIC HANDLES FOR FILES AND RASPS



Files	100 mm	125 mm	150 mm	200 mm	250 mm	300 mm
PAM: Flat hand	MP.4	-	MP.3	MP.2	MP.1	MP.0
DRD: Half-round	MP.4	-	MP.3	MP.2	MP.1	MP.0
TRI: Three-square	-	-	MP.3	MP.1	MP.0	MP.0
RD: Round	MP.4	MP.4	MP.4	MP.3	MP.1	MP.0
CAR: Square	-	-	MP.4	MP.3	MP.1	MP.0
CT: Knife	MP.4	-	MP.3	MP.2	MP.1	-
PIL: Pillar	MP.4	-	MP.3	MP.2	MP.1	-
PDE: Fat warding	MP.4	-	MP.3	MP.2	MP.1	-
BAR: Barette	MP.4	-	MP.3	MP.2	MP.1	-
FRC / FRO: Tapered	-	-	-	-	-	MP.0
TRO: Round for chainsaws	-	-	MP.4	MP.4	-	-
Type of rasps	100 mm	125 mm	150 mm	200 mm	250 mm	300 mm
RAB.DRD: Half-round	-	-	-	-	MP.1	MP.0
RAB.P: Flat	-	-	-	-	MP.1	MP.0
RAB.RD: Round	-	-	-	-	MP.1	-

MP - Plastic handles for files and rasps

- Ergonomic handle in plastic resistant to workshop solvents.
- Supplied singly.



File	d [mm]	L [mm]	ΔΔ [g]
MP.0	30	120	40
MP.1	30	120	45
MP.2	28	120	40
MP.3	28	105	35
MP.4	25	100	20



FLUO

RFid

## FILE SETS

## Set of 5 files



- Set of 5 files with varnished wood handles, for general engineering and automotive applications.
- Comprising:
  - PAM.B250A: Flat bastard file.
  - DRD.MD250A: Half-round second-cut file.
  - CAR.MD200EMA: Square second-cut file.
  - TRI.MD200EMA: Triangle second-cut file.
  - RD.MD200A: Round second-cut file.
- Supplied in grey hammer-finish wall-rack CKS.35A.

STG	$\Delta\Delta$ [kg]
	1.265

## Set of 9 files



- Set of 9 files and rasps for engineering and industrial maintenance.
- Comprising:
  - PAM.B250A: Flat bastard file.
  - PAM.MD200A: Flat second-cut file.
  - DRD.B250A: Half-round second cut bastard file.
  - DRD.MD200A: Half-round second-cut file.
  - RD.B250A: Round bastard file.
  - RD.MD200A: Round second-cut file.
  - CAR.MD200A: Square second-cut file.
  - TRI.MD150A: Triangle second-cut file.
  - RAB.DRDMD250A: Half-round second-cut rasp.
- Supplied in grey hammer-finish wall-rack CKS.34A.

STU	$\Delta\Delta$ [kg]
	2.150

## Set of 6 locksmiths files - length 100 mm



## NFE 75-001, NFE 75-002

- Geneva pattern with wooden handle.
- Available in 3 different cuts.
  - CLE.BAM100A: Bastard cut files.
  - CLE.MDAM100A: Second cut files.
  - CLE.DAM100A: Smooth cut files.
- In plastic wallet dimensions (L. x D. x H.): 200 x 105 x 11 mm.

	H [mm]	L [mm]	$\Delta\Delta$ [g]
CLE.BAM100A	11	200	210
CLE.MDAM100A	11	200	210
CLE.DAM100A	11	200	210

## Module of 5 files 200 mm long with handle



- Comprising:
  - PAM.B200EMA: Flat bastard file.
  - DRD.MD200EMA: Half-round second-cut file.
  - CAR.MD200EMA: Square second-cut file.
  - TRI.MD200EMA: Triangle second-cut file.
  - RD.MD200EMA: Round second-cut file.
- Thermoformed module PL606.
- Finish: ergonomic handle in plastic resistant to workshop solvents.

MOD.LIM	H [mm]	L [mm]	$\Delta\Delta$ [g]
	40	418	950



FILE SETS

Set of 5 second-cut files 200 mm long



NFE 75-001, NFE 75-002

- Comprising:
  - PAM.MD200EMA: Flat second-cut file.
  - DRD.MD200EMA: Half-round second-cut file.
  - CAR.MD200EMA: Square second-cut file.
  - RD.MD200EMA: Round second-cut file.
  - TRI.MD200EMA: Triangle second-cut file.
- Finish: ergonomic handle in plastic resistant to workshop solvents.

	$\Delta\Delta$ [g]
LIM200EM.J5	820

Set of 5 second-cut files 250 mm long



NFE 75-001, NFE 75-002

- Comprising:
  - PAM.MD250EMA: Flat second-cut file.
  - DRD.MD250EMA: Half-round second-cut file.
  - CAR.MD250EMA: Square second-cut file.
  - RD.MD250EMA: Round second-cut file.
  - TRI.MD250EMA: Triangle second-cut file.
- Finish: ergonomic handle in plastic resistant to workshop solvents.

	$\Delta\Delta$ [g]
LIM250EM.J5	1350

PAM.MDA - Half-round flat files



NFE 75-001, NFE 75-002

- Flat files with handle.
- 2 double cut squares.
- 1 single cut square.
- 1 smooth cut.
- Designed for steel, cast iron, brass, and hard plastics.

	E x E1 [mm]	L [mm]	$\Delta\Delta$ [g]
PAM.MD150A	4 x 15	150	75
PAM.MD200A	5 x 20	200	145
PAM.MD250A	6 x 25	250	270

PAM.MDEMA - Flat half-cut files with handle



NFE 75-001, NFE 75-002

- Flat files with handle.
- 2 double cut squares.
- 1 single cut square.
- 1 smooth cut.
- Finish: ergonomic handle in plastic resistant to workshop solvents.
- Designed for steel, cast iron, brass, and hard plastics.

	E x E1 [mm]	L [mm]	$\Delta\Delta$ [g]
PAM.MD150EMA	4 x 15	150	140
PAM.MD200EMA	5 x 20	200	200
PAM.MD250EMA	6 x 25	250	340

ENGINEERS FILES



## ENGINEERS FILES

## PAM.BA - Flat bastard files



## NFE 75-001, NFE 75-002

- Flat files with handle.
- 2 double cut squares.
- 1 single cut square.
- 1 smooth cut.
- Designed for roughing steel, cast iron, brass, and hard plastics.

🔪	E x E1 [mm]	L [mm]	ΔΔ [g]
PAM.B150A	4 x 15	150	60
PAM.B200A	5 x 20	200	145
PAM.B250A	6 x 25	250	270

## PAM.BEMA - Flat bastard files with handle

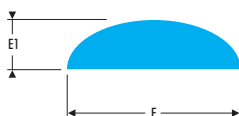


## NFE 75-001, NFE 75-002

- Flat files with handle.
- 2 double cut squares.
- 1 single cut square.
- 1 smooth cut.
- Finish: ergonomic handle in plastic resistant to workshop solvents.
- Designed for roughing steel, cast iron, brass, and hard plastics.

🔪	E x E1 [mm]	L [mm]	ΔΔ [g]
PAM.B150EMA	4 x 15	150	140
PAM.B200EMA	5 x 20	200	200
PAM.B250EMA	6 x 25	250	340

## DRD.MDA - Half-round second-cut files

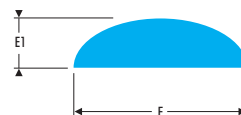


## NFE 75-001, NFE 75-002

- Second-cut files with handle.
- Double second-cut squares.
- Double cut square.
- Designed for steel, cast iron, brass, and hard plastics.

🔪	E x E1 [mm]	L [mm]	ΔΔ [g]
DRD.MD150A	4,5 x 16,0	150	60
DRD.MD200A	6 x 21	200	115
DRD.MD250A	7 x 25	250	220

## DRD.MDEMA - Half-round second-cut files with handle



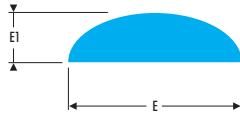
## NFE 75-001, NFE 75-002

- Second-cut files with handle.
- Double second-cut squares.
- Double cut square.
- Finish: ergonomic handle in plastic resistant to workshop solvents.
- Designed for steel, cast iron, brass, and hard plastics.

🔪	E x E1 [mm]	L [mm]	ΔΔ [g]
DRD.MD150EMA	4,5 x 16,0	150	100
DRD.MD200EMA	6 x 21	200	160
DRD.MD250EMA	7 x 25	250	280

ENGINEERS FILES

DRD.BA - Half-round bastard files

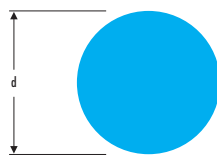


NFE 75-001, NFE 75-002

- Second-cut files with handle.
- Double second-cut squares.
- Double cut square.
- Designed for roughing steel, cast iron, brass, and hard plastics.

🔪	E x E1 [mm]	L [mm]	ΔΔ [g]
DRD.B150A	4,5 x 16,0	150	60
DRD.B200A	6 x 21	200	115
DRD.B250A	7 x 25	250	220

RD.MDA - Second-cut round files

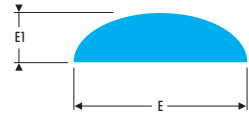


NFE 75-001, NFE 75-002

- Round files with handle.
- Double square.
- Designed for steel, cast iron, brass, and hard plastics.

🔪	d [mm]	L [mm]	ΔΔ [g]
RD.MD150A	6	150	50
RD.MD200A	8	200	75
RD.MD250A	10	250	135

DRD.BEMA - Half-round bastard files with handle

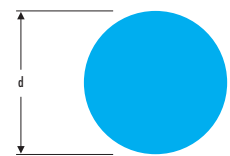


NFE 75-001, NFE 75-002

- Second-cut files with handle.
- Double second-cut squares.
- Double cut square.
- Ergonomic handle in plastic resistant to workshop solvents.
- Designed for roughing steel, cast iron, brass, and hard plastics.

🔪	E x E1 [mm]	L [mm]	ΔΔ [g]
DRD.B150EMA	4,5 x 16,0	150	100
DRD.B200EMA	6 x 21	200	160
DRD.B250EMA	7 x 25	250	280

RD.MDEMA - Second-cut round files with handle



NFE 75-001, NFE 75-002

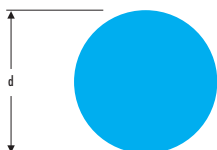
- Round files with handle.
- Double square.
- Finish: ergonomic handle in plastic resistant to workshop solvents.
- Designed for steel, cast iron, brass, and hard plastics.

🔪	d [mm]	L [mm]	ΔΔ [g]
RD.MD150EMA	6	150	100
RD.MD200EMA	8	200	140
RD.MD250EMA	10	250	208



## ENGINEERS FILES

## RD.BA - Round bastard files

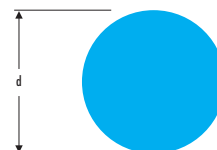


## NFE 75-001, NFE 75-002

- Round files with handle.
- Double square.
- Designed for roughing steel, cast iron, brass, and hard plastics.

	d [mm]	L [mm]	$\Delta\Delta$ [g]
RD.B150A	6	150	50
RD.B200A	8	200	75
RD.B250A	10	250	135

## RD.BEMA - Round bastard files with handle

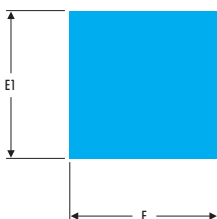


## NFE 75-001, NFE 75-002

- Round files with handle.
- Double square.
- Finish: ergonomic handle in plastic resistant to workshop solvents.
- Designed for roughing steel, cast iron, brass, and hard plastics.

	d [mm]	L [mm]	$\Delta\Delta$ [g]
RD.B150EMA	6	150	100
RD.B200EMA	8	200	140
RD.B250EMA	10	250	200

## CAR.MDA - Second-cut square files

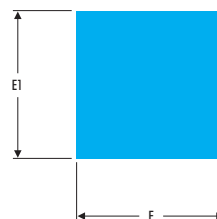


## NFE 75-001, NFE 75-002

- Square files with handle.
- Double square on 4 cuts.
- Designed for steel, cast iron, brass, and hard plastics.

	E x E1 [mm]	L [mm]	$\Delta\Delta$ [g]
CAR.MD150A	6 x 6	150	60
CAR.MD200A	8 x 8	200	80
CAR.MD250A	10 x 10	250	140

## CAR.MDEMA - Second-cut square files with handle



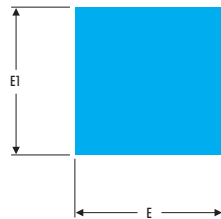
## NFE 75-001, NFE 75-002

- Square files with handle.
- Double square on 4 cuts.
- Finish: ergonomic handle in plastic resistant to workshop solvents.
- Designed for steel, cast iron, brass, and hard plastics.

	E x E1 [mm]	L [mm]	$\Delta\Delta$ [g]
CAR.MD150EMA	6 x 6	150	100
CAR.MD200EMA	8 x 8	200	120
CAR.MD250EMA	10 x 10	250	190

ENGINEERS FILES

**CAR.BEMA - Square bastard files with handle**

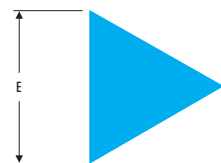


**NFE 75-001, NFE 75-002**

- Square files with handle.
- Double square on 4 cuts.
- Finish: ergonomic handle in plastic resistant to workshop solvents.
- Designed for roughing steel, cast iron, brass, and hard plastics.

🔪	E x E1 [mm]	L [mm]	ΔΔ [g]
<b>CAR.B150EMA</b>	6 x 6	150	100
<b>CAR.B200EMA</b>	8 x 8	200	120
<b>CAR.B250EMA</b>	10 x 10	250	190

**TRI.MDEMA - Second-cut triangle files with handle**

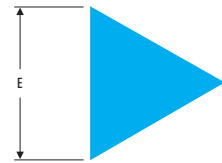


**NFE 75-001, NFE 75-002**

- Triangle files with handle.
- Double square on 3 cuts.
- Finish: ergonomic handle in plastic resistant to workshop solvents.
- Designed for steel, cast iron, brass, and hard plastics.

🔪	E [mm]	L [mm]	ΔΔ [g]
<b>TRI.MD150EMA</b>	11	150	130
<b>TRI.MD200EMA</b>	15	200	210
<b>TRI.MD250EMA</b>	19	250	330

**TRI.MDA - Second-cut triangle files**



**NFE 75-001, NFE 75-002**

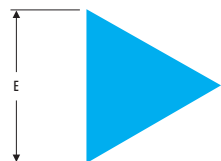
- Triangle files with handle.
- Double square on 3 cuts.
- Designed for steel, cast iron, brass, and hard plastics.

🔪	E [mm]	L [mm]	ΔΔ [g]
<b>TRI.MD150A</b>	11	150	90
<b>TRI.MD200A</b>	15	200	170
<b>TRI.MD250A</b>	19	250	270



## ENGINEERS FILES

## TRI.BEMA - Triangle bastard files with handle



## NFE 75-001, NFE 75-002

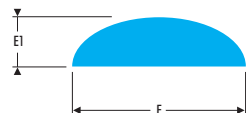
- Triangle files with handle.
- Double square on 3 cuts.
- Ergonomic handle in plastic resistant to workshop solvents.
- Designed for roughing steel, cast iron, brass, and hard plastics.



🔗	E [mm]	L [mm]	ΔΔ [g]
TRI.B150EMA	11	150	130
TRI.B200EMA	15	200	210
TRI.B250EMA	19	250	330

## WOOD RASPS

## RAB.DRDMDA - Half-round second-cut rasps medium cut



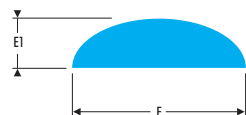
## NFE 75-001, NFE 75-002

- Second-cut rasps with handle.
- RAB.DRDB250EMA - RAB.DRDMD300EMA: Rasp with handle.
- Finish: ergonomic handle in plastic resistant to workshop solvents.
- Designed for soft materials, aluminium, lead, plastic or wood.



🔗	E x E1 [mm]	L [mm]	ΔΔ [g]
RAB.DRDMD250A	25 x 7	250	260
RAB.DRDMD300A	30,0 x 8,5	300	420
RAB.DRDMD250EMA	25 x 7	250	300
RAB.DRDMD300EMA	30,0 x 8,5	300	380

## RAB.DRDBA - Half-round bastard rasps large cut



## NFE 75-001, NFE 75-002

- Second-cut rasps with handle.
- RAB.DRDB300EMA: Rasp with handle.
- Finish: ergonomic handle in plastic resistant to workshop solvents.
- Designed for roughing work, soft materials, aluminium, lead, plastic or wood.



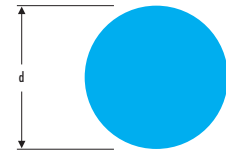
🔗	E x E1 [mm]	L [mm]	ΔΔ [g]
RAB.DRDB250A	25 x 7	250	260
RAB.DRDB300EMA	30,0 x 8,5	300	480

WOOD RASPS

■ RAB.RDA - Round second-cut rasps medium cut

NFE 75-001, NFE 75-002

- Round rasps with handle.
- RAB.RD250EMA: Rasp with handle.
- Finish: ergonomic handle in plastic resistant to workshop solvents.
- Designed for soft materials, aluminium, lead, plastic or wood.



🔗	d [mm]	L [mm]	ΔΔ [g]
RAB.RD250A	10	250	140
RAB.RD250EMA	10	250	180

■ RAB.P - Flat rasps medium cut

- Flat rasps with handle.
- Bastard finish: recommended for roughing work.
- Second cut finish recommended for current work.
- Designed for current work, for soft materials, aluminium, lead, plastic or wood.

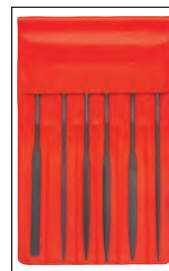


🔗	E x E1 [mm]	L [mm]	ΔΔ [g]
RAB.PB250A	25 x 6	250	320
RAB.PMD250A	25 x 6	250	320

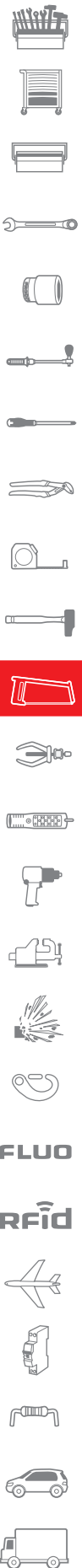
PRECISION FILES

■ AS - Selections of 6 and 12 needle files

- AS.6L: Selection of 6 needle files: round (RD), half-round (DRD), flat entry (DPE), square (CAR), triangular (TRI), tile (PAM).
- AS.12L: Selection of 12 needle files: round (RD), half-round (DRD), flat entry (PDE), crossing file (FS), knife (CT), square (CAR), triangular (TRI), file (PAM), strip (BAR), BR tile (PAMBR), hook (CRO), oval (OV).
- T0 for rough filing.
- T2 for precise filing.



🔗	L [mm]	Content set	Contents	Files	ΔΔ [g]
AS.6L140TOA	140	6	Plastic wallet	T0	115
AS.6L140T2A	140	6	Plastic wallet	T2	115
AS.6L160TOA	160	6	Plastic wallet	T0	140
AS.6L160T2A	160	6	Plastic wallet	T2	140
AS.12LBC100TOA	100	12	Cardboard box	T0	55
AS.12LBC100T2A	100	12	Cardboard box	T2	55
AS.12LBP140TOA	140	12	Plastic box	T0	115
AS.12LBP140T2A	140	12	Plastic box	T2	115
AS.12LBP160TOA	160	12	Plastic box	T0	140
AS.12LBP160T2A	160	12	Plastic box	T2	140
AS.12LTP180TOA	180	12	Plastic wallet	T0	175
AS.12LTP180T2A	180	12	Plastic wallet	T2	175



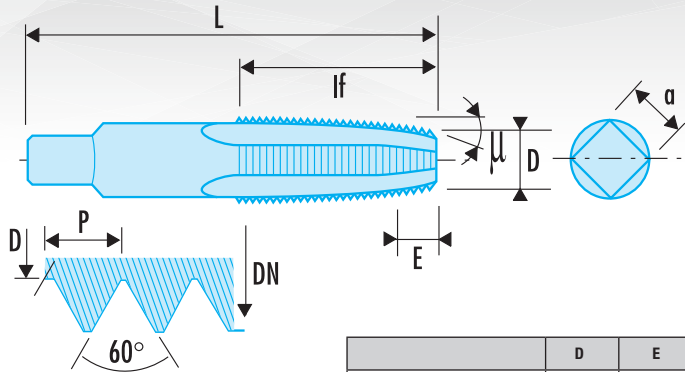
TAPS

TAP SELECTION GUIDE



- Ground-thread backed-off taps.
- ISO metric RH thread.6H machining.
- Set of 2 (ref. T2) for soft metals:  
1 taper tap, 1 bottoming tap.
- Set of 3 (ref. T3) for hard metals:  
1 taper tap, 1 second tap, 1 bottoming tap.

- Max. hardness: 70 daN/mm<sup>2</sup>:  
- for taps 227 and 80 daN/mm<sup>2</sup>  
- for taps 227.S.



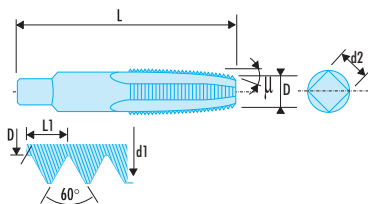
	D	E
Second	= 6 P	6°
Bottoming DN - 1.2p.	= 3.5 P	9°
Bottoming 18°	= 2 P	18°

227 - Standard taps



NF ISO 529, NFEN 22857, ISO 529, ISO 2857

- HSS steel.
- 227.T3: Set of 3 taps (taper, second and bottoming).
- 227.T2: Set of 2 taps (taper and bottoming).



ED	d1 [mm]	d2 [mm]	L [mm]	L1 [mm]	Content set	ΔΔ [g]
227.3X50T3	3	2,50	48	0,50	x 3	20
227.4X70T3	4	3,15	53	0,70	x 3	25
227.5X80T3	5	4,00	58	0,80	x 3	40
227.6X100T3	6	5,00	66	1,00	x 3	50
227.7X100T3	7	5,60	66	1,00	x 3	60
227.8X125T3	8	6,30	72	1,25	x 3	85
227.9X125T3	9	7,10	72	1,25	x 3	100
227.10X150T3	10	8,00	80	1,50	x 3	140
227.12X175T3	12	7,10	89	1,75	x 3	150
227.14X200T3	14	9,00	95	2,00	x 3	240
227.16X200T3	16	10,00	102	2,00	x 3	305
227.18X250T3	18	11,20	112	2,50	x 3	460
227.20X250T3	20	11,20	112	2,50	x 3	490
227.3X50T2	3	2,50	48	0,50	x 2	10
227.4X70T2	4	3,15	53	0,70	x 2	10
227.5X80T2	5	4,00	58	0,80	x 2	15
227.6X100T2	6	5,00	66	1,00	x 2	25
227.7X100T2	7	5,60	66	1,00	x 2	45
227.8X125T2	8	6,30	72	1,25	x 2	60
227.10X150T2	10	8,00	80	1,50	x 2	70
227.12X175T2	12	7,10	89	1,75	x 2	80



TAPS

227.S - "High performance" cobalt taps

NF ISO 529, NFEN 22857, ISO 529, ISO 2857

- Molybdenum and cobalt steel.
- The hardness of cobalt increases torque resistance and wear compared with standard taps.
- 227.ST3: Set of 3 taps (taper, second and bottoming).
- 227.ST2: Set of 2 taps (taper and bottoming).



Ø	d1 [mm]	d2 [mm]	L [mm]	L1 [mm]	Content set	ΔΔ [g]
227.S3X50T3	3	2,50	48	0,50	x 3	15
227.S4X70T3	4	3,15	53	0,70	x 3	25
227.S5X80T3	5	4,00	58	0,80	x 3	40
227.S6X100T3	6	5,00	66	1,00	x 3	50
227.S8X125T3	8	6,30	72	1,25	x 3	85
227.S10X150T3	10	7,10	80	1,50	x 3	140
227.S12X175T3	12	8,00	89	1,75	x 3	150
227.S3X50T2	3	2,50	48	0,50	x 2	5
227.S4X70T2	4	3,15	53	0,70	x 2	10
227.S5X80T2	5	4,00	58	0,80	x 2	15
227.S6X100T2	6	5,00	66	1,00	x 2	25
227.S7X100T2	7	5,60	66	1,00	x 2	45
227.S8X125T2	8	6,30	72	1,25	x 2	50
227.S9X125T2	9	7,10	72	1,25	x 2	50
227.S10X150T2	10	8,00	80	1,50	x 2	70
227.S12X175T2	12	7,10	89	1,75	x 2	80
227.S14X200T2	14	9,00	95	2,00	x 2	160
227.S16X200T2	16	10,00	102	2,00	x 2	200
227.S18X250T2	18	11,20	112	2,50	x 2	290

DIES

221 - Split dies

NF ISO 261, ISO 261, DIN ISO 261

- ISO metric RH thread.
- Chrome-vanadium HSS hardened to 62/64 HRC (234 daN/mm²).
- Tapered adjusting screw.



Ø	d [mm]	d1 [mm]	d2 [mm]	E [mm]	E1 [mm]	ΔΔ [g]
221.3X50	25,4	3	0,50	8	3,5	25
221.4X70	25,4	4	0,70	8	3,5	25
221.5X80	25,4	5	0,80	8	3,5	30
221.6X100	25,4	6	1,00	9	3,5	30
221.7X100	25,4	7	1,00	9	3,5	30
221.8X125	25,4	8	1,25	9	3,5	30
221.9X125	25,4	9	1,25	9	3,5	30
221.10X150	38,1	10	1,50	13	6,0	80
221.12X175	38,1	12	1,75	13	6,0	90
221.14X200	38,1	14	2,00	13	6,0	80
221.16X200	38,1	16	2,00	13	6,0	75
221.18X250	38,1	18	2,50	15	8,0	75



THREADING AND TAPPING TOOL SETS

221 - Tap and die sets



NFE 75-001, NFE 75-002

- Each selection includes sets of two taps per dimension: taper and bottoming.
- Selections Ref 227.SJ1 and 227.SJ2 include cobalt taps (Ref 227.S).
- Tray PL.47 and box BT.109G: for selection Ref 224.227J1 and 221.227SJ1.
- Tray PL.46 and box BT.105: for selection Ref 224.227J2 and 221.227SJ2.

Ref	d [mm]	H [mm]	L [mm]	P [mm]	ΔΔ [kg]
221.227J1	M3 - M4 - M5 - M6 - M7 - M8 - M9 - M10 - M12	53	470	195	3.1
221.227SJ1	M3 - M4 - M5 - M6 - M7 - M8 - M9 - M10 - M12	53	470	195	3.1
221.227J2	M3 - M4 - M5 - M6 - M7 - M8 - M9 - M10 - M12 - M14 - M16 - M18	58	540	284	5.7
221.227SJ2	M3 - M4 - M5 - M6 - M7 - M8 - M9 - M10 - M12 - M14 - M16 - M18	58	540	284	5.7

227.A - Tap and drill-bit sets



NFE 75-001, NFE 75-002

- Each selection includes sets of 3 taps per dimension: taper, second and bottoming.
- Selection Ref 227.SJ2A includes cobalt taps (Ref 227.S).
- Supplied in metal box BT.228J2.

Ref	d [mm]	H [mm]	L [mm]	P [mm]	Drill Bits	ΔΔ [kg]
227.J2A	M3 - M4 - M5 - M6 - M8 - M10 - M12	57	105	172	2,5 - 3,3 - 4,2 - 5,0 - 6,8 - 8,5 - 10,2 mm	1.1
227.SJ2A	M3 - M4 - M5 - M6 - M8 - M10 - M12	57	105	172	2,5 - 3,3 - 4,2 - 5,0 - 6,8 - 8,5 - 10,2 mm	1.1

227 - Tap set



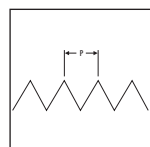
NFE 75-001, NFE 75-002

- Each selection includes sets of 3 taps per dimension: taper, second and bottoming.
- Selection Ref 227.SJ1 includes cobalt taps (Ref 227.S).
- Supplied in metal box BT.228J1.

Ref	d [mm]	H [mm]	L [mm]	P [mm]	Qty	ΔΔ [g]
227.J1	M3 - M4 - M5 - M6 - M8 - M10 - M12	31	118	118	21 taps	720
227.SJ1	M3 - M4 - M5 - M6 - M8 - M10 - M12	31	118	118	21 cobalt taps	720

THREAD RESTORING TOOLS

237 - Thread restoring tool



- To restore male and female screw threads.

Ref	L [mm]	P [mm]	Thread	ΔΔ [g]
237.A	230	75 - 100 - 125 - 150 - 175 - 200 - 250 - 300	SI	120
237.B	230	80 - 100 - 125 - 150 - 175 - 200 - 250 - 300	ISO	125
237.C	230	10F - 11F - 12F - 14F - 16F - 18F - 20F - 24F	WHITWORTH	125

TOOLS FOR TAPS AND DIES

830A.L - Long ratcheting tap wrenches

- Ideal for cutting threads in tight recesses.
- Two-way ratchet.
- Ratchet lock.
- Finish: polished chromed.



830A.L	d [mm]	L [mm]	Open Position maxi [mm]	For Tapp	ΔΔ [g]
830A.5L	20,5	250	5	M6	230
830A.10L	25,5	300	8	M12	415

830A - Short ratcheting tap wrenches

- Two-way ratchet.
- Ratchet lock.
- Finish: polished chromed.



830A	d [mm]	L [mm]	Open Position maxi [mm]	Open Position mini [mm]	For Tapp	Tapping	ΔΔ [g]
830A.5	20,5	85	5	5	M6	M6	165
830A.10	25,5	105	8	8	M12	M12	312

830A.RN - Repair kits

- Comprising chuck and spring.
- 830A.5RN, for 830A.5 and 830A.5L.
- 830A.10RN, for 830A.10 and 830A.10L.



830A.RN	ΔΔ [g]
830A.5RN	15
830A.10RN	15

831 - Adjustable tap wrenches

- NF E 66-130
- Pressure-cast Zamak body. Machined and hardened clamp.
- Finish: grey hammered finish.



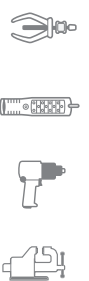
831	L [mm]	Open Position maxi [mm]	Open Position mini [mm]	Tapping	ΔΔ [g]
831.1	180	2-8	2-8	M3->M7	100
831.2	300	4-11	4-11	M5->M12	300
831.3	385	5-16	5-16	M6->M12	705

832 - Die stocks

- Pressure-cast Zamak body for accurate centring of the die.
- Finish: grey hammered finish.



832	d ["]	d [mm]	L [mm]	Organizer for	ΔΔ [g]
832.1'	1	25,4	220	221.3x50 --> 221.9x125	115
832.1'1/2	1'-1/2	38,1	325	221.10x150 --> 221.18x250	410



FLUO

RFid



WORKSHOP DRILL BITS

222A.T - Ground twist drills



- For steel up to 800 MPA, stainless steel, grey cast-iron and aluminium alloy.

Ø	d [mm]	L [mm]	ΔΔ [g]
222A.T1	1,0	35	5
222A.T1,5	1,5	40	5
222A.T2	2,0	50	5
222A.T2,5	2,5	57	5
222A.T3	3,0	62	5
222A.T3,3	3,3	65	5
222A.T3,5	3,5	70	5
222A.T4	4,0	75	10
222A.T4,2	4,2	75	10
222A.T4,5	4,5	80	10
222A.T5	5,0	85	10
222A.T5,5	5,5	92	15
222A.T6	6,0	92	15
222A.T6,5	6,5	102	20
222A.T6,8	6,8	105	25

Ø	d [mm]	L [mm]	ΔΔ [g]
222A.T7	7,0	107	25
222A.T7,5	7,5	110	30
222A.T8	8,0	117	35
222A.T8,5	8,5	117	40
222A.T9	9,0	127	50
222A.T9,5	9,5	127	55
222A.T10	10,0	132	60
222A.T10,2	10,2	132	65
222A.T10,5	10,5	132	70
222A.T11	11,0	142	80
222A.T11,5	11,5	142	90
222A.T12	12,0	152	100
222A.T12,5	12,5	152	110
222A.T13	13,0	152	115

222A.TJ - Sets of ground twist drills



NF ISO 235, ISO 235, DIN 338

- For steel up to 800 MPA, stainless steel, grey cast-iron and aluminium alloy.
- Sets 222A.TJ19 and 222A.TJ25: Bits with 5/10 mm increments.
- Sets 222A.TJ50 and 222A.TJ81: Bits with 1/10 mm increments.

Ø	d maxi [mm]	Content set	Dimension [mm]	ΔΔ [g]
222A.TJ19	1 - 10	19	165 x 110 x 35	730
222A.TJ25	1 - 13	25	190 x 110 x 54	1390
222A.TJ50	1 - 5,9	50	135 x 120 x 35	750
222A.TJ81	2 - 10	81	235 x 210 x 145	760



## WORKSHOP DRILL BITS

## Set of 3 tapered bits



- Capacity: 3 to 30.5 mm.
- Supplied with a bottle of lubricant.
- Supplied in a pressed sheet box, dim. (L. x W. x H.): 120 x 100 x 38 mm.



	H [mm]	L [mm]	$\Delta\Delta$ [g]
<b>229A.J3</b>	38	120	555

## BITS FOR IMPACT MACHINERY

## Set of 7 short drill bits for straight chucks



- Sharpened carbide tip inserts.
- Ground from stock with L-groove.
- Diameters: 4 - 5 - 6 - 7 - 8 - 10 - 12 mm.
- In a steel case, dim. (L. x W. x H.): 155 x 100 x 30 mm.



	H [mm]	L [mm]	$\Delta\Delta$ [g]
<b>223.SJ7</b>	30	155	355

VARIABLE PITCH HOLESAWS

**BIMETAL HSS HOLESAW**

**For cutting holes through standard materials and metals used in mechanical engineering, sheet-metalworking and plumbing.**

- High-speed steel teeth, hardness > 63 HRC.
- Holesaw back in thick sheet steel to minimise vibration.
- Side slots and holes for chip removal.



**Quick assembly :**  
chuck, pilot drill, spring, blade.

■ **609A - Variable pitch holesaws**

- Variable pitch holesaws 4 to 6 mm.
- Softer cut and reduced vibration.
- Cutting depth 34 mm.
- Chuck and drill for holesaws 19 to 29 mm 609A.M1.
- Chuck and drill for holesaws 35 to 68 mm 609A.M2.
- Set of 2 spare bits + chuck screws: 609.M-ACC.



609A	d [mm]	L [mm]	ΔΔ [g]
609A.19	19	51	30
609A.22	22	51	45
609A.29	29	51	80
609A.35	35	51	100
609A.38	38	51	110
609A.40	40	45	140
609A.44	44	45	145

609A	d [mm]	L [mm]	ΔΔ [g]
609A.51	51	45	150
609A.57	57	45	165
609A.64	64	45	185
609A.65	65	45	200
609A.67	67	45	230
609A.68	68	45	285

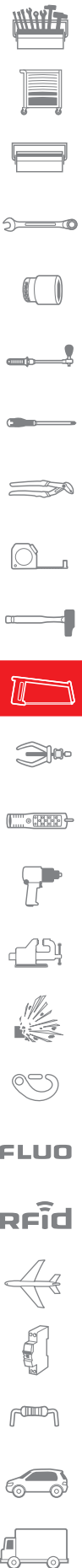
HOLESAW SETS

■ **609A.J - Set of variable-pitch holesaws with chucks**

- Comprising:
  - 609A.M1: 1 chuck and drill for holesaws 19 to 29 mm.
  - 609A.M2: 1 chuck for holesaws 35 to 64 mm.
  - 609A.M-ACC: Set of 2 spare bits + chuck screws.
- Supplied in a plastic case, dim. (L. x W. x H.): 245 x 185 x 75 mm.

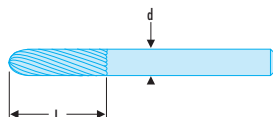


609A	d [mm]	H [mm]	L [mm]	ΔΔ [kg]
609A.J1	22 - 29 - 35 - 44 - 51 - 64	75	245	1.8
609A.J3	19 - 22 - 29 - 35 - 38 - 44 - 51 - 57 - 64	75	245	2.1



MILLS

VFA - Cutters

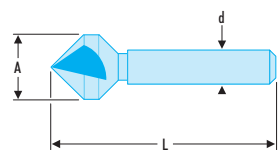


- Tungsten carbide.
- Right-hand spiral.
- Cutter shank diameter 6 mm.



Ref	d [mm]	L [mm]	No.	tr/min	ΔΔ [g]
VFA.600	6	18	1	50000	25
VFA.602	6	18	2	50000	25
VFA.604	6	18	3	50000	25
VFA.606	6	18	4	50000	20
VFA.608	6	18	5	50000	20
VFA.610	6	15	6	50000	20
VFA.1200	12	25	1	20000	55
VFA.1202	12	25	2	20000	55
VFA.1204	12	25	3	20000	50
VFA.1206	12	25	4	20000	30
VFA.1208	12	25	5	20000	35
VFA.1210	12	20	6	20000	40

229.TT - 90° cone bits



- 3 HSS cutting edges for countersunk screw holes.
- Requires a pilot hole with a cylindrical bit ref 222A.T.



Ref	A [mm]	d [mm]	L [mm]	ΔΔ [g]
229.TT2	10,4	6	50	10
229.TT3	16,5	10	60	30
229.TT4	20,5	10	63	50
229.TT5	25,0	10	67	70

90° cone bits



- Comprising:
- 4 bits: 229.TT2 --> 229.TT5 (and lubricant).
- In a steel case, dim. (L. x W. x H.): 120 x 100 x 38 mm.



Ref	H [mm]	L [mm]	ΔΔ [g]
229.TTJ4	38	120	450

SCRAPERS

Three-square scraper



- Finish: high quality steel blade, polished chrome finish and varnished wood handle.
- Shank length: 200 mm.



Ref	L [mm]	ΔΔ [g]
231	200	180



Half-round curved scraper

- Finish: high quality steel blade, polished chrome finish and varnished wood handle.
- Shank length: 200 mm.



Icon	L [mm]	ΔΔ [g]
232	200	180

Flat scraper

- Finish: high quality steel blade, polished chrome finish and varnished wood handle.
- Shank length: 200 mm.



Icon	L [mm]	ΔΔ [g]
329	200	185

Set of 3 stainless steel scrapers

- Stainless steel blade, thickness: 0.8 mm.
- Reinforced striking zone.
- 3 shapes:
  - Straight, width: 32 mm.
  - Straight, width: 50 mm.
  - Angled, width: 32 mm.



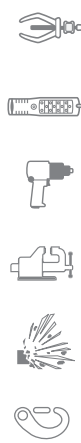
Icon	L [mm]	ΔΔ [g]
235.J1	215	427

Set of 3 flexible spatulas

- Stainless steel blade, thickness: 0.5 mm.
- 3 shapes:
  - Straight, width: 32 mm.
  - Straight, width: 50 mm.
  - Angled, width: 32 mm.
- Width: 32 - 50 - 75 mm.



Icon	L [mm]	ΔΔ [g]
237.J1	215	273



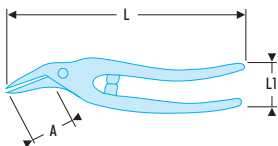
FLUO

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## METAL SHEARS

## 883 - Scroll shears

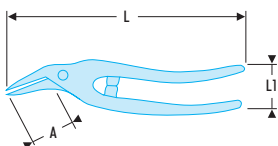


- Specially-shaped nose for accurately following detailed patterns.
- Steel end stops.
- Left-cut scroll shears: 883B.G.
- Right-cut scroll shears: 883B.
- Right cut large-capacity scroll shears: 883.32.
- Finish: Epoxy paint.



Model	A [mm]	L [mm]	L1 [mm]	Capacity Semi-hard steel [mm]	Capacity Stainless [80 kg/mm <sup>2</sup> ]	ΔΔ [g]
<b>883B.G</b>	46	260	43 - 170	1,0	0,8	535
<b>883B</b>	50	260	43 - 170	1,0	0,8	530
<b>883.32</b>	73	320	47 - 170	1,2	0,9	765

## 884 - Panel shears

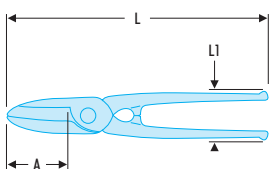


- The bottom-blade clearance makes these shears ideal for continuous straight cuts in large panels, leaving clean edges.
- Steel end stop.
- Right-hand panel shears: 884B.
- Right-hand high capacity panel shears: 884.30.
- Finish: Epoxy paint.



Model	A [mm]	L [mm]	L1 [mm]	Capacity Semi-hard steel [mm]	Capacity Stainless [80 kg/mm <sup>2</sup> ]	ΔΔ [g]
<b>884B</b>	40	260	43 - 130	1,0	0,8	670
<b>884.30</b>	52	300	45 - 150	1,2	0,9	840

## General-purpose shears

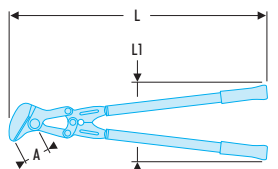


- 2 wide blades.
- Capacity:
  - Stainless 80 kg/mm<sup>2</sup>: 0.5 mm.
  - Semi-hard steel: 0.8 mm.
- Forged steel end stop.
- Finish: Epoxy paint.



Model	A [mm]	L [mm]	L1 [mm]	ΔΔ [g]
<b>880</b>	55	260	45 --> 130	520

## 882A-884A - Two-hand shears



- Very high demultiplication.
- Forged steel end stop.
- Cutting capacity for blue sheet 120 kg/mm<sup>2</sup>: 2.0 mm (882A.65) and 2.5 mm (884A.65).
- Finish: Zinc-coated blades, tubular handles with neoprene grips.
- Spare blades:
  - 882A.L65 for 882A.65.
  - 884A.L65 for 884A.65.



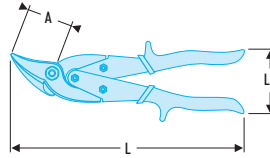
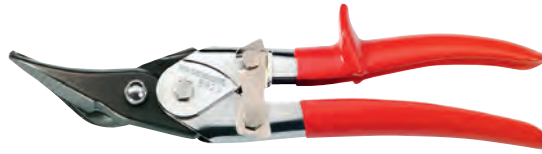
Model	A [mm]	L [mm]	L1 [mm]	ΔΔ [kg]
<b>882A.65</b>	50	665	210 --> 820	2.1
<b>884A.65</b>	48	660	200 --> 790	2.4

METAL SHEARS

Right-cut universal scroll shears

ASME B107.500

- Demultiplication reducing efforts.
- Forged, hardened and burnished blades.
- Red sheathed grips with guard.
- Inset opening spring.
- Lock-closed catch.
- Cutting capacity.
  - Stainless 80 kg/mm<sup>2</sup>: 0.8 mm.
  - Semi-hard steel: 0.8 mm.

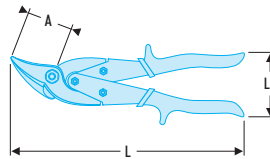


Ref	A [mm]	L [mm]	L1 [mm]	ΔΔ [g]
882A	32	250	45 - 130	475

982 - Compound scroll shears

ASME B107.500

- Panel-type shears with slightly serrated cutting edges to prevent workpiece slip.
- Good demultiplication and inset opening spring.
- Forged chrome molybdenum blades.
- Ergonomic non-slip bi-material grips.
- Colour-coded according to direction of cut.
  - Red: left cut (Ref 982.G).
  - Green: right cut (Ref 982).
- Jaw lock catch.
- Cutting capacity.
  - Stainless 80 kg/mm<sup>2</sup>: 0.8 mm.
  - Semi-hard steel: 1.2 mm.

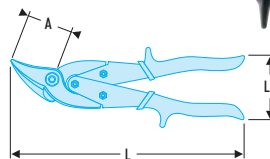


Ref	A [mm]	L [mm]	L1 [mm]	ΔΔ [g]
982	45	245	65 - 190	380
982.G	45	245	65 - 190	380

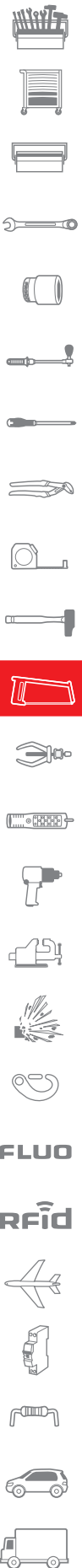
985 - "Aircraft" shears

ASME B107.500

- High demultiplication allows long runs without effort.
- Good demultiplication and inset opening spring.
- Slightly serrated cutting edges prevent workpiece slip.
- Forged chrome molybdenum blades.
- Ergonomic non-slip bi-material grips.
- Colour-coded according to direction of cut.
  - Red: left cut (Ref 985.LE).
  - Green: right cut (Ref 985.RI).
  - Yellow: straight cut (Ref 985.ST).
- Jaw lock catch.
- Cutting capacity:
  - Stainless 80 kg/mm<sup>2</sup>: 0.8 mm.
  - Semi-hard steel: 1.2 mm.

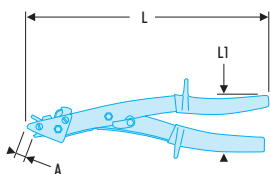


Ref	A [mm]	L [mm]	L1 [mm]	ΔΔ [g]
985.LE	55	255	60 - 150	400
985.RI	55	255	60 - 150	400
985.ST	55	255	65 - 165	390



METAL SHEARS

Nibblers



- Inset opening spring and high demultiplication allow effortless cutting along intricate patterns, removing a strip 2.8 mm wide.
- Die and blade system severs the strip at end of run.
- Top blades cut wire up to 2 mm in semi-hard steel and 2.5 mm in mild steel.
- Lock-closed catch.
- Cutting capacity.
  - Stainless 80 kg/mm<sup>2</sup>: 0,8 mm.
  - Semi-hard steel: 1 mm.
- Spare blade: 887A.L1.

	A [mm]	L [mm]	L1 [mm]	ΔΔ [g]
<b>887A</b>	7	260	45 - 110	520

990.B BOLT CROPPERS



**Powerful**

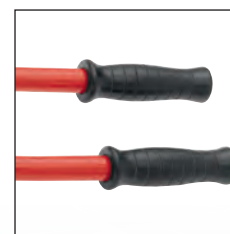
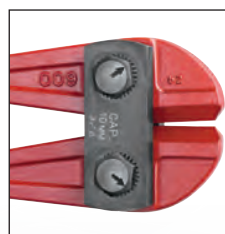
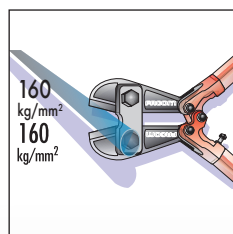
- Increased steel-cutting capacity up to 160 kg/mm<sup>2</sup>.
- Available with forged arms.

**Durable**

- Harder blades for a more durable cut.
- Body specially treated to reduce play to a minimum.
- High performance chrome blades.
- Eccentric screw adjustment of play between blades.

**Efficient**

- Minimum cutting effort.
- Handgrip with guard for greater comfort



BOLT CROPPERS

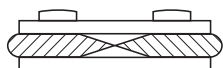
BOLT CROPPERS

990.BF - Axial cut bolt croppers



- Forged arms = less cutting flexion.
- High performance chrome blades.
- Harder blades for a more durable cut.
- Eccentric screw adjustment of play between blades.
- Hand grip with guard for greater comfort.

	Ø [mm]: 60 - 140 - 160 kg/mm <sup>2</sup>	Blade	L ["]	L [mm]	ΔΔ [kg]
<b>990.BF0</b>	7,0 - 6,0 - 5,5	990.LB0	18	450	1.7
<b>990.BF1</b>	10 - 8 - 7	990.LB1	24	600	2.8
<b>990.BF2</b>	13 - 9 - 8	990.LB2	30	750	4.2
<b>990.BF3</b>	16 - 10 - 9	990.LB3	35	900	6.4
<b>990.BF4</b>	18 - 11 - 10	990.LB4	41	1050	8.6



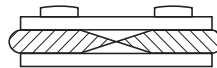
**BOLT CROPPERS**

■ **990.BF - Axial cut tubular arm bolt croppers**

- High performance chrome steel blades.
- Harder blades for a more durable cut.
- Eccentric screw adjustment of play between blades.
- Hand grip with guard for greater comfort.



Ø [mm]: 60 - 140 - 160 kg/mm <sup>2</sup>	Blade	L ["]	L [mm]	ΔΔ [kg]	
<b>990.B0</b>	7,0 - 6,0 - 5,5	990.LB0	18	450	1.7
<b>990.B1</b>	10 - 8 - 7	990.LB1	24	600	2.8
<b>990.B2</b>	13 - 9 - 8	990.LB2	30	750	4.2
<b>990.B3</b>	16 - 10 - 9	990.LB3	35	900	6.4
<b>990.B4</b>	18 - 11 - 10	990.LB4	41	1050	8.6

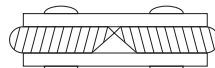


■ **990.RB0 - Flush-cut bolt croppers**

- Specific blades for high performance chrome steel flush cutting.
- Harder blades for a more durable cut.
- Eccentric screw adjustment of play between blades.
- Hand grip with guard for greater comfort.
- 990.BRF0: Forged arms.
- 990.R00 - 990.R0: Tubular arms.



Ø [mm]: 60 - 140 - 160 kg/mm <sup>2</sup>	Blade	L ["]	L [mm]	ΔΔ [kg]	
<b>990.RB00</b>	6 - 5 - 5	990.LRB00	12	350	1.0
<b>990.RB0</b>	7,0 - 6,0 - 5,5	990.LRB00	18	450	1.7
<b>990.BRF0</b>	7,0 - 6,0 - 5,5	990.LRB0	18	450	1.7



■ **990.LB - Replacement blades for series 990.B (with screws)**

- Bolt-cropper blades are consumables and subject to normal wear. Facom guarantees their conformity to dimensional standards and suitability for recommended applications.
- Actual service life is dependent on conditions of use.
- Supplied with fasteners.

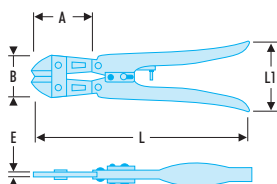


For	ΔΔ [kg]	
<b>990.LB0</b>	990.BF0 - 990.B0	0,650
<b>990.LB1</b>	990.BF1 - 990.B1	1,050
<b>990.LB2</b>	990.BF2 - 990.B2	1,650
<b>990.LB3</b>	990.BF3 - 990.B3	2,400
<b>990.LB4</b>	990.BF4 - 990.B4	3,400
<b>990.LRB00</b>	990.RB00	0,450
<b>990.LRB0</b>	990.BRF0 - 990.RB0	0,650



BOLT CROPPERS

Mini croppers



- Compact, lightweight tool with demultiplication system designed to cut hard and semi-hard wire: piano wire, bolts, rivets, pins and nails, etc.
- Forged, hardened blades.
- Cutting capacity:
  - Piano wire: max. diameter 2 mm to 200 kg/mm<sup>2</sup>.
  - Soft wire: max. diameter 4 mm to 60 kg/mm<sup>2</sup>.
- Ergonomic hardened pressed-steel handles with adjustable, shock-absorbing end stop.
- Spring-assisted opening.
- Blades lock in closed position.
- Finish: bronzed blades, painted grips.

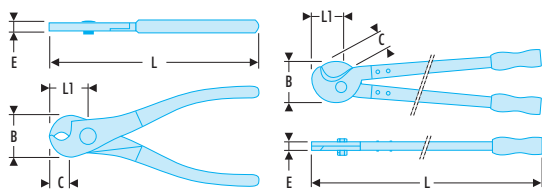


Ref.	A [mm]	B [mm]	E [mm]	L [mm]	L1 [mm]	ΔΔ [g]
997A.20	54,5	40	4,5	210	57	275

CABLE CUTTERS

COPPER AND ALUMINIUM CABLE CUTTERS

412 - Cable cutters

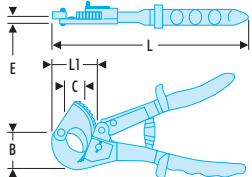


- 412B.10 "Compact" cable cutters:
  - Capacity: diameter 10 mm.
  - Integral opening spring.
  - Lock closed catch.
  - Cross proof design.
- 412.16 "Standard" cable cutters:
  - Capacity: diameter 16 mm.
  - Heavy-duty head, cross proof design.
  - Safety stop.
- 412.30 - 412.42 "Heavy-duty" cable cutters:
  - Capacity: 32 mm (Ref. 412.30) and 42 mm (Ref. 412.42).
- Powerful action, cuts without crushing electric cables.
- Safety stop.
- Set of blades for 412.30: 412.L30.
- Set of blades for 412.42: 412.L42.



Ref.	B [mm]	C [mm]	d [mm]	d mini - maxi [mm]	E [mm]	L [mm]	L1 [mm]	ΔΔ [kg]
412B.10	28	21	10	53 - 190	10	170	40	0.225
412.16	54	28	16	80 - 370	14	290	45	0.670
412.30	70	40	32	155 - 1000	16	600	60	2.5
412.42	115	70	42	200 - 1300	16	800	90	3.7

413 - Ratchet cable cutters



- Ratchet-blade system for easy cut through thick gauge cables.
- Particularly useful in confined spaces.
- Non-slip grips with guards.
- Capacities: 32 - 52 mm.
- Spare blade for 413A.32: 413A.L32.



Ref.	B [mm]	C [mm]	d maxi [mm]	E [mm]	L [mm]	L1 [mm]	ΔΔ [g]
413A.32	58	34	32	7,8	255	65	385
413.52	80	53	52	8,0	275	75	800

COPPER AND ALUMINIUM CABLE CUTTERS

Manual 10 mm diameter copper/aluminium cable cutters

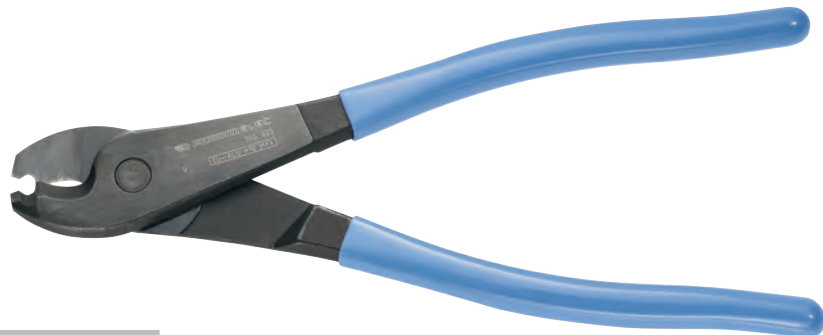
- Notched end for stripping wires.
- For single and multi-strand cables.
- Capacity:
  - Multi-strand cable: diameter 10 mm.
  - Single strand copper: diameter 8 mm.
  - Almelec: diameter 6 mm.



Icon	L [mm]	ΔΔ [g]
985912	165	225

Manual 18 mm diameter copper/aluminium cable cutters

- Notched end for stripping wires.
- For single and multi-strand cables.
- Capacity:
  - Multi-strand cable: diameter 18 mm.
  - Single strand copper: diameter 15 mm.
  - Almelec: diameter 10 mm.



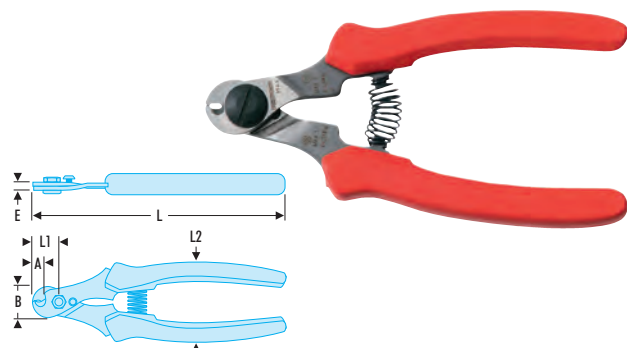
Icon	L [mm]	ΔΔ [g]
985925	231	350

STEEL CABLE CUTTERS

"Compact" steel cable cutters

NFE 75-001, NFE 75-002

- Lightweight tool with blades and cutting angle designed for cutting solid materials and multi-strand cables.
- Push catch to lock closed, simply squeeze handles to release.
- Blades hardened to 60-62 HRC.
- Capacity:
  - 5 mm for 60 - 100 kg/mm<sup>2</sup> soft steel cable.
  - 4 mm for 130 - 160 kg/mm<sup>2</sup> hard steel cable.
  - 3 mm for 60 kg/mm<sup>2</sup> round cable.

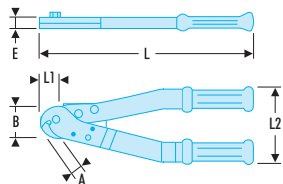


Icon	A [mm]	B [mm]	E [mm]	L [mm]	L1 [mm]	L2 [mm]	ΔΔ [g]
996.5	7	21	8	165	12	50 - 125	165



STEEL CABLE CUTTERS

■ "Standard" steel cable cutters



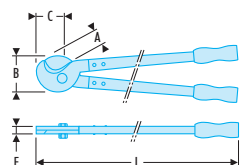
NFE 75-001, NFE 75-002

- Blade inserts in high-performance steel.
- Compact and powerful with ergonomic grips.
- Capacity:
  - 8 mm for 60 - 100 kg/mm<sup>2</sup> soft steel cable.
  - 7 mm for 130 - 160 kg/mm<sup>2</sup> hard steel cable.
  - 6 mm for 60 kg/mm<sup>2</sup> round cable.
- Spare blades: 996.L8.



🔪	A [mm]	B [mm]	E [mm]	L [mm]	L1 [mm]	L2 [mm]	ΔΔ [g]
996.8	12	42	16	340	21	115 - 470	890

■ Steel cable cutters



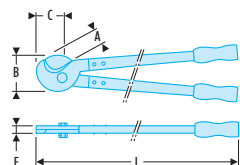
NFE 75-001, NFE 75-002

- Compact and powerful model.
- Blade inserts in high-performance steel.
- Cross proof design.
- Capacity:
  - 12 mm for 60 - 100 kg/mm<sup>2</sup> soft steel cable.
  - 10 mm for 120 - 150 kg/mm<sup>2</sup> hard steel cable.
  - 8 mm for 60 - 80 kg/mm<sup>2</sup> round cable.
- Spare blades: 996.L12.



🔪	A [mm]	B [mm]	E [mm]	L [mm]	L1 [mm]	ΔΔ [kg]
996A.12	20	73	16	600	50	2.7

■ "Power" steel cable cutters



NFE 75-001, NFE 75-002

- Maximum power model.
- Forged blades in high-performance steel.
- Cross proof design.
- Ergonomic handles.
- Capacity:
  - 16 mm for 60 - 100 kg/mm<sup>2</sup> soft steel cable.
  - 13 mm for 120 - 150 kg/mm<sup>2</sup> hard steel cable.
  - 10 mm for 60 - 80 kg/mm<sup>2</sup> round cable.
- Spare blades: 996.L16.



🔪	A [mm]	B [mm]	E [mm]	L [mm]	L1 [mm]	ΔΔ [kg]
996.16	28	115	16	800	55	5.0



UTILITY KNIVES

THE NEW UTILITY KNIFE RANGE



Cutting tools designed for professionals

Uncompromising safety for professional applications

- Recommended by the Health and Safety Committees (CHSCT).
- Avoids the risk of cuts as a result of handling the blade, or blade slippage.



Especially designed for intensive and daily use

- Stainless steel blade guide providing perfect torsion resistance.
- Ergonomic handle for a more comfortable grip.
- Soft finish to avoid slippage.



- Automatic reload model.
- Blade lock feature.



Rigorous quality

- Dynamic endurance tested for mechanism lifetime.
- Load tested for blade-locking.
- Torsion tested to ensure blade retention.
- Tested for resistance to workshop chemicals.

Productivity and efficiency

- In-handle blade storage allows easy blade changes.
- Time-saving and safe.

■ Safety knife with retractable blade

- Safety knife.
- Blade automatically retracts after use.
- Zamak body.
- ABS cursor, front or side thumb control.
- Supplied with 3 blades (1 factory-mounted and 2 in the body).



844.D	E [mm]	H mini - maxi [mm]	L [mm]	ΔΔ [g]
844.D	27	40,5 - 44,0	176	185



FLUO

Rfid

## UTILITY KNIVES

### Retractable utility knife with interchangeable blades



- Choice of 3 blade settings.
- Moulded handle housing 5 blades.
- Zamak body.
- Zinc alloy slide-button.



Model	Weight [g]
844.R	190

### 18 mm automatically reloading utility knife



- Productivity, accessibility, safety.
- Automatically reloading snap-off blades.
- Ergonomic soft ABS handle.
- Stainless steel blade guide.
- Blade lock knob.
- 6-blade cartridge.
- Integral blade snapper.



Model	E [mm]	H [mm]	L [mm]	Weight [g]
844.S18	24	47	172	160

### Cutter with 18 mm snap-off blades



- Cutter with snap-off blades.
- Ergonomic soft ABS handle.
- Stainless steel blade guide.
- Automatic blade lock.
- 2-blade cartridge.
- Integral blade snapper.



Model	E [mm]	H [mm]	L [mm]	Weight [g]
844.SE18	24	43	172	90

### Cutter with 9 mm snap-off blades



- Cutter with snap-off blades.
- Ergonomic soft ABS handle.
- Stainless steel blade guide.
- Automatic blade lock.
- 2-blade cartridge.
- Integral blade snapper.



Model	E [mm]	H [mm]	L [mm]	Weight [g]
844.S9	17	30	149	47

**BLADE SELECTION GUIDE**

**Our cutting tool experience at the service of professionals**

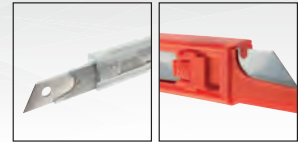
**A perfectly cut blade guarantees your safety**

- A neat, clean cut.
- Does not damage the material to be cut.
- Effortless cutting without the risk of blade slippage or pull-out.
- Saves time.



**A choice of packaging**

- 10 blade dispenser always handy.

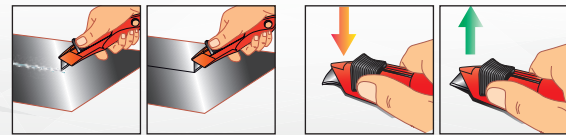


**Choosing the right blade**

- What material is being cut ? Material, thickness.
- On what backing surface will cutting be performed ? (Does it need protecting ?)
- Is there a risk of slipping ? (uneven surface)
- What is the work environment ?
- What is the frequency of use ?
- What is the desired durability ?

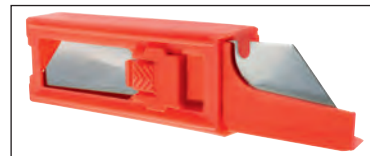
**A blade is a compromise between :**


- **Hardness :**  
For a strong cutting section and good stress resistance.
- **Flexibility :**  
For stress resistance as well as allowing the blade to twist without deforming for a neat cut.
- **Cutting angle :**  
to guarantee an optimum cut according to the material.



**High strength perforated trapezoidal blade**

- High strength trapezoidal blade.
- Designed to produce a perfect cut in intensive applications.
- Ideal for cutting: thick cardboard, hose, plastic, resilient foam, heat-shrinkable tubing, nylon strip, plastic tubes, seals.
- Supplied in a 10 blade dispenser.



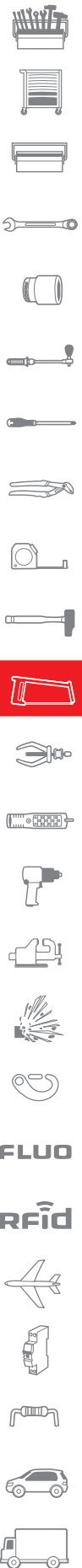
	E [mm]	H [mm]	L [mm]	ΔΔ [g]
<b>844.TTL10</b>	0,65	19	60	50

**High performance safety trapezoidal blade**

- High performance trapezoidal blade.
- Rounded corner to avoid risk of accidental cutting.
- Designed to produce a perfect cut in intensive applications.
- Ideal for cutting: thick cardboard, hoses, plastic, resilient foam, heat-shrinkable tubing, nylon strip, plastic tubes, seals.
- Supplied in a 10 blade dispenser.



	E [mm]	H [mm]	L [mm]	ΔΔ [g]
<b>844.TRL10</b>	0,65	19	60	50



FLUO

RFid


## UTILITY KNIVES

## High strength hook blade

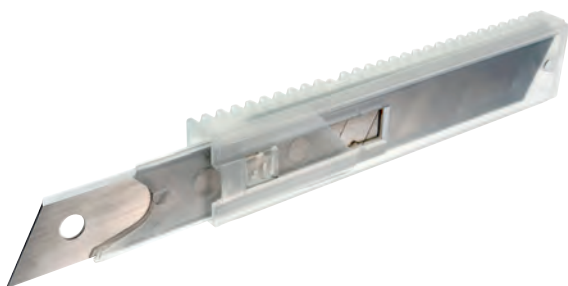


- High strength hook blade.
- Specially designed to protect the backing during cutting.
- Ideal for cutting:
  - Floor finishes, e.g. carpet, lino, PVC or other laid material.
  - Straps and thick fabric.
- Supplied in a 10 blade dispenser.




	E [mm]	H [mm]	L [mm]	ΔΔ [g]
<b>844.TCL10</b>	0,65	19	50	50

## 18 mm snap-off blades



- 7-segment 18 mm snap-off blade.
- Ideal for all everyday cutting applications:
  - Thick cardboard.
  - Hose.
  - Plastic.
  - Resilient foam.
  - Heat-shrinkable tubing.
  - Nylon strip.
  - Plastic tubes.
  - Seals.
- Warning, snap-off blades are not designed to withstand excessive torsion forces.
- Supplied in a 10 blade dispenser.




	E [mm]	H [mm]	L [mm]	ΔΔ [g]
<b>844.S18L10</b>	0,53	18	110	90

## 9 mm snap-off blades



- 7-segment 9 mm snap-off blade.
- Ideal for all everyday cutting applications:
  - Thick cardboard.
  - Hose.
  - Plastic.
  - Resilient foam.
  - Heat-shrinkable tubing.
  - Nylon strip.
  - Plastic tubes.
  - Seals.
- Warning, snap-off blades are not designed to withstand excessive torsion forces.
- Supplied in a 10 blade dispenser.



	E [mm]	H [mm]	L [mm]	ΔΔ [g]
<b>844.S9L10</b>	0,43	9,5	84	30



## SCISSORS - KNIVES

## Electricians scissors



- 100% metal handles, left/right hand.
- Short reinforced blades, with wire cutter.
- Finish: polished chromed.



	L [mm]	Blade	ΔΔ [g]
<b>841</b>	150	33 mm	95

## Heavy Duty Scissors



- Complete structure in steel (blades + handles).
- Crimping part.
- Cable Cutter Ø 50 mm on both blades.
- Slot for stripping cable (1,5mm - 2,5mm - 4 mm).
- Stainless Steel blade.
- Holder with belt hooking clip.
- Anti-slip ridges on rings for handhold.
- Big and small eye for large or small fingers.



	L [mm]	Blade	ΔΔ [g]
<b>841A.3</b>	160	40 mm	150

## Multi-purpose scissors



- Multiple use, highly versatile and maximum comfort.
- Exclusive FACOM ergonomic grip for right-handers for better comfort.
- Ideal for cutting thick cardboard, aluminium (thickness 0.2 mm), rubber (thickness 3mm), leather (thickness: 5 mm), rope, etc.
- Stainless steel blades: precision and better durability of the cutting edge.
- Finish: bi-material grips, burnished blades.



	L [mm]	Blade	ΔΔ [g]
<b>841A.9</b>	255	107 mm	210

## KNIVES

## Lock-back knife with bi-material handle



- Blade in polished stainless steel. Blade partially smooth for accurate cutting and another serrated for powerful cutting.
- Quick one-handed opening.
- Knife at the tip of the knife: window breaker function.
- Safe: lock-back.
- Universal hanging hook.
- Clip at the back of the knife for direct hanging to the belt.
- Blade length 77 mm; closed length: 115 mm.
- Total length: 186 mm.
- Supplied in vertical nylon case which fastens to the belt.



	L [mm]	ΔΔ [g]
<b>840.F</b>	115	170

KNIVES

840 THE 100% STAINLESS STEEL KNIFE

The knife designed as a tool

Stainless steel 12C27 stainless steel blade.

**Comfortable**  
Safe one-handed thumbwheel blade opening (left or right hand).

Universal hanging hook.

**Safe blade release**  
Blade is closed by releasing the "liner-lock" safety catch in two stages.

**Ergonomic**  
One-piece brushed stainless steel handle for a better grip.

• Comes with horizontal leather case for complete freedom of movement and compliance with the safety regulations.



KNIVES

■ Thumbwheel knife

- 12C27 stainless steel construction: very high corrosion resistance. Ideal in marine environments.
- Quick one-handed opening.
- Right/left hand.
- Safe: Liner lock safety catch and 2 stage release.
- Universal hanging hook.
- Blade length 73.5 mm; closed length: 115.5 mm.
- Total length: 189 mm.
- Comes with horizontal leather case.



Icon	L [mm]	ΔΔ [g]
840LE	115.5	250

■ Lock-back knife

- Polished stainless blade.
- Safe: lock-back.
- Rosewood handle and nickel silver bolster.
- Blade length 78 mm; closed length: 105 mm.
- Total length: 183 mm.



Icon	L [mm]	ΔΔ [g]
840.4A	105	160

■ Twin-blade electricians knife with plastic handle

- Electricians knife with blades suitable for cable work:
  - 1 straight hollow ground general-purpose blade (length: 65 mm).
  - 1 short curved blade, specially designed for cable work (length: 35 mm).
- Safe: lock-back for each blade.
- Length closed: 104 mm.
- Total length: 131/169 mm.



Icon	L [mm]	ΔΔ [g]
640180	104	100



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## KNIVES

### Electricians knife with wire stripper



- Blade in polished stainless steel.
- Billhook blade.
- Wood handle.
- Blade length 60 mm; closed length: 100 mm.
- Total length: 160 mm.

	L [mm]	ΔΔ [g]
<b>840B</b>	100	85

### Twin-blade electricians knife with wood handle



- Blades in polished stainless steel.
- Billhook blade, length 65 mm.
- Straight blade, length: 80 mm.
- Wood handle.
- Length closed: 100 mm.
- Total length: 165/180 mm.

	L [mm]	ΔΔ [g]
<b>843</b>	100	115

### Electricians knife with wire stripper with wood handle



- Blade in polished stainless steel.
- Blade with 2 notches:
  - 1 half-moon notch for stripping.
  - 1 vee for cutting.
- Rosewood handle.
- Blade length 77 mm; closed length: 103 mm.
- Total length: 180 mm.

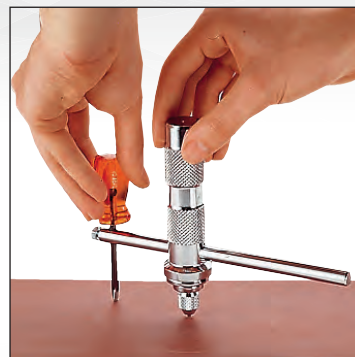
	L [mm]	ΔΔ [g]
<b>840.1</b>	180	75



PUNCH KIT

# The solution to easily produce all your gaskets

- These kits are used to cut out clean and accurate circular gaskets in a variety of materials including cardboard, leather, rubber and fabric.
- To cut holes Ø 3 to 50 mm, use a punch 245A.T with a shank 245A. M.
- To cut holes Ø 44 to 420 mm, use calipers with centre-point and cutter.
- All components are available either separately or in kits.



245A.T - Punches

Ref	d [mm]	Capacity Ø maxi [mm]	For	ΔΔ [g]
245A.T3	3	M13 x 100	245.J1 - 245.J2	10
245A.T4	4	M13 x 100	245.J1 - 245.J2	10
245A.T6	6	M13 x 100	245.J1 - 245.J2	15
245A.T8	8	M13 x 100	245.J1 - 245.J2	15
245A.T10	10	M13 x 100	245.J1 - 245.J2	15
245A.T12	12	21	245.J1 - 245.J2	20
245A.T14	14	28	245.J1 - 245.J2	20
245A.T16	16	21	245.J1 - 245.J2	20
245A.T18	18	21	245.J1 - 245.J2	25
245A.T20	20	21	245.J1 - 245.J2	25
245A.T22	22	31	245.J1 - 245.J2	40
245A.T24	24	31	245.J1 - 245.J2	40
245A.T26	26	31	245.J1 - 245.J2	45
245A.T28	28	31	245.J1 - 245.J2	50
245A.T30	30	31	245.J1 - 245.J2	60
245A.T32	32	41	245.J2	75
245A.T34	34	41	245.J2	80
245A.T36	36	41	245.J2	80
245A.T38	38	41	245.J2	75
245A.T40	40	41	245.J2	75
245A.T42	42	52	245.J2	100
245A.T44	44	52	245.J2	105
245A.T46	46	52	245.J2	105
245A.T48	48	52	245.J2	100
245A.T50	50	52	245.J2	100



Accessories for punches and calipers

Ref	No.	For	ΔΔ [g]
245A.M1	1	245.J1	450
245A.M2	2	245.J1	530
245A.M3	3	245.J1	310
245A.M4	4	245.J1 - 245.J2	150
245A.P1	5	245.J1 - 245.J2 - 245.AC	40



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# PULLERS



## MECHANICAL 3-LEG PULLERS

629

- Universal reversible 3-leg pullers 629
- Slim-profile 3-leg pullers 632
- High capacity 3-leg pullers 633



## HYDRAULIC 3-LEG PULLERS

636

- Pullers - hg 636
- Hydraulic jacks and pumps 639



## MECHANICAL 2-LEG PULLERS

641

- Reversible universal 2-leg pullers 641
- Slim-profile 2-leg pullers 643
- Wide 2-leg pullers 645
- U-bolt 2-leg pullers 646



## SPECIAL GRIP BEARING PULLERS

647

- Tip-type pullers, cage grip 647
- Tip-type pullers, inside grip 648
- Spreader-type pullers, inside grip 650

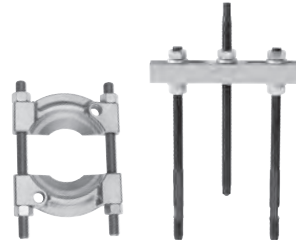


## SLIDE HAMMERS

652

Slide hammers

652



## SEPARATORS AND BEAM PULLERS

653

Puller kits 653  
Separators 654  
Potences 655  
Beam pullers 656



## WORKSHOP EQUIPMENT KITS

657

Workshop boards 657  
Case kits 658



## STUD PULLERS - NUT SPLITTER

659

Stud pullers 659  
Stud pulling 661  
Nut splitter 662



## SPARE PARTS

663











## SELECTION GUIDE

**A choice of 90 pullers for all types of components up to 800 mm.**

**The right questions to ask when choosing a puller**

- What type of component is to be removed ? = bearing, pulley, studs or nuts.
- What is the diameter of the component to be removed ? = choice of spread.
- How is the component to be gripped ? = choice of type of grip: outside grip, inside grip, special grip.
- How is the component to be pulled ? = choice of bearing point: on the central axis, on the outside of the component, no available bearing point (= need to use puller accessories).

	■ Bearings	■ Pulleys	■ Studs	■ Outside grip	■ Inside grip				
🔗	Spread (mm)			Reach (mm)	Force T kN	Characteristics		Page	
<b>Outside grip - adjustable 2 or 3 leg pullers</b>									
U.306A140	7	140		147	3 30			630	
U.306-180	10	180		200	4 40	System U.306 - 2 or 3 legs - Inside or outside grip - Self gripping - self centring		630	
U.306-260	20	260		250	4 40			630	
U.310-170	15	170		170	10 100			630	
U.310-250	15	250		250	10 100			631	
<b>Outside grip - 3 leg pullers</b>									
U.302	17	80		90	1,5 15	Compact series slim legs		632	
U.302-150	25	150		150	1,5 15			632	
U.302-200	25	200		200	2,4 24			632	
U.20	25	170		160	7 70	Force		633	
U.20B	25	260		220	7 70			633	
U.27AS3	30		800	720	6 60			634	
U.320	100	360		400	20 200	Heavy duty		635	
U.330	100	530		550	30 300			635	
U.312H	45	270		260	10 100	Heavy duty hydraulic		636	
U.320H	100	360		265	20 200			638	
U.330H	100	530		395	30 300			638	
<b>Inside or outside grip - 2 leg pullers</b>									
U.32T2-8	20	80		105	2 20	Lockable reversible 2-leg puller		641	
U.32T2-12	20	120		105	2 20			641	
U.32T6-16	20	160		150	6 60			641	
U.32T6-20	20	200		150	6 60			641	
U.32T15-25	25	250		170	15 150			641	
U.32T15-35	25	350		270	15 150			641	
U.32T15-50	25	470		270	15 150			641	
U.232-65	30	60		65	1,5 15			Reversible 2-leg puller	
U.232-90	60	81		100	3 30	643			
U.232-130	60	122		100	3 30	643			
U.232-160	86	153		145	4 40	643			
U.232-210	86	203		145	4 40	643			
U.232-270	100	255		190	5 50	643			
U.232-340	100	325		190	5 50	643			



## FACOM YOUR PULLER SPECIALIST

# Designer and manufacturer.

### A comprehensive range



### Your safety: our priority.

- The design, choice of materials and optimisation of Facom's pullers ensure guaranteed safety and reliability.
- FACOM has developed a "force limiting" safety system consisting of a shear pin that fails when the maximum allowable torque is reached (series U.306/310 and U.20).



### Pullers: it pays to be ready.

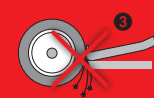
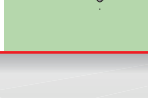
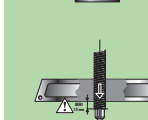
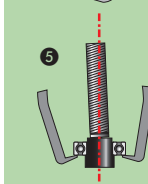
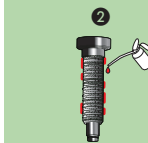
- Saves time: having the right puller readily to hand allows a speedy response in the event of a breakdown, and a quick resumption of production.
- A sound investment: when a machine breaks down, each second of lost production represents a great deal of money. A puller often pays for itself after just one use.

### PULLERS: SAFETY FIRST

## Facom's 10 tips

**Pulling components can involve very high forces. The operation can therefore be very hazardous, which is why pullers require professional handling.**

- 1 Wear eye protection and gloves (see section 15, p528).
- 2 Always ensure that a puller is in good condition and that the screw is evenly lubricated.
- 3 Never modify a puller. Do not grind or weld the legs. Modifications can be very dangerous for the user and invalidates the guarantee.
- 4 Wherever possible, select a 3-leg puller for optimum load distribution.
- 5 Position the legs carefully, making sure that the puller is straight in relation to the line of traction.
- 6 Where possible, use a net (or sheet) to cover both the puller and the part being removed, in case the assembly springs apart suddenly.
- 7 Before applying pressure, check that the component is free to move, i.e. that all brackets, pins and nuts have been removed.
- 8 Never stand behind a puller - stay to one side.
- 9 Ask any bystanders to keep their distance.
- 10 Apply pressure to the puller screw progressively. Do not use impact wrenches.

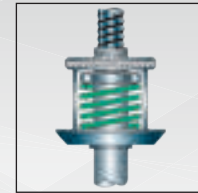


U.306/310 COVERS 80% OF COMMON APPLICATIONS



Practical, efficient, versatile

Exclusive Facom body.  
Easier, safer.



VERSATILE

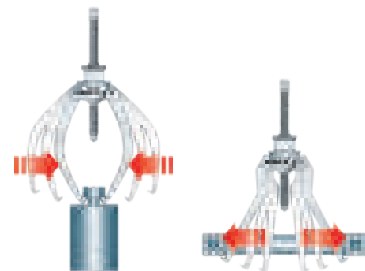
- Based on a single body, the U.306/U.310 system can be configured to perform all routine mechanical engineering pulling operations.
- Puller accessories provide a full range of pulling solutions.



Inside or outside configuration for 2 or 3-leg pullers, with or without accessories.

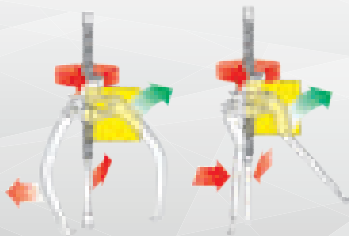
EASY TO USE

- Self-gripping.
- Self-centering.



EASY LEG CHANGE

- Compress the spring.
- Remove the leg in place and place the new desired leg.

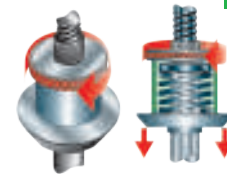


SAFETY



Locknut

- Tightening the locknut securely locks the legs in place.



Shear pin

- The pin shears if torque limit is exceeded.



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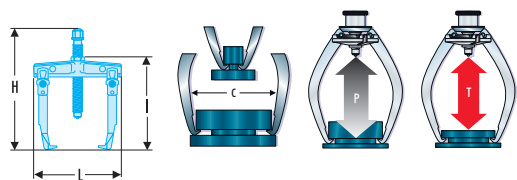
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UNIVERSAL REVERSIBLE 3-LEG PULLERS

U.306 - Outside pullers



- Versatile: takes 2 or 3 legs. Converts into inside puller with the legs U.306G2 + screw U.306-4 or legs U.306G20 + screw U.306-2.
- Comfort: self-gripping legs by return spring. The puller stays in rolling position even when not in tension.
- Safety: legs locked in position on the bearing using a knob. No risk for the puller to escape from the bearing.
- Shear pin: the pin shears if torque limit is exceeded. Supplied with 2 spare pins.
- Set of 3 spare pins. Refer to spares table according to puller power.
- Adaptable puller accessories: slide hammer U.306M (direct attachment) and beam U.40 (attached using ring and nut U.306A1 to be ordered separately).
- The U.306-260 puller is supplied with the U.306-3 screw fitted with its extension.

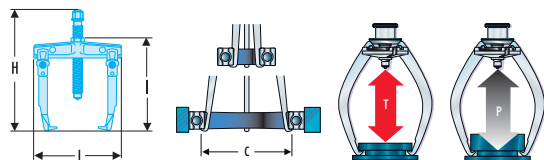


Model	C mini - maxi [mm]	H [mm]	l [mm]	L [mm]	P maxi [mm]	Legs	Tonnes [t]	T [kN]	Screw Size	Screw Size[mm]	$\Delta\Delta$ [kg]
U.306A140	7 - 140	262	225	130	147	U.306G1	3	30	U.306-4	18	1.6
U.306-180	50 - 170	320	185	135	200	U.306G10	4	40	U.306-2	18	2.2
U.306-260	20 - 260	385	350	145	250	U.306G15	4	40	U.306-3	18	3.1

U.306N - Inside pullers



- Versatile: takes 2 or 3 legs. Converts into outside puller with the legs U.306G1 + screw U.306-4 or legs U.306G10 + screw U.306-2 or legs U.306G15 + screw U.306-3 (supplied fitted with its extension).
- Comfort: self-gripping legs by return spring. The puller stays in rolling position even when not in tension.
- Safety: legs locked in position on the bearing using a knob. No risk for the puller to escape from the bearing.
- Shear pin: the pin shears if torque limit is exceeded. Supplied with 2 spare pins.
- Set of 3 spare pins. Refer to spares table according to puller power.
- Adaptable puller accessories: slide hammer U.306M (direct attachment) and beam U.40 (attached using ring and nut U.306A1 to be ordered separately).



Model	C mini - maxi [mm]	H [mm]	l [mm]	L [mm]	P maxi [mm]	Legs	Tonnes [t]	T [kN]	Screw Size	Screw Size[mm]	$\Delta\Delta$ [kg]
U.306A130N	23 - 130	250	225	130	140	U.306G2	3	30	U.306-4	18	1.3
U.306-170N	50 - 170	320	285	135	190	U.306G20	4	40	U.306-2	18	1.8



Inside/outside puller kit

- Comprising:
  - 1 puller U.306A140.
  - 3 inside legs U.306G2.
  - 2 puller accessories: slide hammer U.306M and beam U.40 (attached using ring and nut U.306A1, supplied with the kit).
- Spread:
  - Outside: Ø 7 to Ø 140 mm.
  - Inside: Ø 23 to Ø 130 mm.
- Reach: 140 mm.
- Supplied in a steel case BT.102 with tray PL.209.



	$\Delta\Delta$ [kg]
<b>U.306J1</b>	11.3

Inside/outside puller kit

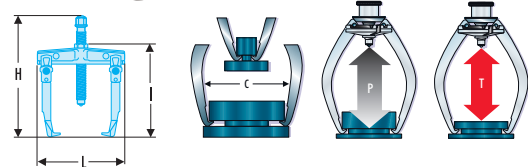
- Comprising:
  - 1 puller U.306A140.
  - 3 inside legs U.306G2.
  - 3 long-reach outside legs U.306G10.
  - Spread: outside Ø 7 to 140 mm or Ø 10 to 180 mm, inside 23 to 130 mm.
- 1 compact puller U.14L.
  - Spread Ø 10 to 45 mm.
- Tray PL.354.



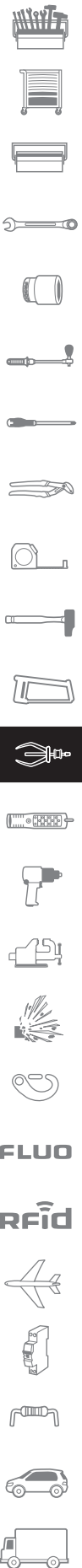
	H [mm]	I [mm]	L [mm]	$\Delta\Delta$ [kg]
<b>MOD.U306</b>	40	350	435	4.4

U.310 - Outside pullers

- Versatile: takes 2 or 3 legs. Converts into inside puller with the legs U.306G3 + screw U.20B1.
- Comfort: self-gripping legs by return spring. The puller stays in rolling position even when not in tension.
- Safety: legs locked in position on the bearing using a knob. No risk for the puller to escape from the bearing.
- Adaptable puller accessories: hydraulic screw U.3 and slide hammer U.2.



	C mini - maxi [mm]	H [mm]	I [mm]	L [mm]	P maxi [mm]	Legs	Tonnes [t]	T [kN]	Screw Size	Screw Size[mm]	$\Delta\Delta$ [kg]
<b>U.310-170</b>	15 - 170	365	300	143	170	U.310G1	10	100	U.20B1	24	4.6
<b>U.310-250</b>	15 - 250	420	380	163	250	U.310G2	10	100	U.310-250-10	24	5.6

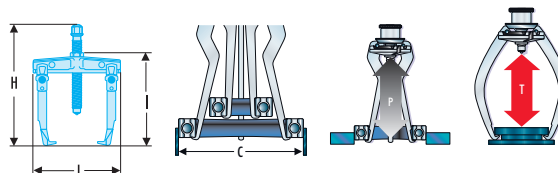


UNIVERSAL REVERSIBLE 3-LEG PULLERS

Inside puller



- Versatile: takes 2 or 3 legs. Converts into outside puller with the legs U.306G1 + screw U.20B1 or legs U.310G2 + screw U.310-250-10.
- Comfort: self-gripping legs by return spring. The puller stays in rolling position even when not in tension.
- Safety: legs locked in position on the bearing using a knob. No risk for the puller to escape from the bearing.
- Adaptable puller accessories: hydraulic screw U.3 and slide hammer U.2.



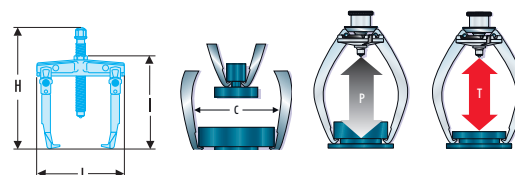
ED	C mini - maxi [mm]	H [mm]	I [mm]	L [mm]	P maxi [mm]	Legs	Tonnes [t]	T [kN]	Screw Size	Screw Size[mm]	ΔΔ [kg]
U.310-230N	50 - 230	400	360	180	200	U.310G3	10	100	U.20B1	24	4.1

SLIM-PROFILE 3-LEG PULLERS

U.302 - Self-gripping outside pullers with slim legs



- Comfort: self-gripping legs by return spring. The puller stays in rolling position even when not in tension.
- Adaptable puller accessories: slide hammer U.49AM.
  - Per tip U.301E1 (U.302 and U.302-150).
  - Per tip U.301E2 (U.302-200).

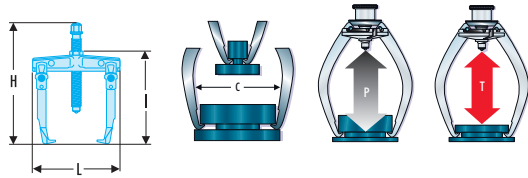


ED	C mini - maxi [mm]	H [mm]	I [mm]	L [mm]	P maxi [mm]	Legs	Tonnes [t]	T [kN]	Screw Size	Screw Size[mm]	ΔΔ [kg]
U.302	17 - 80	153	130	77	90	U.301G	1,5	15	U.301-04	10	0.6
U.302-150	25 - 150	222	206	90	150	-	1,5	15	U.301-04-150	10	0.9
U.302-200	25 - 200	300	270	105	200	-	2,4	24	U.301-04-200	13	1.6

HIGH CAPACITY 3-LEG PULLERS

Reversible universal 2-leg pullers

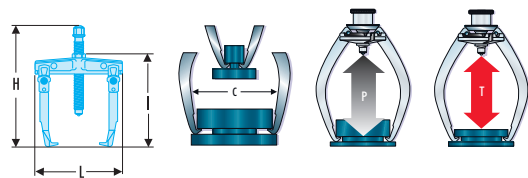
- Safety: legs locked in position on the bearing using the central nut. No risk for the puller to escape from the bearing.
- Shear pin: the pin shears if torque limit is exceeded. Supplied with 2 spare pins.
- Set of 3 spare pins. U.306-24J3.
- Fitted with the anti-rotation bush U.20-12. The button protects the screw when a bar is used to block puller rotation.
- Adaptable puller accessory: slide hammer U.2.



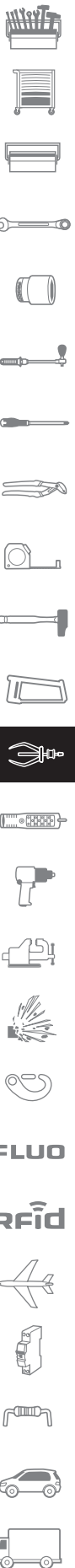
U.20	C mini - maxi [mm]	H [mm]	I [mm]	L [mm]	P maxi [mm]	Legs	Tonnes [t]	T [kN]	Screw Size	Screw Size [mm]	ΔΔ [kg]
U.20	25 - 170	305	265	120	160	U.20SE4	7	70	U.20-1S	24	3.5

Long-reach leg outside puller

- Safety: legs locked in position on the bearing using the central nut. No risk for the puller to escape from the bearing.
- Shear pin: the pin shears if torque limit is exceeded. Supplied with 2 spare pins.
- Set of 3 spare pins. U.306-24J3.
- Fitted with the anti-rotation bush U.20-12. The button protects the screw when a bar is used to block puller rotation.
- Adaptable puller accessory: slide hammer U.2.



U.20B	C mini - maxi [mm]	H [mm]	I [mm]	L [mm]	P maxi [mm]	Legs	Tonnes [t]	T [kN]	Screw Size	Screw Size [mm]	ΔΔ [kg]
U.20B	25 - 260	370	325	125	220	U.20BSE4	7	70	U.20-B1S	24	4.3



HIGH CAPACITY 3-LEG PULLERS

U.27AS3 ATTACHMENT OPTIONS

Long legs and links for increased versatility

**U.27AS3**

Fitted with standard legs and links.

- Spread: 30 to 460 mm.
- Max. reach: 360 mm.

**3 x U.27D:**

Fitted with long legs

- Spread: 40 to 460 mm.
- Max reach: 480 mm.

**3 x U.27B:**

Fitted with long links

- Spread: 50 to 800 mm.
- Max reach: 600 mm

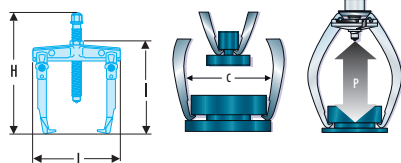
**3 x U.27D**

**+ 3 x U.27B:**  
Fitted with long legs and links.

- Spread: 50 to 800 mm.
- Max reach: 720 mm.



Wide spread grip puller - 2 or 3 leg pullers

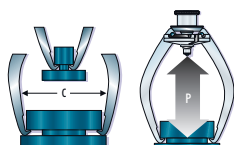


- Versatile: takes 2 or 3 legs.
- Can be fitted with long legs U.27D (order by sets of 3) and linkage system U.27B (order by sets of 3).



	C mini - maxi [mm]	H [mm]	L [mm]	L [mm]	P [mm]	P maxi [mm]	Spare Links	Legs	Tonnes [t]	T [kN]	Screw Size	Screw Size [mm]	ΔΔ [kg]
<b>U.27AS3</b>	30 - 460	555	450	280	360	360	U.27BS	U.27S	6	60	U.27-6	35	16.5

1 long leg for U.27AS3



- Long links designed to increase spread of puller U.27AS3 from 360 to 480 mm (order by set of 3).
- Supplied without shaft.
- Set of pins to order separately: U.27SE2.



	C mini - maxi [mm]	P maxi [mm]	ΔΔ [kg]
<b>U.27D</b>	40 - 460	480	1.5

1 long leg for U.27AS3

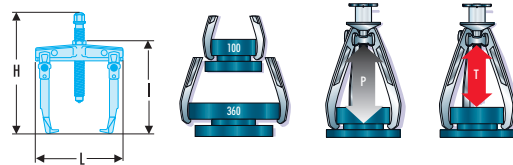
- Long links designed to increase spread of puller U.27AS3 from 460 to 800 mm (order by set of 3).
- Supplied without shaft.
- Set of pins to order separately: U.27SE2.



	C mini - maxi [mm]	P maxi [mm]	$\Delta\Delta$ [kg]
<b>U.27B</b>	50 - 800	600	3.2

High-capacity 20T outside puller

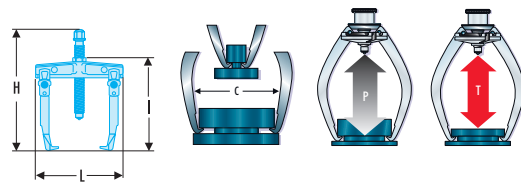
- Versatile: takes 2 or 3 legs.
- Comfort: self-gripping legs by return spring. The puller stays in rolling position even when not in tension.
- Safety: legs locked in position on the bearing using a knob. No risk for the puller to escape from the bearing.
- The screw is supplied with an extension: U.320-14.
- Adaptable puller accessory: hydraulic jack UWG.320. Using the jack requires the screw UWG.320-H01 and hydraulic pump UWP.10M. Mounting with 3 legs only with the hydraulic jack.



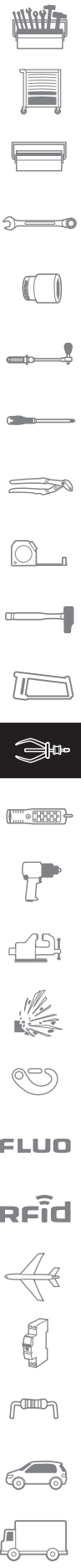
	C mini - maxi [mm]	H [mm]	I [mm]	L [mm]	P maxi [mm]	Legs	Tonnes [t]	T [kN]	Screw Size	Screw Size [mm]	$\Delta\Delta$ [kg]
<b>U.320</b>	100 - 360	740	700	250	400	U.320-13A	20	200	U.320-01	36	27.4

High-capacity 30T outside puller

- Versatile: takes 2 or 3 legs.
- Comfort: self-gripping legs by return spring. The puller stays in rolling position even when not in tension.
- Safety: legs locked in position on the bearing using a knob. No risk for the puller to escape from the bearing.
- The screw is supplied with an extension: U.330-14.
- Adaptable puller accessory: hydraulic jack UWG.330. Using the jack requires the screw UWG.330-H01 and hydraulic pump UWP.10M. Mounting with 3 legs only with the hydraulic jack.



	C mini - maxi [mm]	H [mm]	I [mm]	L [mm]	P maxi [mm]	Legs	Tonnes [t]	T [kN]	Screw Size	Screw Size [mm]	$\Delta\Delta$ [kg]
<b>U.330</b>	100 - 530	950	900	300	550	U.330-08	30	300	U.330-02	41	32.4



PULLERS - HG

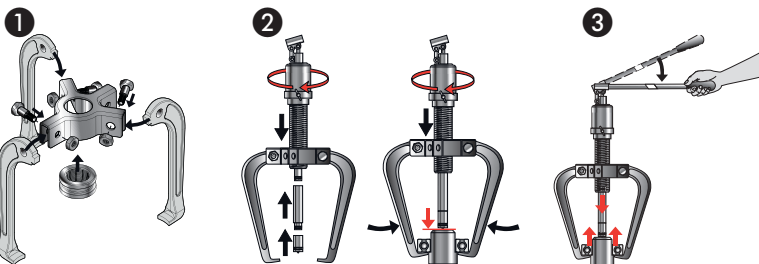
**U.312H MEDIUM-DUTY HYDRAULIC PULLER**



**10 tonnes of effortless pulling force readily to hand**

**VERSATILE**

Based on a single body that can be fitted with 4 different sizes of legs for bearings  $\varnothing$  45 to 270 mm. 2 or 3-leg configurations. For light to heavy engineering applications.



- 1 Assemble the body and the correct legs for the bearing.
- 2 Position the jack and the puller. Pump the jack. The bearing will be removed safely and effortlessly.
- 3



**PRACTICAL**

The carry case (field servicing) dismantles for easy storage in the drawers of your FACOM JET XL, JET+ roller cabinets (workshop servicing).

**SAFETY FIRST**



- A safety valve hydraulically limits the jack to 10 tonnes.
- The other mechanical components can withstand much higher forces.



Hydraulic puller 10 T for outside puller - 3 sets of legs

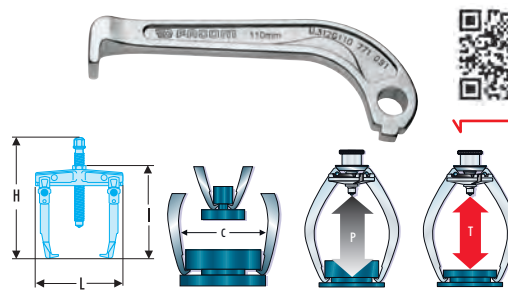
- Versatile: takes 2 or 3 legs.
- Safety: power is limited hydraulically to 10 tonnes. No risk of breakage.
- Comprising:
  - A 10-tonne hydraulic jack (100 kN) U.312-01 + and guide tip U.312-02 + set of 2 extensions U.312-03.
  - A body with 2 or 3 legs U.312-04 + centering screw U.312-04-01 + set of 3 screws/nuts U.312-04-02.
  - 3 sets of legs: U.312G160, U.312G210 and U.312G260.
- Supplied in plastic case U.312VAL.



U	H [mm]	l [mm]	L [mm]	ΔΔ [kg]
<b>U.312HJ3</b>	105	412	565	13.2

U.312HJ3 - Mounting with legs

U	A [mm]	C mini - maxi [mm]	H [mm]	l [mm]	L [mm]	P maxi [mm]	Tonnes [t]	T [kN]	ΔΔ [kg]
<b>U.312G160</b>	7	80 - 170	400	220	218	160	10	100	0.6
<b>U.312G210</b>	7	90 - 210	450	270	275	210	10	100	0.7
<b>U.312G260</b>	7	110 - 270	492	312	330	260	10	100	1.0



Hydraulic puller 10 T for outside puller - 4 sets of legs

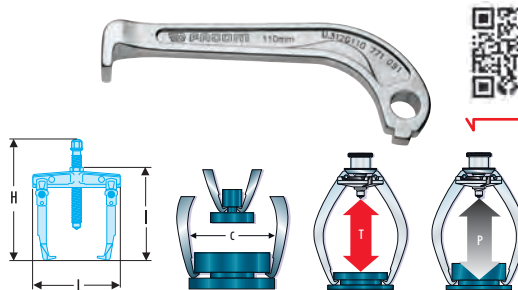
- Versatile: takes 2 or 3 legs.
- Safety: power is limited hydraulically to 10 tonnes. No risk of breakage.
- Comprising:
  - A 10-tonne hydraulic jack (100 kN) U.312-01 + and guide tip U.312-02 + set of 2 extensions U.312-03.
  - A body with 2 or 3 legs U.312-04 + centering screw U.312-04-01 + set of 3 screws/nuts U.312-04-02.
  - 4 sets of legs: U.312G110, U.312G160, U.312G210 and U.312G260.
- Supplied in plastic case U.312VAL.



U	H [mm]	l [mm]	L [mm]	ΔΔ [kg]
<b>U.312HJ4</b>	105	412	565	14.4

U.312HJ4 - Mounting with legs

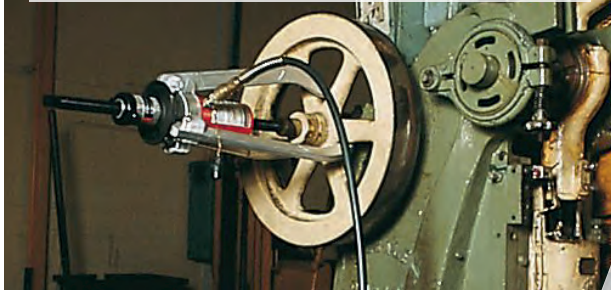
U	A [mm]	C mini - maxi [mm]	H [mm]	l [mm]	L [mm]	P maxi [mm]	Tonnes [t]	T [kN]	ΔΔ [kg]
<b>U.312G110</b>	7	45 - 85	355	175	155	110	10	100	0.4
<b>U.312G160</b>	7	80 - 170	400	220	218	160	10	100	0.6
<b>U.312G210</b>	7	90 - 210	450	270	275	210	10	100	0.7
<b>U.312G260</b>	7	110 - 270	492	312	330	260	10	100	1.0



HYDRAULIC PULLERS

U.320H/U.330H HIGH CAPACITY HYDRAULIC PULLERS

Up to 30 tonnes in complete safety



Hydraulic models incorporate a hydraulic jack fitted with a standard male coupling. The jack is designed for pressures up to 700 bar and is supplied from a manual or powered pump. Details of these accessories can be found under "Pumps and jacks".



**Powerful**

Fluid power ensures effortless and fast removal, while the puller remains steady even when applied to rotating components. Hydraulic models are used only with 3 legs.

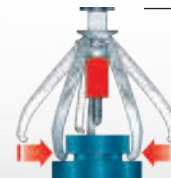
**Safe**

- Legs are secured with a locknut.



**Automatic**

- Self-centring.
- Self-gripping.



20 T hydraulic outside puller



- Comfort: self-gripping legs by return spring. The puller stays in position on the bearing even when not in tension.
- Safety: power is limited hydraulically by the pump. No risk of breakage.
- 1 hollow jack UWG.320 fitted with the screw UWG.320H01.
- Use with 700-bar pump UWP.10MA.
- Mounting with 3 legs only with the hydraulic jack.



	C mini - maxi [mm]	H [mm]	I [mm]	L [mm]	P maxi [mm]	Legs	Tonnes [t]	T [kN]	Jack	Screw Size	Screw Size [mm]	$\Delta\Delta$ [kg]
<b>U.320H</b>	100 - 360	740	700	250	265	U.320-13A	20	200	UWG.320	UWG.320H01	21	48.5

30 T hydraulic outside puller



- Comfort: self-gripping legs by return spring. The puller stays in position on the bearing even when not in tension.
- Safety: power is limited hydraulically by the pump. No risk of breakage.
- 1 hollow jack UWG.320 fitted with the screw UWG.330H01.
- Use with 700-bar pump UWP.10MA.
- Mounting with 3 legs only with the hydraulic jack.



	C mini - maxi [mm]	H [mm]	I [mm]	L [mm]	P maxi [mm]	Legs	Tonnes [t]	T [kN]	Jack	Screw Size	Screw Size [mm]	$\Delta\Delta$ [kg]
<b>U.330H</b>	100 - 530	950	900	300	395	U.330-08A	30	300	UWG.330	UWG.330H01	24	55.6

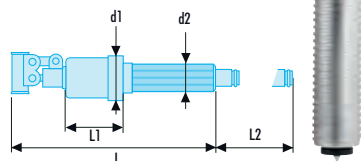


## HYDRAULIC JACKS AND PUMPS

### 10T hydraulic jack for U.312H

- Hydraulic jack: power 10 tonnes (100 kN).
- Beam travel: 80 mm.
- Use with hydraulic puller U.312H in kits U.312HJ3 and U.312HJ4.
- Supplied with guide bit U.312-02.

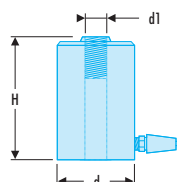
	d1 [mm]	d2 [mm]	L [mm]	L1 [mm]	L2 [mm]	ΔΔ [kg]
<b>U.312-01</b>	61	42	325	83	80	2.3



### UWG - 20T and 30T hollow jacks for U.320H, U.330H

- These jacks are intended for hydraulic pullers U.320H and U.330H in replacement or option on manual pullers U.320 and U.330 using special screws UWG.320H01 and UWG.330H01.
- They are fitted with through taps receiving a central screw to work in pushing or traction.
- Jacks activated with 700-bar pump UWP.10MA.
- The use in jack function is possible.

	d [mm]	d1 [mm]	H [mm]	Oil Capacity [cm³]	Travel [N.m]	Rating [kN]	Tonnes [t]	T [kN]	Screw Size	Screw Size [mm]	ΔΔ [kg]
<b>UWG.320</b>	100	23,8	160	141,5	50	200	20	200	UWG.320H01	21	8.0
<b>UWG.330</b>	115	29,0	177	257,4	60	300	30	300	UWG.330H01	24	10.0



### Screws for UWG jack

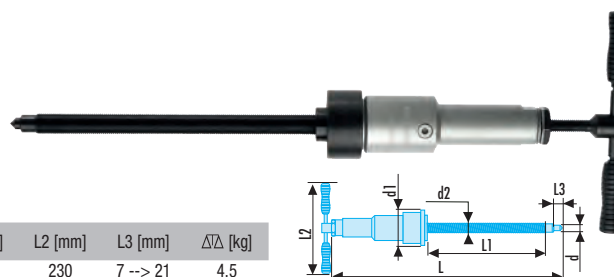
	d [mm]	L [mm]	Jack	Screw Size [mm]	ΔΔ [kg]
<b>UWG.320H01</b>	M27 x 3,0	590	UWG.320	21	2.3
<b>UWG.330H01</b>	M33 x 3,5	780	UWG.330	24	4.5



### 10 T hydraulic screw

- Power: 10 tonnes (100 kN).
- Length of the threaded screw: 300 mm.
- Travel of the pusher bit: 14 mm.
- M22 x 2.0 thread compatible with puller U.310.

	d [mm]	d1 [mm]	d2 [mm]	L [mm]	L1 [mm]	L2 [mm]	L3 [mm]	ΔΔ [kg]
<b>U.3</b>	14	70	M22 x 2,0	555	300	230	7 --> 21	4.5



### 2-speed hydraulic hand pump

- Manual pump with pressure gauge and relief valve, giving 2 flow rates:
  - 1st stage: high flow, max pressure: 50 bar.
  - 2nd stage: low flow, max pressure: 700 bar.
- Use with pullers U.320H, U.330H and hollow cylinders UWG.320, UWG.330.
- Oil capacity: 1500 to 2500 cm³.
- Supplied with a 1.80 m hose with a female quick coupler WA.1166F.
- Size: 450 x 170 x 160 mm.

	l [mm]	L [mm]	ΔΔ [kg]
<b>UWP.10MA</b>	170	450	12.5



HYDRAULIC JACKS AND PUMPS

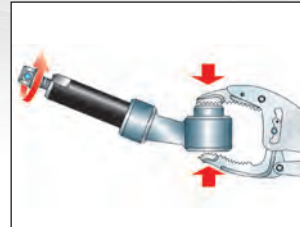
U.33A/U.66A HYDRAULIC JACKS

# Hydraulically-assisted pulling action

Used in conjunction with mechanical pullers, hydraulic jacks help separate the fittings to be removed.



- Place the jack between the component and the puller's screw.
- Centre the loads.
- Apply pressure axially.



### Plunger retraction

- Back off screw to release pressure.
- Use pliers or clamp to push back plunger.



- Hold the puller while tightening the screw to allow the plunger to extend.
- The bearing is removed

### SAFETY FIRST



- During screw tightening, a safety pin will shear if the maximum allowable torque is exceeded.
- When using both puller and jack, make sure generated forces are compatible.
- Never use pneumatic tools.

#### Mechanical screw 30-tonne jack



- Piston travel: 5 mm.
- Pin shearing at 110 N.m.
- Supplied with 3 spare pins, and 2 shims 25 and 50 mm high (Ø 40 mm).
- Set of 3 spare pins: U.33GJ3.
- Set of 2 spare blocks: U.33-EMB.
- Piston Ø: 33 mm.
- Length: 260 mm; head height: 35 mm.
- Power: 30 tonnes; 300 kN.
- 6-point screw size 19 mm.



Icon	L [mm]	ΔΔ [kg]
	260	2.0

U.33A

#### Mechanical screw 120-tonne jack



- Piston travel: 15 mm.
- Pin shearing at 550 N.m.
- Piston Ø: 80 mm; borehole Ø: 47 mm.
- Length: 500 mm; head height: 105 mm.
- Power: 120 tonnes; 1200 kN.
- 6-point screw size 36 mm.
- Supplied with 3 spare pins.
- Set of 3 spare pins: U.66A03J3.

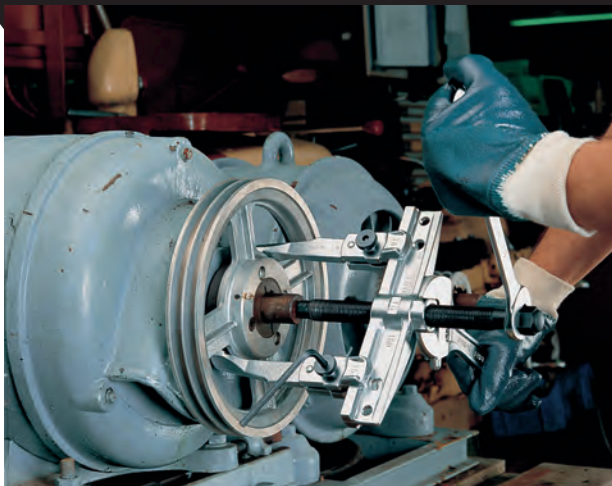


Icon	L [mm]	ΔΔ [kg]
	500	9.0

U.66A

REVERSIBLE UNIVERSAL 2-LEG PULLERS

U.32T LOCKABLE 2-LEG PULLER



High performance puller

For inside and outside puller applications. Inside and outside puller spread in millimeters.

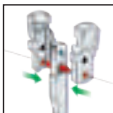


SAFETY FIRST



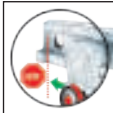
Pins

- Leg-mounting pins ensure easy and safe fixing to beam. Pins are treated to withstand pulling stresses.



Leg retainer

- Beam end-stop prevents legs sliding off.

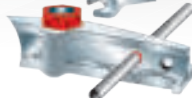


Knurled locknut

- Leg assembly locks in any position by hand-tightening the knurled locknut.



Rotation prevention



- Tightening the lock-nut with a wrench.
- Passing a rod through holes in the beam.

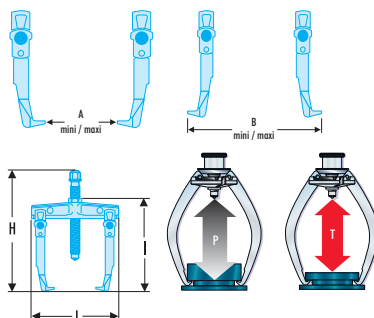


Reach

- Long-leg sets are easily fitted to the beam using a unique system of attachment. They increase the reach up to 470 mm.

U.32T - Lockable 2-leg sliding pullers

- Versatile: conversion possible in inside or outside grip with the same meg.
- Safety: knurled locking button.



	A mini - maxi [mm]	B mini - maxi [mm]	H [mm]	I [mm]	L [mm]	P maxi [mm]	Puller	Tonnes [t]	T [kN]	Screw Size	Screw Size[mm]	ΔΔ [kg]
U.32T2-8	20 - 80	90 - 140	170	150	142	105	21	2	20	U.32T2-1	13	1.1
U.32T2-12	20 - 120	90 - 180	170	150	182	105	21	2	20	U.32T2-1	13	1.2
U.32T6-16	20 - 160	130 - 250	255	215	230	150	32	6	60	U.32T6-1	24	2.9
U.32T6-20	20 - 200	130 - 290	255	215	277	150	32	6	60	U.32T6-1	24	3.2
U.32T15-25	25 - 250	180 - 380	360	305	364	170	41	15	150	U.32T15-1	35	8.6
U.32T15-35	25 - 350	180 - 480	470	405	464	270	41	15	150	U.32T15-2	35	10.8
U.32T15-50	25 - 470	180 - 530	470	405	614	270	41	15	150	U.32T15-2	35	17.1



REVERSIBLE UNIVERSAL 2-LEG PULLERS

U.32TGA - Spare legs for U.32T



- For your safety, we recommend that all the legs are replaced in the event of a problem.
- Leg supplied per unit, without leg holder.
- Leg holder supplied per unit.



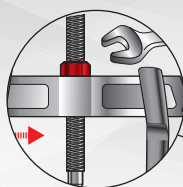
Ref	A [mm]	E [mm]	H [mm]	H1 [mm]	L [mm]	L1 [mm]	L2 [mm]	P [mm]	Legs	Mounting Pins	For	ΔΔ [kg]
U.32T2GA10	8,5	2,5	130	105	18	10	18,0	110	U.32T2-8 - U.32T2-14	U.32T2DG	U.32T2	0.6
U.32T2GA20	2,5	2,5	225	185	18	10	18,0	185	Option	U.32T2DG	U.32T2	0.8
U.32T2GA25	2,5	2,5	275	235	18	10	18,0	235	Option	U.32T2DG	U.32T2	0.9
U.32T6GA15	4	4,0	180	150	24	15	28,5	150	U.32T6-16 -U.32T6-22	U.32T6DG	U.32T6	1.4
U.32T6GA30	4	4,0	335	280	24	15	28,5	280	Option	U.32T6DG	U.32T6	2.0
U.32T15GA20	5	5,0	250	170	34	20	36,0	170	U.32T15-25	U.32T15DG	U.32T15	3.4
U.32T15GA30	4	5,0	315	270	34	20	36,0	270	U.32T15-35 - U.32T15-50	U.32T15DG	U.32T15	4.2
U.32T15GA40	5	5,0	445	370	34	20	36,0	370	Option	U.32T15DG	U.32T15	5.0
U.32T15GA50	5	5,0	545	470	34	20	36,0	470	Option	U.31T15DG	U.32T15	5.8

U.232 2-LEG PULLER



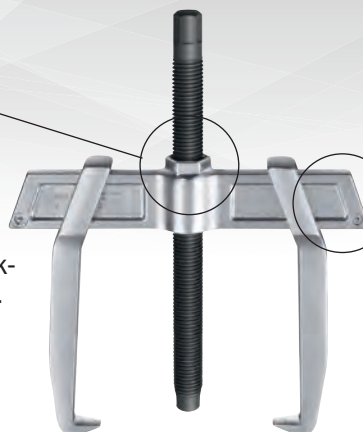
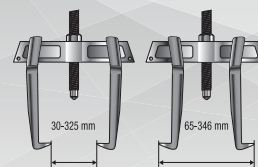
Strength and simplicity!

2-leg puller, inside or outside grip



Anti-rotation system

- Tightening the lock-nut with a wrench.



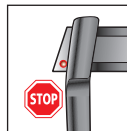
Leg reversal

- Legs changed from inside grip to outside grip configurations simply by pressing the pin. No need for tools.

SAFETY FIRST

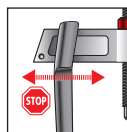
Leg retainer

A spring-loaded pin at the end of the beam prevents the legs from sliding off.



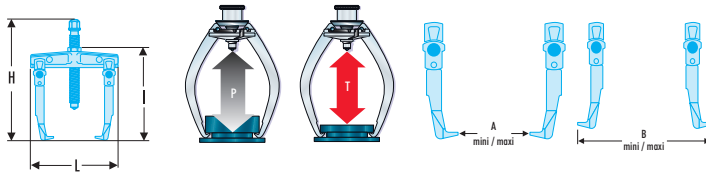
Leg locking

The legs are designed to cantilever during pulling, blocking them in place and preventing them from sliding along the beam.



U.232 - 2-leg sliding-leg pullers

- Versatile: conversion possible in inside or outside grip with the same leg.
- Safety:
  - Stops to prevent legs from falling.
  - Under pressure, the legs are set to overhang to avoid sliding.

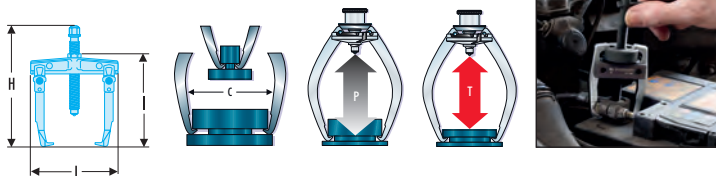


Ref	A mini - maxi [mm]	B mini - maxi [mm]	H [mm]	l [mm]	L [mm]	P maxi [mm]	Puller	Legs	Tonnes [t]	T [kN]	Screw Size	Screw Size [mm]	ΔΔ [kg]
U.232-65	30 - 60	65 - 90	133	105	115	65	16	U.232G1	1,5	15	U.35P01	13	0.4
U.232-90	60 - 81	86 - 95	182	155	146	100	21	U.232G2	3,0	30	U.35SE1	17	0.9
U.232-130	60 - 122	86 - 136	182	155	186	100	21	U.232G2	3,0	30	U.35SE1	17	1
U.232-160	86 - 153	127 - 171	283	233	247	145	27	U.232G3	4,0	40	U.53S2A07	17	2.8
U.232-210	86 - 203	127 - 222	283	233	297	145	27	U.232G3	4,0	40	U.53S2A07	17	3
U.232-270	100 - 255	148 - 276	345	303	379	190	36	U.232G4	5,0	50	U.53S3-07	32	7.5
U.232-340	100 - 325	148 - 346	345	303	449	190	36	U.232G4	5,0	50	U.53S3-07	32	8.2

SLIM-PROFILE 2-LEG PULLERS

U.14 - Self-gripping outside pullers with slim legs

- Access: 2 slim leg puller.
- Comfort: self-gripping legs by return spring. The puller stays in rolling position even when not in tension.
- Example of use = battery terminals.

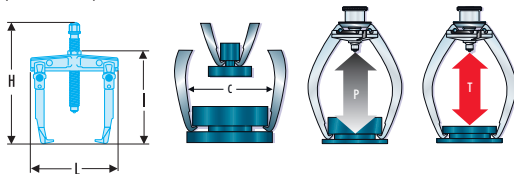


Ref	C mini - maxi [mm]	H [mm]	l [mm]	L [mm]	P maxi [mm]	Tonnes [t]	T [kN]	Screw Size	Screw Size [mm]	ΔΔ [kg]
U.14A	10 - 35	125	75	60	40	0,5	5	U.14A04	Spindle	
U.14L	10 - 45	150	120	85	60	0,5	5	U.14A04	Spindle	0.38



U.301 - Self-gripping outside pullers with slim legs

- Access: 2 slim leg puller.
- Comfort: self-gripping legs by return spring. The puller stays in rolling position even when not in tension.
- Adaptable puller accessory: slide hammer U.49AM.
  - Per tip U.301E1 (U.301 and U.301-150).
  - Per tip U.301E2 (U.301-200).



Ref	C mini - maxi [mm]	H [mm]	l [mm]	L [mm]	P maxi [mm]	Legs	Tonnes [t]	T [kN]	Screw Size	Screw Size [mm]	ΔΔ [kg]
U.301	10 - 80	153	130	83	90	U.301G	0,9	9	U.301-04	10	0.5
U.301-150	15 - 150	222	206	90	150	-	0,9	9	U.301-04-150	10	0.7
U.301-200	15 - 200	300	268	120	200	-	1,3	13	U.301-04-200	13	1.1



**SLIM OR WIDE LEGS?**

**Slim leg pullers**

Slim leg pullers are used for pulling bearings located in confined spaces.

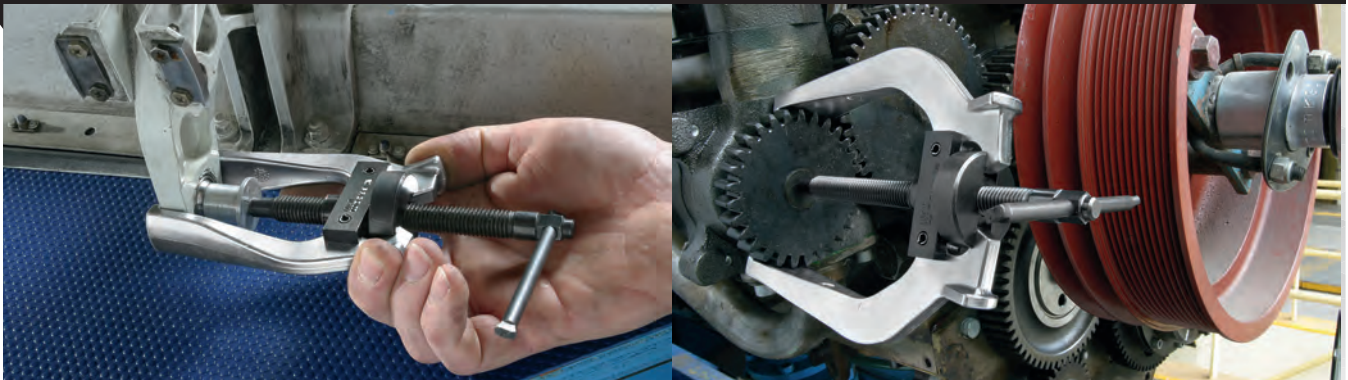
OR

**Wide leg pullers**

Wide leg pullers offer more limited access but their legs wrap around the bearing, offering maximum grip. The bearing is preserved and more power can be applied.



**U.301 L/M/P WIDE 2-LEG PULLER**



**A compact puller with two "wrap around" legs for a better grip!**



**Effective and easy to use. Self-gripping, self-centring "body and spring" system.**

- 1 - Force-limiting safety rod.
- 2 - Ergonomic finger grips and one-hand installation option.
- 3 - Shear pin.
- 4 - "Wrap-around" legs to grip the part firmly without scratching.
- 5 - "Positive" leg angle for optimum grip even under maximum pulling force. Spread: 50, 100, 110 mm.



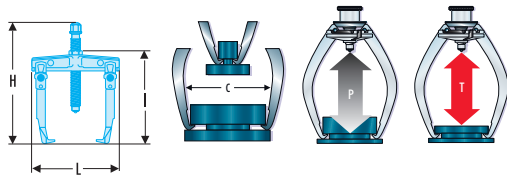
**SAFETY FIRST**

The rod (1) then the shear pin (3) fail in stages before the yield point of the legs is reached.

WIDE 2-LEG PULLERS

U.301 - Self-gripping outside pullers with wide legs

- Comfort: self-gripping legs by return spring. The puller stays in position on the bearing even when not in tension.
- Safety: a power restrictor pin is pressed when the force applied is too strong.
- Adaptable puller accessory: slide hammer U.49AM.
  - Per tip U.301E1 (U.301P and U.301M).
  - Per tip U.301E2 (U.301L).

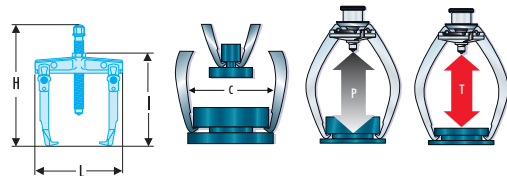


Model	C mini - maxi [mm]	H [mm]	I [mm]	L [mm]	P maxi [mm]	Tonnes [t]	T [kN]	Screw Size	$\Delta\Delta$ [kg]
U.301P	15 - 50	147	120	75	70	0,9	9	U.301P04	0.5
U.301M	15 - 100	222	206	90	100	0,9	9	U.301M04	0.8
U.301L	15 - 110	300	268	120	130	1,3	13	U.301L04	0.9



U.35 - Pullers with outside wide legs

- Safety: use in "uncrossed legs" configuration doubles capacity, but the "cross-legged" configuration should be used preferably.
- Adaptable puller accessory: slide hammer U.306M for U.35 and U.35L.
- Set of 2 spare pins:
  - U.42-5J2 for U.35P.
  - U.35-5J2 for U.35 and U.35L.

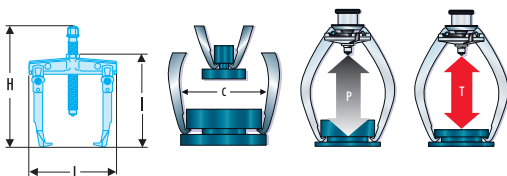


Model	C mini - maxi [mm]	H [mm]	I [mm]	L [mm]	P maxi [mm]	Legs	Tonnes [t]	T [kN]	Screw Size	Screw Size [mm]	$\Delta\Delta$ [kg]
U.35P	10 - 55	140	110	65	75	U.35D (x 2)	1	10	U.35P01	13	0.4
U.35	15 - 75	183	160	68	90	U.35C (x 2)	4	40	U.35SE1	17	1
U.35L	15 - 75	225	188	90	130	U.35B (x 2)	3	30	U.35SE1 + U.35SE3	17	1.2



High-capacity wide leg outside puller

- Safety: use in "uncrossed legs" configuration doubles capacity, but the "cross-legged" configuration should be used preferably.
- Adaptable puller accessory: slide hammer U.2.



Model	C mini - maxi [mm]	H [mm]	I [mm]	L [mm]	P maxi [mm]	Legs	Tonnes [t]	T [kN]	Screw Size	Screw Size [mm]	$\Delta\Delta$ [kg]
U.34	40 - 180	370	315	215	245	U.34G (x2)	7	70	U.20B1	24	4.4

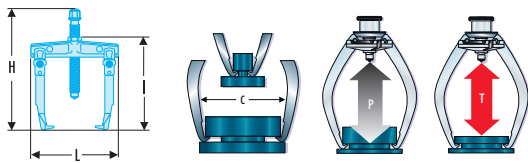
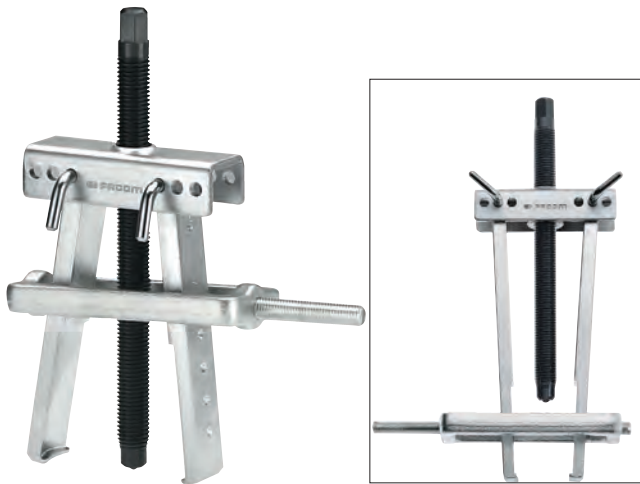


U-BOLT 2-LEG PULLERS

U.42 - Pullers with yoke



- The U.42 and U.42B models have legs designed specifically for gearbox bearings.
- Spare yoke for U.42 and U.42B: U.42SE2.
- Set of 2 spare pins for U.42 and U.42B: U.42-5J2.

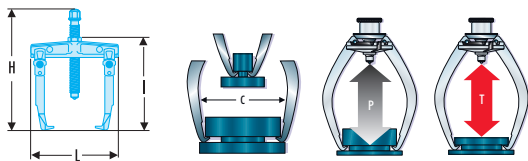


	C mini - maxi [mm]	H [mm]	I [mm]	L [mm]	P maxi [mm]	Legs	Tonnes [t]	T [kN]	Screw Size	Screw Size [mm]	$\Delta\Delta$ [kg]
<b>U.42</b>	10 - 85	235	165	160	120	U.42-3	1,5	15	U.42-1	13	1.3
<b>U.42B</b>	10 - 85	240	225	160	180	U.42B3	1,5	15	U.42-1	13	1.6

U.52 - Pullers with yoke



- Spare yoke for U.52 = U.52SE2.
- Set of 2 spare pins for U.52: U.35-5J2.



	C mini - maxi [mm]	H [mm]	I [mm]	L [mm]	P maxi [mm]	Legs	Tonnes [t]	T [kN]	Screw Size	Screw Size [mm]	$\Delta\Delta$ [kg]
<b>U.52</b>	10 - 150	250	200	220	160	U.52-3	6	60	U.52-1	17	1.7



TIP-TYPE PULLERS, CAGE GRIP

U.23 TIP TYPE PULLERS, CAGE GRIP

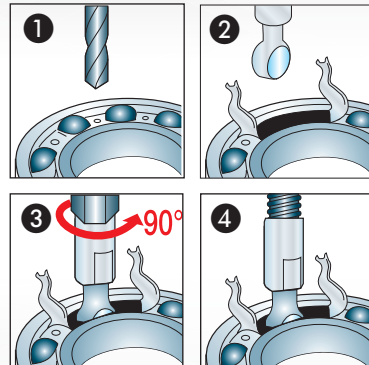
The design of this puller is particularly suited to cage-type ball bearings.

- Pressure is distributed over the two races and the tool can be used for both shaft and housing fits.
- Depending on the ball diameter, different pairs of spherical tips should be selected from of three sets available.



Positioning tips in bearings

- 1 - Drill 2 diametrically opposed holes.
- 2 - Bend back cage ends.
- 3 - Insert appropriately sized tips into race. Turn through 90 degrees to lock.
- 4 - Screw beam rods into tips.



Micro-engineering puller kit

- Comprising:
  - 3 pairs of tips: Ø 5.5 - 6 - 7.5 mm.
  - Beam U.23K1A.
- Spread: Ø 25 to 95 mm.
- For ISO bearings: 6004 to 6010; 6200 to 6205; 6300 to 6302.
- Supplied in plastic case BP.102 with tray PL.392A.

	$\Delta\Delta$ [kg]
U.23J1A	0.8



Light engineering puller kit

- Comprising:
  - 3 pairs of tips: Ø 9 - 11 - 12.5 mm.
  - Beam U.53K1.
- Spread: Ø 40 to 110 mm.
- For ISO bearings: 6206 to 6211; 6303 to 6307; 6403 to 6404.
- Supplied in plastic case BP.115 with tray PL.71A.

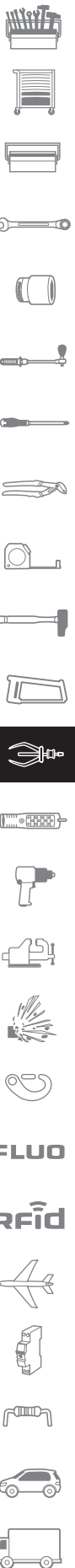
	$\Delta\Delta$ [kg]
U.23J2	1.8



General engineering puller kit

- Comprising:
  - 6 pairs of tips: Ø 16 - 19 - 22 - 25 - 28 - 32 mm.
  - Beam U.53K2.
- Spread: Ø 70 to 190 mm.
- For ISO bearings: 6212 to 6222; 6308 to 6319; 6405 to 6414.
- Supplied in plastic case BP.109 with tray PL.104A.

	$\Delta\Delta$ [kg]
U.23J3	7.3



TIP-TYPE PULLERS, CAGE GRIP

U.23D - Set of 2 tips



Part No.	d [mm]	No.	Tapping	T [kN]	$\Delta\Delta$ [g]
U.23D5	5,5	1	M6	25	26
U.23D6	6,0	2	M6	30	27
U.23D8	7,5	3	M6	30	30
U.23D9	9,0	4	M10	40	39
U.23D11	11,0	5	M10	45	44
U.23D12	12,5	6	M10	45	45
U.23D16	16,0	7	M16	125	125
U.23D19	19,0	8	M16	275	275
U.23D22	22,0	9	M16	315	315
U.23D25	25,0	10	M16	490	487
U.23D28	28,0	11	M16	525	525
U.23D32	32,0	12	M16	670	669

U.51B TIP TYPE PULLER, INSIDE GRIP

1- Locate the spreader at end of screw.

2- Insert claw ends through bearing.

3- Screw claws tight against bearing.

4- Fit beam and screw down nut to withdraw bearing.

TIP-TYPE PULLERS, INSIDE GRIP

Tip-type pullers, inside grip



- Capacity:  $\varnothing$  32 to 70 mm.
- Adaptable puller accessories: beam U.40 or beam U.30.
- Supplied with 15 tips.
- Set of 15 spare tips: U.51BJ15.
- Spare nut + bush: U.51B-1.
- Supplied in plastic case BP.109 with tray PL.710.

Part No.	$\Delta\Delta$ [kg]
U.51B	3.4

Tip-type pullers, large spread inside grip

- Capacity: Ø 70 to 160 mm.
- Allocation of "separator" tip discs:
  - Tip disc no.1: capacity 70 - 100 mm.
  - Tip disc no.2: capacity 100 - 136 mm.
  - Tip disc no.3: capacity 130 - 160 mm.
- Adaptable puller accessory: beam U.30.
- Set of 3 spare separator tips: U.28J3
- Spare nut + bush: U.28-1.



Part No.	Weight $\Delta\Delta$ [kg]
U.28	3.3

Separator and beam for inside grip set

- Comprising:
  - 1 separator U.28.
  - 1 beam U.30.
- Spread: Ø 70 to 160 mm.
- Supplied in a steel case BT.111 (396 x 224 x 82 mm) with tray PL.168.



Part No.	H [mm]	l [mm]	L [mm]	Weight $\Delta\Delta$ [kg]
U.28J1	82	224	396	9.5

Beam for pullers U.28 and U.51B

- Use with pullers U.28 and U.51B.



Part No.	Weight $\Delta\Delta$ [kg]
U.30	4.6

Beam for pullers U.51B and U.306

- Use with pullers U.51B and U.306. Using the beam U.40 with the separator U.306 requires using the bush and nut U.306A1 (to be ordered separately).



Part No.	Weight $\Delta\Delta$ [kg]
U.40	1.8



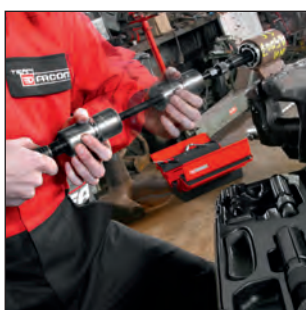
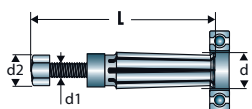
SPREADER-TYPE PULLERS, INSIDE GRIP

U.49P - Clamps for inside grip



U.49P1 U.49P2

U.49P5



- High impact and screwing / unscrewing resistance.
- Multiple flexible blades and hardly sensitive to distortion.
- Easy to use.

ED	d mini [mm]	d maxi [mm]	d mini - maxi [mm]	d1 [mm]	d2 [mm]	L maxi [mm]	L [mm]	ΔΔ [g]
U.49P1	6,5	8	6,5 - 8,0	M8	12	76	76	25
U.49P2	8,5	10	8,5 - 10,0	M8	12	76	76	30
U.49P3	10,5	13	10,5 - 13,0	M8	12	88	88	45
U.49P4	13	18	13,0 - 18,0	M8	12	100	100	70
U.49P5	18	22,5	18,0 - 22,5	1/2"	17	112	112	140
U.49P6	22,5	30	22,5 - 30,0	1/2"	17	139	139	300
U.49P7	30	38	30,0 - 38,0	1/2"	22	158	158	545
U.49P8	38	50	38,0 - 50,0	1/2"	1-1/4"	190	190	1200
U.49P9	50	60	50,0 - 60,0	1/2"	1-1/4"	190	190	1400

Maintenance kit



- To pull bearings Ø 8.5 to 38 mm.
- Comprising:
  - 6 pliers U.49P2 to U.49P7.
  - 2 beams U.53KL0 and U.53KL2.
  - Adapter bit U.49BR1.
- Supplied in plastic case BP.109 with tray PL.711.

ED	ΔΔ [kg]
U.49P J1	3.5

Light engineering puller kit



- To pull bearings Ø 18 to 50 mm.
- Comprising:
  - 4 pliers U.49P5 to U.49P8.
  - 1 slide hammer U.49AM.
- Supplied in plastic case BP.109 with tray PL.712.

ED	ΔΔ [kg]
U.49P J2	5

General engineering puller kit

- To pull bearings Ø 6.5 to 18 mm.
- Comprising:
  - 4 pliers U.49P1 to U.49P4.
  - 1 slide hammer U.49L.
- Supplied in plastic case BP.115 with tray PL.445.



FACOM	ΔΔ [kg]
U.49PJ3	1.4

Heavy engineering puller kit

- To pull bearings Ø 30 to 60 mm.
- Comprising:
  - 3 pliers U.49P7 to U.49P9.
  - 1 beam U.53KL2.
  - Tip U.49BR1.
- Supplied in plastic case BP.109 with tray PL.713.



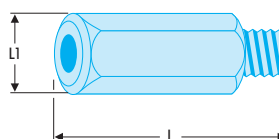
FACOM	ΔΔ [kg]
U.49PJ4	5.3

Adaptor tip for clamps U.49P5 to P9 on slide hammer or beam

- Female thread: M16 x 2.0.
- Male thread: 1/2" - 20 UNF.
- Used to connect the slide hammer U.306M or beam U.53KL2 to the clamps U.49P5 to U.49P9.



FACOM	L [mm]	L1 [mm]	Screw Size [mm]	ΔΔ [g]
U.49BR1	48	13	23	100



Adaptor tips for separators U.301 / U.302 on slide hammer U.49AM

- U.301E1 tip for pullers U.301, U.302, U.301-150, U.302-150.
  - Female thread: 1/2" - 20 UNF.
  - Male thread: M12 x 1.75.
- U.301E2 tip for pullers U.301-200 and U.302-200.
  - Female thread: 1/2" - 20 UNF.
  - Male thread: M16 x 2.00.
- Locks the legs in Pullers position.



FACOM	d [mm]	L [mm]	L1 [mm]	ΔΔ [g]
U.301E1	25	62	22	200
U.301E2	25	62	22	300

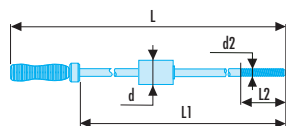


SLIDE HAMMERS

Slide hammer 0.2 kg



- For fitting on low spread clamps U.49P1 to U.49P4.
- Allows to extract bearings with an inner diameter  $\varnothing$  6.5 to 18 mm.

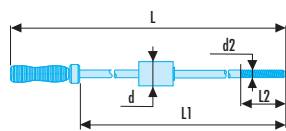


	d [mm]	d2 [mm]	L [mm]	L1 [mm]	L2 [mm]	$\Delta\Delta$ [g]
<b>U.49L</b>	30	M8x1,25	302	212	14	500

Slide hammer 1 kg



- For fitting on high spread clamps U.49P5 to U.49P9.
- Allows to extract bearings with an inner diameter  $\varnothing$  18 to 60 mm.
- Use of threaded tips U.53E4 to U.53E14 with the adaptor tip U.53H3.

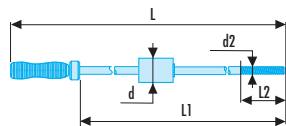


	d [mm]	d2 [mm]	L [mm]	L1 [mm]	L2 [mm]	$\Delta\Delta$ [kg]
<b>U.49AM</b>	45	1/2"-200NF	452	325	25	1.6

Slide hammer 2 kg



- Adapts to pullers U.306, U.42, U.42B, U.32T2-8, U.32T2-12, U.35, U.35L.
- Adaptable accessories:
  - Clamps U.49P5 to U.49P9 with adaptor tip U.49BR1.
  - Threaded tips U.53E4 to U.53E14 with the adaptor tip U.53H2.

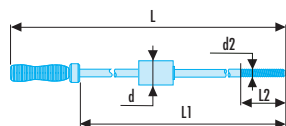


	d [mm]	d2 [mm]	L [mm]	L1 [mm]	L2 [mm]	$\Delta\Delta$ [kg]
<b>U.306M</b>	60	M16x2,0	654	537	228	2.8

Slide hammer 7 kg



- Adapts to pullers U.20, U.20B, U.310, U.32T6-16, U.32T6-20 and tray U.9.



	d [mm]	d2 [mm]	L [mm]	L1 [mm]	L2 [mm]	$\Delta\Delta$ [kg]
<b>U.2</b>	92 / 171	M22x2,0	761	615	70	8.7
<b>U.2A</b>	92 / 171	M22x2,0	761	615	70	8.7

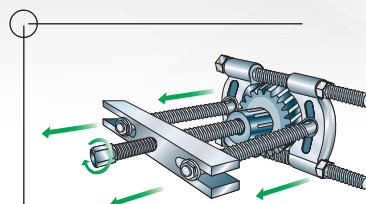
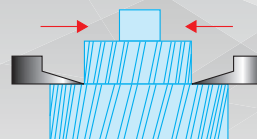
PULLER KITS

U.53 SEPARATORS, FLUSH GRIP



Bearing separators U.53T fit behind races where ordinary puller claws will not reach.

- The wedge-shaped jaws bear against the back of the fitting, pushing it out as they close.
- Separators can be used with beams for mechanical screws or with beams designed specifically for use with hand-operated hydraulically-assisted jacks.

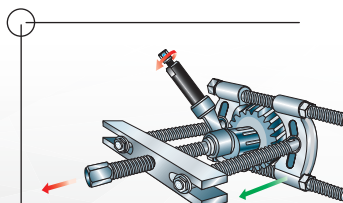


Separator and beam with hand-operated hydraulic system.

**SAFETY FIRST**



Only hand-operated hydraulic systems are to be used in conjunction with separator and beam combinations.



Separator and beam with mechanical screw.

- Beam used with hydraulic press U.33A
- Only to be used with beams U.53K4 and U.53S4A.

60 mm separator and beam puller kit

- Comprising:
  - 1 separator U.53T1 = spread: Ø 5 to 60 mm.
  - 1 beam U.53K1 = spread: Ø 40 to 110 mm.
  - Max reach: 180 mm.
  - 4 pairs of U.53E threaded tips M4 - M5 - M6 - M8.
  - 2 adaptors U.53H1.
- Supplied in plastic case BP.112 with tray PL.296A.



	$\Delta\Delta$ [kg]
U.53J1	3.4



FLUO

Rfid

PULLER KITS

110 mm separator and beam puller kit



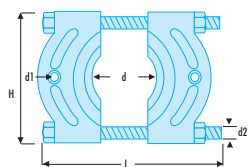
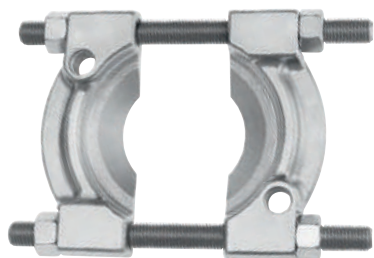
- Comprising:
  - 1 separator U.53T2 = spread: Ø 15 to 110 mm.
  - 1 beam U.53K2 = spread: Ø 70 to 200 mm.
  - Max reach: 240 mm.
  - 4 pairs of U.53E threaded tips M8 - M10 - M12 - M14.
  - 2 adaptors U.53H2.
- Supplied in plastic case BP.109 with tray PL.297A.



	ΔΔ [kg]
<b>U.53J2</b>	7.3

SEPARATORS

U.53T - Separators



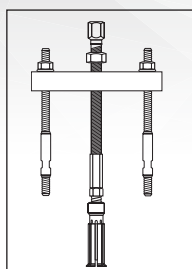
- Separators spread Ø 5 to 250 mm.
- Fit behind races where ordinary puller claws will not reach.
- They can be used with beams assisted by screws or jacks.



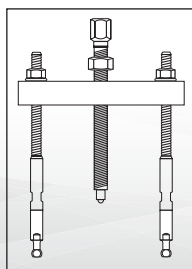
	d mini - maxi [mm]	d1 [mm]	d2 [mm]	H [mm]	L [mm]	For	For use on	Screw Size	ΔΔ [kg]
<b>U.53T1</b>	5 - 60	M10	M12	91	140	U.53K1	-	U.53T1-02	0.6
<b>U.53T2</b>	15 - 110	M16	M16	153	215	U.53K2 - U.53S2A	U.53S2A	U.53T2-02	2.1
<b>U.53T3</b>	15 - 150	M20	M20	204	290	U.53K3	-	U.53T3-02	4.6
<b>U.53T4</b>	20 - 180	M22	M22	289	360	U.53K4 - U.53S4A	U.53S4A	U.53T4-02	8.2
<b>U.53T5</b>	25 - 250	M22	M22	316	430	U.53K4 - U.53S4A	U.53S4A	U.53T5-02	11.2

U.23/U.53 BEAM PULLERS

Beams can be used with different types of pullers:



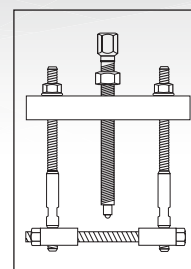
- Expansion bearing puller U.49P.



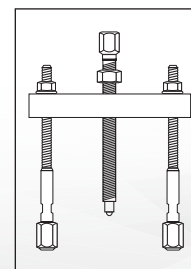
- Spherical or threaded tip pullers U.23.



- Separator U.53.



- Extraction via beam alone.

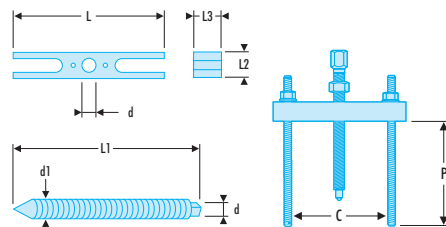




BEAM PULLERS

■ U.23K-U.53K - Tapped beams

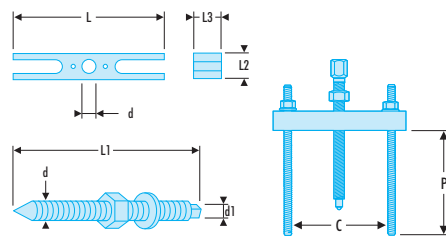
- Tapped beams are used in mechanical pulling with separators, spherical or threaded tips.
- Spread: Ø 25 to 400 mm.



Ref	C mini - maxi [mm]	d [mm]	d1 [mm]	L [mm]	L1 [mm]	L2 [mm]	L3 [mm]	P maxi [mm]	Tie-rods	Tonnes [t]	T [kN]	Screw Size	ΔΔ [kg]
U.23K1A	25 - 95	M10	8	110	155	20	20	100	U.23K1A-03	1	10	U.23K1A-02	0.4
U.53K1	40 - 110	M16	11	135	215	25	25	180	U.53R1L	3	30	U.51K1-07	0.9
U.53K2	70 - 200	M16	11	220	280	30	30	240	U.53R2L	3	30	U.53K2-07	2.3
U.53K3	75 - 280	M27	21	320	340	45	35	300	U.53R3L	4	40	U.53S3-07	5.3
U.53K4	145 - 400	M33	25	450	420	50	50	350	U.53R4LA	5	50	U.53S4-07	10.7

■ U.53KL - Non-tapped beams

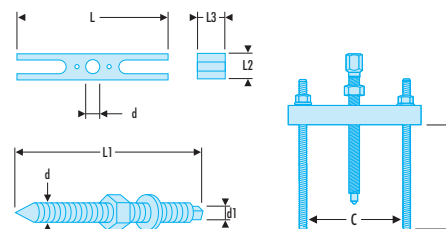
- Non tapped beams allow to use clamps U.49P1 to U.49P9 to extract bearings by inside grip.
- U.53KL0: for clamps U.49P1 to U.49P4.
- U.53KL2: for clamps U.49P5 to U.49P9 with adaptor tip U.49BR1.



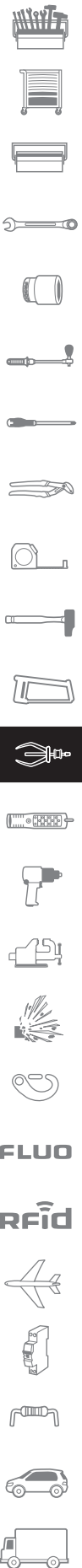
Ref	C [mm]	C mini - maxi [mm]	d [mm]	d1 [mm]	L [mm]	L1 [mm]	L2 [mm]	L3 [mm]	P [mm]	P maxi [mm]	Tie-rods	Tonnes [t]	T [kN]	Screw Size	ΔΔ [kg]
U.53KL0	25 - 100	25 - 100	M8	6	110	155	20	20	125	125	U.53KL0-02	1	10	U.53KL0-02	0.4
U.53KL2	70 - 200	70 - 200	M16	11	220	280	30	30	240	240	U.53R2L	3	30	U.53K2-07	2.4

■ U.53S - Jack beams

- These 2 non tapped beams with mechanical specifications exceeding U.53K (dimensions, steel and thermal treatment) are designed to withstand the high loads generated by the power of jacks used.



Ref	C mini - maxi [mm]	d [mm]	d1 [mm]	L [mm]	L1 [mm]	L2 [mm]	L3 [mm]	P maxi [mm]	Rating [kN]	Tie-rods	Tonnes [t]	T [kN]	Screw Size	ΔΔ [kg]
U.53S2A	120 - 200	280	M20	220	280	35	35	235	100	U.53R2L	10	100	U.53S2A07	3.0
U.53S4A	170 - 400	420	M33	450	420	60	60	340	300	U.53R4LA	30	300	U.53S4-07	15.5

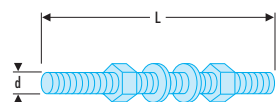


BEAM PULLERS

U.23K-U.53RL - Spare tie rods for beam



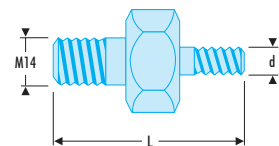
- Tie rods supplied by 2 with chrome-plated tips, nuts and washers.



Part No.	d [mm]	L [mm]	Beams	For use on	ΔΔ [g]
U.23K1A-03	M8 x 1,25	95	-	-	50
U.53KL0-02	M8 x 1,25	155	-	-	50
U.53R1L	M10 x 1,50	205	U.53K1	U.53K1	200
U.53R2L	M16 x 2,00	275	U.53K2 - U.53KL2 - U.53S2A	U.53K2, U.53KL2	500
U.53R3L	M20 x 2,50	350	U.53K3	U.53K3	1200
U.53R4LA	M22 x 2,50	420	U.53K4 - U.53S4A	U.53K4, U.53S4A	1700

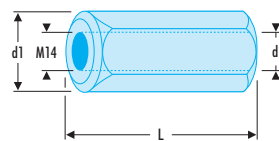
ACCESSORIES FOR BEAM PULLERS

U.53E - Threaded tips



Part No.	d [mm]	L [mm]	ΔΔ [g]
U.53E4	4	33,5	50
U.53E5	5	33,5	50
U.53E6	6	36,5	50
U.53E8	8	39,5	50
U.53E10	10	42,5	55
U.53E12	12	46,6	60
U.53E14	14	48,5	70

U.53H - Adaptors for threaded tips

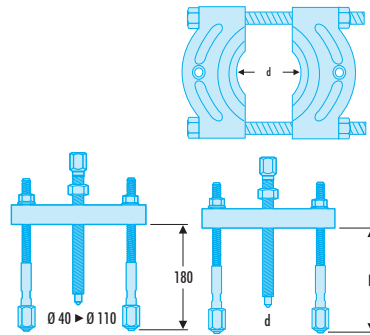


Part No.	d [mm]	d1 [mm]	L [mm]	ΔΔ [g]
U.53H1	M10 x 1,5	23	50	130
U.53H3	1/2" - 20 UNF	23	50	120
U.53H2	M16 x 2,0	23	50	110

WORKSHOP BOARDS

Light engineering puller kit

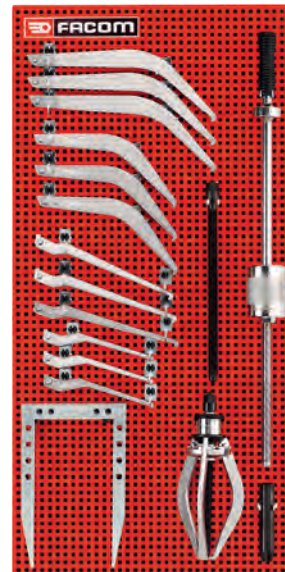
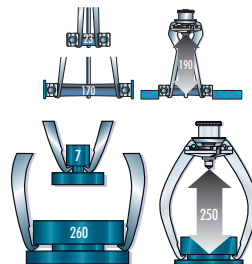
- Comprising:
  - 2 slim leg pullers for outside grip = U.301 and U.302 (spread 10 to 80 mm).
  - 4 clamps for inside grip = U.49P1 to U.49P4 (spread 6.5 to 18 mm).
  - 1 slide hammer U.49L.
  - 1 separator for difficult outside grip = U.53T1 (spread 5 to 60 mm) and its beam U.53K1.
- Presented on the PK.2 panel.



	l [mm]	L [mm]	ΔΔ [kg]
<b>U.JA1</b>	444	444	4.3

4-Tonne kit

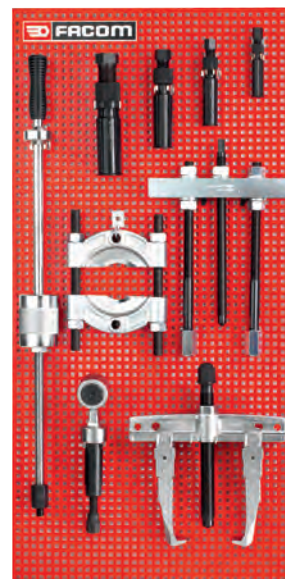
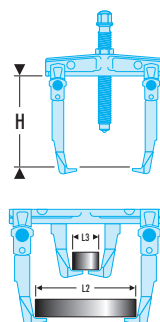
- Comprising:
  - 1 clamp puller for outside grip = U.306A140 (spread 7 to 140 mm).
  - 2 sets of 3 long legs for outside grip = U.306G10 (spread 10 to 180 mm) and U.306G15 (spread 20 to 260 mm).
  - 2 sets of 3 legs for inside grip = U.306G2 (spread 23 to 130 mm) and U.306G20 (spread 60 to 170 mm).
  - 1 long screw with tip U.306-3.
  - 1 beam U.40 (attached using ring and nut U.306A1, supplied with the kit).
  - 1 slide hammer U.306M.
- Presented on the PK.1 panel.



	l [mm]	L [mm]	ΔΔ [kg]
<b>U.J2</b>	888	444	12.4

General engineering puller kit

- Comprising:
  - 1 sliding leg puller = U.32T6-20 outside grip (spread 20 to 200 mm) / inside grip (spread 130 to 290 mm).
  - 1 separator U.53T2 (spread 15 to 110 mm) and the beam U.53K2.
  - 4 clamps U.49P5 to U.49P8 (spread 18 to 50 mm).
  - 1 slide hammer U.306M with adaptor tip U.49BR1.
  - 1 jack U.33A (capacity 30 tonnes).
- Presented on the PK.1 panel.



	l [mm]	L [mm]	ΔΔ [kg]
<b>U.JA3</b>	888	444	15.5



CASE KITS

Light engineering puller kit



- Comprising:
  - 1 leg puller U.301 for outside grip pulling (spread 10 to 80 mm).
  - 4 clamps U.49P1 to U.49P4 (spread 6.5 to 18 mm).
  - 1 beam U.53 KLO.
- Supplied in plastic case BP.112 with tray PL.182B.

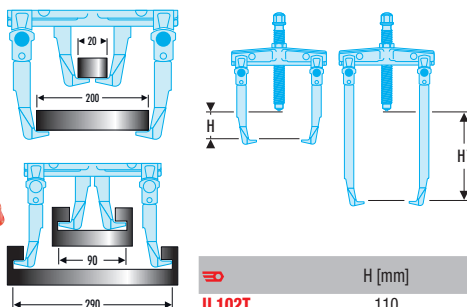


	H [mm]	l [mm]	L [mm]	ΔΔ [kg]
<b>U.301BJ1</b>	66	164	389	2.1

General engineering puller kit

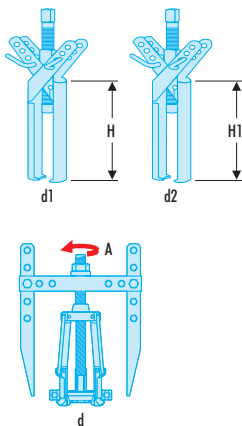


- Comprising:
  - U.32T2-8: 2-tonne sliding-leg puller and set of long legs; reach P1: 105 mm, P2: 185 mm.
  - U.32T6-20: 6-tonne sliding-leg puller and set of long legs; reach P1: 150 mm, P2: 280 mm.
  - U.53T2: separator (spread 15 to 110 mm).
  - U.33A: 30 tonne jack.
- Supplied in metal case. BT.108 with tray PL.287 (removable tray) and PL.288 (box bottom tray).



	H [mm]	l [mm]	L [mm]	ΔΔ [kg]
<b>U.102T</b>	110	270	450	14.5

Medium power engineering puller kit



- This complete set offering normal pulling power for all general engineering applications.
- Comprising:
  - U.35L (spread 15 to 75 mm) and U.34 (spread 40 to 180 mm): wide leg pullers for outside grip pulling.
  - U.51B: bearing inside puller (spread: 32 to 70 mm).
  - U.40: beam.
  - U.33A: 30 tonne jack.
- Supplied in a steel case BT.108 with tray PL.195A.



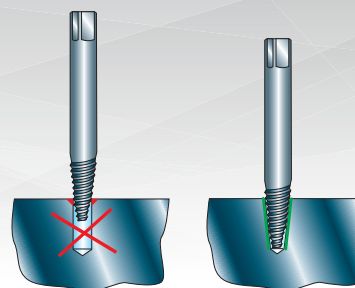
	H [mm]	l [mm]	L [mm]	ΔΔ [kg]
<b>U.103A</b>	111	286	452	13.3

STUD PULLERS

285 STUD EXTRACTORS

# For removing sheared right-hand thread studs

- 285 stud extractors are designed exclusively for use on right-hand thread struts (99% of cases).
- The extractors' tapered shape requires the use of cone bits. Using traditional cylindrical bits reduces the contact surface between the extractor and the stud, greatly increasing the risk of extractor breaking in the stud.



- Choose the extractor and corresponding drill bit according to the diameter of the stud to be removed.



- Drill with a 285.F cone bit.



- Push in then unscrew using the corresponding stud extractor.



- The stud is removed.

## 285.J - Set of stud pullers, right-hand pitch

- 285.J10: Set of 5 stud pullers + 5 appropriate tapered and tap wrench 831.1 (use with the 4 small pullers only).
- 285.JS10: Set of 5 stud pullers and 5 adapted tapered drill-bits, supplied on stand.
- 285.JS5: Set of 5 stud pullers, supplied on stand.
- Supplied in plastic case BP.104 and Tray PL.464.

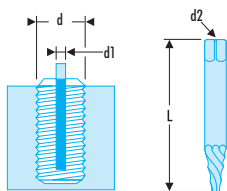


	d mini - maxi [mm]	H [mm]	l [mm]	L [mm]	Conditioning	Drill Bits	No.	ΔΔ [kg]
<b>285.J10</b>	3 - 18	52	122	204	BP.102 + PL.464	285.4-5-6-8-11 - 285.F1-F2-F3-F4-F5	1, 2, 3, 4, 5	0.47
<b>285.JS10</b>	3 - 18	52	122	204	CKS.25A x 2	285.4-5-6-8-11 - 285.F1-F2-F3-F4-F5	1, 2, 3, 4, 5	0.29
<b>285.JS5</b>	3 - 18	52	122	204	CKS.25A	285.4-5-6-8-11	-	0.15



STUD PULLERS

285 - Unit stud pullers, right-hand pitch



- These helical pullers allow pulling after drilling a pre-hole using specific tapered drill-bits 285.F.



➤	d [mm]	d1 [mm]	d2 [mm]	L [mm]	Drill Bits	ΔΔ [g]
285.4	3 - 6	2,2 - 3,4	3,0	55	285.F1	5
285.5	6 - 8	3,7 - 4,3	4,0	60	285.F2	10
285.6	8 - 11	4,5 - 5,3	4,5	65	285.F3	15
285.8	11 - 14	6,2 - 7,1	6,0	75	285.F4	25
285.11	14 - 18	8,6 - 9,8	8,5	85	285.F5	50
285.14	18 - 24	11,0 - 12,5	10,0	90	-	85
285.18	24 - 33	14,5 - 16,0	14,0	105	-	165
285.25	33 - 50	20,0 - 22,5	18,0	120	-	350

285.F - Single tapered drill bits for pullers 285



- These tapered drill-bits allow for drilling suited to tapered stud pullers 285.

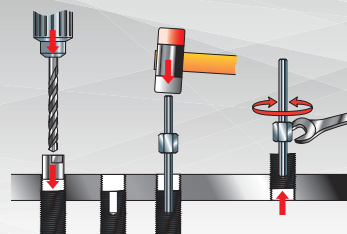


➤	d [mm]	L [mm]	Puller	For use on	ΔΔ [g]
285.F1	3,5	57	285.4	285.4	5
285.F2	4,0	63	285.5	285.5	10
285.F3	5,5	67	285.6	285.6	10
285.F4	7,5	80	285.8	285.8	25
285.F5	10,0	86	285.11	285.11	45

885 STUD EXTRACTORS

For removing sheared right-hand, or left-hand thread studs

- 885 stud extractors are designed exclusively for use on right-hand thread.
- The splined rod has a cylindrical shape and can be drilled using standard (cylindrical) drill bits.



- Choose the extractor and corresponding drill bit according to the diameter of the stud to be removed.



- Drill with a standard 222A.T bit. Insert the splined bit using a mallet 216.40.



- Install the hexagonal shoulder. Loosen with a wrench.



- The stud is removed

Set of stud pullers, right or left-hand pitch



- Pulling by drilling and inserting a fluted rod driven by a 6-point.
- Spread: studs Ø 6 to 14 mm.
- Right or left-hand pitch.



➤	H [mm]	l [mm]	L [mm]	ΔΔ [g]
885	25	130	165	540

885 - Drill bits and pullers for stud pulling

885.F: Drill bits.  
885.EH: Pullers.



🔪	d ["]	d [mm]	L [mm]	ΔΔ [g]
885.F1	1/8	3,2	65	5
885.F2	3/16	4,8	85	10
885.F3	1/4	6,3	100	20
885.F4	5/16	7,9	115	30
885.F5	11/32	8,7	120	40

🔪	d ["]	d [mm]	L [mm]	ΔΔ [g]
885.EH1	1/4	6,3	-	15
885.EH2	5/16	7,9	-	20
885.EH3	3/8	9,5	-	35
885.EH4	7/16	11,1	-	45
885.EH5	1/2	12,7	-	60

STUD PULLERS

286A - Roller-type stud drivers - Multi-diameter

- Choose the hole suited to the stud diameter.
- Tighten or untighten: thanks to its eccentric shaft, the knob grips the stud, for tightening or untightening.



🔪	C mini - maxi [mm]	Capacity Mini-Maxi [mm]	Square ["]	Dimension [mm]	ΔΔ [g]
286A	5 - 20	5 - 20	1/2	52 x 54	400
286A.PL	15 - 27	15 - 27	3/4	72 x 66	950

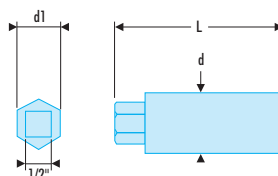


287B - Roller-type stud drivers - Single-diameter

- Capacity: Ø 6 to 16 mm.
- Turned by means of the hexagonal drive or a 1/2" - 12.7 mm ratchet. Except model 287B.16, which has a through-hole for a bar.
- Allows to tighten or untighten the studs.



🔪	A maxi [mm]	d [mm]	d1 [mm]	L [mm]	Capacity [mm]	ΔΔ [g]
287B.6	6	25	22	65	6	165
287B.7	7	25	22	65	7	170
287B.8	8	25	22	65	8	170
287B.9	9	29	22	75	9	245
287B.10	10	29	22	75	10	240
287B.12	12	29	22	75	12	240
287B.14	14	34	27	75	14	310
287B.16	16	34	27	75	16	340



STUD PULLERS

Set of roller-type stud drivers



- Set of 5 stud drivers to screw and unscrew the M6, M7, M8, M9 and M10 studs (287B.6 to 287B.10).
- Presentation on stand (CKS.73A).



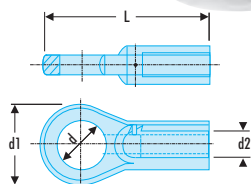
Ref	H [mm]	l [mm]	L [mm]	ΔΔ [kg]
287B.JS5	35	175	155	1.1

NUT SPLITTER

289.M - Nut splitter



- For splitting a worn or jammed nut without damaging the screw thread.



Ref	d [mm]	d mini - maxi [mm]	d1 [mm]	d2 [mm]	L [mm]	ΔΔ [g]
289.M8	19	12 - 16	29	9,5	100	170
289.M18	32	16 - 22	45	13	128	350
289.M22	39	22 - 27	56,5	16	148	600
289.M24	46	27 - 36	67	17	170	950

Set of 2 nut splitters



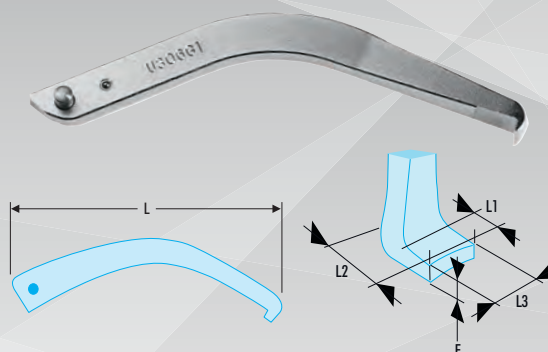
- Comprising:
  - 289.M8.
  - 289.M18.
- Supplied in plastic box BP.102 with plastic tray PL.489.



Ref	ΔΔ [g]
289.J1	750



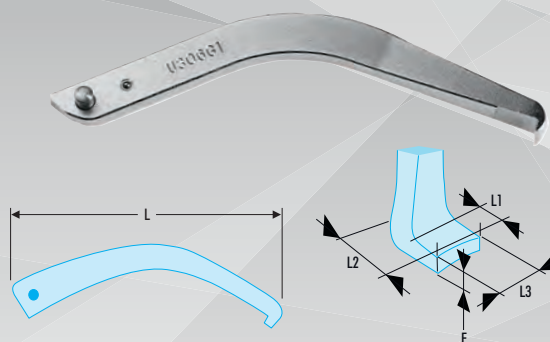
SPARE LEGS SPARE PARTS



Puller	Leg reference (to be ordered by 2*)	Goupille de griffe	L mm	E mm	L3 mm	L1 mm	L2 mm	kg	For the puller go to page
U.14A	-	-	74	2,5	8	7	16	0,040	643
U.14L	-	-	96	3,5	8	7	17	0,050	643
U.20	U.20SE4	U.20SE3 (set of 6 pins + 12 shear pins)	200	8,5	25	6	19	0,425	633
U.20B	U.20BSE4	U.20SE3 (set of 6 pins + 12 shear pins)	249	6,5	25	6	19	0,590	633
U.27AS3	U.27S (standard leg)	U.27SE2 (set of 12 pins + 12 shear pins)	220	12	26	8	29	0,850	634
U.27AS3	U.27D (long leg)	U.27SE2 (set of 12 pins + 12 shear pins)	330	10	30	7	16	1,520	634
U.27AS3	U.27BS (standard rod + counter-rod)	U.27SE2 (set of 12 pins + 12 shear pins)	275	-	-	-	-	1,800	634
U.27AS3	U.27B (long rod)	U.27SE2 (set of 12 pins + 12 shear pins)	520	-	-	-	-	3,300	634
U.32T2-8	U.32T2GA10	U.32T2DG (complete flasks + screws)	130	3	18	10	19	0,090	641
U.32T2-8	U.32T2GA20	U.32T2DG (complete flasks + screws)	225	3	18	10	19	0,180	641
U.32T2-8	U.32T2GA25	U.32T2DG (complete flasks + screws)	275	3	18	10	19	0,230	641
U.32T2-12	U.32T2GA10	U.32T2DG (complete flasks + screws)	130	3	18	10	19	0,090	641
U.32T2-12	U.32T2GA20	U.32T2DG (complete flasks + screws)	225	3	18	10	19	0,180	641
U.32T2-12	U.32T2GA25	U.32T2DG (complete flasks + screws)	275	3	18	10	19	0,230	641
U.32T6-16	U.32T6GA15	U.32T6DG (complete flasks + screws)	180	5	24,5	14	31	0,280	641
U.32T6-16	U.32T6GA30	U.32T6DG (complete flasks + screws)	335	5	24,5	14	31	0,600	641
U.32T6-20	U.32T6GA15	U.32T6DG (complete flasks + screws)	180	5	24,5	14	31	0,280	641
U.32T6-20	U.32T6GA30	U.32T6DG (complete flasks + screws)	335	5	24,5	14	31	0,600	641
U.32T15-25	U.32T15GA20	U.32T15DG (complete flasks + screws)	250	10	30	20	38	0,660	641
U.32T15-25	U.32T15GA30	U.32T15DG (complete flasks + screws)	345	10	32	20	43	0,990	641
U.32T15-25	U.32T15GA40	U.32T15DG (complete flasks + screws)	445	10	32	20	43	1,590	641
U.32T15-25	U.32T15GA50	U.32T15DG (complete flasks + screws)	545	10	32	20	43	1,800	641
U.32T15-35	U.32T15GA20	U.32T15DG (complete flasks + screws)	250	10	30	20	38	0,660	641
U.32T15-35	U.32T15GA30	U.32T15DG (complete flasks + screws)	345	10	32	20	43	0,990	641
U.32T15-35	U.32T15GA40	U.32T15DG (complete flasks + screws)	445	10	32	20	43	1,590	641
U.32T15-35	U.32T15GA50	U.32T15DG (complete flasks + screws)	545	10	32	20	43	1,800	641
U.32T15-50	U.32T15GA20	U.32T15DG (complete flasks + screws)	250	10	30	20	38	0,660	641
U.32T15-50	U.32T15GA30	U.32T15DG (complete flasks + screws)	345	10	32	20	43	0,990	641
U.32T15-50	U.32T15GA40	U.32T15DG (complete flasks + screws)	445	10	32	20	43	1,590	641
U.32T15-50	U.32T15GA50	U.32T15DG (complete flasks + screws)	545	10	32	20	43	1,800	641



SPARE LEGS SPARE PARTS



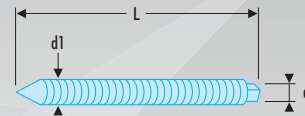
Puller	Leg reference (to be ordered by 2*)	Leg pin	Lmm	Tmm	L3mm	L1mm	L2mm	kg	For the puller go to page
<b>U.34</b>	<b>U.34G</b> (set of 2 legs)	M10 screw x 1.5 x 75 mm head H 17 mm, class 8.8	300	5,5	36	6	15,5	1,750	645
<b>U.35</b>	<b>U.35C</b> (set of 2 legs)	<b>U.35-5J2</b> (set of 2 shear pins)	155	4	22	3,5	14,5	0,545	645
<b>U.35L</b>	<b>U.35B</b> (set of 2 legs)	<b>U.35-5J2</b> (set of 2 shear pins)	188	4	22	3,5	14,5	0,705	645
<b>U.35P</b>	<b>U.35D</b> (set of 2 legs)	<b>U.42-5J2</b> (set of 2 shear pins)	110	2,5	15	3	8,5	0,200	645
<b>U.42</b>	<b>U.42-3</b>	<b>U.42-5J2</b> (set of 2 shear pins)	145	3	24	3	8	0,220	646
<b>U.42B</b>	<b>U.42B3</b>	<b>U.42-5J2</b> (set of 2 shear pins)	194	3	24	3	8	0,290	646
<b>U.52</b>	<b>U.52-3</b>	<b>U.35-5J2</b> (set of 2 shear pins)	198	4,5	25	4	21	0,380	646
<b>U.232-65</b>	<b>U.232G1</b>	-	100	4	8,5	10	16	0,080	643
<b>U.232-90</b>	<b>U.232G2</b>	-	155	5	10	15	24	0,190	643
<b>U.232-130</b>	<b>U.232G2</b>	-	155	5	10	15	24	0,190	643
<b>U.232-160</b>	<b>U.232G3</b>	-	225	8	15	22	33	0,580	643
<b>U.232-210</b>	<b>U.232G3</b>	-	225	8	15	22	33	0,580	643
<b>U.232-270</b>	<b>U.232G4</b>	-	303	11	17,5	25	43	1,550	643
<b>U.232-340</b>	<b>U.232G4</b>	-	303	11	17,5	25	43	1,550	643
<b>U.301</b>	<b>U.301G</b>	-	130	5	8	7	16	0,100	643
<b>U.301-150</b>	-	-	205	6	8	7	17	0,170	643
<b>U.301-200</b>	-	-	270	6	8	7	18	0,280	643
<b>U.301L</b>	-	-	180	4,5	21	7	18	0,220	645
<b>U.301M</b>	-	-	145	4	21	7	18,5	0,160	645
<b>U.301P</b>	-	-	120	4	17	5	12,5	0,120	645
<b>U.302</b>	<b>U.301G</b>	-	130	5	8	7	16	0,100	632
<b>U.302-150</b>	-	-	205	6	8	7	17	0,170	632
<b>U.302-200</b>	-	-	270	6	8	7	18	0,280	632
<b>U.306-170N</b>	<b>U.306G20</b>	-	230	6,5	8	4	12	0,190	630
<b>U.306-180</b>	<b>U.306G10</b>	-	250	5	14	4	13	0,320	630
<b>U.306-260</b>	<b>U.306G15</b>	-	310	6,5	14	4	13	0,450	630
<b>U.306A130N</b>	<b>U.306G2</b>	-	170	4,5	8	3,5	9,5	0,120	630
<b>U.306A140</b>	<b>U.306G1</b>	-	185	4,5	14	4	13	0,210	630
<b>U.310-170</b>	<b>U.310G1</b>	-	230	6	26	5	19	0,560	630
<b>U.310-230N</b>	<b>U.310G3</b>	-	260	10	15	5,5	15	0,360	630
<b>U.310-250</b>	<b>U.310G2</b>	-	310	7	26	5,5	19	0,760	631
<b>U.312H</b>	<b>U.312G110</b>	<b>U.312-04-02</b> (set of 3 screws + nuts)	150	7	25	15	33	0,400	636
<b>U.312H</b>	<b>U.312G160</b>	<b>U.312-04-02</b> (set of 3 screws + nuts)	190	7	25	15	36	0,540	636
<b>U.312H</b>	<b>U.312G210</b>	<b>U.312-04-02</b> (set of 3 screws + nuts)	240	7	25	12	36	0,720	636
<b>U.312H</b>	<b>U.312G260</b>	<b>U.312-04-02</b> (set of 3 screws + nuts)	285	7	25	12	38	0,980	636
<b>U.320</b>	<b>U.320-13A</b>	<b>U.320GP1</b> (set of 3 shear pins)	505	5	35,6	16	45	3,100	635
<b>U.320H</b>	<b>U.320-13A</b>	<b>U.320GP1</b> (set of 3 shear pins)	505	5	35,6	16	45	3,100	638
<b>U.330</b>	<b>U.330-08</b>	<b>U.320GP1</b> (set of 3 shear pins)	690	8,5	37,5	15,5	45	6,300	635
<b>U.330H</b>	<b>U.330-08</b>	<b>U.320GP1</b> (set of 3 shear pins)	690	8,5	37,5	15,5	45	6,300	638

\* except U.35B, U.35C, U.35D and U.34: set containing the inside leg and outside leg.



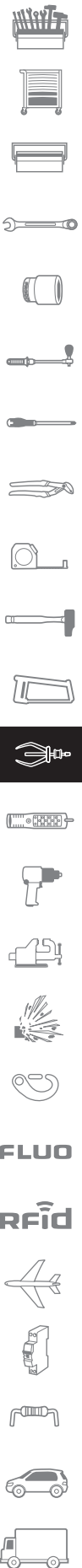
- For your safety, we recommend that all the legs are replaced in the event of a problem.
- Do not modify nor grind the puller legs. Modifications can be very dangerous for the user and invalidates the guarantee.
- Wherever possible, select a 3-leg puller for optimum load distribution.

SPARE SCREWS SPARE PARTS



Puller	Individual screw reference	Screw extension	L length screw mm	d1 mm	d mm	Shear pin	Shear pin strength	kg	For the puller go to page
U.14A	U.14A04	-	105	M10 x 1,5	Spindle	-	-	0,070	643
U.14L	U.14A04	-	105	M10 x 1,5	Spindle	-	-	0,070	643
U.20	U.20-1S	-	290	M22 x 2,5	24	U.306-24J3	7T	0,750	633
U.20B	U.20B1S	-	355	M22 x 2,5	24	U.306-24J3	7T	0,940	633
U.27AS3	U.27-6	-	525	M32 X 2,5	35	-	-	2,985	634
U.28	U.28-1*	*	300	M22 x 2,0	24	-	-	0,480	649
U.32T2-8	U.32T2-1	-	167	M16 x 2,0	13	-	-	0,190	641
U.32T2-12	U.32T2-1	-	167	M16 x 2,0	13	-	-	0,190	641
U.32T6-16	U.32T6-1	-	255	M22 x 2,0	24	-	-	0,650	641
U.32T6-20	U.32T6-1	-	255	M22 x 2,0	24	-	-	0,650	641
U.32T15-25	U.32T15-1	-	330	M32 X 2,5	35	-	-	1,850	641
U.32T15-35	U.32T15-2	-	430	M32 X 2,5	35	-	-	2,400	641
U.32T15-50	U.32T15-2	-	430	M32 X 2,5	35	-	-	2,400	641
U.34	U.20B1	-	360	M22 x 2,0	24	-	-	0,95	645
U.35	U.35SE1	-	183	M16 x 2,0	17	-	-	0,200	645
U.35L	U.35SE1	U.35SE3	183	M16 x 2,0	17	-	-	0,200	645
U.35P	U.35P01	-	135	M12 x 1,75	13	-	-	0,100	645
U.42	U.42-1	-	215	M16 x 2,0	13	-	-	0,250	646
U.42B	U.42-1	-	215	M16 x 2,0	13	-	-	0,250	646
U.51B	U.51B2**	**	290	M18 x 2,5	19	-	-	0,460	648
U.52	U.52-1	-	240	M18 x 2,5	17	-	-	0,390	646
U.232-65	U.35P01	-	132	M12 x 1,75	13	-	-	0,100	643
U.232-90	U.35SE1	-	183	M16 x 2,0	17	-	-	0,200	643
U.232-130	U.35SE1	-	183	M16 x 2,0	17	-	-	0,200	643
U.232-160	U.53S2A07	-	283	M20 x 2,5	17	-	-	0,470	643
U.232-210	U.53S2A07	-	283	M20 x 2,5	17	-	-	0,470	643
U.232-270	U.53S3-07	-	345	M27 x 3,0	21	-	-	1,280	643
U.232-340	U.53S3-07	-	345	M27 x 3,0	21	-	-	1,280	643
U.301	U.301-04	-	142	M12 x 1,75	10	-	-	0,090	643
U.301-150	U.301-04-150	-	212	M12 x 1,75	10	-	-	0,150	643
U.301-200	U.301-04-200	-	286	M16 x 2,0	13	-	-	0,350	643
U.301L	U.301L04	-	210	M12 x 1,75	10	-	-	0,170	645
U.301M	U.301M04	-	167	M12 x 1,75	10	-	-	0,130	645
U.301P	U.301P04	-	144	M12 x 1,75	10	-	-	0,120	645
U.302	U.301-04	-	142	M12 x 1,75	10	-	-	0,090	632
U.302-150	U.301-04-150	-	212	M12 x 1,75	10	-	-	0,150	632
U.302-200	U.301-04-200	-	286	M16 x 2,0	13	-	-	0,350	632
U.306-170N	U.306-2	-	310	M16 x 2,0	18	U.306-244J3 (set of 3 shear pins)	4T	0,310	630
U.306-180	U.306-2	-	310	M16 x 2,0	18	U.306-244J3 (set of 3 shear pins)	4T	0,310	630
U.306-260	U.306-3***	***	370	M16 x 2,0	18	U.306-24J3 (set of 3 shear pins)	7T	0,370	630
U.306A130N	U.306-4	-	250	M16 x 2,0	18	U.306-243J3 (set of 3 shear pins)	3T	0,250	630
U.306A140	U.306-4	-	250	M16 x 2,0	18	U.306-243J3 (set of 3 shear pins)	3T	0,250	630
U.310-170	U.20B1	-	360	M22 x 2,0	24	-	-	0,95	630
U.310-230N	U.20B1	-	360	M22 x 2,0	24	-	-	0,95	632
U.310-250	U.310-250-10	-	400	M22 x 2,0	24	-	-	0,950	631
U.320	U.320-01	U.320-14	500	M30 x 3,0	36	-	-	2,500	635
U.320H	UWG.320H01	-	590	M27 x 3,0	21	-	-	2,255	638
U.330	U.330-02	U.330-14	650	M36 x 3,0	41	-	-	4,700	635
U.330H	UWG.330H01	-	780	M33 x 3,5	24	-	-	4,400	638

\* the U.28-1 screw is supplied with the ring and nut.  
 \*\* the U.51B2 screw is supplied with the ring and nut.  
 \*\*\* the U.306-3 screw is supplied with its extension.





# LIGHTING



**INSPECTION LAMPS**

**669**

Inspection lamps  
Inspection lamp - Bodywork

669  
673



**SPOT LAMP**

**676**

Spot lamp

676



**LED PEN LAMPS AND TORCH LIGHTS**

**674**

Led pen lamps and torch lights

674



**FLUORESCENT INSPECTION LAMP**

**678**

Fluorescent inspection lamp

678



**PEN TORCH**

**675**

Pen torch

675



FLUO

RFID

SELECTION GUIDE



# Lighting: the key to safe and accurate work

## Comfort and efficiency

- It is essential to use light suitable for the application to avoid tired eyes and accidents at work.
- Engineering or maintenance tasks require an illumination of 300 to 500 lux.
- Inspection, finishing and painting tasks require an illumination of 750 to 1,000 lux.
- The light source must be designed and arranged to avoid uncomfortable glare.

## There are a number of lighting technologies to choose from:

TECHNOLOGY	ADVANTAGES	DISADVANTAGES	LIGHTINGPOWER	FACOM OFFER
Fluorescent and compactfluorescent lamps	Diffuse lighting, low temperature, low consumption	Average impact resistance	300 to 400 lux	777 range
LEDs	Very good impact resistance, low temperature, very low consumption, long operating life.	Cost, concentrated light beam	300 to 1,000 lux	779 range

24 V IP 55  
INSPECTION LAMP



INSPECTION LAMP  
IP 64



### SAFETY

For your safety, the supply voltage of inspection lamps used for working inside the body of a vehicle must not exceed 50 V.



## IP rating: What does it mean ? (e.g. for a 4.5 V IP 64 inspection lamp)

1st figure (e.g. IP 64): Protection of live components against ingress of solid objects		2nd figure (e.g. IP 64): Protection of live components against ingress of liquid	
0	No protection	0	No protection
1	Solid objects greater than 50 mm diameter cannot penetrate	1	Vertically falling drops of water
2	Solid objects greater than 12 mm diameter cannot penetrate	2	Water dripping on the enclosure tilted at 15° from its normal position
3	A steel wire of 2.5 mm diameter cannot penetrate	3	Spraying water at an angle of up to 60° from the vertical
4	A steel wire of 1 mm diameter cannot penetrate	4	Splashing water against the enclosure from any direction
5	Invisible amount of talcum powder deposited when tested in a dust chamber	5	Water projected in jets (6.3 mm) against the enclosure from any direction
6	No talcum powder deposited when tested in a dust chamber	6	Water projected in jets (12.5 mm) against the enclosure from any direction
		7	Immersion to 1 m
		8	Submersible equipment according to manufacturer's specifications

INSPECTION LAMPS

**779.CL4 CORDLESS LED INSPECTION LAMP**

**Long-lasting power and constant brightness**

Very long LED lifetime, white fluorescent lighting with diffusing lamp. Constant lighting for 5h (146 lumens / 350 lux at 0.5 m). High capacity Li-ion battery without memory effect.

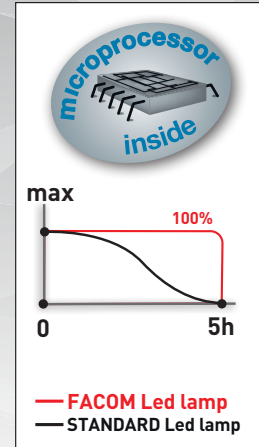
**High strength**

- Antishock structure (IK 08).
- Withstands workshop solvents, current chemicals and water spray (IP 55).



**Long operating time**

- 5 hours constant lighting.
- Fast charging 2h30.
- Flashes for 15 mn before the lamp discharges.



**Handy and safe**

- The lamp does not overheat.
- Suspension hook rotating over 360°.
- Magnet, wall- or workbench-mounted charger.



**■ Cordless LED inspection lamp**

- Wide working light beam: 350 lux at 0.5 m.
- Up to 5h operating time.
- Wall-mounted charger.
- 360° hook and hidden magnet for hands-free use.
- Charging time: 2h30.
- Protection against shocks IK 08.
- Environment protection IP 55.
- Operating temperature: -20 / +70 °C.
- Supplied with a mains charger (cable 2 m) 100-240 V and support base for wall- or workstation-mounting.



	Width l [mm]	L [mm]	L [mm]	ΔΔ [g]
<b>779.CL4</b>	58	243	243	380

## 779.PCA "POCKET" LED LIGHT



### Hands free lighting

#### Quick and easy to attach

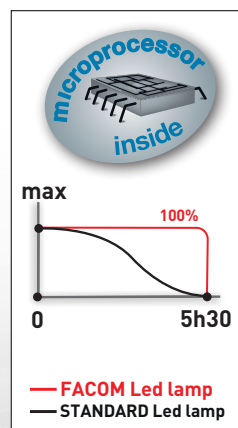
- To illuminate a work area, one hand is often needed to hold the lamp. The FVS Pocket leaves both hands free as it incorporates a range of options for attachment and light direction.
- Innovating clamp hook.
- Removable magnet.
- Flexible to turn it in all planes.
- Compact shape for easy positioning.

#### Long autonomous operation

FVS Pocket is a genuinely professional lamp, no need to change the batteries. Equipped with a rechargeable ion battery, it provides 4 hours of continuous operation and recharges in only 2 1/2 hours.

#### Professional quality

- Designed to the same specifications as the 779.CL4, it provides 4 hours of constant illumination and is very resistant to impact, workshop solvents and water (IP55).



#### Facom Vision System FVS POCKET



- Cordless pocket lamp supplied by rechargeable Li-ion batteries.
- Operating time: 5h30, fast charge: 2h30.
- Microchip-controlled charging and lighting.
- Lighting level constant throughout the operating time.
- High power LED: 73 Lumens
- Shock-proof case. Lamp swivels at 360°, hook, magnet.
- Supplied with: charger 230 V, power supply cable, user manual and strap.



FACOM	H [mm]	Width l [mm]	L [mm]	ΔΔ [g]
779.PCA	130	30	65	210



INSPECTION LAMPS

Head lamp with motion sensor

- Motion sensor: switches the lamp on and off without touching it.
- 2 brightness settings: Normal – 50 lumen. Boost – 200 lumen.
- Rotation around the vertical axis: 104°.
- Maximum operating time 16 hours in normal mode and 4 hours in boost mode.
- IP 54
- Runs on 3 AAA batteries supplied.
- Adjustable elastic strap.

	$\Delta\Delta$ [g]
779.FRT2	128



LED pen light

- Wide and powerful lighting inspection lamp with 6 LEDs.
- 36 lumens .
- 100 Lux at 1 meter.
- 8-hour continuous operating time.
- Splash-proof IP54.
- Clip to fasten the lamp to a pocket or other holder.
- Convenient magnetic bracket.
- Additional magnetic bracket strapped with Velcro.
- Runs on 3 AAA batteries supplied.

	Width l [mm]	L [mm]	$\Delta\Delta$ [g]
779.PEN	16	156	65



779.SILR EXTRA-FLAT INSPECTION LAMP



Lighting for difficult and confined access

Exceptional strength

- Extra-flat lamp used to light difficult access confined zones.



- Exceptional resistance to shock, water, oil, grease, workshop solvents and chemicals.
- Fastening system available for use at height.
- Attachment hole for 1/4" magnet for hands-free work.
- Fast charge ~ 3h (~ 6h via USB cable).
- High capacity Li-ion battery.
- Supplied with a 230V mains charger, a cigar lighter charger, a USB cable.

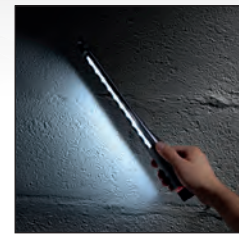
**Flexible suspension hook**  
Facilitates fastening and unfastening.



Standard mode

For working close without glare.

8h  
175 lux - 0.5 m



'Booster' mode

For inspection work and increased visibility.

4h  
350 lux - 0.5 m



## INSPECTION LAMPS

## ■ Cordless LED slim inspection lamp



- Extra slim slim body.
- 2 power settings.
- Resistant to oil, solvents and other chemicals used in a workshop.
- Hook free semi rigid avoiding the pulling of the hook or cable.
- Comes with a removable magnet with screw ref. 779.MAG.
- Supplied with 220V mains charger, 12V cigarette lighter socket and USB plug.
- Point of attachment for more safety especially when working at height.
- Battery / mains power source / 12 V / USB.
- Autonomy: 8h in standard - 4h in Boost.
- Charging time (Std / USB): 3h standard - 6h Boost.
- Lux 0.5 m (Std / Boost): 175/350 lux.
- Brightness (Std / Boost): 120/240 lumens.
- Width (Handle / Body): 45/29 mm.
- Depth (Handle / Body): 25/12 mm.
- Operating temperature (° C): -20 / + 70.

🔌	L [mm]	ΔΔ [g]
779.SILR	329	160

## ■ Corded LED slim inspection lamp



- Extra slim slim body.
- 2 power settings.
- Resistant to oil, solvents and other chemicals used in a workshop.
- Hook free semi rigid avoiding the pulling of the hook or cable.
- Powered by either AC outlet, 12V cigarette lighter or USB plug.
- Comes with a removable magnet with screw ref. 779.MAG.
- Delivered with 5 m Kevlar cable with secure lockable connection and sustainable.
- Point of attachment for more safety especially when working at height.
- Power source: mains / 12 V / USB.
- Lux 0.5 m (Std / Boost): 300/600 lux.
- Brightness (Std / Boost): 200/400 lumens.
- Width (Handle / Body): 45/29 mm.
- Depth (Handle / Body): 25/12 mm.
- Operating temperature (° C): -20 / + 70.

🔌	L [mm]	ΔΔ [g]
779.SILC	329	120

## ■ Adaptable magnet for Slim lamp



- Soft coating.



🔌	ΔΔ [g]
779.MAG	16

INSPECTION LAMP - BODYWORK

779.CML BODYWORK INSPECTION LAMP

2-in-1 lamp ideal for paint and bodywork operations.



**Warm light (4,500K)**  
 • To check light coloured surfaces.

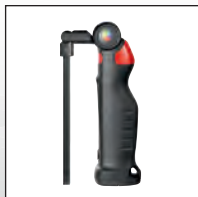


**Cold light (6,500K)**  
 • To check dark coloured surfaces.



**Large lighting surface**

- Contrasted and natural lighting: colours respected (IRC 95).
- Multi-position head swivelling at 360°.



**Long Operating Time & Comfort**

- 3h constant lighting: 500 lumen / 190 lux at 1 m.
- High power COB LEDs. Li-ion batteries.
- Attachment hook and magnet for more comfort.

■ Inspection lamp - bodywork

- Ideal to compare colour charts and detect imperfections on the vehicle's bodywork.
- Two lighting modes: cold 4500K hot 6500K.
- Operating time: 3 hours.
- Charging time: 4 hours.
- 1 magnet.
- 1 removable hook.
- Supplied with mains charger and USB cable (5 V - 2A).
- Beam pivots through 360°.
- Mains or USB charging.



779.CML	ΔΔ [g]
	396

## 779.UH RECHARGEABLE LIGHT RAMP



### 2 Lighting powers

248 High power SMD LEDs.  
2 modes available:  
ECO 1000 lumens / 4h operating time  
or  
BOOST 2000 lumens / 2h operating time.

### Handy

- Rechargeable lamp (Li-ion batteries), fitted with 2 hooks extensible from 1.40 m to 2.10 m.
- Visual charge indicator.
- Supplied with mains adapter.



### Rechargeable light ramp



- Rechargeable engine compartment lamp.
- 2 lighting power levels:
  - ECO: 1000 lumen.
  - BOOST: 2000 lumen.
- Operating time:
  - ECO: 4 hours.
  - BOOST: 2 hours.
- Operates on mains.
- Supplied with charger 220 V 50HZ.
- Hook spacing: 1397 mm to 2108 mm.

	$\Delta\Delta$ [kg]
779.UH	1,338

### Pen torch



- 1 3W LED.
- 110 lumen.
- 2 304 lux at 0.5 m.
- Running time: 3.5 hours.
- Protection rating: IP65.
- Batteries: 2 x AAA.
- Supplied with: 2 AAA batteries, strap and protection pouch.

	$\Delta\Delta$ [g]
779.PBT	58

Compact pen torch

- 1 3W LED.
- Adjustable light beam.
- 43 to 309 lumen according to the beam required.
- 39 601 lux at 0.5 m in maximum aperture.
- Maximum work time: 51.5 hours.
- Protection rating: IP65.
- Supplied with: 4 AAA batteries, strap and protection pouch.



	$\Delta\Delta$ [g]
779.CBT	176

Compact rechargeable torch

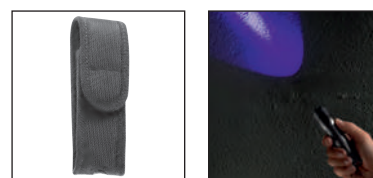
- 1 10W LED.
- Adjustable light beam.
- 175 to 814 lumen according to the beam required.
- 34 225 lux at 0.5m in maximum aperture.
- Maximum work time: 18.5 hours.
- Charging time: 6 hours.
- Protection rating: IP65.
- Rechargeable Li-ion battery.
- Chargeable by USB.
- Supplied with: 230V charger, USB supply cable, strap and protection pouch.



	$\Delta\Delta$ [g]
779.CRT	198

UV torch

- 1 1W UV LED.
- 395 to 410 nm.
- Operating time: 23 hours.
- Protection rating: IP67.
- Supplied with: 3 AAA batteries, strap and protection pouch.







	$\Delta\Delta$ [g]
779.UVT	118



INSPECTION LAMP

RANGE OF HIGH PERFORMANCE LAMPS

	RECHARGEABLE LAMP 779.EYE	WIRED LAMP 777.SPOT	BLUETOOTH WIRED LAMP 777.SPOTBT
Constant lighting power.	 <b>ECO:</b> 500 lumen / 170 lux at 1 m / 8 h use. <b>NORMAL:</b> 1000 lumen / 340 lux at 1 m / 4 h use. <b>BOOST:</b> 1500 lumen / 500 lux at 1 m / 2 h 45 use.	 <b>ECO LIGHT:</b> 1500 lumen / 500 lux at 1m. <b>NORMAL:</b> 2500 lumen / 850 lux at 1m. <b>BOOST:</b> 5000 lumen / 1750 lux at 1 m.	 <b>At 1 m:</b> 2000 lumen/750 lux. 4000 lumen/1500 lux. 6000 lumen/2250 lux. 8000 lumen/3000 lux. 10000 lumen/3800 lux.
Indoor use. Outdoor use. COB LED.	●	●	●
Contrasted and natural lighting: true colours (IRC83).	●	●	●
HIGH STRENGTH: IP 67 water and dust resistant IK 07 shock resistant	●	●	●
180° rotating and	●	●	●
360° tilting bracket	-	●	●
FACOM Lighting application available for download on your smartphone or tablet. Controls the on/off mode and sets the light intensity via Bluetooth (up to 5 lamps)	-	-	●
Removable magnetized base	●	●	●
Base with a 3/8" insert for use on a tripod 779.TRIPOD	●	●	●

▪ Tripod for SPOT lamp



- For lamps 779.EYE, 777.SPOT and 777.SPOTBT.
- Threading for lamp fastening.
- Hook for power supply cable storage.
- Height adjustable from 76.5 to 225 cm.



779.TRIPOD	ΔΔ [kg]
779.TRIPOD	3,2

779.EYE – RECHARGEABLE SPOT LAMP

- Power Settings: Low / Medium / High.
- Lumens: 500 / 1000 / 1500.
- Base with powerful magnets for hands-free use.
- 180° Rotation.
- Run-time: 7.0 hours on Low mode.
- Cordless & Rechargeable, Corded .
- IP Rating: IP67.
- IK Rating: IK07.
- UNIQUE DESIGN.
- CRI: 85 keep a natural color.
- Optional Tri-Pod Stand : 779.TRIPOD.



779.EYE	ΔΔ [kg]
	1,42

779.EYE – Rechargeable spot lamp

- Power Settings: Low / Medium / High.
- Lumens: 500 / 1000 / 1500.
- Base with powerful magnets for hands-free use.
- 180° Rotation.
- 360° Swivel.
- Run-time: 7.0 hours on Low mode.
- Cordless & Rechargeable, Corded .
- IP Rating: IP67.
- IK Rating: IK07.
- UNIQUE DESIGN.
- CRI: 85 keep a natural color.
- Optional Tri-Pod Stand :779.TRIPOD.



777.SPOT	ΔΔ [kg]
	3,45

Bluetooth corded lamp

- 5 lighting power levels: 2000, 4000, 6000, 8000, 10000 lumens.
- Base with powerful magnets for hands-free use.
- Handles for easy transport and adjustment.
- 180° rotation.
- Swivels at 360°.
- IP 67.
- IK 07.
- Unique design.
- IRC 85: maintains natural colour.
- Bluetooth: can be controlled by an IOS or ANDROID application.
- The application can control 5 lamps.
- Tripod in option: 779.TRIPOD.
- Cable length: 5 m.



777.SPOTBT	ΔΔ [kg]
	5,8



FLUORESCENT INSPECTION LAMP

777 NEW RANGE OF FLUORESCENT INSPECTION LAMPS



470 lux - 0,5 m  
320 lumens 11W

**Light your workspace**

- Suitable for mechanical and maintenance work.
- Broad white fluorescent light beam:  
470 lux at 0.5 m (320 lumens).
- Anti-glare lens.



**Tested strength**

- No risk of burn, the lamp does not overheat.
- Sealed to water splashes (IP 55).
- Resistant to workshop solvents and regular chemical agents.
- Easy opening for changing the glass and fluorescent tube.



**Hands-free lighting**

- 2 magnets + 2 anti-rotation hooks at 360°.



**Available in 4 versions**

- 777B.230F: 230 V.  
With 10 metre mains lead.
- 777B.24F: 24 V.  
With 10 metre mains lead.
- 777A.230F: 230 V.  
With 15 metre reel.
- 777A.24F: 24 V.  
With 15 metre reel.



Fluorescent inspection lamp 24V



- Durable, powerful lighting.
  - Low consumption: 11W.
  - Fluorescent tube 11W.
  - Does not heat.
  - Protection rating: IP55.
  - Anti-glare lens.
  - 470 Lux at 0.5 m.
  - 320 Lumens.
  - H05 RN-F rubber cable: good resistance to hydrocarbons.
  - No transformer.
  - No cable winder.
  - Voltage: 24 V.
  - Cable length: 10 m.
- Spare fluorescent tube: 777B.BULD.  
Spare lens: 777B.LENS.

Icon	$\Delta\Delta$ [g]
777B.24F	450

Fluorescent inspection lamp 230V



- Durable, powerful lighting.
  - Low consumption: 11W.
  - Fluorescent tube 11W.
  - Does not heat.
  - Protection rating: IP55.
  - Anti-glare lens.
  - 470 Lux at 0.5 m.
  - 320 Lumens.
  - H05 RN-F rubber cable: good resistance to hydrocarbons.
  - No transformer.
  - No cable winder.
  - Voltage: 230 V.
  - Cable length: 10 m.
- Spare fluorescent tube: 777B.BULD.  
Spare lens: 777B.LENS.

Icon	$\Delta\Delta$ [g]
777B.230F	450

24V fluorescent inspection lamp with cable reel



- Durable, powerful lighting.
  - Low consumption: 11W.
  - Fluorescent tube 11W.
  - Does not heat.
  - Protection rating: IP55.
  - Anti-glare lens.
  - 400 Lux at 0.5 m.
  - 320 Lumens.
  - H05 RN-F rubber cable: good resistance to hydrocarbons.
  - No transformer.
  - No cable winder.
  - Voltage: 24 V.
  - Cable length: 15 m.
  - Cable reel: faster cable storage.
  - Supplied with orientable wall mounting.
- Spare fluorescent tube: 777B.BULD.  
Spare lens: 777B.LENS.

Icon	$\Delta\Delta$ [kg]
777A.24F	4.5

230V fluorescent inspection lamp with cable reel



- Durable, powerful lighting.
  - Low consumption: 11W.
  - Fluorescent tube 11W.
  - Does not heat.
  - Protection rating: IP55.
  - Anti-glare lens.
  - 470 Lux at 0.5 m.
  - 320 Lumens.
  - H05 RN-F rubber cable: good resistance to hydrocarbons.
  - No transformer.
  - No cable winder.
  - Voltage: 230 V.
  - Cable length: 15 m.
  - Cable reel: faster cable storage.
  - Supplied with orientable wall mounting.
- Spare fluorescent tube: 777B.BULD.  
Spare lens: 777B.LENS.

Icon	$\Delta\Delta$ [kg]
777A.230F	4.5



FLUO

Rfid





# POWER TOOLS



**PNEUMATIC TOOLS**

**682**

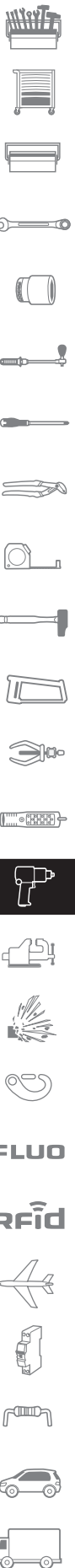
1/2" Impact wrenches	685
1/2" Compact Impact Wrenches	686
3/8" Impact wrenches	686
Angle Impact wrenches	687
3/4" Impact wrenches	688
Impact wrenches	690
Ratchets	691
Screwdrivers	694
Drills	694
Orbital sanders	696
Rotary Sanders	697
Sanders	698
Belt sanders	699
Die grinders	699
Angle grinders	702
Angle polisher	704
Chisel hammer	704
Saws	706
Other tools and accessories	706
Network connection	710



**POWER TOOLS - CORDLESS**

**712**

Power tools - Cordless	712
Brushless impact wrenches	713
Cordless drill drivers	714
Power tools - Cordless	715
Twin Pack bundles	716
Cordless accessories	717



**FLUO**

**RFid**

# IMPACT WRENCHES



## A comprehensive range suited to your needs

Ø 3/8"

Ø 1/2"

USE

Ø 3/4"

Ø 1"

INTENSIVE USE



NJ.3000F



NS.3500G



NK.3000F



NM.3000F



NJ.2000F2



NS.3100G



NK.2000F2



NJ.1300F2



NS.1400F



NK.1000F2



NM.1010LF2



NJ.1400F2



OCCASIONAL USE

## IMPACT WRENCH

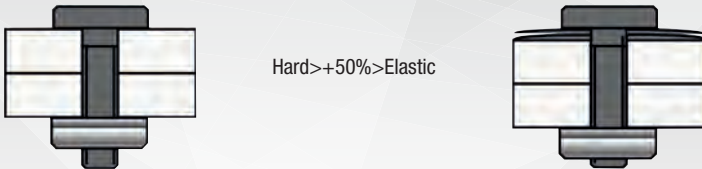
# The best unfastening tool

**Impact wrenches are tools designed to unscrew with a hammering system**

- Benefit: unfastens up to 3000 Nm without reaction torque.
- No existing standard defines the checking process for this type of tool, so we defined our own checking system, and applied it to the entire range.

### Power of an impact wrench changes according to:

- Type of assembly: power can drop up to 50% on a flexible assembly.



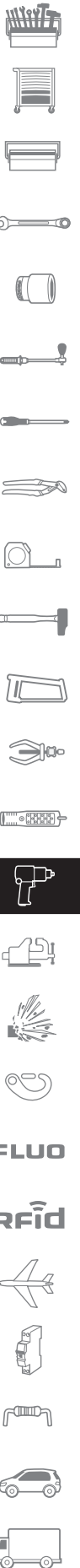
- Air line: pressure, air flow and diameter of the supply cable can lead to a 50% power drop.



Exhaust:  
Tool power  
Tool speed

- Air pressure: 6.2 Bar Min => Rotation speed
- Inner diameter of the connector (e.g. 6.5 mm for 1/2" tools)
- Air flow: Exceeds tool flow => Tool power

- Accessories: extensions, universal joints and other accessories can lead to a power drop exceeding 50%.



FLUO

RFid

## IMPACT SOCKETS AND ACCESSORIES

Developed for your power tools!  
Your safety first!

**PERFORMANCE**

- Specially designed to resist the stresses from impact tools. Their special steel and heat treatment ensure a very high yield strength and wear resistance.

**SAFETY**

- All sockets and accessories feature a groove and side-hole to UNI ISO 2725. Locking is ensured by a through-pin and retaining ring (to be ordered separately). Never fit chrome-finished manual sockets Impact tools.



⇒ Pins	∅ x L (mm)
GA.15B	2,5 x 14,8
GA.18B	2,5 x 17,8
GA.19B	2,5 x 19,0
GA.20B	3,0 x 20,0
GA.22B	3,0 x 22,0
GA.25B	3,0 x 25,0
GA.31B	4,0 x 31,0
GA.35B	4,0 x 35,0
GA.45B	5,0 x 45,0
GA.77B	5,0 x 77,0
GA.75B	6,0 x 75,0
GA.84B	6,0 x 84,0

⇒ Rings	∅ bore x ∅ in. (mm)
BA.15B	3,5 x 15,0
BA.18B	3,5 x 18,0
BA.19B	3,5 x 19,0
BA.20B	4,0 x 20,0
BA.22B	4,0 x 22,0
BA.25B	4,0 x 25,0
BA.30B	5,0 x 30,0
BA.36B	5,0 x 36,0
BA.45B	7,0 x 45,0
BA.76B	7,0 x 76,0
BA.74B	10,0 x 74,0
BA.84B	10,0 x 84,0

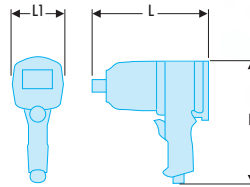
1/2" IMPACT WRENCHES

1/2" high performance impact wrench

- Most powerful 1/2" Impact Wrench in the range.
- Removable & rechargeable LED lighting illuminates dark areas.
- Progressive trigger for better control.
- Cold forged twin hammer impact system for greater durability.
- 3 forward, 1 reverse speed with single hand operation.
- Ergonomic handle provides user comfort.



	H [mm]	L [mm]	L1 [mm]	BPM	Sound Pressure DB[A]	Vibration Level [M/S <sup>2</sup> ]	Torque N.m	Maximum RPM [mn]	ΔΔ [kg]
<b>NS.3500G</b>	212	162	75.3	1200	94 (K=3)	6.4 (K=2.2)	1898	6500	2.2

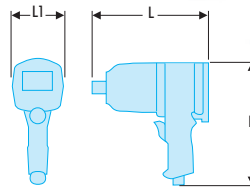


1/2" impact wrench

- High torque 1/2" Impact Wrench.
- Progressive trigger for better control.
- Cold forged twin hammer impact system for greater durability.
- 3 forward, 1 reverse speed with single hand operation.
- Ergonomic handle provides user comfort.



	H [mm]	L [mm]	L1 [mm]	BPM	Sound Pressure DB[A]	Vibration Level [M/S <sup>2</sup> ]	Torque N.m	Maximum RPM [mn]	ΔΔ [kg]
<b>NS.3100G</b>	212	162	75.3	1300	93 (K=3)	6.2 (K=2.5)	1600	7000	2

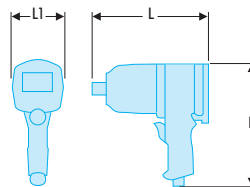


1/2" aluminium impact wrench

- Improved anvil life through superior materials.
- Variable speed trigger for better control.
- Rubber handle insulates from cold.
- Forward/reverse speed control knob with single hand operation.



	H [mm]	L [mm]	L1 [mm]	BPM	Sound Pressure DB[A]	Vibration Level [M/S <sup>2</sup> ]	Torque N.m	Maximum RPM [mn]	ΔΔ [kg]
<b>NS.1400F</b>	193	190	70	1120	90 (K=3)	5.2 (K=1.5)	1490	6500	2.8



1/2" COMPACT IMPACT WRENCHES

1/2" compact high performance impact wrench



- Removable & rechargeable LED lighting illuminates dark areas
- Light weight tool reduces user fatigue
- Compact size allows tool to fit in tight spaces
- Progressive trigger for better control
- Cold forged twin hammer impact system for greater durability
- 3 forward, 1 reverse speed with single hand operation

	H [mm]	L [mm]	L1 [mm]	BPM	Sound Pressure DB[A]	Vibration Level [M/S <sup>2</sup> ]	Torque N.m	Maximum RPM [mn]	ΔΔ [kg]
<b>NS.2500G</b>	197	144	62.5	1400	95 (K=3)	3.9 (K=1.5)	950	10000	1.4

1/2" ultra compact impact wrench



- 3 power settings, "one hand" reverser.
- Supplied with hanging hook, reduces user fatigue.
- Monobloc body design extending its lifetime.
- Built-in shock absorbers protecting the tool from damage.
- Ergonomic soft handle resistant to hydrocarbons and solvents
- Compact to enable access in difficult areas.
- Socket held by ball + pin.

	H [mm]	L [mm]	L1 [mm]	BPM	Sound Pressure DB[A]	Vibration Level [M/S <sup>2</sup> ]	Torque N.m	Maximum RPM [mn]	ΔΔ [kg]
<b>NS.1600F</b>	173	111	61.5	1650	91.1 (K=3)	9.57 (K=1.44)	860	10000	1.3

3/8" IMPACT WRENCHES

3/8" titanium impact wrench



- Light weight titanium housing for maximum durability.
- Feather throttle for maximum operator control.
- Titanium exhaust deflector & muffler.
- Over molded comfort grip.
- One hand power & reverse adjustment.
- Innovative motor construction increases durability.

	H [mm]	L [mm]	L1 [mm]	BPM	Sound Pressure DB[A]	Vibration [M/S <sup>2</sup> ]	Torque N.m	Maximum RPM [mn]	ΔΔ [kg]
<b>NJ.3000F</b>	180	152	66	1750	93.8 (K=3)	3.06 (K=0.79)	710	10500	1.3

3/8" composite impact wrench



- Durable twin hammer mechanism for enhanced tool life.
- Forward / reverse knob with 3 integrated power settings in forward.
- Swivel air inlet to avoid coiling of the hose.
- Chemical resistant casing for longer life of tool.
- Feather teasing trigger for optimal control

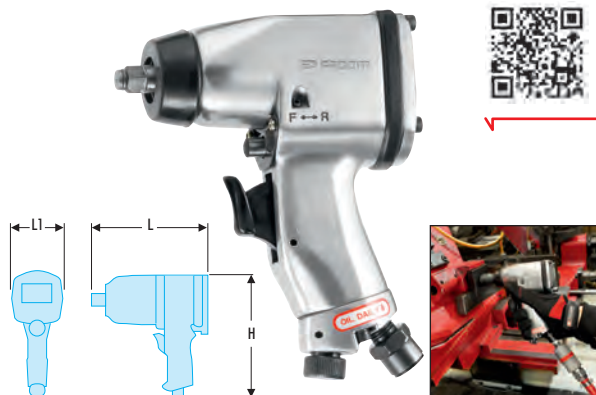
	H [mm]	L [mm]	L1 [mm]	BPM	Sound Pressure DB[A]	Vibration [M/S <sup>2</sup> ]	Torque N.m	Maximum RPM [mn]	ΔΔ [kg]
<b>NJ.2000F2</b>	165	157	58	1290	92.7 (K=3)	4.3 (K=0.92)	475	9600	1.3



3/8" aluminum impact wrench

- Durable single hammer mechanism encased in a strong aluminium housing.
- Protective rubber ring for improved tool life.
- Feather teasing trigger for optimal speed regulation.
- Turnable power knob for improved control.
- One hand forward reverse rod.

	H [mm]	L [mm]	L1 [mm]	BPM	Sound Pressure DB[A]	Vibration Level [M/S <sup>2</sup> ]	Torque N.m	Maximum RPM [mn]	ΔΔ [kg]
<b>NJ.1300F2</b>	167	137	49	705	94.7 (K=3)	4 (K=0.89)	180	11200	1,2



3/8" butterfly impact wrench

- One-handed reverse switch operation.
- Double hammer impact mechanism, aluminium body.
- Ball retaining mechanism.
- Jointed air inlet for awkward zones,
- 3 power settings for optimal control.

	H [mm]	L [mm]	L1 [mm]	BPM	Sound Pressure DB[A]	Vibration Level [M/S <sup>2</sup> ]	Torque N.m	Maximum RPM [mn]	ΔΔ [kg]
<b>NJ.1400F2</b>	54	140	40	660	96 (K=3)	3.06 (K=1.19)	120	12000	0,53



ANGLE IMPACT WRENCHES

1/2" angular impact wrenches

- Powerful and robust single hammer mechanism.
- Ergonomic "soft" grip insulates from the cold.
- Protection bumpers for long durability.
- Soft trigger for excellent speed control.
- Safe and fast socket locking by friction pin.

	H [mm]	L [mm]	L1 [mm]	BPM	Sound Pressure DB[A]	Vibration Level [M/S <sup>2</sup> ]	Torque N.m	Maximum RPM [mn]	ΔΔ [kg]
<b>NS.A1700F2</b>	80	353	63	1700	98 (K=3)	29.96 (K=14.35)	271	7200	1,8



3/8" angular impact wrench

- Powerful and robust single hammer mechanism.
- Ergonomic "soft" grip insulates from the cold.
- Protection bumpers for long durability.
- Direction reversal knob near the handle.
- Soft trigger for excellent speed control.
- Safe and fast socket locking by friction pin.

	H [mm]	L [mm]	L1 [mm]	BPM	Sound Pressure DB[A]	Vibration Level [M/S <sup>2</sup> ]	Torque N.m	Maximum RPM [mn]	ΔΔ [kg]
<b>NJ.A1700F2</b>	80	353	63	1700	96 (K=3)	46.52 (K=14.61)	230	7200	1,8



3/4" IMPACT WRENCHES

3/4" titanium impact wrench



- Lightweight titanium housing for maximum durability.
- Feather throttle for maximum operator control.
- Titanium exhaust deflector & muffler.
- Over molded comfort grip.
- One hand power & reverse adjustment.
- Innovative motor construction increases durability.

FACOM	H [mm]	L [mm]	L1 [mm]	BPM	Sound Pressure DB[A]	Vibration Level [M/S <sup>2</sup> ]	Torque N.m	Maximum RPM [mn]	ΔΔ [kg]
<b>NK.3000F</b>	227	227	97	950	97 (K=3)	5.06 (K=0.99)	2115	5300	3,8

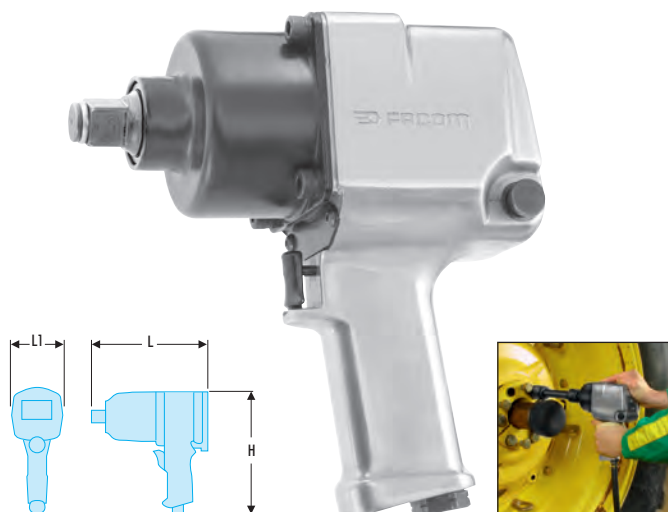
3/4" composite impact wrench



- Durable twin hammer mechanism encased in a strong aluminium housing.
- One switch integrating regulation and forward reverse.
- Insulating and lightweight durable composite housing.
- Feather teasing trigger for optimal speed regulation.
- Specific short design to get into confined spaces.
- Socket ring retainer for safety.

FACOM	H [mm]	L [mm]	L1 [mm]	BPM	Sound Pressure DB[A]	Vibration Level [M/S <sup>2</sup> ]	Torque N.m	Maximum RPM [mn]	ΔΔ [kg]
<b>NK.2000F2</b>	213	221	86	850	99.10 (K=3)	10.7 (K=1.55)	1700	6360	3,9

3/4" aluminum impact wrench



- Durable twin hammer mechanism encased in a strong aluminium housing.
- One hand forward reverse switch with integrated regulator with 6 positions.
- Feather teasing trigger for optimal speed regulation.
- Socket ring retainer for safety.

FACOM	H [mm]	L [mm]	L1 [mm]	BPM	Sound Pressure DB[A]	Vibration Level [M/S <sup>2</sup> ]	Torque N.m	Maximum RPM [mn]	ΔΔ [kg]
<b>NK.1000F2</b>	233	222	93	790	98.4 (K=3)	9.1 (K=1.61)	1700	5700	5,6

NM SERIES - NEW RANGE OF 1" IMPACT WRENCHES

Powerful, strong and balanced!  
Improve your productivity!

**Powerful impact system**

- Exceptional torque at 3390 N.m.

**2 stage trigger:**

- Speed control at your finger tips.

**Lateral grip adjustable to 360°**

- To stabilize and enhance grip.

**Comfortable 'soft grip' handles**

- Rubber overmolding for reduced vibrations.

**One-handed reverse switch operation**

- 2 power levels in tightening and untightening. Reduces the strength required to accomplish the task and increases productivity.

**Safety**

- Dual socket retainer: ring retainer hole to use a safety pin.

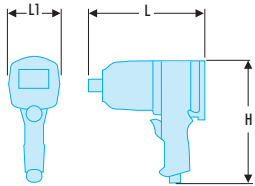
**Exhaust blows air away**

- From the operator for comfort of use.

**Composite bumpers**

- For greater durability.

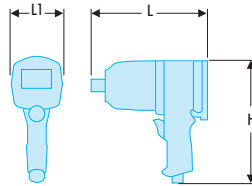
1" straight impact wrench - long anvil - high performance



- Dual hammer mechanism for tool durability.
- 2 stage trigger for improved control.
- Two forward, two reverse speeds.
- Rubber over molded grip insulating against cold and vibrations.
- Rubber bumper protecting the motor housing.
- 360° adjustable handle for improved comfort.
- Ring retainer hole to use a safety pin.
- Exhaust blows air away from the operator for comfort of use.

	H [mm]	L [mm]	L1 [mm]	BPM	Sound Pressure DB[A]	Vibration Level [M/S <sup>2</sup> ]	Torque N.m	Maximum RPM [mn]	ΔΔ [kg]
<b>NM.3030LF</b>	97	493	101	1000	105 (K=3)	15.6 (K=2.05)	3390	5000	9

1" straight impact wrench - short anvil - high performance



- Dual hammer mechanism for tool durability.
- 2 stage trigger for improved control.
- One hand forward reverse switch with two settings in both directions.
- Rubber over molded grip insulating against cold and vibrations.
- Rubber bumper protecting the motor housing.
- 360° adjustable handle for improved comfort.
- Safe: Dual socket retainer: ring retainer hole to use a safety pin.
- Exhaust blows air away from the operator for comfort of use.

	H [mm]	L [mm]	L1 [mm]	BPM	Sound Pressure DB[A]	Vibration Level [M/S <sup>2</sup> ]	Torque N.m	Maximum RPM [mn]	ΔΔ [kg]
<b>NM.3030F</b>	97	346	101	1000	104.4 (K=3)	14.75 (K=1.96)	3390	5000	8



IMPACT WRENCHES

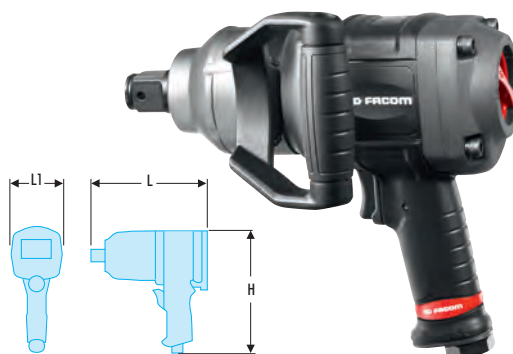
1" gun-type impact wrench - long anvil - high performance



- Dual hammer mechanism for tool durability.
- 2 stage trigger for improved control.
- One hand forward reverse switch with two settings in both directions.
- Rubber over molded grip insulating against cold and vibrations.
- Rubber bumper protecting the motor housing.
- 360° adjustable handle for improved comfort.
- Safe: Dual socket retainer: ring retainer hole to use a safety pin.
- Exhaust blows air away from the operator for comfort of use.

	H [mm]	L [mm]	L1 [mm]	BPM	Sound Pressure DB[A]	Vibration Level [M/S <sup>2</sup> ]	Torque N.m	Maximum RPM [mn]	ΔΔ [kg]
<b>NM.3000LF</b>	249	391	96	900	111.1 (K=3)	11.7 (K=1.65)	3390	5000	7,4

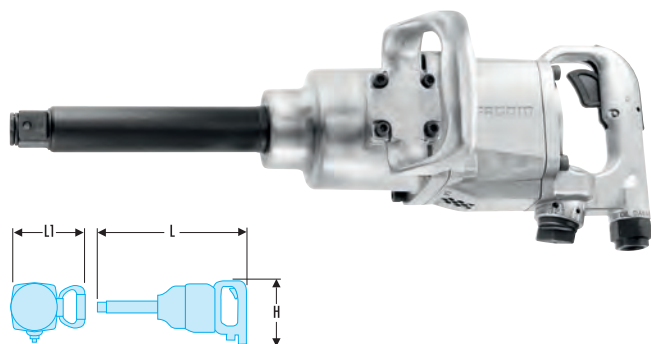
1" gun-type impact wrench - short anvil - high performance



- Dual hammer mechanism for tool durability.
- 2 stage trigger for improved control.
- One hand forward reverse switch with two settings in both directions.
- Rubber over molded grip insulating against cold and vibrations.
- Rubber bumper protecting the motor housing.
- 360° adjustable handle for improved comfort.
- Safe: Dual socket retainer: ring retainer hole to use a safety pin.
- Exhaust blows air away from the operator for comfort of use.

	H [mm]	L [mm]	L1 [mm]	BPM	Sound Pressure DB[A]	Vibration Level [M/S <sup>2</sup> ]	Torque N.m	Maximum RPM [mn]	ΔΔ [kg]
<b>NM.3000F</b>	239	279	102	900	111.9 (K=3)	10.6 (K=1.55)	3390	5000	6,9

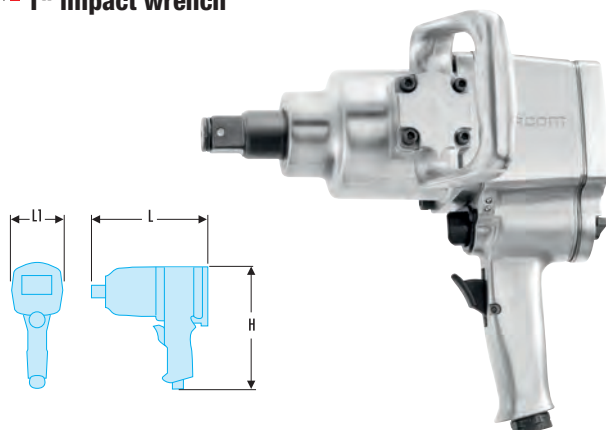
Long-reach 1" impact wrench



- Durable twin hammer mechanism for tool durability.
- Feather teasing trigger for optimal speed control.
- Integrated regulator with 3 positions forward and reverse.
- Angled exhaust to blow air away from workstation.
- Socket ring retainer combined with thru-hole for safety.

	H [mm]	L [mm]	L1 [mm]	BPM	Sound Pressure DB[A]	Vibration Level [M/S <sup>2</sup> ]	Torque N.m	Maximum RPM [mn]	ΔΔ [kg]
<b>NM.1010LF2</b>	172	523	202	720	103 (K=3)	16.7 (K=2)	4068	4400	11

1" impact wrench



- Durable twin hammer mechanism for tool durability.
- Feather teasing trigger for optimal speed control.
- Integrated regulator with 3 positions forward and reverse.
- Angled exhaust to blow air away from workstation.
- Socket ring retainer combined with thru-hole for safety.

	H [mm]	L [mm]	L1 [mm]	BPM	Sound Pressure DB[A]	Vibration Level [M/S <sup>2</sup> ]	Torque N.m	Maximum RPM [mn]	ΔΔ [kg]
<b>NM.1000F2</b>	290	300	205	720	102 (K=3)	15.2 (K=2.15)	4068	4500	10,3

RATCHETS

RATCHET

# The ultimate tool to increase your productivity!

Upgrade with a torque range from 10 to 136 N.m and rotation speeds from 240 to 280 rpm, you can increase productivity and improve your working comfort.



135 mm or 205 mm

- A range of sealed ratchets for a longer ratchet lifetime and protecting the operator from any risk of jamming the gloves in the mechanism.



Ø 1/4" - 3/8" - 1/2"



- Select "palm control" versions for fastening in confined spaces and the mini or standard version when space allows. The shorter the tool, the higher the reaction torque.

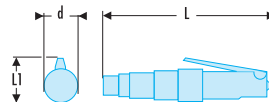
- Reaction torque = force / distance
- 27 N.m = 2.74 Kg at 1 meter distance
- Reaction torque at 135 mm: 2.74 Kg/0.135 = 20.3 Kg
- Reaction torque at 205 mm: 2.74 Kg/0.205 = 13.4 Kg

■ TITANIUM 1/2" ratchet

- High performance 350 rpm motor delivering 88 N.m torque.
- Dust tight titanium head for increased life time.
- Bimaterial composite ergonomic casing resistant to acids and solvents.
- Socket locking by push button.
- Direction reversal knob near the handle.
- Soft trigger for excellent speed control.



	d [mm]	L [mm]	L1 [mm]	Sound Pressure DB[A]	Vibration Level [M/S <sup>2</sup> ]	Torque N.m	Maximum RPM [mn]	ΔΔ [kg]
<b>VR.SZ300F2</b>	52	314	56	89.3 (K=3)	5.57 (K=1.04)	88	350	1,3



FLUO

RFid

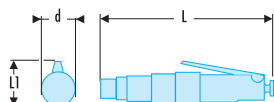


## RATCHETS

## ■ TITANIUM 3/8" ratchet



- High performance 350 rpm motor delivering 88 N.m torque.
- Dust tight titanium head for increased life time.
- Bimaterial composite ergonomic casing resistant to acids and solvents.
- Socket locking by push button.
- Direction reversal knob near the handle.
- Soft trigger for excellent speed control.

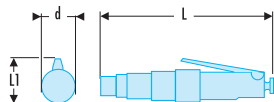


	d [mm]	L [mm]	L1 [mm]	Sound Pressure DB[A]	Vibration [M/S <sup>2</sup> ]	Torque N.m	Maximum RPM [mn]	ΔΔ [kg]
<b>VR.JZ300F2</b>	52	314	56	89.3 (K=3)	5.57 (K=1.04)	88	350	1.3

## ■ 3/8" mini ratchet



- Durable ratchet head mechanism with closed head design: prevents dust and particles to damage the head.
- Easily accessible forward reverse switch, even usable with greasy hands.
- Accessible nipple for convenient greasing of the head and gears.
- Insulating rubber sleeve covering a lightweight aluminium housing.
- Speed easily regulated with a screwdriver.
- Rear exhaust drives the air away from the workplace.
- Feather teasing trigger for optimal speed regulation.
- Socket ball retainer for safety.
- 30 mm slim profile head.

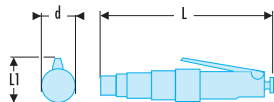


	d [mm]	L [mm]	L1 [mm]	Sound Pressure DB[A]	Vibration [M/S <sup>2</sup> ]	Torque N.m	Maximum RPM [mn]	ΔΔ [kg]
<b>VR.J254</b>	52	208	36	92 (K=3)	3.5 (K=0.92)	54	250	0,7

## ■ 1/4" mini ratchet



- Durable ratchet head mechanism with closed head design: prevents dust and particles to damage the head.
- Easily accessible forward reverse switch, even usable with greasy hands.
- Accessible nipple for convenient greasing of the head and gears.
- Insulating rubber sleeve covering a lightweight aluminium housing.
- Speed easily regulated with a screwdriver.
- Rear exhaust drives the air away from the workplace.
- Feather teasing trigger for optimal speed regulation.
- Socket ball retainer for safety.
- 30 mm slim profile head.



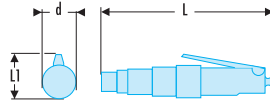
	d [mm]	L [mm]	L1 [mm]	Sound Pressure DB[A]	Vibration [M/S <sup>2</sup> ]	Torque N.m	Maximum RPM [mn]	ΔΔ [kg]
<b>VR.R227</b>	52	208	36	91 (K=0.3)	1.8 (K=0.67)	27	250	1.45

Standard 1/2" ratchet

- Durable ratchet head mechanism with closed head design: prevents dust and particles to damage the head.
- Easily accessible forward reverse switch, even usable with greasy hands.
- Accessible nipple for convenient greasing of the head and gears.
- Insulating rubber sleeve covering a lightweight aluminium housing.
- Speed easily regulated with a screwdriver.
- Rear exhaust drives the air away from the workplace.
- Feather teasing trigger for optimal speed regulation.
- Socket ball retainer for safety.
- 51 mm slim profile head.



	d [mm]	L [mm]	L1 [mm]	Sound Pressure DB[A]	Vibration [M/S <sup>2</sup> ]	Torque N.m	Maximum RPM [mn]	ΔΔ [kg]
<b>VR.S3136</b>	58	261	43	99 (K=3)	9.1 (K=1.4)	136	280	1,2

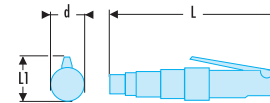


Standard 3/8" ratchet

- Durable ratchet head mechanism with closed head design: prevents dust and particles to damage the head.
- Easily accessible forward reverse switch, even usable with greasy hands.
- Accessible nipple for convenient greasing of the head and gears.
- Insulating rubber sleeve covering a lightweight aluminium housing.
- Speed easily regulated with a screwdriver.
- Rear exhaust drives the air away from the workplace.
- Feather teasing trigger for optimal speed regulation.
- Socket ball retainer for safety.
- 51 mm slim profile head.



	d [mm]	L [mm]	L1 [mm]	Sound Pressure DB[A]	Vibration [M/S <sup>2</sup> ]	Torque N.m	Maximum RPM [mn]	[kg]
<b>VR.J3108</b>	58	261	43	98.9 (K=3)	4.64 (K=0.95)	108	280	1,2

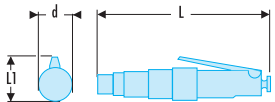


3/8" palm control ratchet



- Durable ratchet head mechanism with closed head design: prevents dust and particles to damage the head.
- Easily accessible forward reverse switch, even usable with greasy hands.
- Accessible nipple for convenient greasing of the head and gears.
- Insulating rubber sleeve covering a lightweight aluminium housing.
- Speed easily regulated with a screwdriver.
- Rear exhaust drives the air away from the workplace.
- Feather teasing trigger for optimal speed regulation.
- Socket ball retainer for safety.
- 29 mm slim profile head.

	d [mm]	L [mm]	L1 [mm]	Sound Pressure DB[A]	Vibration [M/S <sup>2</sup> ]	Torque N.m	Maximum RPM [mn]	ΔΔ [kg]
<b>VR.J154</b>	56	136	36	92 (K=3)	3.9 (K=0.89)	54	300	0,5

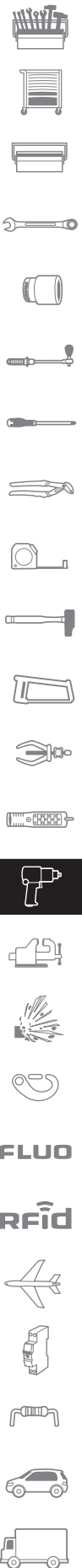
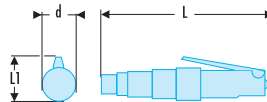


1/4" palm control ratchet



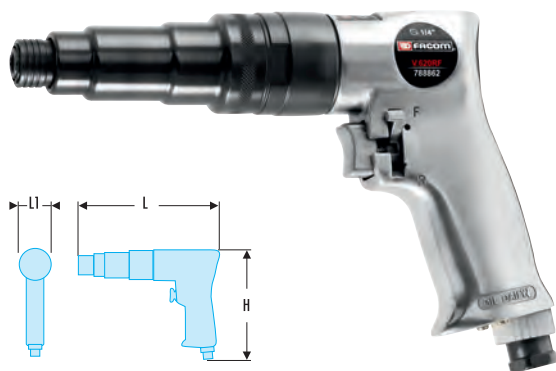
- Durable ratchet head mechanism with closed head design: prevents dust and particles to damage the head.
- Easily accessible forward reverse switch, even usable with greasy hands.
- Accessible nipple for convenient greasing of the head and gears.
- Insulating rubber sleeve covering a lightweight aluminium housing.
- Speed easily regulated with a screwdriver.
- Rear exhaust drives the air away from the workplace.
- Feather teasing trigger for optimal speed regulation.
- Socket ball retainer for safety.
- 29 mm slim profile head.

	d [mm]	L [mm]	L1 [mm]	Sound Pressure DB[A]	Vibration [M/S <sup>2</sup> ]	Torque N.m	Maximum RPM [mn]	ΔΔ [kg]
<b>VR.R127</b>	56	136	36	92 (K=3)	3.8 (K=0.88)	27	200	0,5



SCREWDRIVERS

1/4" Reversible pistol screwdriver



- Durable roller clutch with easy external clutch adjustment.
- Convenient forward/reverse close to trigger for easy access.
- The built-in quick change chuck enables fast screw bit changing.
- Robust housing for great durability.
- Teasing trigger gives ultimate control to the operator.



	H [mm]	L [mm]	L1 [mm]	Sound Pressure DB[A]	Vibration [M/S <sup>2</sup> ]	Power [watts]	Torque N.m	Maximum RPM [mn]	ΔΔ [kg]
<b>V.620RF</b>	163	216	44	95.3 (K=3)	4.2 (K=0.91)	300	13	1800	1,2

1/4" reversible straight screwdriver



- Durable roller clutch with easy external clutch adjustment.
- Convenient forward/reverse close to trigger for easy access.
- The built-in quick change chuck enables fast screw bit changing.
- Hook allows the tool to be mounted on a balancer for operator comfort
- Teasing trigger gives ultimate control to the operator.



	d [mm]	L [mm]	L1 [mm]	Sound Pressure DB[A]	Vibration [M/S <sup>2</sup> ]	Power [watts]	Torque N.m	Maximum RPM [mn]	ΔΔ [kg]
<b>V.610RF</b>	44	270	70	93 (K=3)	12.9 (K=1.85)	250	13	1800	1,2

DRILLS

Drill 10 mm with self-locking chuck

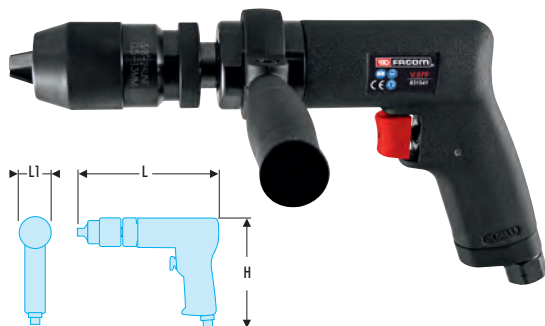


- The powerful 450 watt motor is suitable for many applications and is resistant to stalls.
- Ergonomic grip maximises operator comfort.
- Industrial quality keyless chuck for durability.
- Teasing trigger offers maximum control for the operator.
- Rear handle exhaust blows away air from the workplace.
- Swivel air inlet avoids coiling of the hose.



	H [mm]	L [mm]	L1 [mm]	Sound Pressure DB[A]	Vibration [M/S <sup>2</sup> ]	Power [watts]	Maximum RPM [mn]	ΔΔ [kg]
<b>V.103MF</b>	145	234	44	87.4 (K=3)	7.2 (K=1.21)	450	2800	1,48

Drill 13 mm with self-locking chuck



- The powerful 450 watt motor is suitable for many applications and is resistant to stalls.
- Ergonomic grip maximises operator comfort.
- Industrial quality keyless chuck for durability.
- Teasing trigger offers maximum control for the operator.
- Rear handle exhaust blows away air from the workplace.
- Swivel air inlet avoids coiling of the hose.



	H [mm]	L [mm]	L1 [mm]	Sound Pressure DB[A]	Vibration [M/S <sup>2</sup> ]	Power [watts]	Maximum RPM [mn]	ΔΔ [kg]
<b>V.97F</b>	145	280	182	87 (K=3)	6.9 (K=0.8)	450	1300	1,65



■ Reversible pneumatic drill 6 mm

- For light work or high speed drilling: dashboard, aeronautical applications.
- Structure: composite.
- 2-speed trigger.
- One-handed reverse switch operation.
- Key chuck.
- Rear exhaust.

	H [mm]	L [mm]	L1 [mm]	Sound Pressure DB[A]	Vibration [M/S <sup>2</sup> ]	Power [watts]	Maximum RPM [mn]	ΔΔ [kg]
<b>V.D600QR</b>	136	144	39	84 (K=3)	0.4 (K=0.24)	300	2600	0,57



■ Reversible pneumatic drill 10 mm - 3/8"

- For work requiring medium torque: drilling frames or damaged bolts.
- Low noise technology.
- Structure: composite.
- Self-tightening chuck.
- One-handed reverse switch operation.
- Soft control trigger.
- Rear exhaust.

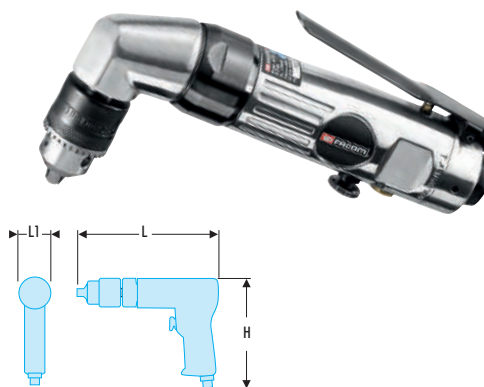
	H [mm]	L [mm]	L1 [mm]	Sound Pressure DB[A]	Vibration [M/S <sup>2</sup> ]	Power [watts]	Maximum RPM [mn]	ΔΔ [kg]
<b>V.D100QR</b>	151	195	42	90 (K=3)	0.4 (K=0.24)	500	1800	1



■ Reversible angled pneumatic drill 10 mm - 3/8"

- For drilling in confined spaces.
- 90° angle transmission for improved access.
- Reversible.
- Lightweight.
- Key chuck.

	H [mm]	L [mm]	L1 [mm]	Sound Pressure DB[A]	Vibration [M/S <sup>2</sup> ]	Power [watts]	Maximum RPM [mn]	ΔΔ [kg]
<b>V.DA100KR</b>	119	200	44	84 (K=3)	0.5 (K=0.3)	350	1200	1,08



■ Reversible pneumatic drill 13 mm - 1/2"

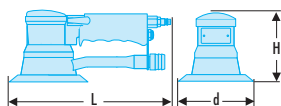
- For heavy work or work requiring high torque: drilling studs, exhaust bolts, etc.
- Structure: composite.
- Reversible.
- Soft control trigger.
- Key chuck.

	H [mm]	L [mm]	L1 [mm]	Sound Pressure DB[A]	Vibration [M/S <sup>2</sup> ]	Power [watts]	Maximum RPM [mn]	ΔΔ [kg]
<b>V.D130KR</b>	151	195	42	87 (K=3)	4.5 (K=0.94)	360	400	1,3



ORBITAL SANDERS

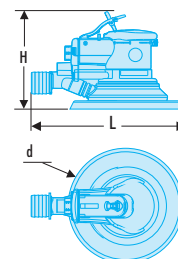
■ "Two-hand" orbital sander  
150 mm - 10 mm orbit



- 29 mm central vacuum exhaust port to allow easy removal of dust if connected to a central vacuum system.
- Easy to access speed regulator.
- Composite body is lightweight and insulates against cold.
- 10 mm orbit great for aggressive sanding applications.
- Supplied with 6 hole velcro pad.

Model	d [mm]	H [mm]	L [mm]	Sound Pressure DB[A]	Vibration [M/S <sup>2</sup> ]	Air Consumption [l/min]	Pad Dimensions [mm]	Maximum RPM [mn]	ΔΔ [kg]
V.258F	150	215	272	92.7 (K=3)	14.9 (K=2.12)	115	150	9000	2,3

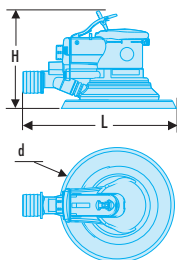
■ "Two-hand" orbital sander  
150 mm - 5 mm orbit



- Two hand design great for work on large and / or vertical surfaces.
- 29 mm central vacuum exhaust port to allow easy removal of dust.
- Easy to access speed regulator.
- Composite body is lightweight and insulates against cold.
- 5 mm orbit great for general sanding applications.
- Supplied with 6 hole velcro pad.

Model	d [mm]	H [mm]	L [mm]	Sound Pressure DB[A]	Vibration [M/S <sup>2</sup> ]	Air Consumption [l/min]	Pad Dimensions [mm]	Maximum RPM [mn]	ΔΔ [kg]
V.254F	150	110	275	91.5 (K=3)	9.1 (K=1.39)	115	150	9000	2,3

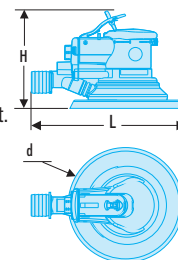
■ Orbital palm sander 150 m - 5 mm orbit



- Central vacuum exhaust port to allow easy removal of dust if connected to a central vacuum system.
- Easy to access speed regulator just below the trigger.
- Ergonomic trigger for perfect control.
- Productivity increased with low vibration level.
- Composite body is lightweight and insulates against cold.

Model	L [mm]	d [mm]	H [mm]	Sound Pressure DB[A]	Vibration [M/S <sup>2</sup> ]	Air Consumption [l/min]	Pad Dimensions [mm]	Maximum RPM [mn]	ΔΔ [kg]
V.252F	225	152	115	79.9 (K=3)	11.86 (K=1.67)	212	150	10000	0,84

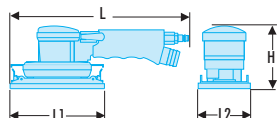
■ Orbital palm sander 152 m - 2.5 mm orbit



- Central vacuum exhaust port to allow easy removal of dust.
- Easy to access speed regulator just below the trigger.
- Ergonomic trigger for perfect control.
- Productivity increased with low vibration level.
- Composite body is lightweight and insulates against cold.
- 2.5 mm orbit great for fine sanding applications.
- Supplied with a 6-hole Velcro pad.

Model	d [mm]	H [mm]	L [mm]	Sound Pressure DB[A]	Vibration [M/S <sup>2</sup> ]	Air Consumption [l/min]	Pad Dimensions [mm]	Maximum RPM [mn]	ΔΔ [kg]
V.256F	152	152	221	84 (K=3)	8.9 (K=2.13)	105	152	10000	0,84

■ Jitterbug sander - 95 x 170 mm - 8 holes



- One hand forward reverse "butterfly" trigger
- Two hand design great for work on large and / or vertical surfaces.
- 29 mm central vacuum exhaust port to allow easy removal of dust.
- Easy to access speed regulator.
- Composite body is lightweight and insulates against cold.
- Easy to use clips for abrasive attachment.
- Supplied with 8 hole 95 x 170 mm velcro pad.
- Supplied with pad and 8-hole abrasive perforator.

Model	H [mm]	L [mm]	L1 [mm]	L2 [mm]	Sound Pressure DB[A]	Vibration [M/S <sup>2</sup> ]	Air Consumption [l/min]	Pad Dimensions [mm]	Maximum RPM [mn]	ΔΔ [kg]
V.260F	120	288	170	95	95.2 (K=3)	53.8 (K=5.82)	115	95x170	8500	2,1

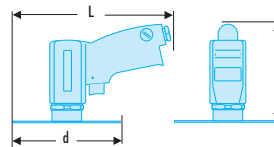
ROTARY SANDERS

▪ Pistol-grip 127 mm rotary disc sander

- Built in air regulator gives control to the operator.
- Feather teasing trigger for great control.
- Ideal compact tool for small jobs and difficult access areas.
- Swivel air inlet to allow freedom of movement.



	d [mm]	H [mm]	L [mm]	Sound Pressure DB[A]	Vibration [M/S <sup>2</sup> ]	Air Consumption [l/min]	Pad Dimensions [mm]	Maximum RPM [mn]	ΔΔ [kg]
V.401F	112	126	198	90.2 (K=3)	<2.5 (K=0.61)	120	127	16000	1,2

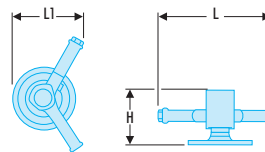


▪ Vertical rotary disc sander diam. 178 mm

- Muffled handle exhaust to vent air away from work surface.
- Speed control screw for use in different applications.
- Rubber grip and dead handle to maximize operator comfort.
- Feather teasing trigger for optimum control.
- Swivel air inlet to allow freedom of movement.
- Delivered with a 178 mm backing pad for efficient sanding on large surfaces.



	H [mm]	L [mm]	L1 [mm]	Sound Pressure DB[A]	Vibration [M/S <sup>2</sup> ]	Air Consumption [l/min]	Pad Dimensions [mm]	Maximum RPM [mn]	ΔΔ [kg]
V.410F	190	260	250	87.4 (K=3)	<2.5 (K=0.69)	130	178	4200	2,6

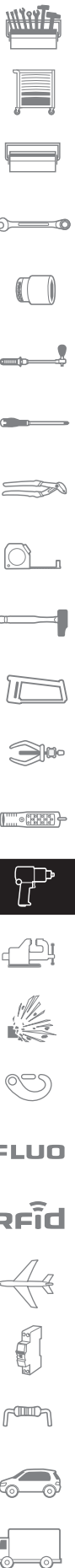
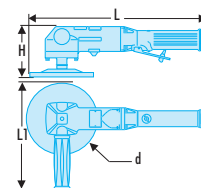


▪ Angle sander diameter 178 mm

- Feather teasing trigger for optimum control.
- Speed control screw for use in different applications.
- Second handle for better grip.
- Hardened and ground spiral bevel gears for best durability.
- Delivered with a 178 mm backing pad for efficient sanding on large surfaces.



	d [mm]	H [mm]	L [mm]	L1 [mm]	Sound Pressure DB[A]	Vibration [M/S <sup>2</sup> ]	Air Consumption [l/min]	Pad Dimensions [mm]	Maximum RPM [mn]	ΔΔ [kg]
V.411F	178	101	373	229	95 (K=3)	9.2 (K=1.78)	110	178	4500	2,6



SANDERS

MATERIAL REMOVAL KIT



**Incredibly productive, instantly removes stickers, rust, paint etc.**

- Speed of rotation: 3500 rpm
- Weight: 1.2 Kg
- Noise level: 81 dB
- Supplied in a box with:
  - 1 fine brush 11 mm
  - 1 fine brush 22 mm
  - 1 hard brush 11 mm
  - 1 hard brush 22 mm
  - 1 fine composite brush
  - 1 hard composite brush
  - 2 adapters for fastening the brushes.



**V.500F**



**V.500FWBF11**

**V.500FWBC11**

**V.500FA11**

**V.500FRE**

**V.500FWBF22**

**V.500FWBC22**

**V.500FA22**

**V.500FWBPRE**

Multi-function brush



- Quiet air exhaust and rubber insulated housing for improved user comfort.
- Additional side handle provides optimum control.
- Ergonomically developed safety teasing trigger for greater control.
- Delivered with two easy-to-mount adapters for safe attachment of brushes or erasers.
- Versatile tool: combines the action of sand blasters, sticker removers, sanders, aggressive brush removing.



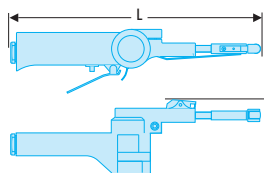
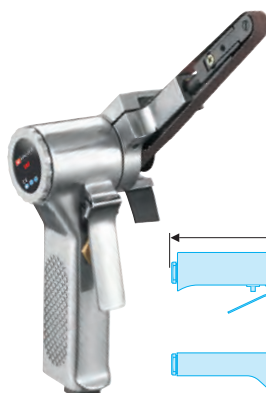
	H [mm]	L [mm]	Sound Pressure DB[A]	Vibration [M/S <sup>2</sup> ]	Air Consumption [l/min]	Maximum RPM [mn]	ΔΔ [kg]
<b>V.500F</b>	203	297	81 (K=3)	2.82 (k=0.77)	113	3500	1.2

BELT SANDERS

■ Belt sander - 10 x 330 mm

- Handle rotates enabling the operator to always have the best grip.
- Easy and fast changing of belts with the quick change arm.
- Feather teasing trigger for great control.
- Starter pack with tool delivered with 3 abrasives: 2 x P120 and 1 x P80.
- Long and Narrow 10 mm arm to get in the most confined spaces.

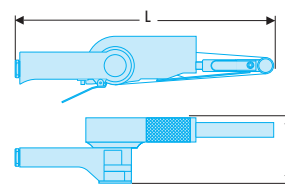
	H [mm]	L [mm]	Sound Pressure DB[A]	Vibration [M/S <sup>2</sup> ]	Air Consumption [l/min]	Maximum RPM [mn]	ΔΔ [kg]
<b>V.402F</b>	83	283	86.1 (K=3)	<2.5 (K=0.63)	110	16000	0,8



■ High capacity belt sander - 20 x 520 mm

- Handle rotates enabling the operator to always have the best grip.
- Easy and fast changing of belts with the quick change arm.
- Feather teasing trigger for great control.
- Starter pack with tool delivered with 3 abrasives: 2 x P120 and 1 x P80.
- Long and Narrow 20 mm arm to get in the most confined spaces.

	H [mm]	L [mm]	Sound Pressure DB[A]	Vibration [M/S <sup>2</sup> ]	Air Consumption [l/min]	Maximum RPM [mn]	ΔΔ [kg]
<b>V.403F</b>	93	350	86.2 (K=3)	<2.5 (K=0.57)	113	16000	1,2

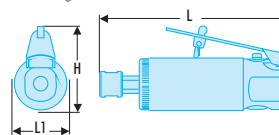


DIE GRINDERS

■ Straight die grinder 0.5 CV with 6mm retainer

- Durable and powerful 0.5 CV motor for high productivity.
- Tough "Soft grip" over molded rubber handles insulating against cold and vibrations.
- Air blown away to avoid projections on the operator.
- Built-in silencer and air exhaust pipe connection to lower noise.
- Excellent control with progressive trigger to control speed.

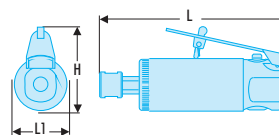
	H [mm]	L [mm]	L1 [mm]	Sound Pressure DB[A]	Vibration [M/S <sup>2</sup> ]	Air Consumption [l/min]	Maximum RPM [mn]	ΔΔ [kg]
<b>V.DG500F</b>	77	177	48	85.4 (K=3)	1.86 (K=0.76)	113	25000	0.675



■ Straight die grinder 0.3 CV with extension and 6mm retainer

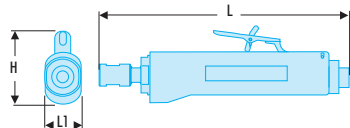
- Shaft extension for access in confined spaces.
- Durable and powerful 0.3 CV motor for high productivity.
- Tough "Soft grip" over molded rubber handles insulating against cold and vibrations.
- Air blown away to avoid projections on the operator.
- Built-in silencer and air exhaust pipe connection to lower noise.
- Excellent control with progressive trigger to control speed.

	H [mm]	L [mm]	L1 [mm]	Sound Pressure DB[A]	Vibration [M/S <sup>2</sup> ]	Air Consumption [l/min]	Maximum RPM [mn]	ΔΔ [kg]
<b>V.DGE300F</b>	70	255	39	83.3 (K=3)	2.86 (K=0.78)	76	28000	0.664



DIE GRINDERS

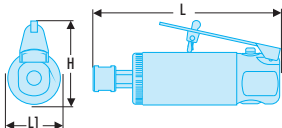
■ Straight die grinder - 6 mm collet front exhaust



- High power motor at 1HP gives you the best productivity.
- Composite handle reduces weight and insulates.
- Front exhaust design blows the air on the workplace to clean it up.
- Industrial grade 6 mm collet for durability.
- Feather teasing trigger for optimum control.

	H [mm]	L [mm]	L1 [mm]	Sound Pressure DB[A]	Vibration [M/S <sup>2</sup> ]	Air Consumption [l/min]	Maximum RPM [mn]	ΔΔ [kg]
<b>V.445F</b>	80	207	43	89 (K=3)	0.99 (K=0.59)	180	20000	0.96

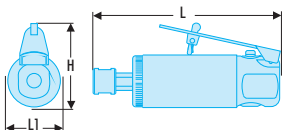
■ Straight die grinder 0.5 CV with extension and 6mm retainer



- Shaft extension for access in confined spaces.
- Tough "Soft grip" over molded rubber handles insulating against cold and vibrations.
- Air blown away to avoid projections on the operator.
- Built-in silencer and air exhaust pipe connection to lower noise.
- Excellent control with progressive trigger to control speed.

	H [mm]	H1 [mm]	L [mm]	Sound Pressure DB[A]	Vibration [M/S <sup>2</sup> ]	Air Consumption [l/min]	Maximum RPM [mn]	ΔΔ [kg]
<b>V.DG515F</b>	48	77	267	86.1 (K=3)	2.21 (K=0.71)	113	23000	1

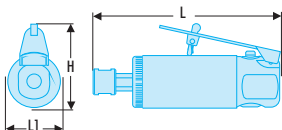
■ Straight die grinder 0.3 CV with 6mm retainer



- Tough "Soft grip" over molded rubber handles insulating against cold and vibrations.
- Easy speed control to limit speed.
- Air blown away to avoid projections on the operator.
- Built-in silencer and air exhaust pipe connection to lower noise.
- Excellent control with progressive trigger to control speed.

	H [mm]	L [mm]	L1 [mm]	Sound Pressure DB[A]	Vibration [M/S <sup>2</sup> ]	Air Consumption [l/min]	Maximum RPM [mn]	ΔΔ [kg]
<b>V.DG300F</b>	70	160	39	84.8 (K=3)	2.42 (K=0.74)	76	30000	440

■ Straight die grinder - 6 mm collet



- Built in air regulator which can be adjusted with a screwdriver.
- Feather teasing trigger for optimum control.
- Compact and lightweight tool designed for easy manoeuvrability.

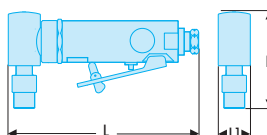
	H [mm]	L [mm]	L1 [mm]	Sound Pressure DB[A]	Vibration [M/S <sup>2</sup> ]	Air Consumption [l/min]	Maximum RPM [mn]	ΔΔ [kg]
<b>V.345F</b>	62	142	40	90.9 (K=3)	1.52 (K=0.76)	113	20000	0.56

90° angle die grinder 0.5 CV with 6mm retainer

- 90° angle transmission to work on vertical surfaces.
- Tough "Soft grip" over molded rubber handles insulating against cold and vibrations.
- Air blown away to avoid projections on the operator.
- Built-in silencer and air exhaust pipe connection to lower noise.
- Excellent control with progressive trigger to control speed.



	H [mm]	L [mm]	L1 [mm]	Sound Pressure DB[A]	Vibration [M/S2]	Air Consumption [l/min]	Maximum RPM [mn]	ΔT [kg]
<b>V.DGA505F</b>	75	175	27	84.8 (K=3)	5.19 (K=1.14)	113	18500	780

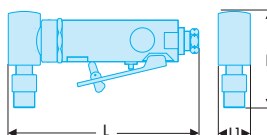


90° angle die grinder 0.3 CV with 6mm retainer

- 90° angle transmission to work on vertical surfaces.
- Tough "Soft grip" over molded rubber handles insulating against cold and vibrations.
- Air blown away to avoid projections on the operator.
- Built-in silencer and air exhaust pipe connection to lower noise.
- Excellent control with progressive trigger to control speed.



	H [mm]	L [mm]	L1 [mm]	Sound Pressure DB[A]	Vibration [M/S2]	Air Consumption [l/min]	Maximum RPM [mn]	ΔT [kg]
<b>V.DGA305F</b>	75	165	27	85.9 (K=3)	4.54 (K=0.94)	76	23000	555

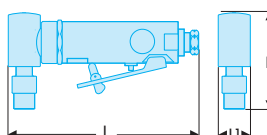


120° angle die grinder 0.3 CV with 6mm retainer

- 120° angle transmission improving work ergonomics in certain applications.
- Tough "Soft grip" over molded rubber handles insulating against cold and vibrations.
- Air blown away to avoid projections on the operator.
- Built-in silencer and air exhaust pipe connection to lower noise.
- Excellent control with progressive trigger to control speed.



	H [mm]	L [mm]	L1 [mm]	Sound Pressure DB[A]	Vibration [M/S2]	Air Consumption [l/min]	Maximum RPM [mn]	ΔT [kg]
<b>V.DGA310F</b>	68	189	27	84.8 (K=3)	5.22 (K=1.07)	76	24000	0.56



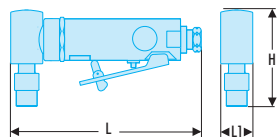
FLUO

Rfid



DIE GRINDERS

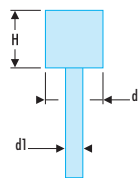
■ Angle die grinder - 6 mm collet



- Built in air regulator which can be adjusted with a screwdriver.
- Compact angled head for difficult-to-reach places.
- Feather teasing trigger for optimum control.
- Rear exhaust hose blows air away from the workplace, and reduces the sound level.
- Supplied with 6 mm pliers + 2 open end wrenches.

Model	H [mm]	L [mm]	L1 [mm]	Sound Pressure DB[A]	Vibration [M/S2]	Air Consumption [l/min]	Maximum RPM [mn]	ΔΔ [kg]
V.347F	347	160	27	90.9 (K=3)	1.52 (K=0.53)	110	18000	0.66

■ VM - Grinder on stand 6mm

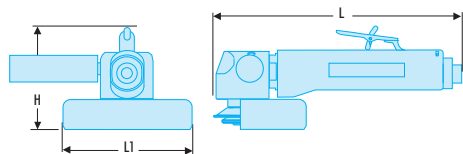


- Definition and shapes as per ISO 293333.

Model	d [mm]	d1 [mm]	H [mm]	Maximum RPM [mn]
VM.600	30	6	32	17000
VM.604	28	6	45	18000
VM.606	20	6	30	30000
VM.610	25	6	25	25000
VM.612	17	6	17	54000
VM.624	32	6	21	30000

ANGLE GRINDERS

■ Angle grinder diam. 125 mm composite



- Powerful and durable motor delivering 1 horse power.
- Protective guard protects the operator from injuries.
- Ergonomic side handle for ease of use and comfort.
- Lightweight and insulates.
- Hardened spiral bevel gears for industrial durability.
- M14x2 spindle accepts 125 mm discs.
- Rear exhaust blows air away from the workplace.

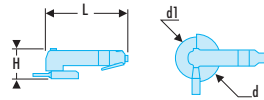
Model	H [mm]	L [mm]	L1 [mm]	Sound Pressure DB[A]	Vibration [M/S2]	Air Consumption [l/min]	Maximum RPM [mn]	ΔΔ [kg]
V.582F	110	230	130	90 (K=3)	11.8 (K=3.9)	113	11000	2



Angle grinder diam. 125 mm

- Protective guard protects the operator from injuries.
- Ergonomic side handle for ease of use and comfort.
- Robust yet lightweight housing for great durability.
- Hardened spiral bevel gears for best durability.
- 3/8" spindle accepts 125 mm discs.

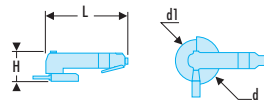
	d [mm]	d1 [mm]	H [mm]	L [mm]	Sound Pressure DB[A]	Vibration [M/S <sup>2</sup> ]	Air Consumption [l/min]	Maximum RPM [mm]	ΔΔ [kg]
<b>V.472F</b>	138	125	85	220	87 (K=3)	7.9 (K=1.16)	120	12000	2



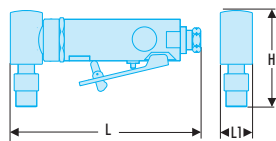
Angle grinder diam. 100 mm

- Powerful and durable motor delivering 12000 RPM.
- Protective guard protects the operator from injuries.
- Ergonomic side handle for ease of use and comfort.
- Robust yet lightweight housing for great durability.
- Hardened spiral bevel gears for best durability.
- 3/8" spindle accepts 100 mm discs.

	d [mm]	d1 [mm]	H [mm]	L [mm]	Sound Pressure DB[A]	Vibration [M/S <sup>2</sup> ]	Air Consumption [l/min]	Maximum RPM [mm]	ΔΔ [kg]
<b>V.462F</b>	120	100	85	220	84 (K=3)	6.4 (K=2.11)	120	12000	1.7



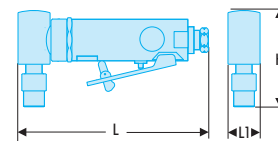
Angled pneumatic grinder 50 mm - 2"



- For light grinding: removing rust, welding preparation, body work.
- Comfortable grip.
- Safety lever.
- Side exhaust.
- Trimming grinder diam. 50 mm.

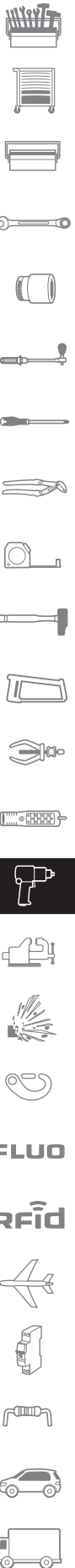
	H [mm]	L [mm]	L1 [mm]	Sound Pressure DB[A]	Vibration [M/S <sup>2</sup> ]	Air Consumption [l/min]	Maximum RPM [mm]	ΔΔ [kg]
<b>V.AG50F</b>	85	138	59	81 (K=3)	1.7 (K=1.02)	113	20000	0.55

Angled pneumatic grinder 50 mm - 2"



- For light cutting applications in difficult areas.
- Compact size for improved accessibility.
- Low noise technology.
- Vibration absorbing grip.
- Secured guard.
- Rotating side exhaust.
- Safety lever.
- Trimming grinder diam. 50 mm.

	H [mm]	L [mm]	L1 [mm]	Sound Pressure DB[A]	Vibration [M/S <sup>2</sup> ]	Air Consumption [l/min]	Maximum RPM [mm]	ΔΔ [kg]
<b>V.CA50F</b>	85	138	59	81 (K=3)	1.7 (K=1.02)	113	20000	0.54



ANGLE POLISHER

Angle polisher diam. 178 mm



- Powerful motor for high polishing efficiency.
- Built in air regulator for the operator to adapt speed to the application.
- Muffled rear exhaust blows air away from the application.
- Lightweight yet rugged housing for durability.
- Supplied with 1 velcro plate, 1 foam buffing plate, 1 wool buffing plate.



	d [mm]	H [mm]	L [mm]	L1 [mm]	Sound Pressure DB[A]	Vibration [M/S <sup>2</sup> ]	Air Consumption [l/min]	Maximum RPM [mn]	ΔΔ [kg]
<b>V.902F</b>	178	229	373	101	95.3 (K=3)	9 (K=2.81)	100	2500	2.3

CHISEL HAMMER

Air hammer with quick change holder - short barrel



- Short barrel is ideal for cutting panels, paint removal and spot weld removal.
- Quick change holder makes changing accessories easy.
- Urethane dampers front and rear keep vibration low for comfort of use.
- Variable speed trigger for superior application control.
- Center of gravity on trigger and handle for comfort of use.
- Kit includes 5 chisels.



	H [mm]	L [mm]	L1 [mm]	BPM	Sound Pressure DB[A]	Vibration [M/S <sup>2</sup> ]	Air Consumption [l/min]	ΔΔ [kg]
<b>V.331AH</b>	196,6	237,7	61,7	3100	95 (K=3)	7,4 (K=1.5)	90,6	2,4

Air hammer with quick change holder - long barrel



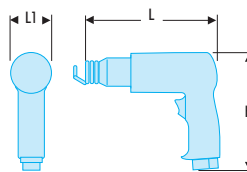
- Long barrel is ideal for separating ball joints, bushing removal and shearing rivets.
- Quick change holder makes changing accessories easy.
- Urethane dampers front and rear keep vibration low for comfort of use.
- Variable speed trigger for superior application control.
- Center of gravity on trigger and handle for comfort of use.
- Kit includes 5 chisels.



	H [mm]	L [mm]	L1 [mm]	BPM	Sound Pressure DB[A]	Vibration [M/S <sup>2</sup> ]	Air Consumption [l/min]	ΔΔ [kg]
<b>V.336AH</b>	196,6	285,2	61,7	2400	93 (K=3)	10,4 (K=1.5)	73,6	2,8

Power chisel with hexagonal shank

- Chisels available:
  - Straight chisel: V.320HA1.
  - Punch (hexagonal shank): V.320HA2.
  - Weld point cutter (hexagonal shank): V.320HA3.
  - Sheet metal cutter (hexagonal shank): V.320HA4.
  - Double-edge sheet-metal cutter (hexagonal shank): V.320HA5.
- Kit with the 5 chisels: V.321AH.



	H [mm]	L [mm]	L1 [mm]	BPM	Sound Pressure DB[A]	Vibration [M/S <sup>2</sup> ]	Air Consumption [l/min]	ΔΔ [kg]
V.320FH	160	171	50	3000	102.62 (K=3)	8.01 (K=1.5)	90	1,6



Chisel hammer set

- Kit includes
  - V.320FH: 1 power chisel.
  - 1 sheet-metal cutter.
  - 1 double edge sheet-metal cutter.
  - 1 weld point cutter.
  - 1 straight chisel.
  - 1 punch.

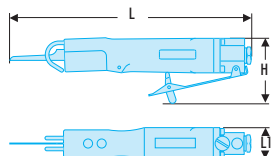


	H [mm]	L [mm]	BPM	Sound Pressure DB[A]	Vibration [M/S <sup>2</sup> ]	Air Consumption [l/min]	P [mm]	ΔΔ [kg]
V.321AH	100	320	3000	102.62 (K=3)	8.01 (K=1.5)	90	245	6,3



## SAWS

## Sabre saw



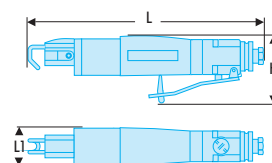
- 10000 oscillations per minute for efficient cutting.
- Adjustable guide for the saw blade.
- Comfort rubber grip over aluminium to insulate.
- Teasing trigger for great control.
- Air inlet swivels to avoid coiling of the hose.
- Delivered in a starter package with 3 x 10 teeth/cm and 3 x 12 teeth/cm blades.
- Blows per minute 10000 bpm.
- Working pressure 6,2 bar.
- Average air consumption 32 l/min.

- Air inlet 1/4".
- Minimum hose diameter 10 mm - 3/8".
- Vibration 17,10 m/s<sup>2</sup>/a.
- Vibration 2,19 m/s<sup>2</sup>/K.
- Sound pressure 83,50 dB(A).
- Sound power 94,50 dB(A).
- Available as accessories:
  - Set of 6 x 12 teeth/cm blades: V.770F1.
  - Set of 6 x 10 teeth/cm blades: V.770F2.



	H [mm]	L [mm]	L1 [mm]	ΔΔ [g]
V.770F	75	270	36	800

## Production sabre saw



- Power and speed enables operator to cut through material with ease.
- Rubber comfort grip over aluminium insulates against coldness.
- Heavy duty construction makes it the ideal tool for intensive use.
- Teasing trigger for best control.
- Exhaust hose muffles the sound and drives air away from the workplace and the operator.
- Delivered in a starter package with 3 x 10 teeth/cm and 3 x 12 teeth/cm blades.
- Blows per minute 5000 bpm.

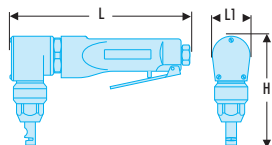
- Working pressure 6,2 bar.
- Average air consumption 32 l/min.
- Air inlet 1/4".
- Minimum hose diameter 10 mm - 3/8".
- Vibration 5,70 m/s<sup>2</sup>/a.
- Vibration 1,22 m/s<sup>2</sup>/K.
- Sound pressure 81,80 dB(A).
- Sound power 92,80 dB(A).
- Available as accessories:
  - Set of 6 blades 12 teeth/cm: V.770F1.
  - Set of 6 blades 10 teeth/cm: V.770F2.



	H [mm]	L [mm]	L1 [mm]	ΔΔ [g]
V.775F	70	880	40	960

## OTHER TOOLS AND ACCESSORIES

## Air nibbler



- Lever throttle for precise control and low-speed start.
- Easy access to replace the punch: V.850FKR2.
- Can produce rounded edges up to 6.5 mm radius.
- Can cut 1.8M of sheet metal per minute at a max depth of 1.2 mm.
- Durable motor design encased in a strong and robust aluminium housing.
- Blows per minute 4300 cpm.
- Working pressure 6,2 bar.

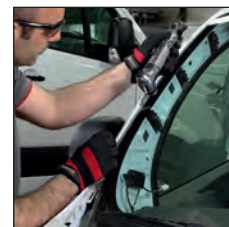
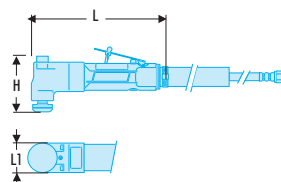
- Average air consumption 280 l/min.
- Average air consumption 9,6 cfm.
- Air inlet 1/4".
- Minimum hose diameter 10 mm - 3/8".
- Vibration 6 m/s<sup>2</sup>/a.
- Vibration 1,09 m/s<sup>2</sup>/K.
- Sound pressure 95,90 dB(A).
- Sound power 106,90 dB(A).
- Available as accessory:
  - Punch set: V.850FKR2.



	H [mm]	L [mm]	L1 [mm]	ΔΔ [kg]
V.850F	118	179	40,5	1.0

Windshield cutter

- 20,000 oscillations per min reduces time to replace a windshield.
- Exhaust hose muffles the sound and drives air away from the workplace and the operator.
- Safety trigger protects the user from switching on the tool accidentally.
- Durable aluminium housing.
- Oscillations per minute : 22000.
- Working pressure 6,2 bar.
- Average air consumption 100 l/min.
- Average air consumption 3,4 cfm.
- Air inlet 1/4".
- Minimum hose diameter 10 mm - 3/8".
- Vibration 7,30 m/s<sup>2</sup>/a.
- Vibration 1,22 m/s<sup>2</sup>/K.
- Sound pressure 82 dB(A).
- Sound power 93 dB(A).
- Supplied with instructions, without blade.



	H [mm]	L [mm]	L1 [mm]	ΔΔ [kg]
<b>CAD.P300F</b>	85	209	45	1.2

Windshield cutter blades CAD.P300F

	L [mm]	No.
<b>CAD.P300F1</b>	63	F1
<b>CAD.P300F2</b>	30	F2
<b>CAD.P300F3</b>	36	F3
<b>CAD.P300F4</b>	57	F4
<b>CAD.P300F5</b>	18	F5
<b>CAD.P300F6</b>	35	F6
<b>CAD.P300F7</b>	35	F7
<b>CAD.P300F8</b>	90	F8
<b>CAD.P300F9</b>	90	F9
<b>CAD.P300F10</b>	25	F10
<b>CAD.P300F11</b>	35	F11
<b>CAD.P300F12</b>	45	F12



WINDSCREEN CUTTER

	Description
<b>CAD.P300F1</b>	Hook blade 63 mm
<b>CAD.P300F2</b>	Curved blade 30 mm
<b>CAD.P300F3</b>	Hook blade 36 mm
<b>CAD.P300F4</b>	Long blade 57 mm
<b>CAD.P300F5</b>	Hook blade 18 mm
<b>CAD.P300F6</b>	Straight blade 35 mm
<b>CAD.P300F7</b>	Straight angled blade 35 mm
<b>CAD.P300F8</b>	Hook blade 90 mm
<b>CAD.P300F9</b>	Long flat blade 90 mm
<b>CAD.P300F10</b>	Hook blade 25 mm
<b>CAD.P300F11</b>	Thin straight blade 35 mm
<b>CAD.P300F12</b>	Scraper blade 45 mm



Characteristics	CAD.P300F
Oscillations per minute	22000
Weight (kg)	1,21
Length (mm)	209
Air consumption (l/min)	100
Air inlet thread (")	1/4
Hose inner Ø (mm)	10
Working pressure (bar)	6,2

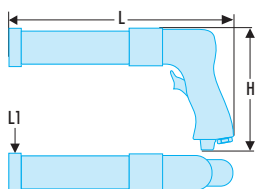


## OTHER TOOLS AND ACCESSORIES

## ■ Caulking gun - 50 x 215 mm cartridge



- For applying silicon, mastics, adhesives in standard 50 x 215 mm cartridges.
- Easy to use regulator to adjust the actual flow coming out.
- Automatic pressure release halting flow of mastic: When trigger is depressed flow is immediately stopped.
- 70 dB(A) sound level increases operator comfort.
- Robust aluminium housing for high durability.
- Working pressure 6,2 bar.
- Average air consumption 85 l/min.
- Average air consumption 2,9 l/min.
- Air inlet 1/4".
- Minimum hose diameter 10 mm - 3/8".
- Vibration <math><2,50\text{ m/s}^2/\text{a}</math>.
- Vibration 0,51 m/s<sup>2</sup>/K.
- Sound pressure 97,60 dB(A).
- Sound power 108,60 dB(A).

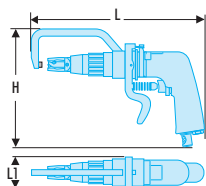


	H [mm]	L [mm]	L1 [mm]	$\Delta\Delta$ [kg]
<b>V.801F</b>	168	305	62	1.1

## ■ Spot weld drill remover



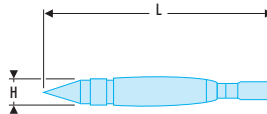
- Fast drilling action at 1800 RPM to get points drilled out quickly.
- Fitted with a counterarm to hold the workpiece in position.
- Depth of drilling can be easily adjusted by the operator to suit his application.
- Feather teasing trigger for optimal speed control.
- Durable and robust thanks to an aluminium casted housing.
- Delivered with one 8 mm drill point which can be ordered as an accessory.
- Milling bit diameter 8 mm.
- Available as accessory:
  - Milling bit diameter 8 mm: V.781A1 (minimum order quantity: 5).
- Free speed 1800 tr/min.
- Milling bit size 8 mm.
- Working pressure 6,2 bar.
- Average air consumption 110 l/min.
- Average air consumption 3,9 cfm.
- Air inlet 1/4".
- Minimum hose diameter 10 mm - 3/8".
- Vibration <math><250\text{ m/s}^2/\text{a}</math>.
- Vibration 0,54 m/s<sup>2</sup>/K.
- Sound pressure 90,70 dB(A).
- Sound power 101,70 dB(A).



	H [mm]	L [mm]	L1 [mm]	$\Delta\Delta$ [kg]
<b>V.781F</b>	198	270	53	2.1

■ **Scriber**

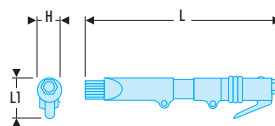
- Pen shaped engraver makes the tool easy to handle.
- Tungsten point allows fast engraving on the hardest of materials: steel, stone, glass, ceramics at 600 impacts per second.
- Ring shaped regulator allows the operator to set the speed to suit his applications.
- Less than 80 dB(A) of sound increases operator comfort.
- Robust aluminium casted housing for high durability.
- Blows per minute 600 cpm.
- Working pressure 6,2 bar.
- Average air consumption 30 l/min.
- Average air consumption 1,1 l/min.
- Air inlet 1/4".
- Minimum hose diameter 10 mm - 3/8".
- Vibration 3,80 m/s<sup>2</sup>/a.
- Vibration 0,88 m/s<sup>2</sup>/K.
- Sound pressure 69,60 dB(A).
- Sound power 80,60 dB(A).
- Delivered with:
  - Supply hose 1.5 m.
  - A standard tip.
- Available as accessories:
  - Standard tip: V.820A1.
  - Fine tip: V.820A2.



	H [mm]	L [mm]	ΔΔ [g]
<b>V.820F</b>	17	160	220

■ **Pneumatic needle scaler**

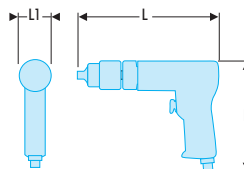
- Straight and compact design allows easy operation even in hard to reach areas.
- High performance motor delivers 4200 blows per minute for efficient working.
- Tool used for aggressive material removal for example to remove rust.
- Needle action great to work on irregular surfaces providing access to cracks or slots.
- 3 mm needles available as accessory for rougher removal when needed.
- Delivered with 27 needles diameter 2 mm with matching needle plate.
- Blows per minute 4200 cpm.
- Working pressure 6,2 bar.
- Average air consumption 24 l/min.
- Average air consumption 0,9 cfm.
- Air inlet 1/4".
- Minimum hose diameter 10 mm - 3/8".
- Vibration 11,7 m/s<sup>2</sup>/a.
- Vibration 1,66 m/s<sup>2</sup>/K.
- Sound pressure 94 dB(A).
- Sound power 105 dB(A).
- Available as accessories: (if changing needles, do not forget to order the needle plate accordingly)
  - Set of 27 needles diameter 2 mm: V.352FA1.
  - Needle plate for 2 mm needles: V.352FSAV16A.
  - Set of 12 needles diameter 3 mm: V.352FA1D3.
  - Needle plate for 3 mm needles: V.352FSAV16B.



	H [mm]	L [mm]	L1 [mm]	ΔΔ [kg]
<b>V.352F</b>	36	360	75	1.7

■ **Pneumatic crimper and punch**

- To prepare panels for overlap welding in bodywork or mechanical welding.
- Double function tool: crimping and punching.
- Conforms with bodywork specifications.
- Rotating head.
- Punch diameter: 8 mm.
- Punch capacity: 1 kW.
- Noise level: 81 dB(A).
- Vibration 2.1 m/s<sup>2</sup>/a.
- Vibration 0.7 m/s<sup>2</sup>/K.
- Min hose diameter. 10 mm - 3/8".
- 1/4" NPT tool connection.
- Average air consumption 113 l/min.
- Planishing capacity 1.2 mm.
- Operating pressure 6.2 bar.



	H [mm]	L [mm]	L1 [mm]	ΔΔ [kg]
<b>V.PF300F</b>	150	165	55	1.1



## OTHER TOOLS AND ACCESSORIES

## Blow gun



- Model with air screen to prevent dust return to the operator.
- Supplied with angled nozzle V.999A10.
- Power supply: threading 1/4".
- Hose diameter: 8 mm.
- Consumption: 0.53 m<sup>3</sup>/min.
- Jet pressure: 2 bar.
- Angled nozzle 100 mm: V.999A10.
- Angled nozzle 200 mm: V.999A20.
- Straight nozzle 300 mm: V.999A30.



	H [mm]	L [mm]	L1 [mm]	ΔΔ [g]
V.999A	27	150	42	170

## Air hose reel



- Length 15 m.
- Withstands up to 15 bar.
- Suited to high air consumption tools.
- Internal diameter 10 mm.
- Metallic return spring.
- Polyurethane hose.
- 3/8" NPT outlet.



	ΔΔ [kg]
N.709	7.8

## NETWORK CONNECTION

## Filter-regulator-lubricator BSP Gas



- 2-piece set.
- Lubricator regulator filter with wall fastener and pressure gauge.



	A ["]	d [mm]	H [mm]	L [mm]	P [mm]	ΔΔ [g]
N.580	1/4	40	172	92	86	485
N.581	3/8	40	218	123	102	880
N.582	1/2	40	275	156	118	1830

## Set of 4 hose connections

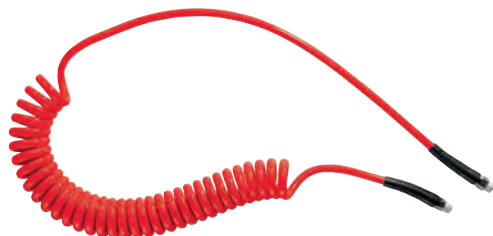


- To connect elements with different pitches.
- Comprising:
  - 1 part threading 1/4" x 3/8".
  - 1 part threading 3/8" x 3/8".
  - 1 part threading 3/8" x 1/2".
  - 1 part threading 1/2" x 1/2".



	ΔΔ [g]
N.600	130

## Polyurethane spiral extension



- Max length: 8 m.
- Hose diameter: 8 x 12 mm.
- Rotary fitting tool side: 3/8" gas.
- Fixed fitting supply side: 3/8" gas.
- Female adapter bit 6 mm tapered 3/8" gas.



	ΔΔ [g]
N.644	980



Pre-tefloned tapered male threaded bit BSP Gas

- Pre-tefloned tapered male threaded bit BSP Gas
- 1/4", 3/8", 1/2"

Part No.	L [mm]	ΔΔ [g]
N.633	39.5	19
N.650	44.5	37
N.651	55	69



Fitting for hose

- Fitting for hose.
- 8, 10mm

Part No.	A ["]	d [mm]	d maxi [mm]	L [mm]	ΔΔ [g]
N.631	1/4	6	8	50	19
N.632	3/8	6	10	50	19



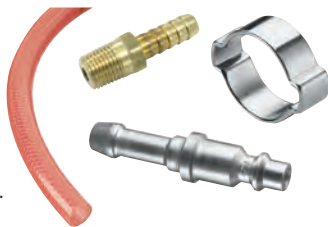
Female tapped snap adapter gas BSP.

- Female tapped snap adapter gas BSP.
- 1/2", 3/8"

Part No.	A ["]	d [mm]	d maxi [mm]	L [mm]	ΔΔ [g]
N.630	1/4	6	30	71	37
N.820	3/8	8	35	85	69



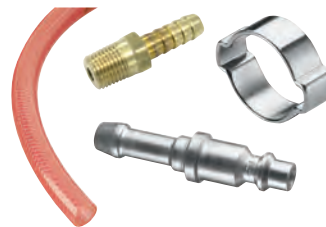
PVC hose diameter 8 x 14 mm + bits



- Length 12.5 m.
- Colour: red.
- Fitted with:
  - 1 male bit passage diameter 6 mm for 8 mm diameter hose.
  - 1 3/8" threaded union for 8 mm diameter hose.
  - 2 ear ties diameter 13-15 mm.

Part No.	ΔΔ [g]
N.641	1.285

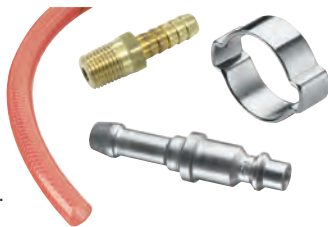
PVC Diflex hose diameter 10 x 16 mm + bits



- Length 12.5 m.
- Colour: red.
- Fitted with:
  - 1 male bit passage diameter 8 mm for 10 mm diameter hose.
  - 1 1/2" threaded union for 10 mm diameter hose.
  - 2 ear ties diameter 15-18 mm.

Part No.	ΔΔ [g]
N.841	1.571

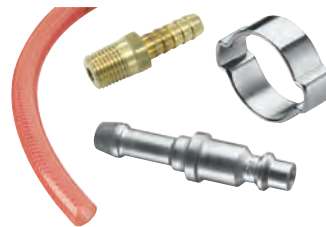
PVC hose diameter 10 x 16 mm + bits



- Length 12.5 m.
- Colour: red.
- Fitted with:
  - 1 male bit passage diameter 6 mm for 10 mm diameter hose.
  - 1 3/8" threaded union for 10 mm diameter hose.
  - 2 ear ties diameter 15-18 mm.

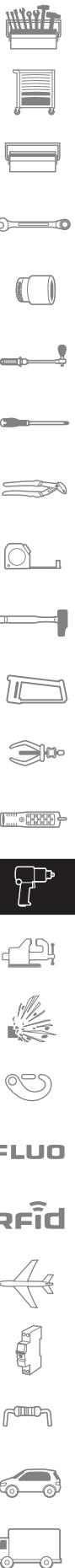
Part No.	ΔΔ [g]
N.643	1.513

PVC hose diameter 16 x 22 mm + bits



- Length 12.5 m.
- Colour: red.
- Fitted with:
  - 1 male bit passage diameter 8 mm for 16 mm diameter hose.
  - 1 1/2" threaded union for 16 mm diameter hose.
  - 2 ear ties diameter 22-25 mm.

Part No.	ΔΔ [g]
N.842	2.788



POWER TOOLS - CORDLESS

**CORDLESS**

**New powerful batteries**



- Visible charging level.
- 1 single charger for 3 types of batteries.
- DEWALT technology.
- Long life: 10.8 V - 2 AH / 18 V - 2 for 5 AH.

**New 1/2" high power impact wrench**



- High power: 1625 Nm.
- Brushless motor.
- 3 speeds.
- Casing and battery resistant to hydrocarbons and workshop solvents.

**New high strenght boxes**



- Ultra-strong material.
- IM65 sealing.
- 4 retracting handles.
- Paglock locking.
- Metal closings.

■ **18V 1/2" High Torque Impact Wrench (Naked)**



- Delivers a torque of 1625 N.m for heavy duty applications.
- Brushless motor offering superb runtime and durability.
- 3 speed settings and variable trigger offer greater control.
- Super-bright LED illuminates workspace.
- GRP casing resistant to harsh chemicals.



	H [mm]	L [mm]	L1 [mm]	BPM	Sound Pressure DB[A]	Vibration [M/S <sup>2</sup> ]	Torque N.m	Maximum RPM [mn]	ΔΔ [kg]
<b>CL3.CH18SD</b>	229	224	85	2400	101 (K=3)	13 (K=5.9)	1625	1900	2,5

■ **18V 1/2" High Torque Impact Wrench 5.0Ah Kit**



- Delivers a torque of 1625 N.m for heavy duty applications.
- Brushless motor offering superb runtime and durability.
- 3 speed settings and variable trigger offer greater control.
- Super-bright LED illuminates workspace.
- GRP casing resistant to harsh chemicals.
- Includes 2x 5.0Ah batteries, a charger and ToughSystem® kitbox.



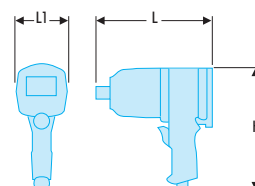
	H [mm]	L [mm]	L1 [mm]	BPM	Sound Pressure DB[A]	Vibration [M/S <sup>2</sup> ]	Torque N.m	Maximum RPM [mn]	ΔΔ [kg]
<b>CL3.CH18SP2</b>	280	224	85	2400	101 (K=3)	13 (K=5.9)	1625	1900	8.7

BRUSHLESS IMPACT WRENCHES

18V 1/2" Mid Torque Impact Wrench (Naked)

- Powerful impact wrench that delivers 750 N.m torque.
- Brushless motor enables high power in a small form factor.
- Variable trigger for improved speed control.
- Composite casing for resistance to chemicals and acids.

	H [mm]	L [mm]	L1 [mm]	BPM	Sound Pressure DB[A]	Vibration [M/S <sup>2</sup> ]	Torque N.m	Maximum RPM [mn]	ΔΔ [kg]
<b>FCF894N</b>	212	175	71	3100	94 (K=3)	13.5 (K=4.4)	750	2000	2



18V 1/2" Mid Torque Impact Wrench 5.0Ah Kit

- Powerful impact wrench that delivers 750 N.m torque
- Brushless motor enables high power in a small form factor
- Variable trigger for improved speed control
- Composite casing for resistance to chemicals and acids
- Includes 2x 5.0Ah batteries, a charger and ToughSystem® kitbox.

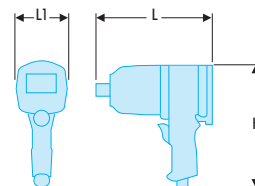
	H [mm]	L [mm]	L1 [mm]	BPM	Sound Pressure DB[A]	Vibration [M/S <sup>2</sup> ]	Torque N.m	Maximum RPM [mn]	ΔΔ [kg]
<b>FCF894P2</b>	265	175	71	3100	94 (K=3)	13.5 (K=4.4)	750	2000	8.2



10.8V 1/2" Compact Impact Wrench (Naked)

- Compact impact wrench delivers a torque of 270 N.m.
- Short body makes this tool easy to use in tight spaces.
- Variable speed trigger for excellent speed control.
- Compatible with any FACOM or DEWALT® 10.8V battery packs.

	H [mm]	L [mm]	L1 [mm]	BPM	Sound Pressure DB[A]	Vibration [M/S <sup>2</sup> ]	Torque N.m	Maximum RPM [mn]	ΔΔ [kg]
<b>CL3.C10SD</b>	181	171	70	1900	88 (K=3)	11.1 (K=3)	270	1700	1,3



10.8V 1/2" Compact Impact Wrench 2.0Ah Kit

- Compact impact wrench delivers a torque of 270 N.m.
- Short body makes this tool easy to use in tight spaces.
- Variable speed trigger for excellent speed control.
- Supplied with 2x 2.0Ah batteries and a charger in a ProBag.

	H [mm]	L [mm]	L1 [mm]	BPM	Sound Pressure DB[A]	Vibration [M/S <sup>2</sup> ]	Torque N.m	Maximum RPM [mn]	ΔΔ [kg]
<b>CL3.C10SD2</b>	181	171	70	1900	88 (K=3)	11.1 (K=3)	270	1700	1,3



## CORDLESS DRILL DRIVERS

## 10.8V 10mm Drill/Driver (Naked)



- Compact and lightweight design for comfort of use.
- 15 torque settings for consistent screw driving into a variety of materials with different screw sizes.
- Two speed settings and variable trigger for excellent speed control.
- Protection bumpers built into the machine casing.
- Compatible with any FACOM or DEWALT® 10.8V battery packs.

	H [mm]	L [mm]	L1 [mm]	Sound Pressure DB[A]	Vibration [M/S <sup>2</sup> ]	Torque N.m	Maximum RPM [mn]	ΔΔ [kg]
<b>CL3.P10JD</b>	175	195	50	65 (K=3)	<2.5 (K=1.5)	24	1500	0.9

## 10.8V 10mm Drill/Driver 2.0Ah Kit



- Compact and lightweight design for comfort of use.
- 15 torque settings for consistent screw driving into a variety of materials with different screw sizes.
- Two speed settings and variable trigger for excellent speed control.
- Protection bumpers built into the machine casing.
- Supplied in a PROBAG with 2x2.0Ah batteries and a charger.

	H [mm]	L [mm]	L1 [mm]	Sound Pressure DB[A]	Vibration [M/S <sup>2</sup> ]	Torque N.m	Maximum RPM [mn]	ΔΔ [kg]
<b>CL3.P10JD2</b>	200	195	50	65 (K=3)	<2.5 (K=1.5)	24	1500	3.3

## 18V 13mm Drill/Driver (Naked)



- Sufficient power for heavier tasks in a compact package.
- 14 torque settings for consistent screw driving into a variety of materials with different screw sizes.
- Two speed all metal gearbox and variable speed trigger for excellent speed control and tool durability.
- Protection bumpers built into the machine casing.
- Compatible with any FACOM or DEWALT® 18V battery packs.

	H [mm]	L [mm]	L1 [mm]	Sound Pressure DB[A]	Vibration [M/S <sup>2</sup> ]	Torque N.m	Maximum RPM [mn]	ΔΔ [kg]
<b>CL3.P18SD</b>	188	190	80	74 (K=3)	3 (K=1.5)	60	2000	1.2

## 18V 13mm Drill/Driver 2.0Ah Kit



- Sufficient power for heavier tasks in a compact package.
- 14 torque settings for consistent screw driving into a variety of materials.
- Two speed all metal gearbox for improved durability.
- Protection bumpers built into the casing.
- Supplied in a ToughSystem® kitbox with 2x2.0Ah batteries and a charger.

	H [mm]	L [mm]	L1 [mm]	Sound Pressure DB[A]	Vibration [M/S <sup>2</sup> ]	Torque N.m	Maximum RPM [mn]	ΔΔ [kg]
<b>CL3.P18SD2</b>	218	190	80	74 (K=3)	3 (K=1.5)	60	2000	7.4

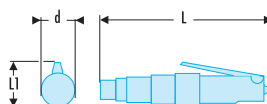
POWER TOOLS - CORDLESS

10.8V 3/8" Ratchet 2.0 (Naked)

- Sealed head ratchet preventing mechanism damage by dust and particles.
- Die cast aluminium body for reduced weight, improving comfort.
- Integral LED for illuminating dark areas.
- Composite casing resistant to chemicals and grease.
- Variable speed switch with electronic brake that provides maximum user control.
- Compatible with any FACOM or DEWALT® 10.8V battery packs.



	d [mm]	L [mm]	L1 [mm]	Sound Pressure DB[A]	Vibration [M/S <sup>2</sup> ]	Torque N.m	Maximum RPM [mn]	ΔΔ [kg]
<b>CL3.R10JD</b>	320	93	68	78 (K=3)	1.1 (K=1.5)	54	200	0,9



10.8V 3/8" Ratchet 2.0 Kit

- Sealed head ratchet preventing mechanism damage by dust and particles.
- Die cast aluminium body for reduced weight, improving comfort.
- Integral LED for illuminating dark areas.
- Composite casing resistant to chemicals and grease.
- Variable speed switch with electronic brake that provides maximum user control.
- 10.8V 2.0Ah batteries with DEWALT® technology offer improved runtime.
- Includes 2x 2.0Ah batteries, a charger and PROBAG.



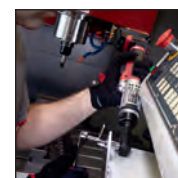
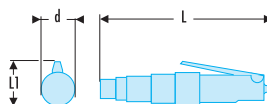
	d [mm]	L [mm]	L1 [mm]	Sound Pressure DB[A]	Vibration [M/S <sup>2</sup> ]	Torque N.m	Maximum RPM [mn]	ΔΔ [kg]
<b>CL3.R10JD2</b>	350	93	68	78 (K=3)	1.1 (K=1.5)	54	200	3,3

10.8V 1/4" Ratchet 2.0 (Naked)

- Sealed head ratchet preventing mechanism damage by dust and particles.
- Die cast aluminium body for reduced weight, improving comfort.
- Integral LED for illuminating dark areas.
- Composite casing resistant to chemicals and grease.
- Variable speed switch with electronic brake that provides maximum user control.
- Compatible with any FACOM or DEWALT® 10.8V battery packs.



	d [mm]	L [mm]	L1 [mm]	Sound Pressure DB[A]	Vibration [M/S <sup>2</sup> ]	Torque N.m	Maximum RPM [mn]	ΔΔ [kg]
<b>CL3.R10RD</b>	320	93	68	74 (K=3)	0.8 (K=1.5)	47	200	0,9



10.8V 1/4" Ratchet 2.0 Kit

- Sealed head ratchet preventing mechanism damage by dust and particles.
- Die cast aluminium body for reduced weight, improving comfort.
- Integral LED for illuminating dark areas.
- Composite casing resistant to chemicals and grease.
- Variable speed switch with electronic brake that provides maximum user control.
- 10.8V 2.0Ah batteries with DEWALT® technology offer improved runtime.
- Includes 2x 2.0Ah batteries, a charger and PROBAG.



	d [mm]	L [mm]	L1 [mm]	Sound Pressure DB[A]	Vibration [M/S <sup>2</sup> ]	Torque N.m	Maximum RPM [mn]	ΔΔ [kg]
<b>CL3.R10RD2</b>	350	93	68	74 (K=3)	0.8 (K=1.5)	47	200	3,3



## TWIN PACK BUNDLES

### 10.8V Twin Pack - 1/2" Compact Impact Wrench + 10mm Drill/Driver 2.0Ah Kit



- Supplied in a PROBAG containing:
  - One 1/2" impact wrench CL3.C10SD
  - One 10mm Drill/Driver CL3.P10JD
  - Two 2.0Ah 10.8V batteries CL3.BA1020
  - One multivoltage charger CL3.CH115



	$\Delta\Delta$ [kg]
<b>CL3.CP10SJD2</b>	6.14

### 18V Twin Pack - 1/2" High Torque Impact Wrench + 13mm Drill/Driver 5.0Ah Kit



- Supplied in a ToughSystem® kitbox containing:
  - One 1/2" High Torque Impact Wrench CL3.CH18SD.
  - One 13mm Drill/Driver CL3.P18SD.
  - Two 5.0Ah 18V battery packs CL3.BA1850.
  - One multivoltage charger CL3.CH115.



	$\Delta\Delta$ [kg]
<b>CL3.CHP18SP2</b>	8.71

CORDLESS ACCESSORIES

18V 5.0Ah Li-Ion battery

- New 5.0Ah Li-Ion battery pack offers users 66% more applications per charge than 3.0Ah packs
- LED "State of Charge" indicator helps manage pack charging
- Glass-filled nylon plastics offer improved chemical and grease resistance
- Rubber over-mould on housing for abrasion resistance
- Compatible with FACOM® and DEWALT® 18V tools.



	H [mm]	H1 [mm]	L [mm]	Capacity [Ah]	Voltage\Volt	ΔΔ [kg]
<b>CL3.BA1850</b>	68	79	124	5.0	18	0.65

18V 2.0Ah Li-Ion battery

- New 2.0Ah Li-Ion battery pack is significantly smaller and lighter than 3.0Ah or 5.0Ah packs for applications where ergonomics are more important than runtime
- LED "State of Charge" indicator helps manage pack charging
- Glass-filled nylon plastics offer improved chemical and grease resistance
- Rubber over-mould on housing for abrasion resistance
- Compatible with FACOM® and DEWALT® 18V tools.



	H [mm]	H1 [mm]	L [mm]	Capacity [Ah]	Voltage\Volt	ΔΔ [kg]
<b>CL3.BA1820</b>	47	78	119	2.0	18	0.4

10.8V 2.0Ah Li-Ion battery

- New 2.0Ah Li-Ion battery pack offers users 33% more applications per charge than 1.5Ah packs
- Lightweight design offers users great ergonomics with no difference in weight from 1.5Ah pack
- Glass-filled nylon plastics offer improved chemical and grease resistance
- Rubber over-mould on housing for abrasion resistance
- Compatible with FACOM® and DEWALT® 10.8V tools.



	H [mm]	H1 [mm]	L [mm]	Voltage\Volt	ΔΔ [kg]
<b>CL3.BA1020</b>	50	90	66	10.8	0.24

10.8V - 18V charger

- Charges 10.8V - 14.4V - 18V Lithium-ion batteries.
- Charges 2.0Ah packs in 30 minutes.
- Diagnostic LED indicator communicates battery status.
- Wall mountable.
- Compatible with FACOM® and DEWALT® batteries.



	H [mm]	L [mm]	L1 [mm]	Voltage\Volt	ΔΔ [kg]
<b>CL3.CH115</b>	80	150	114	10.8/18	0.46





# PERSONAL EQUIPMENT - MAINTENANCE





**PERSONAL PROTECTION EQUIPMENT**

**720**

Personal protection equipment

720



**RIVETING**

**731**

Cases and kits  
Riveting pliers

731

732



**VARIOUS MAINTENANCE**

**721**

Various maintenance

720



**LUBRICATION**

**734**

Lubrication

734



**PIPEWORK TOOLS**

**724**

Pipework wrenches  
Chain and strap wrenches  
Pipe benders  
Iron-stainless steel pipe cutter  
Copper pipe cutter  
Plastic pipe cutter  
Deburring - Chamferring  
Collar tools

724  
725  
726  
727  
728  
728  
729  
730



**VICES - PRESSES - G-CLAMPS**

**736**

Vices  
Flange presses  
G-clamps  
Flange presses

736  
737  
738  
739



PERSONAL PROTECTION EQUIPMENT

### WHY WEAR GLOVES?



**1 - To protect against mechanical hazards:**

abrasion, cut, tear and perforation resistant gloves: (leather gloves BC.109VSE and BC.110VSE).

**2 - To protect against chemical hazards:**

(latex gloves BC.80VSE and BC.91VSE)

**3 - To protect against electrical hazards:**

500 to 1,000 Volts (insulated gloves BC.VSE).

BC.VSE - Insulated gloves



NF EN 60903, EN 60903, DIN EN 60903

- Natural latex gloves, AZM classification:
  - Resistance to acid: A.
  - Resistance to ozone: Z.
  - High mechanical strength: M.
- Length: 360 mm.
- Supplied in anti-UV opaque bag.



E [mm]	Class	Size [mm]	Voltage[Volt]	ΔΔ [g]	
BC.80VSE	0,5	00	9 (B)	500	150
BC.81VSE	0,5	00	10 (C)	500	150
BC.90VSE	1,0	0	9 (B)	1000	150
BC.91VSE	1,0	0	10 (C)	1000	150

BC.VSE - Safety overgloves



NF EN 60903, EN 60903, DIN EN 60903

- Silicon coated leather gloves protecting from mechanical risks.
- Used to protect latex insulated gloves.
- Physical and mechanical grade as per standard EN 388: 2, 1, 2, 1.
  - Abrasion: 2.
  - Cuts: 1.
  - Tears: 2.
  - Perforation: 1.



Size [mm]	ΔΔ [g]	
BC.109VSE	9 (B)	160
BC.110VSE	10 (C)	160

PERSONAL PROTECTION EQUIPMENT

BC.VSE - Insulated mats

NF C 18-421

- Rubber mat for insulation by cladding grounds.
- Thickness: 3.2 mm.
- Hardness: 60 DIDC.
- Dimensions:
  - BC.20VSE: 1 x 0,6 m.
  - BC.21VSE: 1 x 1 m.



BC	L x l [m]	ΔΔ [kg]
BC.20VSE	1 x 0,6	2,5
BC.21VSE	1 x 1,0	4,2

Wrap-around protection glasses

NF EN 166, NF EN 168, DIN EN 166, DIN EN 168.

- Protection against projections of any nature.
- Indispensable for grinding, chiseling, etc.
- "Shell" shape able to contain glasses.



BC	ΔΔ [g]
BC.5	82

VARIOUS MAINTENANCE

Steel wire brush

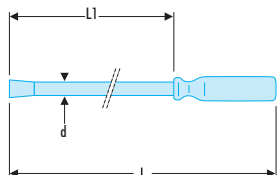


BC	H [mm]	l [mm]	L [mm]	ΔΔ [g]
270A.MA	60	34	280	150



VARIOUS MAINTENANCE

■ D.3 - Pry bars



- Numerous uses: suspension, gear train, bodywork, etc.
- Sturdy blade minimising lever spring effect.

ED	d ["]	L [mm]	L1 [mm]	ΔΔ [kg]
D.3-7	3/8	292	165	0.275
D.3-12	3/8	422	305	0.345
D.3-18	1/2	635	460	0.810
D.3-24	1/2	787	610	1.030
D.3-30	5/8	915	740	1.710

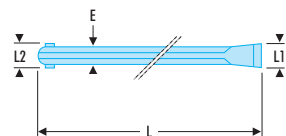
■ Set of 3 pry bars



- Numerous uses: suspension, gear train, bodywork, etc.
- Sturdy blade minimising lever spring effect.
- Set comprising: D.3-7 - D.3-12 - D.3-18.
- Supplied in thermoformed tray.

ED	H [mm]	l [mm]	L [mm]	ΔΔ [kg]
D.3J3	40	145	670	1.648

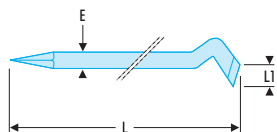
■ 1260 - Wrecking bars



- Forged, one flat end and one nail-claw, hardened to 45 HRC.
- Presentation: red lacquered, polished, varnished ends.

ED	E [mm]	L [mm]	L1 [mm]	L2 [mm]	ΔΔ [kg]
1260.50	18	495	33	28	0.920
1260.70	23	710	39	35	1.140

■ 268 - Round crowbars with crook beak



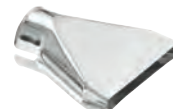
- Forged, one spindle end and one wide and slim pallet end, hardened to 45 HRC.
- Presentation: red lacquered, polished, varnished ends.

ED	E [mm]	L [mm]	L1 [mm]	ΔΔ [kg]
268.3	16	450	32	0.670
268.4	20	790	32	1.970
269	18	400	27	0.590

VARIOUS MAINTENANCE

■ Digital heat gun

- On / Off button easy to use with two modes:
    - Mode 1: 250 l/min – (50°-400°).
    - Mode 2: 500 l/min – (50°-600°).
  - Durable and powerful 2000 Watt motor.
  - Excellent control with wide LCD screen facilitating temperature configuration.
  - Compact and light tool with a gun handle for easy use.
  - Overheating protection: The heating element desactivates automatically for a few seconds when overheating, period during which the tool continues producing fresh air.
  - Wired tool for socket of the Europe 220-240 V / 50 Hz type.
  - Ready to use: Distribution nozzle and reflector nozzle supplied with the tool.
  - Max power : 2000 W.
  - Power supply: 220-240 V/50 Hz.
  - Air flow rate (2 speeds): 250 l/min and 500 l/min.
  - Supplied with 2 nozzles: E.2002B1 - E.2002B3.
- 
- E.2002B1: Distribution nozzle, dim. (L. x h x d): 75 x 75 x 33.7 mm; weight 58 g.
  - E.2002B2: Cross-flow nozzle, dim. (L. x h x d): 75 x 80 x 33.7 mm; weight 56 g.
  - E.2002B3: Reflector nozzle, dim. (L. x h x d): 33 x 60 x 33.7 mm; weight 32 g.
  - E.2002B4: Concentrator nozzle, dim. (L. x h x d): 20 x 52 x 33.7 mm; weight 30 g.



E.2002B1



E.2002B2



E.2002B3



E.2002B4



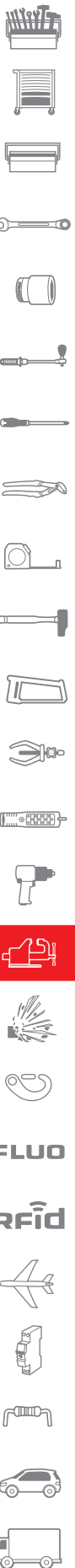
Image	H [mm]	I [mm]	L [mm]	ΔΔ [g]
E.2015	210	72	250	980

■ Glue gun

- To glue plastic, synthetic foam, fabric, wood and laminate in the fields of construction, furniture, in assembly workshops for electrical, electronic assemblies, in the garage.
- Voltage: 110-240 V (without automatic switch).
- Maximum power: 40 W.
- Supplied in cardboard box with three versatile glue sticks.

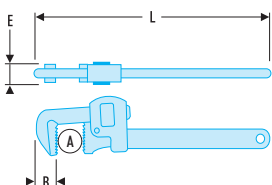


Image	H [mm]	I [mm]	L [mm]	ΔΔ [g]
E.900B	160	30	195	303



PIPEWORK WRENCHES

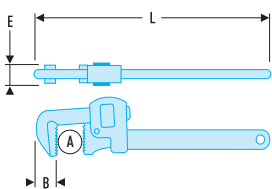
131A - Steel Stillson models



- Capacity: 0 to 102 mm; 0 to 3"1/2.
- Very robust wrench, head hardened to 55 HRc.
- Accurate approach thanks to fine machining of the threads and button, good grip.

	A maxi [mm]	A maxi ["]	B [mm]	E [mm]	L [mm]	L ["]	ΔΔ [kg]
<b>131A.8</b>	27	3/4	19,5	12,5	200	8	0,280
<b>131A.10</b>	34	1	25,0	16,0	250	10	0,600
<b>131A.14</b>	49	1 1/2	29,5	21,0	350	14	1,060
<b>131A.18</b>	60	2	32,0	24,0	450	18	1,800
<b>131A.24</b>	76	2'	41,5	27,5	600	24	3,000
<b>131A.36</b>	102	3 1/2	49,5	30,5	900	36	6,000

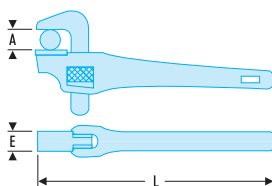
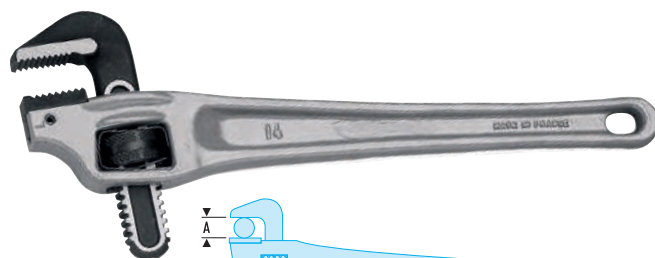
134A - Cast-iron American model pipe wrenches



- Capacity: 0 to 140 mm; 0 to 5".
- Cast iron body.
- Interchangeable fixed jaw hardened to 55 HRc.
- Forged steel mobile jaw.

	A maxi [mm]	A maxi ["]	B [mm]	E [mm]	L [mm]	L ["]	ΔΔ [kg]
<b>134A.8</b>	35	1	15	14,5	200	8	0,400
<b>134A.10</b>	54	1 1/2	20	17,5	250	10	0,780
<b>134A.14</b>	60	2	26	21,5	350	14	1,500
<b>134A.18</b>	76	2 1/2	29	26,0	450	18	2,400
<b>134A.24</b>	102	3 1/2	35	29,5	610	24	4,000
<b>134A.36</b>	140	5	35,5	43,0	920	36	9,000

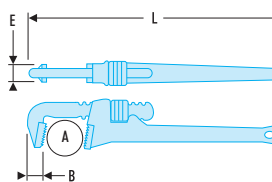
135A - Light alloy 90° offset American model pipe wrenches



- Capacity: 0 to 76 mm; 0 to 2"1/2.
- Light alloy body.
- Jaws in steel hardened to 55 HRc.

	A maxi [mm]	A maxi ["]	E [mm]	L [mm]	L ["]	ΔΔ [kg]
<b>135A.14</b>	49	1 1/2	34	350	14	0,940
<b>135A.18</b>	60	2	39	450	18	1,480
<b>135A.24</b>	76	2 1/2	47	600	24	2,450

133A - Light alloy 90° offset American model pipe wrenches



- Capacity: 0 to 140 mm; 0 to 5".
- Performance equivalent to model 134A.

	A maxi [mm]	A maxi ["]	B [mm]	E [mm]	L [mm]	L ["]	ΔΔ [kg]
<b>133A.14</b>	60	2	26	21,5	350	14	1,000
<b>133A.18</b>	76	2 1/2	30	26,0	450	18	1,560
<b>133A.24</b>	90	3	34	29,5	600	24	2,460
<b>133A.36</b>	140	5	44	32,0	900	36	5,180

PIPEWORK WRENCHES

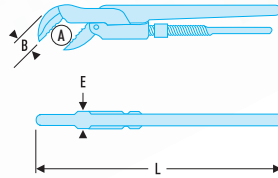
120A - "Swedish" model wrench - 45°

DIN 5234

- Capacity: 10 to 60 mm; 3/8" to 2".
- High-quality forged steel body.
- Special jaw design grips pipe at three points.



	A maxi [mm]	A maxi ["]	B [mm]	E [mm]	L [mm]	Open Position maxi [mm]	ΔΔ [kg]
120A.1'	34	1	22	10	345	45	0.840
120A.1'1/2	49	1'1/2	26	13	450	59	1.450
120A.2'	60	2	39	17	600	76	2.400



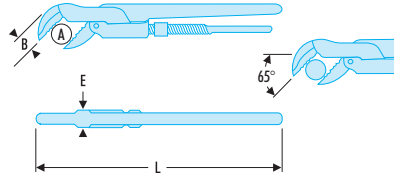
121A - "Swedish" model wrench - "S" jaws - 45°

DIN 5234

- Capacity: 10 to 60 mm; 3/8" to 2".
- High-quality forged steel body.
- Special jaw design grips pipe at three points.



	A maxi [mm]	A maxi ["]	B [mm]	E [mm]	L [mm]	Open Position maxi [mm]	ΔΔ [kg]
121A.1'	34	1	22	14	345	48	0.850
121A.1'1/2	49	1'1/2	26	19	450	55	1.550
121A.2'	60	2	39	21	600	68	2.300



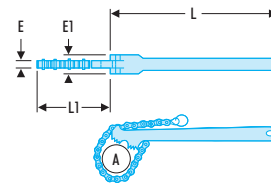
CHAIN AND STRAP WRENCHES

136A - Double effect chain wrench

- Capacity: 60 to 140 mm.
- Hardened steel chain and body.
- Twin serrations allow rotation in either direction.
- 136.D2: spare chain for model 136A.2.
- 136.D4: spare chain for model 136C.4.



	A [mm]	A ["]	B [mm]	C [mm]	E [mm]	L [mm]	L1 [mm]	ΔΔ [kg]
136A.2	60 - 114	2 - 4'	20	7	7	360	460 - 18,5'	1.040
136C.4	90 - 140	3 - 5'	30	10	10	600	600 - 24'	3.100

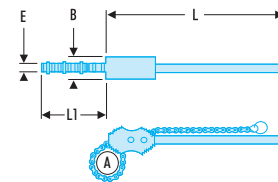


137B - High power chain wrench

- Capacity: 50 to 180 mm.
- Forged steel handle.
- Serration hardened to 48 HRC.
- Jaws treated against corrosion.
- "Ratchet" system in both directions for easier trench work.
- 137B.C2P1/2: spare chain for model 137B.2P1/2.
- 137B.C4P: spare chain for high power model 137B.4P.
- 137B.C6P: spare chain for high power model 137B.6P.

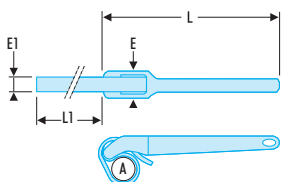


	A ["]	A [mm]	C [mm]	E [mm]	L [mm]	L1 [mm]	ΔΔ [kg]
137B.2P1/2	2 - 3'9/16	50 - 90	20	20	550	415 - 16"	4,500
137B.4	2'3/8 - 5'1/8	60 - 130	20	20	910	560 - 24"	8,000
137B.6	3'3/16 - 7'1/8	80 - 180	32	32	690	690 - 27"	10,500



CHAIN AND STRAP WRENCHES

138A - Nylon strap wrenches



- Capacity: 0 to 165 mm.
- Body in aluminum alloy.
- High strength nylon strap.



Model	A [mm]	A [°]	E [mm]	E1 [mm]	L [mm]	L1 [mm]	ΔΔ [g]
138A.17	60	2	42	27,5	300	450	280
138A.30	125	4	42	27,5	300	760	290
138A.48	165	6	42	27,5	300	1200	310

138.S - Spare strap



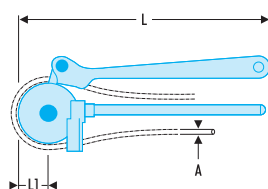
- To be used with the nylon strap wrench.
- 138.S17: spare strap L.430 mm for 138A.17.
- 138.S30: spare strap L.760 mm for 138A.30.
- 138.S48: spare strap L.1200 mm for 138A.48.



Model	ΔΔ [g]
138.S17	26
138.S48	44
138.S30	74

PIPE BENDERS

344B - Bending pliers



- Capacity: 8 to 18 mm.
- To shape pipes in cold drawn or annealed copper.
- Easy use on the work place without particular installation.
- Bending angle measurement (0° - 180°).
- Can be carried on a tool box.
- Made in forged and machined steel.



Model	A [°]	A [mm]	L [mm]	L1 [mm]	ΔΔ [kg]
344B.8	5/16	8	208	14	0.340
344B.10	-	10	245	23	0.700
344B.12	-	12	270	30	0.900
344B.14	-	14	352	42	1.800
344B.16	5/8	16	380	54	2.640
344B.18	-	18	380	55	2.900



IRON-STAINLESS STEEL PIPE CUTTER

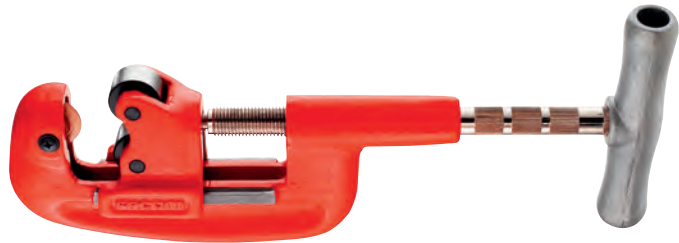
Iron pipe cutter



- Accurate guiding for right angle cutting.
- Min length 255 mm - max length 310 mm.
- Spread: 10 to 42 mm, 1/8 to 1" 1/8.
- 338A.F5: Set of 5 spare rollers.

Icon	l [mm]	L [mm]	ΔΔ [kg]
338B.1	34	130	1.480

Stainless steel pipe cutter



- Accurate guiding for right angle cutting.
- Fitted with a wheel cutting stainless steel pipes.
- Dimensions: 160 x 34 mm.
- Spread: 21 to 60 mm, 1/2 to 2".
- 337.F5: Set of 5 spare wheels.

Icon	L [mm]	ΔΔ [kg]
337A.2	160	2.700

"High precision" stainless steel pipe cutter

- Fast adjustment button, covered in soft material for enhanced comfort.
- 4 rollers for perfect pipe guiding.
- Folding deburrer.
- Supplied with spare wheel.
- Very easy wheel changing without tool.
- Cuts stainless steel pipes from 3 to 35mm.
- 334.M5: set of 5 spare wheels.



334C.35NX



333C.67NX

Icon	ΔΔ [kg]
334C.35NX	0.440
333C.67NX	0.944



COPPER PIPE CUTTER

"High precision" copper pipe cutter



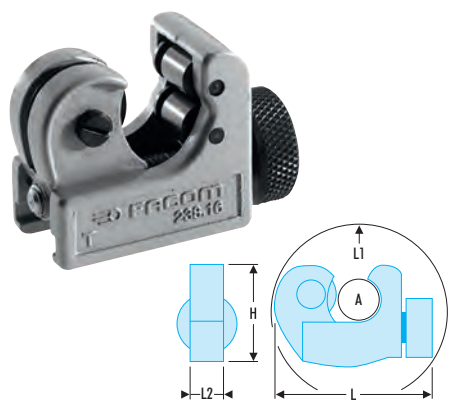
- Comfortable fast advance knob.
- Optimum pipe guiding. Cut to 90°.
- Grooves for flush flange cutting.
- Folding rotary deburrer.
- Built-in spare wheel.
- Cutting diameter: 3 - 35 mm; 1/4 - 1" 1/4.

- 238A.M5: Set of 5 spare wheels.



Model	Weight [kg]
334C.35	0.944
333C.67	0.927
333C.67M	0.938

Copper-pipe mini-cutter



- 238B.16, grey
- Very compact.
- Can be used in situ.
- Minimal working radius.
- Set of 5 spare wheels:
  - 238B.16M5 for model 238B.16.
  - 238.M5 for old model 238.16.



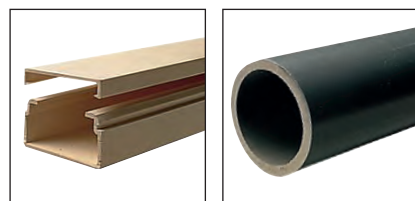
Model	A [mm]	A [°]	H [mm]	L [mm]	L1 [mm]	L2 [mm]	Weight [g]
238B.16	3 - 16	1/8 - 5/8	35	55	38	21	120

PLASTIC PIPE CUTTER

Ratchet pipe cutter



- Pipe cutter for PVC pipes up to 25 mm diameter: 4 x 2.5 mm max; 4 x 3/32 s. inch.
- Fast and neat cutting.
- Automatic jaw opening.
- Ratchet advance with non-return mechanism.
- Fast advance for approach on small diameters.
- Chamfering tool built into the handle.



Model	A max [mm]	A max [°]	L [mm]	Weight [kg]
335.25	25	1	195	0.165



COLLAR TOOLS

■ Set for S.A.E-DIN, S.A.E-DIN flanges



- Capacity: copper and steel pipe  $\varnothing$  4.75 to 12 mm", 3/16" to 1/2".
- Thickness: 0.7 to 1 mm.
- The press can be locked in a vice for more safety.
- Fast and effortless shaping.
- The set includes 11 punches and 10 dies.
- Operator instructions allow selection according to the type of flanges to produce.



➤	H [mm]	l [mm]	L [mm]	$\Delta\Delta$ [kg]
<b>347</b>	82	224	396	7.900

■ Flanging tool, metric die 6 mm - 14 mm



- Capacity: pipes diam. 6 to 14 mm.
- Allows to produce flanges tapered at 45°, at the end of copper pipes without annealing the metal.
- BP.115 dimensions: 332 x 143 x 67 mm.
- 239.MU: Inch dies: pipes  $\varnothing$  from 3/16" to 5/8".



➤	H [mm]	l [mm]	L [mm]	$\Delta\Delta$ [kg]
<b>239</b>	67	143	332	1.520

■ Metric kit



- Caliper and die for pipes diameter: 6 - 8 - 10 - 12 - 14 mm.
- 334C.35 pipe cutter.
- Supplied in plastic box BP.115.



➤	H [mm]	l [mm]	L [mm]	$\Delta\Delta$ [kg]
<b>240.M</b>	67	143	332	1.820

■ Metric-inch kit



- Caliper.
- Die for pipes  $\varnothing$ : 6 - 8 - 10 - 12 - 14 mm.
- Die for pipes  $\varnothing$ : 3/16" - 1/4" - 5/16" - 3/8" - 7/16" - 1/2" - 5/8".
- 334C.35 pipe cutter.
- Supplied in plastic box dimensions: 350 x 125 x 40 mm.



➤	$\Delta\Delta$ [kg]
<b>242</b>	2.400

CASES AND KITS

■ Maintenance kit for multi-thickness aluminum rivets



- Comprising:
  - Y.104: riveter.
  - Selection of rivets diameter 4 to 4.8 mm with standard head, 4.8 mm with wide head, in popular sizes for joint thickness 1.3 to 13 mm (approx. 450 rivets).
  - Partitioned case with contents list.

Y.RIV1	H [mm]	L [mm]	P [mm]	ΔΔ [kg]
	60	360	300	2.700

■ Maintenance kit for aluminum rivets



- Comprising:
  - Y.104: riveter.
  - Selection of aluminum rivets with standard head 4 x 8 - 4 x 10 - 4.8 x 8 - 4.8 x 10 mm and with wide head 4 x 8 et 4 x 10 mm (approx. 600 rivets).

Y.RIV3	H [mm]	L [mm]	P [mm]	ΔΔ [kg]
	60	360	300	2.350

■ Blind-nut kit



- Comprising:
  - Y.107: blind-nut riveter.
  - Selection of steel nuts M4 - M5 - M6, in popular sizes for joint thickness 0.3 to 3 mm (approx. 100 nuts).
  - Partitioned case with contents list and instructions: 360 x 300 x 60 mm.

Y.M46	H [mm]	L [mm]	P [mm]	ΔΔ [kg]
	60	360	300	2.500

■ Riveting module



- Y.104: riveter.
- 600 alu rivets.
- Standard head: 4 x 8 - 4 x 10 - 4.8 x 8 - 4.8 x 10.
- Black lacquered standard head: 4 x 8 - 4 x 10.
- Heat-formed tray PL.377.

MOD.Y105	H [mm]	L [mm]	P [mm]	ΔΔ [kg]
	40	175	418	1.984



RIVETING PLIERS

■ "Endurance" riveter

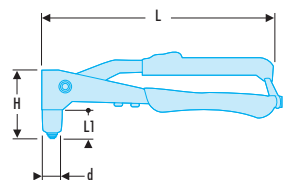


- New nose with insert for extended durability.
- Return spring.
- Supplied with 3 nosepieces and locking key.
- Capacity: Ø 5 mm aluminium - Ø 4 mm steel.



FACOM	ΔΔ [kg]
Y.104	0.585

■ Riveting pliers

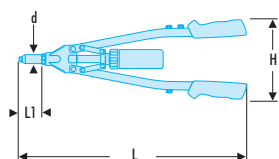


- Capacity:
  - Aluminum rivets Ø 3 - 3.2 - 4 - 4.8 - 5 mm.
  - Steel rivets Ø 3 - 3.2 - 4 mm.
- Empty branches opening spring.
- 3 nosepieces with keys for diameters 3 to 3.2 mm - 4 mm - 4.8 to 5 mm.



FACOM	d [mm]	H [mm]	L [mm]	L1 [mm]	ΔΔ [kg]
Y.103B	22	84	250	26	0.632

■ Two-hand riveter



- Capacity:
  - Diameter 6.4 mm alu rivets.
  - Diameter 6 mm steel rivets.
- Absorbers cushion impact when pin snaps.
- Supplied with 4 nosepieces diameter 4 - 5 - 6 - 6.4 mm and spent-nail holder.

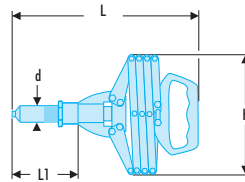


FACOM	d [mm]	H [mm]	L [mm]	L1 [mm]	ΔΔ [kg]
Y.116B	22	164	526	66	1,900

RIVETING PLIERS

■ "Expander" riveting pliers

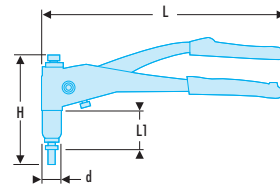
- Capacity:
  - Diameter 6.4 mm alu rivets.
  - Diameter 5 mm steel rivets.
- Model suited to heavy duty, particularly in worksites.
- Supplied with 5 nosepieces: diameters 3 to 3.2 mm - 4 mm - 4.8 to 5 mm - 6 mm - 6.4 mm.



Icon	d [mm]	H [mm]	L [mm]	L1 [mm]	ΔΔ [kg]
<b>Y.113B</b>	25	184	310	90	2,150

■ Blind-nut pliers

- Capacity: M6 steel; M5 stainless steel.
- Supplied with 3 steel nuts M4 - M5 - M6.
- Very comfortable pliers as can be used with both hands.



Icon	d [mm]	H [mm]	L [mm]	L1 [mm]	ΔΔ [kg]
<b>Y.107</b>	25	140	335	50	1,170

■ Pneumatic riveter

- Light and well balanced machine in aluminum alloy.
- For 3.2 - 4 and 4.8 mm rivets.
- Traction strength 9.4 kN.
- Fast nose removal.
- Fast claw holder removal.
- Low activation force.
- 2-finger trigger.
- Orientable air exhaust.
- Tool travel 18 mm.
- Working pressure: 6.2 bars.



Icon	d [mm]	d1 [mm]	H [mm]	L [mm]	L1 [mm]	ΔΔ [kg]
<b>Y.135F</b>	88	20,6	304	259	79	1,310



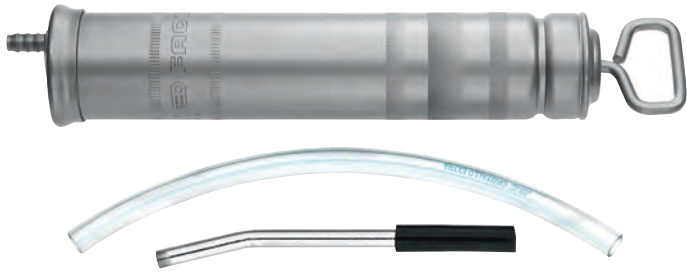
FLUO

RFid



## LUBRICATION

## Manual oil syringe



- Capacity: 500 cm<sup>3</sup>.
- Galvanised steel body.
- Supplied with: 376A.1 straight angled tube.



	L [mm]	ΔΔ [kg]
<b>376A</b>	420	0.830

## Lever-operated grease gun



- Grease cartridge.
- Pressure: 400 bar. Air bleed facility.
- Use with cartridge or bulk grease.
- Capacity 500 cm<sup>3</sup>, i.e. 400 g grease.
- Hose compliant with DIN 1283 standard (static and burst pressure).
- Hose built in rubber approved by DIN 20024 standard.
- Hose diameter: 13.1 mm.
- Hose radius of curvature: 90 mm.



	L [mm]	ΔΔ [kg]
<b>378A.50</b>	370	1.356

## Small grease pump 377B



## DIN1282

- Nickel-plated body.
- Supplied with 1 lub type tip and 1 hydraulic type tip.
- Spread: 150 cm<sup>3</sup>.
- Pressure: 200 bar.
- Diameter: 43 mm.



	L [mm]	ΔΔ [kg]
<b>377B</b>	345	0.410

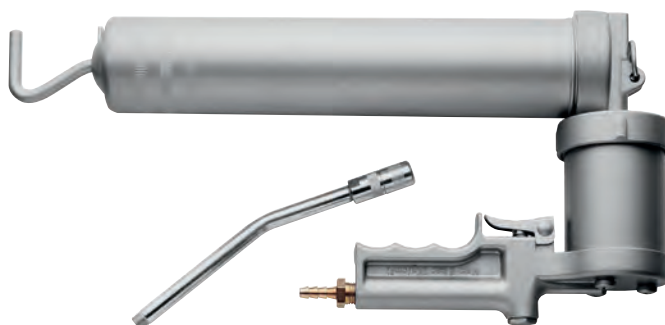


LUBRICATION

■ Pneumatic grease gun

DIN 1284

- Capacity 500 cm<sup>3</sup> (400 g grease) flow 1 cm<sup>3</sup> per strike.
- Air pressure 2 to 8 bar (6 bar recommended).
- Supply fitting diameter 8 mm.
- Filling with cartridge or bulk grease.
- Presentation: Aluminum body.
- Supplied with straight angled spout and tip : 379A.1.



	H [mm]	L [mm]	ΔΔ [kg]
379A	380	179	1.700

■ Set of greasing tips

- Selection of rigid spouts, flexible spouts and fasteners for all types of current greasers.
- Adaptable to models 378A and 379A.
- Case dimensions: 310 x 110 x 55 mm.




	H [mm]	l [mm]	L [mm]	ΔΔ [kg]
380	55	110	310	0.425

■ 373 - Simple-action oil cans

- Pumped delivery. Steel body.
- Spout length: 130 mm.
- 3 capacities: 250, 350 and 500 cm<sup>3</sup>.



	Oil Capacity [cm <sup>3</sup> ]	ΔΔ [kg]
373.20	200	0.210
373.30	300	0.236

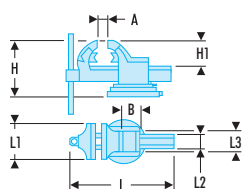


VICES

1224 - Worksite-maintenance 360° swivel vices



- Vices in spheroid graphite cast iron, tensile strength 700 N/mm<sup>2</sup> minimum.
- Wide bearing base of the prism guide/mobile jaw: lack of guide flexion, vice operation preserved even under heavy loads.
- Interchangeable parallel jaws. High wear resistance, hardness 48/53 HRc.
- Removable V-shaped jaws for tightening the pipes. Hardness 40/46 HRc.
- Adjustment system by 2 complex gap compensation screws.
- Burnished control bar.

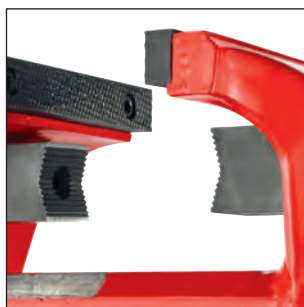
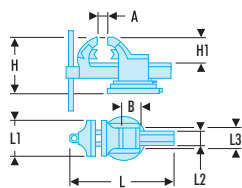


FACOM	A maxi [mm]	B [mm]	H [mm]	H1 [mm]	L [mm]	L1 [mm]	L2 [mm]	L3 [mm]	ΔΔ [kg]
1224.100	125	63	164	74	345	104	51	70	9,70
1224.125	150	75	178	83	380	127	53	76	12,84
1224.150	200	95	205	94	460	154	60	91	18,88
1224.175	235	118	241	123	532	178	68	111	26,36

1224.E - Worksite-maintenance fixed vices



- Vices in spheroid graphite cast iron, tensile strength 700 N/mm<sup>2</sup> minimum.
- Wide bearing base of the prism guide/mobile jaw: lack of guide flexion, vice operation preserved even under heavy loads.
- Interchangeable parallel jaws. High wear resistance, hardness 48/53 HRc.
- Removable V-shaped jaws for tightening the pipes. Hardness 40/46 HRc.
- Adjustment system by 2 complex gap compensation screws.
- Burnished control bar.

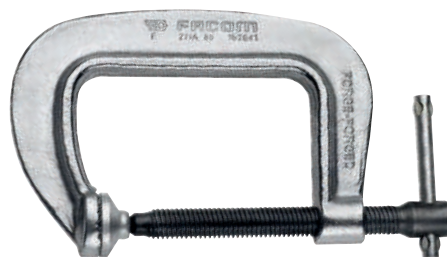


FACOM	A maxi [mm]	B [mm]	H [mm]	H1 [mm]	L [mm]	L1 [mm]	L2 [mm]	L3 [mm]	ΔΔ [kg]
1224.100E	125	63	142	74	345	104	51	70	8,67
1224.125E	150	75	156	83	380	127	53	76	11,34
1224.150E	200	95	183	94	460	154	60	91	17,26
1224.175E	235	118	216	123	532	178	68	111	24,68

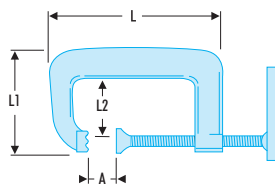
FLANGE PRESSES

271A - Compact G-clamp

- Capacity: 0 to 250 mm and 0 to 9"7/8.
- Presentation: galvanised - burnished screw.



Ref	A maxi [mm]	L [mm]	L1 [mm]	L2 [mm]	ΔΔ [kg]
271A.40	40	100	75	42	0,300
271A.60	60	130	98	57	0,510
271A.80	80	167	115	67	0,810
271A.100	100	192	131	77	1,170
271A.120	120	223	148	88	1,680
271A.150	150	262	162	98	1,980
271A.200	200	320	185	108	3,240
271A.250	250	380	202	118	3,950

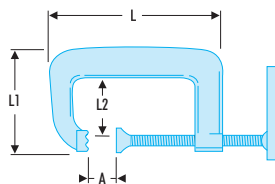


271A.L - Deep-throat G-clamp

- Capacity: 0 to 150 mm and 0 to 5"7/8.
- Presentation: galvanised - burnished screw.

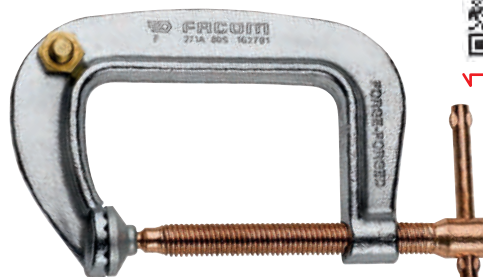


Ref	A maxi [mm]	L [mm]	L1 [mm]	L2 [mm]	ΔΔ [kg]
271A.150L	133	288	213	133	3,320

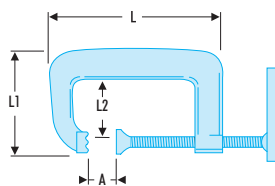


Arc-welding G-clamp

- Capacity: 0 to 80 mm and 0 to 3"1/8.
- Copper-plated screw and brass bolt for earth connection.
- Presentation: galvanised.

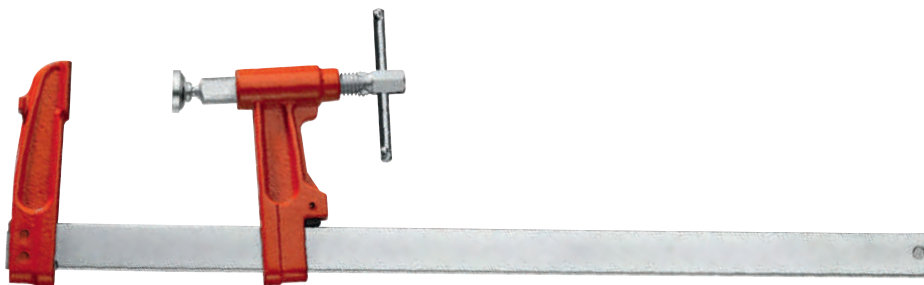


Ref	A maxi [mm]	L [mm]	L1 [mm]	L2 [mm]	ΔΔ [g]
271A.80S	80	167	115	67	920

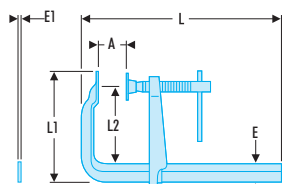


G-CLAMPS

272A - Pump clamp

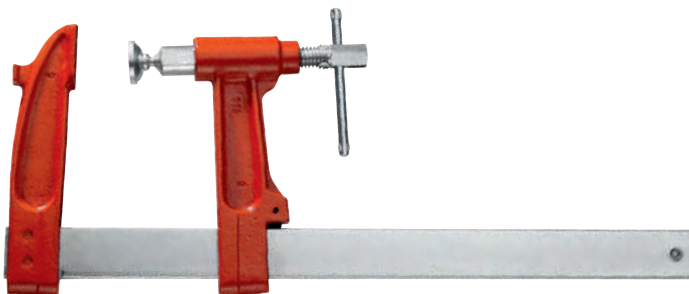


- Capacity: 0 to 1,500 mm.
- Accurate assembly by tightening the pump without rotation.
- Rail treated and notched on edges for clear locking, tilt ball joint.
- Presentation: lacquered, galvanised rail.

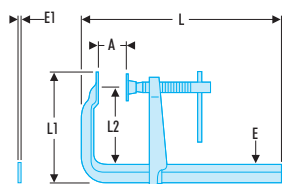


272A	A maxi [mm]	E x E1 [mm]	L [mm]	L1 [mm]	L2 [mm]	ΔΔ [kg]
272A.300	300	30 x 8	370	150	80	1,700
272A.400	400	30 x 8	470	150	80	1,900
272A.500	500	30 x 8	600	150	80	2,100
272A.600	600	35 x 9	680	180	100	2,900
272A.800	800	35 x 9	880	180	100	3,370
272A.1000	1000	35 x 9	1100	180	100	3,840
272A.1200	1200	35 x 9	1300	180	100	4,310
272A.1500	1500	35 x 9	1600	180	100	5,000

272L - Wide protrusion pump clamp



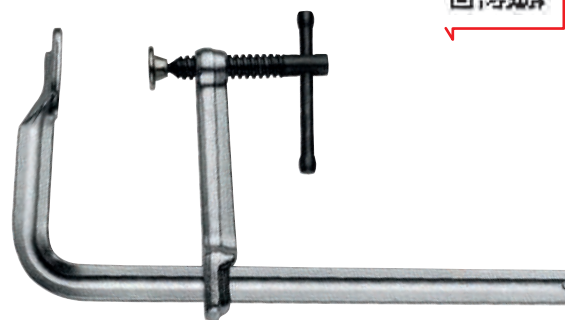
- Capacity: 0 to 1,000 mm.
- Protrusion: 150 mm.
- Same characteristics as model 272A with additional benefits of a deep slider and dog for gripping wide parts.



272L	A maxi [mm]	E x E1 [mm]	L [mm]	L1 [mm]	L2 [mm]	ΔΔ [kg]
272.300L	300	40 x 9	440	215	150	3,000
272.400L	400	40 x 9	540	215	150	3,300
272.600L	600	40 x 9	740	215	150	3,900
272.1000L	1000	40 x 9	1140	215	150	5,100

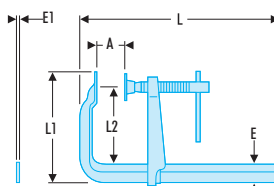
FLANGE PRESSES

274 - G-clamp 6500 N

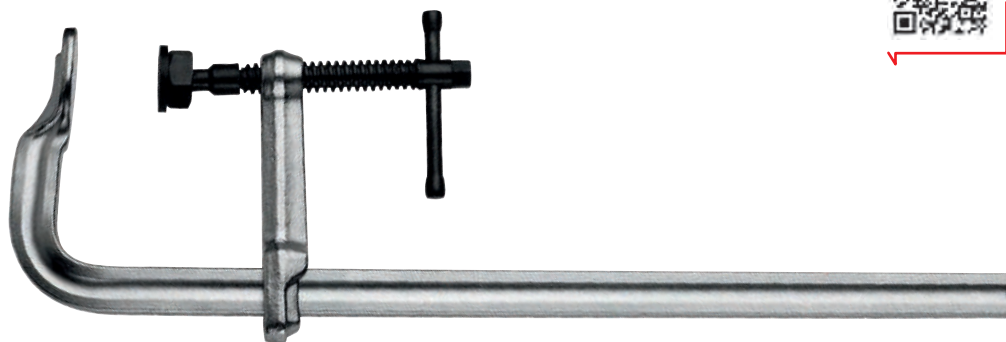


- Capacity: 0 to 500 mm.
- Tightening: 6500 N max.
- Hardened profile rail, forged dog and slider, square thread screw for tight fastening.
- Ball joint angle 30°.
- Presentation: galvanised.

Ref	A maxi [mm]	E x E1 [mm]	L [mm]	L1 [mm]	L2 [mm]	ΔΔ [kg]
274.200	200	19,5 x 9,5	250	150	100	0,720
274.300	300	25 x 12	360	190	140	1,600
274.400	400	25 x 12	460	170	120	1,650
274.500	500	25 x 12	560	170	120	2,000

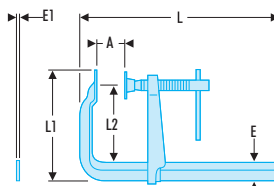


275 - Power G-clamp 12000 N



- Capacity: 0 to 1,000 mm.
- Tightening: 12000 N max.
- Large cross-section slider rail and screws for the most powerful tightening: up to 1.2 t between dog and slider.
- Ball joint angle 35°.
- Presentation: galvanised.

Ref	A maxi [mm]	E x E1 [mm]	L [mm]	L1 [mm]	L2 [mm]	ΔΔ [kg]
275.300	300	30 x 15	350	180	140	2,800
275.500	500	30 x 15	560	180	120	3,000
275.800	800	30 x 15	880	180	120	4,200
275.1000	1000	30 x 15	1100	180	120	4,800



FLUO

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# NON-SPARKING TOOLS



**NON SPARKING WRENCHES** 743

- Non sparking combination wrenches 743
- Non sparking box wrenches 744
- Non sparking impact wrenches 745
- Non sparking adjustable wrenches 746



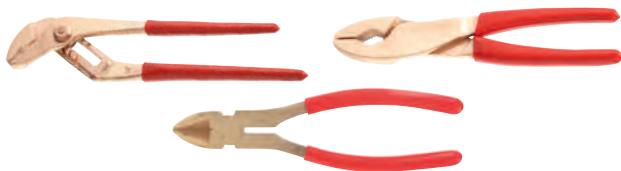
**NON SPARKING RATCHETS, SOCKETS, ACCESSORIES** 746

- 1/2" TO 1" non sparking ratchets 746
- Non sparking accessories 747
- 1/2" non sparking sockets 748
- 3/4" non sparking sockets 749
- 1" non sparking sockets 749



**NON SPARKING SCREWDRIVERS, KEYS** 750

- Non sparking screwdrivers 750
- Non sparking hexagon keys 751



**NON SPARKING PLIERS** 752

- Non sparking multigrip pliers 752
- Non sparking cutting pliers 752
- Non sparking motorist pliers 753
- Non sparking lineman's pliers 753



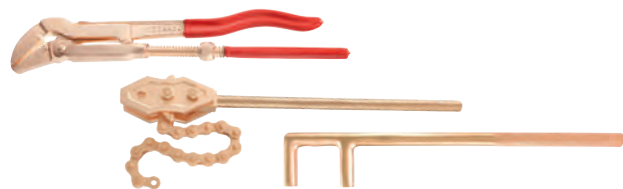
**NON SPARKING IMPACT TOOLS** 754

- Non sparking mallets 754
- Non sparking hammers 754
- Non sparking wedges 755
- Non sparking chisels 755
- Non sparking drift punches 755



**NON SPARKING CUTTER** 756

- Non sparking files 756
- Non sparking saws 757



**NON SPARKING TUBE, MAINTENANCE** 758

- Non sparking pipework wrench 758
- Non sparking valve wrench 759



FLUO

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## NON SPARKING COMBINATION WRENCHES

## ADF RANGE

## "FACOM ADF" non sparking tools programme

The FACOM ADF tool range has been designed for use in explosive or flammable atmospheres, where "traditional" steel tools may accidentally create sparks due to friction, impact, or by falling on a hard surface.



**The entire FACOM ADF range is made from a special Copper - Beryllium alloy having better mechanical properties than the other alloys proposed for use in non sparking tools.**

FACOM has determined the composition of the Cu-Be alloy as well as its specific treatment according to the use of each tool. In addition to its non sparking properties, the Cu-Be alloy is also anti-magnetic and highly corrosion resistant. Having a lower density, it also significantly reduces user fatigue. FACOM ADF tools have been designed in accordance with the most widely used dimensional standards (ISO, DIN,...) or adapted to perform the tool's main functions.

**FACOM ADF tools can be used in a wide variety of fields, such as:**

Mining. Oil and gas extraction (off-shore & on-shore). Refineries, petrochemicals Pipeline maintenance. Energy production and transport (gas, electricity, etc.). Naval shipyards Aeronautical transport, airports. Paint manufacture. Manufacture of explosives & flammable products. Arsenals, munitions and explosive products storage. Applications requiring demagnetised tools (metal shavings, etc.). Farming - Grain silos ...

The certificate TUV (n°TUV-F 09 ATEX 0005 X) have been found to comply with standard for a use in explosive atmospheres and with the Essential Health and Safety Requirements following EN 1127-1, EN 13463-1 (2007) and EN 13463-5 (2003).

### SAFETY FIRST



- Non sparking tools are not enough for protection from an explosion, other items adapted to the environment are necessary, such as: clothes, gloves, safety glasses and adapted materials.
- Tool's surface temperature must not be more than present gases temperature.
- Cu-Be alloy tools must not be in contact with acetylene (risk of spark).
- All Cu-Be alloy tools, in the state of finished product, presents no risk for the user. On the other hand any modification of these tools presents a risk of Cu-Be alloy particles liberation, harmful for the health.



■ 440.SR - Non sparking metric combination wrenches



• Special non sparking and anti-magnetic Copper-Beryllium alloy.

Ø	A [mm]	B [mm]	B1 [mm]	E [mm]	E1 [mm]	L [mm]	ΔΔ [g]
440.6SR	6	14,0	11,6	4,4	6	105	20
440.7SR	7	17,5	14,5	5,0	7	120	25
440.8SR	8	17,5	14,5	5,0	7	120	35
440.9SR	9	22,0	18,0	5,4	8	135	40
440.10SR	10	22,0	18,0	5,4	8	135	55
440.11SR	11	26,5	21,0	6,0	9	150	55
440.12SR	12	26,5	21,0	6,0	9	150	75
440.13SR	13	30,0	23,0	6,6	10	175	75
440.14SR	14	30,0	23,0	6,6	10	175	120
440.15SR	15	35,0	27,0	7,6	11	195	125
440.16SR	16	35,0	27,0	7,6	11,0	195	155
440.17SR	17	35,0	27,0	7,6	11,0	195	155
440.18SR	18	39,0	31,0	8,0	12,0	215	210
440.19SR	19	39,0	31,0	8,0	12,0	215	210
440.20SR	20	45,0	34,0	9,5	13,5	230	225
440.21SR	21	45,0	34,0	9,5	13,5	230	225
440.22SR	22	46,0	36,0	9,4	14,0	245	250
440.23SR	23	49,0	38,0	9,4	15,2	265	250
440.24SR	24	49,0	38,0	10,0	15,2	265	260
440.25SR	25	49,0	38,0	9,4	15,2	265	260
440.26SR	26	56,0	42,0	10,0	17,0	290	420
440.27SR	27	56,0	42,0	11,4	17,0	290	420
440.30SR	30	61,0	49,0	13,0	20,0	320	560
440.32SR	32	65,0	52,0	14,0	21,0	340	670
440.34SR	34	72,0	55,0	15,0	21,0	360	850
440.35SR	35	72,0	55,0	15,0	21,0	360	890
440.36SR	36	72,0	55,0	15,0	21,0	360	890
440.38SR	38	82,0	64,0	15,0	21,0	430	1400
440.41SR	41	82,0	64,0	15,0	21,0	430	1400
440.46SR	46	90,0	70,0	16,0	22,0	480	1900
440.50SR	50	98,0	77,0	17,0	23,0	520	2200
440.55SR	55	108,0	83,0	18,0	23,0	560	2800
440.60SR	60	115,0	89,0	20,0	25,0	595	3200
440.65SR	65	125,0	95,0	21,0	27,0	595	3700
440.70SR	70	142,0	112,0	24,0	29,0	630	4800

■ 440.SR - Non sparking inch combination wrenches



• Special non sparking and anti-magnetic Copper-Beryllium alloy.

Ø	A ["]	B [mm]	B1 [mm]	E [mm]	E1 [mm]	L [mm]	ΔΔ [g]
440.1/4SR	1/4"	14,0	11,6	4,4	6,0	105	20
440.5/16SR	5/16"	17,5	14,5	5,0	7,0	120	40
440.3/8SR	3/8"	22,0	18,0	5,4	8,0	135	55
440.7/16SR	7/16"	26,5	21,0	6,0	9,0	150	55
440.1/2SR	1/2"	30,0	23,0	6,6	10,0	175	75
440.9/16SR	9/16"	30,0	23,0	6,6	10,0	175	120
440.19/32SR	19/32"	35,0	27,0	7,6	11,0	195	125
440.5/8SR	5/8"	35,0	27,0	7,6	11,0	195	155
440.11/16SR	11/16"	35,0	27,0	7,6	11,0	195	155
440.3/4SR	3/4"	39,0	31,0	8,0	12,0	215	210
440.13/16SR	13/16"	45,0	34,0	9,5	13,5	230	225
440.7/8SR	7/8"	46,0	36,0	9,4	14,0	245	250
440.15/16SR	15/16"	49,0	38,0	10,0	15,2	265	260
440.1PSR	1"	56,0	42,0	11,4	17,0	290	260
440.1P1/16SR	1-1/16"	56,0	42,0	11,4	17,0	290	420
440.1P1/8SR	1-1/8"	61,0	49,0	13,0	20,0	320	560
440.1P3/16SR	1-3/16"	61,0	49,0	13,0	20,0	320	560
440.1P1/4SR	1-1/4"	65,0	52,0	14,0	21,0	340	670
440.1P5/16SR	1-5/16"	72,0	52,0	15,0	21,0	360	850
440.1P3/8SR	1-3/8"	72,0	55,0	15,0	21,0	360	890



NON SPARKING BOX WRENCHES

NON SPARKING TOOLS



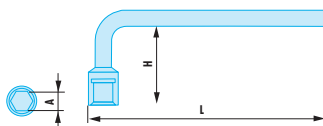
FACOM has a very comprehensive range of non sparking tools. For any non sparking tools not featured in the catalogue please contact your FACOM representative or local dealer.



75.SR - Non sparking metric angled socket wrenches



• Special non sparking and anti-magnetic Copper-Beryllium alloy.



Part No.	A [mm]	H [mm]	L [mm]	ΔΔ [g]
75.10SR	10	37	168	200
75.12SR	12	42	216	220
75.13SR	13	45	240	250
75.14SR	14	45	245	300
75.15SR	15	48	250	350
75.16SR	16	48	255	500
75.17SR	17	51	260	550
75.18SR	18	53	265	550
75.19SR	19	55	270	550
75.21SR	21	57	275	750
75.22SR	22	59	278	750
75.23SR	23	60	282	800
75.24SR	24	63	286	850
75.27SR	27	69	294	900
75.30SR	30	75	302	1000
75.32SR	32	81	310	1100

NON SPARKING IMPACT WRENCHES

50.SR - Non sparking metric impact ring wrenches



50.SR - Non sparking inch impact ring wrenches



• Special non sparking and anti-magnetic Copper-Beryllium alloy.

Ø	A [mm]	B [mm]	E [mm]	L [mm]	ΔΔ [g]
50.17SR	17	32	12,0	145	210
50.19SR	19	32	12,0	145	200
50.22SR	22	42	14,0	165	245
50.24SR	24	42	14,0	165	235
50.27SR	27	46	16,0	175	350
50.30SR	30	53	16,0	185	475
50.32SR	32	53	16,0	185	465
50.34SR	34	58	19,0	205	580
50.36SR	36	58	19,0	205	580
50.38SR	38	64	20,0	225	790
50.41SR	41	64	20,0	225	755
50.46SR	46	73	22,0	235	990
50.50SR	50	78	23,0	250	1100
50.55SR	55	86	23,5	265	1400
50.60SR	60	92	25,5	274	1600
50.65SR	65	102	28,0	298	2000
50.70SR	70	108	31,5	320	2400
50.75SR	75	113	33,0	326	3000
50.80SR	80	124	34,0	350	3600
50.85SR	85	130	36,0	355	4300
50.90SR	90	142	39,0	390	5500
50.95SR	95	142	39,0	390	5400
50.100SR	100	155	43,0	420	7000
50.105SR	105	155	43,0	420	7000
50.110SR	110	168	45,0	450	9100
50.120SR	120	182	50,0	480	11000
50.130SR	130	200	57,0	520	12600
50.140SR	140	200	57,0	520	13000
50.150SR	150	220	58,0	565	14500

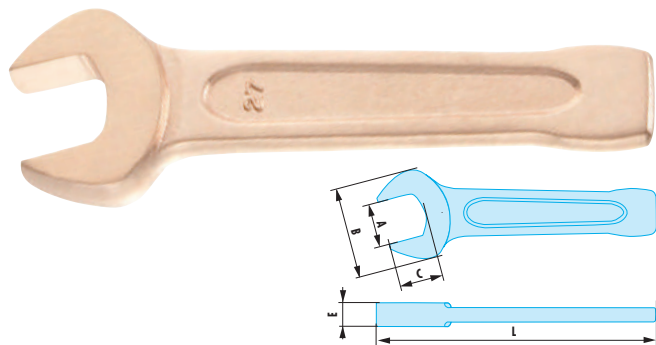
• Special non sparking and anti-magnetic Copper-Beryllium alloy.

Ø	A ["]	B [mm]	E [mm]	L [mm]	ΔΔ [g]
50.11/16SR	11/16"	32	12,0	145	210
50.3/4SR	3/4"	32	12,0	145	200
50.7/8SR	7/8"	42	14,0	165	245
50.1PSR	1"	46	16,0	175	350
50.1P1/16SR	1-1/16"	46	16,0	175	350
50.1P1/8SR	1-1/8"	53	16,0	185	455
50.1P3/16SR	1-3/16"	53	16,0	185	475
50.1P1/4SR	1-1/4"	53	16,0	185	470
50.1P3/8SR	1-3/8"	58	19,0	205	560
50.1P1/2SR	1-1/2"	64	28,0	225	790
50.1P5/8SR	1-5/8"	64	28,0	225	755
50.1P3/4SR	1-3/4"	73	22,0	235	1000
50.1P13/16SR	1-13/16"	73	22,0	235	990
50.2PSR	2"	78	23,0	250	1100
50.2P1/16SR	2-1/16"	86	23,5	265	1100
50.2P3/16SR	2-3/16"	86	23,5	265	1400
50.2P13/64SR	2-13/64"	86	23,5	265	1400
50.2P3/8SR	2-3/8"	92	25,5	274	1600
50.2P9/16SR	2-9/16"	102	30,0	298	1900
50.2P5/8SR	2-5/8"	102	30,0	298	1900
50.2P3/4SR	2-3/4"	108	31,5	320	2300
50.2P15/16SR	2-15/16"	113	33,0	326	2700
50.3PSR	3"	113	33,0	326	2700
50.3P1/8SR	3-1/8"	124	34,0	350	2800
50.3P3/8SR	3-3/8"	130	36,0	355	4000
50.3P9/16SR	3-9/16"	142	39,0	390	5300
50.3P3/4SR	3-3/4"	142	39,0	390	5300
50.3P15/16SR	3-15/16"	155	43,0	420	6700
50.4P1/8SR	4-1/8"	155	43,0	420	6700



NON SPARKING IMPACT WRENCHES

■ 49.SR - Non sparking metric impact open end wrenches



- Special non sparking and anti-magnetic Copper-Beryllium alloy.

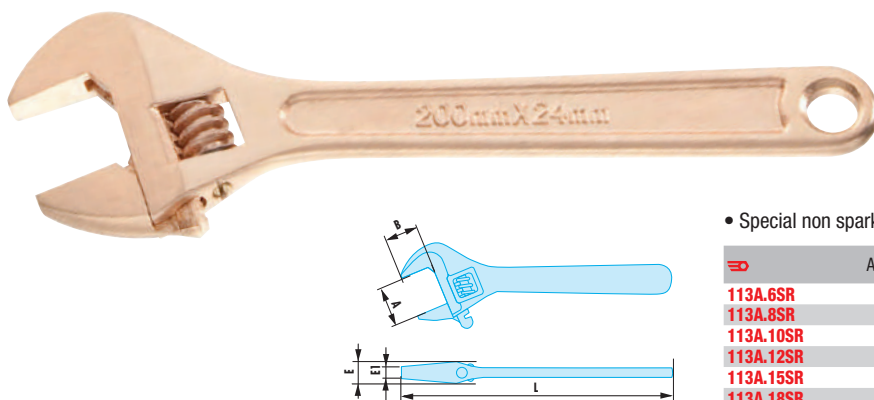


ED	A [mm]	B [mm]	C [mm]	E [mm]	L [mm]	ΔΔ [g]
49.17SR	17	40,5	19	11,0	125	150
49.19SR	19	40,5	19	11,0	125	150
49.22SR	22	46,0	22	12,0	135	195
49.24SR	24	50,0	24	12,0	150	245
49.27SR	27	57,0	27	15,0	175	335
49.30SR	30	64,0	30	16,0	190	435
49.32SR	32	66,0	32	16,0	190	515
49.36SR	36	75,0	36	18,0	210	725
49.41SR	41	87,0	41	18,5	230	955
49.46SR	46	98,0	46	20,0	250	1200
49.50SR	50	108,0	50	20,5	275	1300
49.55SR	55	117,0	55	23,0	305	1700

ED	A [mm]	B [mm]	C [mm]	E [mm]	L [mm]	ΔΔ [g]
49.60SR	60	128,0	60	23,5	315	2200
49.65SR	65	141,0	65	27,5	335	2700
49.70SR	70	156,0	70	28,5	370	3300
49.75SR	75	162,0	75	29,0	375	3700
49.80SR	80	174,0	80	32,0	400	4500
49.85SR	85	174,0	85	32,0	400	5300
49.90SR	90	194,0	90	36,0	445	6700
49.95SR	95	194,0	95	36,0	445	6700
49.100SR	100	228,0	100	43,0	485	8900
49.110SR	110	238,0	110	45,0	513	11000
49.120SR	120	250,0	120	51,0	530	11000
49.130SR	130	265,0	130	53,0	560	14800

NON SPARKING ADJUSTABLE WRENCHES

■ 113A.SR - Non sparking adjustable wrenches



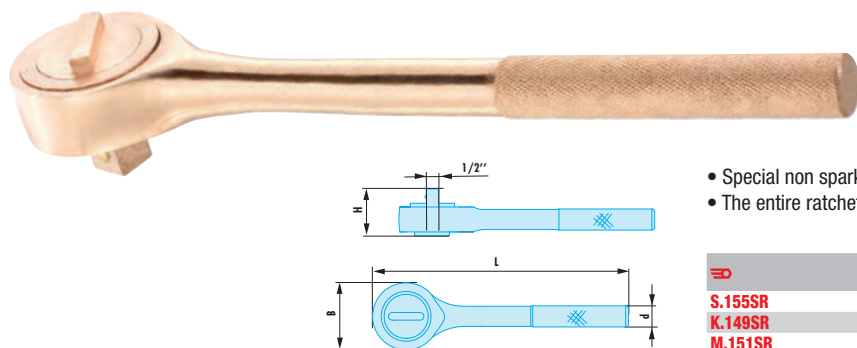
- Special non sparking and anti-magnetic Copper-Beryllium alloy.



ED	A [mm]	B [mm]	E [mm]	E1 [mm]	L [mm]	ΔΔ [g]
113A.6SR	18	18	10,8	8,0	150	135
113A.8SR	24	24	13,3	9,0	200	280
113A.10SR	30	28	15,7	10,6	250	440
113A.12SR	36	33	18,8	11,2	300	720
113A.15SR	46	42	23,4	13,7	375	1400
113A.18SR	55	51	26,7	15,0	450	2300

1/2" TO 1" NON SPARKING RATCHETS

■ Non sparking 1/2" - 3/4" - 1" ratchets



- Special non sparking and anti-magnetic Copper-Beryllium alloy.
- The entire ratchet mechanism is made in Copper-Beryllium.



ED	A [mm]	d [mm]	H [mm]	L [mm]	ΔΔ [g]
S.155SR	48	17	43,6	245	690
K.149SR	70	21	58,0	320	1600
M.151SR	84	26	70,0	550	3400

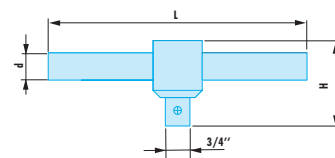
NON SPARKING ACCESSORIES

SKM.120SR - Non sparking 1/2" - 3/4" - 1" sliding tee

- Special non sparking and anti-magnetic Copper-Beryllium alloy.



SKM	d [mm]	H [mm]	L [mm]	ΔΔ [g]
S.120SR	13	45	250	330
K.120SR	21	62	400	1300
M.120SR	21	72	400	1600

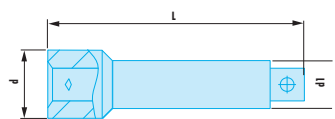


SKM.SR - Non sparking 1/2" - 3/4" - 1" extensions

- Special non sparking and anti-magnetic Copper-Beryllium alloy.



SKM	d [mm]	d1 [mm]	L [mm]	ΔΔ [g]
S.208SR	24	16,5	100	245
S.210SR	24	16,5	125	260
S.212SR	24	16,5	200	485
S.215SR	24	16,5	250	510
K.210SR	35	25,0	200	960
M.210SR	45	34,0	200	1600

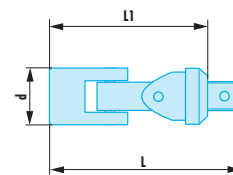


SKM.240SR - Non sparking 1/2" - 3/4" - 1" universal joints

- Special non sparking and anti-magnetic Copper-Beryllium alloy.



SKM	d [mm]	L [mm]	L1 [mm]	ΔΔ [g]
S.240SR	25	80	65	185
K.240SR	38	110	90	500
M.240SR	48	133	95	1000



FLUO

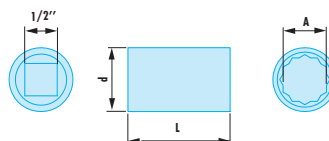
RFid

1/2" NON SPARKING SOCKETS

■ Non sparking 1/2" metric 12-point sockets



- Special non sparking and anti-magnetic Copper-Beryllium alloy.



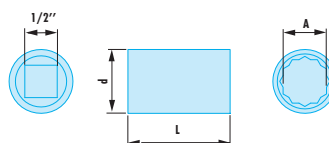
Socket	A [mm]	d maxi [mm]	L [mm]	ΔΔ [g]
S.6SR	6	24	40	75
S.7SR	7	24	40	80
S.8SR	8	24	40	80
S.9SR	9	24	40	80
S.10SR	10	24	40	80
S.11SR	11	24	40	80
S.12SR	12	24	40	80
S.13SR	13	24	40	80
S.14SR	14	24	40	80
S.15SR	15	25	40	85
S.16SR	16	25	40	85
S.17SR	17	25	40	90
S.18SR	18	26	42	90

Socket	A [mm]	d maxi [mm]	L [mm]	ΔΔ [g]
S.19SR	19	28	42	110
S.20SR	20	29	42	120
S.21SR	21	30	43	140
S.22SR	22	31	43	145
S.23SR	23	33	43	160
S.24SR	24	34	43	185
S.25SR	25	36	43	200
S.26SR	26	37	43	210
S.27SR	27	38	46	235
S.28SR	28	39	46	245
S.29SR	29	41	46	250
S.30SR	30	42	46	285
S.32SR	32	44	46	320

■ S.SR - Non sparking 1/2" inch 12-point sockets



- Special non sparking and anti-magnetic Copper-Beryllium alloy.



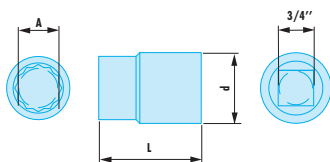
Socket	d maxi [mm]	L [mm]	ΔΔ [g]
S.5/16SR	24	40	78
S.3/8SR	24	40	78
S.7/16SR	24	40	79
S.1/2SR	24	40	79
S.9/16SR	24	40	80
S.5/8SR	25	40	90
S.11/16SR	26	40	95
S.3/4SR	28	42	100

Socket	d maxi [mm]	L [mm]	ΔΔ [g]
S.13/16SR	30	43	120
S.7/8SR	32	43	140
S.15/16SR	34	43	150
S.1PSR	36	43	100
S.1P1/16SR	38	46	240
S.1P1/4SR	43	46	275
S.1P7/16SR	49	50	310

3/4" NON SPARKING SOCKETS

■ K.SR - Non sparking 3/4" metric 12-point sockets

- Special non sparking and anti-magnetic Copper-Beryllium alloy.



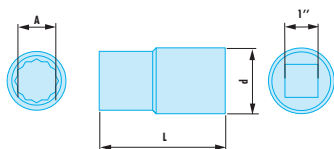
⚙	A [mm]	d maxi [mm]	L [mm]	ΔΔ [g]
K.17SR	17	38	50	246
K.19SR	19	38	50	246
K.21SR	21	38	55	268
K.22SR	22	38	55	268
K.23SR	23	40	55	306
K.24SR	24	40	55	307
K.26SR	26	40	55	307
K.27SR	27	40	55	312
K.28SR	28	41	55	339

⚙	A [mm]	d maxi [mm]	L [mm]	ΔΔ [g]
K.29SR	29	42	55	350
K.30SR	30	43	60	410
K.32SR	32	45	60	465
K.34SR	34	48	60	480
K.36SR	36	50	60	510
K.38SR	38	53	60	555
K.41SR	41	57	65	660
K.46SR	46	63	65	830
K.50SR	50	68	70	945

1" NON SPARKING SOCKETS

■ M.SR - Non sparking 1" metric 12-point sockets

- Special non sparking and anti-magnetic Copper-Beryllium alloy.



⚙	A [mm]	d maxi [mm]	L [mm]	ΔΔ [g]
M.30SR	30	48	60	445
M.32SR	32	48	60	480
M.34SR	34	50	60	500
M.36SR	36	52	65	505
M.41SR	41	58	70	630
M.46SR	46	64	75	785

⚙	A [mm]	d maxi [mm]	L [mm]	ΔΔ [g]
M.50SR	50	68	75	890
M.55SR	55	74	80	1100
M.60SR	60	81	85	1200
M.65SR	65	88	90	1500
M.70SR	70	95	90	1600
M.75SR	75	103	95	2200

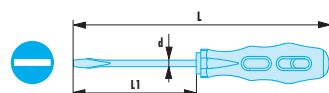


NON SPARKING SCREWDRIVERS

■ AN.SR - non sparking screwdriver for slotted heads



- Special non sparking and anti-magnetic Copper-Beryllium alloy.
- For safety purposes, FACOM uses wooden handles to prevent any risk of sparks. This is not the case of certain bi-material plastic handles.

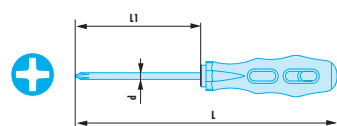


➤	d [mm]	L [mm]	L1 [mm]	ΔΔ [g]
AN3X75SR	3,0	175	75	35
AN4.5X50SR	4,5	150	50	43
AN4X75SR	4,0	175	75	45
AN5X100SR	5,0	200	100	75
AN6X100SR	6,0	200	100	85
AN8X150SR	8,0	250	150	140
AN8X200SR	8,0	320	200	165
AN10X300SR	10,0	450	300	245
AN11X350SR	11,0	500	350	320
AN12X400SR	12,0	550	400	450

■ ANP.SR - non sparking screwdriver for Phillips® heads



- Special non sparking and anti-magnetic Copper-Beryllium alloy.
- For safety purposes, FACOM uses wooden handles to prevent any risk of sparks. This is not the case of certain bi-material plastic handles.

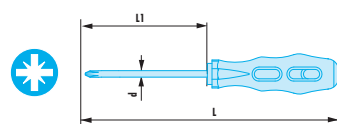


➤	d [mm]	L [mm]	L1 [mm]	Phillips [No]	ΔΔ [g]
ANPOX50SR	3	150	50	PH0	35
ANP1X100SR	5	200	100	PH1	75
ANP2X100SR	6	200	100	PH2	100
ANP3X150SR	8	250	150	PH3	165
ANP4X200SR	8	320	200	PH4	185

■ AND.SR - non sparking screwdriver for Pozidriv® heads



- Special non sparking and anti-magnetic Copper-Beryllium alloy.
- For safety purposes, FACOM uses wood handles to prevent any risk of sparks. This is not the case of certain bi-material plastic handles.



➤	d [mm]	L [mm]	L1 [mm]	Pozidriv [No]	ΔΔ [g]
ANDOX75SR	3,0	150	50	PZ.0	35
AND1X75SR	4,5	175	75	PZ.1	45
AND2X100SR	6,0	200	100	PZ.2	85
AND3X150SR	8,0	250	150	PZ.3	145
AND4X200SR	10,0	320	200	PZ.4	230



NON SPARKING HEXAGON KEYS

82H.SR - Non sparking metric keys



• Special non sparking and anti-magnetic Copper-Beryllium alloy.

Ø	A [mm]	d [mm]	H [mm]	L [mm]	L1 [mm]	ΔΔ [g]
82H.1.5SR	1,5	3,0	13	38	5	5
82H.2SR	2,0	3,0	13	38	5	5
82H.3SR	3,0	3,7	25	59	7	10
82H.4SR	4,0	3,8	30	65	10	10
82H.5SR	5,0	4,5	32	79	10	15
82H.6SR	6,0	5,5	37	85	15	25
82H.7SR	7,0	6,0	43	88	20	35
82H.8SR	8,0	7,0	44	92	20	50
82H.9SR	9,0	8,0	44	97	20	60
82H.10SR	10,0	9,0	45	110	20	80
82H.11SR	11,0	10,0	48	119	20	100
82H.12SR	12,0	11,0	52	130	20	145
82H.13SR	13,0	11,5	54	140	20	180
82H.14SR	14,0	12,0	58	150	25	210
82H.16SR	16,0	14,0	63	162	25	300
82H.17SR	17,0	15,0	65	168	30	370
82H.18SR	18,0	16,0	69	173	30	450
82H.19SR	19,0	17,0	72	177	30	490
82H.22SR	22,0	20,0	77	186	35	675
82H.23SR	23,0	21,0	79	189	35	725
82H.24SR	24,0	22,0	82	192	35	825
82H.27SR	27,0	25,0	93	213	35	1200
82H.32SR	32,0	30,0	116	266	40	2000
82H.36SR	36,0	34,0	128	294	40	2900
82H.41SR	41,0	39,0	140	320	40	4100

82H.SR - Non sparking inch keys



• Special non sparking and anti-magnetic Copper-Beryllium alloy.

Ø	A ["]	d [mm]	H [mm]	L [mm]	L1 [mm]	ΔΔ [g]
82H.1/16SR	1/16"	3,0	13	38	5	5
82H.5/64SR	5/64"	3,0	13	38	5	5
82H.3/32SR	3/32"	3,3	13	38	6	5
82H.7/64SR	7/64"	3,8	24	58	7	10
82H.1/8SR	1/8"	3,8	24	58	7	10
82H.9/64SR	9/64"	4,0	29	64	10	10
82H.5/32SR	5/32"	4,0	30	65	10	10
82H.3/16SR	3/16"	4,5	31	79	10	15
82H.7/32SR	7/32"	5,0	37	85	15	20
82H.1/4SR	1/4"	6,0	37	85	15	30
82H.9/32SR	9/32"	6,0	43	88	20	45
82H.5/16SR	5/16"	7,0	44	92	20	50
82H.11/32SR	11/32"	8,0	44	97	20	50
82H.3/8SR	3/8"	9,0	45	110	20	85
82H.7/16SR	7/16"	10,0	48	119	20	110
82H.1/2SR	1/2"	11,5	55	140	20	170
82H.9/16SR	9/16"	12,0	58	150	25	195
82H.5/8SR	5/8"	14,0	63	162	25	270
82H.11/16SR	11/16"	15,0	65	168	30	355
82H.3/4SR	3/4"	17,0	73	178	30	450
82H.13/16SR	13/16"	19,0	77	184	35	565
82H.7/8SR	7/8"	20,0	79	187	35	650
82H.15/16SR	15/16"	22,0	82	192	35	825
82H.1PSR	1"	23,0	85	200	35	925
82H.1P1/16SR	1-1/16"	25,0	93	213	35	1200
82H.1P1/8SR	1-1/8"	27,0	100	230	40	1400
82H.1P3/16SR	1-3/16"	28,0	105	240	40	1600
82H.1P1/4SR	1-1/4"	30,0	116	266	40	2000
82H.1P7/16SR	1-7/16"	34,0	128	294	40	2900
82H.1P5/8SR	1-5/8"	39,0	140	320	40	4100

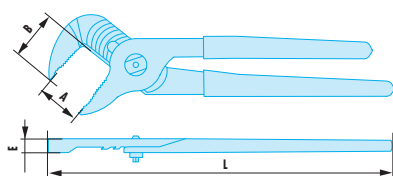
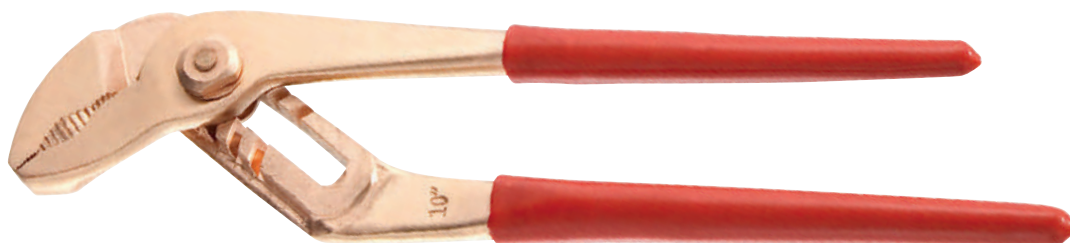


NON SPARKING MULTIGRIP PLIERS

482.SR - Non sparking multigrip pliers



- Special non sparking and anti-magnetic Copper-Beryllium alloy.
- For safety purposes, FACOM uses sheaths in overmoulded antistatic pvc to prevent any risk of sparks.



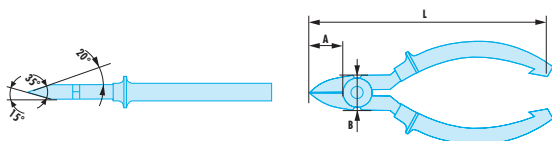
Code	A [mm]	B [mm]	E [mm]	L [mm]	ΔΔ [g]
482.15SR	25	26	8	150	150
482.25SR	45	36	10	250	455
482.30SR	55	38	11	300	745

NON SPARKING CUTTING PLIERS

482.SR - Non sparking cutting pliers



- Special non sparking and anti-magnetic Copper-Beryllium alloy.
- For safety purposes, FACOM uses sheaths in overmoulded antistatic pvc to prevent any risk of sparks.
- Cutting edges designed specifically for easy cutting and extended lifetime of the tool.

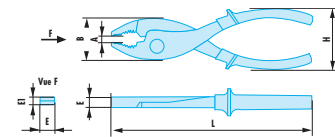
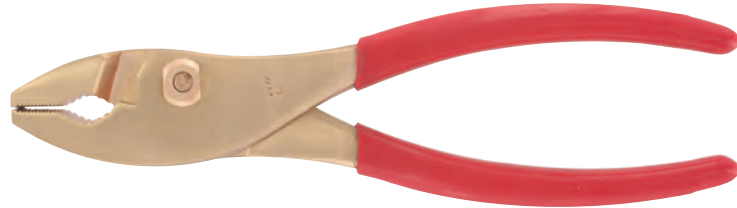


Code	A [mm]	B [mm]	L [mm]	ΔΔ [g]
192.16SR	22	22	155	205
192.20SR	30	28	198	310

NON SPARKING MOTORIST PLIERS

186.SR - Non sparking motorist pliers

- Special non sparking and anti-magnetic Copper-Beryllium alloy.
- For safety purposes, FACOM uses sheaths in overmoulded antistatic pvc to prevent any risk of sparks.

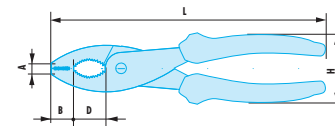


186.8SR	A [mm]	B [mm]	E [mm]	E1 [mm]	H [mm]	L [mm]	ΔΔ [g]
186.8SR	13	36	12	7	53	203	325

NON SPARKING LINEMAN'S PLIERS

Non sparking gas plier

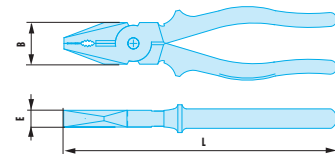
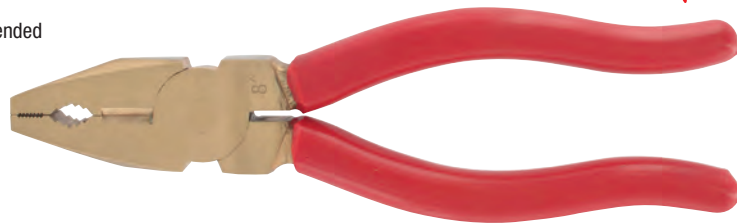
- Special non sparking and anti-magnetic Copper-Beryllium alloy.
- For safety purposes, FACOM uses sheaths in overmoulded antistatic pvc to prevent any risk of sparks.



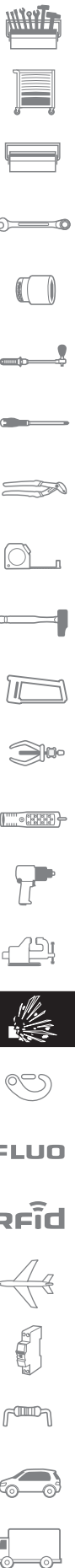
186.9SR	A [mm]	B [mm]	d [mm]	H [mm]	L [mm]	ΔΔ [g]
186.9SR	7	16	24	50	203	350

Non sparking Lineman's pliers

- Special non sparking and anti-magnetic Copper-Beryllium alloy.
- For safety purposes, FACOM uses sheaths in overmoulded antistatic pvc to prevent any risk of sparks.
- Cutting edges designed specifically for easy cutting and extended lifetime of the tool.

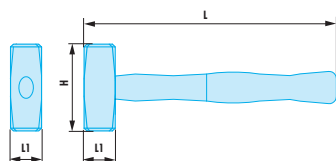


	B [mm]	E [mm]	L [mm]	ΔΔ [g]
187.16SR	24	10	150	180
187.18SR	26	11	175	306
187.20SR	28	12	200	405



NON SPARKING MALLETS

1262H.SR - Non sparking German style club hammer

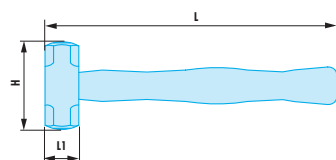


- Special non sparking and anti-magnetic Copper-Beryllium alloy.
- For safety purposes, FACOM uses wooden handles to prevent any risk of sparks. This is not the case of certain bi-material plastic handles.
- To avoid any risk of sparks, the design of the hammer heads is specific, without sharp edges.



Model	H [mm]	L [mm]	L1 [mm]	ΔΔ [g]
1262H.50SR	80,0	250	29,0	650
1262H.100SR	94,0	250	38,0	1300
1262H.150SR	115,0	250	42,0	1800
1262H.200SR	125,5	250	46,5	2300
1262H.400SR	165,0	800	58,0	4900
1262H.500SR	178,0	800	62,0	5900

1261H.SR - Non sparking sledgehammers



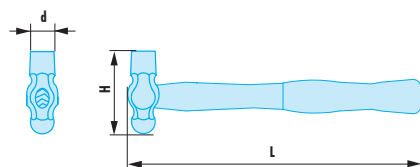
- Special non sparking and anti-magnetic Copper-Beryllium alloy.
- For safety purposes, FACOM uses wooden handles to prevent any risk of sparks. This is not the case of certain bi-material plastic handles.
- To avoid any risk of sparks, the design of the hammer heads is specific, without sharp edges.



Model	H [mm]	L [mm]	L1 [mm]	ΔΔ [g]
1261H.45SR	79	250	29,0	610
1261H.100SR	102	250	39,0	1300
1261H.150SR	122	250	42,5	1800
1261H.180SR	122	250	46,5	2100
1261H.200SR	130	250	48,0	2300
1261H.220SR	134	250	49,0	2500
1261H.250SR	146	258	50,0	3400
1261H.300SR	156	700	53,0	3900
1261H.400SR	168	800	59,0	4900
1261H.450SR	177	800	61,0	5410
1261H.540SR	187	800	65,0	6300
1261H.640SR	197	800	69,0	7310
1261H.820SR	208	900	76,0	9100
1261H.990SR	226	900	80,0	10810

NON SPARKING HAMMERS

202H.SR - Non sparking ball pein hammers



- Special non sparking and anti-magnetic Copper-Beryllium alloy.
- For safety purposes, FACOM uses wooden handles to prevent any risk of sparks. This is not the case of certain bi-material plastic handles.
- To avoid any risk of sparks, the design of the hammer heads is specific, without sharp edges.



Model	d [mm]	H [mm]	L [mm]	ΔΔ [g]
202H.1/4SR	24,2	80	300	400
202H.1/2SR	25,0	90	300	500
202H.1SR	27,0	101	325	680
202H.1P1/4SR	34,0	115	366	950
202H.1P1/2SR	36,0	126	366	1200
202H.2SR	39,0	137	397	1500

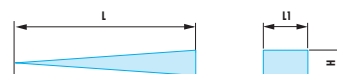
NON SPARKING WEDGES

WF.SR - Non sparking wedges

- Special non sparking and anti-magnetic Copper-Beryllium alloy.



Ref	H [mm]	L [mm]	L1 [mm]	ΔΔ [g]
WF80.13SR	6	80	13	25
WF135.50SR	18	135	50	500
WF150.40SR	8	150	40	200
WF150.30SR	13	150	30	400
WF180.32SR	13	180	32	305
WF180.50SR	19	180	50	700
WF200.20SR	30	200	20	490
WF200.40SR	40	200	40	1300
WF230.40SR	20	230	40	750
WF250.40SR	30	250	40	1200



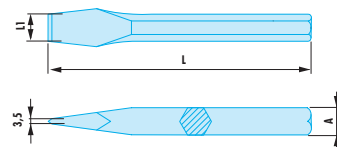
NON SPARKING CHISELS

265.SR - Non sparking chisels

- Special non sparking and anti-magnetic Copper-Beryllium alloy.



Ref	A [mm]	L [mm]	L1 [mm]	ΔΔ [g]
265.20SR	10	150	12	100
265.22SR	12	160	14	240
265.24SR	14	200	16	250
265.26SR	16	160	18	260
265.28SR	17	350	19	900
265.29SR	22	600	24	1800
263.30SR	25	300	28	1200
263.32SR	30	300	35	2900



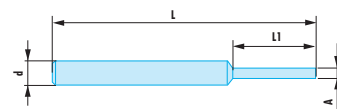
NON SPARKING DRIFT PUNCHES

249.SR - Non sparking drift punches

- Special non sparking and anti-magnetic Copper-Beryllium alloy.



Ref	A [mm]	d [mm]	L [mm]	L1 [mm]	ΔΔ [g]
249.3SR	3	9	110	20	20
249.4SR	4	10	110	35	60
249.6SR	6	12	115	35	105
249.8SR	8	14	120	40	130
249.10SR	10	16	145	45	200
249.12SR	12	18	160	50	280

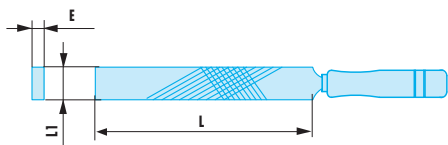


NON SPARKING FILES

■ PAM.MDSR - Non sparking flat second-cut file



- Special non sparking and anti-magnetic Copper-Beryllium alloy.
- For safety purposes, FACOM uses wooden handles to prevent any risk of sparks. This is not the case of certain bi-material plastic handles.

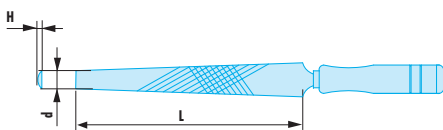


➤	E [mm]	L [mm]	L1 [mm]	ΔΔ [g]
PAM.MD200SR	4,5	200	21	160
PAM.MD250SR	6,0	250	25	282
PAM.MD300SR	6,5	300	30	455

■ DRD.MDSR - Non sparking half-round second-cut file



- Special non sparking and anti-magnetic Copper-Beryllium alloy.
- For safety purposes, FACOM uses wooden handles to prevent any risk of sparks. This is not the case of certain bi-material plastic handles.

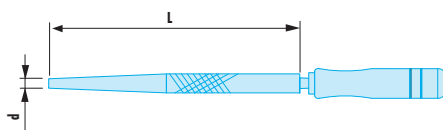


➤	d [mm]	H [mm]	L [mm]	ΔΔ [g]
DRD.MD200SR	15	4	150	105
DRD.MD220SR	17	4	200	190
DRD.MD250SR	17	5	250	255
DRD.MD300SR	17	5	300	375

■ RD.MDSR - Non sparking round second-cut file



- Special non sparking and anti-magnetic Copper-Beryllium alloy.
- For safety purposes, FACOM uses wooden handles to prevent any risk of sparks. This is not the case of certain bi-material plastic handles.

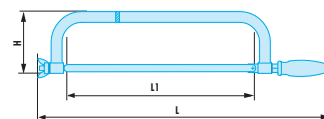
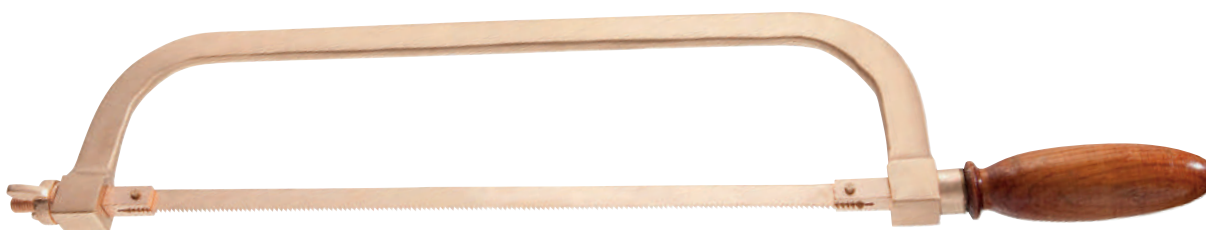


➤	d [mm]	L [mm]	ΔΔ [g]
RD.MD150SR	5,5	150	45
RD.MD200SR	6,0	200	90
RD.MD250SR	6,5	250	120
RD.MD300SR	7,0	300	180

NON SPARKING SAWS

Non sparking hacksaw frame

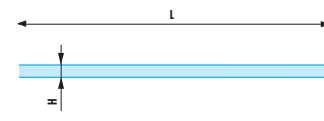
- Special non sparking and anti-magnetic Copper-Beryllium alloy.
- For safety purposes, FACOM uses wooden handles to prevent any risk of sparks. This is not the case of certain bi-material plastic handles.



599SR	H [mm]	L [mm]	L1 [mm]	ΔΔ [g]
599SR	103	500	300	645

Non sparking hacksaw blade

- Special non sparking and anti-magnetic Copper-Beryllium alloy.
- 10 teeth per centimeter for most current uses.



660A.10SR	H [mm]	L [mm]	ΔΔ [g]
660A.10SR	12	300	30

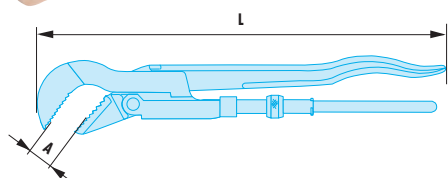
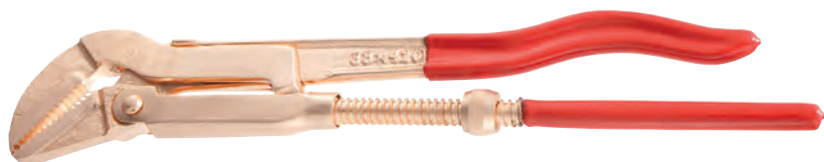


## NON SPARKING PIPEWORK WRENCH

## 120A.SR - Non sparking Swedish model pipework wrenches



- Special non sparking and anti-magnetic Copper-Beryllium alloy.
- For safety purposes, FACOM uses sheaths in overmoulded antistatic pvc to prevent any risk of sparks.

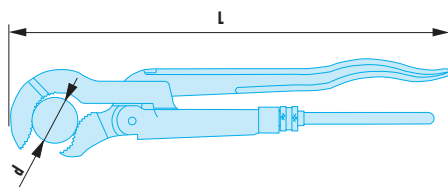
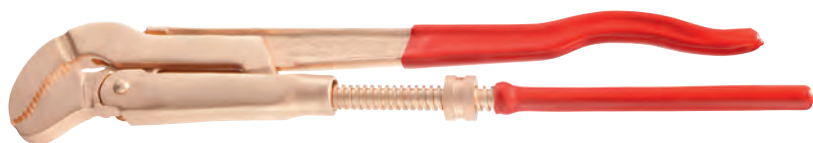


ED	A [mm]	L [mm]	$\Delta\Delta$ [kg]
120A.1P1/2SR	38	434	1.4
120A.2PSR	50	535	1.8

## 121A.SR - Non sparking Swedish model pipework wrenches



- Special non sparking and anti-magnetic Copper-Beryllium alloy.
- For safety purposes, FACOM uses sheaths in overmoulded antistatic pvc to prevent any risk of sparks.

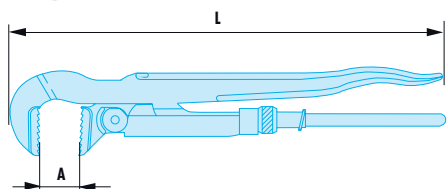
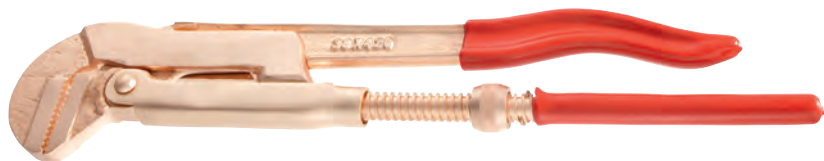


ED	d [mm]	L [mm]	$\Delta\Delta$ [g]
121A.2PSR	50	535	2605

## 122A.SR - Non sparking Swedish model pipework wrenches



- Special non sparking and anti-magnetic Copper-Beryllium alloy.
- For safety purposes, FACOM uses sheaths in overmoulded antistatic pvc to prevent any risk of sparks.



ED	A [mm]	L [mm]	$\Delta\Delta$ [kg]
122A.2PSR	38	434	1.5



136A-137A.SR - Non sparking chain pipework wrenches

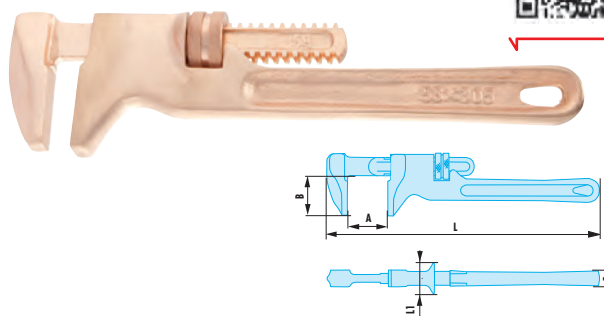
- Special non sparking and anti-magnetic Copper-Beryllium alloy.



▣	d [mm]	L [mm]	ΔΔ [g]
136A.2SR	100	600	2100
137A.2P1/2SR	100	600	3955
137A.4PSR	150	600	4500
137A.6PSR	200	900	8705

134A.SR - Non sparking monkey wrenches

- Special non sparking and anti-magnetic Copper-Beryllium alloy.

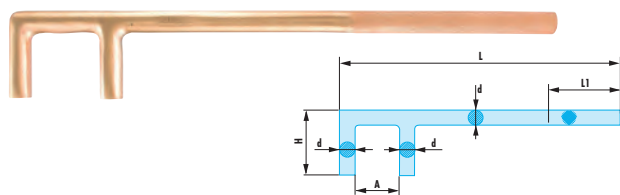


▣	A [mm]	B [mm]	E [mm]	L [mm]	L1 [mm]	ΔΔ [g]
134A.8SR	45	35,5	12	240	26	510
134A.12SR	58	43,0	15	305	28	1180
134A.14SR	65	49,5	18	350	32	1220

NON SPARKING VALVE WRENCH

VH.SR - Non sparking valve wrenches

- Special non sparking and anti-magnetic Copper-Beryllium alloy.
- Metal-grip handle.



▣	A [mm]	d [mm]	H [mm]	L [mm]	L1 [mm]	ΔΔ [g]
VH30.200SR	30	13,0	44	200	100	280
VH40.300SR	40	14,0	50	300	120	470
VH50.400SR	50	15,5	67	400	150	705
VH60.500SR	60	17,5	79	500	170	1200
VH80.700SR	80	19,0	91	700	210	1910



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# SLS TOOLING



**SLS - ACCESSORIES**

**766**

- SLS HOOK 766
- SLS - Wrist accessories 768
- SLS - Straps 769
- SLS - Belts 772
- SLS - Belt accessories 773
- SLS - Carry bag 775
- SLS - Heat-shrinking sheaths 776



**SLS - WRENCHES**

**778**

- SLS - Wrenches 778



**SLS - RATCHET**

**785**

- SLS - Ratchet 785



**SLS - TORQUE CONTROL**

**787**

- SLS - Torque control 787



**SLS - SCREWDRIVERS**

**787**

- SLS - Screwdrivers 787



**SLS - KEYS**

**789**

- SLS - Keys 789



**SLS - PLIERS**

**790**

- SLS - Pliers 790



**SLS - MEASURING**

**795**

- SLS - Measuring 795



**SLS TOOLING**

**796**

- SLS tooling 796



**SLS - HAMMERS - IMPACT TOOLS**

**800**

- SLS - Hammers - Impact tools 800



**SLS - LIGHTING**

**803**

- SLS - Lighting 803



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## WORKING AT HEIGHT



SLS  
SAFETY LOCK SYSTEM

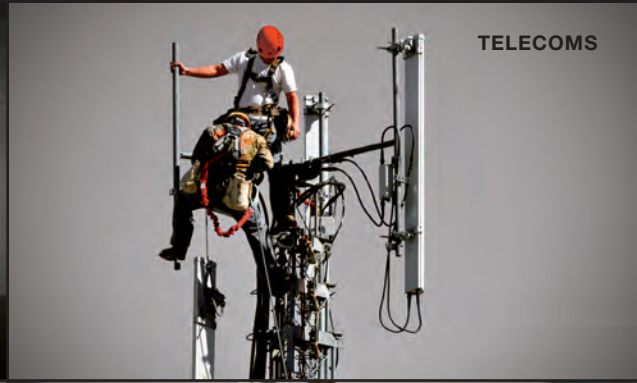
**Eliminate  
the risks of  
falling tools**



Every year, falling tools generate thousands of accidents impacting health and productivity. Using solutions adapted specifically to work at height eliminates the risks, avoids loss of time and improves productivity. The nuclear sector uses the term FME (Foreign Material Exclusion) to designate solutions for this type of risk.



WORKING AT HEIGHT



Eliminate the risks of falling tools

+ safety

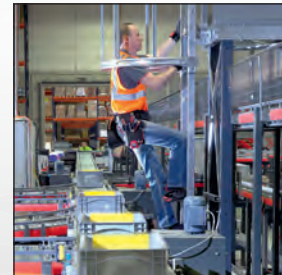
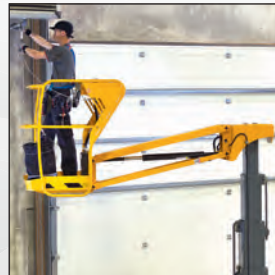
When a tool falls, it may injure someone. Such an accident can not only be severe for the person hit, but can also have severe consequences for the company.

+ save time

When a tool falls, it must be recovered or sought. Climb down from the work place, get the tool, have to reach for it in confined spaces... All that takes time, which can cause a delay in your activity.

+ savings

When a tool falls, it can damage an expensive facility or equipment, disturb or stop a production process, even slide into an inaccessible location and require replacement.



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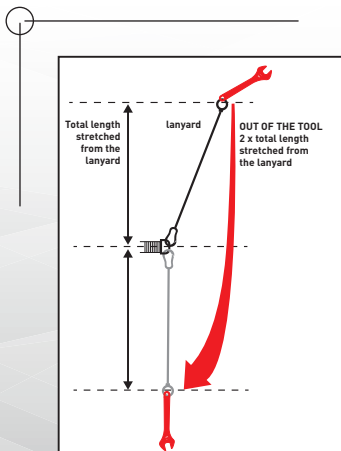
**SAFETY LOCK SYSTEM**



**FACOM's solution when working at height**

From the very beginning FACOM has worked in close cooperation with companies in various sectors to develop tooling perfectly suited to user needs.

FACOM's Safety Lock System (SLS) solution is for all of you who regularly work at height, whether the equipment to be assembled is at a few meters or tens of meters from the ground.



**Ruggedness and reliability**

The FACOM ring system is made of metal to withstand extreme shocks, solicitations and temperatures. These rings were designed and tested by FACOM. They are sized to withstand at least twice the tool's weight. The tool-ring set is also tested in a real situation with a test of 400 falls per type of tool. FACOM assembles the rings in its plants with controlled pressure guaranteeing perfect crimping.

**SAFETY LOCK SYSTEM**



**FACOM's solution when working at height**

**Traceability**

Each tool goes through an individual traction test when the ring is assembled. A checking certificate is printed and a unique serial number engraved on the tool. FACOM traces its production to guarantee maximum safety. The unique serial number is also used to identify and follow your tool throughout its lifetime.



**Ergonomics**

The tools in the SLS range were designed specifically by FACOM to preserve the comfort and performance levels of its standard tools in all conditions.



The SLS slides from one side to the other of the wrench handle to allow optimum use of the wrench's open end and ring.



The ratchet handles are fitted with a shackle allowing easy snap ring attachment and freedom of movement.



The SLS ring allows screwdriver rotation without entangling the lanyard.



The SLS ring passes through the metal part of the plier grips to guarantee unequalled strength.



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**NEW FACOM "SLS HOOK" CONCEPT**



**The solution 100% SECURED against drops!**



1. The tool is attached and secured to your right hand.



2. The double hook unlocks a support only when locked to another support.



3. The tool is transferred and secured to your left hand.



NEW FACOM "SLS HOOK" CONCEPT



The SLS HOOK double hook unlocks a support only when connected to another support.



**EASY TO USE**

- Easy and immediate handling.
- Transfer from one hand to the other; from hand to belt, from one operator to another, etc.

**COMFORT**

- You can hold the tool during the transfer. Automatic system = no button to press.
- The tool fastened to the wrist ensures a high freedom of movement.

- You will find the wrist bracelet and bag of the FACOM "SLS HOOK" range in the following pages.



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## SLS HOOK

## Double SLS HOOK



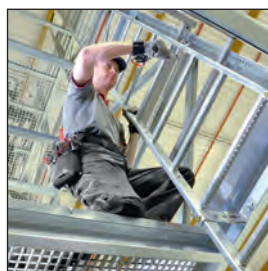
- SLS HOOK hook securing tools against falling:
  - 100% reliable solution during tool transfers.
  - The SLS HOOK double hook locks onto its SLS HOOK holder only upon connection with another SLS HOOK holder.
  - The tool remains connected during the entire transfer operation.
  - A tool fitted with the SLS HOOK double hook is transferred from one hand to the other or from one operator to another without any risk of falling.
  - Unlike a tool fastened to the belt with a lanyard, the SLS HOOK system is fastened to the user's wrist and reduces the falling height when the tool slips from the hand.
- Comfortable:
  - Passing from one SLS HOOK holder to another is easy and fast.
  - Using the SLS HOOK system (hook + holder) is highly intuitive. Getting acquainted is instant.
  - The SLS HOOK double hook fastened to the wrist ensures a high freedom of movement.
- The SLS HOOK double hook is compatible with the wrist bracelet WRT-SHSLS or the belt bag SH-BAG1SLS. The SLS HOOK holder SH-SUPSLS is also available per unit. It can be fastened to your own equipment: belt, backpack strap.
- Resistance:
  - The SLS HOOK double hook withstands the most extreme conditions in your profession:
    - Aluminium body combining light weight, resistance to shocks, most common solvents and temperature differences.
    - Glass fibre reinforced polypropylene mechanism and stainless steel spring for high resistance and durability.
- SLS HOOK double hook alone: length: 62 mm; width: 39 mm; thickness: 12.5 mm.
- String: length: 158 mm; diameter: 3 mm.
- Stainless steel screw snap hook: length 50 mm; diameter 5 mm.
- Acceptable nominal load: 2.7 kg.



	L [mm]	$\Delta\Delta$ [g]
SH-SLS	270	65

## SLS HOOK

## SLS HOOK wrist bracelet - SLS



- Fitted with a SKYHOOK holder to receive the SLS HOOK double hook SH-SLS.
- Elastic fabric for optimum comfort and adjustment. Adapted to wrist girth from 165 to 240 mm.
- Fabric resists to most common solvents.
- Bracelet width: 50 mm.
- Nominal acceptable load: 2.7 kg.



	Width l [mm]	$\Delta\Delta$ [g]
WRT-SHSLS	50	55

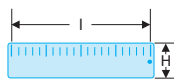
SLS HOOK

■ SLS HOOK holder

- Designed to receive the SLS HOOK double hook SH-SLS.
- Resistant to shocks, most common solvents and temperature differences.
- Can be fitted on your own equipment to make it compatible with the SLS HOOK system (e.g. belt, backpack strap).
- Loop height: for 50 mm strap max.
- Loop thickness: for strap of 2.5 mm max.



	H [mm]	Width l [mm]	ΔΔ [g]
<b>SH-SUPSLS</b>	63	57	10

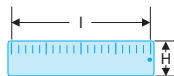


■ Bag of 3 SLS HOOK holders

- Fitted with 3 SLS HOOK holders. Can be fitted with 3 SLS HOOK double hooks SH-SLS.
- Fabric resistant to most common solvents.
- Fitted with a stainless steel tape measure holder.
- Compatible with FACOM belts SLS CT70-100 (70 to 100 cm) and CT100-140 (100 to 140 cm).
- Loop height: for 55 mm strap max.
- Loop thickness: for strap of 3 mm max.
- Supplied without SLS HOOK boule hook SH-SLS and without tool.
- Nominal acceptable load: 2.7 kg.



	H [mm]	Width l [mm]	ΔΔ [g]
<b>SH-BAG1SLS</b>	275	155	205



SLS - WRIST ACCESSORIES

■ Wrist bracelet with metal ring - SLS

- Fitted with a "D" shaped metal ring. Receives the lanyard with rotating swivel LANO.2TSLs.
- Elastic fabric for optimum comfort and adjustment. Adapted to wrist girth from 165 to 240 mm.
- Fabric resists to most common solvents.
- Bracelet width: 50 mm.
- "D" shaped ring inner width: 26 mm.
- "D" shaped ring inner width: 17 mm.
- Nominal acceptable load: 2.7 kg.



	Width l [mm]	ΔΔ [g]
<b>WRT-DSLS</b>	50	55



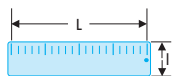
SLS - STRAPS

■ Lanyard 20 cm - Stainless steel 50 mm spring hook + swivel and 60 mm stainless steel snap hook with screw - SLS

- Lanyard for connecting tools of the FACOM SLS range to the wrist bracelet fitted with a metal ring WRT-DSLS.
- On the one hand, the lanyard is fitted with a 50 mm stainless steel snap hook with screw and a rotating swivel (connection to the wrist bracelet). The rotating swivel prevents the strap from twisting.
- On the other side, the lanyard is fitted with a 60 mm stainless steel snap hook with locking screw (connection to the tools in the FACOM SLS range).
- Nominal acceptable load: 2.7 kg.



	Width l [mm]	L [mm]	ΔΔ [g]
<b>LANO.2TSLs</b>	9	200	60



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## SLS ACCESSORIES



The Safety Lock System ring, fastened to the tool, is 100% compatible with the lanyards and accessories of the FACOM SLS range.

**FACOM SLS lanyards and accessories are in the orange colour, generally used for safety tools to ensure high visibility.**

**FACOM supplies its lanyards and accessories with safety screw snap hooks as standard. Automatic closing of the snap hook and screw provide double safety to the snap hook.**



**FACOM also offer snap hooks without safety screw.**

They are easier to handle, particularly with gloves, but do reduce the safety level slightly. Your choice must depend on your applications.



**For all its SLS lanyards and belt accessories, FACOM uses stainless steel snap hooks.**

They guarantee excellent traction strength, but also extreme outside conditions: outside works, in humid or salty environment.



**The FACOM SLS belt, belt accessories and lanyards are tested in extreme conditions of use to guarantee high strength.**



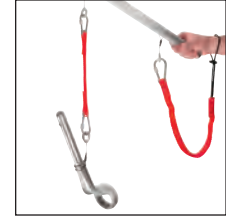
**SLS lanyards are elastic to reduce their length, hence favouring comfort of use.**

The elastic also softens any tool fall.

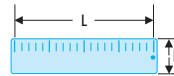
SLS - STRAPS

20 cm strap - 60 mm stainless steel dual snap hooks with screw - SLS

- Strap connecting tools of the FACOM SLS range to the belt.
- Fitted with 2 60mm stainless steel locking snap hooks with screw.
- Strap particularly suited to securing offset ring wrenches series 54A to the manoeuvring handle 54.M. Also used to fasten tools to the belt.
- Acceptable rated load: 4 kg.



Width l [mm]	L [mm]	$\Delta\Delta$ [g]	
LAN0.2	13	200	70

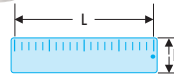


1.2 m strap - 80 mm stainless steel dual snap hooks with screw - SLS

- Strap connecting tools of the FACOM SLS range to the belt.
- Fitted with 2 80mm stainless steel locking snap hooks with screw.
- Strap particularly suited to securing heavy tools to the belt or external holders (ladder, scaffold, elevator platform). Strap providing optimum securing of heavy tools.
- Length of lanyard stretched without snap hook: 1.20 m.
- Acceptable rated load: 6 kg.

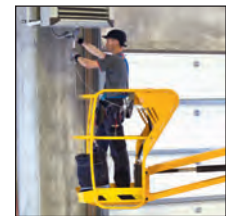
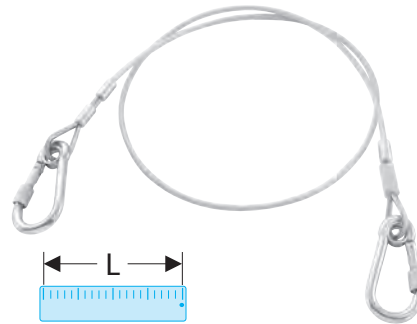


L [mm]	L [mm]	$\Delta\Delta$ [g]	
LAN1.2	1200	1200	110



Lanyard 1.2 m steel cable - 80 mm stainless steel double snap hook with screw - SLS

- Lanyard for connecting tools of the FACOM SLS range to the belt or equipment (ladder, scaffolding, platform).
- Fitted with 2 80 mm stainless steel snap hooks with locking screw.
- Reduced footprint of the steel cable.
- Steel cable coated with plastic sheath very easy to clean and/or decontaminate. The plastic sheath preserves the environment you work in.
- Cable diameter: 3.5 mm (4.8 mm with the plastic sheath).
- Nominal acceptable load: 4.5 kg.



L [mm]	$\Delta\Delta$ [g]	
LAN1.2MSLS	1200	220



1.2 m strap - Wrist loop and 80 mm stainless steel snap hook with screw - SLS

- Fitted with an 80mm stainless steel snap hook with locking screw.
- Strap particularly suited to securing light tools to the wrist. Strap ensuring high movement mobility.
- Strap extended length excluding snap hook: 1.20 m.
- Acceptable rated load: 6 kg.



L [mm]	L [mm]	$\Delta\Delta$ [g]	
LAN-WRT1.2	1200	1200	110



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## SLS - BELTS

## ■ Belt with dual point metal loop - SLS



- Belt to fasten tools of the FACOM SLS range.
- Dual point metal loop: both points must be pressed to release the loop to prevent accidental opening and ensure optimum safety.
- Supplied with comfort foam pad with velcro for optimum adjustment.
- Belt compatible with the accessories of the FACOM SLS range: CT-ACC2M (D metal with 2 60 mm stainless steel snap hooks with locking screw) and CT-ACC (D metal only).
- 8 50 mm slots for CT-ACC2M or CT-ACC accessories.
- Height of the accessory storage strap: 45 mm.
- Waist size:
  - CT70-100 : 70-100 cm.
  - CT100-140 : 100-140 cm.



Model	Weight [g]
CT70-100	390
CT100-140	410

## RETRACTABLE LANYARDS BAG

The retractable lanyards are stored automatically in their housings.

They do not remain around the belt and will not entangle unlike a traditional lanyard.

The lanyards connect the tools to your belt. Wrists remain free: "hands-free work".

**SLS**  
SAFETY LOCK SYSTEM



SLS - BELT ACCESSORIES

■ Bag fitted with 2 retractable lanyards

- Bag fitted with 2 retractable lanyards (lanyard extended to maximum: 105 cm).
- The retractable lanyards connect the tools to your belt. The tools are not connected to your wrists: "hands free" work.
- The retractable lanyards are stored automatically in their housings. Conversely, a traditional lanyard remains around the waist and may be entangled.
- Using a snap hook MOUSQ6X60SLS is recommended to connect a FACOM SLS tool to the retractable lanyard ring.
- Fabric resistant to most common solvents.
- Compatible with FACOM belts SLS CT70-100 (70 to 100 cm) and CT100-140 (100 to 140 cm).
- Loop height: for 55 mm strap max.
- Loop thickness: for strap of 3 mm max.
- Snap hook MOUSQ6X60SLS and tools not included.
- Nominal acceptable load: 0.7 kg.



	H [mm]	Width l [mm]	ΔΔ [g]
<b>BAG-RECT2SLS</b>	285	105	190

■ Bag for carrying spare parts

- Bag particularly suited to carrying spare parts
- Automatic closing: the bag is automatically closed by spring blades when you remove your hand.
- Totally sealed bag with a zip lock. Strap attached to the closing for easier handling when wearing gloves.
- Fabric resistant to most common solvents.
- Compatible with FACOM belts SLS CT70-100 (70 to 100 cm) and CT100-140 (100 to 140 cm).
- Maximum opening diameter: 110 mm.
- Tools not included.
- Nominal acceptable load: 5.4 kg.



	H [mm]	Width l [mm]	ΔΔ [g]
<b>BAG-BOLTSL</b>	245	250	215



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SLS - BELT ACCESSORIES

■ Metal ring with 2 60 mm stainless steel snap hooks with screw - SLS



- Accessory for belt of the FACOM SLS range.
- Supplied with 2 60 mm stainless steel snap hooks with locking screw.
- The 2 snap hooks are integral with the "D" shaped metal ring.
- Internal width of the "D" ring: 50 mm.
- Internal height of the "D" ring: 40 mm.
- Acceptable rated load: 4 kg.

	$\Delta\Delta$ [g]
<b>CT-ACC2M</b>	100

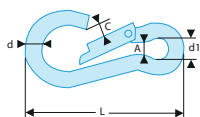
■ Metal ring only - SLS



- Accessory for belt of the FACOM SLS range.
- Supplied without snap hook. "D" shape metal ring only.
- Internal width of the "D" ring: 50 mm.
- Internal height of the "D" ring: 40 mm.
- Acceptable rated load: 4 kg.

	$\Delta\Delta$ [g]
<b>CT-ACC</b>	40

■ Stainless steel snap hook - SLS



- Snap hook in stainless steel 316: very high resistance to corrosion.
- No locking screw.
- Acceptable rated load:
  - MOUSQ6X60SLS : 300 kg.
  - MOUSQ8X80SLS : 800 kg.

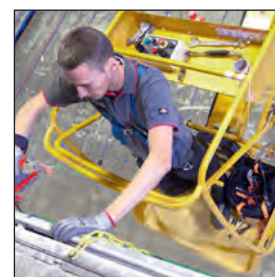
	A [mm]	C [mm]	d [mm]	d1 [mm]	L [mm]	$\Delta\Delta$ [g]
<b>MOUSQ6X60SLS</b>	7	8	6	10	60	25
<b>MOUSQ8X80SLS</b>	10	11	8	12	80	65



SLS - CARRY BAG

Carrying Bag for tools - SLS

- Includes 110 mm to 1/4 turn locking snap ring for hanging or winching the bag.
- 2 straps "handles" allow transport by hand.
- Maximum tool security during transport:
  - 6 265mm straps with metal "D" rings are attached to the inside of the bag, allowing the attachment of tools inside the bag: no risk of falling tools when opening the bag.
  - Total closure of the bag with a zip. A link is attached to the closure for easy handling when working with gloves.
- Fabric resistant to common solvents.
- Bottom of bag in rigid plastic: the bag is rigid and holds its shape.
- Long life and easy cleaning.
- Tools not included.
- Rated payload 15.0 kg.



	d [mm]	H [mm]	ΔΔ [kg]
<b>BAG-CLIMBSLS</b>	325	390	1.7



BS.MCB NEW COMPACT TOOL CARRIER BAG



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## SLS - HEAT-SHRINKING SHEATHS

## HEAT SHRINKING SHEATHS WITH ATTACHMENT RING

6 heat-shrinking sheaths from 6.5 to 89 mm can be used to attach a ring and attach your products:

- attaching a tool not from the Facom SLS range
- attaching one of your special tools
- last minute emergency on a worksite: use the heat-shrinking sheaths to convert your tools.



### Easy and fast fitting

Position and heat the sheath. About 3 minutes per tool.

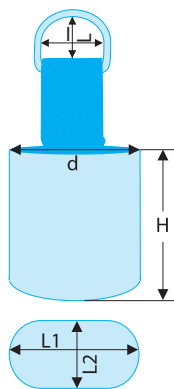


### Heat shrinking sheath with integrated glue

Adheres on many materials: steel, aluminium, plastic, wood.



## SLS.G - Heat Shrink Sheath with metal "D" ring



- Shrink tubing fitted with a strap and a metal "D" ring - SLS. This solution allows you to add an attachment point to all types of products and make them compatible with lanyards and carabiners from the facom SLS range. Examples: special tools, pens, sprays etc.
- The strap surrounds the shrink tubing for strength and maximum security for all.
- Fabric resistant to common solvents.
- Sheath equipped with an adhesive which becomes liquid with the heat during the retraction of the sheath. optimum temperature of withdrawal: between 150 and 300 ° depending on the thickness and diameter of the sheath.
- Excellent adhesion on most substrates: crude steel, chrome or phosphate, aluminum, wood, plastic, ...

#### Precautions:

- Clean and degrease the product that will receive the shrink tubing.
- Select the correct diameter of shrink-hose according to the allocation table.
- Identify a location where the sheath will not harm ergonomics. If possible, choose a location where the sheath can not escape once retracted.
- Respect the maximum weight recommended.
- Heat the sheath about 3cm away with a standard heat gun Facom E.2015. Be careful not to burn the strap.
- Allow to cool for 5 minutes to obtain optimum adhesion of the glue.
- Check the bond.
- Check the equipment periodically.

Ø	d [mm]	d mini - maxi [mm]	H [mm]	l x L [mm]	L1 [mm]	L2 [mm]	ΔΔ [g]	ΔΔ [kg]
<b>SLS.G13</b>	20	6,5 - 13	44	9 x 14	26	7	10	maxi 1.8
<b>SLS.G19</b>	30	9 - 19	50	9 x 14	36	8	30	maxi 2.2
<b>SLS.G32</b>	40	14 - 32	50	18 x 26	45	9	40	maxi 4.4
<b>SLS.G45</b>	52	16 - 45	50	18 x 26	62	12	40	maxi 6.8
<b>SLS.G64</b>	70	38 - 64	50	22 x 38	88	16	55	maxi 9.0
<b>SLS.G89</b>	105	51 - 89	105	22 x 38	135	25	95	maxi 11.3

■ SLS.G - Heat shrinking sheath kit - SLS

- Kit solution allowing a fastening points to be applied to any type of product, making it compatible with FACOM SLS lanyards and snap hooks.
- Comprising:
  - 3 x heat shrinking sheaths SLS.G13: Initial Ø: 20 mm. Ø after shrinking: 6.5 - 13 mm. Max weight: 1.8 kg.
  - 6 x heat shrinking sheaths SLS.G19: Initial Ø: 30 mm. Ø after shrinking: 9 - 19 mm. Max weight: 2.2 kg.
  - 6 x heat shrinking sheaths SLS.G32: Initial Ø: 40 mm. Ø after shrinking: 14 - 32 mm. Max weight: 4.4 kg.
  - 6 x heat shrinking sheaths SLS.G45: Initial Ø: 52 mm. Ø after shrinking: 16 - 45 mm. Max weight: 6.8 kg.
  - 3 x heat shrinking sheaths SLS.G64: Initial Ø: 70 mm. Ø after shrinking: 38 - 64 mm. Max weight: 9.0 kg.
  - 3 x heat shrinking sheaths SLS.G89: Initial Ø: 102 mm. Ø after shrinking: 51 - 89 mm. Max weight: 11.3 kg.
  - Organizer storage box BP.Z46A.



Icon	ΔΔ [kg]
SLS.GKIT1	3,450

■ SLS.G - Heat shrinking sheath kit - SLS

- Kit solution allowing a fastening points to be applied to any type of product, making it compatible with FACOM SLS lanyards and snap hooks.
- Comprising:
  - 3 x heat shrinking sheaths SLS.G13: Initial Ø: 20 ; mm. Ø after shrinking: 6.5 - 13 mm. Max weight: 1.8 kg.
  - 6 x heat shrinking sheaths SLS.G19: Initial Ø: 30 mm. Ø after shrinking: 9 - 19 mm. Max weight: 2.2 kg.
  - 6 x heat shrinking sheaths SLS.G32: Initial Ø: 40 mm. Ø after shrinking: 14 - 32 mm. Max weight: 4.4 kg.
  - 6 x heat shrinking sheaths SLS.G45: Initial Ø: 52 mm. Ø after shrinking: 16 - 45 mm. Max weight: 6.8 kg.
  - 3 x heat shrinking sheaths SLS.G64: Initial Ø: 70 mm. Ø after shrinking: 38 - 64 mm. Max weight: 9.0 kg.
  - 3 x heat shrinking sheaths SLS.G89: Initial Ø: 105 mm. Ø after shrinking: 51 - 89 mm. Max weight: 11.3 kg.
  - Organizer storage box BP.Z46A.



Icon	ΔΔ [kg]
SLS.GKIT1-GUN	4,400



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SLS - WRENCHES

THE SLS TOOL RANGE



**FACOM has designed a new range of Safety Lock System tools suited specifically to work at heights to eliminate the risks of accidents due to falling tools, avoid time loss and improve productivity.**

Falling tools can be very severe for the person impacted and also have heavy consequences for the company. When a tool falls, it must be recovered, which induces a loss of time.

Falling tools can damage an expensive facility, cause the tool to be lost or production to be disturbed. These cases have financial repercussions.

**Resistance and ergonomics of use**

- FACOM has designed a special ring system for its tools in the SLS range. The ring's metal was chosen to guarantee an unbeatably strong design: a safety-related tool cannot be faulty.
- The steel cable is embedded in the metal to guarantee a very robust "ring/cable" connection. In extreme breakage situations, the cable breaks before the connection.
- The cable is crimped with a controlled pressure to ensure perfect connection.
- In addition, each tool is checked individually using a traction machine. An individual certificate is issued and a unique serial number engraved on the tool. FACOM ensures traceability of its production, and you can also follow up your tooling during its use.
- The cable is flexible, which preserves optimum use of the tool in terms of comfort and ergonomics.



The SLS ring system slides from one side of the wrench to the other to allow optimum use.



The SLS ring system, associated with a ring fastened on the blade, allows screwdriver rotation without entangling the lanyard.

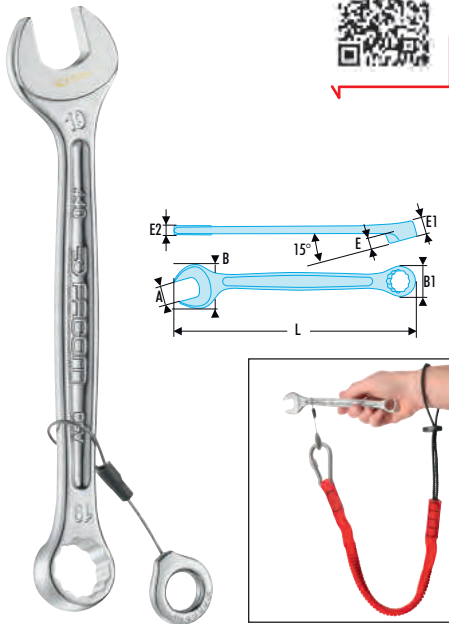


Ratchet and torque wrench handles are fitted with a shackle allowing easy snap ring attachment and freedom of movement.



The SLS ring system passes through the metal part of the plier grips to guarantee unequalled strength.

440.SLS - Metric combination wrenches

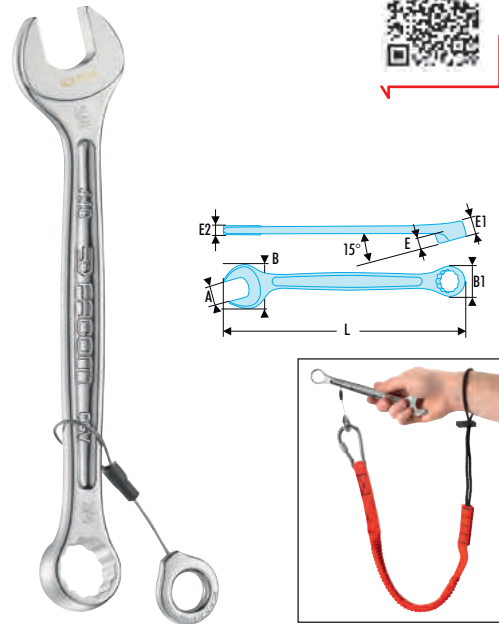


NF ISO 691, NF ISO 7738, NF ISO 3318, NF ISO 1711-1, E74-306, ISO 691, ISO 7738, ISO 3318, ISO 1711-1, DIN ISO 691, DIN 1711-1, DIN 3113, ASME B107.100

- Tool equipped with a FACOM SLS attachment solution, preventing any risk of accidental falls.
- The crimped "sliding" cable solution, selected and tested by FACOM, maintains user ergonomics (8 - 30 mm wrenches).
- Standard wrench for all current applications.
- High mechanical strength combined with compact size meeting aeronautical standards.
- Ring head:
  - Ring open end (size E) designed for better access to series or embedded screws.
  - OGV® profile with 12-point ring for powerful tightening while protecting the nut.
  - Ring head angled at 15°.
- Open end head:
  - Open end angled at 15°.
  - Open end head-handle geometry optimised for increased access.
- Metric sizes: 6 to 34 mm.
- Presentation: satin chrome finish.

⇒	A [mm]	B [mm]	B1 [mm]	E [mm]	E1 [mm]	E2 [mm]	L [mm]	ΔΔ [g]
440.6SLS	6	14,1	10,0	3,1	6,0	3,8	115	45
440.7SLS	7	17,2	11,2	3,4	6,2	3,9	122	45
440.8SLS	8	19,2	12,8	3,5	6,7	4,7	133	55
440.9SLS	9	21,2	14,2	3,9	7,1	4,7	138	60
440.10SLS	10	23,0	15,0	4,2	7,6	5,2	145	65
440.11SLS	11	24,5	16,9	4,6	8,1	5,5	155	75
440.12SLS	12	27,0	18,0	4,4	8,4	5,8	162	85
440.13SLS	13	28,7	19,3	4,8	8,6	6,1	170	95
440.14SLS	14	31,0	21,1	5,7	9,5	6,4	180	110
440.15SLS	15	32,6	22,2	5,9	10,0	6,8	185	120
440.16SLS	16	35,6	23,9	6,4	10,5	7,3	195	140
440.17SLS	17	37,0	25,3	6,5	10,9	7,6	202	155
440.18SLS	18	38,7	26,0	7,2	11,4	8,1	208	175
440.19SLS	19	41,2	27,8	7,2	11,9	8,3	216	195
440.21SLS	21	45,4	30,9	7,8	12,8	8,8	233	230
440.22SLS	22	46,9	32,3	8,3	13,3	9,0	248	255
440.23SLS	23	49,0	33,6	8,7	13,8	9,3	257	280
440.24SLS	24	51,0	35,0	8,9	14,2	9,7	267	315
440.27SLS	27	58,0	39,2	8,9	15,6	10,4	295	400
440.29SLS	29	63,0	42,0	10,8	16,6	11,2	320	500
440.30SLS	30	65,0	43,5	11,2	17,1	11,5	340	555
440.32SLS	32	68,0	46,1	11,5	18,0	12,5	355	665
440.34SLS	34	72,0	48,9	12,8	19,0	13,0	390	770

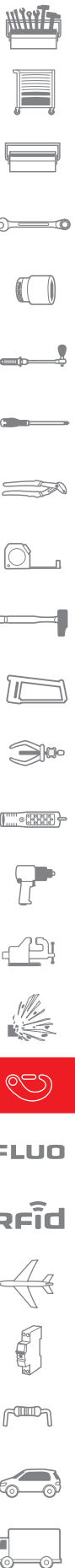
440.SLS - Inch combination wrenches



ASME B107.100

- Tool equipped with a FACOM SLS attachment solution, preventing any risk of accidental falls.
- The crimped "sliding" cable solution, selected and tested by FACOM, maintains user ergonomics (8 - 30 mm wrenches).
- Standard wrench for all current applications.
- High mechanical strength combined with compact size meeting aeronautical standards.
- Ring head:
  - Ring open end (size E) designed for better access to series or embedded screws.
  - OGV® profile with 12-point ring for powerful tightening while protecting the nut.
  - Ring head angled at 15°.
- Open end head:
  - Open end angled at 15°.
  - Open end head-handle geometry optimised for increased access.
- Dimensions in inches: from 1/4" to 1"5/16.
- Presentation: satin chrome finish.

⇒	A ["]	B [mm]	B1 [mm]	E [mm]	E1 [mm]	E2 [mm]	L [mm]	ΔΔ [g]
440.1/4SLS	1/4	14,1	10,0	3,1	6,0	3,8	115	45
440.5/16SLS	5/16	19,2	12,8	3,5	6,7	4,7	133	55
440.11/32SLS	11/32	21,2	14,2	3,9	7,1	4,7	138	60
440.3/8SLS	3/8	23,0	15,0	4,2	7,6	5,2	145	70
440.7/16SLS	7/16	24,5	16,9	4,6	8,1	5,5	155	75
440.1/2SLS	1/2	28,7	19,3	4,8	8,6	6,1	170	95
440.9/16SLS	9/16	31,0	21,1	5,7	9,5	6,4	180	100
440.5/8SLS	5/8	35,6	23,9	6,4	10,5	7,3	195	140
440.11/16SLS	11/16	37,0	25,3	6,5	10,9	7,6	202	155
440.3/4SLS	3/4	41,2	27,8	7,2	11,9	8,3	216	195
440.13/16SLS	13/16	43,1	29,5	6,3	12,3	8,6	224	210
440.7/8SLS	7/8	46,9	32,3	8,3	13,3	9,0	248	255
440.15/16SLS	15/16	51,0	35,0	8,9	14,2	9,7	267	315
440.1PSLS	1	53,0	36,4	9,4	14,7	9,9	274	340
440.1P1/16SLS	1"1/16	58,0	39,2	8,9	15,6	10,4	295	400
440.1P1/8SLS	1"1/8	60,7	40,6	10,6	16,1	10,7	305	440
440.1P1/4SLS	1"1/4	68,0	46,1	11,5	18,0	12,5	355	665
440.1P5/16SLS	1"5/16	69,8	47,0	11,8	18,5	12,8	380	740



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SLS - WRENCHES

■ Foam module of 17 OGV® combination wrenches 6 to 24 mm - SLS



- Tools fitted with a FACOM SLS attachment solution, preventing any risk of accidental falls.
- The "sliding" crimped cable solution, chosen and tested by FACOM, preserves the ergonomics of use of the tool.
- Compatible with the FACOM modular storage system:
  - Adapted to CHRONO XL, CHRONO+, JET XL and JET+ roller cabinets.

🔗	A [mm]	L [mm]	Contents	Qty	ΔΔ [kg]
<b>MODM.440J17SLS</b>	440.6 - 7 - 8 - 9 - 10 - 11 - 12 - 13 - 14 - 15 - 16 - 17 - 18 - 19 - 21 - 22 - 24	415	PM.MOD440J17SLS	17	2.4

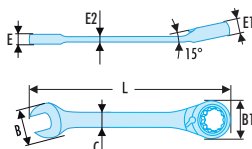
■ Foam module of 5 OGV® combination wrenches 27 to 34 MM - SLS



- Tools fitted with a FACOM SLS attachment solution, preventing any risk of accidental falls.
- The "sliding" crimped cable solution, chosen and tested by FACOM, preserves the ergonomics of use of the tool.
- Compatible with the FACOM modular storage system:
  - Adapted to CHRONO XL, CHRONO+, JET XL and JET+ roller cabinets.

🔗	A [mm]	H [mm]	Width l [mm]	L [mm]	Contents	Qty	ΔΔ [kg]
<b>MODM.440J5SLS</b>	440.27 - 29 - 30 - 32 - 34	45	188	418	PM.MOD440J5SLS	5	3.0

■ 467.SLS - Metric standard ratchet combination wrenches



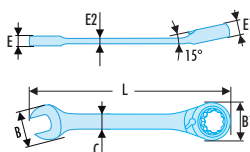
- Tool equipped with a FACOM SLS attachment solution, preventing any risk of accidental falls.
- The crimped "sliding" cable solution, selected and tested by FACOM, maintains user ergonomics (8 - 30 mm wrenches).
- Standard ratchet combination wrenches: for all current applications.
- Compact ratchet mechanism and reversible by lever.
- Increment 5° (6° for dimensions 8 and 9 mm).
- Ring head angled at 15°.
- Open end head angled at 15°.
- Metric sizes: 8 to 32 mm.
- Presentation: satin chrome finish.

🔗	A [mm]	B [mm]	B1 [mm]	C [mm]	E [mm]	E1 [mm]	E2 [mm]	L [mm]	ΔΔ [g]
<b>467.8SLS</b>	8	18,6	16,8	8,2	4,6	6,5	3,1	140	55
<b>467.9SLS</b>	9	21,0	18,6	9,0	4,6	6,9	3,2	149	65
<b>467.10SLS</b>	10	22,7	20,2	10,4	5,1	7,3	3,4	158	75
<b>467.11SLS</b>	11	23,7	22,0	10,6	5,2	7,7	3,5	165	85
<b>467.12SLS</b>	12	26,8	23,2	11,3	5,4	8,2	3,8	171	95
<b>467.13SLS</b>	13	28,4	25,3	12,2	5,7	8,6	4,3	178	110
<b>467.14SLS</b>	14	30,8	27,0	13,0	5,9	9,0	4,3	190	125
<b>467.15SLS</b>	15	32,3	28,3	14,0	6,1	9,4	4,7	199	140
<b>467.16SLS</b>	16	34,9	30,0	14,1	6,6	9,9	5,3	208	165

🔗	A [mm]	B [mm]	B1 [mm]	C [mm]	E [mm]	E1 [mm]	E2 [mm]	L [mm]	ΔΔ [g]
<b>467.17SLS</b>	17	36,8	31,7	15,4	6,6	10,3	5,4	225	190
<b>467.18SLS</b>	18	38,4	32,8	15,6	7,4	10,7	5,8	236	210
<b>467.19SLS</b>	19	41,2	33,9	16,0	7,4	11,2	6,0	247	235
<b>467.21SLS</b>	21	46,9	39,7	18,0	8,6	13,0	6,3	287	340
<b>467.22SLS</b>	22	46,9	39,7	18,0	8,6	13,0	6,3	287	340
<b>467.24SLS</b>	24	51,0	46,0	19,5	8,9	14,5	6,7	320	440
<b>467.27SLS</b>	27	57,9	52,0	21,0	9,8	15,5	7,1	356	595
<b>467.30SLS</b>	30	64,9	58,0	24,2	10,5	17,0	8,3	400	820
<b>467.32SLS</b>	32	67,9	62,2	26,0	11,0	17,5	8,5	422	975

■ **467S.SLS - Short metric ratchet combination wrenches**

- Tool equipped with a FACOM SLS attachment solution, preventing any risk of accidental falls.
- The crimped "sliding" cable solution, selected and tested by FACOM, maintains user ergonomics (8 - 30 mm wrenches).
- Extra-short handle ratchet combination wrenches: ideal in inaccessible areas.
- Compact ratchet mechanism and reversible by lever.
- Increment 5° (6° for dimension 7, 8 and 9 mm).
- Ring head angled at 15°.
- Open end head angled at 15°.
- Metric sizes: 7 to 17 mm.
- Presentation: satin chrome finish.



SP	A [mm]	B [mm]	B1 [mm]	C [mm]	E [mm]	E1 [mm]	E2 [mm]	L [mm]	ΔΔ [g]
467S.7SLS	7	18,6	16,8	7,6	4,6	6,5	3,1	90,5	50
467S.8SLS	8	18,6	16,8	7,6	4,6	6,5	3,1	90,5	50
467S.10SLS	10	22,7	20,2	9,0	5,1	7,3	3,6	95,5	60
467S.11SLS	11	23,7	22,0	9,2	5,2	7,7	3,7	103,5	70
467S.12SLS	12	26,8	23,2	10,0	5,4	8,2	4,0	106,5	75

SP	A [mm]	B [mm]	B1 [mm]	C [mm]	E [mm]	E1 [mm]	E2 [mm]	L [mm]	ΔΔ [g]
467S.13SLS	13	28,4	25,3	10,1	5,7	8,6	4,5	108,5	90
467S.14SLS	14	30,8	27,0	11,3	5,9	9,0	4,5	115,5	100
467S.15SLS	15	32,3	28,3	11,8	6,1	9,4	4,7	119,5	115
467S.16SLS	16	34,9	30,0	12,3	6,6	9,9	5,3	123,5	130
467S.17SLS	17	36,8	31,7	13,1	6,6	10,3	5,4	127,5	140

■ **Foam module of 12 ratchet combination wrenches 8 to 19 MM - SLS**

- Tools fitted with a FACOM SLS attachment solution, preventing any risk of accidental falls.
- The "sliding" crimped cable solution, chosen and tested by FACOM, preserves the ergonomics of use of the tool.
- Compatible with the FACOM modular storage system:
  - Adapted to CHRONO XL, CHRONO+, JET XL and JET+ roller cabinets.



SP	A [mm]	H [mm]	Width [mm]	L [mm]	Contents	Qty	ΔΔ [kg]
MODM.467J12SLS	467.8 - 9 - 10 - 11 - 12 - 13 - 14 - 15 - 16 - 17 - 18 - 19	45	189	415	PM.MOD467J12SLS	12	1.620

■ **Foam module of 4 ratchet combination wrenches 21 to 27 MM - SLS**

- Tools fitted with a FACOM SLS attachment solution, preventing any risk of accidental falls.
- The "sliding" crimped cable solution, chosen and tested by FACOM, preserves the ergonomics of use of the tool.
- Compatible with the FACOM modular storage system:
  - Adapted to CHRONO XL, CHRONO+, JET XL and JET+ roller cabinets.
- Comprising:
  - 4 ratchet combination wrenches 467.SLS: 21 - 22 - 30 - 24 - 27 mm.
  - 1/3 drawer foam tray PM.MOD467J4SLS (189 x 415 mm).



SP	A [mm]	H [mm]	Width [mm]	L [mm]	Contents	Qty	ΔΔ [kg]
MODM.467J4SLS	467.21 - 22 - 24 - 27	45	188	418	PM.MOD467J4SLS	4	4.0

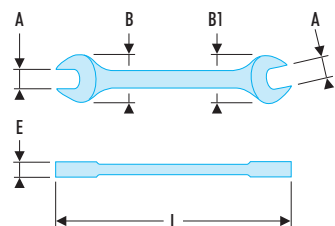


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## SLS - WRENCHES

## ■ 44S.SLS - Metric open end wrenches



- Tool equipped with a FACOM SLS attachment solution, preventing any risk of accidental falls.
- The crimped "sliding" cable solution, selected and tested by FACOM, maintains user ergonomics (8 - 30 mm wrenches).
- The open ends are slimmer than a standard combination wrench for better accessibility. Examples: brake calipers, hydraulic hose locknuts.
- Heads hinged at 15°.
- Metric sizes: 6 to 41 mm.
- Presentation: satin chrome finish.



⊞	A [mm]	B x B1 [mm]	E [mm]	L [mm]	ΔΔ [g]
44.6X7SLS	6x7	15,0 x 17,5	3,7	120	45
44.8X9SLS	8x9	18,5 x 21,0	4,2	137	55
44.10X11SLS	10x11	23,0 x 25,0	4,9	152	75
44.12X13SLS	12x13	25,5 x 29,0	5,5	167	90
44.14X15SLS	14x15	31,0 x 33,0	5,7	182	115
44.16X17SLS	16x17	35,5 x 37,0	6,3	210	155
44.18X19SLS	18x19	39,0 x 42,0	7,3	220	185

⊞	A [mm]	B x B1 [mm]	E [mm]	L [mm]	ΔΔ [g]
44.21X23SLS	21x23	47,0 x 50,5	8,3	245	250
44.22X24SLS	22x24	47,5 x 52,0	8,3	245	250
44.24X27SLS	24x27	51,0 x 58,0	8,8	270	350
44.30X32SLS	30x32	63,0 x 70,0	9,8	318	540
44.34X36SLS	34x36	71,0 x 75,0	11,7	342	745
44.36X41SLS	36x41	78,0 x 87,0	12,3	381	970

## ■ Foam module of 9 open end wrenches 6 to 24 MM - SLS



- Tools fitted with a FACOM SLS attachment solution, preventing any risk of accidental falls.
- The "sliding" crimped cable solution, chosen and tested by FACOM, preserves the ergonomics of use of the tool.
- Compatible with the FACOM modular storage system:
  - Adapted to CHRONO XL, CHRONO+, JET XL and JET+ roller cabinets.



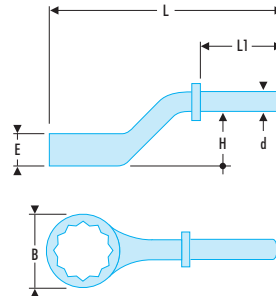
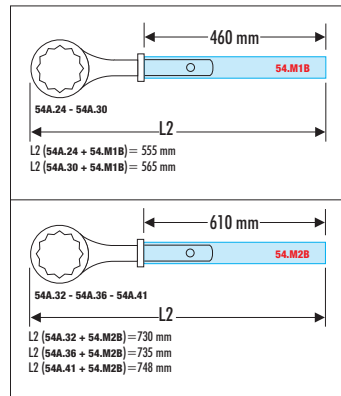
⊞	A [mm]	H [mm]	Width [mm]	L [mm]	Contents	Qty	ΔΔ [kg]
MODM.44J9SLS	44.6X7 - 8X9 - 10X11 - 12X13 - 14X15 - 16X17 - 18X19 - 21X23 - 22X24	45	188	418	PM.MOD44J9SLS	9	1.3



■ 54A.SLS - Metric "heavy-duty" offset-ring wrenches



- Tool equipped with a FACOM SLS attachment solution, preventing any risk of accidental falls.
- The crimped "rotating" cable solution, selected and tested by FACOM, maintains user ergonomics.
- "Heavy-duty" offset-ring wrenches: wrenches for tight (unlocking, thanks to high strength of the polygonal head and long adaptable handle (to be ordered separately).
- Ring offset to clear fingers or obstacles. Ideal for series of nuts.
- Handle to use:
  - 54.M1BSLS for the dimensions 24 and 30 mm;
  - 54.M2BSLS for the dimensions 32 to 41 mm;
  - 54.M3BSLS for the dimensions 46 mm;
- Metric sizes: 24 to 46 mm.
- Presentation: satin chrome finish.



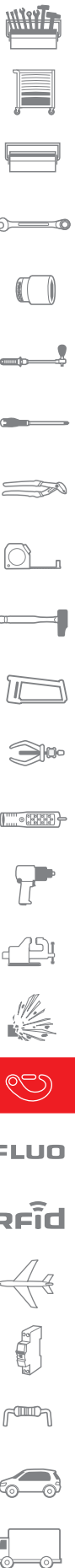
54A.SLS	A [mm]	B [mm]	d [mm]	E [mm]	H [mm]	L [mm]	L1 [mm]	L2 [mm]	L3 [mm]	ΔΔ [g]
54A.24SLS	24	38,0	18,5	17,0	29,5	180	85	460	555	405
54A.30SLS	30	48,0	18,5	18,0	33,5	200	95	460	565	575
54A.32SLS	32	49,0	21,5	18,0	34,0	235	116	610	730	725
54A.36SLS	36	54,0	21,5	20,0	35,5	245	120	610	735	865
54A.41SLS	41	62,0	21,5	22,0	39,5	265	127	610	748	1000
54A.46SLS	46	69,0	24,5	23,0	40,0	280	129	760	910	1300

■ 54.MBSLS - Handle



- Tool equipped with a FACOM SLS attachment solution, preventing any risk of accidental falls.
- The crimped "rotating" cable solution, selected and tested by FACOM, maintains user ergonomics.
- Handle 54.M1BSLS: use with 54A.24SLS and 54A.30SLS wrenches. (Length: 460 mm. Inner Ø: 19 mm. Outer Ø: 25 mm).
- Handle 54.M2BSLS: use with 54A.32SLS, 54A.36SLS and 54A.41SLS wrenches. (Length: 610 mm. Inner Ø: 23 mm. Outer Ø: 29 mm).
- Handle 54.M3BSLS: use with 54A.46 wrench. (Length: 760 mm. Inner Ø: 25 mm. Outer Ø: 32 mm).
- Finish: chrome.

54.MBSLS	ΔΔ [g]
54.M1BSLS	590
54.M2BSLS	1200
54.M3BSLS	2300



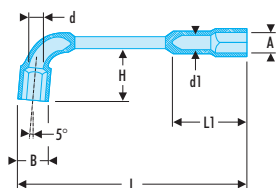
SLS - WRENCHES

76.SLS - Forged metric-size and inch-size 12 x 6 point angled open-socket wrenches - SLS



NF ISO 2236, NF ISO 691, ISO 2236, ISO 691, DIN ISO 691

- Tool fitted with a FACOM SLS attachment solution, preventing any risk of accidental falls.
- The "turning" crimped cable solution, chosen and tested by FACOM, preserves the ergonomics of use of the tool.
- Open-socket wrenches for powerful (un)tightening.
- 12-point short head for 30° increment and 6-point long-reach head.
- Short head open socket for passing threaded rods.
- Metric dimensions: 8 to 32 mm.
- Satin chrome finish.



76.SLS	A [mm]	B [mm]	d [mm]	d1 [mm]	H [mm]	L [mm]	L1 [mm]	ΔΔ [g]
76.8SLS	8	12,5	7	6	19	114	25	80
76.9SLS	9	13,5	7	6	20	122	26	100
76.10SLS	10	15,0	8	7	24	129	28	110
76.11SLS	11	16,5	8	7	25	136	30	130
76.12SLS	12	18,0	9	8	28	144	36	165
76.13SLS	13	19,5	9	8	30	152	38	190
76.14SLS	14	21,0	10,5	9	32	160	40	215
76.15SLS	15	22,5	10,5	10	34	169	42	230
76.16SLS	16	24,0	13	12	37	178	46	295

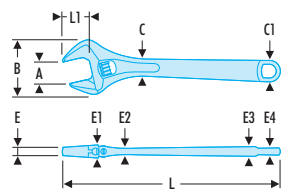
76.SLS	A [mm]	B [mm]	d [mm]	d1 [mm]	H [mm]	L [mm]	L1 [mm]	ΔΔ [g]
76.17SLS	17	25,5	13	12	39	187	48	325
76.18SLS	18	26,5	13	12	40	195	50	350
76.19SLS	19	28,5	15	12	41	204	51	450
76.21SLS	21	30,5	15	14	46	221	55	510
76.22SLS	22	32,0	15	14	48	230	57	600
76.24SLS	24	34,5	18	16	54	250	67	795
76.27SLS	27	38,0	22	19	58	280	73	970
76.30SLS	30	42,0	24	21	64	310	83	1300
76.32SLS	32	44,5	24	22,6	74	330	88	1500

113A.C - Chromed adjustable wrenches



NF ISO 6787, ISO 6787, DIN 3117, ASME B107.100

- Tool equipped with a FACOM SLS attachment solution, preventing any risk of accidental falls.
- Good access to the button = easy setting.
- Non-protruding moving jaw at maximum capacity.
- Pre-adjustment of jaw opening thanks to millimetric gradation.
- Right-hand button rotation.
- Range from 4" to 24".
- Presentation: chromed body and polished head faces.
- Adjustable wrenches with hole in the handle: direct hooking by carabiner.

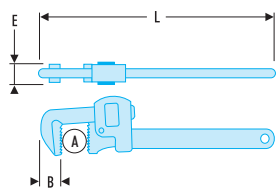


113A.C	A [mm]	B [mm]	C x C1 [mm]	E [mm]	E1 [mm]	E2 [mm]	E3 [mm]	E4 [mm]	L [mm]	L1 [mm]	ΔΔ [g]
113A.8C	27	61,5	18,5 x 24,0	6,5	13,5	9,0	11,0	8,5	206	24	275
113A.10C	30	69,5	21,5 x 28,5	9,0	15,5	9,5	12,7	10,0	255	29	480
113A.12C	34	80,0	25,0 x 31,0	10,0	18,0	10,2	13,0	10,0	306	34	700
113A.15C	44	97,0	28,0 x 35,0	13,5	20,0	12,0	14,8	11,5	380	44	1200
113A.18C	53	115,0	31,0 x 38,5	16,0	22,5	14,3	17,8	13,5	456	53	1800

131A.SLS - Steel Stillson models



- Tool equipped with a FACOM SLS attachment solution, preventing any risk of accidental falls.
- Capacity: 0 to 102 mm; 0 to 3"1/2.
- Very robust wrench, head hardened to 55 HRC.
- Accurate approach thanks to fine machining of the threads and button, good grip.
- "Stillson" key with hole in the handle: direct hooking by Carabiner.
- Unmountable mobile jaw to prevent loss or fall.



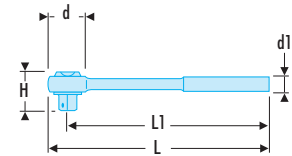
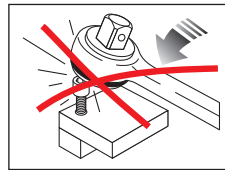
131A.SLS	A [mm]	A maxi [in]	B [mm]	E [mm]	L [mm]	ΔΔ [kg]
131A.10SLS		1	25,0	16,0	250	0.625
131A.14SLS		1'1/2	29,5	21,0	350	1.085
131A.18SLS		2	32,0	24,0	450	1.825
131A.24SLS		2'1/2	41,5	27,5	600	3.025

SLS - RATCHET

1/4" maintenance free pear head ratchet - SLS

NF ISO 3315, ISO 3315, DIN 3122, ASME B107.110

- Tool equipped with a FACOM SLS attachment solution, preventing any risk of accidental falls.
- FACOM has adopted the shackle solution for particularly heavy and/or large tools.
- Very long lifetime in all working conditions. Dust proof, maintenance free mechanism.
- 72 teeth mechanism for 5° increments.
- Socket safety lock: no more sockets falling into machines.
- Drive direction switch allows easy reversal even with gloved or greasy hands.
- Palm control system - allows the operator to press down on the head avoiding risk of accidental reverse.
- Ultra-compact head.
- Bimaterial elastomer handle: high resistance to abrasion and the most severe workshop solvents: SP95, SP98, diesel fuel, acetone, brake fluid, Skydrol, Jet Oil, jet fuel.



	d [mm]	d1 [mm]	H [mm]	L [mm]	L1 [mm]	ΔΔ [g]
<b>RL.171SLS</b>	22	17,5/20	23	121	110	110

1/4" sockets module - SLS

- Tool fitted with a FACOM SLS attachment solution, preventing any risk of accidental falls.
- The shackle solution was chosen by FACOM for particularly heavy and/or large tools.
- Only the ratchet is fitted with a shackle.
- The ratchet and locking extensions allow securing the sockets against falling during work in high places.
- Compatible with the FACOM modular storage system:
  - Adapted to CHRONO XL, CHRONO+, JET XL and JET+ roller cabinets.

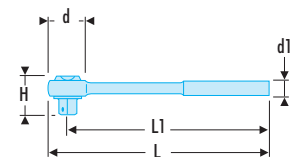
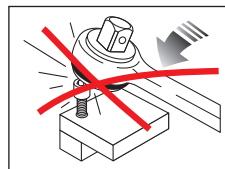


	A [mm]	H [mm]	Width [mm]	L [mm]	Contents	Qty	ΔΔ [g]
<b>MODM.RL1SLS</b>	R.5,5 - 6 - 7 - 8 - 9 - 10 - 11 - 12 - 13 - 14	45	105	189	PM.MODRL1SLS	13	405

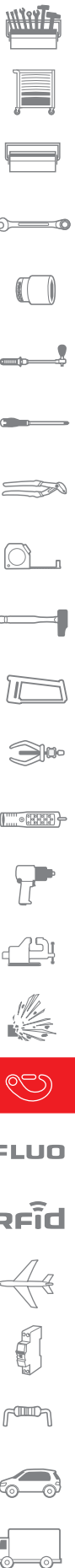
3/8" maintenance free pear head ratchet - SLS

NF ISO 3315, ISO 3315, DIN 3122, ASME B107.110

- Tool equipped with a FACOM SLS attachment solution, preventing any risk of accidental falls.
- FACOM has adopted the shackle solution for particularly heavy and/or large tools.
- Very long lifetime in all working conditions. Dust proof, maintenance free mechanism.
- 72 teeth mechanism for 5° increments.
- Socket safety lock: no more sockets falling into machines.
- Drive direction switch allows easy reversal even with gloved or greasy hands.
- Palm control system - allows the operator to press down on the head avoiding risk of accidental reverse.
- Ultra-compact head.
- Bimaterial elastomer handle: high resistance to abrasion and the most severe workshop solvents: SP95, SP98, diesel fuel, acetone, brake fluid, Skydrol, Jet Oil, jet fuel.



	d [mm]	d1 [mm]	H [mm]	L [mm]	L1 [mm]	ΔΔ [g]
<b>JL.171SLS</b>	29	24/27	29	210	195	240



FLUO

Rfid

SLS - RATCHET

3/8" sockets module - SLS



- Tool fitted with a FACOM SLS attachment solution, preventing any risk of accidental falls.
- The shackle solution was chosen by FACOM for particularly heavy and/or large tools.
- Only the ratchet is fitted with a shackle.
- The ratchet and locking extensions allow securing the sockets against falling during work in high places.
- Compatible with the FACOM modular storage system:
  - Adapted to CHRONO XL, CHRONO+, JET XL and JET+ roller cabinets.

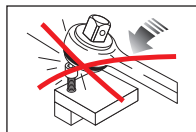
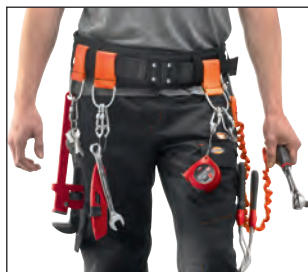
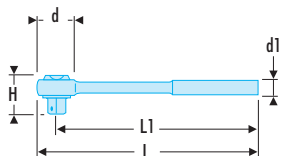
⊞	A [mm]	H [mm]	Width [mm]	L [mm]	Contents	Qty	ΔΔ [kg]
	J.H8 - 9 - 10 - 11 - 12 - 13						
<b>MODM.JL1SLS</b>	- 14 - 15 - 16 - 17 - 18 - 19 - 21 - 22 - 24	45	188	309	PM.MODJL1SLS	18	1.4

1/2" maintenance free pear head ratchet - SLS



NF ISO 3315, ISO 3315, DIN 3122, ASME B107.110

- Tool equipped with a FACOM SLS attachment solution, preventing any risk of accidental falls.
- FACOM has adopted the shackle solution for particularly heavy and/or large tools.
- Very long lifetime in all working conditions. Dust proof, maintenance free mechanism.
- 72 teeth mechanism for 5° increments.
- Socket safety lock: no more sockets falling into machines.
- Drive direction switch allows easy reversal even with gloved or greasy hands.
- Palm control system - allows the operator to press down on the head avoiding risk of accidental reverse.
- Ultra-compact head.
- Bi-material elastomer handle: high resistance to abrasion and the most severe workshop solvents: SP95, SP98, diesel fuel, acetone, brake fluid, Skydrol, Jet Oil, jet fuel.



⊞	d [mm]	d1 [mm]	H [mm]	L [mm]	L1 [mm]	ΔΔ [g]
<b>SL.171SLS</b>	38	30/33	40	262	245	480

1/2" sockets module - SLS



- Tool fitted with a FACOM SLS attachment solution, preventing any risk of accidental falls.
- The shackle solution was chosen by FACOM for particularly heavy and/or large tools.
- Only the ratchet is fitted with a shackle.
- The ratchet and locking extensions allow securing the sockets against falling during work in high places.
- Compatible with the FACOM modular storage system:
  - Adapted to CHRONO XL, CHRONO+, JET XL and JET+ roller cabinets.

⊞	A [mm]	H [mm]	Width [mm]	L [mm]	Contents	Qty	ΔΔ [kg]
	S.H8 - 10 - 11 - 12 - 13 - 14						
<b>MODM.SL1SLS</b>	- 15 - 16 - 17 - 18 - 19 - 21 - 22 - 23 - 24 - 27 - 30 - 32	45	188	418	PM.MODSL1SLS	21	1.4

SLS - TORQUE CONTROL

■ 306D.SLS - Click wrenches without accessories



NF EN ISO 6789, ISO 6789, DIN EN ISO 6789

- Tool equipped with a FACOM SLS attachment solution, preventing any risk of accidental falls.
- FACOM has adopted the shackle solution for particularly heavy and/or large tools (32 - 41 mm wrenches).
- Factory accuracy: ± 2% except: R.306-25DSLS.
- Reliability of mechanism: 50 000 cycles (wrenches up to 200 N.m).
- Use possible with accessories:
  - End fitting: 9 x 12 or 14 x 18 mm.
  - Diameter: 30 mm.
- One-way wrenches usable for unscrewing by reversing the bits.
- Numbered wrenches supplied with ISO 6789 calibration certificate.
- Supplied in plastic box.



ED	L [mm]	Attachement	Box	Capacity [N.m]	Graduation [N.m]	ΔΔ [kg]
R.306-25DSLS	271	9 x 12	BP.D1	5 - 25	0,10	0.490
J.306-50DSLS	357	9 x 12	BP.D2	10 - 50	1,00	0.970
S.306-100DSLS	437	9 x 12	BP.D2	20 - 100	1,00	1.090
S.306-200DSLS	515	14 x 18	BP.D3	40 - 200	1,00	1.300
S.306-350DSLS	725	14 x 18	BP.D3	70 - 350	2,00	1.830

SLS - SCREWDRIVERS

■ AN-ANF.SLS - PROTWIST® screwdrivers for slotted head screws - milled blades

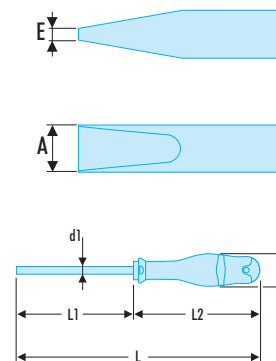


NF ISO 2380-1, NF ISO 2380-2, ISO 2380-1, ISO 2380-2,  
DIN ISO 2380-1, DIN ISO 2380-2, ASME B107.600

- Tool equipped with a FACOM SLS attachment solution, preventing any risk of accidental falls.
- The crimped "rotating" cable solution, selected and tested by FACOM, maintains user ergonomics.
- Silicon carbon blade: strong and resistant to flexion.
- Bi-material grip resists to impacts, abrasion, and chemicals.
- Finish: black tipped mat chromed blade."



ED	A [mm]	d [mm]	d1 x L1 [mm]	E [mm]	L [mm]	L2 [mm]	ΔΔ [g]
AN2X75SLS	2,0	19	2,0 x 75	0,4	169	94	60
AN2.5X75SLS	2,5	19	2,5 x 75	0,4	169	94	60
AN3X100SLS	3,0	25	3,0 x 100	0,5	203	103	75
AN3.5X100SLS	3,5	25	3,5 x 100	0,6	203	103	85
AN4X100SLS	4,0	30	4,0 x 100	0,8	209	109	90
AN4X150SLS	4,0	30	4,0 x 150	0,8	259	109	95
AN5.5X150SLS	5,5	30	5,5 x 150	1,0	259	109	130
AN6.5X150SLS	6,5	36	6,5 x 150	1,2	270	120	170
ANF8X150SLS	8,0	40	7,0 x 150	1,2	275	125	190
ANF10X200SLS	10,0	40	9,0 x 200	1,6	325	125	255

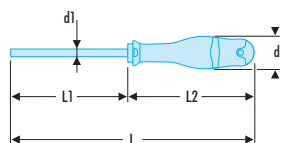


■ ANP.SLS - PROTWIST® screwdrivers for Phillips® screws - round blades



NF ISO 8764-1, NF ISO 8764-2, ISO 8764-1, ISO 8764-2, DIN ISO 8764-1, DIN ISO 8764-2, ASME B107.600

- Tool equipped with a FACOM SLS attachment solution, preventing any risk of accidental falls.
- The crimped "rotating" cable solution, selected and tested by FACOM, maintains user ergonomics.
- Silicon carbon blade: strong and resistant to flexion.
- Bi-material grip resists to impacts, abrasion, and chemicals.



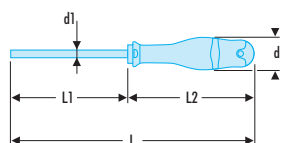
➤	d [mm]	d1 x L1 [mm]	L [mm]	L2 [mm]	Phillips [No]	ΔΔ [g]
<b>ANP1X100SLS</b>	30	4,5 x 100	209	109	PH1	115
<b>ANP2X125SLS</b>	36	6,0 x 125	245	120	PH2	165
<b>ANP3X150SLS</b>	40	8,0 x 150	275	125	PH3	235

■ AND.SLS - PROTWIST® screwdrivers for Pozidriv® screws - round blades



NF ISO 8764-1, NF ISO 8764-2, ISO 8764-1, ISO 8764-2, DIN ISO 8764-1, DIN ISO 8764-2, ASME B107.600

- Tool equipped with a FACOM SLS attachment solution, preventing any risk of accidental falls.
- The crimped "rotating" cable solution, selected and tested by FACOM, maintains user ergonomics.
- Silicon carbon blade: strong and resistant to flexion.
- Bi-material grip resists to impacts, abrasion, and chemicals.



➤	d [mm]	d1 x L1 [mm]	L [mm]	L2 [mm]	Pozidriv [No]	ΔΔ [g]
<b>AND1X100SLS</b>	30	4,5 x 100	209	109	PZ1	115
<b>AND2X125SLS</b>	36	6,0 x 125	245	120	PZ2	165
<b>AND3X150SLS</b>	40	8,0 x 150	275	125	PZ3	235

■ Foam module for 8 screwdrivers - SLS



- Tools fitted with a FACOM SLS attachment solution, preventing any risk of accidental falls.
- The "turning" crimped cable solution, chosen and tested by FACOM, preserves the ergonomics of use of the tool.
- Compatible with the FACOM modular storage system:
  - Adapted to CHRONO XL, CHRONO+, JET XL and JET+ roller cabinets.

➤	A [mm]	H [mm]	Width l [mm]	L [mm]	Contents	Qty	ΔΔ [kg]
<b>MODM.AN1SLS</b>	AN.2.5X75 - 3X100 - 4x100 - 5.5X150 - 6.5X150 - 8X150 - ANP.PH1 - PH2	45	188	418	PM.MODAN1SLS	8	1.0

SLS - KEYS

86H.JESLS - Hexagon keys on sleeve - SLS

- Tool fitted with a FACOM SLS attachment solution, preventing any risk of accidental falls.
- The "turning" crimped cable solution, chosen and tested by FACOM, preserves the ergonomics of use of the tool.
- Very compact sleeve.
- Positive grip.
- Keys on 90° end stop for tightening.
- Keys in silicon steel issued from series 82H.
- Phosphate finish.

	d [mm]	d1 [mm]	L [mm]	Hex Size [mm]	ΔΔ [g]
86H.JE7ASLS	30	24	32	2,5 - 3,0 - 4,0 - 5,0 - 6,0 - 8,0 - 10,0	375
86H.JE7BSLS	22	18	118	1,5 - 2,0 - 2,5 - 3,0 - 4,0 - 5,0 - 6,0	175



84TZ.SLS - Metric hexagon keys



- Tool equipped with a FACOM SLS attachment solution, preventing any risk of accidental falls.
- The crimped "rotating" cable solution, selected and tested by FACOM, maintains user ergonomics.
- Ergonomic T handle for efficient use of the two ends of the key.
- Silicon steel.
- Finish: phosphate-coated.

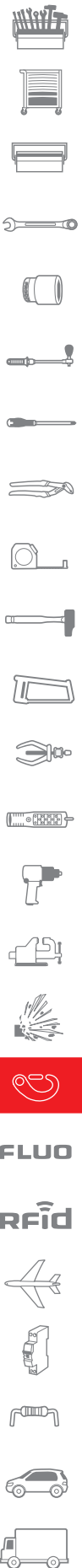
	A [mm]	L [mm]	L1 [mm]	L2 [mm]	L3 [mm]	ΔΔ [g]
84TZ.2.5SLS	2,5	132	86	65	11	40
84TZ.3SLS	3	132	86	65	11	55
84TZ.4SLS	4	183	127	78,1	12	90
84TZ.5SLS	5	183	127	78,1	12	100
84TZ.6SLS	6	240	174,5	99,3	15	145
84TZ.8SLS	8	240	174,5	99,3	15	155
84TZ.10SLS	10	240	174,5	99,3	15	225

84TZ.SLS - Inch hexagon keys



- Tool equipped with a FACOM SLS attachment solution, preventing any risk of accidental falls.
- The crimped "rotating" cable solution, selected and tested by FACOM, maintains user ergonomics.
- Ergonomic T handle for efficient use of the two ends of the key.
- Silicon steel.
- Finish: phosphate-coated.

	A ["]	L [mm]	L1 [mm]	L2 [mm]	L3 [mm]	ΔΔ [g]
84TZ.5/32SLS	5/32	183	127	78,1	12	90
84TZ.3/16SLS	3/16	183	174,5	99,3	15	135
84TZ.7/32SLS	7/32	240,5	174,5	99,3	15	145
84TZ.1/4SLS	1/4	240,5	174,5	99,3	15	155
84TZ.5/16SLS	5/16	240,5	174,5	99,3	15	165
84TZ.3/8SLS	3/8	240,5	174,5	99,3	15	215



SLS - KEYS

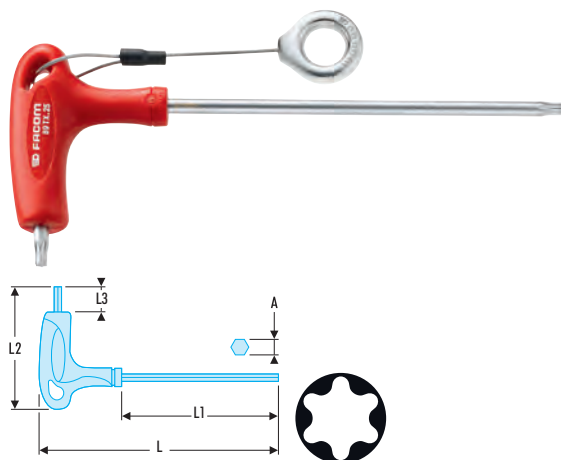
■ Foam module for 6 "T" hex keys - SLS



- Tools fitted with a FACOM SLS attachment solution, preventing any risk of accidental falls.
- The "turning" crimped cable solution, chosen and tested by FACOM, preserves the ergonomics of use of the tool.
- Compatible with the FACOM modular storage system:
  - Adapted to CHRONO XL, CHRONO+, JET XL and JET+ roller cabinets.

REF	A [mm]	H [mm]	I [mm]	L [mm]	Contents	Qty	ΔΔ [g]
<b>MODM.84TZJ6SLS</b>	84TZ.3 - 4 - 5 - 6 - 8 - 10	45	189	415	PM.MOD84TZJ6SLS	6	800

■ 89TX.SLS - Torx® spinners



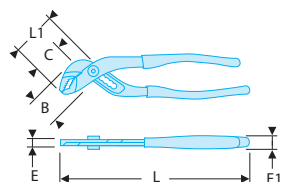
- Tool equipped with a FACOM SLS attachment solution, preventing any risk of accidental falls.
- The crimped "rotating" cable solution, selected and tested by FACOM, maintains user ergonomics.
- Ergonomic handle for efficient use of the two ends of the key.
- Finish: chrome.

REF	A [mm]	L [mm]	L1 [mm]	L2 [mm]	L3 [mm]	Torx [No]	ΔΔ [g]
<b>89TX.10SLS</b>	2,72	133	90	63	12	T10	35
<b>89TX.15SLS</b>	3,26	133	130	77	12	T15	40
<b>89TX.20SLS</b>	3,84	183	130	77	12	T20	65
<b>89TX.25SLS</b>	4,40	183	130	77	15	T25	80
<b>89TX.30SLS</b>	5,49	240	175	95	15	T30	115
<b>89TX.40SLS</b>	6,60	240	175	95	15	T40	130
<b>89TX.45SLS</b>	7,77	240	175	95	15	T45	150
<b>89TX.50SLS</b>	8,79	240	175	95	15	T50	195

SLS TOOLING

SLS - PLIERS

■ 181A.SLS - Locking twin slip-joint multigrip pliers



NF ISO 8976, ISO 8976, DIN ISO 8976, ASME B107.500

- Tool equipped with a FACOM SLS attachment solution, preventing any risk of accidental falls.
- The crimped "rotating" cable solution, selected and tested by FACOM, maintains user ergonomics.
- Fast, precise push-button adjustment with safety lock.
- 12-position notches.
- The closed position of the ergonomic comfort grip handles increases the tightening power.
- High torsional strength.
- Slim-profile self-gripping nose.
- 62 HRC high-frequency treated jaws.
- Finish: Chrome, bi-material ergonomic grips.

REF	B [mm]	C [mm]	E [mm]	E1 [mm]	L [mm]	Capacity Nuts [mm]	Capacity Maxi Tube [mm]	L1 [mm]	ΔΔ [g]
<b>181A.18CPESLS</b>	22	24	7,5	20,0	185	36	36	48	255
<b>181A.25CPESLS</b>	28	28	7,5	22,5	245	41	42	54	385

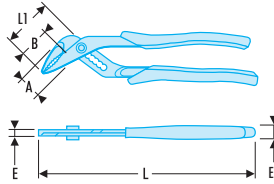


SLS - PLIERS

High-performance multigrip pliers -SLS

NF ISO 8976, ISO 8976, DIN ISO 8976, ASME B107.500

- Tool equipped with a FACOM SLS attachment solution, preventing any risk of accidental falls.
- The crimped "rotating" cable solution, selected and tested by FACOM, maintains user ergonomics.
- Capacity: 44 mm.
- Ideal for confined spaces: long reach thin noses.
- Double heat-treated tips: high wear resistance, hardness 60/62 HRc.
- 3 options:
  - Chrome finish, ergonomic grips.

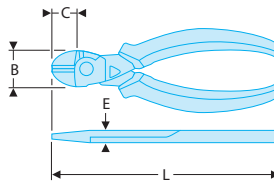


SE	A [mm]	B [mm]	E [mm]	E1 [mm]	L [mm]	L1 [mm]	ΔΔ [g]
180.CPESLS	27	34	8	22	250	58	385

192.CPESLS diagonal cutters

NF ISO 5749, ISO 5749, DIN ISO 5749, ASME B107.500

- Tool equipped with a FACOM SLS attachment solution, preventing any risk of accidental falls.
- The crimped "rotating" cable solution, selected and tested by FACOM, maintains user ergonomics.
- Cutting edges designed to cleanly cut all types of wire: piano wire, soft wires and modern materials 200 kg/mm<sup>2</sup>.
- Minimum cutting force thanks to long lever arm and offset axis.
- High durability Chrome-Molybdenum-Vanadium steel, very hard cutting edges 61/63 HRc.
- Ergonomic grips resistant to chemical agents.
- Removable return spring.
- Finish: chromed.

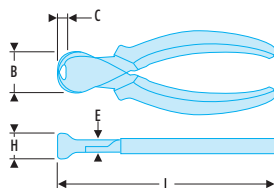


SE	B [mm]	C [mm]	d maxi [mm]	E [mm]	L [mm]	ΔΔ [g]
192.16CPESLS	24,0	18,0	2,0	10,0	160	225
192.20CPESLS	28,0	22,0	2,5	11,5	200	345

190.CPESLS - End cutters

NF ISO 5748, ISO 5748, DIN ISO 5748, ASME B107.500

- Tool fitted with a FACOM SLS fastener preventing any risk of accidental fall.
- Shackle solution chosen by FACOM for particularly heavy and/or large tools.
- Cutting edges designed to cut all types of wires clean: soft wires, modern materials and maximum reached with piano wire:
  - 190.16CPESLS: 2.0mm 210 kg/mm<sup>2</sup>
  - 190.20CPESLS: 2.5mm 200 kg/mm<sup>2</sup>
- Minimum cutting effort with the offset axis and cutting edge geometry.
- Durable with Molybdenum Chrome Steel and hardness by induction on cutting edges.
- Bi-material ergonomic sheaths offering high resistance to chemicals.
- Removable return spring.
- Chrome finish.

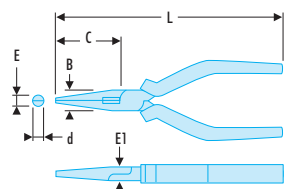


SE	B [mm]	C [mm]	d maxi [mm]	E [mm]	H [mm]	L [mm]	ΔΔ [g]
190.16CPESLS	28	6,5	1,6	11,5	23	160	225
190.20CPESLS	31	7,5	2,0	13,5	29	200	365



## SLS - PLIERS

## ■ Long half-round nose pliers - SLS

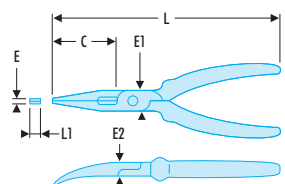


## NF ISO 5745, ISO 5745, DIN ISO 5745, ASME B107.500

- Tool fitted with a FACOM SLS fastener preventing any risk of accidental fall.
- Shackle solution chosen by FACOM for particularly heavy and/or large tools.
- Slim, finely serrated, noses with tube clamp.
- Lateral wire cutter for copper and hard steel wire. Maximum size is piano wire 1.6 mm 160 kg/mm<sup>2</sup>.
- Durable with Molybdenum Chrome Steel and hardness by induction on cutting edges.
- Bi-material ergonomic sheaths offering high resistance to chemicals.
- Removable return spring.
- Chrome finish.

ED	B [mm]	C [mm]	d [mm]	E [mm]	E1 [mm]	L [mm]	ΔΔ [g]
185.20CPESLS	18	75	2,9	3,6	9	200	215

## ■ Short half-round nose pliers - SLS

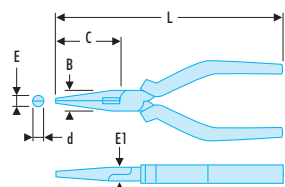


## NF ISO 5745, ISO 5745, DIN ISO 5745, ASME B107.500

- Tool fitted with a FACOM SLS fastener preventing any risk of accidental fall.
- Shackle solution chosen by FACOM for particularly heavy and/or large tools.
- Slim, finely serrated, noses with tube clamp.
- Lateral wire cutter for copper and hard steel wire. Maximum size is piano wire 1.6 mm 160 kg/mm<sup>2</sup>.
- Durable with Molybdenum Chrome Steel and hardness by induction on cutting edges.
- Bi-material ergonomic sheaths offering high resistance to chemicals.
- Removable return spring.
- Chrome finish.

ED	B [mm]	C [mm]	E [mm]	E1 [mm]	E2 [mm]	L [mm]	L1 [mm]	ΔΔ [g]
195.16CPESLS	17	50	3	17	9	160	2,5	205

## ■ Long half-round nose pliers - SLS



## NF ISO 5745, ISO 5745, DIN ISO 5745, ASME B107.500

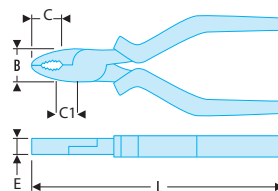
- Tool equipped with a FACOM SLS attachment solution, preventing any risk of accidental falls.
- The crimped "rotating" cable solution, selected and tested by FACOM, maintains user ergonomics.
- Narrow, finely serrated tips with a pipe-grip.
- Side cutter for copper and hard steel wire (max. 160 kg/mm<sup>2</sup>).
- 40 ° angled spouts.
- Ergonomic grips resistant to chemical agents.
- Removable return spring.
- Finish: chrome.

ED	B [mm]	C [mm]	d [mm]	E [mm]	E1 [mm]	L [mm]	ΔΔ [g]
195.20CPESLS	18	69	2,9	3,6	9	200	215

187.CPESLS - Combination pliers

NF ISO 5746, ISO 5746, DIN ISO 5746, ASME B107.500

- Tool equipped with a FACOM SLS attachment solution, preventing any risk of accidental falls.
- The crimped "rotating" cable solution, selected and tested by FACOM, maintains user ergonomics.
- Cutting edges designed to cut all types of wire: piano wire, soft wires and modern materials (Fe 200 kg/mm<sup>2</sup>).
- Long lever arm, offset pivot for minimum cutting effort.
- High durability Chrome-Molybdenum-Vanadium steel, very hard cutting edges 61/63 HRc.
- Ergonomic grips resistant to chemical agents.
- Removable return spring.
- Finish: chrome.



➤	B [mm]	C [mm]	C1 [mm]	E [mm]	L [mm]	ΔΔ [g]
187.16CPESLS	21	34	12	9,5	165	220
187.18CPESLS	23	36	13	10,0	185	250

179A.SLS - Straight nose inside circlip® pliers

NF E 73-130, DIN 5256, ASME B107.500

- Tool equipped with a FACOM SLS attachment solution, preventing any risk of accidental falls.
- The crimped "rotating" cable solution, selected and tested by FACOM, maintains user ergonomics.
- For Circlips® 12 --> 60 mm.
- Piano wire tips: high distortion resistance.
- Long 10° angled tips for optimum circlip holding.
- Identification colour code: saves time.
- Grips in anti-slip granite PVC.



➤	d [mm]	d mini - maxi [mm]	L [mm]	ΔΔ [g]
179A.13SLS	1,3	12 - 25	140	140
179A.18SLS	1,8	19 - 60	185	240

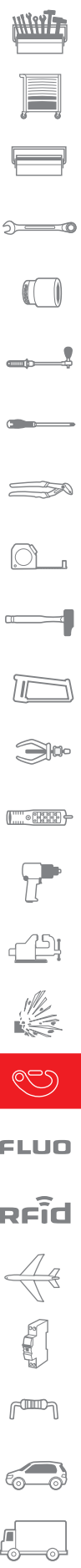
177A.SLS - Straight nose outside circlip® pliers

NF E 73-130, DIN 5254, ASME B107.500

- Tool equipped with a FACOM SLS attachment solution, preventing any risk of accidental falls.
- The crimped "rotating" cable solution, selected and tested by FACOM, maintains user ergonomics.
- For Circlips® 10 --> 60 mm.
- Piano wire tips: high distortion resistance.
- Long 10° angled tips for optimum circlip holding.
- Identification colour code: saves time.
- Grips in anti-slip granite PVC.



➤	d [mm]	d mini - maxi [mm]	L [mm]	ΔΔ [g]
177A.13SLS	1,3	10 - 25	150	130
177A.18SLS	1,8	19 - 60	180	200



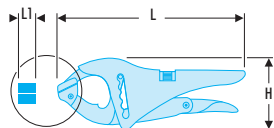
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## SLS - PLIERS

## Short-nose lock-grip pliers - SLS



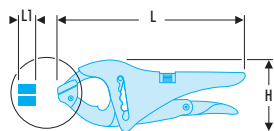
## ASME B107.500

- Tool equipped with a FACOM SLS attachment solution, preventing any risk of accidental falls.
- The crimped "rotating" cable solution, selected and tested by FACOM, maintains user ergonomics.
- 4-position slip joint system.
- Nose width 17 mm.
- Machined groove in upper jaw holds small round sections.
- Finish: chrome.



ASME B107.500	H [mm]	L [mm]	L1 [mm]	ΔΔ [g]
500ASLS	80,7	230	17	765

## Long-nose lock-grip pliers - SLS



## ASME B107.500

- Tool equipped with a FACOM SLS attachment solution, preventing any risk of accidental falls.
- The crimped "rotating" cable solution, selected and tested by FACOM, maintains user ergonomics.
- 4-position slip joint system.
- Nose width 17 mm.
- Machined groove in upper jaw holds small round sections.
- Finish: chrome.



ASME B107.500	H [mm]	L [mm]	L1 [mm]	ΔΔ [g]
501ASLS	80,7	250	17	800

## Standard crimping pliers for insulated terminals - SLS



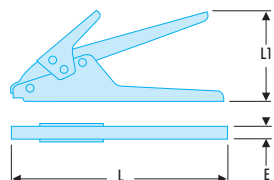
## ASME B107.500

- Tool equipped with a FACOM SLS attachment solution, preventing any risk of accidental falls.
- The crimped "rotating" cable solution, selected and tested by FACOM, maintains user ergonomics.
- Crimping pre-insulated terminals: 1.5-2.5-6 mm<sup>2</sup>.
- Crimping bare terminals: 1.5-2.5-6 mm<sup>2</sup>.
- Stripping: 0.75 to 6 mm<sup>2</sup>.
- Built-in wire cutting function.



ASME B107.500	H [mm]	L [mm]	ΔΔ [g]
449BSLS	55	240	345

## Plastic cable-tie pliers - SLS



- Tool equipped with a FACOM SLS attachment solution, preventing any risk of accidental falls.
- The crimped "rotating" cable solution, selected and tested by FACOM, maintains user ergonomics.
- For all cable-ties 2.4 to 9 mm wide.
- Sturdy and easy to use, very good demultiplication.
- Long travel for a fast approach.
- Manual cable-tie tail cutting.



ASME B107.500	E [mm]	L [mm]	L1 [mm]	ΔΔ [g]
455BSLS	17	190	100	335

■ **Foam module for 2 pliers - SLS**

- Tool fitted with a FACOM SLS attachment solution, preventing any risk of accidental falls.
- The "turning" crimped cable solution, chosen and tested by FACOM, preserves the ergonomics of use of the tool.
- Compatible with the FACOM modular storage system:
  - Adapted to CHRONO XL, CHRONO+, JET XL and JET+ roller cabinets.



Content	H [mm]	I [mm]	L [mm]	Contents	Qty	ΔΔ [kg]
<b>MODM.CPE1SLS</b>	501ASLS - 181A.25CPESLS	45	189	415	PM.MODCPE1SLS	2 1.2

■ **Foam module for 3 pliers - SLS**

- Tool fitted with a FACOM SLS attachment solution, preventing any risk of accidental falls.
- The "turning" crimped cable solution, chosen and tested by FACOM, preserves the ergonomics of use of the tool.
- Compatible with the FACOM modular storage system:
  - Adapted to CHRONO XL, CHRONO+, JET XL and JET+ roller cabinets.



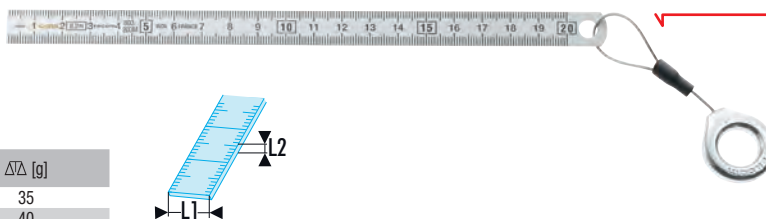
Content	H [mm]	I [mm]	L [mm]	Contents	Qty	ΔΔ [g]
<b>MODM.CPE2SLS</b>	192.16CPESLS - 185.20CPESLS - 187.18CPESLS	45	189	415	PM.MODCPE2SLS	3 750

SLS TOOLING

SLS - MEASURING

■ **803.SLS - Stainless steel rules - 2 sides**

- Tool equipped with a FACOM SLS attachment solution, preventing any risk of accidental falls.
- The crimped "rotating" cable solution, selected and tested by FACOM, maintains user ergonomics.
- Engraved on both sides.
- One side in mm - One side in 1/2 mm.
- Stainless steel 18 % Cr - 8 % Ni.
- Anti-reflection mat satin surface.



L [mm]	L1 x L2 [mm]	ΔΔ [g]	
<b>803.200MSLS</b>	200	13 x 0,4	35
<b>803.300MSLS</b>	300	13 x 0,5	40

■ **Interchangeable steel tip scribe - SLS**

- Tool fitted with a FACOM SLS attachment solution, preventing any risk of accidental falls.
- The "turning" crimped cable solution, chosen and tested by FACOM, preserves the ergonomics of use of the tool.
- The steel tips are glued and non-removable to prevent any risk of fall or loss.
- Tip treated in fast steel.
- Tips: Ø 4 mm.
- Body: Ø 8 mm.



L [mm]	ΔΔ [g]	
<b>234.SSLS</b>	260	70



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## SLS - MEASURING

## 893.SLS - ABS body tape measure



- Tool equipped with a FACOM SLS attachment solution, preventing any risk of accidental falls.
- The crimped "rotating" cable solution, selected and tested by FACOM, maintains user ergonomics.
- Ergonomic, ABS material.
- Tape with mat anti-reflection nylon tape.
- High strength tape.
- High strength cover hook:
  - 2 rivets with stainless reinforcement plate on the 3 m.
  - 3 rivets with stainless reinforcement plate on the 8 m.
- Interior measurements by adding the L dimension (see table).



	E [mm]	H [mm]	L [mm]	L1 [mm]	L2 [m]	ΔΔ [g]
<b>893.316SLS</b>	31,8	59,2	60	16	3	150
<b>893.519SLS</b>	35,2	65,1	70	19	5	225

## Round tip metric-size thickness gauges - SLS



- Tool equipped with a FACOM SLS attachment solution, preventing any risk of accidental falls.
- The crimped "rotating" cable solution, selected and tested by FACOM, maintains user ergonomics.
- Set of 19 plates ( round tip ) : 4/100 -> 100 / 100mm.



	L [mm]	ΔΔ [g]
<b>804FSLs</b>	105	85

## SLS TOOLING

## Compact hacksaw frame - SLS



## NF E 73-073, DIN 6473

- Tool equipped with a FACOM SLS attachment solution, preventing any risk of accidental falls.
- The crimped "rotating" cable solution, selected and tested by FACOM, maintains user ergonomics.
- Impact-resistant steel/resin construction compact and lightweight.
- Blade tension 80 kg.
- 2 blade positions: 45° and 90°.
- Takes 300 mm blade.
- Dimensions (L. x W.): 385 x 145 mm.
- Supplied with one blade.
- Spare blades: 668B.



	Width l [mm]	L [mm]	ΔΔ [g]
<b>601SLS</b>	145	385	615

## Flat bastard file with grip - SLS



## NFE 75-001, NFE 75-002

- Tool fitted with a FACOM SLS attachment solution, preventing any risk of accidental falls.
- The "turning" crimped cable solution, chosen and tested by FACOM, preserves the ergonomics of use of the tool.
- The plastic grip is glued and non-removable to prevent any risk of fall or loss.
- Flat files with handle.
- 2 double cut squares.
- 1 single cut square.
- 1 smooth cut.
- Presentation: ergonomic handle in plastic resistant to the most aggressive workshop solvents.
- Recommended for roughing steel, cast iron, brass, and hard plastics.



	E x E1 [mm]	L [mm]	ΔΔ [g]
<b>PAM.B250EMASLS</b>	6 x 25	250	335

■ Half-soft flat file with grip - SLS

**NFE 75-001, NFE 75-002**

- Tool fitted with a FACOM SLS attachment solution, preventing any risk of accidental falls.
- The "turning" crimped cable solution, chosen and tested by FACOM, preserves the ergonomics of use of the tool.
- The plastic grip is glued and non-removable to prevent any risk of fall or loss.
- Flat file with handle.
- 2 double cut squares.
- 1 single cut square.
- 1 smooth cut.
- Presentation: ergonomic handle in plastic resistant to the most aggressive workshop solvents.
- Recommended for steel, cast iron, brass, and hard plastics.



	E x E1 [mm]	L [mm]	ΔΔ [g]
<b>PAM.MD250EMASLS</b>	6 x 25	250	340



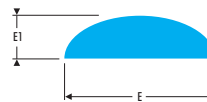
■ Half-soft half-round flat file with grip - SLS

**NFE 75-001, NFE 75-002**

- Tool fitted with a FACOM SLS attachment solution, preventing any risk of accidental falls.
- The "turning" crimped cable solution, chosen and tested by FACOM, preserves the ergonomics of use of the tool.
- The plastic grip is glued and non-removable to prevent any risk of fall or loss.
- Half-round file with handle.
- Double second-cut squares.
- Double cut square.
- Presentation: ergonomic handle in plastic resistant to the most aggressive workshop solvents.
- Recommended for common work on steel, cast iron, brass, and hard plastics.



	E x E1 [mm]	L [mm]	ΔΔ [g]
<b>DRD.MD250EMASLS</b>	7 x 25	250	245



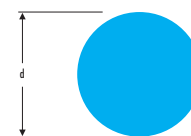
■ Half-soft round flat file with grip - SLS

**NFE 75-001, NFE 75-002**

- Tool fitted with a FACOM SLS attachment solution, preventing any risk of accidental falls.
- The "turning" crimped cable solution, chosen and tested by FACOM, preserves the ergonomics of use of the tool.
- The plastic grip is glued and non-removable to prevent any risk of fall or loss.
- Round file with handle.
- Double square.
- Presentation: ergonomic handle in plastic resistant to the most aggressive workshop solvents.
- Recommended for common work on steel, cast iron, brass, and hard plastics.

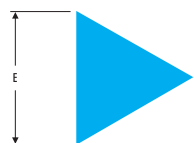


	E x E1 [mm]	L [mm]	ΔΔ [g]
<b>RD.MD200EMASLS</b>	8	200	165



## SLS - CUTTING

### Half-soft triangular file with grip - SLS

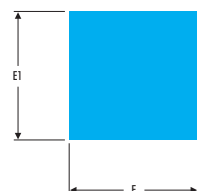


- Tool fitted with a FACOM SLS attachment solution, preventing any risk of accidental falls.
- The "turning" crimped cable solution, chosen and tested by FACOM, preserves the ergonomics of use of the tool.
- The plastic grip is glued and non-removable to prevent any risk of fall or loss.
- Triangular file with handle.
- Double square on 3 cuts.
- Presentation: ergonomic handle in plastic resistant to the most aggressive workshop solvents.
- Recommended for common work on steel, cast iron, brass, and hard plastics.



	E x E1 [mm]	L [mm]	ΔΔ [g]
<b>TRI.MD200EMASLS</b>	15	200	235

### Half-soft square file with grip - SLS



- Tool fitted with a FACOM SLS attachment solution, preventing any risk of accidental falls.
- The "turning" crimped cable solution, chosen and tested by FACOM, preserves the ergonomics of use of the tool.
- The plastic grip is glued and non-removable to prevent any risk of fall or loss.
- Square file with handle.
- Double square on 4 cuts.
- Presentation: ergonomic handles in plastic resistant to the most aggressive workshop solvents.
- Recommended for common work on steel, cast iron, brass, and hard plastics.



	E x E1 [mm]	L [mm]	ΔΔ [g]
<b>CAR.MD200EMASLS</b>	8 x 8	200	145

### MODM.601SLS - Sawing marking module - SLS



- Tool fitted with a FACOM SLS attachment solution, preventing any risk of accidental falls.
- The "turning" crimped cable solution, chosen and tested by FACOM, preserves the ergonomics of use of the tool.
- Compatible with the FACOM modular storage system:
  - Adapted to CHRONO XL, CHRONO+, JET XL and JET+ roller cabinets.



	Contents	H [mm]	Width [mm]	L [mm]	Contents	Qty	ΔΔ [kg]
<b>MODM.601SLS</b>	601SLS - PAM.B250EMASLS - DRD.MD250EMASLS - CAR.MD200EMASLS - TRI.MD200EMASLS - RD.MD200EMASLS - 234.SSLS - 803.300MSLS - 893.316SLS	45	567	415	PM. MOD601SLS	9	2.060



**Safety knife with retractable blade - SLS**

- Tool equipped with a FACOM SLS attachment solution, preventing any risk of accidental falls.
- The crimped "rotating" cable solution, selected and tested by FACOM, maintains user ergonomics.
- Safety knife.
- Blade automatically retracts after use.
- Zamak body.
- ABS cursor, front or side thumb control.
- Supplied with 3 blades (1 factory-mounted and 2 in the body).

	L [mm]	L [mm]	ΔΔ [g]
<b>844.DSLS</b>	176	176	210



**Twin-blade electricians knife with plastic handle - SLS**

- Tool equipped with a FACOM SLS attachment solution, preventing any risk of accidental falls.
- The crimped "rotating" cable solution, selected and tested by FACOM, maintains user ergonomics.
- Electricians knife with blades suitable for cable work:
  - 1 straight hollow ground general-purpose blade (length: 65 mm).
  - 1 short curved blade, specially designed for cable work (length: 35 mm).
- Safe: lock-back for each blade.
- Length closed: 104 mm.
- Total length: 131/169 mm.

	L [mm]	L1 [mm]	ΔΔ [g]
<b>640180SLS</b>	104	131/169	125



**Heavy-duty scissors - SLS**

- Tool equipped with a FACOM SLS attachment solution, preventing any risk of accidental falls.
- The crimped "rotating" cable solution, selected and tested by FACOM, maintains user ergonomics.

	L [mm]	L [mm]	ΔΔ [g]
<b>841A.3SLS</b>	160	160	175



**Multifunction trigger sheath-stripper - SLS**

- Tool fitted with a FACOM SLS attachment solution, preventing any risk of accidental falls.
- The "turning" crimped cable solution, chosen and tested by FACOM, preserves the ergonomics of use of the tool.
- Trigger system: 30% less effort.
- Auto-swivel blade: fast and easy sheath removal.
- Double safety:
  - Cutting blade out = trigger locked.
  - Lock back blade.
- Capacity: round PVC cable diameter 4 to 28 mm.
- Stripping zone.

872272: set of 6 spare blades (5 self-swivel blades and 1 knife blade).

	L [mm]	ΔΔ [g]
<b>872271SLS</b>	165	126

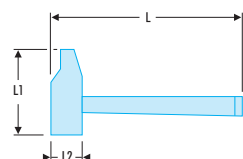


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## SLS - HAMMERS - IMPACT TOOLS

## ■ 200C.SLS - Graphite handle riveting engineers hammer



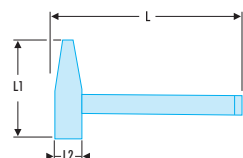
## NF ISO 15601, ISO 15601

- Tool equipped with a FACOM SLS attachment solution, preventing any risk of accidental falls.
- The crimped "rotating" cable solution, selected and tested by FACOM, maintains user ergonomics.
- Ergonomic safety handle with graphite core.



▣	L [mm]	L1 [mm]	L2 [mm]	ΔΔ [g]
200C.26SLS	245	80	25	370
200C.30SLS	270	93	30	495
200C.32SLS	300	100	32	610
200C.40SLS	330	108	40	1000
200C.60SLS	380	151	60	2800

## ■ 205C.SLS - Graphite handle DIN engineers hammer



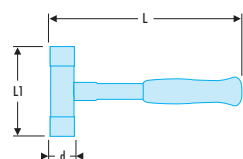
## NF ISO 15601, ISO 15601, DIN 1041

- Tool equipped with a FACOM SLS attachment solution, preventing any risk of accidental falls.
- The crimped "rotating" cable solution, selected and tested by FACOM, maintains user ergonomics.
- Ergonomic safety handle with graphite core.



▣	L [mm]	L1 [mm]	L2 [mm]	ΔΔ [g]
205C.20SLS	280	96	19	275
205C.30SLS	300	106	23	405
205C.50SLS	320	122	27	605
205C.80SLS	350	132	33	985
205C.100SLS	360	137	36	1200

## ■ 212A.SLS - Dead-blow hammers, interchangeable tips



- Tool equipped with a FACOM SLS attachment solution, preventing any risk of accidental falls.
- The crimped "rotating" cable solution, selected and tested by FACOM, maintains user ergonomics.
- Glass fiber handle.
- Steel body.
- Easily replaceable, special nylon tips shore hardness D74 ± 5.
- Ergonomic PVC grip.
- Presentation: black epoxy.
- Spare tip: 212.E35 to E60.



▣	d [mm]	L [mm]	L1 [mm]	ΔΔ [g]
212A.35SLS	35	305	112	725
212A.40SLS	40	310	117	865
212A.50SLS	50	320	120	1200
212A.60SLS	60	330	145	1700

207A.SLS - Adaptable-tip mallets

- Tool equipped with a FACOM SLS attachment solution, preventing any risk of accidental falls.
- The crimped "rotating" cable solution, selected and tested by FACOM, maintains user ergonomics.
- Aluminum body "light" series hammers.
- Mallets are available with a limited number of tip combinations only, but you can customize your mallet by selecting a body and two tips of your choice.
- Tips available:
  - EA series: neoprene.
  - EB series: polyurethane.
  - EC series: nylon.



Icon	d [mm]	ΔΔ [kg]
207A.32CBSLS	32	0,235
207A.40CBSLS	40	0,375

208A.SLS - Adaptable-tip mallets

- Tool equipped with a FACOM SLS attachment solution, preventing any risk of accidental falls.
- The crimped "rotating" cable solution, selected and tested by FACOM, maintains user ergonomics.
- Steel body "heavy" series hammers.
- Mallets are available with a limited number of tip combinations only, but you can customize your mallet by selecting a body and two tips of your choice.
- Tips available:
  - EA series: neoprene.
  - EB series: polyurethane.
  - EC series: nylon.



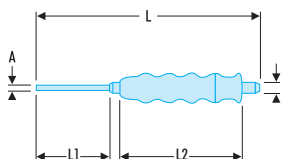
Icon	d [mm]	ΔΔ [kg]
208A.32CBASLS	32	0,370
208A.40CBASLS	40	0,640

249.GSLS - Sheathed drift punch - SLS

- Tool fitted with a FACOM SLS attachment solution, preventing any risk of accidental falls.
- The "turning" crimped cable solution, chosen and tested by FACOM, preserves the ergonomics of use of the tool.
- Long stem.
- Head hardness 43 HRc.
- Stem hardness 58 HRc.



Icon	A [mm]	d [mm]	L [mm]	L1 [mm]	L2 [mm]	ΔΔ [g]
249.G2SLS	1,95	8	140	35	105	65
249.G3SLS	2,95	8	150	45	105	65
249.G4SLS	3,95	10	190	60	105	110
249.G5SLS	4,95	10	200	70	105	110
249.G6SLS	5,9	12	210	80	105	155
249.G8SLS	7,9	12	216	86	105	170



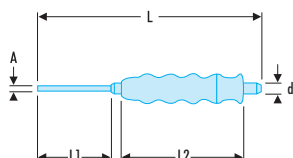
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## SLS - HAMMERS - IMPACT TOOLS

## 247.GSLS - Sheathed nail set - SLS

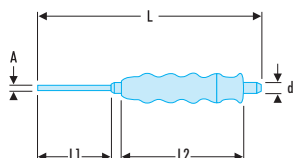
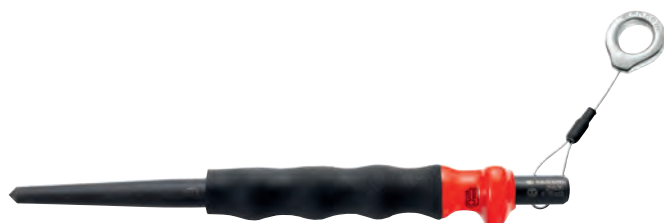


- Tool fitted with a FACOM SLS attachment solution, preventing any risk of accidental falls.
- The "turning" crimped cable solution, chosen and tested by FACOM, preserves the ergonomics of use of the tool.
- Head hardness 36 - 44 HRC.
- Tip hardness 52 - 60 HRC.



ED	A [mm]	d [mm]	L [mm]	L1 [mm]	L2 [mm]	$\Delta\Delta$ [g]
247.G2SLS	1,9	10	185	55	105	125
247.G3SLS	2,9	10	185	55	105	125
247.G4SLS	3,9	10	185	55	105	135
247.G5SLS	4,9	10	185	55	105	135
247.G6SLS	5,9	10	185	55	105	140
247.G8SLS	7,8	12	185	55	105	170

## 255.GSLS - Sheathed punches - SLS

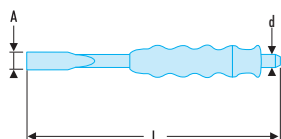


- Tool fitted with a FACOM SLS attachment solution, preventing any risk of accidental falls.
- The "turning" crimped cable solution, chosen and tested by FACOM, preserves the ergonomics of use of the tool.
- Head hardness 36 - 44 HRC.
- Tip hardness 57 - 60 HRC.



ED	A [mm]	d [mm]	L [mm]	L1 [mm]	L2 [mm]	$\Delta\Delta$ [g]
255.G6SLS	6	10	185	55	105	125
255.G8SLS	8	12	185	55	105	170

## 263.GSLS - Sheathed chisels - SLS



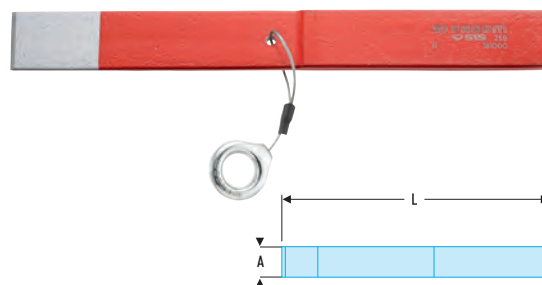
- Tool fitted with a FACOM SLS attachment solution, preventing any risk of accidental falls.
- The "turning" crimped cable solution, chosen and tested by FACOM, preserves the ergonomics of use of the tool.
- Engineers chisels
- Hardness:
  - Cutting edge = 57 - 60 HRC.
  - Impact head = 36 - 44 HRC.
- Cutting edge angle: 60°.



ED	A [mm]	d [mm]	L [mm]	$\Delta\Delta$ [g]
263.G19SLS	15	12	190	180
263.G20SLS	20	16	200	320
263.G22SLS	25	18	220	440

■ Slim-profile chisels - SLS

- Tool equipped with a FACOM SLS attachment solution, preventing any risk of accidental falls.
- The crimped "rotating" cable solution, selected and tested by FACOM, maintains user ergonomics.
- Slim profile chisel.
- Chrome vanadium forged steel, treated 57 HRC on edge and 40 HRC on impact head.
- Blade width: 26 mm.
- Presentation: lacquered.



Icon	A [mm]	L [mm]	ΔΔ [g]
259SLS	26	235	265

■ Impact module - SLS

- Tool fitted with a FACOM SLS attachment solution, preventing any risk of accidental falls.
- The "turning" crimped cable solution, chosen and tested by FACOM, preserves the ergonomics of use of the tool.
- Compatible with the FACOM modular storage system:
  - Adapted to CHRONO XL, CHRONO+, JET XL and JET+ roller cabinets.



Icon	Contents	H [mm]	I [mm]	L [mm]	Contents	Qty	ΔΔ [kg]
MODM.MI1SLS	200C.40SLS - 208A.32CBASLS - 255.G6SLS - 263.G19SLS - 249.GSL4 - 5 - 6	45	189	415	PM. MODMI1SLS	7	2.185

SLS TOOLING

■ Pen lamp - SLS

- Tool fitted with a FACOM SLS attachment solution, preventing any risk of accidental falls.
- The "turning" crimped cable solution, chosen and tested by FACOM, preserves the ergonomics of use of the tool.
- 1 3W LED.
- 110 lumen.
- 2 304 lux at 0.5 m.
- Maximum lighting distance: 48 m.
- Operating time: 3.5 hours.
- Sealing rating: IP65.
- Supplied with: 2 AAA batteries.



Icon	ΔΔ [kg]
779.PBTSLS	160



FLUO

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# FLUORESCENT TOOLS



**SETS FLUO**

Sets FLUO **807**



**FIXED AND VARIABLE OPENING WRENCHES**

**809**

Combination wrenches FLUO **809**  
 Ratchet wrenches FLUO **810**  
 Open end wrenches FLUO **810**  
 Variable opening wrenches FLUO **811**



**RATCHETS - SOCKETS - ACCESSORIES**

**812**

Socket wrenches FLUO **812**  
 Ratchets 1/4" FLUO **812**  
 Sockets 1/4" FLUO **815**  
 Ratchets 3/8" FLUO **817**  
 Sockets 3/8" FLUO **818**  
 Standard 1/2" Range FLUO **819**



**SCREWDRIVERS - KEYS - BITS FLUO**

**820**

PROTWIST® Screwdriver FLUO **820**  
 PROTWIST® keys FLUO **824**  
 Key sleeve set FLUO **824**  
 Bits FLUO **825**  
 Bit holders and accessories FLUO **828**



**PLIERS - CIRCLIP® PLIERS - LOCK-GRIP PLIERS**

**830**

Engineers multigrip pliers FLUO **830**  
 Pliers FLUO **831**  
 Pliers with outcut retainer FLUO **834**  
 Electrical engineers pliers FLUO **837**  
 Pliers FLUO **840**  
 Circlip® pliers FLUO **840**  
 Locking-wire pliers FLUO **841**  
 "Connector" pliers FLUO **841**



**MEASURING - MARKING-OUT**

**842**

Rules - Gauges FLUO **842**  
 Making-Out FLUO **842**



**HAMMERS - IMPACT TOOLS**

**843**

Hammers - Mallets FLUO **843**  
 Drifts FLUO **844**  
 Drift punches FLUO **844**



**FLUORESCENT TOOLING**

**844**

Scissors - Inspection mirrors **844**  
 Inspection mirrors **845**  
 UV torch **845**



**FLUO**

**RFid**

NEW RANGE OF FLUORESCENT TOOLS



# Your solution for "black or dark zones"

Detect the tool thanks to its fluorescence, activated by a lamp or UV neon light.  
Detectable in black or dark environment up to 5 metres.

### SAFETY

- Effective colour code for detection even in broad daylight
- Higher visibility on the tool, particularly in dark areas: no risks of accidents, injury, incidents, etc.
- No chipping or scaling due to a fall or shock, no loss of elements or accessory from the product.

**FLUO**

### ERGONOMICS

- No larger than standard tools.
- Good product grip.



### IMPROVED PRODUCTIVITY

- Tools compatible with rolling cabinet storage modules.
- No time wasted searching for lost tools.
- Easy cleaning.

### COST REDUCTIONS

- No lost tools to be replaced.
- Lifetime identical to a standard tool.



A comprehensive range of products meeting the most common applications: wrenches, ratchets, sockets, gauges, pliers, hammers, rules, etc.





SETS FLUO

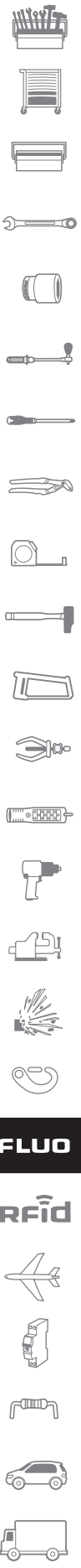
**BVFC1.FLUO-1 143-piece set of metric fluorescent tools - foam trays and sealed box**

- For all types of maintenance operations in locations requiring good visibility on the tooling.
- 2 Options available:
  - CM.AEFLUO-1: Set supplied without container.
  - BVFC1.FLUO-1: Set supplied in 4 foam trays and sealed box BV.FC1.



Code	Qty	Description
MODM.FLUO1-1	1	Foam module
PM.MODFLUO1-1	1	Foam tray
779.UVT	1	UV torch
834B.RTF	1	Inspection mirror
841F	1	Electricians scissors
EF.RF	1	Locking bit holder 1/4"
R.215RCF	1	1/4" locking extension Fluo
R.227AF	1	1/4" screwdriver handle 260 mm Fluo
R.4ELF	1	1/4" 12-point socket 4 mm Fluo
R.5.5ELF	1	1/4" 12-point socket 5.5 mm Fluo
R.5ELF	1	1/4" 12-point socket 5 mm Fluo
R.6ELF	1	1/4" 12-point socket 6 mm Fluo
R.7ELF	1	1/4" 12-point socket 7 mm Fluo
R.8ELF	1	1/4" 12-point socket 8 mm Fluo
R.9ELF	1	1/4" 12-point socket 9 mm Fluo
R.10ELF	1	1/4" 12-point socket 10 mm Fluo
R.11ELF	1	1/4" 12-point socket 11 mm Fluo
R.12ELF	1	1/4" 12-point socket 12 mm Fluo
R.13ELF	1	1/4" 12-point socket 13 mm Fluo
R.14ELF	1	1/4" 12-point socket 14 mm Fluo
R.3.2FLUO	1	1/4" 6-point socket 3.2 mm Fluo
R.4FLUO	1	1/4" 6-point socket 4 mm Fluo
R.5.5FLUO	1	1/4" 6-point socket 5.5 mm Fluo
R.5FLUO	1	1/4" 6-point socket 5 mm Fluo
R.6FLUO	1	1/4" 6-point socket 6mm Fluo
R.7FLUO	1	1/4" 6-point socket 7 mm Fluo
R.8FLUO	1	1/4" 6-point socket 8 mm Fluo
R.9FLUO	1	1/4" 6-point socket 9 mm Fluo
R.10FLUO	1	1/4" 6-point socket 10 mm Fluo
R.11FLUO	1	1/4" 6-point socket 11 mm Fluo
R.12FLUO	1	1/4" 6-point socket 12 mm Fluo
R.13FLUO	1	1/4" 6-point socket 13 mm Fluo
R.14FLUO	1	1/4" 6-point socket 14 mm Fluo
E.1063F	1	Set of 63 Detection Box bits
R.360F	1	1/4" 360° socket Fluo
MODM.FLUO1-2	1	Foam module
PM.MODFLUO1-2	1	Foam tray
113A.10CF	1	Chromed adjustable wrench 10" - Fluo
440.4HF	1	Combination wrench 4 mm Fluo
440.5.5HF	1	Combination wrench 5.5 mm Fluo
440.5HF	1	Combination wrench 5 mm Fluo

Code	Qty	Description
440.6F	1	Combination wrench 6 mm Fluo
440.7F	1	Combination wrench 7 mm
440.8F	1	Combination wrench 8 mm Fluo
440.9F	1	Combination wrench 9 mm Fluo
440.10F	1	Combination wrench 10 mm
440.11F	1	Combination wrench 11 mm
440.12F	1	Combination wrench 12 mm Fluo
440.13F	1	Combination wrench 13 mm Fluo
440.14F	1	Combination wrench 14 mm Fluo
440.16F	1	Combination wrench 16 mm Fluo
440.17F	1	Combination wrench 17 mm Fluo
440.18F	1	Combination wrench 18 mm Fluo
440.19F	1	Combination wrench 19 mm Fluo
MODM.FLUO1-3	1	Foam module
PM.MODFLUO1-3	1	Foam tray
170A.25F	1	Standard multigrip pliers - Fluo
185.20CPEF	1	Half-round long snipe-nose pliers
187.18CPEF	1	Combination pliers
192.16CPEF	1	Diagonal cutters
200C.30F	1	Graphite handle hammer
83SH.JP9F	1	9-piece set of hexagonal angled keys in wallet
AN2X75F	1	Protwist® screwdriver for slotted screws 4x35 Fluo
AN3.5X100F	1	Protwist® screwdriver for slotted screws 3.5x100 Fluo
AN3.5X75F	1	Protwist® screwdriver for slotted screws 3.5x75 Fluo
AN4X35F	1	Protwist® screwdriver for slotted screws 4X35 Fluo
DELA.1051.300	1	Stainless steel 2-sided rule
MODM.FLUO1-4	1	Foam module
PM.MODFLUO1-4	1	Foam tray
AN4X150F	1	Protwist® screwdriver for slotted screws 4x150 Fluo
AN5.5X150F	1	Protwist® screwdriver for slotted screws 5.5x100 Fluo
AN6.5X150F	1	Protwist® screwdriver for slotted screws 6.5x100 Fluo
ANPOX75F	1	Protwist® Phillips® screwdriver 0x75 Fluo
ANP1X100F	1	Protwist® Phillips® screwdriver 1x100 Fluo
ANP2X125F	1	Protwist® Phillips® screwdriver 2x125 Fluo
ANP3X150F	1	Protwist® Phillips® screwdriver 3x150 Fluo
ANP4X200F	1	Protwist® Phillips® screwdriver 4x200 Fluo
ANXR10X75F	1	Protwist® screwdriver for Resistorx® screws 10X75 Fluo
ANXR15X75F	1	Protwist® screwdriver for Resistorx® screws 15X75 Fluo
ANXR20X100F	1	Protwist® screwdriver for Resistorx® screws 20X100 Fluo
ANXR25X100F	1	Protwist® screwdriver for Resistorx® screws 25X100 Fluo



FLUO

Rfid

**BVFC1.FLUO-2 136-piece set of inch fluorescent tools - foam trays and sealed box**



- For all types of maintenance operations in locations requiring good visibility on the tooling.
- 2 Options available:
  - CM.AEFLUO-2: Set supplied without container.
  - BVFC1.FLUO-2: Set supplied in 4 foam trays and sealed box BV.FC1.

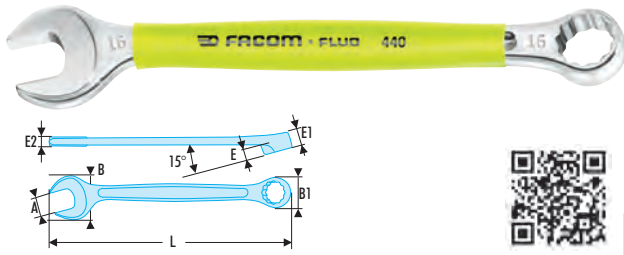


Code	Qty	Description
MODM.FLUO2-1	1	Foam module
PM.MODFLUO2-1	1	Foam tray
440.1/2F	1	Combination wrench 1/2"
440.11/16F	1	Combination wrench 11/16" Fluo
440.13/16F	1	Combination wrench 13/16" Fluo
440.15/16F	1	Combination wrench 15/16" Fluo
440.1PF	1	Combination wrench 1P Fluo
440.3/4F	1	Combination wrench 3/4" Fluo
440.3/8F	1	Combination wrench 3/8" Fluo
440.5/8F	1	Combination wrench 5/8" Fluo
440.7/16F	1	Combination wrench 7/16" Fluo
440.7/8F	1	Combination wrench 7/8" Fluo
440.9/16F	1	Combination wrench 9/16" Fluo
MODM.FLUO2-2	1	Foam module
PM.MODFLUO2-2	1	Foam tray
113A.6CF	1	Chromed adjustable wrench 6" - Fluo
440.1/4F	1	Combination wrench 1/4" Fluo
440.11/32F	1	Combination wrench 11/32" Fluo
440.5/16F	1	Combination wrench 5/16" Fluo
779.UVT	1	UV torch
834B.RTF	1	Inspection mirror
841F	1	Electricians scissors
EF.RF	1	Locking bit holder 1/4
R.215RCF	1	1/4" locking extension Fluo
R.227AF	1	1/4" screwdriver handle 260 mm Fluo
R.1/2EF	1	1/4" 12-point socket 1/2 Fluo
R.1/4EF	1	1/4" 12-point socket 1/4 Fluo
R.11/32EF	1	1/4" 12-point socket 11/32 Fluo
R.3/16EF	1	1/4" 12-point socket 3/16 Fluo
R.3/8EF	1	1/4" 12-point socket 3/8 Fluo
R.5/16EF	1	1/4" 12-point socket 5/16 Fluo
R.7/16EF	1	1/4" 12-point socket 7/16 Fluo
R.9/16EF	1	1/4" 12-point socket 9/16 Fluo
R.9/32EF	1	1/4" 12-point socket 9/32 Fluo
R.1/2ELF	1	1/4" long-reach 12-point socket 1/2 Fluo
R.1/4ELF	1	1/4" long-reach 12-point socket 11/32 Fluo

Code	Qty	Description
R.11/32ELF	1	1/4" long-reach 12-point socket 11/32 Fluo
R.3/16ELF	1	1/4" long-reach 12-point socket 3/16 Fluo
R.3/8ELF	1	1/4" long-reach 12-point socket 3/8 Fluo
R.5/16ELF	1	1/4" long-reach 12-point socket 5/16 Fluo
R.7/16ELF	1	1/4" long-reach 12-point socket 7/16 Fluo
R.9/16ELF	1	1/4" long-reach 12-point socket 9/16 Fluo
R.9/32ELF	1	1/4" long-reach 12-point socket 9/32 Fluo
E.1063F	1	Set of 63 Detection Box bits
R.360F	1	1/4" 360° socket Fluo
MODM.FLUO2-3	1	Foam module
PM.MODFLUO2-3	1	Foam tray
170A.25F	1	Standard multigrip pliers - Fluo
185.20CPEF	1	Half-round long snipe-nose pliers
187.18CPEF	1	Combination pliers
192.16CPEF	1	Diagonal cutters
200C.30F	1	Graphite handle hammer
83SH.JP8UF	1	8-piece set of hexagonal angled keys in wallet
AN2X75F	1	Protwist® screwdriver for slotted screws 4x35 Fluo
AN3.5X100F	1	Protwist® screwdriver for slotted screws 3.5x100 Fluo
AN3.5X75F	1	Protwist® screwdriver for slotted screws 3.5x75 Fluo
AN4X35F	1	Protwist® screwdriver for slotted screws 4x35 Fluo
DELA.1051.300	1	Stainless steel 2-sided rule
MODM.FLUO2-4	1	Foam module
PM.MODFLUO2-4	1	Foam tray
ANPOX75F	1	Protwist® Phillips® screwdriver 0x75 Fluo
ANP1X100F	1	Protwist® Phillips® screwdriver 1x100 Fluo
ANP2X125F	1	Protwist® Phillips® screwdriver 2x125 Fluo
ANP3X150F	1	Protwist® Phillips® screwdriver 3x150 Fluo
ANP4X200F	1	Protwist® Phillips® screwdriver 4x200 Fluo
ANXR10X75F	1	Protwist® screwdriver for Resistorx® screws 10X75 Fluo
ANXR15X75F	1	Protwist® screwdriver for Resistorx® screws 15X75 Fluo
ANXR20X100F	1	Protwist® screwdriver for Resistorx® screws 20X100 Fluo
ANXR25X100F	1	Protwist® screwdriver for Resistorx® screws 25X100 Fluo
AN4X150F	1	Protwist® screwdriver for slotted screws 4x150 Fluo
AN5.5X150F	1	Protwist® screwdriver for slotted screws 5.5x150 Fluo
AN6.5X150F	1	Protwist® screwdriver for slotted screws 6.5x150 Fluo

COMBINATION WRENCHES FLUO

■ 440F - Metric combination wrenches - FLUO

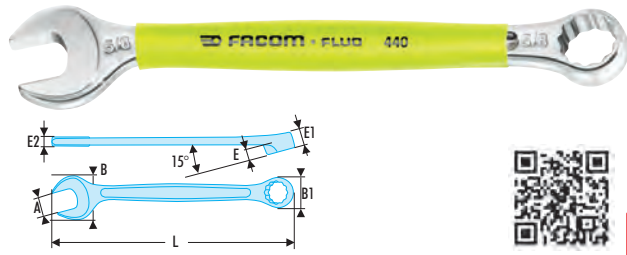


NF ISO 1711-1, NF ISO 691, ISO 1711-1, ISO 691, DIN ISO 1711-1, DIN ISO 691

- Detect the tool thanks to its fluorescence, activated by a lamp or UV neon light. Detectable in black or dark environment up to 5 meters.
- Standard wrench for all current applications.
- High mechanical strength combined with compact size meeting aeronautical standards.
- Ring head:
  - Ring open end (size E) designed for better access to series or embedded screws.
  - OGV® profile with 12-point ring for powerful tightening while protecting the nut. H suffix = 6-point ring.
  - Ring head angled at 15°.
- Open end head:
  - Open end angled at 15°.
  - Open end head-handle geometry optimised for increased access.
- Metric sizes: 4 to 19 mm.
- Presentation: satin chrome finish.

Size	A [mm]	B [mm]	B1 [mm]	E [mm]	E1 [mm]	E2 [mm]	L [mm]	ΔΔ [g]
440.4HF	4	10,0	7,8	2,1	3,5	3,0	106	10
440.5HF	5	13,3	9,2	3,1	6,0	3,6	115	15
440.5.5HF	5,5	13,3	9,2	3,1	6,0	3,8	115	15
440.6F	6	14,1	10,0	3,1	6,0	3,8	115	20
440.7F	7	17,2	11,2	3,4	6,2	3,9	122	20
440.8F	8	19,2	12,8	3,5	6,7	4,7	133	30
440.9F	9	21,2	14,2	3,9	7,1	4,7	138	35
440.10F	10	23,0	15,0	4,2	7,6	5,2	145	40
440.11F	11	24,5	16,9	4,6	8,1	5,5	155	50
440.12F	12	27,0	18,0	4,4	8,4	5,8	162	60
440.13F	13	28,7	19,3	4,8	8,6	6,1	170	70
440.14F	14	31,0	21,1	5,7	9,5	6,4	180	85
440.15F	15	32,6	22,2	5,9	10,0	6,8	185	95
440.16F	16	35,6	23,9	6,4	10,5	7,3	195	115
440.17F	17	37,0	25,3	6,5	10,9	7,6	202	130
440.18F	18	38,7	26,0	7,2	11,4	8,1	208	150
440.19F	19	41,2	27,8	7,2	11,9	8,3	216	170

■ 440F - Inch combination wrenches - FLUO



ASME B107.100, SAE AS954G

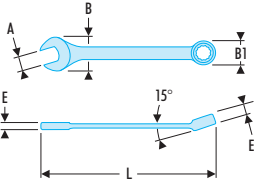
- Detect the tool thanks to its fluorescence, activated by a lamp or UV neon light. Detectable in black or dark environment up to 5 meters.
- Standard wrench for all current applications.
- High mechanical strength combined with compact size meeting aeronautical standards.
- Ring head:
  - Ring open end (size E) designed for better access to series or embedded screws.
  - OGV® profile with 12-point ring for powerful tightening while protecting the nut. H suffix = 6-point ring.
  - Ring head angled at 15°.
- Open end head:
  - Open end angled at 15°.
  - Open end head-handle geometry optimised for increased access.
- Dimensions in inches: from 1/4" to 1".
- Presentation: satin chrome finish.

Size	A ["]	B [mm]	B1 [mm]	E [mm]	E1 [mm]	E2 [mm]	L [mm]	ΔΔ [g]
440.1/4F	1/4	14,1	10,0	3,1	6,0	3,8	115	20
440.5/16F	5/16	19,2	12,8	3,5	6,7	4,7	133	30
440.11/32F	11/32	21,2	14,2	3,9	7,1	4,7	138	35
440.3/8F	3/8	23,0	15,0	4,2	7,6	5,2	145	45
440.7/16F	7/16	24,5	16,9	4,6	8,1	5,5	155	50
440.1/2F	1/2	28,7	19,3	4,8	8,6	6,1	170	70
440.9/16F	9/16	31,0	21,1	5,7	9,5	6,4	180	85
440.5/8F	5/8	35,6	23,9	6,4	10,5	7,3	195	115
440.11/16F	11/16	37,0	25,3	6,5	10,9	7,6	202	130
440.3/4F	3/4	41,2	27,8	7,2	11,9	8,3	216	170
440.13/16F	13/16	43,1	29,5	6,3	12,3	8,6	224	185
440.7/8F	7/8	46,9	32,3	8,3	13,3	9,0	248	230
440.15/16F	15/16	51,0	35,0	8,9	14,2	9,7	267	290
440.1PF	1	53,0	36,4	9,4	14,7	9,9	274	315

■ 39F - Inch short-reach combination wrenches - FLUO

ASME B107.100

- Detect the tool thanks to its fluorescence, activated by a lamp or UV neon light. Detectable in black or dark environment up to 5 meters.
- Short combination wrenches: the short handle and compact head allow for high handiness. Ideal for confined access.
- OGV® profile with 12-point ring for powerful tightening while protecting the nut. H suffix = 6-point ring.
- Ring head angled at 15°.
- Open end head angled at 15°.
- Dimensions in inches: from 1/8" to 1/2".
- Presentation: satin chrome finish.



Size	A ["]	B [mm]	B1 [mm]	E [mm]	E1 [mm]	L [mm]	6+12 [mm]	ΔΔ [g]
39.1/8HF	1/8	10	7,0	3,1	3,1	77	6	10
39.5/32HF	5/32	10	8,0	3,1	3,1	77	6	10
39.3/16HF	3/16	11,8	9,0	3,5	4,0	82	6	10
39.7/32HF	7/32	11,8	9,5	3,5	4,0	84	6	10
39.1/4F	1/4	15	10,4	4,1	5,0	90	6	15
39.9/32F	9/32	15	11,5	4,1	5,0	90	6	15

Size	A ["]	B [mm]	B1 [mm]	E [mm]	E1 [mm]	L [mm]	6+12 [mm]	ΔΔ [g]
39.5/16F	5/16	17,2	12,5	4,5	5,8	94	6	20
39.11/32F	11/32	19,4	14	4,8	6,0	98	6	25
39.3/8F	3/8	21,5	15,3	5,1	6,4	103	6	30
39.7/16F	7/16	23,7	16,8	5,3	6,8	109	6	35
39.1/2F	1/2	28	19,5	5,8	8,0	141	12	50



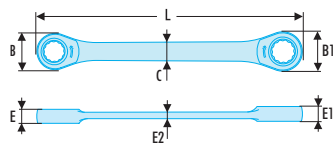
FLUO

Rfid



RATCHET WRENCHES FLUO

64F - Inch straight ratchet ring wrenches - FLUO

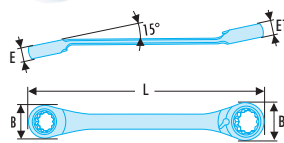


ASME B107.100

- Detect the tool thanks to its fluorescence, activated by a lamp or UV neon light. Detectable in black or dark environment up to 5 meters.
- Straight ratchet ring wrenches: to reach the nut flat.
- Compact ratchet mechanism and reversible by flipping the wrench.
- Increment 5° (7.5° for dimension 1/4" mm; 6° for dimensions 5/16" and 11/32").
- Dimensions in inches: from 1/4" to 5"16.
- Presentation: satin chrome finish.

⊞	A ["]	B1 [mm]	d [mm]	E [mm]	E1 [mm]	E2 [mm]	L [mm]	ΔΔ [g]
64.1/4X5/16F	1/4x5/16	17,2	8,0	6,3	6,5	3,0	115	40
64.5/16X11/32F	5/16x11/32	20,2	8,3	6,5	6,9	3,2	128	45
64.3/8X7/16F	3/8x7/16	21,8	9,1	7,3	7,7	3,6	150	60
64.1/2X9/16F	1/2x9/16	24,8	11,3	8,6	9,0	4,2	180	115
64.5/8X11/16F	5/8x11/16	33,5	14,8	9,9	10,7	5,4	210	185
64.3/4X13/16F	3/4x13/16	40,0	15,2	11,2	13,0	5,4	245	310
64.7/8X15/16F	7/8x15/16	46,0	15,2	13	14,5	5,4	260	480

65F - Metric 15° hinged ratchet ring wrenches - FLUO



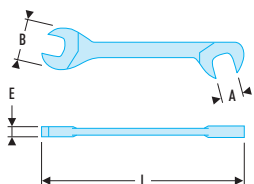
NF ISO 1711-1, NF ISO 691, ISO 1711-1, ISO 691, DIN ISO 1711-1, DIN ISO 691, ASME B107.100

- Detect the tool thanks to its fluorescence, activated by a lamp or UV neon light. Detectable in black or dark environment up to 5 meters.
- 15° hinged ratchet ring wrenches: ring offset to clear fingers or obstacles.
- Compact ratchet mechanism and reversible by lever.
- Increment 5° (7.5° for dimension 6 mm; 6° for dimensions 7, 8 and 9 mm).
- Ring head angled at 15°.
- Metric sizes: 6 to 24 mm.
- Presentation: satin chrome finish.

⊞	A [mm]	B [mm]	B1 [mm]	E [mm]	E1 [mm]	L [mm]	ΔΔ [g]
65.6X7F	6x7	14,0	17,0	6,3	6,5	115	30
65.8X9F	8x9	17,0	20,2	6,5	6,9	128	45
65.10X11F	10x11	20,2	22,0	7,3	7,7	150	65
65.12X13F	12x13	23,4	25,5	8,2	8,6	170	90
65.14X15F	14x15	26,9	29,8	9	9,4	190	130
65.16X18F	16x18	29,8	34,0	9,9	10,7	210	190
65.17X19F	17x19	31,8	34,0	10,3	11,2	230	210
65.21X23F	21x23	40,1	46,0	13	14,5	260	430
65.22X24F	22x24	40,1	46,5	13	14,5	260	425

OPEN END WRENCHES FLUO

34F - Inch 15° and 75° hinged "midget" open end wrenches - FLUO



ASME B107.100, SAE AS954G

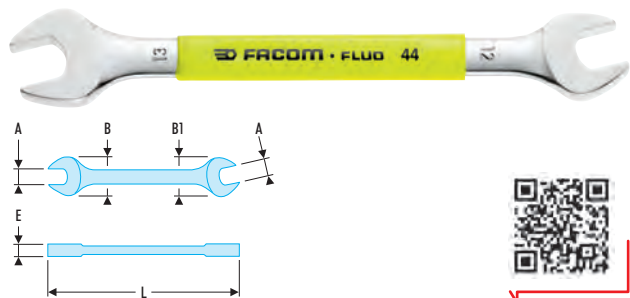
- Detect the tool thanks to its fluorescence, activated by a lamp or UV neon light. Detectable in black or dark environment up to 5 meters.
- "Midget" open end wrenches: short shank and slim heads for manoeuvrability in confined spaces.
- Heads hinged at 15° and 75° allow to intervene on nuts inaccessible with a standard wrench.
- Dimensions in inches: from 3/16" to 11/16".
- Presentation: satin chrome finish.



⊞	A ["]	B [mm]	E [mm]	L [mm]	ΔΔ [g]
34.3/16F	3/16	13	2,4	75	10
34.7/32F	7/32	13	2,4	75	10
34.1/4F	1/4	15	2,7	80	15
34.9/32F	9/32	15	2,7	80	15
34.5/16F	5/16	18,5	3,0	90	20
34.11/32F	11/32	18,5	3,0	90	20
34.3/8F	3/8	22	3,0	100	25

⊞	A ["]	B [mm]	E [mm]	L [mm]	ΔΔ [g]
34.13/32F	13/32	22	3,0	100	30
34.7/16F	7/16	22	3	100	30
34.1/2F	1/2	27	3,5	120	35
34.9/16F	9/16	27	3,5	120	40
34.5/8F	5/8	33	4,5	140	70
34.11/16F	11/16	33	4,5	140	70

■ 44F - Metric open end wrenches - FLUO

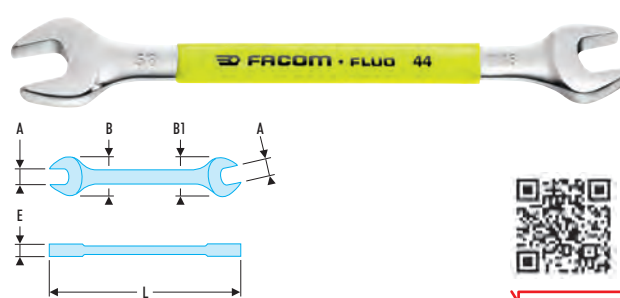


NF ISO 10102, NF ISO 3318, NF ISO 1711-1, NF ISO 691, ISO 10102, ISO 3318, ISO 1711-1, ISO 691, DIN ISO 1711-1, DIN ISO 691, DIN 3110

- Detect the tool thanks to its fluorescence, activated by a lamp or UV neon light. Detectable in black or dark environment up to 5 meters.
- Open end wrenches = the open ends are slimmer than a standard combination wrench for better thickness accessibility. Examples: brake calipers, hydraulic hose locknuts.
- Heads hinged at 15°.
- Metric sizes: 3.2 to 30 mm.
- Presentation: satin chrome finish.

🔗	A [mm]	B x B1 [mm]	E [mm]	L [mm]	ΔΔ [g]
44.3.2X5.5F	3,2x5,5	11,0 x 13,5	3,0	90	10
44.4X5F	4x5	11,0 x 13,5	3,0	90	10
44.6X7F	6x7	15,0 x 17,5	3,5	120	20
44.8X9F	8x9	18,5 x 21,0	3,8	137	30
44.8X10F	8x10	19,0 x 23,0	4,2	143	40
44.10X11F	10x11	23,0 x 25,0	4,7	152	50
44.10X13F	10x13	23,0 x 29,0	5,1	162	60
44.12X13F	12x13	25,5 x 29,0	5,1	167	65
44.12X14F	12x14	29,0 x 33,5	5,5	177	80
44.13X17F	13x17	31,0 x 37,0	6,3	192	120
44.14X15F	14x15	31,0 x 33,0	5,5	182	90
44.16X17F	16x17	35,5 x 37,0	6,3	200	120
44.16X18F	16x18	37,0 x 42,0	6,8	210	145
44.17X19F	17x19	37,0 x 42,0	6,8	210	145
44.18X19F	18x19	39,0 x 42,0	7,3	220	160
44.20X22F	20x22	43,0 x 48,5	7,5	240	200
44.26X28F	26x28	56,0 x 61,6	8,8	282	360
44.27X29F	27x29	59,0 x 64,0	9,5	301	450
44.27X30F	27x30	59,0 x 64,0	9,5	301	450

■ 44F - Inch open end wrenches - FLUO



ASME B107.100

- Detect the tool thanks to its fluorescence, activated by a lamp or UV neon light. Detectable in black or dark environment up to 5 meters.
- Open end wrenches = the open ends are slimmer than a standard combination wrench for better thickness accessibility. Examples: brake calipers, hydraulic hose locknuts.
- Heads hinged at 15°.
- Dimensions in inches: from 1/4" to 11/16".
- Presentation: satin chrome finish.

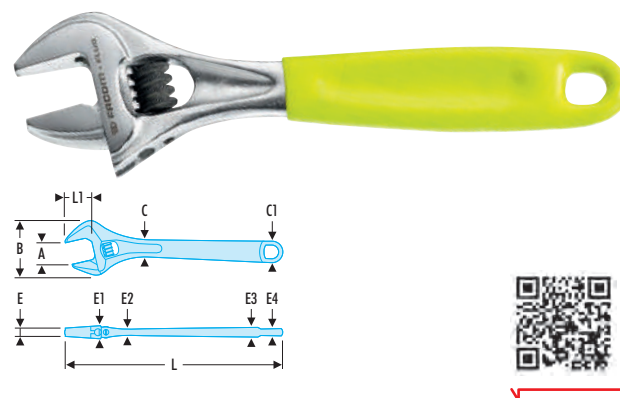
🔗	A ["]	B x B1 [mm]	E [mm]	L [mm]	ΔΔ [g]
44.1/4X5/16F	1/4x5/16	15,0 x 17,5	3,5	120	20
44.11/32X13/32F	11/32x13/32	19,0 x 23,0	4,2	143	40
44.3/8X7/16F	3/8x7/16	23,0 x 25,0	4,7	152	50
44.1/2X9/16F	1/2x9/16	29,0 x 33,5	5,5	177	80
44.5/8X11/16F	5/8x11/16	37,0 x 42,0	6,8	210	145
44.3/4X13/16F	3/4x13/16	43,0 x 48,5	7,5	240	200
44.1PX1P1/16F	1"X1"1/16	56,0 x 61,6	8,8	282	360
44.1P1/8X1P1/4F	1"1/8X1"1/4	63,0 x 70,0	9,8	318	515
44.1P3/8X1P1/2F	1"3/8X1"1/2	78,0 x 87,0	12	381	945
44.7/8X15/16F	7/8X15/16	47,5 x 52,0	8,3	251	260

VARIABLE OPENING WRENCHES FLUO

■ 113A.CF - Chromed adjustable wrenches - FLUO

NF ISO 6787, ISO 6787, DIN 3117, ASME B107.100

- Detect the tool thanks to its fluorescence, activated by a lamp or UV neon light. Detectable in black or dark environment up to 5 meters.
- Good access to the button = easy setting.
- Non-protruding moving jaw at maximum capacity.
- Pre-adjustment of jaw opening thanks to millimetric gradation.
- Right-hand button rotation.
- Range from 4" to 12".
- Presentation: chromed body and polished head faces.



🔗	A [mm]	B [mm]	C x C1 [mm]	E [mm]	E1 [mm]	E2 [mm]	E3 [mm]	E4 [mm]	L [mm]	L1 [mm]	ΔΔ [g]
113A.4CF	13	34,0	11,0 x 14,0	14	9,5	5,0	6,5	5,0	114	13	65
113A.6CF	20	45,0	14,8 x 18,5	18,5	11,8	6,0	8,3	5,8	155	19	125
113A.10CF	30	69,5	21,5 x 28,5	28,5	15,5	9,5	12,7	10,0	255	29	480
113A.12CF	34	80,0	25,0 x 31,0	31	18,0	10,2	13,0	10,0	306	34	700

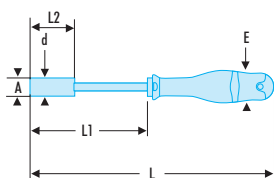


FLUO

Rfid

SOCKET WRENCHES FLUO

74AF - Forged socket wrenches with metric screwdriver handle - FLUO



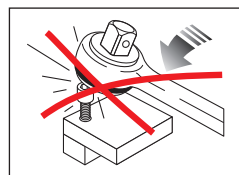
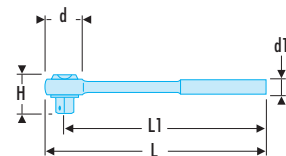
NF ISO 2236, NF ISO 691, ISO 2236, ISO 691, DIN 3125, DIN ISO 691

- Detect the tool thanks to its fluorescence, activated by a lamp or UV neon light. Detectable in black or dark environment up to 5 meters.
- Socket wrenches with screwdriver handle ideal for screws with limited access in height or precision mechanics.
- Protwist screwdriver handle for optimum comfort even for powerful unlocking.
- 6-point socket with deep opening for long threads.
- Forged body for maximum strength.
- Metric sizes: 3.2 to 14 mm.
- Presentation: satin chrome finish.

ED	A [mm]	d1 [mm]	E [mm]	L [mm]	L1 [mm]	L2 [mm]	ΔΔ [g]
74A.3.2F	3,2	6,0	36	245	125	20	110
74A.4F	4,0	7,0	36	245	125	20	115
74A.4.5F	4,5	7,5	36	245	125	25	120
74A.5F	5,0	8,0	36	245	125	25	120
74A.5.5F	5,5	8,0	36	245	125	30	120
74A.6F	6,0	9,5	36	245	125	35	125
74A.7F	7,0	9,5	36	245	125	35	130
74A.8F	8,0	12,0	36	245	125	50	155
74A.9F	9,0	12,0	36	245	125	50	160
74A.10F	10,0	14,5	40	250	125	50	200
74A.11F	11,0	16,0	40	250	125	50	210
74A.12F	12,0	17,0	40	250	125	50	210
74A.13F	13,0	18,5	40	250	125	55	250
74A.14F	14,0	20,0	40	250	125	55	255

RATCHETS 1/4" FLUO

1/4" Hi-Lok® ratchet - FLUO



ISO 3315

- Detect the tool thanks to its fluorescence, activated by a lamp or UV neon light. Detectable in black or dark environment up to 5 meters.
- Specific ratchet for use on Hi-Lok®, Hi-Lite® or Hi-Tigue® rivets.
- The sockets are locked onto square drive by a metal clip.
- Hole in the ratchet head to insert a key to lock the fastener during the tightening phase.
- Highly compact head for better accessibility.
- 1/4" square drive bit.
- 72 tooth mechanism for 5° increments.
- Detect the tool thanks to its fluorescence, activated by a lamp or UV neon light. Detectable in black or dark environment up to 5 metres.

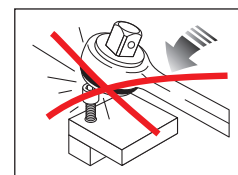
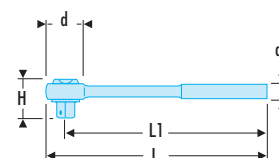
ED	d [mm]	d1 [mm]	L [mm]	L1 [mm]	ΔΔ [g]
RL.161HLF	22	20	120	110	80

1/4" maintenance free pear head locking ratchet - FLUO

NF ISO 3315, ISO 3315, DIN 3122, ASME B107.10

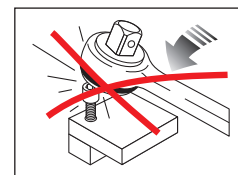
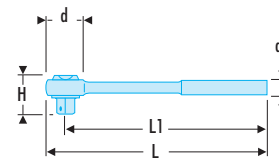
- Detect the tool thanks to its fluorescence, activated by a lamp or UV neon light. Detectable in black or dark environment up to 5 meters.
- Socket locking and quick release system.
- Dust proof, maintenance free mechanism.
- 72 teeth mechanism for 5° increments.
- Drive direction switch allows easy reversal even with gloved or greasy hands.
- Palm control system - allows the operator to press down on the head avoiding risk of accidental reverse
- Ultra-compact head.
- Hook for hanging when working at height.
- Ergonomic comfort grip handle design resistant to workshop chemicals and solvents.

FLUO	d [mm]	d1 [mm]	H [mm]	L [mm]	L1 [mm]	ΔΔ [g]
RL.171F	22	78	20	120	25	110



1/4" fast ratchet with rotating handle - FLUO

- Detect the tool thanks to its fluorescence, activated by a lamp or UV neon light. Detectable in black or dark environment up to 5 meters.
- Rotating handle mechanism: work twice faster in confined spaces.
- 60 tooth mechanism for 6° increments upon final tightening.
- Socket safety locking: no sockets lost in your machines.
- Reversing by rotating cap.
- "Palm control" system, allowing to press the ratchet head during (un)tightening without risk of accidental reversing of the rotation direction.
- Bi-material elastomer grip: high resistance to abrasion and the most severe workshop solvents: SP95, SP98, diesel fuel, acetone, brake fluid, Skydrol, Jet Oil, kerosene.



FLUO	d [mm]	d1 [mm]	H [mm]	L [mm]	L1 [mm]	ΔΔ [g]
R.360F	27	21	29	120	120	160



FLUO

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RATCHETS 1/4" FLUO

1/4" drive locking extensions - FLUO



NF ISO 3316, ISO 3316, DIN 3123, ASME B107.10

- Detect the tool thanks to its fluorescence, activated by a lamp or UV neon light. Detectable in black or dark environment up to 5 meters.
- Locking mechanism.
- Finish: bright chrome.



REF	d [mm]	d1 [mm]	d2 [mm]	L [mm]	ΔΔ [g]
R.210RCF	8,2	12	13	100	45
R.215RCF	8,2	12	13	150	60
R.217RCF	8,2	12	13	250	100

Bit-holder ratchet wrench 1/4" - 5/16" - FLUO



- Detect the tool thanks to its fluorescence, activated by a lamp or UV neon light. Detectable in black or dark environment up to 5 meters.
- Takes the following bits:
  - Series 1: hexagon 1/4".
  - Series 2: hexagon 5/16".
- Used for installing 1/4" and 5/16" aircraft fasteners.
- Increment: 5°.
- Heads angled at 15°.
- Bits held by a spring clip.
- Knurled head for fast pre-tightening.
- Length 150 mm.
- Satin chrome finish.



REF	L [mm]	ΔΔ [g]
65.PEF	150	74

1/4" drive short spinner - FLUO



NF ISO 3315, ISO 3315, DIN 3122, ASME B107.10

- Detect the tool thanks to its fluorescence, activated by a lamp or UV neon light. Detectable in black or dark environment up to 5 meters.
- Ergonomic bi-material grip.
- Ideal for confined spaces.



REF	ΔΔ [g]
R.236CF	76

1/4" drive medium spinner - FLUO



NF ISO 3315, ISO 3315, DIN 3122, ASME B107.10

- Detect the tool thanks to its fluorescence, activated by a lamp or UV neon light. Detectable in black or dark environment up to 5 meters.
- Ergonomic bi-material grip.
- Ideal for confined spaces.



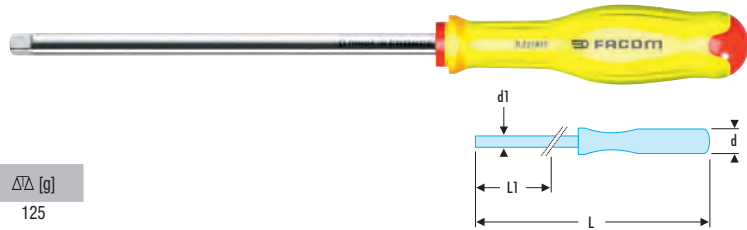
REF	ΔΔ [g]
R.236AF	79



1/4" drive standard spinner - FLUO

NF ISO 3315, ISO 3315, DIN 3122, ASME B107.10

- Detect the tool thanks to its fluorescence, activated by a lamp or UV neon light. Detectable in black or dark environment up to 5 meters.
- Ergonomic bi-material grip.
- Ideal for confined spaces.



REF	d [mm]	d1 [mm]	L [mm]	L1 [mm]	ΔΔ [g]
R.227AF	23,5	8	260	160	125

1/4" to 3/8" coupler - FLUO

NF ISO 3316, ISO 3316, DIN 3123, ASME B107.10

- Detect the tool thanks to its fluorescence, activated by a lamp or UV neon light. Detectable in black or dark environment up to 5 meters.
- 1/4" female to 3/8" male square drive.
- For adapting 3/8" drive sockets.
- Finish: bright chrome.



REF	d [mm]	d1 [mm]	L [mm]	L1 [mm]	ΔΔ [g]
R.232F	12	12	24,5	13,5	16

1/4" drive standard spring-clip bit holder - FLUO

NF ISO 1173, ISO 1173

- Detect the tool thanks to its fluorescence, activated by a lamp or UV neon light. Detectable in black or dark environment up to 5 meters.
- Spring clip for frequent bit changes.
- Finish: bright chrome.



REF	A ["]	d [mm]	L [mm]	L1 [mm]	ΔΔ [g]
R.235F	1/4	11,3	22	10	

SOCKETS 1/4" FLUO

R.FLUO 1/4" drive metric 6-point sockets - FLUO

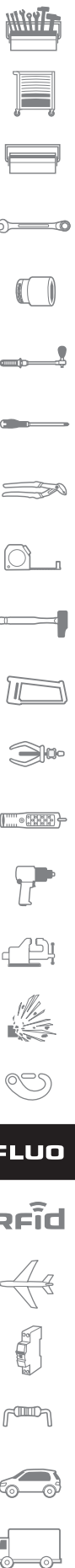
NF ISO 2725-1, NF ISO 1711-1, ISO 2725-1, ISO 1711-1, DIN 3124, ASME B107.5

- Detect the tool thanks to its fluorescence, activated by a lamp or UV neon light. Detectable in black or dark environment up to 5 meters.
- OGV® profile: more powerful tightening, preserves fasteners.
- Finish: bright chrome.
- Available as sets on metal rack (Ref R.40E).



REF	A [mm]	d [mm]	d1 [mm]	L [mm]	L1 [mm]	ΔΔ [g]
R.3.2FLUO	3,2	11,2	5,9	22	2,4	10
R.4FLUO	4,0	11,2	6,9	22	2,6	10
R.5FLUO	5,0	11,2	8,2	22	4,8	10
R.5.5FLUO	5,5	11,2	8,8	22	4,8	10
R.6FLUO	6,0	11,2	9,4	22	5,6	10
R.7FLUO	7,0	11,0	11,0	22	6,0	10
R.8FLUO	8,0	12,0	12,0	22	6,5	10

REF	A [mm]	d [mm]	d1 [mm]	L [mm]	L1 [mm]	ΔΔ [g]
R.9FLUO	9,0	13,2	13,2	22	6,5	15
R.10FLUO	10,0	14,7	14,7	22	7,8	20
R.11FLUO	11,0	15,8	15,8	22	9,0	20
R.12FLUO	12,0	17,0	17,0	22	9,50	25
R.13FLUO	13,0	17,7	17,7	22	10,00	25
R.14FLUO	14,0	18,7	18,7	22	10,00	30

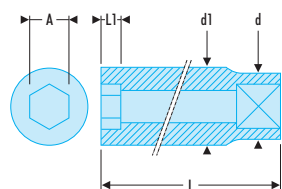


FLUO

Rfid

SOCKETS 1/4" FLUO

R 1/4" drive inch 6-point sockets - FLUO

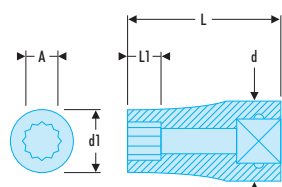


ASME B107.1

- Detect the tool thanks to its fluorescence, activated by a lamp or UV neon light. Detectable in black or dark environment up to 5 meters.
- OGV® profile: more powerful tightening, preserves fasteners.
- Finish: bright chrome.

➤	A ["]	d [mm]	d1 [mm]	L [mm]	L1 [mm]	⬡ [mm]	ΔΔ [g]
R.3/16FLUO	3/16	11,2	8,0	22	4,75		10
R.7/32FLUO	7/32	11,2	9,0	22	5,50		10
R.1/4FLUO	1/4	11,2	10,1	22	6,00		10
R.9/32FLUO	9/32	11,0	11,0	22	6,00		10
R.5/16FLUO	5/16	12,0	12,0	22	6,50		15
R.11/32FLUO	11/32	13,2	13,2	22	6,50		20
R.3/8FLUO	3/8	14,7	14,7	22	7,80		20
R.13/32FLUO	13/32	14,7	14,7	22	7,80		20
R.7/16FLUO	7/16	15,8	15,8	22	9,00		20
R.1/2FLUO	1/2	17,7	17,7	22	10,00		25
R.9/16FLUO	9/16	18,7	18,7	22	10,00		25

R.EF 1/4" drive inch 12-point sockets - FLUO



ASME B107.1

- Detect the tool thanks to its fluorescence, activated by a lamp or UV neon light. Detectable in black or dark environment up to 5 meters.
- OGV® profile: more powerful tightening, preserves fasteners.
- Finish: bright chrome.

➤	A ["]	d [mm]	d1 [mm]	d3 [mm]	H [mm]	L [mm]	L1 [mm]	L2 [mm]	⬡ [mm]	ΔΔ [g]
R.3/16EF	3/16	11,2	8,0	8,20	8,0	22	4,75	4,75	12	10
R.7/32EF	7/32	11,2	9,0	8,30	9,0	22	5,50	5,50	12	10
R.1/4EF	1/4	11,2	10,1	9,30	10,1	22	6,00	6,00	12	10
R.9/32EF	9/32	11,2	10,6	8,90	10,6	22	6,00	6,00	12	10
R.5/16EF	5/16	12,0	12,0	11,50	12,0	22	6,50	6,50	12	10
R.11/32EF	11/32	13,0	13,0	14,50	13,0	22	6,50	6,50	12	15
R.3/8EF	3/8	14,7	14,7	17,80	14,7	22	7,80	7,80	12	18
R.13/32EF	13/32	14,7	14,7	17,00	14,7	22	7,80	7,80	12	20
R.7/16EF	7/16	15,8	15,8	19,5	15,8	22	9,00	9,00	12	20
R.1/2EF	1/2	17,7	17,7	24,5	17,7	22	10,00	10,00	12	25
R.9/16EF	9/16	18,7	18,7	25,20	18,7	22	10,00	10,00	12	25

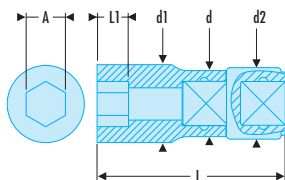
11-piece rack set of 1/4" long-reach inch 12-point sockets - FLUO



- Detect the tool thanks to its fluorescence, activated by a lamp or UV neon light. Detectable in black or dark environment up to 5 meters.
- 11 sockets : 3/16" - 7/32" - 1/4" - 9/32" - 5/16" - 11/32" - 3/8" - 13/32" - 7/16" - 1/2" - 9/16".
- Supplied on metal rack.

➤	ΔΔ [g]
REL.40UF	345

■ R.ELF - 1/4" long-reach metric 12-point sockets - FLUO

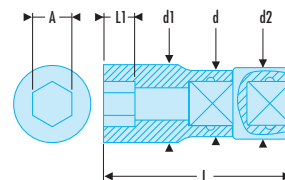


NF ISO 2725-1, NF ISO 1711-1, ISO 2725-1, ISO 1711-1, DIN 3124, ASME B107.5

- Detect the tool thanks to its fluorescence, activated by a lamp or UV neon light. Detectable in black or dark environment up to 5 meters.
- OGV® profile: more powerful tightening, preserves fasteners.
- Long-reach sockets for long recess or thread access.
- Available as rack sets (Ref REL.40U).
- Finish: bright chrome.

➤	A [mm]	d [mm]	d1 [mm]	L [mm]	L1 [mm]	⚙️ [mm]	ΔΔ [g]
R.4ELF	4	6,7	11,2	50	4	12	18
R.4.5ELF	4,5	7,3	11,2	50	4,5	12	18
R.5ELF	5	7,8	11,2	50	5,5	12	18
R.5.5ELF	5,5	8,5	11,2	50	6	12	18
R.6ELF	6	9,2	11,2	50	7	12	18
R.7ELF	7	10,3	11,2	50	8	12	27
R.8ELF	8	11,2	11,7	50	9	12	27
R.9ELF	9	13	12	50	10	12	32
R.10ELF	10	14,3	12,9	50	11	12	41
R.11ELF	11	15,5	14,3	50	12	12	54
R.12ELF	12	16,8	15,5	50	13	12	56
R.13ELF	13	18	16,4	50	14	12	59
R.14ELF	14	19,3	17,9	50	16	12	68

■ R.ELF 1/4" long-reach metric 12-point sockets - FLUO



ASME B107.1

- Detect the tool thanks to its fluorescence, activated by a lamp or UV neon light. Detectable in black or dark environment up to 5 meters.
- OGV® profile: more powerful tightening, preserves fasteners.
- Long-reach sockets for long recess or thread access.
- High performance, suitable for aircraft fasteners to AS954E.
- Thinner socket walls for better accessibility.
- Finish: bright chrome.

➤	A ["]	d [mm]	d1 [mm]	L [mm]	L1 [mm]	⚙️ [mm]	ΔΔ [g]
R.3/16ELF	3/16	10,9	7,7	50	6,0	12	14
R.7/32ELF	7/32	10,9	8,5	50	7,4	12	15
R.1/4ELF	1/4	10,9	9,4	50	7,4	12	17
R.9/32ELF	9/32	10,9	10,2	50	8,5	12	17
R.5/16ELF	5/16	11,8	11,4	50	9,0	12	23
R.11/32ELF	11/32	12,0	12,5	50	9,7	12	25
R.3/8ELF	3/8	12,8	13,7	50	11,2	12	32
R.7/16ELF	7/16	14,3	15,6	50	11,9	12	40
R.1/2ELF	1/2	16,2	17,3	50	13,8	12	45
R.9/16ELF	9/16	17,1	18,8	50	16,2	12	49

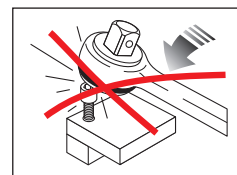
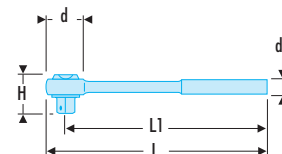
RATCHETS 3/8" FLUO

■ 3/8" Hi-Lok® ratchet - FLUO

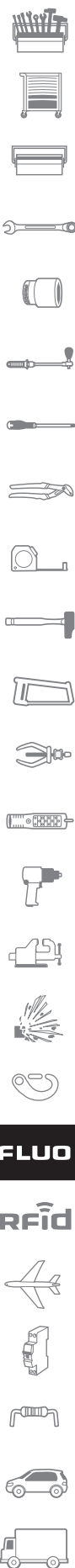


ISO 3315

- Detect the tool thanks to its fluorescence, activated by a lamp or UV neon light. Detectable in black or dark environment up to 5 meters.
- Specific ratchet for use on Hi-Lok®, Hi-Lite® or Hi-Tigue® rivets.
- The sockets are locked onto square drive by a metal clip.
- Hole in the ratchet head to insert a key to lock the fastener during the tightening phase.
- Highly compact head for better accessibility.
- 3/8" square drive bit.
- 72 tooth mechanism for 5° increments.



➤	d [mm]	d1 [mm]	H [mm]	L [mm]	L1 [mm]	ΔΔ [g]
JL.161HLF	29	27	29	210	195	200

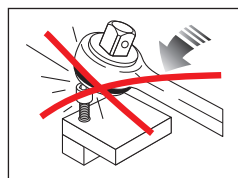
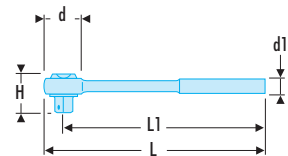


FLUO

Rfid

RATCHETS 3/8" FLUO

3/8" maintenance free pear head locking ratchet - FLUO



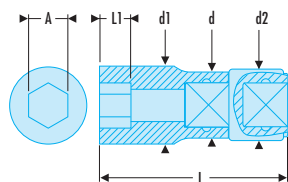
NF ISO 3315, ISO 3315, DIN 3122, ASME B107.10

- Detect the tool thanks to its fluorescence, activated by a lamp or UV neon light. Detectable in black or dark environment up to 5 meters.
- Socket locking and quick release system.
- Dust proof, maintenance free mechanism.
- 72 teeth mechanism for 5° increments.
- Drive direction switch allows easy reversal even with gloved or greasy hands.
- Palm control system - allows the operator to press down on the head avoiding risk of accidental reverse
- Ultra-compact head.
- Hook for hanging when working at height.
- Ergonomic comfort grip handle design resistant to workshop chemicals and solvents.

ED	d [mm]	d1 [mm]	H [mm]	L [mm]	L1 [mm]	ΔΔ [g]
JL.171F	29	27	27	210	195	200

SOCKETS 3/8" FLUO

J.FLUO- 3/8" inch 12-point sockets - FLUO



ASME B107.1

- Detect the tool thanks to its fluorescence, activated by a lamp or UV neon light. Detectable in black or dark environment up to 5 meters.
- OGV® profile: more powerful tightening, preserves fasteners.
- Available as rack sets (Ref J.40U).
- Finish: bright chrome.

ED	A ["]	d [mm]	d1 [mm]	L [mm]	L1 [mm]	12 [mm]	ΔΔ [g]
J.1/4FLUO	1/4	17,5	10,0	27	6,0	12	24
J.5/16FLUO	5/16	17,5	11,9	27	6,5	12	25
J.3/8FLUO	3/8	17,6	14,1	27	7,5	12	26
J.7/16FLUO	7/16	17,5	16,0	27	9,0	12	27
J.1/2FLUO	1/2	17,5	18,1	30	10,4	12	36
J.9/16FLUO	9/16	17,7	19,5	30	10,5	12	34

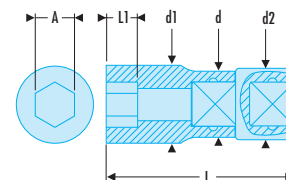
ED	A ["]	d [mm]	d1 [mm]	L [mm]	L1 [mm]	12 [mm]	ΔΔ [g]
J.5/8FLUO	5/8	20,0	22,0	30	12,0	12	46
J.11/16FLUO	11/16	21,0	24,0	33	13,0	12	74
J.3/4FLUO	3/4	22,7	26,0	33	14,0	12	76
J.13/16FLUO	13/16	23,0	28,0	33	16,0	12	79
J.7/8FLUO	7/8	24,7	29,7	33	16,5	12	104

■ J.LAF - 3/8" inch 12-point sockets - FLUO



ASME B107.1

- Detect the tool thanks to its fluorescence, activated by a lamp or UV neon light. Detectable in black or dark environment up to 5 meters.
- OGV® profile: more powerful tightening, preserves fasteners.
- Long-reach sockets for long recess or thread access.
- Finish: bright chrome.



Socket	A ["]	d [mm]	d1 [mm]	L [mm]	L1 [mm]	12 [mm]	ΔΔ [g]
J.1/4LAF	1/4	17,5	10,6	44,7	4,0	12	36
J.5/16LAF	5/16	17,5	12,4	44,7	4,3	12	36
J.3/8LAF	3/8	17,5	14,3	44,7	4,7	12	41
J.7/16LAF	7/16	17,5	16,2	44,7	6,2	12	45
J.1/2LAF	1/2	18,2	18,2	44,7	7,4	12	50
J.9/16LAF	9/16	20,5	20,5	48,0	9,0	12	72

Socket	A ["]	d [mm]	d1 [mm]	L [mm]	L1 [mm]	12 [mm]	ΔΔ [g]
J.5/8LAF	5/8	22,3	22,3	63,8	10,2	12	104
J.11/16LAF	11/16	23,8	23,8	63,8	10,2	12	113
J.3/4LAF	3/4	25,3	25,3	63,8	11,8	12	127
J.13/16LAF	13/16	27,0	27,0	63,8	12,3	12	140
J.7/8LAF	7/8	30,2	30,2	63,8	12,7	12	181

STANDARD 1/2" RANGE FLUO

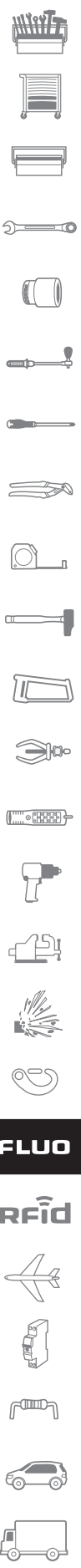
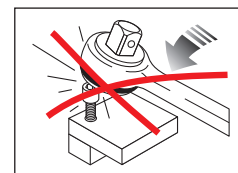
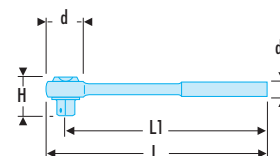
■ 1/2" Hi-Lok® ratchet - FLUO



ISO 33151

- Detect the tool thanks to its fluorescence, activated by a lamp or UV neon light. Detectable in black or dark environment up to 5 meters.
- Specific ratchet for use on Hi-Lok®, Hi-Lite® or Hi-Tigue® rivets.
- The sockets are locked onto square drive by a metal clip.
- Hole in the ratchet head to insert a key to lock the fastener during the tightening phase.
- Highly compact head for better accessibility.
- 1/2" square drive bit.
- 72 tooth mechanism for 5° increments.

Model	d [mm]	d1 [mm]	H [mm]	L [mm]	L1 [mm]	ΔΔ [g]
SL.161HLF	37	32	37	262	245	446

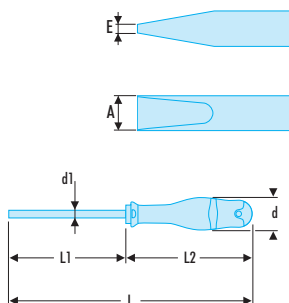


FLUO

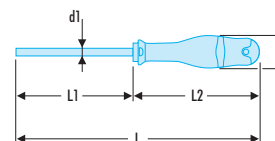
Rfid

PROTWIST® SCREWDRIVER FLUO

■ ANF - PROTWIST® screwdrivers for slotted head screws - milled blades - FLUO



■ AWF - PROTWIST® screwdrivers for slotted head screws - hexagonal blades - FLUO



NF ISO 2380-1, NF ISO 2380-2, ISO 2380-1, ISO 2380-2, DIN ISO 2380-1, DIN ISO 2380-2, ASME B107.600

- Detect the tool thanks to its fluorescence, activated by a lamp or UV neon light. Detectable in black or dark environment up to 5 meters.
- Round shank for access in wells.
- Extra-long shank up to 300 mm for difficult and remote access.
- Silicon carbon blade: strong and resistant to flexion.
- Bi-material grip resists to impacts, abrasion, and chemicals.

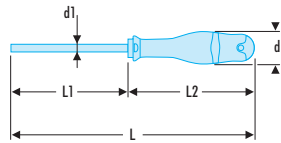
➤	A [mm]	d [mm]	d1 x L1 [mm]	E [mm]	L [mm]	L2 [mm]	ΔΔ [g]
AN2X75F	2,0	19	2,0 x 75	0,4	169	94	18
AN2.5X75F	2,5	19	2,5 x 75	0,4	169	94	21
AN3X75F	3,5	25	3,5 x 75	0,6	178	103	41
AN3.5X75F	3,5	25	3,5 x 75	0,6	178	103	41
AN3X100F	3,0	25	3,0 x 100	0,5	203	103	33
AN3.5X100F	3,5	25	3,5 x 100	0,6	203	103	43
AN4X35F	4,0	36	4,0 x 35	0,8	91	56	36
AN4X100F	4,0	30	4,0 x 100	0,8	209	109	47
AN4X150F	4,0	30	4,0 x 150	0,8	259	109	52
AN5.5X100F	5,5	30	5,5 x 100	1,0	209	109	82
AN5.5X150F	5,5	30	5,5 x 150	1,0	259	109	91
AN6.5X35F	6,5	36	6,5 x 35	1,2	91	56	46
AN6.5X150F	6,5	36	6,5 x 150	1,2	270	120	140

NF ISO 2380-1, NF ISO 2380-2, ISO 2380-1, ISO 2380-2, DIN ISO 2380-1, DIN ISO 2380-2, ASME B107.600

- Detect the tool thanks to its fluorescence, activated by a lamp or UV neon light. Detectable in black or dark environment up to 5 meters.
- Hexagonal blade for optimum reliability and performance.
- Extra-long shank up to 200 mm for difficult and remote access.
- Silicon carbon blade: strong and resistant to flexion.
- Bi-material grip resists to impacts, abrasion, and chemicals.

➤	d [mm]	d1 x L1 [mm]	L [mm]	L2 [mm]	ΔΔ [g]
AW8X150F	40	7 x 150	275	125	220
AW10X200F	40	9 x 200	325	125	255

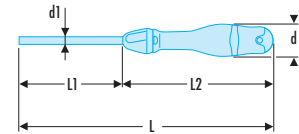
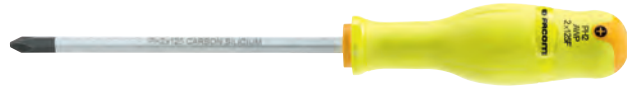
■ **ANPF - PROTWIST® screwdrivers for Phillips® screws - round blades - FLUO**



- NF ISO 8764-1, NF ISO 8764-2, ISO 8764-1, ISO 8764-2, DIN ISO 8764-1, DIN ISO 8764-2, ASME B107.600**
- Detect the tool thanks to its fluorescence, activated by a lamp or UV neon light. Detectable in black or dark environment up to 5 meters.
  - Extra-long blade up to 400 mm for difficult and remote access.
  - Silicon carbon blade: strong and resistant to flexion.
  - Bi-material grip resists to impacts, abrasion, and chemicals.

➤	d [mm]	d1 x L1 [mm]	L [mm]	L2 [mm]	Phillips [No]	ΔΔ [g]
<b>ANPOX75F</b>	25	3,0 x 75	178	103	PH0	45
<b>ANP1X35F</b>	36	4,5 x 35	91	56	PH1	39
<b>ANP1X100F</b>	30	4,5 x 100	209	109	PH1	76
<b>ANP2X35F</b>	36	6,0 x 35	91	56	PH2	44
<b>ANP2X125F</b>	36	6,0 x 125	245	120	PH2	126
<b>ANP2X250F</b>	36	6,0 x 250	370	120	PH2	153
<b>ANP2X400F</b>	36	6,0 x 400	520	120	PH2	186
<b>ANP3X150F</b>	40	8,0 x 150	275	125	PH3	194
<b>ANP4X200F</b>	30	10,0 x 200	325	109	PH4	277

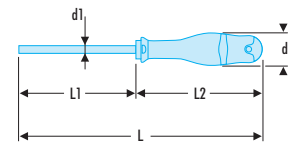
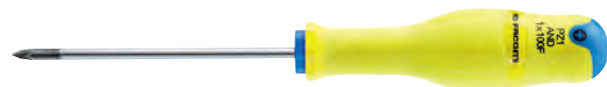
■ **AWPF - PROTWIST® screwdrivers for Phillips® screws - hexagonal blades - FLUO**



- NF ISO 8764-1, NF ISO 8764-2, ISO 8764-1, ISO 8764-2, DIN ISO 8764-1, DIN ISO 8764-2, ASME B107.600**
- Detect the tool thanks to its fluorescence, activated by a lamp or UV neon light. Detectable in black or dark environment up to 5 meters.
  - Hexagonal blade for optimum reliability and performance.
  - Silicon carbon blade: strong and resistant to flexion.
  - Bi-material grip resists to impacts, abrasion, and chemicals.
  - Finish: black tipped mat chromed blade.

➤	d [mm]	d1 x L1 [mm]	L [mm]	L2 [mm]	Phillips [No]	ΔΔ [g]
<b>AWP2X125F</b>	36	6 x 125	245	120	PH2	130

■ **ANDF - PROTWIST® screwdrivers for Pozidriv® screws - round blades - FLUO**



- NF ISO 8764-1, NF ISO 8764-2, ISO 8764-1, ISO 8764-2, DIN ISO 8764-1, DIN ISO 8764-2, ASME B107.600**
- Detect the tool thanks to its fluorescence, activated by a lamp or UV neon light. Detectable in black or dark environment up to 5 meters.
  - Silicon carbon blade: strong and resistant to flexion.
  - Bi-material grip resists to impacts, abrasion, and chemicals.
  - Finish: black tipped mat chromed round blade.

➤	d [mm]	d1 x L1 [mm]	L [mm]	L2 [mm]	Pozidriv [No]	ΔΔ [g]
<b>ANDOX75F</b>	25	3,0 x 75	178	103	P20	45
<b>AND1X100F</b>	30	4,5 x 100	209	109	P21	76
<b>AND2X125F</b>	36	6,0 x 125	245	120	P22	126
<b>AND3X150F</b>	40	8,0 x 150	275	125	P23	194
<b>AND1X35F</b>	36	4,5 x 35	91	56	P21	40
<b>AND2X35F</b>	36	6,0 x 35	91	56	P22	45



FLUO

Rfid

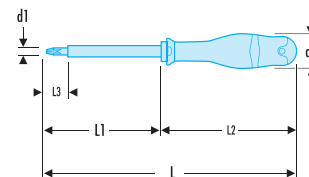
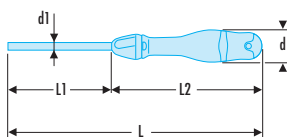


PROTWIST® SCREWDRIVER FLUO

■ **ANXRf - PROTWIST® screwdrivers for Resistorx® screws - FLUO**



■ **AP.VEF - PROTWIST® 1000 Volt insulated screwdrivers for Phillips® head screws - FLUO**



- Detect the tool thanks to its fluorescence, activated by a lamp or UV neon light. Detectable in black or dark environment up to 5 meters.
- Compliant with Resistorx® specifications.
- Silicon carbon blade: strong and resistant to flexion.
- Bi-material grip resists to impacts, abrasion, and chemicals.
- Finish: black tipped mat chromed blade.

- NF ISO 8764-1, NF ISO 8764-2, NF EN 60900, ISO 8764-1, ISO 8764-2, EN 60900, DIN ISO 8764-1, DIN ISO 8764-2, DIN EN 60900, ASME B107.600**
- Detect the tool thanks to its fluorescence, activated by a lamp or UV neon light. Detectable in black or dark environment up to 5 meters.
  - For your safety, each screwdriver is tested individually at 10000 Volts for 10 seconds, at the end of the manufacturing cycle.
  - 1000 Volt sheathed round blade.
  - Bi-material grip resists to impacts, abrasion, and chemicals.

FACOM	A [mm]	d [mm]	d1 x L1 [mm]	L [mm]	L2 [mm]	Resistorx [No]	ΔΔ [g]
<b>ANXR10X75F</b>	2,74	25	3,0 x 75	184	109	TT10	50
<b>ANXR15X75F</b>	3,26	30	3,5 x 75	185	110	TT15	61
<b>ANXR20X100F</b>	3,84	36	4,0 x 100	220	120	TT20	67
<b>ANXR25X100F</b>	4,40	36	5,0 x 100	220	120	TT25	113
<b>ANXR27X100F</b>	4,96	36	5,5 x 100	220	120	TT27	113
<b>ANXR30X125F</b>	5,49	36	6,0 x 125	245	120	TT30	126
<b>ANXR40X150F</b>	6,60	40	7,0 x 150	275	125	TT40	173

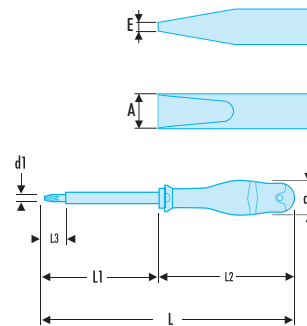
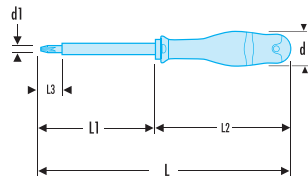
FACOM	d [mm]	d1 [mm]	L [mm]	L1 [mm]	L2 [mm]	L3 [mm]	Phillips [No]	ΔΔ [g]
<b>AP1X100VEF</b>	30	4,5	210	81,5	110	18	PH1	120
<b>AP2X125VEF</b>	36	6,0	245	106	120	18	PH2	170



■ **AD.VEF - PROTWIST® 1000 Volt insulated screwdrivers for Pozidriv® screws - FLUO**



■ **AV.EF - PROTWIST® BORNEO® screwdrivers for mixed heads - Pozidriv® - FLUO**



NF ISO 8764-1, NF ISO 8764-2, NF EN 60900, ISO 8764-1, ISO 8764-2, EN 60900, DIN ISO 8764-1, DIN ISO 8764-2, DIN EN 60900, ASME B107.600

- Detect the tool thanks to its fluorescence, activated by a lamp or UV neon light. Detectable in black or dark environment up to 5 meters.
- For your safety, each screwdriver is tested individually at 10000 Volts for 10 seconds, at the end of the manufacturing cycle.
- 1000 Volt sheathed round blade.
- Bi-material grip resists to impacts, abrasion, and chemicals.

	d [mm]	d1 [mm]	L [mm]	L1 [mm]	L2 [mm]	L3 [mm]	Pozidriv [No]	ΔΔ [g]
<b>AD1X100VEF</b>	30	4,5	209	81,5	109	18	PZ1	120
<b>AD2X125VEF</b>	36	6,0	245	106	120	18	PZ2	170

NF ISO 2380-1, NF ISO 2380-2, NF EN 60900, ISO 2380-1, ISO 2380-2, EN 60900, DIN ISO 2380-1, DIN ISO 2380-2, DIN EN 60900, ASME B107.600

- Detect the tool thanks to its fluorescence, activated by a lamp or UV neon light. Detectable in black or dark environment up to 5 meters.
- Screwdrivers designed specifically for mixed head screws found in electrical appliances.
- Tighter screwing = safety.
- Less slipping for better sensations and lesser wear.
- Longer screwdriver durability.
- For your safety, each screwdriver is tested individually at 10000 Volts for 10 seconds, at the end of the manufacturing cycle.
- Bi-material grip resists to impacts, abrasion, and chemicals.

	A [mm]	d [mm]	E [mm]	L [mm]	L1 [mm]	L2 [mm]	L3 [mm]	ΔΔ [g]
<b>A2.5X75VEF</b>	2,5	25	0,4	178	58	103	18	75
<b>A3.5X100VEF</b>	3,5	25	0,6	204	82	104	18	85
<b>A4X100VEF</b>	4,0	30	0,8	210	82	110	18	90
<b>A5.5X125VEF</b>	5,5	30	1,0	235	106,5	110	18	130



FLUO

Rfid



PROTWIST® SCREWDRIVER FLUO

Set of 6 PROTWIST® screwdrivers - FLUO + 1 12-LED UV lamp-ANP.J6F



- Detect the tool thanks to its fluorescence, activated by a lamp or UV neon light. Detectable in black or dark environment up to 5 meters.

Contains:

- 4 x PROTWIST® screwdriver for slotted screws - milled blades - FLUO - AN2.5X75F - AN4X100F - AN5.5X150F - AN6.5X150F .
- 2 x screwdriver for Phillips screws PROTWIST® Phillips® - round blades - FLUO - ANP1X100F - ANP2X125F .
- 1 UV lamp - PBC.UVLAMP .

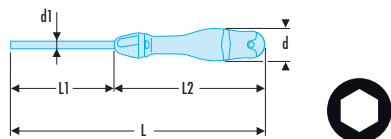
	Content set	ΔΔ [g]
<b>ANP.J6F</b>	AN2.5X75F - AN4X100F - AN5.5X150F - AN6.5X150F - ANP1X100F - ANP2X125F	688

PROTWIST® KEYS FLUO

AWHS - Spherical head spinner hexagon keys - FLUO



- Detect the tool thanks to its fluorescence, activated by a lamp or UV neon light. Detectable in black or dark environment up to 5 meters.
- Bi-material ergonomic PROTWIST® handle for comfortable and reliable screwing.



	A [mm]	d [mm]	d1 x L1 [mm]	d3 [mm]	L [mm]	L2 [mm]	ΔΔ [g]
<b>AWSH2X75F</b>	2,0	19	2,0 x 75	31	169	94	31
<b>AWSH2.5X75F</b>	2,5	19	2,5 x 75	33	169	94	33
<b>AWSH3X75F</b>	3,0	19	3,0 x 75	35	169	94	35
<b>AWSH4X75F</b>	4,0	25	4,0 x 75	45	178	103	45
<b>AWSH5X100F</b>	5,0	30	5,0 x 100	80	208	109	80
<b>AWSH6X100F</b>	6,0	36	6,0 x 100	120	220	120	120
<b>AWSH8X100F</b>	8,0	36	8,0 x 100	180	220	120	180

KEY SLEEVE SET FLUO

Set of hexagon keys in wallet - FLUO



- Detect the tool thanks to its fluorescence, activated by a lamp or UV neon light. Detectable in black or dark environment up to 5 meters.
- 8 keys 83SH in inches: 3/32 - 1/8 - 5/32 - 3/16 - 7/32 - 1/4 - 5/16 - 3/8".
- Very compact sleeve.
- Positive grip.
- Keys on 90° end stop for tightening.
- Keys in silicon steel issued from series 82H.
- Finish: phosphate-coated.



	ΔΔ [g]
<b>83SH.JP8UF</b>	365

■ Set of hexagon keys in wallet - FLUO

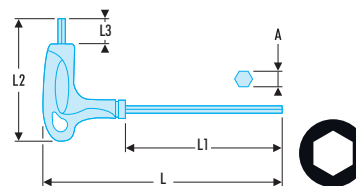
- Detect the tool thanks to its fluorescence, activated by a lamp or UV neon light. Detectable in black or dark environment up to 5 meters.
- 9 metric keys 83SH: 1,5 - 2 - 2,5 - 3 - 4 - 5 - 6 - 8 - 10 mm.
- Very compact sleeve.
- Positive grip.
- Keys on 90° end stop for tightening.
- Keys in silicon steel issued from series 82H.
- Finish: phosphate-coated.



Icon	$\Delta\Delta$ [g]
83SH.JP9F	380

■ 84TZS.F - Spherical head metric hexagon keys - FLUO

- Detect the tool thanks to its fluorescence, activated by a lamp or UV neon light. Detectable in black or dark environment up to 5 meters.
- Ergonomic T handle for efficient use of the two ends of the key.
- The spherical head allows for screwing with a tilt angle up to 30°. Use the short hexagon key for tightening.
- Silicon steel.
- Finish: polished, phosphate-coated.



Icon	A [mm]	L [mm]	L1 [mm]	L2 [mm]	L3 [mm]	$\Delta\Delta$ [g]
84TZS.4F	4	183	130	77	12	58
84TZS.5F	5	183	130	77	12	70
84TZS.6F	6	240	175	95	15	112
84TZS.7F	7	240	175	95	15	120
84TZS.8F	8	240	175	95	15	125
84TZS.10F	10	240	175	95	15	192

BITS FLUO

■ Empty box 63 bits - FLUO

- Detect the tool thanks to its fluorescence, activated by a lamp or UV neon light. Detectable in black or dark environment up to 5 meters.



Icon	$\Delta\Delta$ [g]
BV.E1063F	170

■ Set of 63 bits - FLUO

- Detect the tool thanks to its fluorescence, activated by a lamp or UV neon light. Detectable in black or dark environment up to 5 meters.
- Contains:
- 7 x High Perf® series 1 for Phillips screws Pozidriv® - ED.102TF.
  - 7 x standard series 1 for screw caps 6 metric hollow sections - EH.104TF.
  - 7 x High Perf tips® series 1 for Phillips screws Phillips® - EP.101TF.
  - 7 x High Perf tips® series 1 for Phillips screws Phillips® - EP.102TF.
  - 7 x standard series 1 recessed screw caps for Torq Set® - ETORM.102TF.
  - 7 x standard series 1 recessed screw caps for Torq Set® - ETORM.104TF.
  - 7 x standard series 1 recessed screw caps for Torq Set® - ETORM.106TF.
  - 7 x 1 standard serial bits for Torx® screws - EX.115TF.
  - 7 x 1 standard serial bits for Torx® screws - EX.120TF.



Icon	$\Delta\Delta$ [g]
E.1063F	250

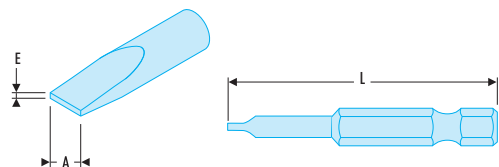


FLUO

Rfid

BITS FLUO

■ ES.1TF - High Perf' bits series 1 for slotted head screws - FLUO



NF ISO 2351-1, NF ISO 1173, ISO 2351-1, ISO 1173, DIN ISO 2351-1

- Detect the tool thanks to its fluorescence, activated by a lamp or UV neon light. Detectable in black or dark environment up to 5 meters.
- For intense manual screwing.
- Drive 1/4" - 6.35 mm.

	A [mm]	E [mm]	L [mm]	ΔΔ [g]
ES.134.5TF	4,5	0,6	25	5
ES.135.5TF	5,5	0,8	25	5

■ ES.6TF - Standard bits series 6 for slotted head screws - FLUO

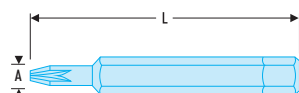


NF ISO 2351-2, NF ISO 1173, ISO 2351-2, ISO 1173, DIN ISO 2351-2

- Detect the tool thanks to its fluorescence, activated by a lamp or UV neon light. Detectable in black or dark environment up to 5 meters.
- Drive 1/4" - 6.35 mm with groove.

	L [mm]	ΔΔ [g]
ES.634.5TF	50	15

■ EP.1TF - Standard bits series 1 for Phillips® screws - FLUO



NF ISO 2351-2, NF ISO 1173, ISO 2351-2, ISO 1173, DIN ISO 2351-2

- Detect the tool thanks to its fluorescence, activated by a lamp or UV neon light. Detectable in black or dark environment up to 5 meters.
- For manual screwing.
- Drive 1/4" - 6.35 mm.

	L [mm]	Phillips [No]	ΔΔ [g]
EP.101TF	25	PH1	5
EP.102TF	25	PH2	5
EP.103TF	25	PH3	5

■ EP.6TF - Standard bits series 6 for Phillips® screws - FLUO



NF ISO 2351-2, NF ISO 1173, ISO 2351-2, ISO 1173, DIN ISO 2351-2

- Detect the tool thanks to its fluorescence, activated by a lamp or UV neon light. Detectable in black or dark environment up to 5 meters.
- Drive 1/4" - 6.35 mm with groove.

	L [mm]	Phillips [No]	ΔΔ [g]
EP.601TF	50	PH1	10
EP.602TF	50	PH2	10
EP.603TF	50	PH3	10

■ ED.1TF - High Perf' bits series 1 for Pozidriv® screws - FLUO



NF ISO 2351-2, NF ISO 1173, ISO 2351-2, ISO 1173, DIN ISO 2351-2

- Detect the tool thanks to its fluorescence, activated by a lamp or UV neon light. Detectable in black or dark environment up to 5 meters.
- For intense manual screwing.
- Drive 1/4" - 6.35 mm.

	L [mm]	Pozidriv [No]	ΔΔ [g]
ED.101TF	25	PZ1	5
ED.102TF	25	PZ2	5
ED.103TF	25	PZ3	5

■ ED.60TF - For Pozidriv® screws - FLUO

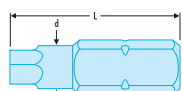


NF ISO 2351-2, NF ISO 1173, ISO 2351-2, ISO 1173, DIN ISO 2351-2

- Detect the tool thanks to its fluorescence, activated by a lamp or UV neon light. Detectable in black or dark environment up to 5 meters.
- Drive 1/4" - 6.35 mm with groove.

	L [mm]	Pozidriv [No]	ΔΔ [g]
ED.601TF	50	PZ1	10
ED.602TF	50	PZ2	10
ED.603TF	50	PZ3	10

■ **EH.1TF - Screw bits series 1 for metric countersunk hex head screws - FLUO**

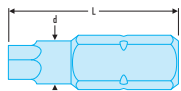


NF ISO 2351-3, NF ISO 1173, ISO 2351-3, ISO 1173, DIN ISO 2351-3

- Detect the tool thanks to its fluorescence, activated by a lamp or UV neon light. Detectable in black or dark environment up to 5 meters.
- For manual screwing.
- Drive 1/4" - 6.35 mm.

➤	L [mm]	⌀ [mm]	ΔΔ [g]
EH.101.5TF	25	1,5	5
EH.102.5TF	25	2,5	5
EH.102TF	25	2,0	5
EH.103TF	25	3,0	5
EH.104TF	25	4,0	5
EH.105TF	25	5,0	5

■ **EH.1FT - Screw bits series 1 for inch countersunk hex head screws - FLUO**

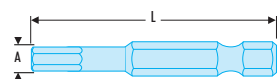


NF ISO 1173, ISO 1173

- Detect the tool thanks to its fluorescence, activated by a lamp or UV neon light. Detectable in black or dark environment up to 5 meters.
- For manual screwing.
- Drive 1/4" - 6.35 mm.

➤	A ["]	L [mm]	ΔΔ [g]
EH.101/8TF	1/8	25	5
EH.103/16TF	3/16	25	5
EH.105/32TF	5/32	25	5
EH.107/32TF	7/32	25	5
EH.107/64TF	1/8	25	10
EH.109/64TF	7/32	25	10
EH.3/32TF	3/32	25	10
EH.5/64TF	5/64	25	10

■ **EH.6FT - Standard bits series 6 for countersunk hex screws - FLUO**

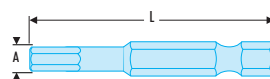


NF ISO 2351-3, NF ISO 1173, ISO 2351-3, ISO 1173, DIN ISO 2351-3

- Detect the tool thanks to its fluorescence, activated by a lamp or UV neon light. Detectable in black or dark environment up to 5 meters.
- Drive 1/4" - 6.35 mm with groove.

➤	L [mm]	⌀ [mm]	ΔΔ [g]
EH.603TF	50	3	15
EH.605TF	50	5	15

■ **EH.6TF - Screw bits series 6 for inch countersunk hex head screws - FLUO**

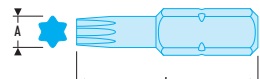


NF ISO 2351-3, NF ISO 1173, ISO 2351-3, ISO 1173, DIN ISO 2351-3

- Detect the tool thanks to its fluorescence, activated by a lamp or UV neon light. Detectable in black or dark environment up to 5 meters.
- Drive 1/4" - 6.35 mm with groove.

➤	L [mm]	ΔΔ [g]
EH.601/8TF	50	10
EH.603/16TF	50	10
EH.605/32TF	50	10
EH.607/32TF	50	10

■ **EX.1TF - Standard bits series 1 for Torx® screws - FLUO**

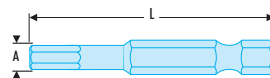


NF ISO 1173, ISO 1173

- Detect the tool thanks to its fluorescence, activated by a lamp or UV neon light. Detectable in black or dark environment up to 5 meters.
- Compliant with Torx® specifications.
- For manual screwing.
- Drive 1/4" - 6.35 mm.

➤	A [mm]	L [mm]	Torx [No]	ΔΔ [g]
EX.110TF	2,72	25	T10	5
EX.115TF	3,26	25	T15	5
EX.120TF	3,84	25	T20	5
EX.125TF	4,40	25	T25	5
EX.127TF	4,96	25	T27	5
EX.130TF	5,49	25	T30	5

■ **EX.6TF - Standard bits series 6 for Torx® screws - FLUO**



NF ISO 1173, ISO 1173

- Detect the tool thanks to its fluorescence, activated by a lamp or UV neon light. Detectable in black or dark environment up to 5 meters.
- Compliant with Torx® specifications.
- Drive 1/4" - 6.35 mm with groove.

➤	L [mm]	Torx [No]	ΔΔ [g]
EX.608TF	70	T8	10
EX.609TF	70	T9	10
EX.610TF	70	T10	10
EX.615TF	70	T15	10
EX.620TF	70	T20	10
EX.625TF	70	T25	10
EX.627TF	70	T27	10
EX.630TF	70	T30	15



**BITS FLUO**

■ **ETOR.TF - Standard bits series 1 for Torq Set® head screws - FLUO**



**NF ISO 1173, ISO 1173**

- Detect the tool thanks to its fluorescence, activated by a lamp or UV neon light. Detectable in black or dark environment up to 5 meters.
- For manual screwing.
- Drive 1/4" - 6.35 mm.

🔪	L [mm]	Screw Size [mm]	ΔΔ [g]
ETOR.100TF	25	0	5
ETOR.101TF	25	1	5

■ **ETORM.TF - Standard bits series 1 for Torq Set® head screws - FLUO**



**NF ISO 1173, ISO 1173**

- Detect the tool thanks to its fluorescence, activated by a lamp or UV neon light. Detectable in black or dark environment up to 5 meters.
- For manual screwing.
- Drive 1/4" - 6.35 mm.

🔪	L [mm]	Torq-set [No]	ΔΔ [g]
ETORM.102TF	25	2	5
ETORM.103TF	25	3	5
ETORM.104TF	25	4	5
ETORM.105TF	25	5	5
ETORM.106TF	25	6	5

■ **ETORM.6TF - Standard bits series 6 for Torq set® head screws - FLUO**



**NF ISO 1173, ISO 1173**

- Detect the tool thanks to its fluorescence, activated by a lamp or UV neon light. Detectable in black or dark environment up to 5 meters.
- Drive 1/4" - 6.35 mm with groove.

🔪	L [mm]	Torq-set [No]	ΔΔ [g]
ETORM.602TF	50	2	15
ETORM.603TF	50	3	15
ETORM.604TF	50	4	15
ETORM.605TF	50	5	15
ETORM.606TF	50	6	15

■ **ETRI.1TF - Standard bits series 1 for Tri-wing head screws - FLUO**



**NF ISO 1173, ISO 1173**

- Detect the tool thanks to its fluorescence, activated by a lamp or UV neon light. Detectable in black or dark environment up to 5 meters.
- For manual screwing.
- Drive 1/4" - 6.35 mm.

🔪	L [mm]	ΔΔ [g]
ETRI.101TF	25	5
ETRI.102TF	25	5
ETRI.103TF	25	5
ETRI.104TF	25	5
ETRI.105TF	25	5

**BIT HOLDERS AND ACCESSORIES FLUO**

■ **1/4" drive lock-ring bit holder - FLUO**



**NF ISO 2725-3, NF ISO 1173, ISO 2725-3, ISO 1173, DIN 3124**

- Detect the tool thanks to its fluorescence, activated by a lamp or UV neon light. Detectable in black or dark environment up to 5 meters.
- Bit lock.
- Square drive has side-hole for ball or plunger lock.

🔪	A ["]	L [mm]	Square ["]	ΔΔ [g]
EF.RF	1/4	30	1/4	26
EF.JF	1/4	43	3/8	48

■ **Magnetic snap ring bit holder - FLUO**



**NF ISO 1173, ISO 1173**

- 1/4" drive - 6.35 mm.

🔪	L [mm]	ΔΔ [g]
EF.6P4F	75	36

▪ Locking ring bit holder - FLUO

NF ISO 1173, ISO 1173

- 1/4" drive - 6.35 mm.
- Fast bit changing.



	L [mm]	ΔΔ [g]
EF.6P5F	51	31

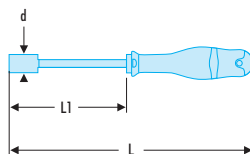


▪ PROTWIST® bit holder screwdriver - FLUO

- Detect the tool thanks to its fluorescence, activated by a lamp or UV neon light. Detectable in black or dark environment up to 5 meters.
- Bi-material ergonomic handle for comfortable and reliable screwing.
- AM.M2: Long magnetic model.



	d [mm]	L [mm]	L1 [mm]	ΔΔ [g]
AM.M2F	10	245	125	150



▪ Socket holder - 1/4" square drive - FLUO

NF ISO 1173, ISO 1173

- Detect the tool thanks to its fluorescence, activated by a lamp or UV neon light. Detectable in black or dark environment up to 5 meters.
- Drive 1/4" - 6.35 mm.
- Locking by plunger.



	L [mm]	ΔΔ [g]
EF.6RF	50	16



▪ Long socket holder - 1/4" square drive - FLUO

NF ISO 1173, ISO 1173

- Detect the tool thanks to its fluorescence, activated by a lamp or UV neon light. Detectable in black or dark environment up to 5 meters.
- Drive 1/4" - 6.35 mm.
- Locking by plunger.



	L [mm]	ΔΔ [g]
EF.6RLF	100	38

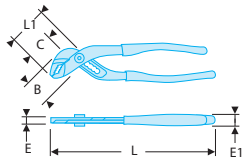


FLUO

Rfid

ENGINEERS MULTIGRIP PLIERS FLUO

Fluorescent standard multigrip pliers

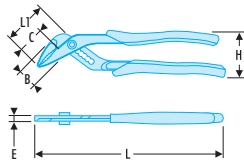


- Detect the tool thanks to its fluorescence, activated by a lamp or UV neon light. Detectable in black or dark environment up to 5 metres.
- Wide jaws for comfortable use.
- Self-gripping teeth.
- 8 setting positions.
- Rack and flexible pivot for less blocking points.
- Finger clearance.
- PVC sheaths.



	B [mm]	C [mm]	E [mm]	E1 [mm]	H [mm]	L [mm]	L1 [mm]	Capacity Nuts [mm]	Capacity Maxi Tube [mm]	ΔΔ [g]
<b>170A.25F</b>	34	34	8	17	58	250	54	40	44	330

Slip-joint multigrip pliers - FLUO



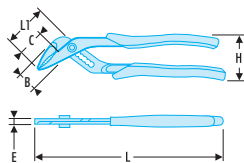
NF ISO 8976, ISO 8976, DIN ISO 8976, ASME B107.500

- Detect the tool thanks to its fluorescence, activated by a lamp or UV neon light. Detectable in black or dark environment up to 5 meters.
- Capacity: 44 mm.
- Ideal for confined spaces: Long reach thin noses.
- Double heat-treated tips: high wear resistance, hardness 60/62 HRc.
- Finish: chromed, bi-material ergonomic grips.



	B [mm]	C [mm]	E [mm]	E1 [mm]	L [mm]	L1 [mm]	ΔΔ [g]
<b>180.CPEF</b>	30	35	8	22	250	58	360

181A - Locking twin slip-joint multigrip pliers - FLUO



NF ISO 8976, ISO 8976, DIN ISO 8976, ASME B107.500

- Detect the tool thanks to its fluorescence, activated by a lamp or UV neon light. Detectable in black or dark environment up to 5 meters.
- Fast, precise push-button adjustment with safety lock.
- 12-position notches.
- The closed position of the ergonomic comfort grip handles increases the tightening power.
- High torsional strength.
- Slim-profile self-gripping nose.
- 62 HRC high-frequency treated jaws.
- Finish:
  - Chromed, bi-material ergonomic grips: 181A.CPE.
  - Varnish finish, PVC grips: 181A.G.



	B [mm]	C [mm]	E [mm]	L [mm]	L1 [mm]	Cut	ΔΔ [g]
<b>181A.18CPEF</b>	22	24	7,5	185	48	36	230
<b>181A.25CPEF</b>	28	28	7,5	245	54	41	360



PLIERS FLUO

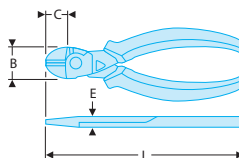
192.CPE High-performance diagonal cutters - FLUO

NF ISO 5749, ISO 5749, DIN ISO 5749, ASME B107.500

- Fluorescent tool, detectable by ultraviolet light. Detectable in dark and dimly lit areas for 5 meters.
- Cutting edges designed to cleanly cut all types of wire: piano wire, soft wires and modern materials 200 kg/mm<sup>2</sup>.
- Minimum cutting force thanks to long lever arm and offset axis.
- High durability Chrome-Molybdenum-Vanadium steel, very hard cutting edges 61/63 HRC.
- Ergonomic grips resistant to chemical agents.
- Removable return spring.
- Finish: chromed.



🔪	B [mm]	B1 [mm]	C [mm]	E [mm]	L [mm]	ΔΔ [g]
192.14CPEF	21,5	1,4	15,5	9,5	145	160
192.16CPEF	24,0	1,5	18,0	10,0	160	200
192.20CPEF	28,0	2,2	22,0	11,5	200	320



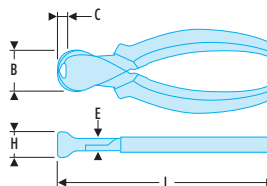
190.CPE - High-performance end cutters - FLUO

NF ISO 5748, ISO 5748, DIN ISO 5748, ASME B107.500

- Fluorescent tool, detectable by ultraviolet light. Detectable in dark and dimly lit areas for 5 meters.
- Cutting edges designed to cleanly cut all types of wire: piano wire, hard and soft wires (max. 200 kg/mm<sup>2</sup>).
- Long lever arm, offset pivot for minimum cutting effort.
- High durability Chrome-Molybdenum-Vanadium steel, very hard cutting edges 61/63 HRC.
- Ergonomic grips resistant to chemical agents.
- Removable return spring.
- Finish: chromed.



🔪	B [mm]	C [mm]	E [mm]	H [mm]	L [mm]	ΔΔ [g]
190.16CPEF	28	6,5	11,5	23	160	200
190.20CPEF	31	7,5	13,5	29	200	340



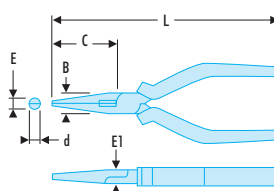
Long half-round nose pliers - FLUO

NF ISO 5745, ISO 5745, DIN ISO 5745, ASME B107.500

- Fluorescent tool, detectable by ultraviolet light. Detectable in dark and dimly lit areas for 5 meters.
- Narrow, finely serrated tips with a pipe-grip.
- Side cutter for copper and hard steel wire (max. 160 kg/mm<sup>2</sup>).
- 185: straight nose.
- 195: 40° angled nose.
- Ergonomic grips resistant to chemical agents.
- Removable return spring.
- Finish: chromed.



🔪	B [mm]	C [mm]	d [mm]	E [mm]	E1 [mm]	L [mm]	ΔΔ [g]
185.20CPEF	18	75	75	3,6	9	200	192



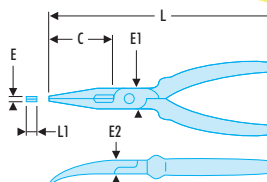
195.CPEF - Short half-round nose pliers - FLUO

NF ISO 5745, ISO 5745, DIN ISO 5745, ASME B107.500

- Fluorescent tool, detectable by ultraviolet light. Detectable in dark and dimly lit areas for 5 meters.
- Narrow, finely serrated tips, 40° angled nose.
- Side cutter for copper and hard steel wire (max. 160 kg/mm<sup>2</sup>).
- Ergonomic grips resistant to chemical agents.
- Removable return spring.
- Finish: chromed.



🔪	B [mm]	C [mm]	d [mm]	E [mm]	E1 [mm]	L [mm]	ΔΔ [g]
195.16CPEF	17	50	50	3	9	160	177
195.20CPEF	18	69	2,9	3,6	9	200	215

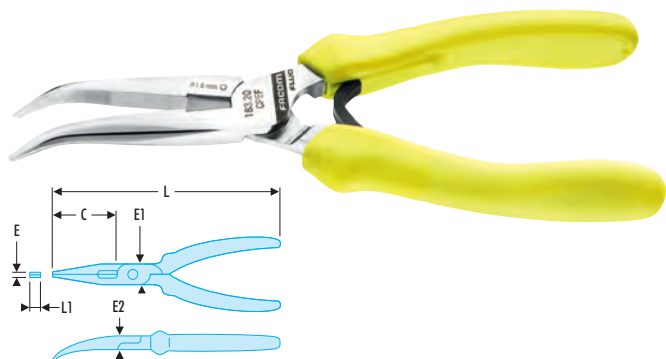


FLUO

RFid

PLIERS FLUO

Half-round long snipe-nose pliers - FLUO



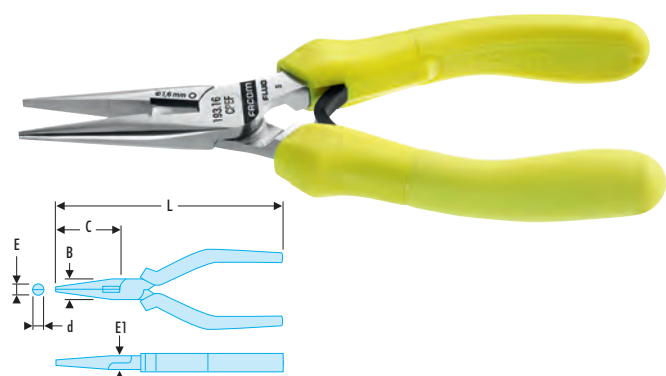
NF ISO 5745, ISO 5745, DIN ISO 5745, ASME B107.500

- Fluorescent tool, detectable by ultraviolet light. Detectable in dark and dimly lit areas for 5 meters.
- Narrow, finely serrated tips, 40° angled nose.
- Side cutter for copper and hard steel wire (max. 160 kg/mm<sup>2</sup>).
- Ergonomic grips resistant to chemical agents.
- Removable return spring.
- Finish: chromed.



	C [mm]	d [mm]	d3 [mm]	E [mm]	E1 [mm]	E2 [mm]	L [mm]	L1 [mm]	L2 [mm]	ΔΔ [g]
<b>183.20CPEF</b>	69	69	185	3	18	9	200	2,5	2,5	185

Short half-round nose pliers - FLUO



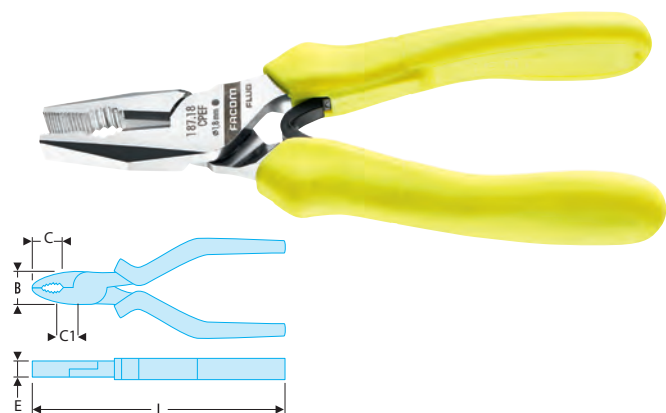
NF ISO 5745, ISO 5745, DIN ISO 5745, ASME B107.500

- Fluorescent tool, detectable by ultraviolet light. Detectable in dark and dimly lit areas for 5 meters.
- Narrow, finely serrated tips.
- Side cutter for copper and hard steel wire (max. 160 kg/mm<sup>2</sup>).
- Ergonomic grips resistant to chemical agents.
- Removable return spring.
- Finish: chromed.



	B [mm]	d [mm]	E [mm]	E1 [mm]	L [mm]	ΔΔ [g]
<b>193.16CPEF</b>	17	50	3	9	160	0

187.CPE - Combination pliers - FLUO



NF ISO 5746, ISO 5746, DIN ISO 5746, ASME B107.500

- Fluorescent tool, detectable by ultraviolet light. Detectable in dark and dimly lit areas for 5 meters.
- Cutting edges designed to cut all types of wire: piano wire, soft wires and modern materials (Fe 200 kg/mm<sup>2</sup>).
- Long lever arm, offset pivot for minimum cutting effort.
- High durability Chrome-Molybdenum-Vanadium steel, very hard cutting edges 61/63 HRc.
- Ergonomic grips resistant to chemical agents.
- Removable return spring.
- Finish: chromed.

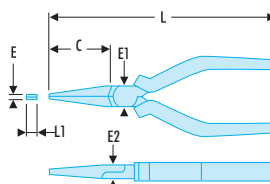


	B [mm]	C [mm]	E [mm]	L [mm]	ΔΔ [g]
<b>187.16CPEF</b>	21	34	9,5	165	195
<b>187.18CPEF</b>	23	36	10,0	185	225

188 - Flat nose pliers - FLUO

NF ISO 5745, ISO 5745, DIN ISO 5745, ASME B107.500

- Fluorescent tool, detectable by ultraviolet light. Detectable in dark and dimly lit areas for 5 meters.
- Serrated nose for a firm grip.
- 188.E: snipe nose version for confined spaces.
- Ergonomic grips resistant to chemical agents.
- Removable return spring.
- Finish: chromed.

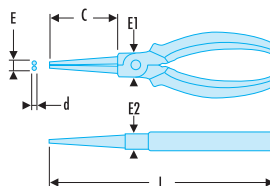


	C [mm]	E [mm]	E1 [mm]	E2 [mm]	L [mm]	L1 [mm]	ΔΔ [g]
188.16CPEF	46	4,0	18	9	168	6,5	140
188.20CPEF	75	4,0	18	9	200	6,5	200

Round nose pliers - FLUO

NF ISO 5745, ISO 5745, DIN ISO 5745, ASME B107.500

- Fluorescent tool, detectable by ultraviolet light. Detectable in dark and dimly lit areas for 5 meters.
- For shaping loops, bends or rings.
- Finely serrated jaws for positive grip.
- Diameter of each nose at the end: 2 mm.
- Ergonomic grips resistant to chemical agents.
- Removable return spring.
- Finish: chromed.



	C [mm]	d [mm]	E [mm]	E1 [mm]	E2 [mm]	L [mm]	ΔΔ [g]
189.17CPEF	41	2	4	18	9	170	135

4-piece set of pliers - FLUO

- Detect the tool thanks to its fluorescence, activated by a lamp or UV neon light. Detectable in black or dark environment up to 5 metres.

Includes:

- 1 x slip-joint locking multigrip pliers - 181A.25CPEF.
- 1 long half-round nose pliers - 185.20CPEF.
- 1 universal pliers - 187.18CPEF.
- 1 diagonal cutter - High performance - 192.16CPEF.



	Content set	ΔΔ [kg]
CPE.1F	181A.25CPEF - 185.20CPEF - 187.18CPEF - 192.16CPEF	1.1

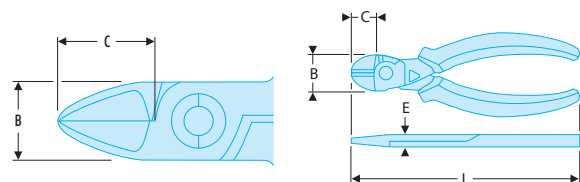


FLUO

Rfid

PLIERS WITH OFFCUT RETAINER

192.CPEF-R - Diagonal cutters with offcut retainer - FLUO



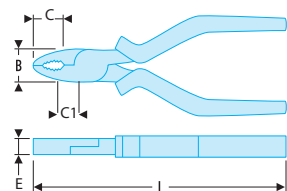
NF ISO 5749, ISO 5749, DIN ISO 5749, ASME B107.500

- Offcut retainer built into the cutting edges: the wire does not fall after cutting, hence preserving the FOD work space.
- Detect the tool thanks to its fluorescence, activated by a lamp or UV neon light. Detectable in black or dark environment up to 3 metres.
- Cutting edges designed to neatly cut all types of wires: piano wire, soft wires, modern materials (max. 200 kg/mm<sup>2</sup>).
- Minimum cutting force thanks to long lever arm and offset axis.
- High durability Chrome-Molybdenum-Vanadium steel, very hard cutting edges 61/63 HRC.
- Ergonomic grips resistant to chemical agents.
- Removable return spring.
- Chrome finish.



➤	B [mm]	C [mm]	E [mm]	L [mm]	ΔΔ [g]
192.14CPEF-R	21,5	15,5	9,5	145	160
192.16CPEF-R	24,0	18,0	10,0	160	200
192.20CPEF-R	28,0	22,0	11,5	200	320

187.CPEF-R - Universal pliers with offcut retainer - FLUO



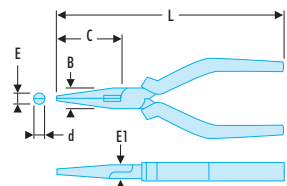
NF ISO 5746, ISO 5746, DIN ISO 5746, ASME B107.500

- Offcut retainer built into the cutting edges: the wire does not fall after cutting, hence preserving the FOD work space.
- Detect the tool thanks to its fluorescence, activated by a lamp or UV neon light. Detectable in black or dark environment up to 3 metres.
- Cutting edges designed to cut all types of wires: piano wire, soft wires, modern materials (max. Fe 200 kg/mm<sup>2</sup>).
- Long lever arm, offset pivot for minimum cutting effort.
- High durability Chrome-Molybdenum-Vanadium steel, very hard cutting edges 61/63 HRC.
- Ergonomic grips resistant to chemical agents.
- Removable return spring.
- Chrome finish.



➤	B [mm]	C [mm]	E [mm]	L [mm]	ΔΔ [g]
187.16CPEF-R	21	34	9,5	165	195
187.18CPEF-R	23	36	10,0	185	196

Long-reach half-round nose pliers with offcut retainer - FLUO



NF ISO 5745, ISO 5745, DIN ISO 5745, ASME B107.500

- Offcut retainer built into the cutting edges: the wire does not fall after cutting, hence preserving the FOD work space.
- Detect the tool thanks to its fluorescence, activated by a lamp or UV neon light. Detectable in black or dark environment up to 3 metres.
- Narrow, finely serrated tips with a pipe-grip.
- Side cutter for copper and hard steel wire (max. 160 kg/mm<sup>2</sup>).
- 185: Straight nose.
- Ergonomic grips resistant to chemical agents.
- Removable return spring.
- Chrome finish.

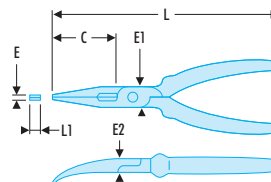


➤	B [mm]	C [mm]	d [mm]	E [mm]	E1 [mm]	L [mm]	ΔΔ [g]
185.20CPEF-R	18	75	75	3,6	9	200	192

■ Long-reach half-round nose pliers with offcut retainer

NF ISO 5745, ISO 5745, DIN ISO 5745, ASME B107.500

- Offcut retainer built into the cutting edges: the wire does not fall after cutting, hence preserving the FOD work space.
- Detect the tool thanks to its fluorescence, activated by a lamp or UV neon light. Detectable in black or dark environment up to 3 metres.
- Narrow, finely serrated tips, 40° angled nose.
- Side cutter for copper and hard steel wire (max. 160 kg/mm<sup>2</sup>).
- Ergonomic grips resistant to chemical agents.
- Removable return spring.
- Chrome finish.

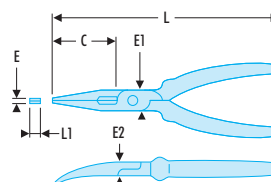


183.20CPEF-R	C [mm]	d [mm]	E [mm]	E1 [mm]	E2 [mm]	L [mm]	L1 [mm]	ΔΔ [g]
183.20CPEF-R	69	69	3	18	9	200	2,5	185

■ Short half-round nose pliers with offcut retainer - FLUO

NF ISO 5745, ISO 5745, DIN ISO 5745, ASME B107.500

- Offcut retainer built into the cutting edges: the wire does not fall after cutting, hence preserving the FOD work space.
- Detect the tool thanks to its fluorescence, activated by a lamp or UV neon light. Detectable in black or dark environment up to 3 metres.
- Narrow, finely serrated tips, 40° angled nose.
- Side cutter for copper and hard steel wire (max. 160 kg/mm<sup>2</sup>).
- Ergonomic grips resistant to chemical agents.
- Removable return spring.
- Chrome finish.



195.16CPEF-R	B [mm]	C [mm]	d [mm]	E [mm]	E1 [mm]	L [mm]	ΔΔ [g]
195.16CPEF-R	17	50	50	3	9	160	177

■ 3-piece pliers with offcut retainer set in foam tray - FLUO

- Contains :
  - 185.20CPEF-R: half-round nose pliers.
  - 187.18CPEF-R: universal pliers.
  - 192.16CPEF-R: diagonal cutting pliers.
  - Foam tray: PM.MODCPE.



MODM.CPE-R	H [mm]	Width l [mm]	L [mm]	ΔΔ [g]
MODM.CPE-R	45	188	410	750

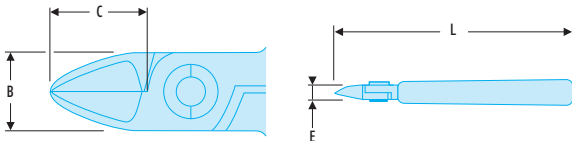


FLUO

Rfid

PLIERS WITH OFFCUT RETAINER

Micro-Tech® "thin-nose tip" cutters with offcut retainer - FLUO



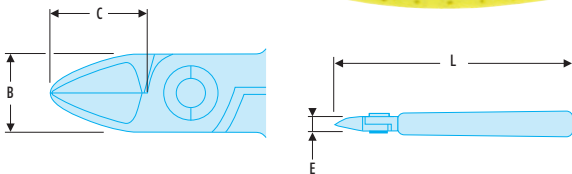
NF ISO 9654, ISO 9654, DIN ISO 9654, ASME B107.500

- Offcut retainer built into the cutting edges: the wire does not fall after cutting, hence preserving the FOD work space.
- Detect the tool thanks to its fluorescence, activated by a lamp or UV neon light. Detectable in black or dark environment up to 3 metres.
- Compact nose tips for confined spaces.



ED	B [mm]	C [mm]	E [mm]	L [mm]	Cu - Ni Ø [mm]	Fe 30 HRc diam. [mm]	ΔΔ [g]
416.RMTF	10,5	10,5	7	110	0,1 - 0,9	0,5	60

Micro-Tech® "compact" cutters with offcut retainer - FLUO



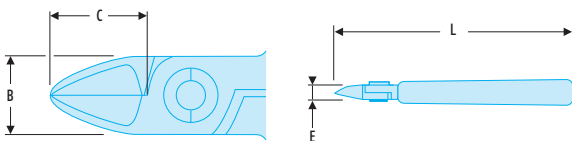
NF ISO 9654, ISO 9654, DIN ISO 9654, ASME B107.500

- Offcut retainer built into the cutting edges: the wire does not fall after cutting, hence preserving the FOD work space.
- Detect the tool thanks to its fluorescence, activated by a lamp or UV neon light. Detectable in black or dark environment up to 3 metres.
- These pliers combine cutting performance with handling thanks to their new slim diagonal shape.



ED	B [mm]	C [mm]	E [mm]	L [mm]	Cu - Ni Ø [mm]	Fe 30 HRc diam. [mm]	ΔΔ [g]
406.RMTF	10,5	9,5	7	110	0,1 - 1,1	0,6	60

Micro-Tech® "rugged" cutters with offcut retainer - FLUO



NF ISO 9654, ISO 9654, DIN ISO 9654, ASME B107.500

- Offcut retainer built into the cutting edges: the wire does not fall after cutting, hence preserving the FOD work space.
- Detect the tool thanks to its fluorescence, activated by a lamp or UV neon light. Detectable in black or dark environment up to 3 metres.
- These pliers allow neat cutting of multiple materials: from copper wire to piano wire up to 0.5 mm.



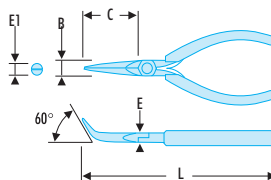
ED	B [mm]	C [mm]	E [mm]	L [mm]	Cu - Ni Ø [mm]	Fe 30 HRc diam. [mm]	ΔΔ [g]
405.10RMTF	10,5	11,5	7	110	0,3 - 1,4	0,7	60

ELECTRICAL ENGINEERS PLIERS FLUO

Micro-Tech® 60° angled rigid nose grippers - FLUO

NF ISO 9655, ISO 9655, DIN ISO 9655, ASME B107.500

- Detect the tool thanks to its fluorescence, activated by a lamp or UV neon light. Detectable in black or dark environment up to 5 meters.

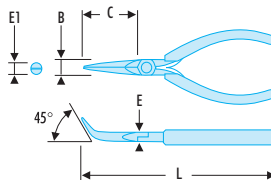


423.MTF	B [mm]	C [mm]	E [mm]	E1 [mm]	L [mm]	ΔΔ [g]
423.MTF	11	25	7	1,4	125	70

Micro-Tech® 45° angled thin nose grippers - FLUO

NF ISO 9655, ISO 9655, DIN ISO 9655, ASME B107.500

- Detect the tool thanks to its fluorescence, activated by a lamp or UV neon light. Detectable in black or dark environment up to 5 meters.
- Fine mesh, for high precision works.

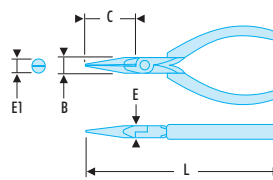


433.LMTF	B [mm]	d [mm]	E [mm]	E1 [mm]	L [mm]	ΔΔ [g]
433.LMTF	9	35	6	1,6	135	75

Micro-Tech® long and rigid nose grippers - FLUO

NF ISO 9655, ISO 9655, DIN ISO 9655, ASME B107.500

- Detect the tool thanks to its fluorescence, activated by a lamp or UV neon light. Detectable in black or dark environment up to 5 meters.



422.MTF	B [mm]	d [mm]	E [mm]	E1 [mm]	L [mm]	ΔΔ [g]
422.MTF	11	33	7	0,5	130	70

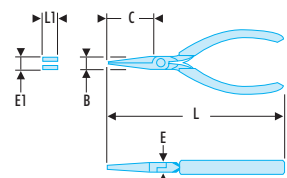


FLUO

Rfid

ELECTRICAL ENGINEERS PLIERS FLUO

Micro-Tech® flat spouts nose grippers - FLUO



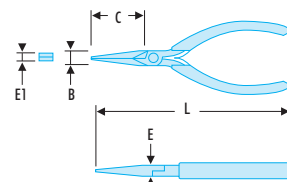
NF ISO 9655, ISO 9655, DIN ISO 9655, ASME B107.500

- Detect the tool thanks to its fluorescence, activated by a lamp or UV neon light. Detectable in black or dark environment up to 5 meters.



➤	B [mm]	d [mm]	E [mm]	E1 [mm]	L [mm]	L1 [mm]	ΔΔ [g]
421.MTF	11	33	7	1	130	5	70

Micro-Tech® thin nose grippers - FLUO



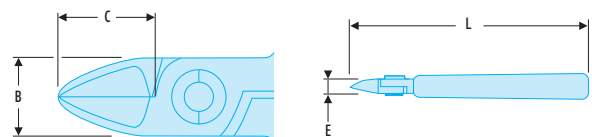
NF ISO 9655, ISO 9655, DIN ISO 9655, ASME B107.500

- Detect the tool thanks to its fluorescence, activated by a lamp or UV neon light. Detectable in black or dark environment up to 5 meters.
- Narrow mesh, for high precision works.



➤	B [mm]	d [mm]	E [mm]	E1 [mm]	L [mm]	ΔΔ [g]
431.LMTF	9	20	6	1	135	80

Micro-Tech® "machined" cutters - FLUO



NF ISO 9654, ISO 9654, DIN ISO 9654, ASME B107.500

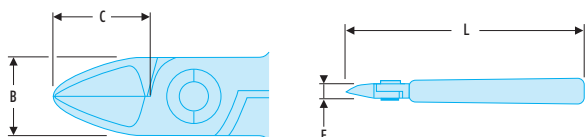
- Detect the tool thanks to its fluorescence, activated by a lamp or UV neon light. Detectable in black or dark environment up to 5 meters.
- Compact noses for difficult access.
- Fall prevention models avoid wire ejection.



➤	B [mm]	C [mm]	E [mm]	L [mm]	Cu - Ni Ø [mm]	Fe 30 HRC diam. [mm]	ΔΔ [g]
416.RMTF	10,5	10,5	7	110	0,1 - 0,9	0,5	60



Micro-Tech® Diagonal cutters - FLUO

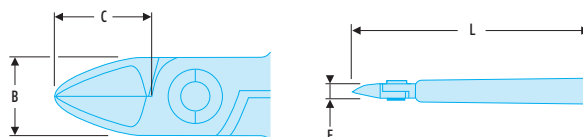


NF ISO 5749, ISO 5749, DIN ISO 5749, ASME B107.500

- Detect the tool thanks to its fluorescence, activated by a lamp or UV neon light. Detectable in black or dark environment up to 5 meters.
- 405: Axial cut.
- Finish: Matt burnished finish, red grips - return spring.

🔪	B [mm]	C [mm]	E [mm]	L [mm]	L1 [mm]	ΔΔ [g]
405.12F	16,0	16,0	16,0	120	8	95

Micro-Tech® Diagonal cutters - FLUO



NF ISO 9654, ISO 9654, DIN ISO 9654, ASME B107.500

- Detect the tool thanks to its fluorescence, activated by a lamp or UV neon light. Detectable in black or dark environment up to 5 meters.
- 425: Flush cut, nose extended 13 mm.
- Finish: Matt burnished finish, red grips - return spring.

🔪	B [mm]	C [mm]	E [mm]	L [mm]	Cu - Ni Ø [mm]	ΔΔ [g]
425F	13,0	10,5	10,5	110	0,1 - 1,3	60



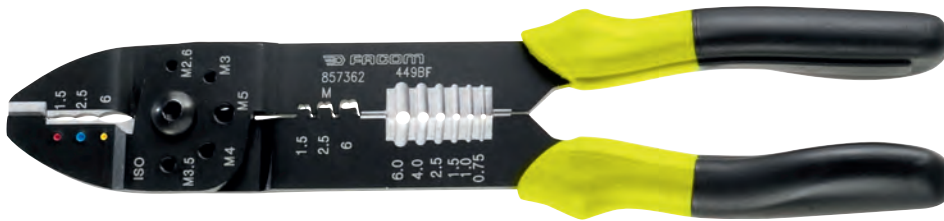
FLUO

Rfid



PLIERS FLUO

Standard crimping pliers for insulated terminals - FLUO



ASME B107.500

- Fluorescent tool, detectable by ultraviolet light. Detectable in dark and dimly lit areas for 5 meters.
- Crimping pre-insulated terminals: 1.5-2.5-6 mm<sup>2</sup>.
- Crimping bare terminals: 1.5-2.5-6 mm<sup>2</sup>.
- Stripping: 0.75 to 6 mm<sup>2</sup>.
- Built-in wire cutting function.

Ref	H [mm]	L [mm]	ΔΔ [g] maxi
449BF	55	240	345

CIRCLIP® PLIERS FLUO

Straight nose inside circlip® pliers - FLUO



NF E 73-130, DIN 5254, ASME B107.500

- Fluorescent tool, detectable by ultraviolet light. Detectable in dark and dimly lit areas for 5 meters.
- For Circlips® 19 -> 60 mm.
- Piano wire tips: high distortion resistance.
- Long 10° angled tips for optimum circlip holding.
- Identification colour code: saves time.
- Grips in anti-slip granite PVC.

Ref	d [mm]	d mini - maxi [mm]	L [mm]	ΔΔ [g]
179A.18F	1,8	19 - 60	185	215
199A.18F	1,8	19 - 60	170	215

177A - Straight nose outside circlip® pliers - FLUO



NF E 73-130, DIN 5256, ASME B107.500

- Fluorescent tool, detectable by ultraviolet light. Detectable in dark and dimly lit areas for 5 meters.
- For Circlips® 19 -> 60 mm.
- Piano wire tips: high distortion resistance.
- Long 10° angled tips for optimum circlip holding.
- Identification colour code: saves time.
- Grips in anti-slip granite PVC.

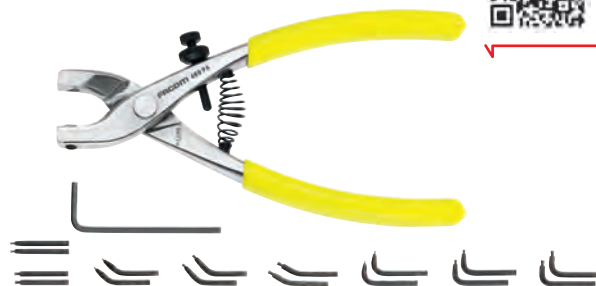
Ref	d [mm]	d mini - maxi [mm]	L [mm]	ΔΔ [g]
177A.18F	1,8	19 - 60	180	175
197A.18F	1,8	19 - 60	170	175

■ **Outside circlip® pliers - FLUO**

NF E 73-130, DIN 5256, ASME B107.500

- Fluorescent tool, detectable by ultraviolet light. Detectable in dark and dimly lit areas for 5 meters.
- Interchangeable tips for a capacity of diam. 3 --> 63 mm.
- Thumbscrew position setting.
- Opening return spring.
- Finish: chrome finish, red PVC grips.
- Supplied in a case with key and set of bits E1 - E2 - E3 - E5 - E6 - E8 - E9.

	$\Delta\Delta$ [g]
467FLUO	160

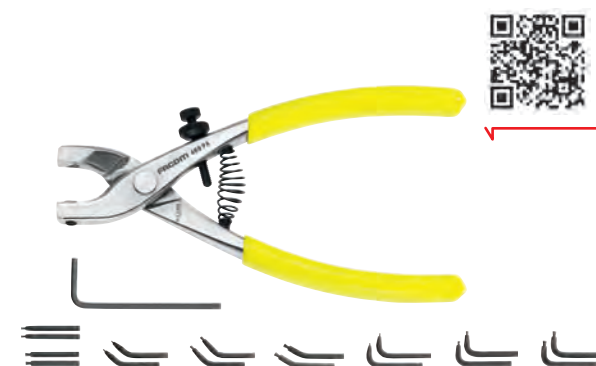


■ **Inside circlip® pliers - FLUO**

NF E 73-130, DIN 5256, ASME B107.500

- Fluorescent tool, detectable by ultraviolet light. Detectable in dark and dimly lit areas for 5 meters.
- Interchangeable tips for a capacity of diam. 8 --> 63 mm.
- Thumbscrew position setting.
- Opening return spring.
- Finish: chrome finish, red PVC grips.
- Supplied in a case with key and set of bits E1 - E2 - E3 - E5 - E6 - E8 - E9.

	$\Delta\Delta$ [g]
469F	160



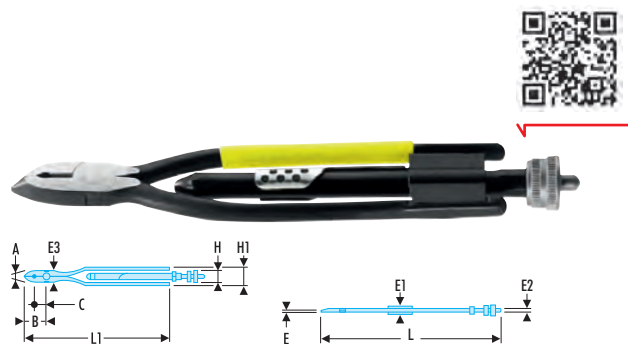
**LOCKING-WIRE PLIERS FLUO**

■ **445.DSF - Short locking-wire pliers - FLUO**

ASME B107.500

- Fluorescent tool, detectable by ultraviolet light. Detectable in dark and dimly lit areas for 5 meters.
- 445.8DSF = 8" / 445.10DSF = 10".
- "automatic" model.
- Side wire-cutter: stainless steel diameter 1 mm.
- 3 turns: 125 mm length.

	A	B	C	E	E1	E2	E3	H	H1	L	L1	$\Delta\Delta$
	[mm]	[mm]	[mm]	[mm]	[mm]	[mm]	[mm]	[mm]	[mm]	[mm]	[mm]	[g]
445.8DSF	3	22	9	2,2	15	29,8	14	30	41	284	170	320
445.10DSF	3	30	11	2,2	15,5	29,8	19	30	45	360	230	450



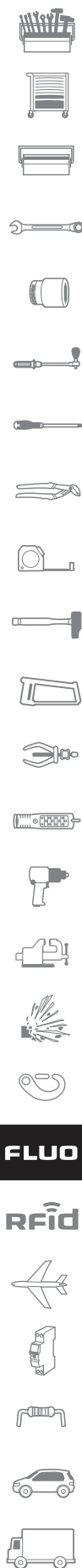
**"CONNECTOR" PLIERS FLUO**

■ **"Connector" pliers - FLUO**

ASME B107.500

- Fluorescent tool, detectable by ultraviolet light. Detectable in dark and dimly lit areas for 5 meters.
- For handling fragile round components, e.g. screwed connector sleeves, tubes, lamps or wire looms, etc.
- Wide capacity from 3-position slip joint: max. diameter 55 mm.
- Replaceable plastic jaws available in 2 jaw hardness options:
  - 410.SF: soft jaws - 55 shore B.
- Finish: polished chrome, red PVC grips.
- Spare jaws:
  - 410.SF: Set of 2 jaws with screws (soft).

	B [mm]	C [mm]	E [mm]	L [mm]	$\Delta\Delta$ [g]
410.SF	68	47	10	230	320



**FLUO**

**RFid**



RULES - GAUGES FLUO

Round tip metric thickness gauges - FLUO

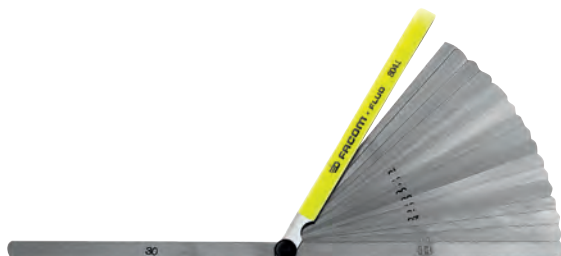


- Fluorescent tool, detectable by ultraviolet light. Detectable in dark and dimly lit areas for 5 meters.
- Set of 19 feeler gauges (round tip): 4/100 --> 100/100 mm.
- Blade length: 90 mm.



	$\Delta\Delta$ [g]
<b>804F</b>	60

Long metric thickness gauges - FLUO

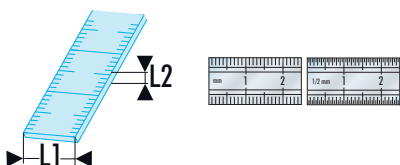


- Fluorescent tool, detectable by ultraviolet light. Detectable in dark and dimly lit areas for 5 meters.
- Set of 19 feeler gauges (round tip): 4/100 --> 25/100 mm.
- Blade length: 150 mm.



	$\Delta\Delta$ [g]
<b>804.LF</b>	95

DELA.1051 - Stainless steel rules - 2 sides - FLUO



- Fluorescent tool, detectable by ultraviolet light. Detectable in dark and dimly lit areas for 5 meters.
- Engraved on both sides.
- One edge in mm - One edge in 1/2 mm.
- Stainless steel 18 % Cr - 8 % Ni.
- Anti-reflection treatment.
- Class II as per regulations applies to rules with a length above or equal to 500 mm.



	L [mm]	$\Delta\Delta$ [g]
<b>DELA.1051.02F</b>	150	10,9
<b>DELA.1051.03F</b>	200	13

MAKING-OUT FLUO

Steel scriber - FLUO



NF E 71-016, NF ISO 15601, ISO 15601

- Fluorescent tool, detectable by ultraviolet light. Detectable in dark and dimly lit areas for 5 meters.
- Tip treated in chrome vanadium steel.
- Tip:  $\varnothing$  4 mm.

	L [mm]	$\Delta\Delta$ [g]
<b>234F</b>	190	20

HAMMERS - MALLETS FLUO

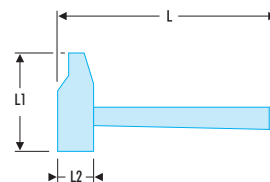
200C - Graphite handle riveting engineers hammer - FLUO

NF E 71-016, NF ISO 15601, ISO 15601

- Fluorescent tool, detectable by ultraviolet light. Detectable in dark and dimly lit areas for 5 meters.
- Ergonomic safety handle with graphite core.



FACOM	L [mm]	L1 [mm]	L2 [mm]	ΔΔ [kg]
200C.26F	245	80	25	0,345
200C.30F	270	93	30	0,470
200C.40F	330	108	40	1,0



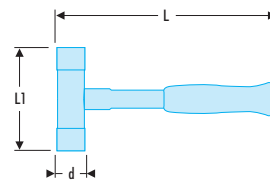
212A - Dead-blow hammers, interchangeable tips - FLUO

NF E 71-211, DIN 6450, ASME B107.410

- Fluorescent tool, detectable by ultraviolet light. Detectable in dark and dimly lit areas for 5 meters.
- Glass fiber handle.
- Steel body.
- Easily replaceable, special nylon tips shore hardness D74 ± 5.
- Ergonomic PVC grip.
- Presentation: black epoxy.
- Spare tip: 212.E35 to E60.



FACOM	d [mm]	L [mm]	L1 [mm]	Bits	ΔΔ [g]
212A.35F	35	305	112	212.E35	698
212A.40F	40	310	117	212.E40	839

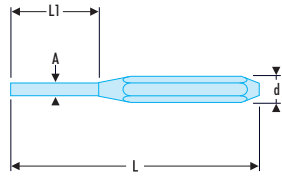


FLUO

Rfid

DRIFTS FLUO

249 - Standard drift punches - FLUO



NF E 71-211, DIN 7250, ASME B107.410

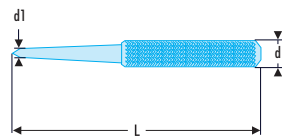
- Fluorescent tool, detectable by ultraviolet light. Detectable in dark and dimly lit areas for 5 meters.
- Hexagonal shank, high-strength steel tip, hardened to 53-58 HRC.
- Zinc-plated finish.



ED	A [mm]	d [mm]	L [mm]	L1 [mm]	ΔΔ [g]
249.2F	1,9	8	115	30	30
249.3F	2,9	8	125	40	35
249.4F	3,9	10	150	50	65
249.5F	4,9	10	165	50	75
249.6F	5,9	12	180	50	120
249.8F	7,9	12	200	50	160
249.10F	9,9	16	200	50	220

DRIFT PUNCHES FLUO

256 - Precision centre punches - FLUO



NF E 71-211, DIN 7250, ASME B107.410

- Fluorescent tool, detectable by ultraviolet light. Detectable in dark and dimly lit areas for 5 meters.
- Chrome-vanadium steel forged, hardened to 52 to 58 HRC.
- Presentation: knurled body.
- Zinc-plated finish.



ED	A [mm]	d [mm]	L [mm]	ΔΔ [g]
256.4F	4	8	105	35
256.6F	6	10	115	60
256.8F	8	12	130	100

FLUORESCENT TOOLING

SCISSORS - INSPECTION MIRRORS

Electricians scissors - FLUO



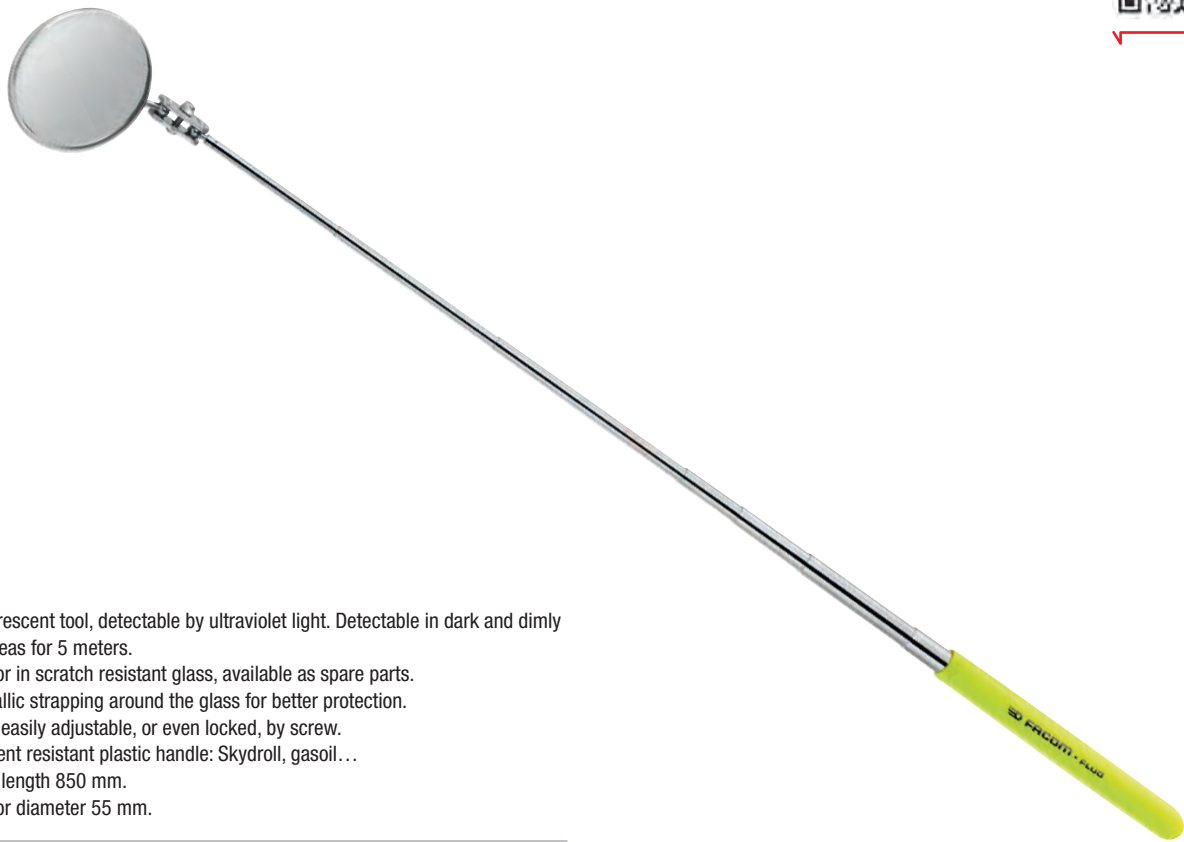
- Fluorescent tool, detectable by ultraviolet light. Detectable in dark and dimly lit areas for 5 meters.
- 100% metal handles, left/right hand.
- Short reinforced blades, with wire cutter.
- Finish: polished chromed.



ED	L [mm]	ΔΔ [g]
841F	150	95

SCISSORS - INSPECTION MIRRORS

■ Inspection mirror - FLUO



- Fluorescent tool, detectable by ultraviolet light. Detectable in dark and dimly lit areas for 5 meters.
- Mirror in scratch resistant glass, available as spare parts.
- Metallic strapping around the glass for better protection.
- Join easily adjustable, or even locked, by screw.
- Solvent resistant plastic handle: Skydroll, gasoil...
- Max length 850 mm.
- Mirror diameter 55 mm.

	$\Delta\Delta$ [g]
834B.RTF	80

■ UV torch



- 1 1W UV LED.
- 395 to 410 nm.
- Operating time: 23 hours.
- Protection rating: IP67.
- Supplied with: 3 AAA batteries, strap and protection pouch.

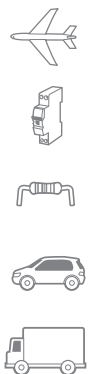


	$\Delta\Delta$ [g]
779.UVT	118



FLUO

RFid





# RFID TOOLING





**RFID STORAGE**

**850**

RFID storage 850



**FIXED AND VARIABLE OPENING WRENCHES RFID**

**852**

RFID combination wrenches 852  
 RFID combination ratchet series 854  
 RFID hinged ratchet combination wrench series 855  
 RFID ratchet ring wrenches 856  
 RFID 15° hinged ratchet ring wrenches 857  
 RFID angled open-socket wrenches 858  
 RFID nut drivers 859  
 RFID adjustable wrenches 859



**RFID RADIO 1/4" RANGE**

**860**

RFID 1/4" ratchets 860  
 RFID 1/4" sockets 862  
 RFID 1/4" long-reach sockets 864  
 RFID 3/8" ratchets 866  
 RFID 3/8" sockets 868  
 RFID 3/8" long-reach sockets 869  
 RFID 1/2" ratchets 871  
 RFID 1/2" sockets 873  
 RFID 1/2" long-reach sockets 875



**RFID TORQUE CONTROL**

**876**

RFID "high performance" click wrenches 876



**RFID SCREWDRIVERS**

**878**

RFID Protwist® screwdrivers 878  
 RFID Protwist® hexagonal key 880  
 RFID insulated screwdrivers 880



**RFID MEASURING - HAMMERS - CUTTING**

**882**

RFID measuring 882  
 RFID striking tools 882  
 RFID hammer 883  
 RFID saw 884  
 RFID cutter 884  
 RFID knife 885



**RFID PLIERS**

**886**

RFID engineers pliers 886  
 RFID Micro-Tech® cutting pliers 889  
 RFID Micro-Tech® grippers 889  
 RFID Circlip® pliers 891  
 RFID 1,000 Volts insulated pliers ve series 892  
 RFID crimping plier 894  
 RFID locking-wire pliers 894



**RFID TOOLING**

**894**

RFID adapters for pneumatic tools 894



FLUO

**RFid**

## ADVANCED FOD SOLUTIONS FOR CUTTING EDGE SECTORS



The RFID technology (Radio Frequency Identification) allows remote identification of a tool by means of the electronic chip it encapsulates. The latter uses energy the radio transmitter signal propagates at a short distance: no battery required. Invisible and sturdy, RFID chips guarantee optimum operation for many years. The radio technology used has no impact on the outside environment.



**ADVANCED FOD SOLUTIONS FOR HIGH-TECH SECTORS**



**MULTIPLE BENEFITS IN THE WORKSHOP**

- HIGH QUALITY CHIPS Programmed to guarantee the best detection.
- Tool traceability ensured in the workshop by zones of use.
- Fluorescent tools spotted up to 3 metres away in dark areas.
- Broad range covering all applications.

**CHIP PERFECTLY INTEGRATED TO THE TOOL**

Whatever the tool, FACOM engineers have chosen the RFID chip integration guaranteeing the most effective data transmission possible. Encapsulated under a shock-proof shell, the chip is protected durably, even against chemicals, without altering the basic specifications or ergonomics of the tool.



FLUO

**RFID**



RFID DETECTION BAG

# The most advanced solution to tool control



**OPTIMUM SAFETY**

**IMPROVED PRODUCTIVITY**

**MOBILITY**

- Independent mobile container.
- Capacity 50 tools.
- Runs with FACOM RFID and other tagged tools.



**ON-BOARD ELECTRONICS**

- Accelerometer, rfid antennas and scanner inside the bag.

**BUILT-IN SCREEN**

- Easy identification of problems detected.



**100% SEALED**

- Its shielding guarantees 100% detection = does not detect tools outside the bag.
- Patented.



**RECHARGEABLE BATTERY**

- Dewalt 7.2v Lithium ion battery.
- Min lifetime 2 days.
- Easily inserted and removed.



**INTUITIVE**

- Easy-to-use keypad.
- Visual and sound warnings.



**SOFTWARE**

- Easy database management.



**AUTOMATIC INVENTORY**

- No manual intervention.
- A scan is launched at each movement.
- Patented.



**ROLLER BAG**

- No impact on the work space.
- Wheels, handle and strap to follow you everywhere.
- With padlock clasp.



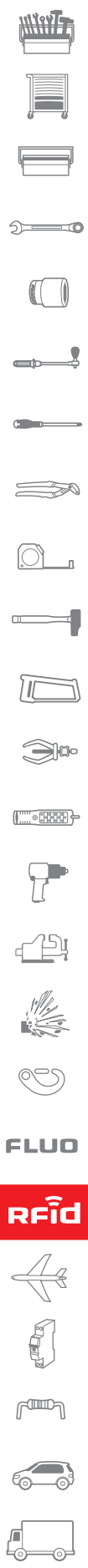
RFID STORAGE

RFID tool bag - Detection bag

- Standalone bag carrying tools with RFID chips ensuring tool traceability in the workspace by automatic set scanning.
- The most advanced solution for tracking your tools in sensitive areas.
- Scanning is triggered automatically when the bag is opened or closed and moved: no more tools forgotten in your work space.
- After each action, a light and sound signal informs the user, in addition to the message on the back-lit screen.
- 3 carrying solutions: wheels and telescopic handle, leather coated aluminum handle, strap with shoulder reinforcement pad.
- Strong 1200-denier fabric.
- Wheel diameter: 90 mm.
- Useful capacity: 50 tools; Max weight: 23 kg.
- Internal dimensions (LxDxH): 33 x 17 x 19.5 cm.
- External dimensions (LxDxH): 55 x 36 x 44 cm.



FACOM	H [mm]	P [mm]	L [mm]	ΔΔ [kg]
DB1.RFID	44	36	55	10.3



RFID TECHNOLOGY BY FACOM

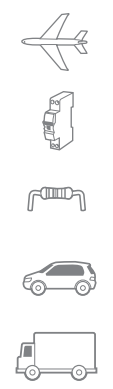


**RFID**  
TECHNOLOGY  
BY FACOM



For more information on the RFID technology:  
[www.facom.fr](http://www.facom.fr)

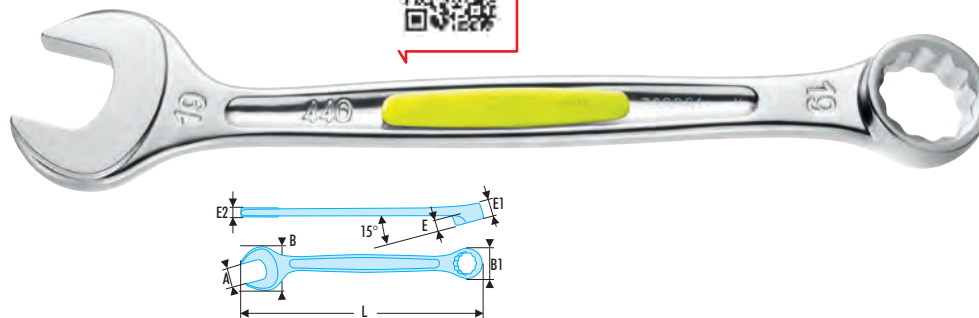
**RFID**



FLUO

RFID COMBINATION WRENCHES

440 - Metric combination wrenches - RFID



NF ISO 691, NF ISO 7738, NF ISO 3318, NF ISO 1711-1, E74-306, ISO 691, ISO 7738, ISO 3318, ISO 1711-1, DIN ISO 691, DIN ISO 1711-1, DIN 3113, ASME B107.100

- Tool with built-in RFID chip for workshop traceability.
- Chip integration by Facom guarantees maximum detection and strength, while preserving the tool's ergonomics.
- Radio frequency identification requires appropriate storage equipment.
- Standard wrench for all current applications.
- High mechanical strength combined with compact size meeting aeronautical standards.
- Ring head:
  - Ring open end (size E) designed for better access to series or embedded screws.
  - OGV® profile with 12-point ring for powerful tightening while protecting the nut. H suffix = 6-point ring.
  - Ring head angled at 15°.
- Open end head:
  - Open end angled at 15°.
  - Open end head-handle geometry optimised for increased access.
- Metric sizes: 5 to 41 mm.
- Presentation: satin chrome finish.

Size	A [mm]	B [mm]	B1 [mm]	E [mm]	E1 [mm]	E2 [mm]	L [mm]	ΔΔ [g]
440.5HRFID	5	13,3	9,2	3,1	6,0	3,6	115	20
440.5.5HRFID	5,5	13,3	9,2	3,1	6,0	3,8	115	20
440.6RFID	6	14,1	10,0	3,1	6,0	3,8	115	25
440.7RFID	7	17,2	11,2	3,4	6,2	3,9	122	25
440.8RFID	8	19,2	12,8	3,5	6,7	4,7	133	35
440.9RFID	9	21,2	14,2	3,9	7,1	4,7	138	40
440.10RFID	10	23,0	15,0	4,2	7,6	5,2	145	45
440.11RFID	11	24,5	16,9	4,6	8,1	5,5	155	50
440.12RFID	12	27,0	18,0	4,4	8,4	5,8	162	65
440.13RFID	13	28,7	19,3	4,8	8,6	6,1	170	75
440.14RFID	14	31,0	21,1	5,7	9,5	6,4	180	90
440.15RFID	15	32,6	22,2	5,9	10,0	6,8	185	100
440.16RFID	16	35,6	23,9	6,4	10,5	7,3	195	120
440.17RFID	17	37,0	25,3	6,5	10,9	7,6	202	135
440.18RFID	18	38,7	26,0	7,2	11,4	8,1	208	160
440.19RFID	19	41,2	27,8	7,2	11,9	8,3	216	180
440.20RFID	20	43,1	29,5	6,3	12,3	8,6	224	195
440.21RFID	21	45,4	30,9	7,8	12,8	8,8	233	215
440.22RFID	22	46,9	32,3	8,3	13,3	9,0	248	240
440.23RFID	23	49,0	33,6	8,7	13,8	9,3	257	265
440.24RFID	24	51,0	35,0	8,9	14,2	9,7	267	300
440.25RFID	25	53,0	36,4	9,4	14,7	9,9	274	325
440.26RFID	26	55,5	37,8	9,8	15,1	10,1	285	355
440.27RFID	27	58,0	39,2	8,9	15,6	10,4	295	385
440.28RFID	28	60,7	40,6	10,6	16,1	10,7	305	425
440.29RFID	29	63,0	42,0	10,8	16,6	11,2	320	485
440.30RFID	30	65,0	43,5	11,2	17,1	11,5	340	540
440.32RFID	32	68,0	46,1	11,5	18,0	12,5	355	650
440.33RFID	33	69,8	47,0	11,8	18,5	12,8	380	425
440.34RFID	34	72,0	48,9	12,8	19,0	13,0	390	755
440.35RFID	35	74,3	51,0	12,8	19,5	13,5	430	900
440.36RFID	36	76,0	53,0	13,2	20,0	14,0	440	955
440.38RFID	38	80,0	56,0	14,1	22,0	15,2	450	1200
440.41RFID	41	85,0	58,3	14,7	23,0	16,0	460	1300

440 - Inch combination wrenches - RFID



ASME B107.100, SAE AS954G

- Tool with built-in RFID chip for workshop traceability.
- Chip integration by Facom guarantees maximum detection and strength, while preserving the tool's ergonomics.
- Radio frequency identification requires appropriate storage equipment.
- Standard wrench for all current applications.
- High mechanical strength combined with compact size meeting aeronautical standards.
- Ring head:
  - Ring open end (size E) designed for better access to series or embedded screws.
  - OGV® profile with 12-point ring for powerful tightening while protecting the nut. H suffix = 6-point ring.
  - Ring head angled at 15°.
- Open end head:
  - Open end angled at 15°.
  - Open end head-handle geometry optimised for increased access.
- Dimensions in inches: from 1/4" to 1 1/4".
- Presentation: satin chrome finish.

Size	A ["]	B [mm]	B1 [mm]	E [mm]	E1 [mm]	E2 [mm]	L [mm]	ΔΔ [g]
440.1/4RFID	1/4	14,1	10,0	3,1	6,0	3,8	115	25
440.5/16RFID	5/16	19,2	12,8	3,5	6,7	4,7	133	35
440.11/32RFID	11/32	21,2	14,2	3,9	7,1	4,7	138	40
440.3/8RFID	3/8	23,0	15,0	4,2	7,6	5,2	145	50
440.7/16RFID	7/16	24,5	16,9	4,6	8,1	5,5	155	55
440.1/2RFID	1/2	28,7	19,3	4,8	8,6	6,1	170	75
440.9/16RFID	9/16	31,0	21,1	5,7	9,5	6,4	180	90
440.5/8RFID	5/8	35,6	23,9	6,4	10,5	7,3	195	120
440.11/16RFID	11/16	37,0	25,3	6,5	10,9	7,6	202	135
440.3/4RFID	3/4	41,2	27,8	7,2	11,9	8,3	216	180
440.13/16RFID	13/16	43,1	29,5	6,3	12,3	8,6	224	195
440.7/8RFID	7/8	46,9	32,3	8,3	13,3	9,0	248	240
440.15/16RFID	15/16	51,0	35,0	8,9	14,2	9,7	267	300
440.1PRFID	1	53,0	36,4	9,4	14,7	9,9	274	325
440.1P1/16RFID	1 1/16	58,0	39,2	8,9	15,6	10,4	295	385
440.1P1/8RFID	1 1/8	60,7	40,6	10,6	16,1	10,7	305	425
440.1P1/4RFID	1 1/4	68,0	46,1	11,5	18,0	12,5	355	650

100% SECURED RFID TOOLS

# An innovative range of tools

**RFID**  
TECHNOLOGY  
BY FACOM



The RFID technology (Radio Frequency Identification) allows remote identification of a tool by means of the electronic chip it encapsulates. The latter uses energy the radio transmitter signal propagates at a short distance: no battery required.

Invisible and sturdy, RFID chips guarantee optimum operation for many years.

The radio technology used has no impact on the outside environment.

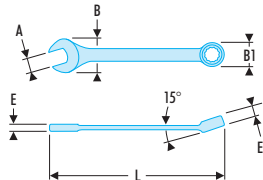


39 - Metric short-reach combination wrenches - RFID



NF ISO 691, NF ISO 7738, NF ISO 3318, NF ISO 1711-1, E74-306, ISO 691, ISO 7738, ISO 3318, ISO 1711-1, DIN ISO 691, DIN ISO 1711-1, ASME B107.100

- Tool with built-in RFID chip for workshop traceability.
- Chip integration by Facom guarantees maximum detection and strength, while preserving the tool's ergonomics.
- Radio frequency identification requires appropriate storage equipment.
- Short combination wrenches: the short handle and compact head allow for ease of access. Ideal for confined access.
- OGV® profile with 12-point ring for powerful tightening while protecting the nut. H suffix = 6-point ring.
- Ring head angled at 15°.
- Open end head angled at 15°.
- Metric sizes: 5 to 17 mm.
- Presentation: satin chrome finish.



RFID	A [mm]	B [mm]	B1 [mm]	E [mm]	E1 [mm]	L [mm]	6 12 [mm]	ΔΔ [g]
39.5HRFID	5	11,8	9,0	3,5	4,0	82	6	15
39.5.5HRFID	5,5	11,8	9,5	3,5	4,0	84	6	15
39.6RFID	6	15,0	10,4	4,1	5,0	90	12	20
39.7RFID	7	15,0	11,5	4,1	5,0	90	12	25
39.8RFID	8		12,5	4,5	5,8	94	12	25
39.9RFID	9	19,4	14,0	4,8	6,0	98	12	30
39.10RFID	10	21,5	15,3	5,1	6,4	103	12	35

RFID	A [mm]	B [mm]	B1 [mm]	E [mm]	E1 [mm]	L [mm]	6 12 [mm]	ΔΔ [g]
39.11RFID	11	23,7	16,8	5,3	6,8	109	12	40
39.12RFID	12	26,0	18,0	5,5	7,5	127	12	55
39.13RFID	13	28,0	19,5	5,8	8,0	141	12	60
39.14RFID	14	30,2	20,8	6,0	8,5	147	12	75
39.15RFID	15	32,3	22,1	6,4	9,0	152	12	85
39.16RFID	16	34,4	23,6	6,7	9,6	158	12	95
39.17RFID	17	36,5	25,0	6,9	10,0	165	12	105

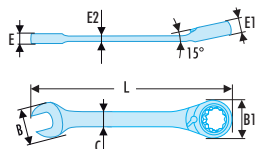


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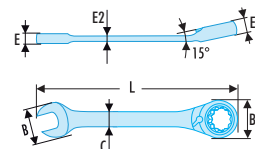
RFID

RFID COMBINATION RATCHET SERIES

467 - Metric standard ratchet combination wrenches - RFID



467 - Inch standard ratchet combination wrenches - RFID



NF ISO 1711-1, NF ISO 691, ISO 1711-1, ISO 691, DIN ISO 1711-1, DIN ISO 691

- Tool with built-in RFID chip for workshop traceability.
- Chip integration by Facom guarantees maximum detection and strength, while preserving the tool's ergonomics.
- Radio frequency identification requires appropriate storage equipment.
- Standard ratchet combination wrenches: for all current applications.
- Compact ratchet mechanism and reversible by lever.
- Increment 5° (7.5° for dimension 6 mm; 6° for dimensions 7, 8 and 9 mm).
- Ring head angled at 15°.
- Open end head angled at 15°.
- Metric sizes: 6 to 32 mm.
- Presentation: satin chrome finish.

ASME B107.100

- Tool with built-in RFID chip for workshop traceability.
- Chip integration by Facom guarantees maximum detection and strength, while preserving the tool's ergonomics.
- Radio frequency identification requires appropriate storage equipment.
- Standard ratchet combination wrenches: for all current applications.
- Compact ratchet mechanism and reversible by lever.
- Increment 5° (7.5° for dimension 1/4"; 6° for dimensions 5/16" and 11/32").
- Ring head angled at 15°.
- Open end head angled at 15°.
- Dimensions in inches: from 1/4" to 15/16".
- Presentation: satin chrome finish.

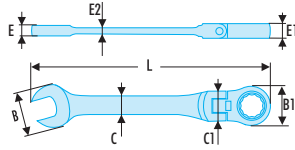
RFID	A [mm]	B [mm]	B1 [mm]	C [mm]	E [mm]	E1 [mm]	E2 [mm]	L [mm]	ΔΔ [g]
467.6RFID	6	15,0	14,0	9,7	4,0	6,9	4,5	128	35
467.7RFID	7	16,7	17,0	9,7	4,3	6,5	4,5	140	35
467.8RFID	8	16,7	17,0	9,7	4,3	6,5	4,5	140	35
467.9RFID	9	18,7	18,6	10,3	4,5	6,9	4,5	149	45
467.10RFID	10	20,8	20,2	11,3	5,0	7,3	4,9	158	55
467.11RFID	11	23,0	22,0	12,2	5,3	7,7	5,2	165	65
467.12RFID	12	24,6	23,4	13,0	5,5	8,2	8	171	75
467.13RFID	13	26,8	25,5	14,5	6,1	8,6	8	178	95
467.14RFID	14	29,0	26,9	15,1	6,5	9,0	8,5	190	115
467.15RFID	15	31,0	28,3	16,1	6,8	9,4	9	199	135
467.16RFID	16	33,0	29,8	17,3	7,1	9,9	10	208	150
467.17RFID	17	35,5	31,8	18,2	7,5	10,3	11	225	180
467.18RFID	18	37,5	32,7	19,6	8,1	10,7	11,1	236	210
467.19RFID	19	39,4	34,0	20,4	8,6	11,2	11,1	247	240
467.21RFID	21	45,8	40,1	23,9	9,0	13,0	12	287,8	350
467.22RFID	22	45,8	40,1	23,9	9,0	13,0	12	287,8	350
467.24RFID	24	51,8	46,5	26,4	10,0	14,5	12,5	321	490
467.27RFID	27	56,4	52,4	29,2	10,8	15,5	13	356,6	670
467.30RFID	30	62,7	58,1	31,7	11,5	17,0	13,5	400,7	880
467.32RFID	32	66,4	61,9	33,7	12,4	17,5	14	423,5	1100

RFID	A [mm]	B [mm]	B1 [mm]	C [mm]	E [mm]	E1 [mm]	E2 [mm]	L [mm]	ΔΔ [g]
467.1/4RFID	1/4	15,0	14,0	9,7	4,0	6,9	4,5	128	35
467.5/16RFID	5/16	16,7	17,0	9,7	4,3	6,5	4,5	140	35
467.11/32RFID	11/32	18,7	18,6	10,3	4,5	6,9	4,5	149	45
467.3/8RFID	3/8	20,8	20,2	11,3	5,0	7,3	4,9	158	55
467.7/16RFID	7/16	23,0	22,0	12,2	5,3	7,7	5,2	165	65
467.1/2RFID	1/2	26,8	25,5	14,5	6,1	8,6	8	178	95
467.9/16RFID	9/16	29,0	26,9	15,1	6,5	9,0	8,5	190	115
467.5/8RFID	5/8	33,0	29,8	17,3	7,1	9,9	10	208	150
467.11/16RFID	11/16	35,5	31,8	18,2	7,5	10,3	11,1	225	180
467.3/4RFID	3/4	39,4	34,0	20,4	8,6	11,2	11,1	247	240
467.7/8RFID	7/8	45,8	40,1	23,9	9,0	13,0	12	287,8	350
467.15/16RFID	15/16	51,8	46,5	26,4	10,0	14,5	12,5	321	490



RFID HINGED RATCHET COMBINATION WRENCH SERIES

467F - Metric hinged jointed combination wrenches - RFID

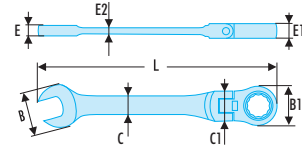


NF ISO 1711-1, NF ISO 691, ISO 1711-1, ISO 691, DIN ISO 1711-1, DIN ISO 691

- Tool with built-in RFID chip for workshop traceability.
- Chip integration by Facom guarantees maximum detection and strength, while preserving the tool's ergonomics.
- Radio frequency identification requires appropriate storage equipment.
- Straight ratchet ring wrenches: to reach the nut flat.
- Compact ratchet mechanism and reversible by flipping the wrench.
- Increment 5° (7.5° for dimension 6 mm; 6° for dimensions 7, 8 and 9 mm).
- Metric sizes: 8 to 19 mm.
- Presentation: satin chrome finish.

RFID	A [mm]	B [mm]	B1 [mm]	C [mm]	E [mm]	E1 [mm]	E2 [mm]	L [mm]	ΔΔ [g]
467F.8RFID	8	16,2	16,7	9,0	4,3	6,5	4,5	127,5	50
467F.9RFID	9	18,2	18,6	10,0	4,6	6,9	4,5	132,0	55
467F.10RFID	10	20,3	20,1	10,8	5,0	7,3	4,9	136,5	65
467F.11RFID	11	22,5	21,8	11,8	5,4	7,7	5,2	141,5	70
467F.12RFID	12	24,8	23,0	12,8	5,8	8,2	8	148,0	85
467F.13RFID	13	26,8	25,2	13,6	6,1	8,6	8	155,0	100
467F.14RFID	14	28,7	26,8	14,2	6,4	9,0	8,5	161,0	115
467F.15RFID	15	30,5	28,3	15,4	6,9	9,4	9	170,0	135
467F.16RFID	16	32,9	29,8	16,0	7,2	9,9	10	180,0	160
467F.17RFID	17	34,5	31,8	16,9	7,6	10,3	11	191,0	180
467F.18RFID	18	37,0	32,8	18,0	8,0	10,7	11,1	204,0	210
467F.19RFID	19	39,2	33,9	19,5	8,6	11,2	11,1	216,0	240

467F - Inch hinged jointed combination wrenches - RFID



ASME B107.100

- Tool with built-in RFID chip for workshop traceability.
- Chip integration by Facom guarantees maximum detection and strength, while preserving the tool's ergonomics.
- Radio frequency identification requires appropriate storage equipment.
- Hinged head ratchet combination wrenches: to reach difficult access nuts.
- Compact ratchet mechanism and reversible by flipping the wrench.
- Increment 5° (6° for dimensions 8 and 9 mm).
- Ring head hinged at 180°.
- Open end head angled at 15°.
- Dimensions in inches: from 5/16 to 3/4".
- Presentation: satin chrome finish.

RFID	A ["]	B [mm]	B1 [mm]	C [mm]	E [mm]	E1 [mm]	E2 [mm]	L [mm]	ΔΔ [g]
467F.5/16RFID	5/16	16,2	16,7	9,0	4,3	6,5	4,5	127,5	50
467F.3/8RFID	3/8	20,3	20,1	10,8	5,0	7,3	4,9	136,5	65
467F.7/16RFID	7/16	22,5	21,8	11,8	5,4	7,7	5,2	141,5	70
467F.1/2RFID	1/2	26,8	25,2	13,6	6,1	8,6	8	155,0	100
467F.9/16RFID	9/16	28,7	26,8	14,2	6,4	9,0	8,5	161,0	115
467F.5/8RFID	5/8	32,9	29,8	16,0	7,2	9,9	10	180,0	165
467F.11/16RFID	11/16	34,5	31,8	16,9	7,6	10,3	11,1	191,0	180
467F.3/4RFID	3/4	39,2	33,9	19,5	8,6	11,2	11,1	216,0	240



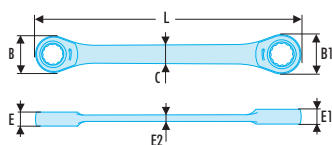
FLUO

RFID

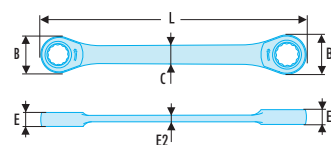


RFID RATCHET RING WRENCHES

64 - Metric straight ratchet ring wrenches - RFID



64 - Inch straight ratchet ring wrenches - RFID



NF ISO 1711-1, NF ISO 691, ISO 1711-1, ISO 691, DIN ISO 1711-1, DIN ISO 691, ASME B107.100

- Tool with built-in RFID chip for workshop traceability.
- Chip integration by Facom guarantees maximum detection and strength, while preserving the tool's ergonomics.
- Radio frequency identification requires appropriate storage equipment.
- Straight ratchet ring wrenches: to reach the nut flat.
- Compact ratchet mechanism and reversible by flipping the wrench.
- Increment 5° (7.5° for dimension 6 mm; 6° for dimensions 7, 8 and 9 mm).
- Metric sizes: 6 to 24 mm.
- Presentation: satin chrome finish.

ASME B107.100

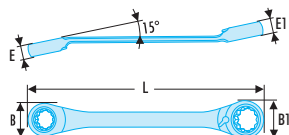
- Tool with built-in RFID chip for workshop traceability.
- Chip integration by Facom guarantees maximum detection and strength, while preserving the tool's ergonomics.
- Radio frequency identification requires appropriate storage equipment.
- Straight ratchet ring wrenches: to reach the nut flat.
- Compact ratchet mechanism and reversible by flipping the wrench.
- Increment 5° (7.5° for dimension 1/4" mm; 6° for dimensions 5/16" and 11/32").
- Dimensions in inches: from 1/4" to 5/16".
- Presentation: satin chrome finish.

64	A	B	B1	C	E	E1	E2	C	L	ΔΔ
	[mm]	[mm]	[mm]	[mm]	[mm]	[mm]	[mm]	[mm]	[mm]	[g]
64.6X7RFID	6x7	14,2	17,2	8,0	6,3	6,5	5	8,0	115	40
64.8X9RFID	8x9	16,8	20,2	8,3	6,5	6,9	5,2	8,3	128	50
64.10X11RFID	10x11	20,2	21,8	9,1	7,3	7,7	9	9,1	150	70
64.12X13RFID	12x13	23	24,8	11,3	8,2	8,6	9,5	11,3	170	90
64.14X15RFID	14x15	26,5	29,5	13,1	9,0	9,4	12	13,1	190	140
64.16X18RFID	16x18	29,5	33,5	14,8	9,9	10,7	12,5	14,8	210	195
64.17X19RFID	17x19	31,5	33,5	15,2	10,3	11,2	12,5	15,2	230	205
64.21X23RFID	21x23	40,0	46,0	15,2	13,0	14,5	16	15,2	260	490
64.22X24RFID	22x24	40,0	46,0	15,2	13,0	14,5	16	15,2	260	490

64	A	B	B1	C	E	E1	E2	L	ΔΔ
	["]	[mm]	[mm]	[mm]	[mm]	[mm]	[mm]	[mm]	[g]
64.1/4X5/16RFID	1/4x5/16	14,2	17,2	8,0	6,3	6,5	5	115	40
64.5/16X11/32RFID	5/16x11/32	16,8	20,2	8,3	6,5	6,9	5,2	128	50
64.3/8X7/16RFID	3/8x7/16	20,2	21,8	9,1	7,3	7,7	9	150	70
64.1/2X9/16RFID	1/2x9/16	23	24,8	11,3	8,6	9,0	9,5	180	125
64.5/8X11/16RFID	5/8x11/16	29,5	33,5	14,8	9,9	10,7	12,5	210	195
64.3/4X13/16RFID	3/4x13/16	33,5	40,0	15,2	11,2	13,0	12,5	245	320
64.7/8X15/16RFID	7/8x15/16	44	46,0	15,2	13,0	14,5	16	260	490

RFID 15° HINGED RATCHET RING WRENCHES

65 - Metric 15° hinged ratchet ring wrenches - RFID

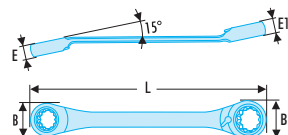


NF ISO 1711-1, NF ISO 691, ISO 1711-1, ISO 691, DIN ISO 1711-1, DIN ISO 691, ASME B107.100

- Tool with built-in RFID chip for workshop traceability.
- Chip integration by Facom guarantees maximum detection and strength, while preserving the tool's ergonomics.
- Radio frequency identification requires appropriate storage equipment.
- Straight ratchet ring wrenches: to reach the nut flat.
- Compact ratchet mechanism and reversible by flipping the wrench.
- Increment 5° (7.5° for dimension 6 mm; 6° for dimensions 7, 8 and 9 mm).
- Metric sizes: 6 to 24 mm.
- Presentation: satin chrome finish.

RFID	A [mm]	B [mm]	B1 [mm]	E [mm]	E1 [mm]	L [mm]	ΔΔ [g]
65.6X7RFID	6x7	14,0	17,0	6,3	6,5	115	35
65.8X9RFID	8x9	17,0	20,2	6,5	6,9	128	50
65.10X11RFID	10x11	20,2	22,0	7,3	7,7	150	75
65.12X13RFID	12x13	23,4	25,5	8,2	8,6	170	100
65.14X15RFID	14x15	26,9	29,8	9,0	9,4	190	140
65.16X18RFID	16x18	29,8	34,0	9,9	10,7	210	200
65.17X19RFID	17x19	31,8	34,0	10,3	11,2	230	220
65.21X23RFID	21x23	40,1	46,0	13,0	14,5	260	400
65.22X24RFID	22x24	40,1	46,5	13,0	14,5	260	435

65 - Inch 15° hinged ratchet ring wrenches - RFID



ASME B107.100

- Tool with built-in RFID chip for workshop traceability.
- Chip integration by Facom guarantees maximum detection and strength, while preserving the tool's ergonomics.
- Radio frequency identification requires appropriate storage equipment.
- 15° hinged ratchet ring wrenches: ring offset to clear fingers or obstacles.
- Compact ratchet mechanism and reversible by lever.
- Increment 5° (7.5° for dimension 1/4"; 6° for dimensions 5/16" and 11/32").
- Ring head angled at 15°.
- Dimensions in inches: from 1/4" to 15/16".
- Presentation: satin chrome finish.

RFID	A ["]	B [mm]	B1 [mm]	E [mm]	E1 [mm]	L [mm]	ΔΔ [g]
65.1/4X5/16RFID	1/4x5/16	14,0	17,0	6,3	6,5	115	35
65.5/16X11/32RFID	5/16x11/32	17,0	20,2	6,5	6,9	128	50
65.3/8X7/16RFID	3/8x7/16	20,2	22,0	7,3	7,7	150	75
65.1/2X9/16RFID	1/2x9/16	25,5	26,9	8,6	9,0	180	120
65.5/8X11/16RFID	5/8x11/16	29,8	31,8	9,9	10,3	200	180
65.3/4X13/16RFID	3/4x13/16	34,0	40,1	11,2	13,0	245	300
65.7/8X15/16RFID	7/8x15/16	40,1	46,5	13,0	14,5	260	430

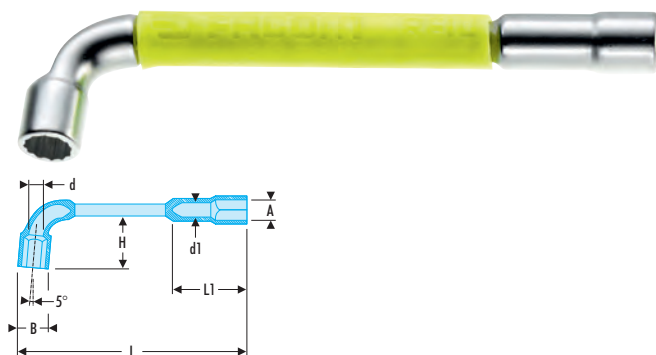


FLUO

RFID

RFID ANGLED OPEN-SOCKET WRENCHES

76 - Forged metric 12 x 6 point angled open-socket wrenches - RFID



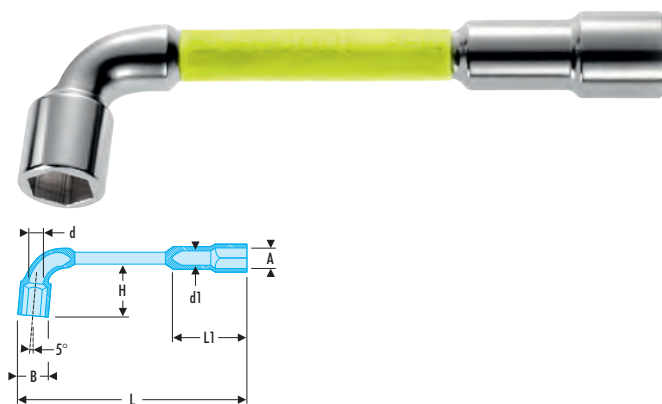
NF ISO 2236, NF ISO 691, ISO 2236, ISO 691, DIN ISO 691

- Tool with built-in RFID chip for workshop traceability.
- Chip integration by Facom guarantees maximum detection and strength, while preserving the tool's ergonomics.
- Radio frequency identification requires appropriate storage equipment.
- Angled socket wrenches: wrenches designed for powerful unlocking.
- 12-point short head for 30° increment and 6-point long head.
- Opening of the short head for passing threaded rods.
- Metric sizes: 6 to 16 mm.
- Presentation: satin chrome finish.

RFID	A [mm]	B [mm]	d [mm]	d1 [mm]	H [mm]	L [mm]	L1 [mm]	ΔΔ [g]
76.6RFID	6	10,0	4,5	4,5	16	102	21	60
76.7RFID	7	11,0	4,5	4,5	17	106	22	65
76.8RFID	8	12,5	7,0	6,0	19	114	25	90
76.9RFID	9	13,5	7,0	6,0	20	122	26	95
76.10RFID	10	15,0	8,0	7,0	24	129	28	125
76.11RFID	11	16,5	8,0	7,0	25	136	30	145

RFID	A [mm]	B [mm]	d [mm]	d1 [mm]	H [mm]	L [mm]	L1 [mm]	ΔΔ [g]
76.12RFID	12	18,0	9,0	8,0	28	144	36	185
76.13RFID	13	19,5	9,0	8,0	30	152	38	205
76.14RFID	14	21,0	10,5	9,0	32	160	40	235
76.15RFID	15	22,5	10,5	10,0	34	169	42	260
76.16RFID	16	24,0	13,0	12,0	37	178	46	315

75 - Forged metric 6 x 6 point angled open-socket wrenches - RFID



NF ISO 2236, NF ISO 691, ISO 2236, ISO 691, DIN ISO 691

- Tool with built-in RFID chip for workshop traceability.
- Chip integration by Facom guarantees maximum detection and strength, while preserving the tool's ergonomics.
- Radio frequency identification requires appropriate storage equipment.
- Angled socket wrenches: wrenches designed for powerful unlocking.
- Short head and long head: 6-point.
- Opening of the short head for passing threaded rods.
- Metric sizes: 17 to 32 mm.
- Presentation: satin chrome finish.

RFID	A [mm]	B [mm]	d [mm]	d1 [mm]	H [mm]	L [mm]	L1 [mm]	ΔΔ [g]
75.17RFID	17	25,5	13,0	12,0	39	187	48	345
75.18RFID	18	26,5	13,0	12,0	40	195	50	395
75.19RFID	19	28,5	15,0	12,0	41	204	51	460
75.21RFID	21	30,5	15,0	14,0	46	221	55	520
75.22RFID	22	32,0	15,0	14,0	48	230	57	565

RFID	A [mm]	B [mm]	d [mm]	d1 [mm]	H [mm]	L [mm]	L1 [mm]	ΔΔ [g]
75.24RFID	24	34,5	18,0	16,0	54	250	67	690
75.27RFID	27	38,0	22,0	19,0	58	280	73	980
75.30RFID	30	42,0	24,0	21,0	64	310	83	1300
75.32RFID	32	44,5	24,0	22,6	74	330	88	1400

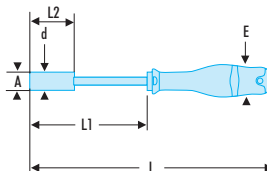
RFID NUT DRIVERS

74A - Forged nut driver - metric - RFID



NF ISO 2236, NF ISO 691, ISO 2236, ISO 691, DIN 3125, DIN ISO 691

- Tool with built-in RFID chip for workshop traceability.
- Chip integration by Facom guarantees maximum detection and strength, while preserving the tool's ergonomics.
- Radio frequency identification requires appropriate storage equipment.
- ideal for screws with limited access in height or precision mechanics.
- Protwist screwdriver handle for optimum comfort and for powerful unlocking.
- 6-point socket with deep opening for long threads.
- Forged body for maximum strength.
- Metric sizes: 3.2 to 14 mm.
- Presentation: satin chrome finish.



RFID	A [mm]	d [mm]	E [mm]	L [mm]	L1 [mm]	L2 [mm]	ΔΔ [g]
74A.3.2FRFID	3,2	6,0	36	245	106	20	140
74A.4FRFID	4,0	7,0	36	245	106	20	145
74A.4.5FRFID	4,5	7,5	36	245	106	25	150
74A.5FRFID	5,0	8,0	36	245	106	25	150
74A.5.5FRFID	5,5	8,0	36	245	106	30	150
74A.6FRFID	6,0	9,5	36	245	106	35	155
74A.7FRFID	7,0	9,5	36	245	106	35	160

RFID	A [mm]	d [mm]	E [mm]	L [mm]	L1 [mm]	L2 [mm]	ΔΔ [g]
74A.8FRFID	8,0	12,0	36	245	106	50	185
74A.9FRFID	9,0	12,0	36	245	106	50	190
74A.10FRFID	10,0	14,5	40	250	106	50	230
74A.11FRFID	11,0	16,0	40	250	106	50	250
74A.12FRFID	12,0	17,0	40	250	106	50	250
74A.13FRFID	13,0	18,5	40	250	106	55	290
74A.14FRFID	14,0	20,0	40	250	106	55	295

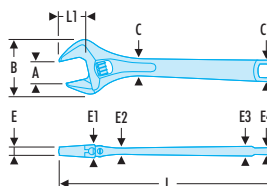
RFID ADJUSTABLE WRENCHES

113A.C - Chromed adjustable wrenches - RFID



NF ISO 6787, ISO 6787, DIN 3117, ASME B107.100

- Tool with built-in RFID chip for workshop traceability.
- Chip integration by Facom guarantees maximum detection and strength, while preserving the tool's ergonomics.
- Radio frequency identification requires appropriate storage equipment.
- Easy to access button for setting jaws.
- Non-protruding moving jaw at maximum capacity.
- Pre-adjustment of jaw opening thanks to millimetric gradation.
- Right-hand button rotation.
- Range from 6" to 18".
- Presentation: chromed body and polished head faces.



RFID	A [mm]	B [mm]	C [mm]	C1 [mm]	E [mm]	E1 [mm]	E2 [mm]	E3 [mm]	E4 [mm]	L [mm]	L1 [mm]	L2 [mm]	ΔΔ [g]
113A.6CRFID	20	45,0	14,8	18,5	5	11,8	6,0	8,3	5,8	155	19	8,3	155
113A.8CRFID	27	61,5	18,5	24,0	6,5	13,5	9,0	11,0	8,5	206	24	11,0	305
113A.10CRFID	30	69,5	21,5	28,5	9	15,5	9,5	12,7	10,0	255	29	12,7	510
113A.12CRFID	34	80,0	25,0	31,0	10	18,0	10,2	13,0	10,0	306	34	13,0	730
113A.15CRFID	44	97,0	28,0	35,0	13,5	20,0	12,0	14,8	11,5	380	44	14,8	1200
113A.18CRFID	53	115,0	31,0	38,5	16	22,5	14,3	17,8	13,5	456	53	17,8	1800

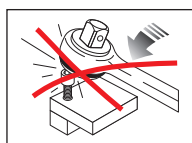
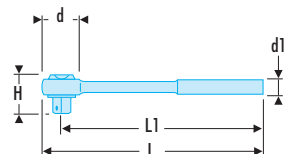


FLUO

RFID

## RFID 1/4" RATCHETS

## 1/4" maintenance free pear head ratchet - RFID



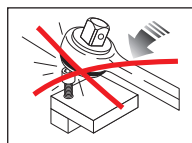
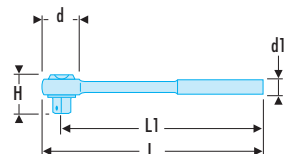
## NF ISO 3315, ISO 3315, DIN 3122, ASME B107.110

- Tool with built-in RFID chip for workshop traceability.
- Chip integration by Facom guarantees maximum detection and strength, while preserving the tool's ergonomics.
- Radio frequency identification requires appropriate storage equipment.
- Dust proof, maintenance free mechanism.
- 72 teeth mechanism for 5° increments.
- Drive direction switch allows easy reversal even with gloved or greasy hands.
- Palm control system - allows the operator to press down on the head avoiding risk of accidental reverse.
- Ultra-compact head.
- Hook for hanging when working at height.
- Ergonomic comfort grip handle design resistant to workshop chemicals and solvents.



	d [mm]	d1 [mm]	H [mm]	L [mm]	L1 [mm]	ΔΔ [g]
<b>RL.171RFID</b>	22	20	25	120	110	90

## 1/4" fast action twist handle ratchet - RFID



## NF ISO 3315, ISO 3315, DIN 3122, ASME B107.110

- Tool with built-in RFID chip for workshop traceability.
- Chip integration by Facom guarantees maximum detection and strength, while preserving the tool's ergonomics.
- Radio frequency identification requires appropriate storage equipment.
- Twist handle for working twice as fast in confined spaces
- 6° increments for final tightening.
- Socket safety locking: no more lost sockets.
- Palm control system - allows the operator to press down on the head avoiding risk of accidental reverse.



	d [mm]	d1 [mm]	H [mm]	L [mm]	L1 [mm]	ΔΔ [g]
<b>R.360RFID</b>	27	21	29	120	120	160

## PROTWIST® handle screwdriver 1/4" - 158 mm - RFID



## NF ISO 3315, ISO 3315, DIN 3122, ASME B107.110

- Tool with built-in RFID chip for workshop traceability.
- Chip integration by Facom guarantees maximum detection and strength, while preserving the tool's ergonomics.
- Radio frequency identification requires appropriate storage equipment.
- Detectable by it's fluorescence, activated by a lamp or UV neon light.
- Bi-material grip resists to impacts, abrasion, and chemicals.
- Finish: chromed.



	ΔΔ [g]
<b>R.236AFRFID</b>	110

Bit-holder ratchet wrench 1/4" - 5/16" RFID

- Tool with built-in RFID chip for workshop traceability.
- Chip integration by Facom guarantees maximum detection and strength, while preserving the tool's ergonomics.
- Radio frequency identification requires appropriate storage equipment.
- Takes the following bits: - Series 1: hexagon 1/4".  
- Series 2: hexagon 5/16".
- Used for installing 1/4" and 5/16" aircraft fasteners.
- Increment: 5°. - Heads angled at 15°. - Bits held by a spring clip.
- Knurled head for fast pre-tightening.
- Length 150 mm.
- Satin chrome finish.

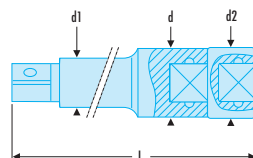


Icon	L [mm]	ΔΔ [g]
<b>R.65.PERFID</b>	150	100

R - 1/4" drive extension - RFID

NF ISO 3316, ISO 3316, DIN 3123, ASME B 107.110

- Tool with built-in RFID chip for workshop traceability.
- Chip integration by Facom guarantees maximum detection and strength, while preserving the tool's ergonomics.
- Radio frequency identification requires appropriate storage equipment.
- Finish: chromed.

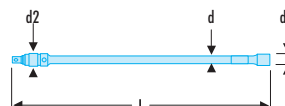


Icon	d [mm]	d1 [mm]	d2 [mm]	L [mm]	ΔΔ [g]
<b>R.209RFID</b>	12	8,2	13	85	50

R.RC - 1/4" drive locking extensions - RFID

NF ISO 3316, ISO 3316, DIN 3123, ASME B 107.110

- Tool with built-in RFID chip for workshop traceability.
- Chip integration by Facom guarantees maximum detection and strength, while preserving the tool's ergonomics.
- Radio frequency identification requires appropriate storage equipment.
- Locking mechanism.
- Finish: bright chrome.

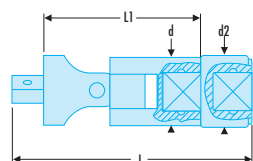


Icon	d [mm]	d1 [mm]	d2 [mm]	d3 [mm]	L [mm]	ΔΔ [g]
<b>R.210RCRFID</b>	8,2	12	13	13	130	65
<b>R.215RCRFID</b>	8,2	12	13	13	180	80
<b>R.217RCRFID</b>	8,2	12	13	13	280	120

1/4" universal joint - RFID

NF ISO 3316, ISO 3316, DIN 3123, ASME B 107.110

- Tool with built-in RFID chip for workshop traceability.
- Chip integration by Facom guarantees maximum detection and strength, while preserving the tool's ergonomics.
- Radio frequency identification requires appropriate storage equipment.
- Spring-stiffened joints. Stays in position when reaching for fasteners.
- Finish: bright chrome.



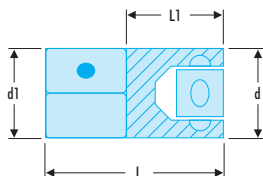
Icon	d [mm]	d2 [mm]	L [mm]	L1 [mm]	ΔΔ [g]
<b>R.240ARFID</b>	13	13	63	25	40



FLUO

RFID

1/4" to 3/8" coupler - RFID



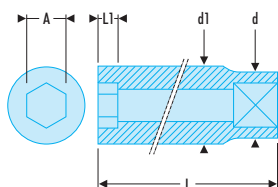
NF ISO 3316, ISO 3316, DIN 3123, ASME B107.110

- Tool with built-in RFID chip for workshop traceability.
- Chip integration by Facom guarantees maximum detection and strength, while preserving the tool's ergonomics.
- Radio frequency identification requires appropriate storage equipment.
- 1/4" female square drive .
- 3/8" male square drive for adapting 3/8" drive sockets.
- Finish: bright chrome.

Part No.	d [mm]	d1 [mm]	d2 [mm]	L [mm]	L1 [mm]	ΔΔ [g]
R.232RFID	12	12	21	43,5	13,5	50

RFID 1/4" SOCKETS

R - 1/4" drive metric 6-point sockets - RFID

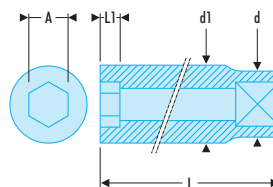


NF ISO 1711-1, ISO 1711-1

- Tool with built-in RFID chip for workshop traceability.
- Chip integration by Facom guarantees maximum detection and strength, while preserving the tool's ergonomics.
- Radio frequency identification requires appropriate storage equipment.
- OGV® profile: more powerful tightening, preserves fasteners.
- Metric dimensions : from 3,2 to 14 mm.
- Finish: bright chrome.

Part No.	A [mm]	d [mm]	d1 [mm]	d2 [mm]	⌀ [mm]	L [mm]	L1 [mm]	ΔΔ [g]
R.3.2RFID	3,2	11,2	5,9	13	6	52	2,4	30
R.4RFID	4,0	11,2	6,9	13	6	52	2,6	30
R.5RFID	5,0	11,2	8,2	13	6	52	4,8	30
R.5.5RFID	5,5	11,2	8,8	13	6	52	4,8	30
R.6RFID	6,0	11,2	9,4	13	6	52	5,6	30
R.7RFID	7,0	11,0	11,0	13	6	52	6,0	30
R.8RFID	8,0	12,0	12,0	13	6	52	6,5	35
R.9RFID	9,0	13,2	13,2	13	6	52	6,5	35
R.10RFID	10,0	14,7	14,7	13	6	52	7,8	40
R.11RFID	11,0	15,8	15,8	21	6	41	9,0	50
R.12RFID	12,0	17,0	17,0	21	6	41	9,5	55
R.13RFID	13,0	17,7	17,7	21	6	41	10,0	55
R.14RFID	14,0	18,7	18,7	21	6	41	10,0	60

R - 1/4" drive inch 6-point sockets - RFID



ASME B107.110

- Tool with built-in RFID chip for workshop traceability.
- Chip integration by Facom guarantees maximum detection and strength, while preserving the tool's ergonomics.
- Radio frequency identification requires appropriate storage equipment.
- OGV® profile: more powerful tightening, preserves fasteners.
- Dimensions in inches : from 3/16" to 9/16".
- Finish: bright chrome.

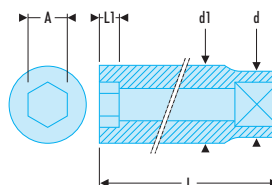
Part No.	A ["]	d [mm]	d1 [mm]	d2 [mm]	⌀ [mm]	L [mm]	L1 [mm]	ΔΔ [g]
R.3/16RFID	3/16	11,2	8,0	13	6	52	4,8	30
R.7/32RFID	7/32	11,2	9,0	13	6	52	5,5	30
R.1/4RFID	1/4	11,2	10,1	13	6	52	6,0	30
R.9/32RFID	9/32	11,0	11,0	13	6	52	6,0	30
R.5/16RFID	5/16	12,0	12,0	13	6	52	6,5	35
R.11/32RFID	11/32	13,2	13,2	13	6	52	6,5	35
R.3/8RFID	3/8	14,7	14,7	13	6	52	7,8	40
R.13/32RFID	13/32	14,7	14,7	13	6	52	7,8	40
R.7/16RFID	7/16	15,8	15,8	21	6	41	9,0	50
R.1/2RFID	1/2	17,7	17,7	21	6	41	10,0	55
R.9/16RFID	9/16	18,7	18,7	21	6	41	10,0	55



■ R.E - 1/4" drive metric 12-point sockets - RFID

NF ISO 1711-1, ISO 1711-1

- Tool with built-in RFID chip for workshop traceability.
- Chip integration by Facom guarantees maximum detection and strength, while preserving the tool's ergonomics.
- Radio frequency identification requires appropriate storage equipment.
- OGV® profile: more powerful tightening, preserves fasteners.
- Metric dimensions : from 5,5 to 14 mm.
- Finish: bright chrome.



Socket	A [mm]	d [mm]	d1 [mm]	d2 [mm]	12 [mm]	L [mm]	L1 [mm]	ΔΔ [g]
R.5.5ERFID	5,5	11,2	8,8	13	12	52	4,8	30
R.6.0ERFID	6,0	11,2	9,4	13	12	52	5,6	30
R.7.0ERFID	7,0	11,0	11,0	13	12	52	6,0	30
R.8.0ERFID	8,0	12,0	12,0	13	12	52	6,5	35
R.9.0ERFID	9,0	13,2	13,2	13	12	52	6,5	35

Socket	A [mm]	d [mm]	d1 [mm]	d2 [mm]	12 [mm]	L [mm]	L1 [mm]	ΔΔ [g]
R.10ERFID	10,0	14,7	14,7	13	12	52	7,8	40
R.11ERFID	11,0	15,8	15,8	21	12	41	9,0	50
R.12ERFID	12,0	17,0	17,0	21	12	41	9,5	55
R.13ERFID	13,0	17,7	17,7	21	12	41	10,0	55
R.14ERFID	14,0	18,7	18,7	21	12	41	10,0	60

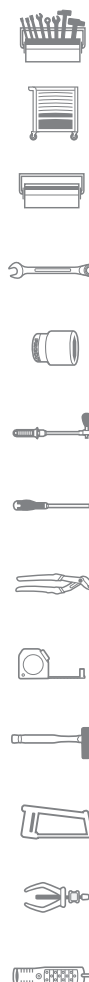
■ R.E - 1/4" drive inch 12-point sockets - RFID

ASME B107.110

- Tool with built-in RFID chip for workshop traceability.
- Chip integration by Facom guarantees maximum detection and strength, while preserving the tool's ergonomics.
- Radio frequency identification requires appropriate storage equipment.
- OGV® profile: more powerful tightening, preserves fasteners.
- Thin-wall for better access, conform with aeronautical standards.
- Dimensions in inches: from 3/16" to 9/16".
- Finish: bright chrome.



Socket	d [mm]	d1 [mm]	L [mm]	L1 [mm]	ΔΔ [g]
R.7/32ERFID	11,2	9,0	52	5,5	30
R.1/4ERFID	11,2	10,1	52	6,0	30
R.9/32ERFID	11,2	10,6	52	6,0	35
R.5/16ERFID	12,0	12,0	52	6,5	35
R.11/32ERFID	13,0	13,0	52	6,5	35
R.3/8ERFID	14,7	14,7	52	7,8	35
R.7/16ERFID	15,8	15,8	41	9,0	50
R.1/2ERFID	17,7	17,7	41	10,0	50
R.9/16ERFID	18,7	18,7	41	10,0	55



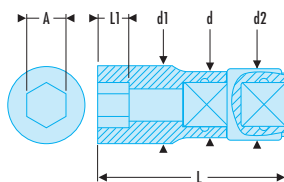
FLUO

RFID



RFID 1/4" LONG-REACH SOCKETS

■ R.EL - 1/4" long-reach metric 12-point sockets - RFID

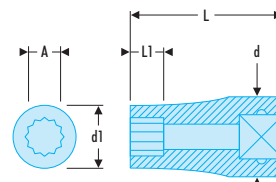


NF ISO 1711-1, ISO 1711-1

- Tool with built-in RFID chip for workshop traceability.
- Chip integration by Facom guarantees maximum detection and strength, while preserving the tool's ergonomics.
- Radio frequency identification requires appropriate storage equipment.
- OGV® profile: more powerful tightening, preserves fasteners.
- Long-reach sockets for long recess or thread access.
- High performance, suitable for aircraft fasteners to AS954E.
- Thinner socket walls for better accessibility.
- Metric dimensions : from 4 to 14 mm.
- Finish: bright chrome.

☞	A [mm]	d [mm]	d1 [mm]	d2 [mm]	12 [mm]	L [mm]	L1 [mm]	ΔΔ [g]
R.4ELRFID	4	6,7	11,2	13	12	80	4	40
R.4.5ELRFID	4,5	7,3	11,2	13	12	80	4,5	40
R.5ELRFID	5	7,8	11,2	13	12	80	5,5	40
R.5.5ELRFID	5,5	8,5	11,2	13	12	80	6	40
R.6ELRFID	6	9,2	11,2	13	12	80	7	40
R.7ELRFID	7	10,3	11,2	13	12	80	8	50
R.8ELRFID	8	11,2	11,7	13	12	80	9	50
R.9ELRFID	9	13	12	13	12	80	10	55
R.10ELRFID	10	14,3	12,9	13	12	80	11	65
R.11ELRFID	11	15,5	14,3	21	12	69	12	85
R.12ELRFID	12	16,8	15,5	21	12	69	13	90
R.13ELRFID	13	18	16,4	21	12	69	14	90
R.14ELRFID	14	19,3	17,9	21	12	69	16	100

■ R.EL - 1/4" long-reach metric 12-point sockets - RFID



ASME B107.110

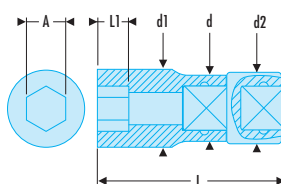
- Tool with built-in RFID chip for workshop traceability.
- Chip integration by Facom guarantees maximum detection and strength, while preserving the tool's ergonomics.
- Radio frequency identification requires appropriate storage equipment.
- OGV® profile: more powerful tightening, preserves fasteners.
- Long-reach sockets for long recess or thread access.
- High performance, suitable for aircraft fasteners to AS954E.
- Thinner socket walls for better accessibility.
- Dimensions in inches: from 3/16" to 9/16".
- Finish: bright chrome.

☞	A ["]	d [mm]	d1 [mm]	d2 [mm]	12 [mm]	L [mm]	L1 [mm]	ΔΔ [g]
R.3/16ELRFID	3/16	10,9	7,7	13	12	80	6,0	35
R.7/32ELRFID	7/32	10,9	8,5	13	12	80	7,4	35
R.1/4ELRFID	1/4	10,9	9,4	13	12	80	7,4	40
R.9/32ELRFID	9/32	10,9	10,2	13	12	80	8,5	40
R.5/16ELRFID	5/16	11,8	11,4	13	12	80	9,0	45
R.11/32ELRFID	11/32	12,0	12,5	13	12	80	9,7	45
R.3/8ELRFID	3/8	12,8	13,7	13	12	80	11,2	55
R.7/16ELRFID	7/16	14,3	15,6	21	12	69	11,9	70
R.1/2ELRFID	1/2	16,2	17,3	21	12	69	13,8	75
R.9/16ELRFID	9/16	17,1	18,8	21	12	69	16,2	80

▪ R.LA - 1/4" long-reach metric 6-point sockets - RFID

NF ISO 1711-1, ISO 1711-1

- Tool with built-in RFID chip for workshop traceability.
- Chip integration by Facom guarantees maximum detection and strength, while preserving the tool's ergonomics.
- Radio frequency identification requires appropriate storage equipment.
- OGV® profile: more powerful tightening, preserves fasteners.
- Long-reach sockets for long recess or thread access.
- Metric dimensions : from 3,2 to 14 mm.
- Finish: bright chrome.



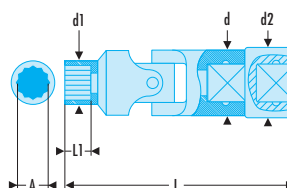
RFID	A [mm]	d [mm]	d1 [mm]	d2 [mm]	⌀ [mm]	L [mm]	L1 [mm]	ΔΔ [g]
R.3.2LARFID	3,2	12,0	5,80	13	6	50,5	1,8	40
R.4LARFID	4	12,0	6,80	13	6	50,5	2,0	40
R.5LARFID	5	12,0	8,10	13	6	50,5	2,3	40
R.5.5LARFID	5,5	12,0	8,10	13	6	50,5	3,0	40
R.6LARFID	6	12,0	9,40	13	6	50,5	5,6	40
R.7LARFID	7	12,0	10,90	13	6	50,5	7,1	50
R.8LARFID	8	12,0	12,00	13	6	50,5	7,9	50

RFID	A [mm]	d [mm]	d1 [mm]	d2 [mm]	⌀ [mm]	L [mm]	L1 [mm]	ΔΔ [g]
R.9LARFID	9	12,8	12,80	13	6	50,5	7,9	55
R.10LARFID	10	14,3	14,30	13	6	50,5	7,9	65
R.11LARFID	11	16,0	16,00	21	6	50,5	7,9	85
R.12LARFID	12	16,8	16,80	21	6	50,5	8,4	80
R.13LARFID	13	18,2	18,20	21	6	50,5	8,4	90
R.14LARFID	14	19,2	19,20	21	6	50,5	10,2	100

▪ R.F - 1/4" drive hinged 12-point sockets - RFID

ASME B107.110

- Tool with built-in RFID chip for workshop traceability.
- Chip integration by Facom guarantees maximum detection and strength, while preserving the tool's ergonomics.
- Radio frequency identification requires appropriate storage equipment.
- OGV® profile: more powerful tightening, preserves fasteners.
- Compact solution used instead of universal joint.
- Dimensions in inches: from 3/16" to 9/16".
- Finish: bright chrome.



RFID	A ["]	d [mm]	d1 [mm]	d2 [mm]	⌀ [mm]	L [mm]	L1 [mm]	ΔΔ [g]
R.3/16FRFID	3/16	13	8,0	13	12	61,6	5,3	35
R.7/32FRFID	7/32	13	8,5	13	12	62,4	6,1	35
R.1/4FRFID	1/4	13	9,8	13	12	62,8	6,5	35
R.9/32FRFID	9/32	13	10,5	13	12	62,8	6,5	35
R.5/16FRFID	5/16	13	12,0	13	12	63,3	7,0	35

RFID	A ["]	d [mm]	d1 [mm]	d2 [mm]	⌀ [mm]	L [mm]	L1 [mm]	ΔΔ [g]
R.11/32FRFID	11/32	13	13,3	13	12	63,3	7,0	40
R.3/8FRFID	3/8	13	13,7	13	12	64,6	8,3	45
R.7/16FRFID	7/16	13	15,5	21	12	54,8	9,5	60
R.1/2FRFID	1/2	13	18,0	21	12	55,8	10,5	65
R.9/16FRFID	9/16	13	19,2	21	12	55,8	10,5	65

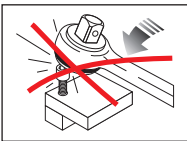
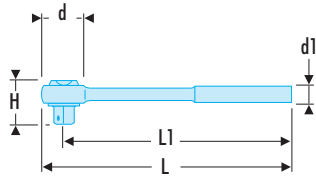


FLUO

RFID

RFID 3/8" RATCHETS

3/8" maintenance free pear head ratchet - RFID



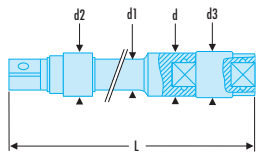
NF ISO 3315, ISO 3315, DIN 3122, ASME B107.110

- Tool with built-in RFID chip for workshop traceability.
- Chip integration by Facom guarantees maximum detection and strength, while preserving the tool's ergonomics.
- Radio frequency identification requires appropriate storage equipment.
- Dust proof, maintenance free mechanism.
- 72 teeth mechanism for 5° increments.
- Drive direction switch allows easy reversal even with gloved or greasy hands.
- Palm control system - allows the operator to press down on the head avoiding risk of accidental reverse.
- Ultra-compact head.
- Hook for hanging when working at height.
- Ergonomic comfort grip handle design resistant to workshop chemicals and solvents.



➤	d [mm]	d1 [mm]	H [mm]	L [mm]	L1 [mm]	[g]
JL.171RFID	29	27	29	210	195	220

J.RC - 3/8" drive locking extensions - RFID



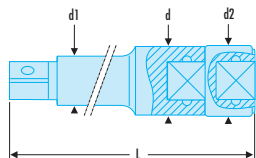
NF ISO 3316, ISO 3316, DIN 3123, ASME B107.110

- Tool with built-in RFID chip for workshop traceability.
- Chip integration by Facom guarantees maximum detection and strength, while preserving the tool's ergonomics.
- Radio frequency identification requires appropriate storage equipment.
- Total safety as lock system prevents socket loss.
- Finish: bright chrome with phosphate-hardened ring.



➤	d [mm]	d1 [mm]	d2 [mm]	d3 [mm]	L [mm]	[g]
J.210RCRFID	18	12,5	18	25	145	185
J.215RCRFID	18	12,5	18	25	270	290
J.217RCRFID	18	12,5	18	25	520	540

J - 3/8" drive extensions - RFID



NF ISO 3316, ISO 3316, DIN 3123, ASME B107.10

- Tool with built-in RFID chip for workshop traceability.
- Chip integration by Facom guarantees maximum detection and strength, while preserving the tool's ergonomics.
- Radio frequency identification requires appropriate storage equipment.
- Finish: bright chrome.

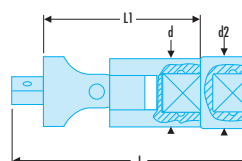


➤	d [mm]	d1 [mm]	d2 [mm]	d3 [mm]	L [mm]	[g]
J.208RFID	18	10	12,6	25	70	115
J.209RFID	18	10	12,6	25	95	140

3/8" universal joint - RFID

NF ISO 3316, ISO 3316, DIN 3123, ASME B107.110

- Tool with built-in RFID chip for workshop traceability.
- Chip integration by Facom guarantees maximum detection and strength, while preserving the tool's ergonomics.
- Radio frequency identification requires appropriate storage equipment.
- Spring-stiffened joints.
- Finish: bright chrome.

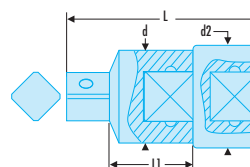


RFID	d [mm]	d2 [mm]	L [mm]	L1 [mm]	[g]
J.240ARFID	18	25	71,5	36,5	110

3/8" to 1/4" coupler - RFID

NF ISO 3316, ISO 3316, DIN 3123, ASME B107.110

- Tool with built-in RFID chip for workshop traceability.
- Chip integration by Facom guarantees maximum detection and strength, while preserving the tool's ergonomics.
- Radio frequency identification requires appropriate storage equipment.
- 3/8" female square drive .
- 1/4" male square drive for adapting 1/4" drive sockets.
- Max. torque 62 N.m.
- Finish: bright chrome.

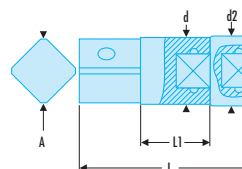


RFID	d [mm]	d2 [mm]	L [mm]	L1 [mm]	[g]
J.230RFID	17,5	25	44,5	17	75

3/8" to 1/2" coupler - RFID

NF ISO 3316, ISO 3316, DIN 3123, ASME B107.110

- Tool with built-in RFID chip for workshop traceability.
- Chip integration by Facom guarantees maximum detection and strength, while preserving the tool's ergonomics.
- Radio frequency identification requires appropriate storage equipment.
- 3/8" female square drive .
- 1/2" male square drive for adapting 1/2" drive sockets.
- Finish: bright chrome.

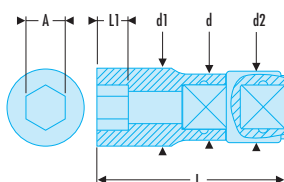


RFID	A [mm]	d [mm]	d2 [mm]	L [mm]	L1 [mm]	[g]
J.232RFID	16,5	18	25	54,5	19	95

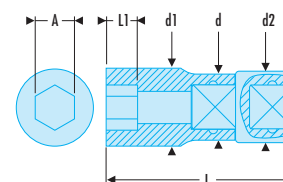


RFID 3/8" SOCKETS

J - 3/8" metric 12-point sockets - RFID



J - 3/8" inch 12-point sockets - RFID



NF ISO 1711-1, ISO 1711-1

- Tool with built-in RFID chip for workshop traceability.
- Chip integration by Facom guarantees maximum detection and strength, while preserving the tool's ergonomics.
- Radio frequency identification requires appropriate storage equipment.
- OGV® profile: more powerful tightening, preserves fasteners.
- Metric dimensions : from 7 to 24 mm.
- Finish: bright chrome.

Socket	A [mm]	d [mm]	d1 [mm]	d2 [mm]	12 [mm]	L [mm]	L1 [mm]	ΔΔ [g]
J.7RFID	7	17,6	11,0	25	12	47	6,0	75
J.8RFID	8	17,6	12,2	25	12	47	6,5	75
J.9RFID	9	17,6	13,5	25	12	47	6,7	75
J.10RFID	10	17,6	14,7	25	12	47	7,8	80
J.11RFID	11	17,6	16,0	25	12	47	9,0	80
J.12RFID	12	17,6	17,2	25	12	47	9,5	80
J.13RFID	13	17,5	18,3	25	12	50	10,4	90
J.14RFID	14	17,7	19,5	25	12	50	10,5	85
J.15RFID	15	19,0	20,8	25	12	50	12,0	90
J.16RFID	16	20,0	22,0	25	12	50	12,0	95
J.17RFID	17	21,7	23,4	25	12	50	13,0	105
J.18RFID	18	21,7	24,7	25	12	53	13,0	120
J.19RFID	19	22,7	26,0	25	12	53	14,0	115
J.21RFID	21	23,5	28,5	25	12	53	16,0	125
J.22RFID	22	24,7	29,7	25	12	53	16,5	130
J.24RFID	24	26,3	31,3	25	12	53	16,5	140

ASME B107.110

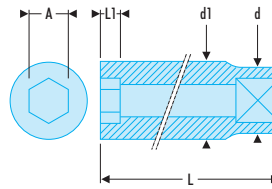
- Tool with built-in RFID chip for workshop traceability.
- Chip integration by Facom guarantees maximum detection and strength, while preserving the tool's ergonomics.
- Radio frequency identification requires appropriate storage equipment.
- OGV® profile: more powerful tightening, preserves fasteners.
- Dimensions in inches: from 1/4" to 1".
- Finish: bright chrome.

Socket	A ["]	d [mm]	d1 [mm]	d2 [mm]	12 [mm]	L [mm]	L1 [mm]	ΔΔ [g]
J.1/4RFID	1/4	17,5	10,0	25	12	47	6,0	75
J.5/16RFID	5/16	17,5	11,9	25	12	47	6,5	75
J.3/8RFID	3/8	17,6	14,1	25	12	47	7,5	80
J.7/16RFID	7/16	17,5	16,0	25	12	47	9,0	80
J.1/2RFID	1/2	17,5	18,1	25	12	50	10,4	90
J.9/16RFID	9/16	17,7	19,5	25	12	50	10,5	85
J.5/8RFID	5/8	20,0	22,0	25	12	50	12,0	100
J.11/16RFID	11/16	21,0	24,0	25	12	53	13,0	125
J.3/4RFID	3/4	22,7	26,0	25	12	53	14,0	130
J.13/16RFID	13/16	23,0	28,0	25	12	53	16,0	130
J.7/8RFID	7/8	24,7	29,7	25	12	53	16,5	155
J.15/16RFID	15/16	26,3	31,3	25	12	53	16,5	190
J.1PRFID	1	28,3	33,3	25	12	53	16,5	210

■ J.H - 3/8" metric 6-point sockets - RFID

NF ISO 1711-1, ISO 1711-1

- Tool with built-in RFID chip for workshop traceability.
- Chip integration by Facom guarantees maximum detection and strength, while preserving the tool's ergonomics.
- Radio frequency identification requires appropriate storage equipment.
- OGV® profile: more powerful tightening, preserves fasteners.
- Metric dimensions : from 7 to 24 mm.
- Finish: bright chrome.



RFID	A [mm]	d [mm]	d1 [mm]	d2 [mm]	⌀ [mm]	L [mm]	L1 [mm]	ΔΔ [g]
J.7HRFID	7	17,6	11,0	25	6	47	6,0	75
J.8HRFID	8	17,6	12,2	25	6	47	6,5	75
J.9HRFID	9	17,6	13,5	25	6	47	6,7	75
J.10HRFID	10	17,6	14,7	25	6	47	7,8	80
J.11HRFID	11	17,6	16,0	25	6	47	9,0	80
J.12HRFID	12	17,6	17,2	25	6	47	9,5	80
J.13HRFID	13	17,4	18,3	25	6	50	10,4	90
J.14HRFID	14	17,6	19,5	25	6	50	10,5	85

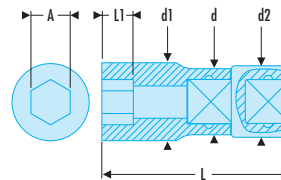
RFID	A [mm]	d [mm]	d1 [mm]	d2 [mm]	⌀ [mm]	L [mm]	L1 [mm]	ΔΔ [g]
J.15HRFID	15	18,9	20,8	25	6	50	12,0	90
J.16HRFID	16	19,9	22,0	25	6	50	12,0	95
J.17HRFID	17	21,7	23,4	25	6	50	13,0	105
J.18HRFID	18	21,7	24,7	25	6	53	13,0	120
J.19HRFID	19	22,7	26,0	25	6	53	14,0	115
J.21HRFID	21	23,5	28,5	25	6	53	16,0	125
J.22HRFID	22	24,7	29,7	25	6	53	16,5	130
J.24HRFID	24	26,3	31,3	25	6	53	16,5	140

RFID 3/8" LONG-REACH SOCKETS

■ J.HLA - 3/8" long-reach metric 6-point sockets - RFID

NF ISO 1711-1, ISO 1711-1

- Tool with built-in RFID chip for workshop traceability.
- Chip integration by Facom guarantees maximum detection and strength, while preserving the tool's ergonomics.
- Radio frequency identification requires appropriate storage equipment.
- OGV® profile: more powerful tightening, preserves fasteners.
- Long-reach sockets for long recess or thread access.
- Metric dimensions : from 7 to 24 mm.
- Finish: bright chrome.



RFID	A [mm]	d [mm]	d1 [mm]	d2 [mm]	⌀ [mm]	L [mm]	L1 [mm]	ΔΔ [g]
J.7HLARFID	7	17,3	10,6	25	6	75	6,0	95
J.8HLARFID	8	17,3	12,0	25	6	75	7,5	100
J.9HLARFID	9	17,3	13,0	25	6	75	7,5	100
J.10HLARFID	10	17,3	14,5	25	6	75	9,0	100
J.11HLARFID	11	17,3	16,0	25	6	75	10,5	105
J.12HLARFID	12	17,2	16,8	25	6	75	12,0	105
J.13HLARFID	13	17,0	18,0	25	6	75	12,0	105
J.14HLARFID	14	18,0	20,0	25	6	75	15,0	110

RFID	A [mm]	d [mm]	d1 [mm]	d2 [mm]	⌀ [mm]	L [mm]	L1 [mm]	ΔΔ [g]
J.15HLARFID	15	20,0	21,0	25	6	80	15,0	125
J.16HLARFID	16	20,0	22,0	25	6	80	15,0	135
J.17HLARFID	17	22,0	23,5	25	6	80	15,0	155
J.18HLARFID	18	23,0	24,5	25	6	80	18,0	160
J.19HLARFID	19	24,0	25,0	25	6	80	18,0	160
J.21HLARFID	21	26,0	27,0	25	6	80	18,0	175
J.22HLARFID	22	28,0	29,0	25	6	80	21,0	200
J.24HLARFID	24	30,0	31,0	25	6	80	24,0	230

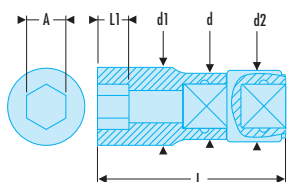


FLUO

RFID

RFID 3/8" LONG-REACH SOCKETS

J.LA - 3/8" long-reach metric 12-point sockets - RFID



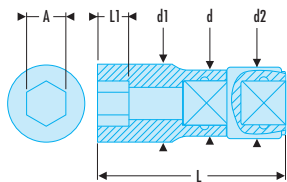
NF ISO 1711-1, ISO 1711-1

- Tool with built-in RFID chip for workshop traceability.
- Chip integration by Facom guarantees maximum detection and strength, while preserving the tool's ergonomics.
- Radio frequency identification requires appropriate storage equipment.
- OGV® profile: more powerful tightening, preserves fasteners.
- Long-reach sockets for long recess or thread access.
- Metric dimensions : from 7 to 24 mm.
- Finish: bright chrome.

⊞	A [mm]	d [mm]	d1 [mm]	d2 [mm]	12 [mm]	L [mm]	L1 [mm]	ΔΔ [g]
J.7LARFID	7	17,3	10,6	25	12	75	6,0	95
J.8LARFID	8	17,3	12,0	25	12	75	7,5	100
J.9LARFID	9	17,3	13,0	25	12	75	7,5	100
J.10LARFID	10	17,3	14,5	25	12	75	9,0	100
J.11LARFID	11	17,3	16,0	25	12	75	10,5	105
J.12LARFID	12	17,3	16,8	25	12	75	12,0	105
J.13LARFID	13	17,2	18,0	25	12	75	12,0	105
J.14LARFID	14	17	20,0	25	12	75	15,0	110

⊞	A [mm]	d [mm]	d1 [mm]	d2 [mm]	12 [mm]	L [mm]	L1 [mm]	ΔΔ [g]
J.15LARFID	15	18	21,0	25	12	75	15,0	125
J.16LARFID	16	20	22,0	25	12	80	15,0	135
J.17LARFID	17	20	23,5	25	12	80	15,0	155
J.18LARFID	18	22	24,5	25	12	80	18,0	160
J.19LARFID	19	23	25,0	25	12	80	18,0	160
J.21LARFID	21	24	27,0	25	12	80	18,0	175
J.22LARFID	22	26	29,0	25	12	80	21,0	200
J.24LARFID	24	30	31,0	25	12	80	21,0	230

J.LA - 3/8" inch 12-point sockets - RFID



ASME B107.110

- Tool with built-in RFID chip for workshop traceability.
- Chip integration by Facom guarantees maximum detection and strength, while preserving the tool's ergonomics.
- Radio frequency identification requires appropriate storage equipment.
- OGV® profile: more powerful tightening, preserves fasteners.
- Long-reach sockets for long recess or thread access.
- Dimensions in inches: from 1/4" to 1".
- Finish: bright chrome.

⊞	A ["]	d [mm]	d1 [mm]	d2 [mm]	12 [mm]	L [mm]	L1 [mm]	ΔΔ [g]
J.1/4LARFID	1/4	17,5	10,6	25	12	64,7	4,0	90
J.5/16LARFID	5/16	17,5	12,4	25	12	64,7	4,3	90
J.3/8LARFID	3/8	17,5	14,3	25	12	64,7	4,7	95
J.7/16LARFID	7/16	17,5	16,2	25	12	64,7	6,2	95
J.1/2LARFID	1/2	18,2	18,2	25	12	64,7	7,4	100
J.9/16LARFID	9/16	20,5	20,5	25	12	68	9,0	125
J.5/8LARFID	5/8	22,3	22,3	25	12	83,8	10,2	155

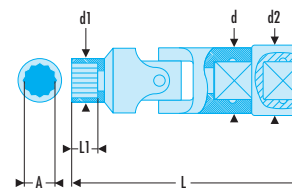
⊞	A ["]	d [mm]	d1 [mm]	d2 [mm]	12 [mm]	L [mm]	L1 [mm]	ΔΔ [g]
J.11/16LARFID	11/16	23,8	23,8	25	12	83,8	10,2	165
J.3/4LARFID	3/4	25,3	25,3	25	12	83,8	11,8	170
J.13/16LARFID	13/16	27,0	27,0	25	12	83,8	12,3	190
J.7/8LARFID	7/8	30,2	30,2	25	12	83,8	12,7	235
J.15/16LARFID	15/16	31,8	31,8	25	12	83,8	12,7	235
J.1PLARFID	1	33,4	33,4	25	12	83,8	12,7	235



■ J.F - 3/8" drive hinged inch 12-point sockets RFID

ASME B107.110

- Tool with built-in RFID chip for workshop traceability.
- Chip integration by Facom guarantees maximum detection and strength, while preserving the tool's ergonomics.
- Radio frequency identification requires appropriate storage equipment.
- OGV® profile: more powerful tightening, preserves fasteners.
- Compact solution used instead of universal joint.
- Dimensions in inches: from 3/8" to 3/4".
- Finish: bright chrome.



RFID	A ["]	d [mm]	d1 [mm]	d2 [mm]	12 [mm]	L [mm]	L1 [mm]	ΔΔ [g]
J.3/8FRFID	3/8	19	14,0	25	12	67,5	8,3	105
J.7/16FRFID	7/16	19	15,8	25	12	70,5	9,8	110
J.1/2FRFID	1/2	19	18,3	25	12	69	11,3	105
J.9/16FRFID	9/16	19	19,5	25	12	70,5	11,3	110

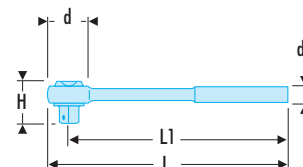
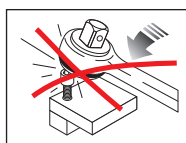
RFID	A ["]	d [mm]	d1 [mm]	d2 [mm]	12 [mm]	L [mm]	L1 [mm]	ΔΔ [g]
J.5/8FRFID	5/8	19	22,00	25	12	73,5	12,8	120
J.11/16FRFID	11/16	19	24,00	25	12	74,5	13,8	125
J.3/4FRFID	3/4	19	25,8	25	12	76,5	15,8	130

RFID 1/2" RATCHETS

■ 1/2" maintenance free pear head ratchet - RFID

NF ISO 3315, ISO 3315, DIN 3122, ASME B107.110

- Tool with built-in RFID chip for workshop traceability.
- Chip integration by Facom guarantees maximum detection and strength, while preserving the tool's ergonomics.
- Radio frequency identification requires appropriate storage equipment.
- Dust proof, maintenance free mechanism.
- 72 teeth mechanism for 5° increments.
- Drive direction switch allows easy reversal even with gloved or greasy hands.
- Palm control system - allows the operator to press down on the head avoiding risk of accidental reverse.
- Ultra-compact head.
- Hook for hanging when working at height.
- Ergonomic comfort grip handle design resistant to workshop chemicals and solvents.

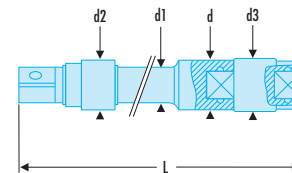


RFID	d [mm]	d1 [mm]	H [mm]	L [mm]	L1 [mm]	ΔΔ [g]
SL.171RFID	37	32	37	262	245	470

■ S.RC - 1/2" drive locking extensions - RFID

NF ISO 3316, ISO 3316, DIN 3123, ASME B107.110

- Tool with built-in RFID chip for workshop traceability.
- Chip integration by Facom guarantees maximum detection and strength, while preserving the tool's ergonomics.
- Radio frequency identification requires appropriate storage equipment.
- Total safety as lock system prevents socket loss.
- Safety and instant release, by retracting knurled ring, for total user confidence.
- Positive locking for use with sockets with internal ball notch.
- Finish: bright chrome with phosphate-hardened ring.



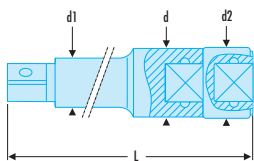
RFID	d [mm]	d1 [mm]	d2 [mm]	d3 [mm]	E [mm]	L [mm]	ΔΔ [g]
S.210RCRFID	23	16,5	23	29	16,5	154	330
S.215RCRFID	23	16,5	23	29	16,5	274	530
S.217RCRFID	23	16,5	23	29	16,5	524	940



FLUO

RFID

### S - 1/2" drive extensions - RFID



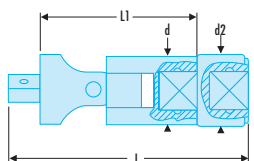
#### NF ISO 3316, ISO 3316, DIN 3123, ASME B107.110

- Tool with built-in RFID chip for workshop traceability.
- Chip integration by Facom guarantees maximum detection and strength, while preserving the tool's ergonomics.
- Radio frequency identification requires appropriate storage equipment.
- Finish: bright chrome.



Part No.	d [mm]	d1 [mm]	d2 [mm]	L [mm]	ΔΔ [g]
S.206RFID	23	16,5	29	54,9	170
S.208RFID	23	16,5	29	99	210

### 1/2" universal joint - RFID



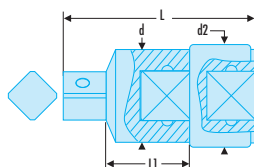
#### NF ISO 3316, ISO 3316, DIN 3123, ASME B107.110

- Tool with built-in RFID chip for workshop traceability.
- Chip integration by Facom guarantees maximum detection and strength, while preserving the tool's ergonomics.
- Radio frequency identification requires appropriate storage equipment.
- Spring-stiffened joint.
- Stays in position when reaching for fasteners.
- Significant time savings.
- Finish: bright chrome.



Part No.	d [mm]	d2 [mm]	L [mm]	L1 [mm]	ΔΔ [g]
S.240ARFID	23	29	90	51	240

### 1/2" to 3/8" coupler - RFID



#### NF ISO 1711-1, ISO 1711-1

- Tool with built-in RFID chip for workshop traceability.
- Chip integration by Facom guarantees maximum detection and strength, while preserving the tool's ergonomics.
- Radio frequency identification requires appropriate storage equipment.
- Double 3/8" coupler
- Max torque: 212 N.m.
- Finish: bright chrome.



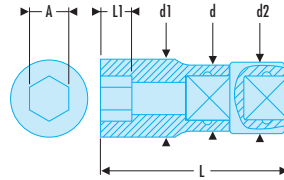
Part No.	d [mm]	d2 [mm]	L [mm]	L1 [mm]	ΔΔ [g]
S.230RFID	23	29	57,5	23	135

RFID 1/2" SOCKETS

S.H - 1/2" metric 6-point sockets - RFID

NF ISO 1711-1, ISO 1711-1

- Tool with built-in RFID chip for workshop traceability.
- Chip integration by Facom guarantees maximum detection and strength, while preserving the tool's ergonomics.
- Radio frequency identification requires appropriate storage equipment.
- OGV® profile: more powerful tightening, preserves fasteners.
- Metric dimensions : from 10 to 34 mm.
- Finish: bright chrome.



Part No.	A [mm]	d [mm]	d1 [mm]	d2 [mm]	Hex [mm]	L [mm]	L1 [mm]	ΔΔ [g]
S.10HRFID	10	22,8	15,3	29	6	60	7,8	130
S.11HRFID	11	22,8	16,5	29	6	60	9,0	135
S.12HRFID	12	22,8	17,8	29	6	60	9,5	135
S.13HRFID	13	22,8	18,9	29	6	60	10,4	135
S.14HRFID	14	22,8	20,2	29	6	60	10,5	140
S.15HRFID	15	22,8	21,4	29	6	60	12,0	140
S.16HRFID	16	21,6	22,6	29	6	60	12,0	140
S.17HRFID	17	23,1	24,1	29	6	60	13,0	145
S.18HRFID	18	23,4	25,5	29	6	60	13,0	150

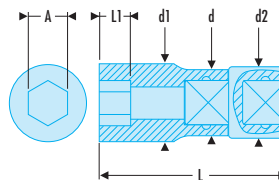
Part No.	A [mm]	d [mm]	d1 [mm]	d2 [mm]	Hex [mm]	L [mm]	L1 [mm]	ΔΔ [g]
S.19HRFID	19	24,6	26,6	29	6	60	14,0	150
S.21HRFID	21	25,1	29,1	29	6	62	16,0	175
S.22HRFID	22	26,4	30,4	29	6	62	16,5	185
S.24HRFID	24	28,7	32,7	29	6	62	16,5	210
S.27HRFID	27	29,2	36,6	29	6	68	19,0	220
S.30HRFID	30	33,0	40,4	29	6	68	20,0	285
S.32HRFID	32	35,1	42,6	29	6	68	20,0	295
S.34HRFID	34	37,5	44,9	29	6	68	20,0	320

RFID 1/2" LONG-REACH SOCKETS

S.HLA - 1/2" long-reach metric 6-point sockets - RFID

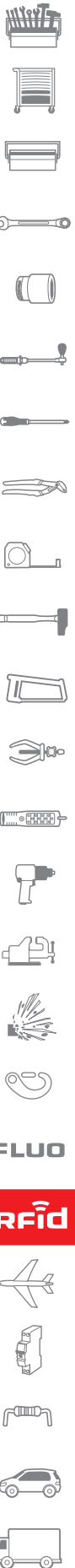
NF ISO 1711-1, ISO 1711-1

- Tool with built-in RFID chip for workshop traceability.
- Chip integration by Facom guarantees maximum detection and strength, while preserving the tool's ergonomics.
- Radio frequency identification requires appropriate storage equipment.
- OGV® profile: more powerful tightening, preserves fasteners.
- Long-reach sockets for long recess or thread access.
- Metric dimensions : from 12 to 32 mm.
- Finish: bright chrome.



Part No.	A [mm]	d [mm]	d1 [mm]	d2 [mm]	Hex [mm]	L [mm]	L1 [mm]	ΔΔ [g]
S.12HLARFID	12	21	17,8	29	6	101	12	185
S.13HLARFID	13	21,8	19,0	29	6	101	12	195
S.14HLARFID	14	21,8	20,3	29	6	101	15	200
S.15HLARFID	15	21,8	21,5	29	6	101	15	205
S.16HLARFID	16	22,0	22,8	29	6	101	15	210
S.17HLARFID	17	23,0	24,0	29	6	101	15	220
S.18HLARFID	18	24,0	25,0	29	6	101	18	240

Part No.	A [mm]	d [mm]	d1 [mm]	d2 [mm]	Hex [mm]	L [mm]	L1 [mm]	ΔΔ [g]
S.19HLARFID	19	25,0	26,5	29	6	101	18	240
S.21HLARFID	21	27,0	29,0	29	6	101	18	280
S.22HLARFID	22	28,0	30,0	29	6	101	21	295
S.24HLARFID	24	30,0	32,8	29	6	101	24	335
S.27HLARFID	27	33,0	36,5	29	6	101	27	390
S.30HLARFID	30	36,0	40,0	29	6	101	30	435
S.32HLARFID	32	38,0	42,8	29	6	101	33	490

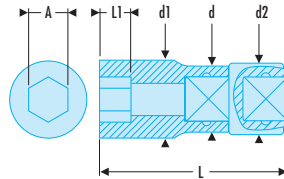


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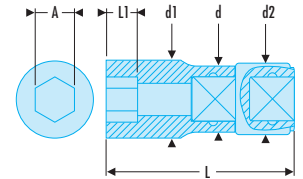
RFID

RFID 1/2" SOCKETS

S - 1/2" metric 12-point sockets - RFID



S - 1/2" inch 12-point sockets - RFID



NF ISO 1711-1, ISO 1711-1

- Tool with built-in RFID chip for workshop traceability.
- Chip integration by Facom guarantees maximum detection and strength, while preserving the tool's ergonomics.
- Radio frequency identification requires appropriate storage equipment.
- OGV® profile: more powerful tightening, preserves fasteners.
- Dimensions in inches: from 3/8" to 1 1/4".
- Finish: bright chrome.

ASME B107.1

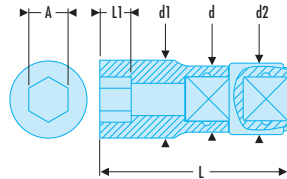
- Tool with built-in RFID chip for workshop traceability.
- Chip integration by Facom guarantees maximum detection and strength, while preserving the tool's ergonomics.
- Radio frequency identification requires appropriate storage equipment.
- OGV® profile: more powerful tightening, preserves fasteners.
- Long-reach sockets for long recess or thread access.
- Metric dimensions : from 12 to 32 mm.
- Finish: bright chrome.

Socket	A [mm]	d [mm]	d1 [mm]	d2 [mm]	12 [mm]	L [mm]	L1 [mm]	ΔΔ [g]
S.10RFID	10	22,8	15,3	29	12	60	7,8	130
S.11RFID	11	22,8	16,5	29	12	60	9,0	135
S.12RFID	12	22,8	17,8	29	12	60	9,5	135
S.13RFID	13	22,8	18,9	29	12	60	10,4	135
S.14RFID	14	22,8	20,2	29	12	60	10,5	140
S.15RFID	15	22,8	21,4	29	12	60	12,0	140
S.16RFID	16	21,6	22,6	29	12	60	12,0	140
S.17RFID	17	23,1	24,1	29	12	60	13,0	145
S.18RFID	18	23,4	25,4	29	12	60	13,0	150
S.19RFID	19	24,6	26,6	29	12	60	14,0	150
S.21RFID	21	25,1	29,1	29	12	62	16,0	175
S.22RFID	22	26,4	30,4	29	12	62	16,5	185
S.24RFID	24	28,7	32,7	29	12	62	16,5	210
S.27RFID	27	29,2	36,6	29	12	68	19,0	225
S.30RFID	30	33,0	40,4	29	12	68	20,0	265
S.32RFID	32	35,1	42,5	29	12	68	20,0	280
S.34RFID	34	37,5	44,9	29	12	68	20,0	305

Socket	A ["]	d [mm]	d1 [mm]	d2 [mm]	12 [mm]	L [mm]	L1 [mm]	ΔΔ [g]
S.3/8RFID	3/8	22,8	14,7	29	12	60	7,8	130
S.7/16RFID	7/16	22,8	16,5	29	12	60	9,0	135
S.1/2RFID	1/2	22,8	18,9	29	12	60	10,4	135
S.9/16RFID	9/16	22,8	20,2	29	12	60	10,5	140
S.19/32RFID	19/32	22,8	21,4	29	12	60	12,0	140
S.5/8RFID	5/8	21,6	22,6	29	12	60	12,0	140
S.21/32RFID	21/32	23,1	24,1	29	12	60	13,0	145
S.11/16RFID	11/16	22,6	24,6	29	12	60	13,0	155
S.3/4RFID	3/4	25,0	27,0	29	12	60	14,0	150
S.25/32RFID	25/32	25,9	27,9	29	12	60	14,0	155
S.13/16RFID	13/16	24,6	28,6	29	12	62	16,0	180
S.7/8RFID	7/8	26,4	30,4	29	12	62	16,5	180
S.15/16RFID	15/16	28,7	32,7	29	12	62	16,5	215
S.31/32RFID	31/32	27,7	34,1	29	12	62	16,5	215
S.1PRFID	1	28,3	34,7	29	12	62	16,5	225
S.1P1/16RFID	1 1/16	29,2	36,6	29	12	68	19,0	230
S.1P1/8RFID	1 1/8	31,3	38,7	29	12	68	20,0	250
S.1P3/16RFID	1 3/16	33,0	40,4	29	12	68	20,0	265
S.1P1/4RFID	1 1/4	35,1	42,5	29	12	68	20,0	285

RFID 1/2" LONG-REACH SOCKETS

S.LA - 1/2" long-reach metric 12-point sockets - RFID

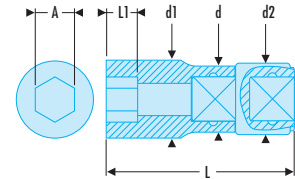


NF ISO 1711-1, ISO 1711-1

- Tool with built-in RFID chip for workshop traceability.
- Chip integration by Facom guarantees maximum detection and strength, while preserving the tool's ergonomics.
- Radio frequency identification requires appropriate storage equipment.
- OGV® profile: more powerful tightening, preserves fasteners.
- Long-reach sockets for long recess or thread access.
- Dimensions in inches: from 1/2" to 1 1/4."
- Finish: bright chrome.

Socket	A [mm]	d [mm]	d1 [mm]	d2 [mm]	12 [mm]	L [mm]	L1 [mm]	ΔΔ [g]
S.12LARFID	12	21,0	17,8	29	12	101	12	185
S.13LARFID	13	21,8	19,0	29	12	101	12	195
S.14LARFID	14	21,8	20,3	29	12	101	15	205
S.15LARFID	15	21,8	21,5	29	12	101	15	205
S.16LARFID	16	22,0	22,8	29	12	101	15	215
S.17LARFID	17	23,0	24,0	29	12	101	15	225
S.18LARFID	18	24,0	25,0	29	12	101	18	240
S.19LARFID	19	25,0	26,5	29	12	101	18	260
S.21LARFID	21	27,0	29,0	29	12	101	18	290
S.22LARFID	22	28,0	30,0	29	12	101	21	295
S.24LARFID	24	30,0	32,8	29	12	101	24	335
S.27LARFID	27	33,0	36,5	29	12	101	27	395
S.30LARFID	30	36,0	40,0	29	12	101	30	445
S.32LARFID	32	36,0	42,8	29	12	101	33	495

S.LA - 1/2" inch 12-point sockets - RFID



ASME B107.110

- Tool with built-in RFID chip for workshop traceability.
- Chip integration by Facom guarantees maximum detection and strength, while preserving the tool's ergonomics.
- Radio frequency identification requires appropriate storage equipment.
- OGV® profile: more powerful tightening, preserves fasteners.
- Long-reach sockets for long recess or thread access.
- Dimensions in inches: from 1/2" to 1 1/4."
- Finish: bright chrome.

Socket	A ["]	d [mm]	d1 [mm]	d2 [mm]	12 [mm]	L [mm]	L1 [mm]	ΔΔ [g]
S.1/2LARFID	1/2	22,3	19,0	29	12	106,2	8,1	215
S.9/16LARFID	9/16	22,3	20,6	29	12	106,2	9,6	220
S.5/8LARFID	5/8	22,3	22,3	29	12	106,2	10,9	230
S.11/16LARFID	11/16	24,4	24,4	29	12	106,2	10,9	240
S.3/4LARFID	3/4	26,9	26,9	29	12	106,2	12,4	245
S.13/16LARFID	13/16	28,7	28,7	29	12	106,2	12,9	255
S.7/8LARFID	7/8	30,2	30,2	29	12	106,2	14,0	280
S.15/16LARFID	15/16	31,7	31,7	29	12	106,2	15,0	305
S.1PLARFID	1	33,3	33,3	29	12	106,2	15,2	335
S.1P1/16LARFID	1 1/16	36,5	36,5	29	12	106,2	16,0	400
S.1P1/8LARFID	1 1/8	38,1	38,1	29	12	106,2	16,7	430
S.1P1/4LARFID	1 1/4	42,9	42,9	29	12	106,2	16,7	510



FLUO

RFID

## RFID "HIGH PERFORMANCE" CLICK WRENCHES

## ■ 306D - Click wrenches without accessories - RFID

**NF EN ISO 6789, ISO 6789, DIN EN ISO 6789**

- Tool with built-in RFID chip for workshop traceability.
- Chip integration by Facom guarantees maximum detection and strength, while preserving the tool's ergonomics.
- Radio frequency identification requires appropriate storage equipment.
- Factory accuracy:  $\pm 6\%$ . - Reliability of mechanism: 50,000 cycles.
- Compact wrench for confined access. - Ratchet with 72 teeth ( $5^\circ$ ) for use with sockets.
- One-way wrench. - Numbered wrench supplied with ISO 6789 calibration certificate.



🔗	Attachement	Capacity [N.m]	Graduation [N.m]	L [mm]	$\Delta\Delta$ [g]
<b>R.304DRFID</b>	9 x 12	1 - 5	0,05	211,5	350
<b>R.306-25DRFID</b>	9 x 12	5 - 25	0,10	271	510
<b>J.306-50DRFID</b>	9 x 12	10 - 50	1,00	357	960
<b>S.306-100DRFID</b>	9 x 12	20 - 100	1,00	437	1100
<b>S.306-200DRFID</b>	14 x 18	40 - 200	1,00	515	1300
<b>S.306-350DRFID</b>	14 x 18	70 - 350	2,00	725	1800

## ■ "Low torque" click wrench with fixed ratchet - RFID

**NF EN ISO 6789, ISO 6789, DIN EN ISO 6789**

- Tool with built-in RFID chip for workshop traceability.
- Chip integration by Facom guarantees maximum detection and strength, while preserving the tool's ergonomics.
- Radio frequency identification requires appropriate storage equipment.
- Factory accuracy:  $\pm 2\%$ . - Reliability of mechanism: - 50,000 cycles.
- Click wrenches with dual lbf.in and N.m graduation.
  - Full metal wrenches with knurled handle.
- Reversible model.
  - Numbered wrenches supplied with ISO 6789 calibration certificate.



🔗	Capacity [N.m]	Square ["]	Graduation [N.m]	L [mm]	$\Delta\Delta$ [g]
<b>R.306-5RFID</b>	1 - 5	1/4	0,05	215	360

■ R-J.306U - Click wrenches with dual lbf.in and N.m graduation - RFID

NF EN ISO 6789, ISO 6789, DIN EN ISO 6789

- Tool with built-in RFID chip for workshop traceability.
- Chip integration by Facom guarantees maximum detection and strength, while preserving the tool's ergonomics.
- Radio frequency identification requires appropriate storage equipment.
- Ability to keep the wrench parallel with the tightening plane.
- Use with 3/8" and 1/2" ratchets and drive squares.
- Max diam. size: 45 mm.
- Length: 66 mm.



	Attachement	Capacity [lbf.in]	Square ["]	Graduation [lbf.in]	L [mm]	ΔΔ [g]
R.306URFID	9 x 12	40 - 200	1/4	1	303,7	520
J.306URFID	9 x 12	200 - 1000	3/8	5	397	1100

■ Swivel handle - RFID

- Tool with built-in RFID chip for workshop traceability.
- Chip integration by Facom guarantees maximum detection and strength, while preserving the tool's ergonomics.
- Radio frequency identification requires appropriate storage equipment.
- Allows to maintain the wrench parallel with the tightening plane.
- Use with 3/8" and 1/2" ratchets and drive squares.
- Max diam. size: 45 mm.



	L [mm]	ΔΔ [g]
S.305PRFID	66	130

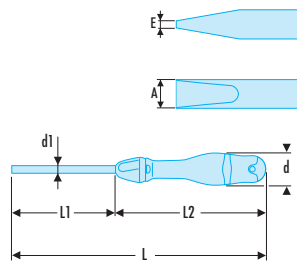


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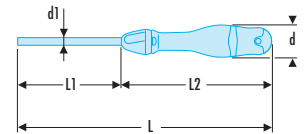


RFID PROTWIST® SCREWDRIVERS

■ AN-AW - PROTWIST® screwdrivers for slotted head screws - RFID



■ ANP - PROTWIST® screwdrivers for Phillips® screws - RFID



NF ISO 2380-1, NF ISO 2380-2, ISO 2380-1, ISO 2380-2, DIN ISO 2380-1, DIN ISO 2380-2, ASME B107.600

- Tool with built-in RFID chip for workshop traceability.
- Chip integration by Facom guarantees maximum detection and strength, while preserving the tool's ergonomics.
- Radio frequency identification requires appropriate storage equipment.
- Silicon carbon blade: strong and resistant to flexion.
- Bi-material grip resists to impacts, abrasion, and chemicals.

NF ISO 8764-1, NF ISO 8764-2, ISO 8764-1, ISO 8764-2, DIN ISO 8764-1, DIN ISO 8764-2, ASME B107.600

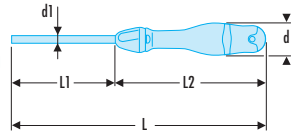
- Tool with built-in RFID chip for workshop traceability.
- Chip integration by Facom guarantees maximum detection and strength, while preserving the tool's ergonomics.
- Radio frequency identification requires appropriate storage equipment.
- Silicon carbon blade: strong and resistant to flexion.
- Bi-material grip resists to impacts, abrasion, and chemicals.
- Finish: black tipped mat chromed round blade.

Icon	A [mm]	d [mm]	d2 [mm]	E [mm]	L [mm]	L1 [mm]	L2 [mm]	ΔΔ [g]
AN2X75FRFID	2,0	19	2,0	0,4	169	58	94	60
AN2.5X75FRFID	2,5	19	2,5	0,4	169	58	94	65
AN3X100FRFID	3,0	25	3,0	0,5	203	83	103	75
AN3.5X100FRFID	3,5	25	3,5	0,6	203	82	103	85
AN4X100FRFID	4,0	30	4,0	0,8	209	82	109	90
AN4X150FRFID	4,0	30	4,0	0,8	259	132	109	95
AN5.5X150FRFID	5,5	30	5,5	1,0	259	132	109	135
AN6.5X150FRFID	6,5	36	6,5	1,2	270	131	120	180
AW8X150FRFID	8	40	7	1,2	275	131	125	260
AW10X200FRFID	10	40	9	1,6	325	181	125	295

Icon	d [mm]	d2 [mm]	L [mm]	L1 [mm]	L2 [mm]	Phillips [No]	ΔΔ [g]
ANPOX75FRFID	25	3,0	178	57	103	PH0	85
ANP1X100FRFID	30	4,5	209	82	109	PH1	120
ANP1X250FRFID	30	4,5	359	232	109	PH1	140
ANP2X125FRFID	36	6,0	245	106	120	PH2	170
ANP2X250FRFID	36	6,0	370	231	120	PH2	195
ANP2X400FRFID	36	6,0	520	381	120	PH2	230
ANP3X150FRFID	40	8,0	275	131	125	PH3	235
ANP1X35FRFID	36	4,5	91	25	56	PH1	70
ANP2X35FRFID	36	6,0	91	25	56	PH2	75



■ **AND - PROTWIST® screwdrivers for Pozidriv® screws - RFID**

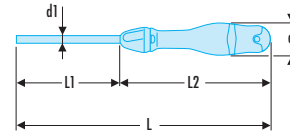


NF ISO 8764-1, NF ISO 8764-2, ISO 8764-1, ISO 8764-2, DIN ISO 8764-1, DIN ISO 8764-2, ASME B107.600

- Tool with built-in RFID chip for workshop traceability.
- Chip integration by Facom guarantees maximum detection and strength, while preserving the tool's ergonomics.
- Radio frequency identification requires appropriate storage equipment.
- Compliant with Resistorx® specifications.
- Silicon carbon blade: strong and resistant to flexion.
- Bi-material grip resists to impacts, abrasion, and chemicals.
- Finish: black tipped mat chromed blade.

FACOM	d [mm]	d2 [mm]	L [mm]	L1 [mm]	L2 [mm]	Phillips [No]	ΔΔ [g]
AND0X75FRFID	25	3,0	178	57	103	PZ0	85
AND1X100FRFID	30	4,5	209	82	109	PZ1	120
AND1X250FRFID	30	4,5	359	232	109	PZ1	140
AND2X125FRFID	36	6,0	245	106	120	PZ2	170
AND2X250FRFID	36	6,0	370	231	120	PZ2	195
AND3X150FRFID	40	8,0	275	131	125	PZ3	235
AND1X35FRFID	36	4,5	91	25	56	PZ1	70
AND2X35FRFID	36	6,0	91	25	56	PZ2	75

■ **ANXR - PROTWIST® screwdrivers for Resistorx® screws - RFID**



- Tool with built-in RFID chip for workshop traceability.
- Chip integration by Facom guarantees maximum detection and strength, while preserving the tool's ergonomics.
- Radio frequency identification requires appropriate storage equipment.
- Bi-material grip resists to impacts, abrasion, and chemicals.

FACOM	A [mm]	d [mm]	d2 [mm]	L [mm]	L1 [mm]	L2 [mm]	Resistorx [No]	ΔΔ [g]
ANXR10X75FRFID	2,74	25	3,0	184	57	109	TT10	90
ANXR15X75FRFID	3,26	30	3,5	185	57	110	TT15	105
ANXR20X100FRFID	3,84	36	4,0	220	81	120	TT20	110
ANXR25X100FRFID	4,40	36	5,0	220	81	120	TT25	155
ANXR27X100FRFID	4,96	36	5,5	220	81	120	TT27	155
ANXR30X125FRFID	5,49	36	6,0	245	106	120	TT30	170
ANXR40X150FRFID	6,60	40	7,0	275	131	125	TT40	215



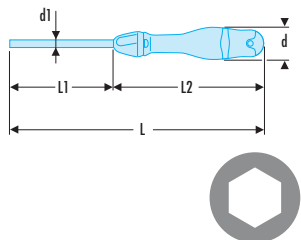
FLUO

RFID



RFID PROTWIST® HEXAGONAL KEY

■ **AWSH.F - PROTWIST® handle hexagonal key - spherical head - RFID**

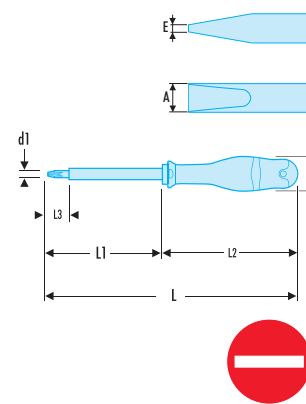


- Tool with built-in RFID chip for workshop traceability.
- Chip integration by Facom guarantees maximum detection and strength, while preserving the tool's ergonomics.
- Radio frequency identification requires appropriate storage equipment.
- For your safety, each screwdriver is tested individually at 10,000 Volt for 10 seconds, at the end of the manufacturing cycle.
- 1,000 Volt sheathed round blade.
- Milled blade: --> 5.5 mm included.
- Fillet blade: 6.5 --> 12 mm.
- Bi-material grip resists to impacts, abrasion, and chemicals.

➤	A [mm]	d [mm]	d2 [mm]	L [mm]	L1 [mm]	L2 [mm]	ΔΔ [g]
<b>AWSH2X75FRFID</b>	2	19	2,0	169	58	94	75
<b>AWSH2.5X75FRFID</b>	2,5	19	2,5	169	58	94	75
<b>AWSH3X75FRFID</b>	3	19	3,0	169	58	94	75
<b>AWSH4X75FRFID</b>	4	25	4,0	178	57	103	85
<b>AWSH5X100FRFID</b>	5	30	5,0	208	82	109	120
<b>AWSH6X100FRFID</b>	6	36	6,0	220	81	120	160
<b>AWSH8X100FRFID</b>	8	36	8,0	220	81	120	220

RFID INSULATED SCREWDRIVERS

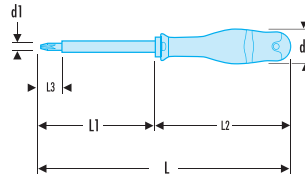
■ **A.VE - PROTWIST® 1,000 Volt insulated screwdrivers for slotted-head screws - RFID**



- Tool with built-in RFID chip for workshop traceability.
- Chip integration by Facom guarantees maximum detection and strength, while preserving the tool's ergonomics.
- Radio frequency identification requires appropriate storage equipment.
- For your safety, each screwdriver is tested individually at 10,000 Volt for 10 seconds, at the end of the manufacturing cycle.
- 1,000 Volt sheathed round blade.
- Bi-material grip resists to impacts, abrasion, and chemicals.

➤	A [mm]	d [mm]	E [mm]	L [mm]	L1 [mm]	L2 [mm]	L3 [mm]	ΔΔ [g]
<b>A2X75VERFID</b>	2,0	19	0,4	170	58	95	18	65
<b>A2.5X75VERFID</b>	2,5	25	0,4	178	58	103	18	75
<b>A3X75VERFID</b>	3,0	25	0,5	178	58	103	18	80
<b>A3.5X100VERFID</b>	3,5	25	0,6	204	82	104	18	85
<b>A4X100VERFID</b>	4,0	30	0,8	210	82	110	18	90
<b>A5.5X125VERFID</b>	5,5	30	1,0	235	106,5	110	18	130
<b>A6.5X150VERFID</b>	6,5	36	1,2	270	131	120	18	160
<b>A8X150VERFID</b>	8,0	40	1,2	275	131	125	18	200

AP.VE - PROTWIST® 1,000 Volt insulated screwdrivers for Phillips® head screws - RFID

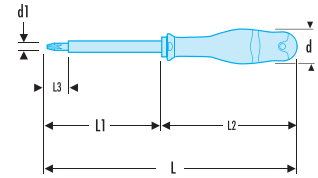


NF ISO 8764-1, NF ISO 8764-2, NF EN 60900, ISO 8764-1, ISO 8764-2, EN 60900, DIN ISO 8764-1, DIN ISO 8764-2, DIN EN 60900, ASME B107.600

- Tool with built-in RFID chip for workshop traceability.
- Chip integration by Facom guarantees maximum detection and strength, while preserving the tool's ergonomics.
- Radio frequency identification requires appropriate storage equipment.
- For your safety, each screwdriver is tested individually at 10,000 Volt for 10 seconds, at the end of the manufacturing cycle.
- 1,000 Volt sheathed round blade.
- Bi-material grip resists to impacts, abrasion, and chemicals.

	d [mm]	d1 [mm]	L [mm]	L1 [mm]	L2 [mm]	L3 [mm]	Phillips [No]	ΔΔ [g]
AP1X100VERFID	30	4,5	210	81,5	110	18	PH1	120
AP2X125VERFID	36	6,0	245	106	120	18	PH2	170

AD.VE - PROTWIST® 1,000 Volt insulated screwdrivers for Pozidriv® head screws - RFID



NF ISO 8764-1, NF ISO 8764-2, NF EN 60900, ISO 8764-1, ISO 8764-2, EN 60900, DIN ISO 8764-1, DIN ISO 8764-2, DIN EN 60900, ASME B107.600

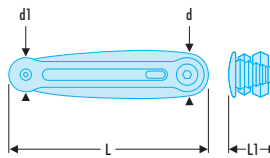
- Tool with built-in RFID chip for workshop traceability.
- Chip integration by Facom guarantees maximum detection and strength, while preserving the tool's ergonomics.
- Radio frequency identification requires appropriate storage equipment.
- Very compact sleeve.
- Positive grip.
- Keys on 90° end stop for tightening.
- Keys in silicon steel issued from series 82H.
- Finish: phosphate-coated.

	d [mm]	d1 [mm]	L [mm]	L1 [mm]	L2 [mm]	L3 [mm]	Pozidriv [No]	ΔΔ [g]
AD1X100VERFID	30	4,5	209	81,5	109	18	PZ1	120
AD2X125VERFID	36	6,0	245	106	120	18	PZ2	170

86H - Hexagon keys on sleeve - RFID

- Tool with built-in RFID chip for workshop traceability.
- Chip integration by Facom guarantees maximum detection and strength, while preserving the tool's ergonomics.
- Radio frequency identification requires appropriate storage equipment.
- Capacity: 44 mm.
- Ideal for confined spaces: long reach thin noses.
- Double heat-treated tips: high wear resistance, hardness 60/62 HRC.
- Finish: chrome finish, ergonomic grips.

	d [mm]	d1 [mm]	⌀ [mm]	⌀ [°]	L [mm]	L1 [mm]	ΔΔ [g]
86H.JE7AFRFID	30	24	2,5 - 3,0 - 4,0 - 5,0 - 6,0 - 8,0 - 10,0	-	138	37	415
86H.JE7BFRFID	22	18	1,5 - 2,0 - 2,5 - 3,0 - 4,0 - 5,0 - 6,0	-	118	33	160
86H.JU6FRFID	30	24	-	5/32 - 3/16 - 7/32 - 1/4 - 5/16 - 3/8	138	37	430
86H.JU7FRFID	22	18	-	1/16 - 5/64 - 3/32 - 1/8 - 5/32 - 3/16 - 1/4	118	33	155

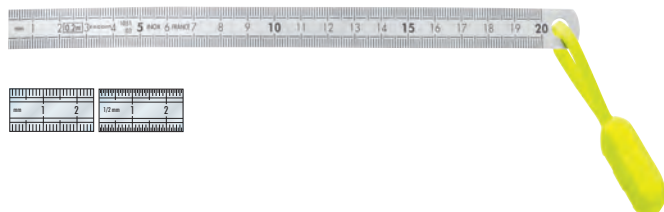


FLUO

RFID

RFID MEASURING

Stainless steel rule - 2 sides - RFID



- Tool with built-in RFID chip for workshop traceability.
- Chip integration by Facom guarantees maximum detection and strength, while preserving the tool's ergonomics.
- Radio frequency identification requires appropriate storage equipment.
- Engraved on both sides.
- One edge in mm - One edge in 1/2 mm.
- Stainless steel 18 % Cr - 8 % Ni.
- Anti-reflection treatment.
- Class II as per regulations applies to rules with a length above or equal to 500 mm.

Part No.	L [mm]	L1 [mm]	L2 [mm]	ΔΔ [g]
DELA.1051.03RFID	200	13	0,5	45

ABS body tape measure - RFID

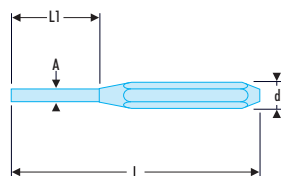


- Tool with built-in RFID chip for workshop traceability.
- Chip integration by Facom guarantees maximum detection and strength, while preserving the tool's ergonomics.
- Radio frequency identification requires appropriate storage equipment.
- Ergonomic, ABS material.
- Tape with mat anti-reflection nylon tape.
- High strength tape.
- High strength cover hook:
  - 2 rivets with stainless reinforcement plate on the 2 and 3 m.
  - 3 rivets with stainless reinforcement plate on the 5 and 8 m.
- Interior measurements by adding the L dimension (see table).

Part No.	E [mm]	H [mm]	L [mm]	L1 [mm]	L2 [mm]	ΔΔ [g]
893.316FLU0RFID	27	60	60	16	3	160

RFID STRIKING TOOLS

249 - Standard drift punches - RFID



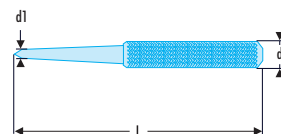
Part No.	A [mm]	d [mm]	L [mm]	L1 [mm]	ΔΔ [g]
249.2RFID	1,9	10	115	30	40
249.3RFID	2,9	10	125	40	45
249.4RFID	3,9	12	150	50	75
249.5RFID	4,9	12	165	50	85

NF E 71-211, DIN 6450, ASME B107.410

- Tool with built-in RFID chip for workshop traceability.
- Chip integration by Facom guarantees maximum detection and strength, while preserving the tool's ergonomics.
- Radio frequency identification requires appropriate storage equipment.
- Hexagonal shank, high-strength steel tip, hardened to 53-58 HRC.
- Zinc-plated finish.

Part No.	A [mm]	d [mm]	L [mm]	L1 [mm]	ΔΔ [g]
249.6RFID	5,9	14	180	50	130
249.8RFID	7,9	14	200	50	170
249.10RFID	9,9	18	200	50	230

256 - Precision centre punches - RFID



NF E 71-211, DIN 7250, ASME B107.410

- Tool with built-in RFID chip for workshop traceability.
- Chip integration by Facom guarantees maximum detection and strength, while preserving the tool's ergonomics.
- Radio frequency identification requires appropriate storage equipment.
- Chrome-vanadium steel forged, hardened to 52 to 58 HRc.
- Presentation: knurled body.
- Zinc-plated finish.

Part No.	d [mm]	d1 [mm]	L [mm]	ΔΔ [g]
256.4RFID	10	4	105	35
256.6RFID	12	6	115	55
256.8RFID	14	8	130	80

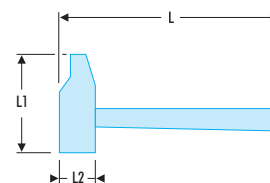
RFID HAMMER

200H - Graphite handle riveting engineers hammer - RFID

NF ISO 15601, ISO 15601

- Tool with built-in RFID chip for workshop traceability.
- Chip integration by Facom guarantees maximum detection and strength, while preserving the tool's ergonomics.
- Radio frequency identification requires appropriate storage equipment.
- High security Hickery handle.
- Triple wedge design - 1 wooden and 2 metal wedges.

Model	L [mm]	L1 [mm]	L2 [mm]	$\Delta\Delta$ [g]
200H.26RFID	245	80	25	345
200H.30RFID	270	93	30	470
200H.32RFID	300	100	32	585
200H.40RFID	330	108	40	1000
200H.60RFID	380	151	60	2800

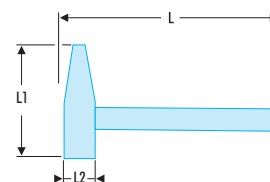


205H - Graphite handle DIN engineers hammer - RFID

DIN 1041, NF ISO 15601, ISO 15601

- Tool with built-in RFID chip for workshop traceability.
- Chip integration by Facom guarantees maximum detection and strength, while preserving the tool's ergonomics.
- Radio frequency identification requires appropriate storage equipment.
- High security Hickery handle.
- Triple wedge design - 1 wooden and 2 metal wedges.

Model	L [mm]	L1 [mm]	L2 [mm]	$\Delta\Delta$ [g]
205H.20RFID	280	96	19	250
205H.30RFID	300	106	23	380
205H.50RFID	320	122	27	580
205H.80RFID	350	132	33	960
205H.100RFID	360	137	36	1100



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RFID

## RFID SAW

## "High performance" hacksaw frame - RFID



## NF E 73-073, DIN 6473

- Tool with built-in RFID chip for workshop traceability.
- Chip integration by Facom guarantees maximum detection and strength, while preserving the tool's ergonomics.
- Radio frequency identification requires appropriate storage equipment.
- Optimum and durable automatic blade tension control at 110 kg.
- Aluminium bow for maximum stiffness.
- Ergonomic handle for maximum cutting comfort.
- 8 blade positions.
- Ultra-fast blade changing.
- Takes 300 mm blade.
- Supplied with one blade.
- Spare blades: 668B.



RFID	Width l [mm]	L [mm]	$\Delta\Delta$ [g]
603RFID	145	440	850

## RFID CUTTER

## 18 mm automatically reloading utility knife - RFID



- Tool with built-in RFID chip for workshop traceability.
- Chip integration by Facom guarantees maximum detection and strength, while preserving the tool's ergonomics.
- Radio frequency identification requires appropriate storage equipment.
- Productivity, accessibility, safety.
- Automatically reloading snap-off blades.
- Ergonomic soft ABS handle.
- Stainless steel blade guide.
- Blade lock knob.
- 6-blade cartridge.
- Integral blade snapper.



RFID	H [mm]	L [mm]	$\Delta\Delta$ [g]
844.S18RFID	47	172	190

## RFID KNIFE

## Safety knife with retractable blade - RFID



- Tool with built-in RFID chip for workshop traceability.
- Chip integration by Facom guarantees maximum detection and strength, while preserving the tool's ergonomics.
- Radio frequency identification requires appropriate storage equipment.
- Safety knife.
- Blade automatically retracts after use.
- Zamak body.
- ABS cursor, front or side thumb control.
- Supplied with 3 blades (1 factory-mounted and 2 in the body).



RFID	H mini - maxi [mm]	L [mm]	$\Delta\Delta$ [g]
844.DRFID	40,5 - 44,0	176	215

▪ **Lock-back knife with bi-material handle - RFID**

- Tool with built-in RFID chip for workshop traceability.
- Chip integration by Facom guarantees maximum detection and strength, while preserving the tool's ergonomics.
- Radio frequency identification requires appropriate storage equipment.
- Blade in polished stainless steel. Blade partially smooth for accurate cutting and another serrated for powerful cutting.
- Quick one-handed opening.
- Knife at the tip of the knife: window breaker function.
- Safe: lock-back.
- Universal hanging hook.
- Clip at the back of the knife for direct hanging to the belt.
- Blade length 77 mm; closed length: 115 mm.
- Total length: 186 mm.
- Supplied in vertical nylon case which fastens to the belt.



Icon	L [mm]	ΔΔ [g]
840.FR.FID	186	200

▪ **Twin-blade electricians knife with plastic handle - RFID**

- Tool with built-in RFID chip for workshop traceability.
- Chip integration by Facom guarantees maximum detection and strength, while preserving the tool's ergonomics.
- Radio frequency identification requires appropriate storage equipment.
- Electricians knife with blades suitable for cable work:
  - 1 straight hollow ground general-purpose blade (length: 65 mm).
  - 1 short curved blade, specially designed for cable work (length: 35 mm).
- Safe: lock-back for each blade.
- Length closed: 104 mm.
- Total length: 131/169 mm.



Icon	L [mm]	ΔΔ [g]
640180RFID	104	130



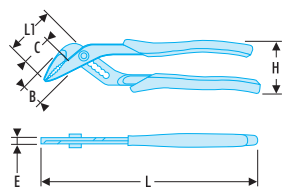
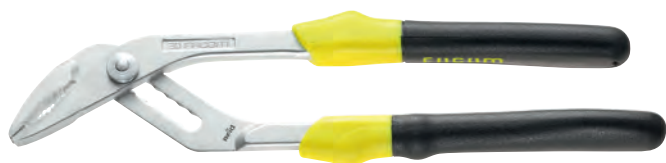
FLUO

RFID



RFID ENGINEERS PLIERS

High-performance multigrip plier - RFID

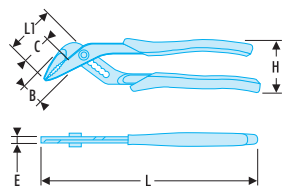


NF ISO 8976, ISO 8976, DIN ISO 8976, ASME B107.500

- Tool with built-in RFID chip for workshop traceability.
- Chip integration by Facom guarantees maximum detection and strength, while preserving the tool's ergonomics.
- Radio frequency identification requires appropriate storage equipment.
- Capacity : 44 mm.
- The closed position of the ergonomic comfort grip handles increases the tightening power.
- 62 HRC high-frequency treated jaws.
- Finish: chromed, bi-material ergonomic grips.

	B [mm]	C [mm]	E [mm]	E1 [mm]	H [mm]	L [mm]	L1 [mm]	ΔΔ [g]
<b>180.CPERFID</b>	30	35	8	22	60	250	58	380

181A - Locking twin slip-joint multigrip pliers - RFID

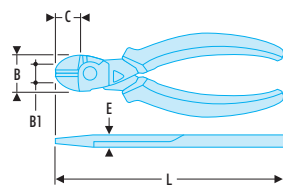


NF ISO 8976, ISO 8976, DIN ISO 8976, ASME B107.500

- Tool with built-in RFID chip for workshop traceability.
- Chip integration by Facom guarantees maximum detection and strength, while preserving the tool's ergonomics.
- Radio frequency identification requires appropriate storage equipment.
- Cutting edges designed to cleanly cut all types of wire: piano wire, soft wires and modern materials 200 kg/mm<sup>2</sup>).
- Minimum cutting force thanks to long lever arm and offset axis.
- High durability Chrome-Molybdenum-Vanadium steel, very hard cutting edges 61/63 HRC.
- Ergonomic grips resistant to chemical agents.
- Removable return spring.
- Finish: chromed.

	B [mm]	C [mm]	E [mm]	E1 [mm]	H [mm]	L [mm]	L1 [mm]	Capacity Nuts [mm]	ΔΔ [g]
<b>181A.18CPERFID</b>	22	24	7,5	20	52	185	48	36	250
<b>181A.25CPERFID</b>	28	28	7,5	22,5	58	245	54	41	380

192.CPE High-performance diagonal cutters RFID



NF ISO 5749, ISO 5749, DIN ISO 5749, ASME B107.500

- Tool with built-in RFID chip for workshop traceability.
- Chip integration by Facom guarantees maximum detection and strength, while preserving the tool's ergonomics.
- Radio frequency identification requires appropriate storage equipment.
- Snipe nose for confined space (electrical cabinets, wiring).
- Semi-flush cutting edges, designed to cleanly cut through all types of wire: hard wires (max. 160 Kg/mm<sup>2</sup>), thin copper wires, modern materials.
- Long lever arm, offset pivot for minimum cutting effort.
- High durability Chrome-Molybdenum-Vanadium steel, very hard cutting edges 61/63 HRC.
- Ergonomic grips resistant to chemical agents.
- Removable return spring.
- Finish: chromed.

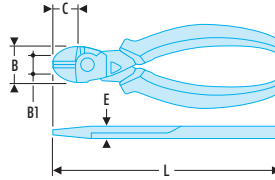
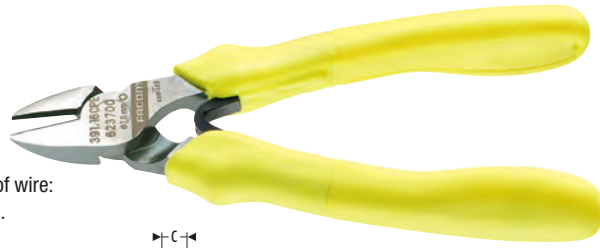
	B [mm]	C [mm]	d maxi [mm]	E [mm]	L [mm]	ΔΔ [g]
<b>192.16CPERFID</b>	24,0	180	1,6	10,0	160	220
<b>192.20CPERFID</b>	28,0	22,0	2,0	11,5	200	340



▪ **Electricians diagonal cutter - RFID**

NF ISO 5749, ISO 5749, DIN ISO 5749, ASME B107.500

- Tool with built-in RFID chip for workshop traceability.
- Chip integration by Facom guarantees maximum detection and strength, while preserving the tool's ergonomics.
- Radio frequency identification requires appropriate storage equipment.
- Snipe nose for confined space (electrical cabinets, wiring).
- Semi-flush cutting edges, designed to cleanly cut through all types of wire: hard wires (max. 160 Kg/mm<sup>2</sup>), thin copper wires, modern materials.
- Long lever arm, offset pivot for minimum cutting effort.
- High durability Chrome-Molybdenum-Vanadium steel, very hard cutting edges 61/63 HRC.
- Ergonomic grips resistant to chemical agents.
- Removable return spring.
- Finish: chromed.

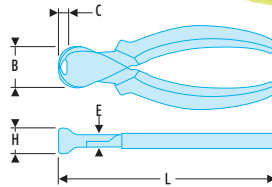


Icon	B [mm]	C [mm]	E [mm]	L [mm]	ΔΔ [g]
	19	21	9	165	210

▪ **190.CPE - High-performance end cutter - RFID**

NF ISO 5748, ISO 5748, DIN ISO 5748, ASME B107.500

- Tool with built-in RFID chip for workshop traceability.
- Chip integration by Facom guarantees maximum detection and strength, while preserving the tool's ergonomics.
- Radio frequency identification requires appropriate storage equipment.
- Narrow, finely serrated tips with a pipe-grip.
- Side cutter for copper and hard steel wire (max. 160 kg/mm<sup>2</sup>).
- 185: straight nose.
- 195: 40° angled nose.
- Ergonomic grips resistant to chemical agents.
- Removable return spring.
- Finish: chromed.

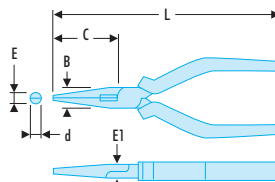


Icon	B [mm]	C [mm]	d maxi [mm]	E [mm]	L [mm]	ΔΔ [g]
	28	6,5	1,6	11,5	160	220
	31	7,5	2,0	13,5	200	360

▪ **185-195.CPE - Long half-round nose pliers - RFID**

NF ISO 5745, ISO 5745, DIN ISO 5745, ASME B107.500

- Tool with built-in RFID chip for workshop traceability.
- Chip integration by Facom guarantees maximum detection and strength, while preserving the tool's ergonomics.
- Radio frequency identification requires appropriate storage equipment.
- Narrow, finely serrated tips.
- Side cutter for copper and hard steel wire (max. 160 kg/mm<sup>2</sup>).
- Ergonomic grips resistant to chemical agents.
- Removable return spring.
- Finish: chromed.



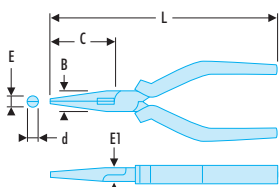
Icon	B [mm]	C [mm]	d [mm]	E [mm]	E1 [mm]	L [mm]	ΔΔ [g]
	18	75	2,9	3,6	9	200	215
	18	69	2,9	3,6	9	200	215



FLUO

RFID

### 193-195.CPE - Short half-round nose pliers - RFID

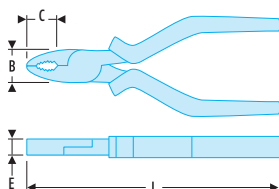


#### NF ISO 5745, ISO 5745, DIN ISO 5745, ASME B107.500

- Tool with built-in RFID chip for workshop traceability.
- Chip integration by Facom guarantees maximum detection and strength, while preserving the tool's ergonomics.
- Radio frequency identification requires appropriate storage equipment.
- Cutting edges designed to cut all types of wire: piano wire, soft wires and modern materials (Fe 200 kg/mm<sup>2</sup>).
- Long lever arm, offset pivot for minimum cutting effort.
- High durability Chrome-Molybdenum-Vanadium steel, very hard cutting edges 61/63 HRC.
- Ergonomic grips resistant to chemical agents.
- Removable return spring.
- Finish: chromed.

➤	B [mm]	C [mm]	d [mm]	E [mm]	E1 [mm]	L [mm]	ΔΔ [g]
<b>193.16CPERFID</b>	17	50	2,5	3	9	160	200
<b>195.16CPERFID</b>	17	50	2,5	3	9	160	200

### 187.CPE - Combination pliers - RFID

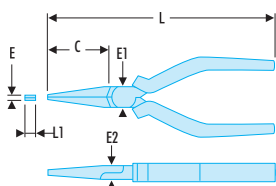


#### NF ISO 5746, ISO 5746, DIN ISO 5746, ASME B107.500

- Tool with built-in RFID chip for workshop traceability.
- Chip integration by Facom guarantees maximum detection and strength, while preserving the tool's ergonomics.
- Radio frequency identification requires appropriate storage equipment.
- Serrated nose for a firm grip.
- 188.E: snipe nose version for confined spaces.
- Ergonomic grips resistant to chemical agents.
- Removable return spring.
- Finish: chromed.

➤	B [mm]	C [mm]	E [mm]	L [mm]	ΔΔ [g]
<b>187.16CPERFID</b>	21	34	9,5	165	215
<b>187.18CPERFID</b>	23	36	10,0	185	245

### 188 - Flat nose pliers - RFID



#### NF ISO 5745, ISO 5745, DIN ISO 5745, ASME B107.500

- Tool with built-in RFID chip for workshop traceability.
- Chip integration by Facom guarantees maximum detection and strength, while preserving the tool's ergonomics.
- Radio frequency identification requires appropriate storage equipment.
- Pliers for clear cutting multiple materials: from copper wire to piano wire up to 0.5 mm.

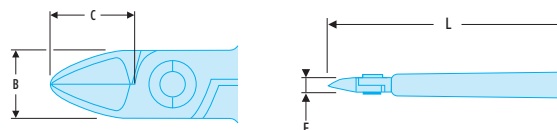
➤	C [mm]	E [mm]	E1 [mm]	E2 [mm]	L [mm]	L1 [mm]	ΔΔ [g]
<b>188.16CPERFID</b>	46	4	18	9	168	6,5	160
<b>188.20CPERFID</b>	75	4	18	9	200	6,5	220

RFID MICRO-TECH® CUTTING PLIERS

405 - Micro-Tech® "heavy-duty" cutters - RFID

NF ISO 9654, ISO 9654, DIN ISO 9654, ASME B107.500

- Tool with built-in RFID chip for workshop traceability.
- Chip integration by Facom guarantees maximum detection and strength, while preserving the tool's ergonomics.
- Radio frequency identification requires appropriate storage equipment.
- These pliers allow to go further; up to + 1.5 to 2 mm compared with standard pliers.
- Fall prevention models avoid wire ejection.

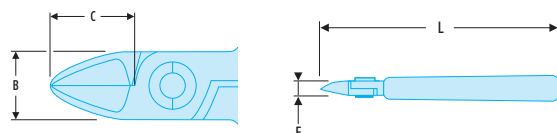


Model	B [mm]	C [mm]	E [mm]	L [mm]	Cu - Ni Ø [mm]	Fe 30 HRc diam. [mm]	ΔΔ [g]
405.10MTFRFID	10,5	11,5	7	110	0,3 - 1,4	0,8	80
405.12MTFRFID	16	16	8	125	0,4 - 2,0	1,0	115

Micro-Tech® "long" cutters - RFID

NF ISO 9654, ISO 9654, DIN ISO 9654, ASME B107.500

- Tool with built-in RFID chip for workshop traceability.
- Chip integration by Facom guarantees maximum detection and strength, while preserving the tool's ergonomics.
- Radio frequency identification requires appropriate storage equipment.
- These pliers allow to go further; up to + 1.5 to 2 mm compared with standard pliers.



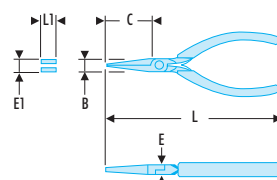
Model	B [mm]	C [mm]	E [mm]	L [mm]	Cu - Ni Ø [mm]	ΔΔ [g]
425FRFID	10,5	13	7	110	0,1 - 1,3	80

RFID MICRO-TECH® GRIPPERS

421 - 422 - Micro-Tech® long and rigid nose gripper - RFID

NF ISO 9655, ISO 9655, DIN ISO 9655, ASME B107.500

- Tool with built-in RFID chip for workshop traceability.
- Chip integration by Facom guarantees maximum detection and strength, while preserving the tool's ergonomics.
- Radio frequency identification requires appropriate storage equipment.
- Narrow mesh, for high precision works.



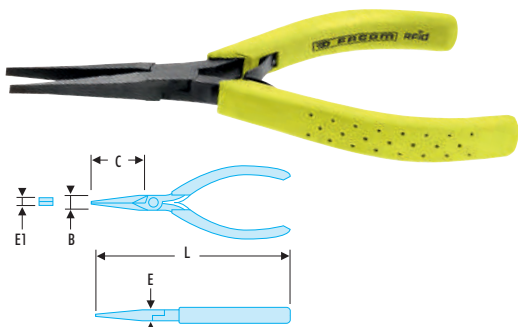
Model	B [mm]	C [mm]	E [mm]	E1 [mm]	L [mm]	L1 [mm]	ΔΔ [g]
421.MTFRFID	11	33	7	1	130	5	90
422.MTFRFID	11	33	7	0,5	130	5	110



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### Micro-Tech® thin nose gripper - RFID



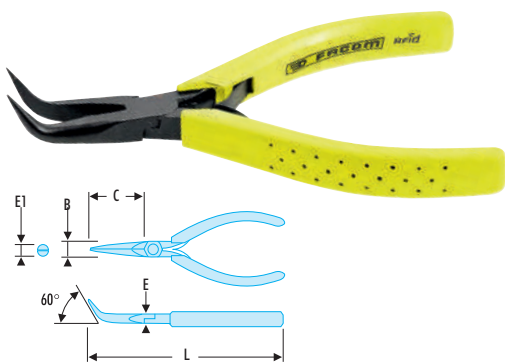
#### NF ISO 9655, ISO 9655, DIN ISO 9655, ASME B107.500

- Tool with built-in RFID chip for workshop traceability.
- Chip integration by Facom guarantees maximum detection and strength, while preserving the tool's ergonomics.
- Radio frequency identification requires appropriate storage equipment.
- Long and strong nose for precision and extra power works.



RFID	B [mm]	C [mm]	E [mm]	E1 [mm]	L [mm]	ΔΔ [g]
431.LMTFRFID	9	35	6	1	135	100

### Micro-Tech® gripping plier with fluorescent grips - RFID



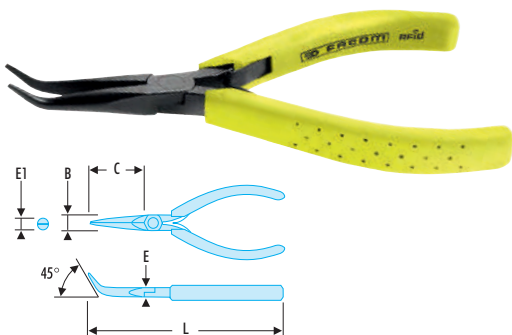
#### NF ISO 9655, ISO 9655, DIN ISO 9655, ASME B107.500

- Tool with built-in RFID chip for workshop traceability.
- Chip integration by Facom guarantees maximum detection and strength, while preserving the tool's ergonomics.
- Radio frequency identification requires appropriate storage equipment.
- Detect the tool thanks to its fluorescence, activated by a lamp or UV neon light.
- Rigid jaws, angled 60°.



RFID	B [mm]	C [mm]	E [mm]	E1 [mm]	L [mm]	ΔΔ [g]
423.MTFRFID	11	25	7	1,4	125	90

### Micro-Tech® 45° angled thin nose gripper - RFID



#### NF ISO 9655, ISO 9655, DIN ISO 9655, ASME B107.500

- Tool with built-in RFID chip for workshop traceability.
- Chip integration by Facom guarantees maximum detection and strength, while preserving the tool's ergonomics.
- Radio frequency identification requires appropriate storage equipment.
- Fine mesh, for high precision works.



RFID	B [mm]	C [mm]	E [mm]	E1 [mm]	L [mm]
433.LMTFRFID	9	35	6	1,6	135

RFID CIRCLIP® PLIERS

179A - Straight nose inside circlip® pliers - RFID



NF E 73-130, DIN 5256, ASME B107.500

- Tool with built-in RFID chip for workshop traceability.
- Chip integration by Facom guarantees maximum detection and strength, while preserving the tool's ergonomics.
- Radio frequency identification requires appropriate storage equipment.
- For inside Circlips® 8 --> 100 mm.
- Piano wire tips: high distortion resistance.
- Long 10° angled tips for optimum circlip holding.
- Identification colour code: saves time.
- Grips in anti-slip granite PVC.

☞	d [mm]	d mini - maxi [mm]	L [mm]	ΔΔ [g]
179A.9RFID	0,9	8 - 13	140	135
179A.13RFID	1,3	12 - 25	140	135
179A.18RFID	1,8	19 - 60	185	235
179A.23RFID	2,2	40 - 100	215	320

199A - 90° angled nose inside circlip® pliers - RFID



NF E 73-130, DIN 5256, ASME B107.500

- Tool with built-in RFID chip for workshop traceability.
- Chip integration by Facom guarantees maximum detection and strength, while preserving the tool's ergonomics.
- Radio frequency identification requires appropriate storage equipment.
- For inside Circlips® 8 --> 100 mm.
- Piano wire tips: high distortion resistance.
- Long 10° angled tips for optimum circlip holding.
- Identification colour code: saves time.
- Grips in anti-slip granite PVC.

☞	d [mm]	d mini - maxi [mm]	L [mm]	ΔΔ [g]
199A.9RFID	0,9	8 - 13	130	135
199A.13RFID	1,3	12 - 25	130	135
199A.18RFID	1,8	19 - 60	170	235
199A.23RFID	2,2	40 - 100	205	320

177A - Straight nose outside circlip® pliers - RFID



NF E 73-130, DIN 5254, ASME B107.500

- Tool with built-in RFID chip for workshop traceability.
- Chip integration by Facom guarantees maximum detection and strength, while preserving the tool's ergonomics.
- Radio frequency identification requires appropriate storage equipment.
- For outside Circlips® 3 --> 100 mm.
- Piano wire tips: high distortion resistance.
- Long 10° angled tips for optimum circlip holding.
- Identification colour code: saves time.
- Grips in anti-slip granite PVC.

☞	d [mm]	d mini - maxi [mm]	L [mm]	ΔΔ [g]
177A.9RFID	0,9	3 - 10	150	125
177A.13RFID	1,3	10 - 25	150	125
177A.18RFID	1,8	19 - 60	180	195
177A.23RFID	2,2	40 - 100	215	300

197A - 90° angled nose outside circlip® pliers - RFID



NF E 73-130, DIN 5254, ASME B107.500

- Tool with built-in RFID chip for workshop traceability.
- Chip integration by Facom guarantees maximum detection and strength, while preserving the tool's ergonomics.
- Radio frequency identification requires appropriate storage equipment.
- For outside Circlips® 3 --> 100 mm.
- Piano wire tips: high distortion resistance.
- Long 10° angled tips for optimum circlip holding.
- Identification colour code: saves time.
- Grips in anti-slip granite PVC.

☞	d [mm]	d mini - maxi [mm]	L [mm]	ΔΔ [g]
197A.9RFID	0,9	3 - 10	140	125
197A.13RFID	1,3	10 - 25	140	125
197A.18RFID	1,8	19 - 60	170	195
197A.23RFID	2,2	40 - 100	200	300



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RFID 1,000 VOLTS INSULATED PLIERS VE SERIES

180 - 1,000 Volt insulated multigrip plier - RFID



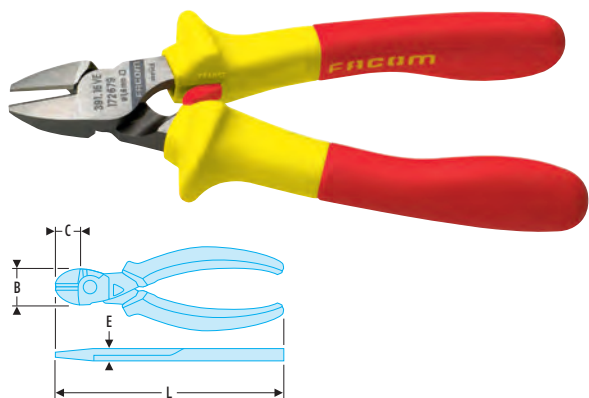
NF ISO 8976, ISO 8976, DIN ISO 8976, ASME B107.500

- Tool with built-in RFID chip for workshop traceability.
- Chip integration by Facom guarantees maximum detection and strength, while preserving the tool's ergonomics.
- Radio frequency identification requires appropriate storage equipment.
- Capacity: 44 mm.
- Ideal for confined spaces: long reach thin noses.
- Double heat-treated tips: high wear resistance, hardness 60/62 HRC.
- Varnish finish, ergonomic grips.
- Patent presentation, bi-material ergonomic sheaths.



	A [mm]	B [mm]	C [mm]	E [mm]	E1 [mm]	L [mm]	[g]
<b>180.VERFID</b>	30	35	58	8	22	250	380

1,000 Volt insulated electricians diagonal cutter - RFID



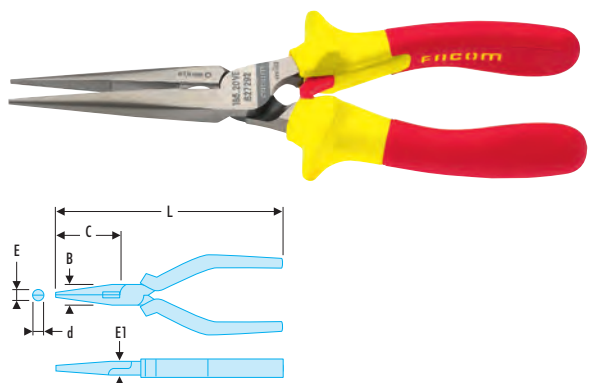
NF ISO 5749, NF EN 60900, ISO 5749, EN 60900, DIN ISO 5749, DIN EN 60900, ASME B107.500

- Tool with built-in RFID chip for workshop traceability.
- Chip integration by Facom guarantees maximum detection and strength, while preserving the tool's ergonomics.
- Radio frequency identification requires appropriate storage equipment.
- For your safety, all pliers are tested individually at 10,000 Volt for 10 seconds, at the end of the manufacturing cycle.
- Slim head for confined access (electric cabinets, wiring works, etc.).
- Semi-flush cutting edges to cleanly cut through all types of wire: hard wire, thin copper wires, modern materials, etc.
- Minimum cutting force thanks to long lever arm and offset axis.
- High durability thanks to Chrome-Molybdenum-Vanadium steel (hard cutting edges: 61/63 HRC).
- Removable return spring.
- Ergonomic anti-slip grips.
- Finish: polished, varnished.



	B [mm]	C [mm]	E [mm]	L [mm]	160 kg/mm <sup>2</sup> [Ø mm]	Cu - Ø max [mm <sup>2</sup> ]	[g]
<b>391.16VERFID</b>	19	21	9	165	1,6	0,7 - 3,5	210

185-195.VE - 1,000 Volt insulated long half-round nose pliers - RFID



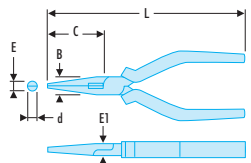
NF ISO 5745, NF EN 60900, ISO 5745, EN 60900, DIN ISO 5745, DIN EN 60900, ASME B107.500

- Tool with built-in RFID chip for workshop traceability.
- Chip integration by Facom guarantees maximum detection and strength, while preserving the tool's ergonomics.
- Radio frequency identification requires appropriate storage equipment.
- For your safety, all pliers are tested individually at 10,000 Volt for 10 seconds, at the end of the manufacturing cycle.
- Slim, fine serrated noses. - 185.VE: straight nose. - 195.VE: 40° angled nose.
- Lateral wire cutter for copper and hard steel wire.
- Removable return spring.
- Ergonomic anti-slip grips.
- Finish: polished, varnished.



	B [mm]	C [mm]	d [mm]	E [mm]	E1 [mm]	L [mm]	160 kg/mm <sup>2</sup> [Ø mm]	Cu - Ø max [mm <sup>2</sup> ]	[g]
<b>185.20VERFID</b>	18	75	2,9	3,6	9	200	1,6	0,7 - 3,5	215
<b>195.20VERFID</b>	18	69	2,9	3,6	9	200	1,6	0,7 - 3,5	215

1,000 Volt insulated short half-round nose plier - RFID

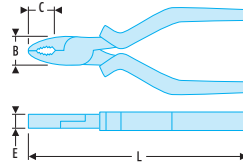


NF ISO 5745, NF EN 60900, ISO 5745, EN 60900, DIN ISO 5745, DIN EN 60900, ASME B107.500

- Tool with built-in RFID chip for workshop traceability.
- Chip integration by Facom guarantees maximum detection and strength, while preserving the tool's ergonomics.
- Radio frequency identification requires appropriate storage equipment.
- For your safety, all pliers are tested individually at 10,000 Volt for 10 seconds, at the end of the manufacturing cycle.
- Slim, straight, fine serrated noses.
- Lateral wire cutter for copper and hard steel wire.
- Removable return spring.
- Ergonomic anti-slip grips.
- Finish: polished, varnished.

🔗	B [mm]	C [mm]	d [mm]	E [mm]	E1 [mm]	L [mm]	Cu - Ø max [mm²]	[g]
193.16VERFID	17	50	2,5	3	9	160	0,7 - 3,0	200

1,000 Volt insulated combination plier - RFID

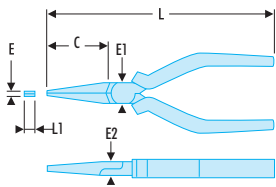


NF ISO 5746, NF EN 60900, ISO 5746, EN 60900, DIN ISO 5746, DIN EN 60900, ASME B107.500

- Tool with built-in RFID chip for workshop traceability.
- Chip integration by Facom guarantees maximum detection and strength, while preserving the tool's ergonomics.
- Radio frequency identification requires appropriate storage equipment.
- For your safety, all pliers are tested individually at 10,000 Volt for 10 seconds, at the end of the manufacturing cycle.
- Cutting edges designed to cut through all types of wire: piano wire, soft wires, modern materials, etc.
- Minimum cutting force thanks to long lever arm and offset axis.
- High durability thanks to Chrome-Molybdenum-Vanadium steel (hard cutting edges: 61/63 HRC).
- Removable return spring.
- Ergonomic anti-slip grips.
- Finish: polished, varnished.

🔗	B [mm]	C [mm]	E [mm]	L [mm]	200 kg/mm² [Ø mm]	[g]
187.18VERFID	23	36	10,0	185	1,8	245

1,000 Volt insulated flat nose plier - RFID

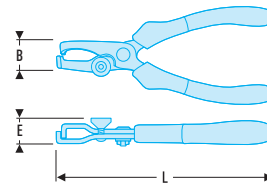


NF ISO 5745, NF EN 60900, ISO 5745, EN 60900, DIN ISO 5745, DIN EN 60900, ASME B107.500

- Tool with built-in RFID chip for workshop traceability.
- Chip integration by Facom guarantees maximum detection and strength, while preserving the tool's ergonomics.
- Radio frequency identification requires appropriate storage equipment.
- For your safety, all pliers are tested individually at 10,000 Volt for 10 seconds, at the end of the manufacturing cycle.
- Serrated nose for stronger grip.
- Removable return spring.
- Ergonomic anti-slip grips.
- Finish: polished, varnished.

🔗	C [mm]	E [mm]	E1 [mm]	E2 [mm]	L [mm]	L1 [mm]	[g]
188.20VERFID	75	4	18	9	200	6,5	220

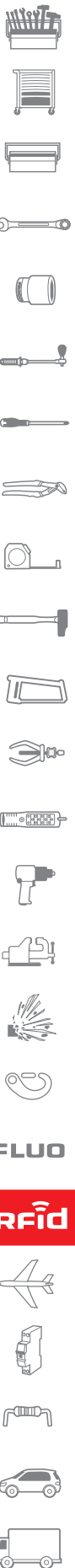
1,000 Volt insulated stripper - RFID



NF EN 60900, EN 60900, DIN EN 60900

- Tool with built-in RFID chip for workshop traceability.
- Chip integration by Facom guarantees maximum detection and strength, while preserving the tool's ergonomics.
- Radio frequency identification requires appropriate storage equipment.
- For your safety, all pliers are tested individually at 10,000 Volt for 10 seconds, at the end of the manufacturing cycle.
- For multiple or single strand wires 0.5 --> 6 mm².
- Adjustment screw with lock nut.
- Metal return screw.
- Ergonomic anti-slip grips.
- Finish: polished, varnished.

🔗	B [mm]	E [mm]	L [mm]	[g]
194.17VERFID	17	8,5	170	205



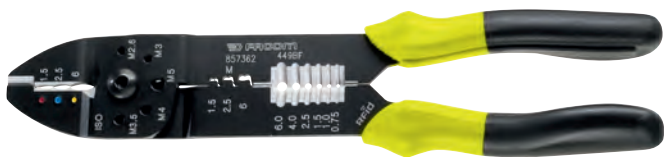
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RFID



RFID CRIMPING PLIER

Standard crimping plier for insulated terminals - RFID



ASME B107.500

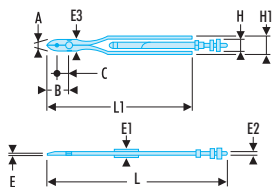
- Tool with built-in RFID chip for workshop traceability.
- Chip integration by Facom guarantees maximum detection and strength, while preserving the tool's ergonomics.
- Radio frequency identification requires appropriate storage equipment.
- Crimping pre-insulated terminals: 1.5-2.5-6 mm<sup>2</sup>.
- Crimping bare terminals: 1.5-2.5-6 mm<sup>2</sup>.
- Stripping: 0.75 to 6 mm<sup>2</sup>.
- Built-in wire cutting function.
- Presentation: black burnished.



Part Number	Weight [g]
449BFRFID	340

RFID LOCKING-WIRE PLIERS

445 - Locking-wire pliers 8" and 10" - RFID



ASME B107.500

- Tool with built-in RFID chip for workshop traceability.
- Chip integration by Facom guarantees maximum detection and strength, while preserving the tool's ergonomics.
- Radio frequency identification requires appropriate storage equipment.
- "Automatic" model.
- Side wire-cutter: stainless steel diameter 1 mm.
- 445.8RRFID = 2.5 turns: 95 mm length.
- 445.10RRFID = 3 turns: 125 mm length.
- Finish: phosphate-coated.



Part Number	A [mm]	B [mm]	C [mm]	E [mm]	E1 [mm]	E2 [mm]	E3 [mm]	H [mm]	H1 [mm]	L [mm]	L1 [mm]	Weight [g]
445.8RRFID	3	20	7	2.5	15	10.5	15	22	37	215	170	265
445.10RRFID	3	30	11	2.5	15.5	11.5	19	25	40	360	230	420

RFID TOOLING

RFID adapters for pneumatic tools



- Tool fitted with an RFID chip that ensures traceability in the workshop.
- The integration of the chip by Facom guarantees detection and maximum resistance, while preserving the usability of the tool.
- Radio frequency identification requires appropriate storage facilities.
- Size range covering most of the threads of the market.
- The ideal accessory for the traceability of your pneumatic tools.
- Easy to implement, the chip is protected under the plastic cover.



Part Number	B [mm]	H [mm]
N.14-PT-RFID	30	38.2
N.38-PT-RFID	30	45.8
N.14-NPT-RFID	30	38.2
N.18-NPT-RFID	30	36.2
N.38-NPT-RFID	30	45.8



ADVANCED SOLUTIONS



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FLUORESCENT TOOLS



FACOM AEROSPACE RANGE



AEROSPACE



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RFid

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# AEROSPACE



**AERO STORAGE** **902**

Roller cases 902  
 Safety roller cabinets 904  
 AERO tool sets 905



**RING WRENCHES** **909**

Long and curt ring wrenches series 909



**AERO SOCKETS** **912**

Sockets 1/4" 912  
 Sockets 3/8" 913



**AERO TORQUE CONTROL** **914**

1/4" - 3/8" crowfoot bits 914  
 Sets of 1/4" - 3/8" crowfoot profile 916  
 3/8" crowfoot profile bits 916



**AERO RATCHETS - SOCKETS** **918**

Ratchets 1/4" 918  
 Ratchets 3/8" 918  
 Ratchets 1/2" 918  
 Sockets 1/4" 919



**AERO SCREWING** **920**

Screwdrivers 920



**AERO PLIERS** **920**

Locking-wire pliers 920



**AERO PLIERS** **921**

Inspection creeper 921  
 Mid-height work seat 921



**FOD FLUORESCENT TOOLING** **922**

Inspection mirrors 922  
 Flexible magnetic nger 923



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## DESIGNING SOLUTIONS DEDICATED TO THE AERONAUTICAL INDUSTRY



Nearly 100 years  
innovation at  
the service of  
the aeronautical  
industry



Since 1918, FACOM has invested in technical evolutions to accompany the entire aeronautical sector. Whatever your activity: manufacturer, assembler, subcontractor, motorist, maintenance, etc. and whatever your domain: civilian, military, space, etc. FACOM offers solutions meeting your needs.



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- FLUO**
- RFid**
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**ADVANCED FOD SOLUTIONS FOR THE AERONAUTICAL SECTOR**



Whether for manufacturers or maintenance services, safety has always been at the heart of the aeronautical sector and avoiding Foreign Object Debris (FOD) has become one of its unavoidable aspects. The annual financial impact of FODs for the aeronautical industry is estimated to be \$ 13 billion, with indirect costs from FODs up to ten-fold the direct costs resulting when totalling the delays, aircraft substitutes, fuel expenses and unplanned maintenance.

**Preformed foam modules**

A precious visual aid for instant tool inventory and presence check in the roller cabinet.



130



ADVANCED FOD SOLUTIONS FOR THE AERONAUTICAL SECTOR



THE RANGE **FACOM • FLUO**

Detectable using a UV lamp, the Fluo range offers a simple and unique answer to the market by the multiplicity of tools available.



THE TECHNOLOGY **FACOM • RFid**

- Directly detectable tools featuring an RFID chip.
- Automated management of your tooling and its inventory with Facom-Cribmaster RFID technologies.

For more information on the RFID technology, refer to the dedicated catalogue or go to [www.facom.com/uk/](http://www.facom.com/uk/)



**RFid**  
TECHNOLOGY  
BY FACOM



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RFid



## ROLLER CASES

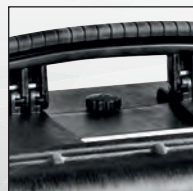
## MOBILE STORAGE

**Very strong**

- Made of injected polypropylene, shock resistant.
- Reinforced angles to increase lifetime.
- Stainless steel hinge angle, resists corrosion.

**Easy to carry**

- Ergonomic telescopic handle increasing comfort of use.
- Handles on the 2 sides allowing easy handling.
- Ultra strong wheels.
- Depressurisation valve.

**Sealed**

- Sealing gasket, fitted in one operation: protects the content against outside aggressions.
- Minimum play clasps, 100% sealed to dust and water.

**Modular**

- Adaptable on request to all types of tool sets through the foam program.
- Stackable.
- Several locking points.
- Customizable identification plate.

### Sealed roller chest

**IP67 STANAG 4280 DEF STAN 81-41 (Niv. J)**

- High density injected polypropylene resistant to extreme conditions of use. Compatible with military, aerospace... use
- Totally sealed and resists to shock, dust and industrial fluids.
- Several padlock clasps available.
- Stainless steel hinge pins.
- Gap-free clasps and sealing gasket.
- Resists pressure differences. Manual depressurizing valve.
- Handle designed for maximum comfort.
- Temperature tolerance: -33°/+90°.
- Telescopic handle and side handles for easier use.
- Stackable.
- Customizable identification plate.
- Inner dimensions (LxWxD): 517x277x217 mm.
- Outer dimensions (LxWxD): 546x347x247 mm.



 **BV.FC1**

$\Delta\Delta$  [kg]  
6.540

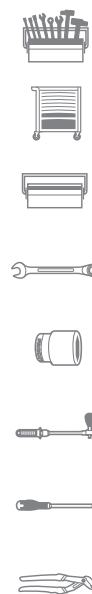


Sealed roller chest

IP67 STANAG 4280 DEF STAN 81-41 (Niv. J) MIL-STD 810F

- High density injected polypropylene resistant to extreme conditions of use. Compatible with military, aerospace... use
- Totally sealed and resists to shock, dust and industrial fluids.
- Several padlock clasps available.
- Stainless steel hinge pins.
- Gap-free clasps and sealing gasket.
- Resists pressure differences. Manual depressurizing valve.
- Handle designed for maximum comfort.
- Temperature tolerance: -33°/+90°.
- Telescopic handle and side handles for easier use.
- Stackable.
- Customizable identification plate.
- Inner dimensions (LxWxD): 538x405x250 mm.
- Outer dimensions (LxWxD): 627x475x292 mm.

	$\Delta\Delta$ [kg]
<b>BV.FC2</b>	9.950



Sealed roller chest

IP67 STANAG 4280 DEF STAN 81-41 (Niv. J) MIL-STD 810F

- High density injected polypropylene resistant to extreme conditions of use. Compatible with military, aerospace... use
- Totally sealed and resists to shock, dust and industrial fluids.
- Several padlock clasps available.
- Stainless steel hinge pins.
- Gap-free clasps and sealing gasket.
- Resists pressure differences. Manual depressurizing valve.
- Handle designed for maximum comfort.
- Temperature tolerance: -33°/+90°.
- Telescopic handle and side handles for easier use.
- Stackable.
- Customizable identification plate.
- Inner dimensions (LxWxD): 580x440x330 mm.
- Outer dimensions (LxWxD): 670x510x372 mm.

	$\Delta\Delta$ [kg]
<b>BV.FC3</b>	12.320



Sealed roller tool chest

- High density injected polypropylene resistant to extreme conditions of use. Compatible with military, aerospace... use
- Totally sealed and resists to shock, dust and industrial fluids.
- Several padlock clasps available.
- Stainless steel hinge pins.
- Clasps easy to use.
- Resists pressure differences.
- 2 lateral handles & telescopic handle.
- Temperature tolerance: -33°/+90°.
- Customizable identification plate.
- 4 60mm high drawers + worktop
- Tools accessible from the front or the top.

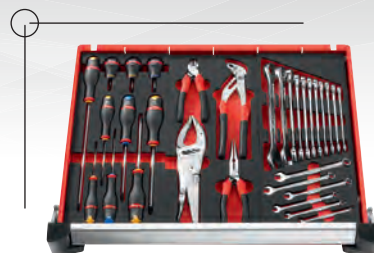
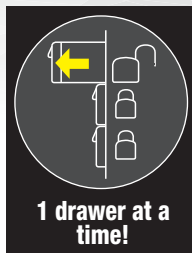
	Width l [mm]	L [mm]	$\Delta\Delta$ [kg]
<b>BV.FC4S</b>	381	581	14



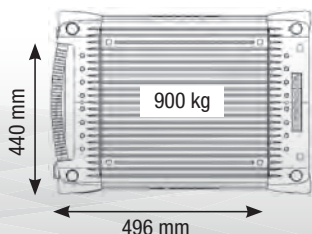
SAFETY ROLLER CABINETS

ROLLER CABINETS SAFETY

safety lock system JET+



- 3 modules per drawer
- 12 to 27 modules distributed in drawers 60 and 130 mm high (drawers 200 and 270 mm high may also be fitted with modules)



- 125 to 185 kg total allowed load in the drawers according to drawer composition (240 kg for the 11 drawer)
- 150 to 155 litres useful volume according to drawer composition (230 litres for the 11 drawer)
- 0,22m<sup>2</sup> useful working surface (440 X 496 mm)

LOAD PER DRAWER	USEFUL VOLUME PER DRAWER
- drawer 60 mm high: 20 kg	- drawer 60 mm high: 15 l
- drawer 130 mm high: 25 kg	- drawer 130 mm high: 30 l
- drawer 200 mm high: 30 kg	- drawer 200 mm high: 50 l
- drawer 270 mm high: 35 kg	- drawer 270 mm high: 65 l

JET+ 6-drawer roller cabinets - 3 modules per drawer - safety range



- Supplied with the SAFETY LOCK SYSTEM preventing simultaneous opening of several drawers:
  - 1 drawer at a time.
  - Prevents the roller cabinet from tipping over.
- 6 drawers = 15 modules distributed in the 60 and 130 mm wall drawers:
  - 4 drawers 60 mm wall = 12 modules.
  - 1 drawer 130 mm wall = 3 modules.
  - 1 drawer 270 mm wall.
- The 130 and 270 mm drawers can also be fitted with modules.
- Supplied with 6 partitions for 60 mm drawers and 2 partitions for 130 mm drawers.
- Total load in the drawers: 140 kg.
- Wall storage capacity: 155 litres.
- Drawer useful size: L.569 x D.421 x H.60 / 130 / 210 / 270 mm.
- 4 wheels 125 mm diameter: 2 fixed, 2 castors, one with brake.

	H [mm]	L [mm]	P [mm]	Color	ΔΔ [kg]
JET.6GM3S	971	774	546	Noir 9004	75.5

JET+ 8-drawer roller cabinets - 3 modules per drawer - safety range



- Supplied with the SAFETY LOCK SYSTEM preventing simultaneous opening of several drawers:
  - 1 drawer at a time.
  - Prevents the roller cabinet from tipping over.
- 8 drawers = 24 modules distributed in the 60 and 130 mm wall drawers:
  - 6 drawers 60 mm wall = 18 modules.
  - 2 drawers 130 mm wall = 6 modules.
- Total load in the drawers: 170 kg.
- Wall storage capacity: 150 litres.
- 4 wheels 125 mm diameter: 2 fixed, 2 castors, one with brake.
- Drawer useful size: L.569 x D.421 x H.60 / 130 / 210 / 270 mm.
- Supplied with 8 partitions for drawers 60 mm wall.

	H [mm]	L [mm]	P [mm]	Color	ΔΔ [kg]
JET.8GM3S	971	774	546	Noir 9004	79.5

AERO

MODULES

13 x 440.1/4 - 5/16 - 11/32 - 3/8 - 7/16 - 1/2 - 9/16 - 5/8 - 11/16 - 3/4 - 13/16 - 7/8 - 15/16.

**Inch combination wrench set in foam module**



- Contains: 13 x 440.1/4 - 5/16 - 11/32 - 3/8 - 7/16 - 1/2 - 9/16 - 5/8 - 11/16 - 3/4 - 13/16 - 7/8 - 15/16.

Icon	H [mm]	Width l [mm]	L [mm]	Qty	Content set	ΔΔ [kg]
	45	188	418	13	PM.MOD440-4	1.640

12 x 467.1/4 - 5/16 - 11/32 - 3/8 - 7/16 - 1/2 - 9/16 - 5/8 - 11/16 - 3/4 - 7/8 - 15/16.

**Inch ratchet combination wrench set in foam module**



- Contains : 12 x 467.1/4 - 5/16 - 11/32 - 3/8 - 7/16 - 1/2 - 9/16 - 5/8 - 11/16 - 3/4 - 7/8 - 15/16.

Icon	H [mm]	Width l [mm]	L [mm]	Qty	Content set	ΔΔ [kg]
	45	188	418	12	PM.MOD467JU12	2.040

8 hinged ratchet combination wrenches in inches: 5/16 - 3/8 - 7/16 - 1/2 - 9/16 - 5/8 - 11/16 - 3/4".

**Inch hinged ratchet combination wrench set in foam module**



- Contains: 8 hinged ratchet combination wrenches in inches: 5/16 - 3/8 - 7/16 - 1/2 - 9/16 - 5/8 - 11/16 - 3/4".

Icon	H [mm]	Width l [mm]	L [mm]	Qty	Content set	ΔΔ [kg]
	45	188	418	8	PM.MOD467FJU8	1.175

10 x 467S.1/4, 5/16, 11/32, 3/8, 7/16, 1/2, 9/16, 5/8, 11/16, 3/4.

**10-piece foam module of inch-size short ratchet combination wrenches**



- Contains : 10 x 467S.1/4, 5/16, 11/32, 3/8, 7/16, 1/2, 9/16, 5/8, 11/16, 3/4.

Icon	H [mm]	Width l [mm]	L [mm]	Qty	Content set	ΔΔ [g]
	45	188	418	10	PM.MOD467SJU10	896

7 x 57L.5.5X7, 8X9, 10X11, 12X13, 12X14, 17X19, 18X20.

**7-piece foam module of metric-size 15° angled long-reach ring wrenches**



- Contains: 7 x 57L.5.5X7, 8X9, 10X11, 12X13, 12X14, 17X19, 18X20.

Icon	H [mm]	Width l [mm]	L [mm]	Qty	Content set	ΔΔ [kg]
	45	188	418	7	PM.MOD57LJ7	2.04

5 x 57L.7/32x1/4, 5/16x3/8, 7/16x1/2, 1/2x9/16, 5/8x3/4.

**5-piece foam module of inch-size 15° angled long-reach ring wrenches**



- Includes : 5 x 57L.7/32x1/4, 5/16x3/8, 7/16x1/2, 1/2x9/16, 5/8x3/4.

Icon	H [mm]	Width l [mm]	L [mm]	Qty	Content set	ΔΔ [kg]
	45	188	418	5	PM.MOD57LJU5	1.377



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AERO MODULES

6-piece foam module of Spline 15° angled long-reach ring wrenches



• Contains: 6 x 57L.7X9SPL, 8X10SPL, 12X14SPL, 16X18SPL, 18X20SPL, 22X24SPL.

Part No.	H [mm]	L [mm]	Width I [mm]	Content set	Qty	ΔΔ [kg]
MODM.57LSPL6	45	418	188	PM.MOD57LSPL6	6	1.0

8-piece foam module of inch-size 10° angled short-reach ring wrenches



• Includes :  
 - 4 x 56A.1/4X5/16, 3/8X7/16, 1/2X9/16, 9/16X5/8  
 - 4 x 56L.11/16x3x4, 5/16X3/8, 7/16x1/2, 9/16x5/8.

Part No.	H [mm]	Width I [mm]	L [mm]	Content set	Qty	ΔΔ [kg]
MODM.56JU8	45	188	418	PM.MOD56JU8	8	0.900

Inch straight ratchet ring wrenches in foam module



• Contains:  
 - 6 inch wrenches 64: 1/4X5/16, 3/8X7/16, 1/2X9/16, 5/8X11/16, 3/4X13/16, 64.7/8X15/16".

Part No.	H [mm]	Width I [mm]	L [mm]	Content set	Qty	ΔΔ [kg]
MODM.64JU6	45	188	418	PM.MOD64JU6	6	1.3

Inch straight ratchet ring wrenches in foam module



• Includes :  
 6 x 65.1/4X5/16, 3/8X7/16, 1/2X9/16, 5/8X11/16, 3/4X13/16, 64.7/8X15/16.

Part No.	H [mm]	Width I [mm]	L [mm]	Content set	Qty	ΔΔ [kg]
MODM.65JU6	45	188	418	PM.MOD64JU6	6	1.3

7-piece foam module of Spline 15° angled ratchet ring wrenches



• Includes :  
 7 x 65.7X9SPL, 8X10, 12X14, 16X18, 20X22, 24X28, 26X30.

Part No.	H [mm]	Width I [mm]	L [mm]	Content set	Qty	ΔΔ [kg]
MODM.65SPL7	45	188	418	PM.MOD65SPL7	7	0.95

1/4" locking ratchet and inch-size sockets foam module



• Comprising:  
 - 1 x RL.171  
 - 1 x R.210RC  
 - 1 x R.217RC.  
 - 11 x R.1/2E, 1/4, 11/32, 13/32, 3/16, 3/8, 5/16, 7/16, 7/32, 9/16, 9/32  
 - 10 x R1/2EL, 1/4, 11/32, 3/16, 3/8, 5/16, 7/16, 7/32, 9/16, 9/32.

Part No.	H [mm]	Width I [mm]	L [mm]	Content set	Qty	ΔΔ [kg]
MODM.RL1U	45	188	418	PM.MODRL1U	24	1.2

1/4" locking ratchet and inch-size sockets foam module



- comprising:
- 1 x RL.161
- 1 x R.120A
- 1 x J4763
- 1 x R.209
- 1 x R.350RCK
- 1 x R.215 - 11 x R.1/2E, 1/4, 11/32, 13/32, 3/8, 5/16, 7/16, 7/32, 9/16, 9/32
- 1 x 83SH.JP8AU
- 1 x R.236A - 3 x ED.101T, 102, 103
- 3 x EP.101T, 102, 103 - 2 x ES.134.5T, 136,5
- 5 x EH.103, 104, 105, 106, 107
- 5 x EX.115, 120, 125, 130, 140 - 1 x R.240A - 1 x R.236A- 1 x R.235.

MODM	H [mm]	Width l [mm]	L [mm]	Content set	Qty	ΔΔ [kg]
MODM.RL2U	45	188	418	PM.MODRL2U	40	1.3

3/8" locking ratchet - inch sockets in foam module



- Contains :
- Ratchet JL.171
- 2 locking extensions J.210RC, J217RC.
- 13 3/8" J sockets: from 1/4" to 1".
- 10 long 3/8" JLA sockets: from 1/4" to 7/8".
- 7 inch ring wrenches from 1/4" to 15/16".
- 1 bit holder ratchet wrench 65.PE.

MODM	H [mm]	Width l [mm]	L [mm]	Content set	Qty	ΔΔ [kg]
MODM.JL2U	45	564	418	PM.MODJL2U	36	4.2

1/2" locking ratchet - inch sockets in foam module



- Contains :
- 1 x SL.171 - 1 x S.210RC
- 1 x S.215RC
- 16 x S.1/2, 11/16, 13/16, 15/16, 1P, 1P1/16, 1P1/4, 1P1/8, 1P3/16, 3/4, 3/8, 5/8, 7/16, 7/8, 9/16
- 7 x S.1/2LA, 11/16, 13/16, 15/16, 3/4, 5/8, 7/16, 7/8, 9/16.

MODM	H [mm]	Width l [mm]	L [mm]	Content set	Qty	ΔΔ [kg]
MODM.SL2U	45	188	418	PM.MODSL2U	26	4.0

6-piece set of metric ring wrenches in foam tray



- Comprising:
- 6 x 59L.6X7, 8X9, 10X11, 12X13, 14X15, 18X19.

MODM	H [mm]	Width l [mm]	L [mm]	Content set	Qty	ΔΔ [kg]
MODM.59LJ6	45	188	418	PM.MOD59LJ6	6	1.65

4-piece set of inch ring wrenches in foam tray



- Comprising: 4 x 59L.5/8X3/4, 59L.1/2X9/16, 59L.1/4X5/16, 59L.3/8X7/16.

MODM	H [mm]	Width l [mm]	L [mm]	Content set	Qty	ΔΔ [kg]
MODM.59LJU4	45	188	418	PM.MOD59LJU4	4	0,890

1/4" engine set in foam tray



- Comprising:
- 1 x RL.171
- 1 x R.100RCK
- 1 x R.350RCK
- 10 x R.1/2EL, 1/4, 11/32, 3/16, 3/8, 5/16, 7/16, 7/32, 9/16, 9/32
- 10 x R.1/2F, 1/4, 11/32, 3/16, 3/8, 5/16, 7/16, 7/32, 9/16, 9/32 - 5 x 57L.5/8X3/4, 7/32X1/4, 1/2X9/16, 1/4X5/16, 3/8X7/16
- 1 x R.110.

MODM	H [mm]	Width l [mm]	L [mm]	Content set	Qty	ΔΔ [kg]
MODM.ENG-R	45	150	418	PM.MODENGR	31	3.0



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## AERO MODULES

Set of 1/4" and 3/8" metric components in foam tray



- Comprising:
  - 1 x RL.171
  - 1 x JL.171
  - 3 x J.16S, J.18S, J.20S
  - 6 x R.7S, R.8S, R.9S, R.10S, R.12S, R.14S
  - 5 x 65.12X14SPL, 16X18, 20X22, 24X28, 26X30, 7X9, 8X10.



	H [mm]	Width I [mm]	L [mm]	Content set	Qty	$\Delta\Delta$ [kg]
<b>MODM.SPL</b>	45	188	418	PM.MODSPL	16	3.8

6-piece metric 15° hinged long-reach offset-ring wrenches in thermoformed tray



- Compatible with the Facom modular storage system:
  - Compatible with CHRONO XL, CHRONO+, JETXL and JET+ roller cabinets.



	H [mm]	Width I [mm]	L [mm]	Content set	Qty	$\Delta\Delta$ [kg]
<b>MOD.57LJ6</b>	40	175	418	PL.697	6	1.001

6-piece metric long double ended ring wrenches in thermoformed tray



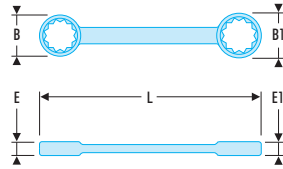
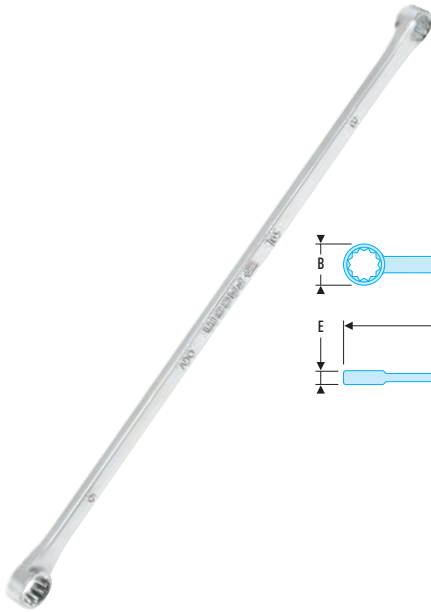
- Compatible with the Facom modular storage system:
  - Compatible with CHRONO XL, CHRONO+, JETXL and JET+ roller cabinets.



	H [mm]	Width I [mm]	L [mm]	Content set	Qty	$\Delta\Delta$ [kg]
<b>MOD.59LJ6</b>	40	175	418	PL.698	6	1,650

LONG AND CURT RING WRENCHES SERIES

59L - Metric long double ended ring wrenches

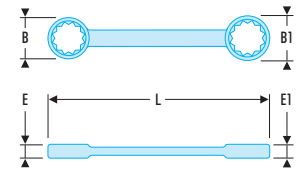
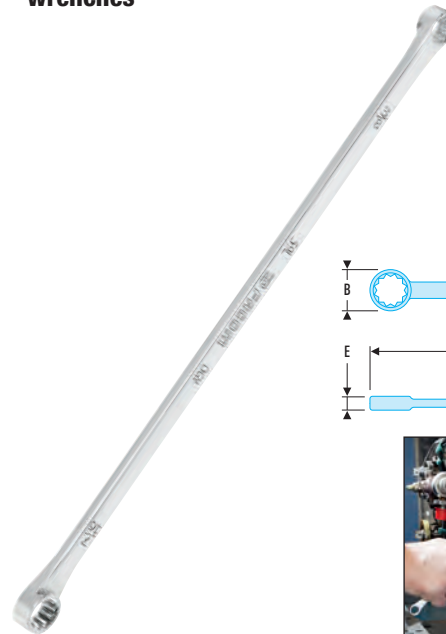


AS 955

- Offset box end for manoeuvrability in confined spaces.
- Metric dimensions: from 6 mm to 19 mm.
- Presentation: satin chrome finish.

🔗	A ["]	B [mm]	B1 [mm]	E [mm]	E1 [mm]	L [mm]	ΔΔ [g]
59L.6X7	6X7	10,2	11,6	6,3	7,3	200	60
59L.8X9	8X9	11,8	13,3	6,5	7,5	240	63
59L.10X11	10X11	14,6	16	7,5	8,7	288	98
59L.12X13	12X13	17,3	18,8	10,4	11,3	330	176
59L.14X15	14X15	20	21,5	12	13,7	364	258
59L.14X17	14X17	20	23,9	12	13,7	364	263
59L.18X19	18x19	25,3	26,5	14	15,1	405	369

59L - Inch long double ended ring wrenches



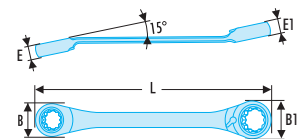
AS 954

- Offset box end for manoeuvrability in confined spaces.
- Dimensions in inches: from 1/4" to 13/16".
- Presentation: satin chrome finish.

🔗	A ["]	B [mm]	B1 [mm]	E [mm]	E1 [mm]	L [mm]	ΔΔ [g]
59L.1/4X5/16	1/4x5/16	10,2	11,6	6,3	7,3	200	60
59L.3/8X7/16	3/8x7/16	14,6	17,2	7,5	8,8	288	100
59L.1/2X9/16	1/2x9/16	18,8	20	12	13,7	364	176
59L.5/8X3/4	5/8x3/4	22,8	26,5	14	15,1	405	356
59L.11/16X13/16	11/16x13/16	25,4	30	17	18	410	369

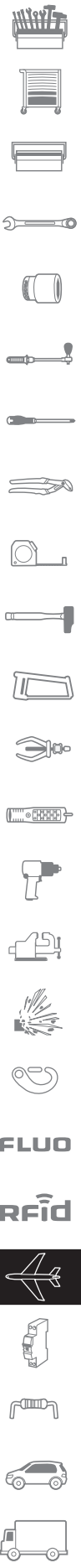
65 SPL - Spline 15° angled ratchet ring wrenches

- Spline profile 15° angled ring ratchets for aeronautical fasteners.
- The spline profile applies more torque with less strength as the tightening contact surface is higher.
- The contact points of a Spline wrench are always far from the nut's angles. This limits wear of the nuts.
- The Spline profile ensures high versatility. It is compatible with Spline, Torx, 4-, 6- and 12-point fasteners.
- Recess under the handle allows to pass fingers or an obstacle.
- Reversible compact lever ratchet mechanism.
- 5° increments (6° for sizes 7, 8 and 9).
- Spline sizes: 7 to 36
- Satin chrome finish.



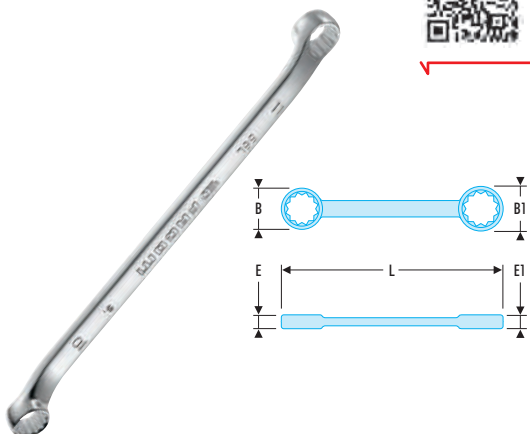
🔗	A ["]	B [mm]	B1 [mm]	E [mm]	E1 [mm]	L [mm]	ΔΔ [g]
65.7X9SPL	7/32x9/32	14	17	6,3	6,5	115	24
65.8X10SPL	1/4x5/16	14	17	6,3	6,5	115	30
65.12X14SPL	3/8x7/16	20,2	22	7,3	7,7	150	49
65.16X18SPL	1/2x9/16	25,5	26,9	8,6	9	180	99

🔗	A ["]	B [mm]	B1 [mm]	E [mm]	E1 [mm]	L [mm]	ΔΔ [g]
65.20X22SPL	5/8x11/16	29,8	31,8	9,9	10,3	200	165
65.24X28SPL	3/4x7/8	34	40,1	11,2	13	245	276
65.26X30SPL	13/16x15/16	40,1	46,5	13	14,5	260	294
65.32X36SPL	1x1P1/8	46	58,5	14,5	17	295	658



LONG- AND SHORT-REACH OFFSET-RING SERIES

56L - Long-reach metric offset ring wrenches with 10° angle

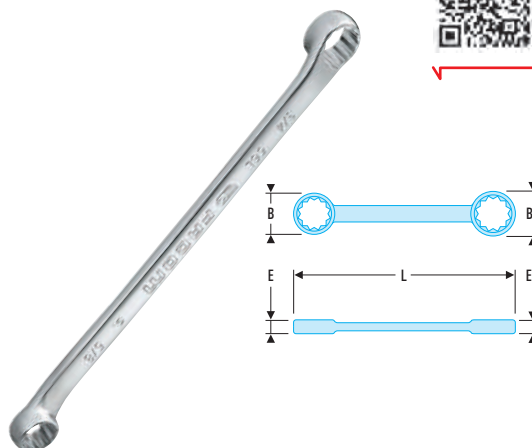


ISO 691, AS954, ISO 9227

- Short offset ring wrenches 10°. Recess allows to pass fingers or an obstacle.
- Ergonomic handle to apply torque while maintaining comfort of use.
- OGV® profile 12-point ring for powerful tightening while protecting the nut.
- Metric dimensions: 6 to 32 mm.
- Satin chrome finish.

➤	A [mm]	B x B1 [mm]	E x E1 [mm]	L [mm]	ΔΔ [g]
56L.6X7	6X7	12,5x10,5	5,90x6,50	170	46
56L.8X9	8X9	14,6x12,5	6,50x7,60	180	72
56L.10X11	10X11	17,0x15,5	8,50x9,00	185	81
56L.12X13	12X13	21,0x19,0	9,30x10,30	220	142
56L.14X15	14X15	23,3x21,0	10,30x11,50	230	162
56L.16X17	16X17	26,5x25,0	11,50x11,80	250	210
56L.17X19	17X19	27,5x25,6	11,80x12,80	270	250
56L.18X19	18X19	29,5x28,5	12,50x13,50	270	250
56L.20X22	20X22	32,2x29,9	13,50x14,50	300	361
56L.21X23	21X23	35,5x32,5	14,00x14,50	330	500
56L.24X27	24X27	40,0x36,2	14,50x16,00	370	604
56L.30X32	30X32	47,5x44,6	17,50x18,00	430	763

56L - Inch 10° hinged long-reach ring wrenches

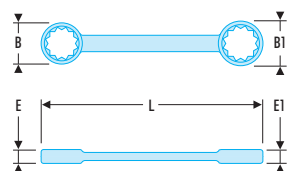


ASME B107.100

- Long-reach 10° offset-ring wrenches. Recess allows to pass fingers or an obstacle.
- Ergonomic handle to apply torque while maintaining comfort of use.
- OGV® profile 12-point ring for powerful tightening while protecting the nut.
- Inch sizes 3/16" to 13/16
- Satin chrome finish.

➤	A ["]	B x B1 [mm]	E x E1 [mm]	L [mm]	ΔΔ [g]
56L.1/4X5/16	1/4x5/16	10,5x12,5	5,9x6,5	170	48
56L.5/16X11/32	5/16x11/32	12,5x13,5	6,5x7,2	180	62
56L.5/16X3/8	5/16x3/8	12,5x14,6	6,5x7,6	180	70
56L.3/8X7/16	3/8x7/16	14,6x16,7	7,6x8,3	185	82
56L.7/16X1/2	7/16x1/2	16,7x19	8,3x9,3	210	108
56L.1/2X9/16	1/2x9/16	19x21	9,3x10,3	220	137
56L.9/16X5/8	9/16x5/8	21x23,3	10,3x11,5	230	158
56L.5/8X3/4	5/8x3/4	23,3x27,5	11,5x12,8	260	216
56L.11/16X3/4	11/16x3/4	25,6x27,5	11,8x12,8	270	256
56L.13/16X7/8	13/16x7/8	29,9x32,2	13,5x14,5	300	363
56L.15/16X1P	15/16x1"	34,5x36,8	15x15,5	340	502
56L.1Px1P1/16	1"x1"1/16	36,8x38,8	15,4x16	370	598
56L.1P1/8x1P1/4	1"1/8x1"1/4	40,8x45,2	16x18	400	762

56A - Inch 10° hinged short-reach ring wrenches



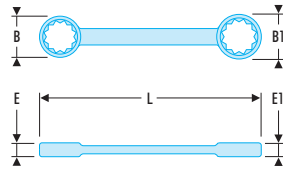
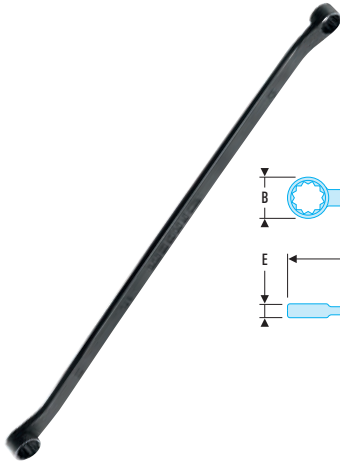
ASME B107.100

- Short-reach 10° offset-ring wrenches. Recess allows to pass fingers or an obstacle.
- The short-reach series increases accessibility.
- Ergonomic handle to apply torque while maintaining comfort of use.
- For 56A.3/16X7/32 6-point.
- OGV® profile 12-point ring for powerful tightening while protecting the nut.
- Inch sizes 3/16" to 13/16
- Satin chrome finish.

➤	A ["]	B x B1 [mm]	E x E1 [mm]	L [mm]	ΔΔ [g]
56A.3/16X7/32	3/16x7/32	8,7x9,5	5,4x5,9	100	24
56A.1/4X5/16	1/4x5/16	10,5x12,5	5,9x6,5	110	31
56A.5/16X3/8	5/16x3/8	12,5x14,6	6,5x7,6	115	45
56A.3/8X7/16	3/8x7/16	14,6x16,7	7,6x8,3	122	55
56A.7/16X1/2	7/16x1/2	16,7x19	8,3x9,3	130	68
56A.1/2X9/16	1/2x9/16	19x21	9,3x10,3	140	89
56A.9/16X5/8	9/16x5/8	21x23,3	10,3x11,5	145	103
56A.5/8X3/4	5/8x3/4	23,3x27,5	11,5x12,8	160	139
56A.11/16X13/16	11/16x13/16	25,6x29,9	11,8x13	170	170



57L - Metric 15° hinged long-reach offset-ring wrenches

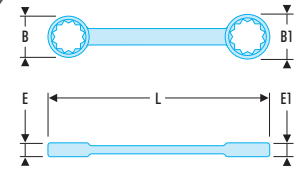
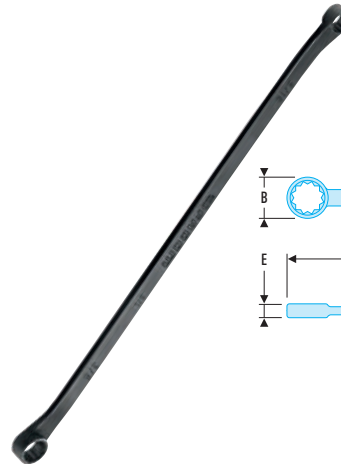


AS 955

- 15° thin wall long-reach offset-ring wrenches.
- Thin wall and long profile for maximum accessibility.
- Wrenches used in engine assembly and maintenance.
- OGV profile 12-point ring for powerful tightening.
- Sizes in mm: from 5.5 to 22
- Black phosphate finish.

➤	A [mm]	B x B1 [mm]	E x E1 [mm]	H [mm]	L [mm]	ΔΔ [g]
57L.5.5X7	5,5x7	9,5x10,7	6,3x7,3	4	191.8	50
57L.8X9	8x9	11,8x13,3	6,5x7,5	4	231.7	60
57L.8X10	8x10	11,8x14,6	6,5x7,5	4	231.7	66
57L.10X11	10x11	14,6x16	7,5x8,7	4	276.4	103
57L.10X12	10x12	14,6x17,3	7,5x8,7	4	276.4	105
57L.12X13	12x13	17,3x18,8	10,4x11,3	5	317.3	162
57L.12X14	12x14	17,3x18,8	10,4x11,3	5	317.3	181
57L.14X17	14x17	20x23,9	12x14	6	350.4	270
57L.17X19	17x19	23,9x26,5	14x15,1	7	390.3	360
57L.18X20	18x20	25,4x30,6	14x15,1	8	409.7	400
57L.19X22	19x22	28,5x31	16,7x17	8	409.7	425
57L.20X22	20x22	28,5x31	16,7x17	8	409.7	454

57L - Inch 15° hinged long-reach offset-ring wrenches



AS 954G

- 15° thin wall long-reach offset-ring wrenches.
- Thin wall and long profile for maximum accessibility.
- Wrenches used in engine assembly and maintenance.
- OGV profile 12-point ring for powerful tightening.
- Inch sizes 7/32" to 7/8
- Black phosphate finish.

➤	A ["]	B x B1 [mm]	E x E1 [mm]	H [mm]	L [mm]	ΔΔ [g]
57L.7/32x1/4	7/32x1/4	9,5x10,7	6,3x7,3	4	191.8	42
57L.1/4x5/16	1/4x5/16	10,2x11,6	6,3x7,3	4	191.8	42
57L.5/16x3/8	5/16x3/8	11,8x14,6	6,5x7,5	4	231.7	60
57L.3/8x7/16	3/8x7/16	14,6x17,3	7,5x8,7	4	276.4	105
57L.7/16x1/2	7/16x1/2	17,3x18,8	10,4x11,3	5	317.3	185
57L.1/2x9/16	1/2x9/16	18,8x20	12x13,7	6	350.4	272
57L.9/16x5/8	9/16x5/8	20x22,8	13,7x14	6	350.4	278
57L.5/8x3/4	5/8x3/4	22,8x26,5	14x15,1	7	390.3	393
57L.11/16x13/16	11/16x13/16	25,4x30	14x15,1	8	396.1	503
57L.25/32x7/8	25/32x7/8	28,5x31	16,7x17	8	409.7	529

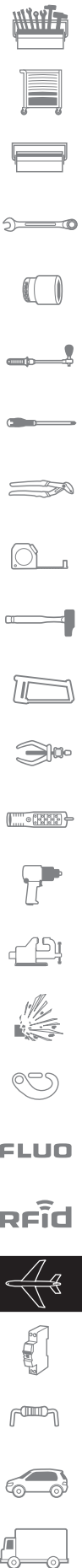
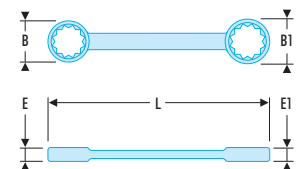
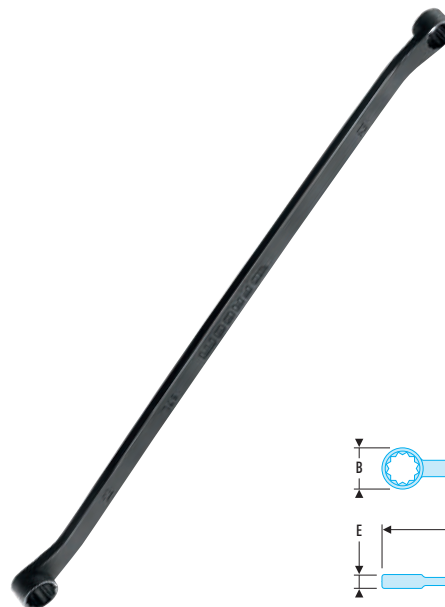
57L.SPL - Spline 15° hinged long-reach offset-ring wrenches



AS 954G MS-33787 MIL-W-8982

- Spline profile 15° angled long wall offset-ring ratchets for aeronautical fasteners.
- Thin wall and long profile for maximum accessibility.
- Wrenches used in engine assembly and maintenance.
- The spline profile applies more torque with less strength as the tightening contact surface is higher.
- The contact points of a Spline wrench are always far from the nut's angles. This limits wear of the nuts.
- The Spline profile ensures high versatility. It is compatible with Spline, Torx, 4-, 6- and 12-point fasteners.
- Spline sizes: from 7 to 32
- Black phosphate finish.

➤	B [mm]	B x B1 [mm]	E x E1 [mm]	H [mm]	L [mm]	ΔΔ [g]
57L.7X9SPL	7/32x9/32	9,5x10,7	6,3x7,3	3.8	191.8	44
57L.8X10SPL	1/4x5/16	10,2x11,6	6,3x7,3	3.8	191.8	46
57L.12X14SPL	3/8x7/16	14,6x17,3	7,5x8,7	4	276.4	100
57L.16X18SPL	1/2x9/16	18,8x20	12x13,7	5.7	350.4	269
57L.18X20SPL	9/16x5/8	21,1x23,4	12x13,7	5.7	350.4	274
57L.22X24SPL	11/16x3/4	25,4x30	14x15,1	7.8	396.1	490
57L.26X30SPL	13/16x15/16	29,9x34,5	14,2x15,6	7.8	431	550
57L.28X32SPL	7/8x1P	32,2x36,8	15x16	7.8	431	590



SOCKETS 1/4"

SPLINE PROFILE WRENCHES AND SOCKETS

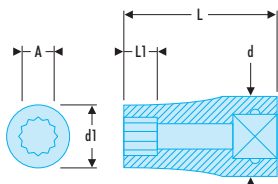
# THE SPLINE PROFILE IS SUITED TO SEVERAL TYPES OF PATTERNS

### Characteristics and benefits

- SPLINE wrenches and sockets are versatile products more effective than standard wrenches.
- A SPLINE wrench can replace many others as its profile is compatible with many patterns existing in the market.
- The contact points of a SPLINE wrench are always away from the nut angles. This reduces the risk of damaging the nut.
- On damaged nuts, locking is better as the SPLINE profile drives the nut on its flat part.



▪ R.S - 1/4" Spline sockets

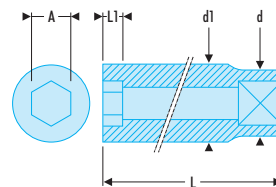


MIL-W-8982

- Profile adapted to aerospace fasteners.
- The Spline profile ensures high versatility. It is compatible with Spline, Torx, 4-, 6- and 12-point fasteners. Ensures more effective tightening with less effort.
- Thin wall.
- High performance level.
- Chrome finish.

▣	A ["]	d [mm]	d1 [mm]	L [mm]	L1 [mm]	ΔΔ [g]
R.7S	7/32	12	8.7	22	3.9	9
R.8S	1/4	12	9.5	22	4.3	9
R.9S	9/32	12	12	22	4.5	11
R.10S	5/16	12	12	22	5.5	13
R.12S	3/8	14.2	14.2	25	5.5	17
R.14S	7/16	16	14.2	25	7.8	22

▪ R.SEL - 1/4" Spline long-reach sockets



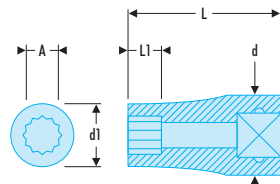
MIL-W-8982

- Profile adapted to aerospace fasteners.
- The Spline profile ensures high versatility. It is compatible with Spline, Torx, 4-, 6- and 12-point fasteners. Ensures more effective tightening with less effort.
- Thin wall and long-reach for long recess or thread access.
- High performance level.
- Chrome finish.

▣	A ["]	d [mm]	d1 [mm]	L [mm]	L1 [mm]	ΔΔ [g]
R.8SEL	1/4	12	9.5	50	4.3	20
R.10SEL	5/16	12	12	50	5.5	24

3/8" SOCKETS

J.S - 3/8" Spline sockets

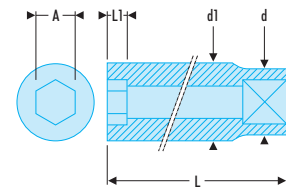


MIL-W-8982

- Profile adapted to aerospace fasteners.
- The Spline profile ensures high versatility. It is compatible with Spline, Torx, 4-, 6- and 12-point fasteners. Ensures more effective tightening with less effort.
- Thin wall.
- High performance level.
- Bright chrome finish.

⊞	A ["]	d [mm]	d1 [mm]	L [mm]	L1 [mm]	ΔΔ [g]
J.12S	3/8	17	14	27	5.5	20
J.14S	7/16	17.5	16	27	7.8	25
J.16S	1/2	18.5	18.5	27	7.8	29
J.18S	9/16	20.6	20.6	27	8	37
J.20S	5/8	22.8	22.8	30	10.7	45

J.SEL - 3/8" Spline long-reach sockets



MIL-W-8982

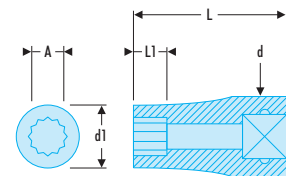
- Profile adapted to aerospace fasteners.
- The Spline profile ensures high versatility. It is compatible with Spline, Torx, 4-, 6- and 12-point fasteners. Ensures more effective tightening with less effort.
- Thin wall.
- High performance level.
- Bright chrome finish.

⊞	A ["]	d [mm]	d1 [mm]	L [mm]	L1 [mm]	ΔΔ [g]
J.12SEL	3/8	17	14	63	5.5	47
J.14SEL	7/16	17.5	16	63	7.8	64
J.16SEL	1/2	18.5	18.5	63	7.8	70
J.18SEL	9/16	20.6	20.6	63	8	88

3/8" Spline impact socket 14 (7/16")

MIL-W-8982 MS-33787

- Aerospace dedicated socket: maintenance, fitting/removing engines of the CFM56 series.
- Black phosphate finish.



⊞	A ["]	d [mm]	L [mm]	L1 [mm]	ΔΔ [g]
NJ.14S	7/16	18.9	29.5	7.8	34



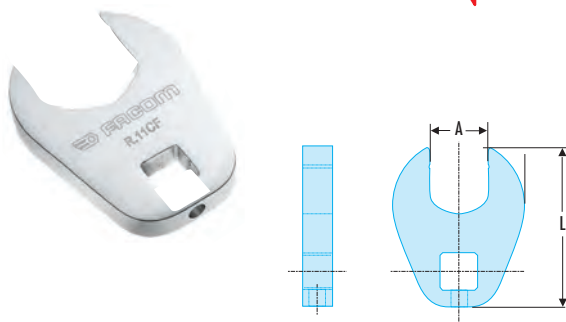
FLUO

RFid



1/4" CROWFOOT BITS

R.CF - 1/4" metric crowfoot end bits

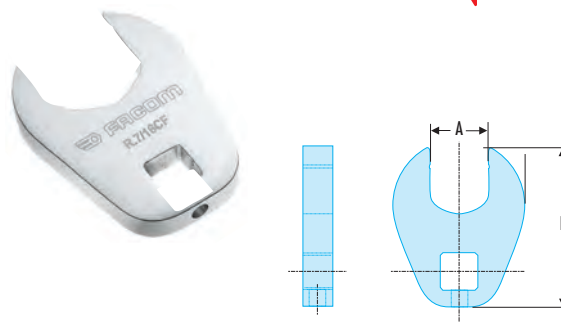


ASME B107.100

- Anti-slip design ensuring proper fitting on the fastener.
- Shaped to distribute the contact force over a larger surface.
- Suitable for use in confined spaces.
- Adapted to low torque uses.
- Sizes in mm: from 7 to 14
- Bright chrome finish.

Part No.	A [mm]	E [mm]	L [mm]	L1 [mm]	ΔΔ [g]
R.7CF	7	5.5	23.6	13.2	9
R.8CF	8	5.5	24.9	16.5	9
R.9CF	9	5.5	25.9	18.3	11
R.10CF	10	5.5	26.8	19.6	14
R.11CF	11	5.5	28.7	22.1	18
R.12CF	12	5.5	29.8	25.4	23
R.13CF	13	5.5	30.3	26.2	25
R.14CF	14	5.5	32.3	27.9	27

R.CF - 1/4" inch crowfoot open end bits

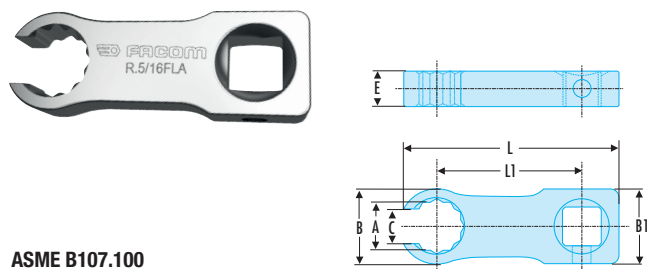


ASME B107.100

- Anti-slip design ensuring proper fitting on the fastener.
- Shaped to distribute the contact force over a larger surface.
- Suitable for use in confined spaces.
- Adapted to low torque uses.
- Inch sizes: from 1/4" to 9/16".
- Bright chrome finish.

Part No.	A ["]	E [mm]	L [mm]	L1 [mm]	ΔΔ [g]
R.1/4CF	1/4	5.5	23.1	13.5	9
R.5/16CF	5/16	5.5	24.8	16.5	14
R.3/8CF	3/8	5.5	26.4	19.8	16
R.7/16CF	7/16	5.5	28	22.1	18
R.1/2CF	1/2	5.5	29.6	26.2	23
R.9/16CF	9/16	5.5	31.2	28.4	25

R.FLA - 1/4" inch crowfoot box end bits

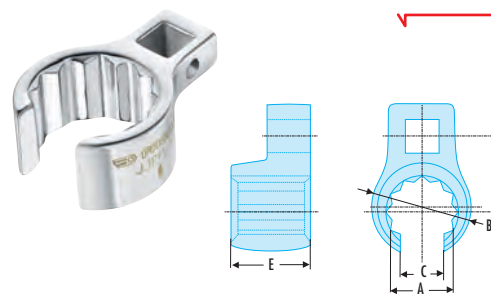


ASME B107.100

- Thin wall 12-point head.
- Max torque recommended: 8.5 N.m.
- Built to aeronautical specifications.
- Inch sizes: from 1/4" to 3/8".
- Bright chrome finish.

Part No.	A ["]	B [mm]	C [mm]	E [mm]	L1 [mm]	ΔΔ [g]
R.1/4FLA	1/4	11.9	4.5	5.9	36.3	13
R.5/16FLA	5/16	13.3	5.8	5.9	36.8	12.5
R.3/8FLA	3/8	15.7	7	5.9	38	14

J.FL - 3/8" inch crowfoot box end bits

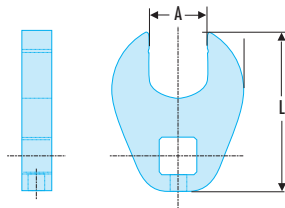


ASME B107.100

- Thin wall 12-point high head for better accessibility.
- Adapted to use in confined spaces inaccessible to ratchets and other wrenches.
- The hole in the drive bit secures the bit during use.
- Built to aeronautical specifications.
- Dimensions in inches: 5/8 to 1P1/16.
- Bright chrome finish.

Part No.	A ["]	B [mm]	C [mm]	L [mm]	ΔΔ [g]
J.5/8FL	5/8	24.6	18.3	38	40
J.11/16FL	11/16	27	18.3	41	46
J.3/4FL	3/4	29.4	19.1	43	54
J.13/16FL	13/16	31.4	19.1	45	58
J.7/8FL	7/8	33.7	19.8	48	68
J.15/16FL	15/16	35.7	19.8	49	72
J.1PFL	1P	37.7	20.6	51	74
J.1P1/16FL	1P1/16	39.7	20.6	53	83

■ J.CF - 3/8" metric crowfoot open end bits



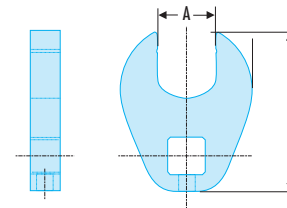
ASME B107.100

- Anti-slip design ensuring proper fitting on the fastener.
- Shaped to distribute the contact force over a larger surface.
- Suitable for use in confined spaces.
- Adapted to low torque uses.
- Sizes in mm: from 8 to 32
- Bright chrome finish.

➤	A [mm]	E [mm]	L [mm]	L1 [mm]	ΔΔ [g]
J.8CF	8	8	33.8	22.9	20
J.9CF	9	8	33.6	22.9	22
J.10CF	10	8	34.2	23.6	25
J.11CF	11	8	34.8	23.6	32
J.12CF	12	8	37.4	27.9	35
J.13CF	13	8	37.9	27.9	37
J.14CF	14	8	38.5	30	40
J.15CF	15	8	41.1	34.3	45
J.16CF	16	8	42.2	34.3	49
J.17CF	17	8	43.6	35.8	54
J.18CF	18	8	48.9	40.9	59
J.19CF	19	8	49.5	40.9	61
J.20CF	20	8	52.5	40.9	63
J.21CF	21	8	53.4	43.9	65
J.22CF	22	8	56.3	43.9	68
J.23CF	23	8	59.4	51.3	75
J.24CF	24	8	60.7	51.3	80
J.27CF	27	8	59.8	51.3	90
J.30CF	30	8	62.4	54	100
J.32CF	32	8	61.8	54	110



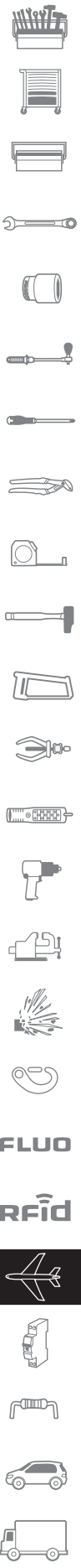
■ J.CF - 3/8" inch crowfoot open end bits



ASME B107.100

- Anti-slip design ensuring proper fitting on the fastener.
- Shaped to distribute the contact force over a larger surface.
- Suitable for use in confined spaces.
- Adapted to low torque uses.
- Inch sizes: from 3/8" to 3"
- Bright chrome finish.

➤	A ["]	E [mm]	L [mm]	L1 [mm]	ΔΔ [g]
J.3/8CF	3/8	8	32.3	23.4	27
J.7/16CF	7/16	8	33.1	23.4	29
J.1/2CF	1/2	8	35.8	27.9	32
J.9/16CF	9/16	8	40	31.5	35
J.5/8CF	5/8	8	42.1	34.3	41
J.11/16CF	11/16	8	47.5	39.1	45
J.3/4CF	3/4	8	48.5	40.4	50
J.13/16CF	13/16	8	50	43.7	52
J.7/8CF	7/8	8	51.3	45.2	54
J.15/16CF	15/16	8	52.8	45.7	59
J.1PCF	1P	8	54.1	50.8	70
J.1P1/16CF	1P1/16	8	55.3	53.1	109
J.1P1/8CF	1P1/8	8	56	53.1	115
J.1P3/16CF	1P3/16	8	57.6	53.8	120
J.1P1/4CF	1P1/4	8	59.5	54.6	122
J.1P5/16CF	1P5/16	8	61.9	54.6	125
J.1P3/8CF	1P3/8	8	63.4	61	131
J.1P7/16CF	1P7/16	8	65.3	61	135
J.1P1/2CF	1P1/2	8	67.8	65.8	150
J.1P9/16CF	1P9/16	8	69.3	65.8	154
J.1P5/8CF	1P5/8	8	71.2	69.1	163
J.1P11/16CF	1P11/16	8	73.6	69.1	172
J.1P3/4CF	1P3/4	8	74.5	73.7	177
J.1P13/16CF	1P13/16	8	76.9	73.7	181
J.1P7/8CF	1P7/8	8	77.9	81.3	204
J.1P15/16CF	1P15/16	8	81.1	84.8	222
J.2PCF	2P	11.1	85.2	88.1	322
J.2P1/16CF	2P1/16	11.1	86.8	88.1	331
J.2P1/8CF	2P1/8	11.1	90	91.2	336
J.2P3/16CF	2P3/16	11.1	91.7	92.7	354
J.2P1/4CF	2P1/4	11.1	93.3	99.1	404
J.2P5/16CF	2P5/16	11.1	95	100.8	408
J.2P3/8CF	2P3/8	11.1	99.6	105.4	458
J.2P7/16CF	2P7/16	11.1	103.7	105.4	467
J.2P1/2CF	2P1/2	11.1	106.9	108.7	499
J.2P9/16CF	2P9/16	11.1	108.5	110.2	503
J.2P5/8CF	2P5/8	11.1	112.5	116.6	576
J.2P11/16CF	2P11/16	11.1	114.5	119.9	608
J.2P3/4CF	2P3/4	11.1	117.6	121.4	621
J.2P13/16CF	2P13/16	11.1	121.5	121.4	626
J.2P7/8CF	2P7/8	11.1	123.3	129.3	689
J.2P15/16CF	2P15/16	11.1	124.9	130.8	703
J.3PCF	3P	11.1	125.7	130.8	717



## SETS OF 1/4" - 3/8" CROWFOOT PROFILE

## Set of 1/4" metric crowfoot open end bits



Includes:

- 8 x 1/4" Crowfoot metric-size open end bits:  
R.7CF - 8CF - 9CF - 10CF - 11CF - 12CF - 13CF - 14CF.
- Foam tray: PM.RJ8CF.
- Empty case: BP.102.

ED	H [mm]	L [mm]	P [mm]	Qty	ΔΔ [g]
R.J8CF	50	200	115	8	294

## Set of 1/4" inch crowfoot open end bits



Includes:

- 6 x 1/4" crowfoot inch-size open end bits:  
R.1/4CF - 5/16CF - 3/8CF - 7/16CF - 1/2CF - 9/16CF .
- Foam tray: PM.RJ6CFU.
- Empty case: BP.102.

ED	H [mm]	L [mm]	P [mm]	Qty	ΔΔ [g]
R.J6CFU	50	200	125	6	264

## 3/8" CROWFOOT PROFILE BITS

## Set of 3/8" metric crowfoot open end bits



Includes:

- 14 x 3/8" Crowfoot metric-size open end bits:  
J.10CF - 11CF - 12CF - 13CF - 14CF - 15CF - 16CF -  
17CF - 18CF - 19CF - 21CF - 22CF - 23CF - 24CF.
- Foam tray: PM.JJ14CF.
- Empty case: BP.112.

ED	H [mm]	L [mm]	P [mm]	Qty	ΔΔ [kg]
J.J14CF	65	385	165	14	1.4

▪ **Set of 3/8" inch crowfoot open end bits**

Comprises:

- 11 x 3/8" Crowfoot inch-size open end bits: J.3/8CF - 7/16CF - 1/2CF - 9/16CF - 5/8CF - 11/16CF - 3/4CF - 13/16CF - 7/8CF - 15/16CF - 1PCF.
- Foam tray: PM.JJ11CFU.
- Empty case: BP.112.



	H [mm]	L [mm]	P [mm]	Qty	ΔΔ [kg]
J.J11CFU	65	385	165	11	1.2

▪ **Set of 3/8" inch flare-nut bits**

Comprises:

- 8 x 3/8 piping Crowfoot inch-size open end bits: J.5/8FL - 11/16FL - 3/4FL - 13/16FL - 7/8FL - 15/16FL - 1PFL - 1P1/16FL.
- Foam tray: PM.JJ8FLU.
- Empty case: BP.115.



	H [mm]	L [mm]	P [mm]	Qty	ΔΔ [g]
J.J8FLU	65	335	150	8	915

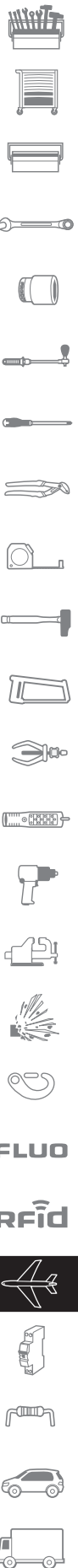
▪ **Set of 9 3/8" to spline adaptors**

Includes:

- 11 metric-size open end bits 3/8": J.7SPR - 8 - 9 - 10 - 12 - 14 - 16 - 18 - 20.
- Foam tray: PM.JJ9SPR.
- Empty case: BP.115.



	H [mm]	L [mm]	P [mm]	ΔΔ [g]
J.J9SPR	70	327	150	970



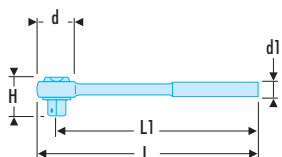
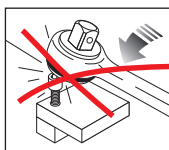
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RATCHETS 1/4"

1/4" Fluo Hi-Lok® ratchet



ISO 3315

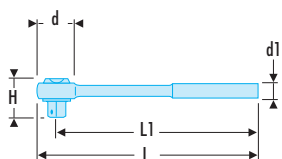
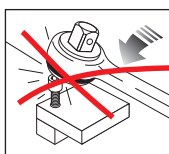
- Specific ratchet for use on Hi-Lok®, Hi-Lite® or Hi-Tigue® rivets.
- The sockets are locked onto square drive by a metal clip.
- Hole in the ratchet head to insert a key to lock the fastener during the tightening phase.
- Highly compact head for better accessibility.
- 1/4" square drive bit.
- 72 tooth mechanism for 5° increments.
- Detect the tool thanks to its fluorescence, activated by a lamp or UV neon light. Detectable in black or dark environment up to 5 metres.



ED	d [mm]	d1 [mm]	L [mm]	L1 [mm]	ΔΔ [g]
RL.161HLF	22	20	120	110	80

RATCHETS 3/8"

3/8" Fluo Hi-Lok® ratchet



ISO 3315

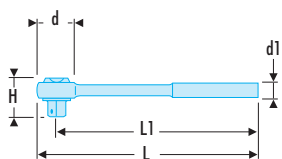
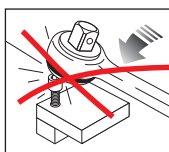
- Specific ratchet for use on Hi-Lok®, Hi-Lite® or Hi-Tigue® rivets.
- The sockets are locked onto square drive by a metal clip.
- Hole in the ratchet head to insert a key to lock the fastener during the tightening phase.
- Highly compact head for better accessibility.
- 3/8" square drive bit.
- 72 tooth mechanism for 5° increments.
- Detect the tool thanks to its fluorescence, activated by a lamp or UV neon light. Detectable in dark environments up to 5 metres.



ED	d [mm]	d1 [mm]	H [mm]	L [mm]	L1 [mm]	ΔΔ [g]
JL.161HLF	29	27	29	210	195	200

RATCHETS 1/2"

1/2" Fluo Hi-Lok® ratchet



ISO 3315

- Specific ratchet for use on Hi-Lok®, Hi-Lite® or Hi-Tigue® rivets.
- The sockets are locked onto square drive by a metal clip.
- Hole in the ratchet head to insert a key to lock the fastener during the tightening phase.
- Highly compact head for better accessibility.
- 1/2" square drive bit.
- 72 tooth mechanism for 5° increments.
- Detect the tool thanks to its fluorescence, activated by a lamp or UV neon light. Detectable in dark environments up to 5 metres.

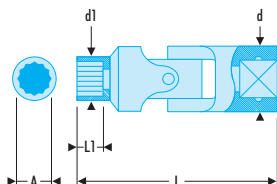


ED	d [mm]	d1 [mm]	H [mm]	L [mm]	L1 [mm]	ΔΔ [g]
SL.161HLF	37	32	37	262	245	446



SOCKETS 1/4"

R.F - 1/4" drive hinged 12-point sockets

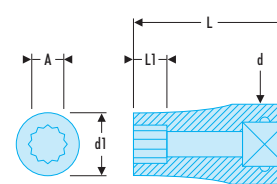


ASME B107.110

- OGV® profile: more powerful tightening, preserves fasteners.
- Compact solution used instead of universal joint.
- Finish: bright chrome.

Size	A ["]	d [mm]	d1 [mm]	L [mm]	L1 [mm]	Teeth [mm]	ΔΔ [g]
R.3/16F	3/16	13	8,0	31,6	5,3	12	13
R.7/32F	7/32	13	8,5	32,4	6,1	12	13
R.1/4F	1/4	13	9,8	32,8	6,5	12	13
R.9/32F	9/32	13	10,5	32,8	6,5	12	13
R.5/16F	5/16	13	12,0	33,3	7,0	12	14
R.11/32F	11/32	13	13,3	33,3	7,0	12	16
R.3/8F	3/8	13	13,7	34,6	8,3	12	21
R.7/16F	7/16	13	15,5	35,8	9,5	12	27
R.1/2F	1/2	13	18,0	36,8	10,5	12	34
R.9/16F	9/16	13	19,2	36,8	10,5	12	35

RB - 1/4" drive inch 12-point thin wall sockets



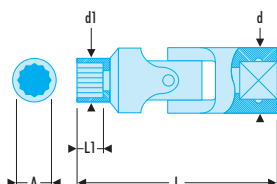
ASME B107.110

- OGV® profile: more powerful tightening, preserves fasteners.
- Thin-wall for better access, conform with aeronautical standards.
- Finish: bright chrome.

Size	A ["]	d [mm]	d1 [mm]	L [mm]	L1 [mm]	Teeth [mm]	ΔΔ [g]
RB.3/16	3/16	11,2	7,6	22	4,8	12	7
RB.7/32	7/32	11,2	8,7	22	5,5	12	8
RB.1/4	1/4	11,2	9,7	22	6,0	12	8
RB.9/32	9/32	11,2	10,6	22	6,0	12	10
RB.5/16	5/16	11,9	11,9	22	6,5	12	10
RB.11/32	11/32	12,9	12,9	22	6,5	12	11
RB.3/8	3/8	13,7	13,7	22	7,8	12	14
RB.7/16	7/16	14,8	15,8	22	9,0	12	17
RB.1/2	1/2	16,0	16,9	22	10,0	12	18
RB.9/16	9/16	17,5	18,7	22	10,0	12	22

3/8" SOCKETS

J.F - 3/8" drive hinged inch 12-point sockets

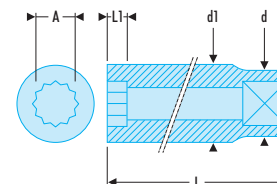


ASME B107.110

- OGV® profile: more powerful tightening, preserves fasteners.
- Compact solution used instead of universal joint.
- Finish: bright chrome.

Size	A ["]	d [mm]	d1 [mm]	L [mm]	L1 [mm]	Teeth [mm]	ΔΔ [g]
J.3/8F	3/8	19	14,0	27	8,3	12	26
J.7/16F	7/16	19	15,8	27	9,8	12	27
J.1/2F	1/2	19	18,3	30	11,3	12	36
J.9/16F	9/16	19	19,5	30	11,3	12	34
J.5/8F	5/8	19	22,0	30	12,8	12	46
J.11/16F	11/16	19	24,00	33	13,8	12	74
J.3/4F	3/4	19	25,8	33	15,8	12	76

JB - 3/8" inch 12-point sockets



ASME B107.110

- OGV® profile: more powerful tightening, preserves fasteners.
- Built to aeronautical specifications.
- Finish: bright chrome.

Size	A ["]	d [mm]	d1 [mm]	L [mm]	L1 [mm]	Teeth [mm]	ΔΔ [g]
JB.1/4	1/4	16,7	9,7	27	6,0	12	20
JB.5/16	5/16	16,7	11,7	27	6,8	12	21
JB.11/32	11/32	16,7	12,7	27	6,8	12	22
JB.3/8	3/8	16,7	13,7	27	7,5	12	23
JB.7/16	7/16	16,7	15,6	27	9,0	12	24
JB.1/2	1/2	16,7	17,6	30	10,4	12	27
JB.9/16	9/16	18,5	19,6	30	10,5	12	33
JB.5/8	5/8	20,0	21,6	30	12,0	12	42
JB.11/16	11/16	22,0	23,6	32	13,0	12	50
JB.3/4	3/4	22,8	25,4	32	15,0	12	55
JB.13/16	13/16	24,0	27,4	32	16,0	12	68
JB.7/8	7/8	24,0	29,4	32	16,0	12	68



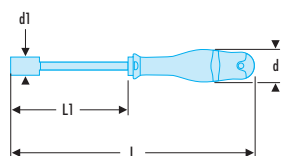
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SCREWDRIVERS

■ **PROTWIST® ratchet blade holder screwdriver + 15 bits**



- High quality 45-teeth ratchet = fast screwing, accuracy, strength and longevity.
- 3-position bush: screwing, unscrewing and locking (hand selection).
- Storage cap for charger.
- Cap can be used as mini bit holder for use in confined spaces.
- Partially hollow handle to store more bits or screws.
- Bimaterial ergonomic handle for comfortable and reliable screwing.
- Very low blade return torque.
- Powerful magnetic adapter allowing the magnet to hold the bit and screw.
- Magnetised central storage of chargers serves as additional mini bit holder.
- Including 2 chargers:
  - 1 charger containing 7 screw bits + 1 separate: ' 4 - 6,5 ; ( PH.1 - PH.2 ; § PZ.1 - PZ.2 ; 3 4 - 6.
  - 1 transparent charger containing 7 Resistorx bits

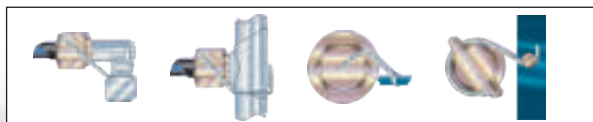
	d [mm]	d1 [mm]	L [mm]	L1 [mm]
<b>ACL.1A</b>	38.1	10	225	100

**FACOM LOCKING-WIRE PLIERS**



**Fast twist in lock-wire securing assemblies subject to vibration.**

- For stainless and Inconel wire Ø 1 mm.
- Lateral wire cutter.
- Slim nose-tip for optimum manoeuvrability.
- 10" model: 3 turns, 125 mm travel.
- 8" model: 2.5 turns, 95 mm travel.



**Automatic model**

- Automatic-reset model for simplicity and time-saving.

**Reversible model**

- For working in either direction.



- 1 - Both wire ends gripped in nose. Lock the pliers.
- 2 - Pull the knob: the wire is twisted. Push the knob for more travel if required.
- 3 - Finish job with side cutter.

**AERO PLIERS**

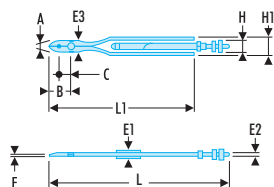
**LOCKING-WIRE PLIERS**

■ **Short locking-wire pliers 8"**



**ASME B107.500**

- 445.8R = "automatic" model.
- 445.8DS = "reversible" model.
- Side wire-cutter: stainless steel diameter 1 mm.
- 2.5 turns: 95 mm length.

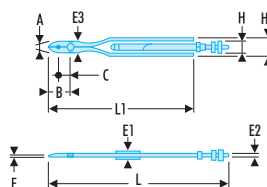


	A [mm]	B [mm]	C [mm]	E [mm]	E1 [mm]	E2 [mm]	E3 [mm]	H [mm]	H1 [mm]	L [mm]	L1 [mm]	ΔΔ [g]
<b>445.8R</b>	3	20	7	2,5	15	10,5	15	22	37	215	170	245
<b>445.8DS</b>	3	22	9	2,2	15	29,8	14	30	41	284	170	320

Locking-wire pliers 10"

ASME B107.500

- 445.10R = "automatic" model.
- 445.10DS = "reversible" model.
- Side wire-cutter: stainless steel diameter 1 mm.
- 3 turns: 125 mm length.



	A [mm]	B [mm]	C [mm]	E [mm]	E1 [mm]	E2 [mm]	E3 [mm]	H [mm]	H1 [mm]	L [mm]	L1 [mm]	ΔΔ [g]
445.10R	3	30	11	2,5	15,5	11,5	19	25	40	360	230	400
445.10DS	3	30	11	2,2	15,5	29,8	19	30	45	360	230	450

AEROSPACE

Inspection creeper

- High density foam padded vinyl headrest resistant to automotive fluid.
- Frame made of ovoid-shape tube: no protruding angle to improve comfort and better wheel fastening.
- Maximum height: 100 mm.
- Max. chassis load: 150 kg.
- 6 wheels.
- Dimensions (L. x W.): 1010 x 630 mm.



	Width l [mm]	L [mm]	ΔΔ [kg]
DTS.1B	630	1010	8.2

Heavy-duty inspection creeper

- Adjustable headrest.
- Tool tray.
- High density foam padded vinyl headrest resistant to automotive fluid.
- Maximum height: 100 mm.
- Max. chassis load: 150 kg.
- 6 wheels.
- Dimensions: 101 x 63 cm.



	Width l [mm]	L [mm]	ΔΔ [kg]
DTS.2B	630	1010	10.0

Mid-height work seat

- Ideal for working on wheels, brakes and bodywork.
- Thick heavy-duty PVC padding.
- Stability ensured by 4 wheels diameter 75 mm.
- Magnetic surface for fasteners and small components.
- Overall height: 590 mm.
- Seat height: 420 mm.
- Dimensions (L. x W.): 463 x 430 mm.



	H [mm]	Width l [mm]	L [mm]	ΔΔ [kg]
DTS.4A	590	630	1010	5.5



INSPECTION MIRRORS

834A.R - Flexible mirrors

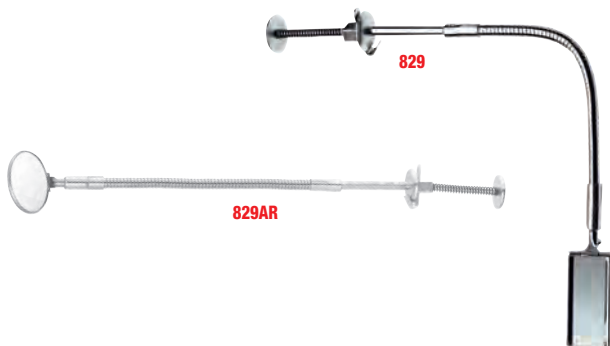


- Flexible mirror adapting to all types of parts.
- Hinged head for enhanced visibility in cluttered locations.



➤	d [mm]	L [mm]	ΔΔ [g]
834A.R	70x45	308	44

829 - Orientable flexible mirrors



- Orientable flexible mirror.
- The mirror turns when pressing the buttons on the handle.



➤	d [mm]	L [mm]	ΔΔ [g]
829	70x45	495	225
829AR	55	480	224

834B.RTI - Telescopic mirrors

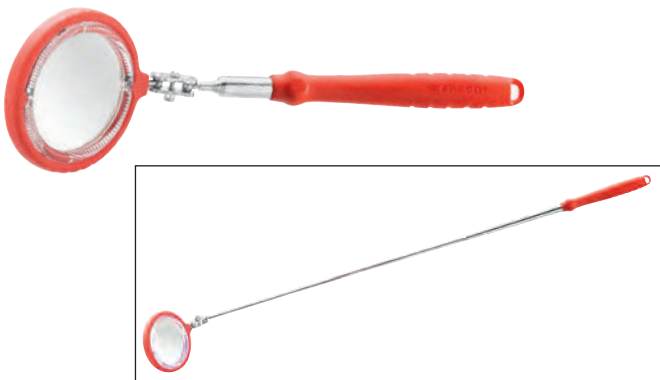


- Mirror with LED back lighting for better visibility in dark areas.
- Scratch resistant glass.
- Molded plastic rim around the glass to protect parts worked on and ensure mirror durability.
- Joint easily adjustable, even locks, by screw.
- Ergonomic plastic handle resists to solvents: Skydroll, diesel fuel, etc.
- Max length 850 mm.



➤	d [mm]	L [mm]	ΔΔ [g]
834B.RTI	55	955	78
834B.RTIS	33	935	68
834B.RTIR	70x54	970	88

Telescopic mirror with magnifying effect



- Mirror with magnifying effect.
- Scratch resistant glass.
- Molded plastic rim around the glass to protect parts worked on and ensure mirror durability.
- Joint easily adjustable, even locks, by screw.
- Ergonomic plastic handle resists to solvents: Skydroll, diesel fuel, etc.
- Max length 850 mm.

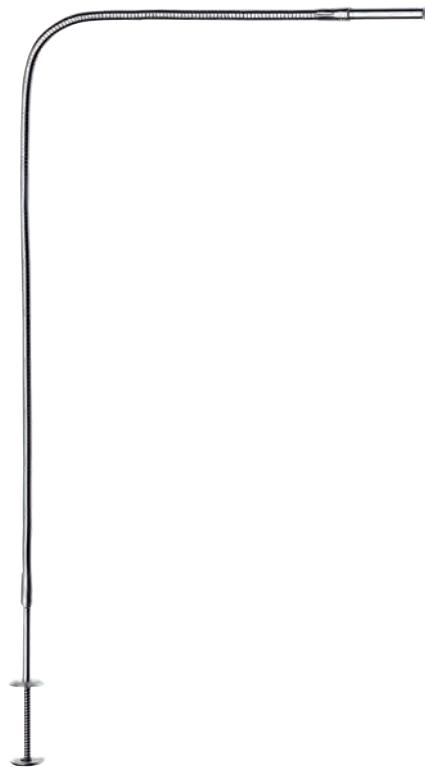


➤	ΔΔ [g]
834B.RTIM	78

INSPECTION MIRRORS

Flexible mechanical retriever 1000 mm

- Max nose opening diameter: 29 mm.
- Length: 1000 mm.



Icon	L [mm]	ΔΔ [g]
826.2	1000	400

"Luminous" flexible magnetic retriever

- Magnet diameter: 15 mm.
- Max lifted weight: 1.2 kg.
- LR1 battery.



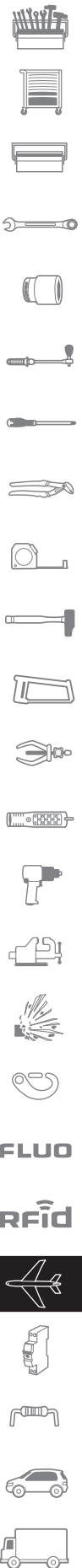
Icon	L [mm]	ΔΔ [g]
828	590	220

Extra-thin flexible magnetic finger

- Flexible and long head diameter model.
- Maximum supported weight: 120 g.



Icon	L [mm]	ΔΔ [g]
827.1	530	80



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# ELECTRICITY



## CABLE-SHEATH STRIPPERS

926

- Cable-sheath strippers 926
- Multifunction sheath strippers 928



## WIRE STRIPPERS

929

- Automatic wire strippers 929
- Automatic lateral wire strippers 930
- End wire strippers 931



## CRIMPING PLIERS

932

- Pre-insulated terminal crimping pliers 932
- Tubular terminal and sleeve crimping pliers 935
- Crimping dies 936
- Open core connector crimping pliers 937
- Wire end crimping pliers 937
- Transmission connectors crimping pliers 938
- Terminal sets 939



## WIRING TOOLS

940

- Sleeving pliers 940
- Plastic cable-tie pliers 940
- Glue gun 941
- Cabinet keys 941



## WIRE PULLER AND ACCESSORIES

942

- Nylon rods 942
- Glass fibre rods 943
- Nylon rods 943
- Accessories 943
- Consumables for nylon and glass fibre rods 944
- Accessories for nylon steel rods 944



## HOLE PUNCHES

945

- Hole punches for ISO sizes 946
- Accessories 947



## PHYSICAL MEASUREMENT

948

- Testers 948
- Thermometer 949



## VE SERIES 1,000 VOLT INSULATED TOOLING

950

- Pliers 950
- Screwdrivers 954



## VSE SERIES 1,000 VOLT INSULATED TOOLING

956

- Pliers 956
- Cable cutter 960
- Hacksaw frame 960
- Knife 961
- Wrenches 961
- Offset keys 962
- Box wrenches 962
- Sockets 1/4" 963
- Ratchets and accessories 1/4" 963
- Sockets 3/8" 964
- Bit sockets 3/8" 965
- Ratchets and accessories 3/8" 965
- Socket sets and accessories 3/8" 966
- Sockets 1/2" 966
- Bit sockets 1/2" 966
- Ratchets and accessories 1/2" 966
- Socket sets and accessories 1/2" 968
- Torque wrench 969
- Insulated gloves 969
- Insulated mats 970
- Insulated pliers 970
- Insulated tool sets 970



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CABLE-SHEATH STRIPPERS

MULTIFUNCTION SHEATH STRIPPER

**Easy sheath stripping trigger for 30% less effort**



PVC cables  
Ø 4>28 mm

**Pivoting blade for faster and easier sheath stripping**



**Easy blade change**

- Easy blade change by pressing the release and locking point.



- 1 - Trigger system.
- 2 - Adjustment screw.
- 3 - Pivoting blade.
- 4 + 5 Double safety.
- 4 - Cutting blade out => trigger locked.
- 5 - Stop blade.
- 6 - Stripping point.
- 7 - Spare pivot blade.
- 8 - Pivot blade locking.
- 9 - Pivot blade release.

**Ergonomic comfort grip handle**



**DOUBLE SAFETY**  
Cutting blade out  
=> trigger locked. Stop blade.



▪ Multifunction trigger sheath-stripper



- Trigger system: 30% less effort.
- Self-swivelling blade: fast and easy sheath removal.
- Double safety:
  - Cutting blade out = trigger locked.
  - Lock back blade.
- Capacity: round PVC cable 4 to 28 mm diameter.
- Stripping zone.

872272: set of 6 spare blades (5 self-swivel blades and 1 knife blade).



872271

ΔΔ [g]  
150



PIVOTING BLADE SHEATH STRIPPER



*Jivaro*

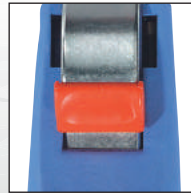
Extended hook for easy cable placing.



Easy, handy thumb wheel adjustment.



Ergonomic "low effort" push-button.



Rounded handle for a perfect grip.

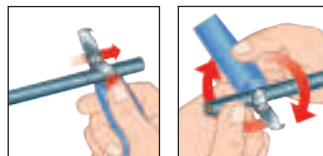


Sheath strippers

- "Effort reducer" push button.
- Spare blade stored in the handle.
- Easily accessible adjustment knob.
- Self-swivel blade.
- 985955 straight blades.
- 985956 hooked blades.

986061: Set of 5 auto-swivel blades for sheath strippers 985951 - 985952 - 985953 - 985954 - 985955 - 985956.

ED	Capacity Ø maxi [mm]	ΔΔ [g]
985951	16	65
985952	28	65
985953	35	65
985954	50	65
985955	28 LD	75
985956	28 LC	75

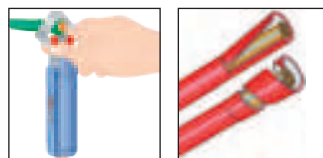


LONGITUDINAL/HELICOIDAL CABLE-SHEATH STRIPPER

Rotary sheath and insulation stripping tool

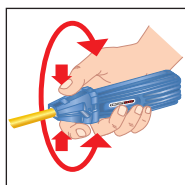
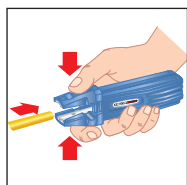
- Tool perfectly suited to stripping sheaths over long lengths.
- 2 possibilities of use:
  - Longitudinal sheath stripping.
  - Helicoidal sheath stripping by simple head rotation.
- Capacity: diameter 4.5 to 29 mm.

ED	L [mm]	ΔΔ [g]
985957	137	97



## MULTIFUNCTION SHEATH STRIPPERS

▪ Multifunction sheath stripper



- Ideal for stripping sheaths on cables at the bottom of embedding boxes.
- Allows for stripping without prior adjustment.
- Also allows for stripping coax cables.
- Sheath stripping: diameter 4 to 13 mm.
- Stripping: section 0.5 to 16 mm<sup>2</sup>.
- Coax cables: diameter 4 to 8 mm.



	$\Delta\Delta$ [g]
985962	90

▪ Coax and multipair cable sheath stripper



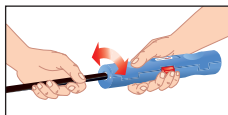
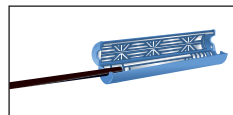
- Tool facilitating sheath stripping of coax and twisted multipair (UTP and STP) cables and optical fibers.
- Capacity: diameter 11 mm.



	$\Delta\Delta$ [g]
985936	35

## COAX CABLE-SHEATH STRIPPERS

▪ Sheath and insulation stripper for coaxial and twisted-pair cables

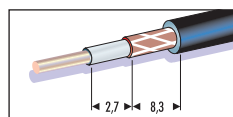


- 2 useful sides:
  - Sheath stripping.
  - Stripping.
- Capacity: diameter 4.8 to 7.5 mm.



	$\Delta\Delta$ [g]
985964	26

▪ Strippers for coax cables types RG.58, RG.59 and RG.62



- Stripper pre-adjusted to strip coax cables in a single operation.
  - Stripping obtained allows direct fitting of BNC connectors used in computing, video, radio-telephony.
  - Compact, non adjustable without tool.
  - Reversible blade cassette doubling the time of use, supplied with calibration shim.
- 838.CX58L: Spare blade cassette.



	$\Delta\Delta$ [g]
838.CX58	75

AUTOMATIC WIRE STRIPPERS

AUTOMATIC WIRE STRIPPER



*Swingo*

The all-purpose stripper!

One tool for cutting and stripping wires from 0.02 to 10 mm<sup>2</sup>.



- Adjustable stripping depth.
- Soft grips.
- Jaw force adjustment according to temperature conditions: indoor or outdoor working, hard or soft insulation.
- Mechanism designed for smooth, effortless wire stripping.
- Very easy blade change.

Tested to 150,000 cycles



■ SWINGO® automatic stripper

- 2 functions: cutting and stripping.
  - Play take-up mechanism for smooth and easy stripping.
  - Stripping capacity: 0.02 to 10 mm<sup>2</sup> (AWG: 32 - 8).
  - Stripping length adjusted from 3 to 18 mm.
  - Built-in cutting function:
    - Cutting up to: 1.5 mm<sup>2</sup> single strand wire.
    - Cutting up to: 10 mm<sup>2</sup> multi strand wire.
  - Ergonomic body in glass charged nylon.
- 793207: Spare jaw.  
793910: Set of 2 spare pads.



	AWG	Cut	ΔΔ [g]
793936	32 - 8	10 mm <sup>2</sup>	136

■ SWINGO 90® automatic stripper and cutter

- 2 functions: cutting and stripping.
  - Pistol grip for the optimum position for high volume stripping and cutting.
  - Stripping capacity: 0.02 to 10 mm<sup>2</sup> (AWG: 32 - 8).
  - Stripping length adjusted from 3 to 18 mm.
  - Built-in cutting function:
    - Cutting up to: 1.5 mm<sup>2</sup> single strand wire.
    - Cutting up to: 10 mm<sup>2</sup> multi strand wire.
  - Durable and lightweight for intense work, tested to over 150,000 cycles. Twice the strength of standard nylon/PA6.
- 793910: Set of 2 spare pads.

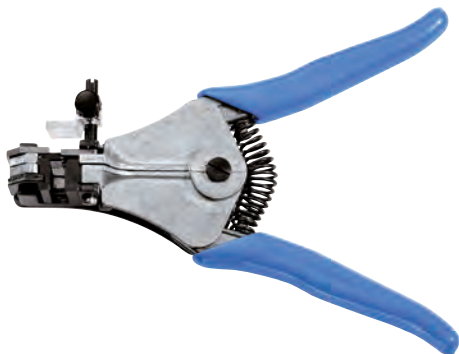


	ΔΔ [g]
793940	165,5



## AUTOMATIC LATERAL WIRE STRIPPERS

## Automatic lateral wire strippers



- These strippers offer high precision stripping with a diameter suited to each conductor.

175.E: Spare blade for 986058.

175.T: Spare blade for 986059.



	Pattern	Section [mm <sup>2</sup> ]	ΔΔ [g]
<b>986058</b>	∅ : 0,6 - 0,8 - 1,0 - 1,2 - 1,6 - 2,0 - 2,5 mm <sup>2</sup>	1,5 -> 4,0	370
<b>986059</b>	∅ : 2,0 - 2,4 - 3,1 - 4,0 mm <sup>2</sup>	2,4 -> 10,0	370

## High precision strippers for Teflon insulators



- High precision to cut the insulator circularly without damaging the conductor.
- Offset jaws designed to avoid marking insulators.
- AWG: 26 - 24 - 22 - 20 - 18 - 16.
- Die diameter: 0.55 - 0.65 - 082 - 1.05 - 1.30 - 1.55 mm.
- 165.U: Spare knife.



	Dimension [mm]	ΔΔ [g]
<b>165.1</b>	250 x 75 x 22	370

## AUTOMATIC WIRE CUTTERS-STRIPPERS

## Automatic wire cutter-stripper



- For single or multiple strand with automatic adjustment to wire diameter.
- 1 tool only, 1 gesture for 2 operations:
  - Cutting.
  - Stripping.
- Stripping capacity: 0.4 to 4 mm<sup>2</sup>
- Stripping length adjusted by button: 4 to 17 mm.
- Cutting diameter: 0.7 to 2.3 mm.
- AWG: 21 - 11.
- 162-L1: Spare knives.

	L [mm]	AWG	Dimension [mm]	ΔΔ [g]
<b>985761</b>	160	21 - 11	290 x 80 x 22	340

## Dual automatic wire cutter-stripper



- Allows to cut and strip the wire on both sides for fast wiring operations.
- The wire is pre-stripped automatically at the right length.
- Stripping capacity: 0.4 to 4 mm<sup>2</sup>.
- Stripping length adjusted by button: 4 to 17 mm.
- Cutting diameter: 0.7 to 2.3 mm.
- AWG: 21 - 11.
- 162-2L1: Spare knives.

	L [mm]	AWG	ΔΔ [g]
<b>985762</b>	160	21 - 11	430

Wire cutter and stripper

- For multistrand cutting and stripping:
  - Diameter: 1.0 - 1.3 - 1.7 - 2.0 - 2.4 - 3.0 mm.
  - Section: 0.8 - 1.3 - 2.3 - 3.0 - 4.5 - 7.0 mm<sup>2</sup>.
  - AWG: 20 - 18 - 16 - 14 - 12 - 10.
- 6 dies calibrated by grinding.
- End nipper.
- Return and lock spring.



Icon	L [mm]	ΔΔ [g]
163	150	115

END WIRE STRIPPERS

Extra-slim wire strippers

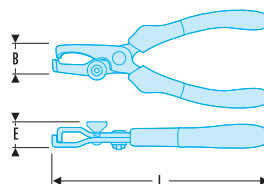
- For single and multistrand wires:
  - Max diameter: 1.5 mm.
  - Max section: 1.8 mm<sup>2</sup>.
  - Max AWG: 14.
- Narrow knives.
- Cutting depth adjusted by end stop.
- Length: 130 mm.
- Thickness: 4 mm.
- Finish: burnished, PVC grip.



Icon	L [mm]	ΔΔ [g]
194.12	130	70

Wire strippers

- For single or multiple strand wires 0.5 to 6 mm<sup>2</sup>.
- Adjustment screw with lock nut.
- Metal return screw.
- Forged pliers.
- Automatic handle opening for speed and ease of use.



Icon	B [mm]	E [mm]	L [mm]	ΔΔ [g]
194A.17CPE	17	8,5	170	185

Coated wire strippers

- Treated steel blades.
- Plastic stops avoiding hand fatigue.
- Finish: burnished blades.



Icon	l [mm]	L [mm]	ΔΔ [g]
173A	10	135	40



## PRE-INSULATED TERMINAL CRIMPING PLIERS

## PRE-INSULATED TERMINAL CRIMPING PLIERS

## The 3-in-1 pliers to cut, strip and crimp

New multi-function pliers: one tool to cut, strip and crimp wire ends, insulated terminals as well as open core terminals.



### Mobile crimping pliers



- For constant and accurate crimping of mechanical, electrical and electronic connectors.
- Perfectly positions the wire in the terminal. The position of the crimping dies provides excellent visibility when inserting the connector and wire.
- Die release system for easy die changing without special tooling.
- One crimper for all dies.
- Ideal for all installers or maintenance technicians who wish to lighten their toolbox and save time during intervention.
- 821461 die: 0.25-0.75 mm<sup>2</sup>, 1-1.5 mm<sup>2</sup>, 2.5 mm<sup>2</sup>, 4 mm<sup>2</sup>, 6 mm<sup>2</sup>, 10 mm<sup>2</sup>.
- 821462 die: 0.5-1.5 mm<sup>2</sup>, 1.5-2.5 mm<sup>2</sup>, AWG 22-16, 16-14.
- 821463 die: Red and blue insulated terminals 0.25-1.5 mm<sup>2</sup> and 1.5-2.5 mm<sup>2</sup>.
- 821469 die: 0.5-2.5 mm<sup>2</sup>, 4-6 mm<sup>2</sup> AWG 22-14, 12-10.
- 821464 die: 0.5mm Open barrel.
- 821465 die: Solar connector size 4.
- 821466 die: 0-4mm Power turned pins.
- 821467 die: Insulated heat shrink butt.



🔧	ΔΔ [g]
821416	500

### Industrial Mobile Crimping Pliers Set with 4 Interchangeable Dies



- For constant and accurate crimping of mechanical, electrical and electronic connectors.
- Perfectly positions the wire in the terminal. The position of the crimping dies provides excellent visibility when inserting the connector and wire.
- Die release system for easy die changing without special tooling.
- One crimper for all dies.
- Ideal for all installers or maintenance technicians who wish to lighten their toolbox and save time during intervention.
- 821461 die: 0.25-0.75 mm<sup>2</sup>, 1-1.5 mm<sup>2</sup>, 2.5 mm<sup>2</sup>, 4 mm<sup>2</sup>, 6 mm<sup>2</sup>, 10 mm<sup>2</sup>.
- 821462 die: 0.5-1.5 mm<sup>2</sup>, 1.5-2.5 mm<sup>2</sup>, AWG 22-16, 16-14.
- 821466 die: 0.14-1 mm<sup>2</sup>, 1.5 mm<sup>2</sup>, 2.5 mm<sup>2</sup>, 4 mm<sup>2</sup>, AWG 16, 14, 26-18, 12.
- 821469 die: 0.5-2.5 mm<sup>2</sup>, 4-6 mm<sup>2</sup> AWG 22-14, 12-10.



🔧	ΔΔ [g]
819832	850

▪ **Electrician's mobile crimping pliers set**

- For constant and accurate crimping of mechanical, electrical and electronic connectors.
- Perfectly positions the wire in the terminal. The position of the crimping dies provides excellent visibility when inserting the connector and wire.
- Die release system for easy die changing without special tooling.
- One crimper for all dies.
- Ideal for all installers or maintenance technicians who wish to lighten their toolbox and save time during intervention.
- Comprising:
  - 1 set of crimping pliers 821416.
  - 4 dies (821461 - 821462 - 821463 - 821469).
  - 1 pair of Swingo® strippers 793936.
  - 1 sheath remover 985956.
  - Plastic case BP.MBOXM.
  - Foam tray PM.819810.



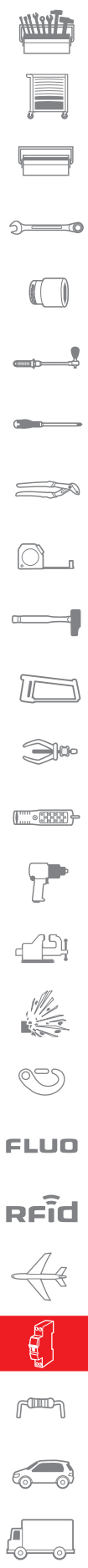
	$\Delta\Delta$ [g]
819810	1617

▪ **All in One electricians / Industrial mobile crimping pliers set**

- Including:
- Multifunction crimping pliers 821416.
  - 2 dies for pre-insulated terminals 0.5 to 6 mm<sup>2</sup>.
  - 2 dies for open core terminals 0.5 to 6 mm<sup>2</sup>.
  - 2 dies for cable terminations from 0.25 to 10 mm<sup>2</sup>.
  - 821464 1 x die for open-barrel connectors.
  - 821460 1 x die for ferrules.
  - 821463 1 x die for pre-insulated connectors green-yellow.
  - Selection of 20 models of pre-insulated terminals and accessories:
    - Eyelets.
    - Fork terminals.
    - Sleeves.
    - Male and female terminals.
  - Plastic tray PL.721.



	$\Delta\Delta$ [g]
855367	1.950



FLUO

RFid



## CRIMPING PLIER INSPECTION SERVICE



ISO 9000 quality assurance systems require crimping equipment to be periodically checked for compliance with the standards and recommendations. That is why Facom's laboratory offers this service.

### Pliers covered by the inspection service

Pliers for insulated terminals to CEI 760- 985753, 985894, 673838.

Pliers for cable terminals to NFC 20130- 985754, 985755, 985756,- 985896, 985897, 985895.



## 673838 CRIMPING PLIERS FOR INSULATED TERMINALS WITH LOCATOR



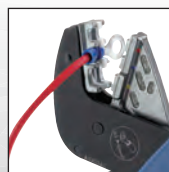
### A third hand!

#### Complies with NFC 63-023

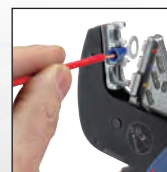
- Automatically positions the terminal to guarantee a secure attachment.
- Stainless steel dies ensuring good wear resistance.
- Reverse crimping for precision and visibility.
- Left/right-hand operation.
- Soft comfortable grips.



**Holds the terminal on the pliers.**



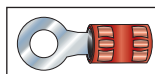
**Perfectly positions the wire in the terminal.**



**Holds the terminal and the wire after crimping.**



### SERKAN® ratchet crimping pliers for insulated terminals with locator



#### NFC 63-023

- Lower fixed jaw: easy terminal fitting.
- Double crimping with die marking on the insulator.
- Stainless steel die with 3 cavities:
  - Red cavity: 0.5 to 1.5 mm<sup>2</sup>.
  - Blue cavity: 1.5 to 2.5 mm<sup>2</sup>.
  - Yellow cavity: 4 to 6 mm<sup>2</sup>.
- Right/left handed pliers.



673838

$\Delta\Delta$  [g]

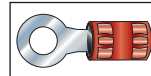
490



■ Maintenance crimping pliers for pre-insulated terminals

CEI60352-2

- Double crimping for pre-insulated terminals in compliance with the standard, with holding on the conductor core and the insulator.
- Unlocking accessible at all times.
- Reversed crimping: terminal positioned on the fixed part for more effectiveness and precision.
- Stainless steel die with 3 cavities:
  - Red cavity: 0.5 --> 1.5 mm<sup>2</sup>.
  - Blue cavity: 1.5 --> 2.5 mm<sup>2</sup>.
  - Yellow cavity: 4 --> 6 mm<sup>2</sup>.
- Shape allowing hand setting.
- Soft touch.



Icon	L [mm]	ΔΔ [g]
985894	230	490

■ Production crimping pliers for insulated terminals

CEI60352-2

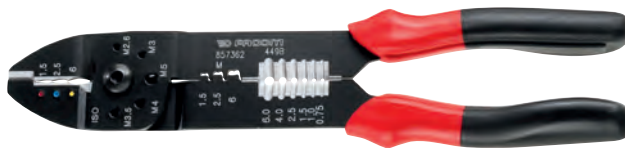
- Extended handle for 2-hand grip.
- Disengaging possible during crimping.
- Double crimping of the terminal.
- 3 cavity die:
  - Red cavity: 0.5 to 1 mm<sup>2</sup>.
  - Blue cavity: 1.5 to 2.5 mm<sup>2</sup>.
  - Yellow cavity: 4 to 6 mm<sup>2</sup>.
- Comfort grip.



Icon	L [mm]	ΔΔ [g]
985753	255	540

■ Standard crimping pliers for insulated terminals

- Crimping pre-insulated terminals: 1.5-2.5-6 mm<sup>2</sup>.
- Crimping bare terminals: 1.5-2.5-6 mm<sup>2</sup>.
- Stripping: 0.75 to 6 mm<sup>2</sup>.
- Built-in wire cutting function.



Icon	H [mm]	L [mm]	ΔΔ [g]
449B	55	240	260

TUBULAR TERMINAL AND SLEEVE CRIMPING PLIERS

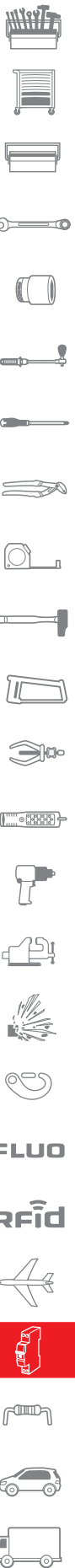
■ Crimping pliers for tubular terminals

NFC 20-130

- Ratchet pliers with possibility of unlocking in case of mishandling.
- Extended handle for 2-hand grip.
- Capacity 4 to 10 mm<sup>2</sup>.
- Comfort grip.



Icon	L [mm]	ΔΔ [g]
985966	255	500



FLUO

RFid

### ■ Crimping pliers for tubular terminals with rotating dies



#### NFC 20-130

- Rotating dies indexable in 6 positions:  
6 - 10 - 16 - 25 - 35 - 50 mm<sup>2</sup>.
- The pliers can be disengaged during crimping.
- Capacity 6 to 50 mm<sup>2</sup>.



986095	L [mm]	ΔΔ [kg]
	390	1.185

### ■ Hydraulic trigger crimping pliers for tubular terminals and sleeves



#### NFC 20-130

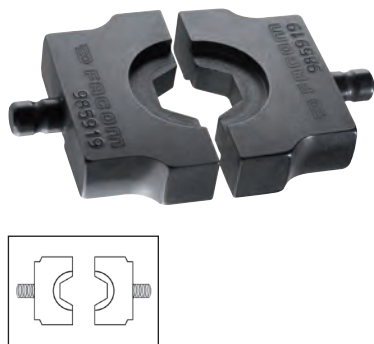
- 35 kN.
- Travel adjustable from 5 to 8 mm by rotation of the notched bush reducing the number of pump strokes for smaller sections.
- Rotating head 360°.
- Automatic trigger with audible "click" upon crimping.
- Piston return by discharge lever.
- Supplied in box.



985913	ΔΔ [kg]
	2.130

## CRIMPING DIES

### ■ Hexagonal crimping dies



#### NFC 20-130

- For crimping pliers 985913.
- For tubular terminals and sleeves.



985914	Section [mm <sup>2</sup> ]	ΔΔ [g]
985914	6	64
985915	10	88
985916	16	91
985917	25	89
985918	35	85
985919	50	79
985920	70	78
985921	95	76
985922	120	61
985923	150	66

OPEN CORE CONNECTOR CRIMPING PLIERS

Open core connector crimping pliers

DIN 46249

- Die with 3 cavities for open core terminals with 1.5; 2.5 and 6 mm<sup>2</sup> section.
- Capacity 1.5 to 6 mm<sup>2</sup>.



Model	L [mm]	ΔΔ [g]
985757	195	250

WIRE END CRIMPING PLIERS

Wire end crimping pliers

NFC 63-023

- Stainless steel 5-cavity dies:
  - 0.5 to 0.75 mm<sup>2</sup>.
  - 1 to 1.5 mm<sup>2</sup>.
  - 2.5 mm<sup>2</sup>.
  - 4 mm<sup>2</sup>.
  - 6 mm<sup>2</sup>.
- Unlocking accessible at all times.
- Reversed crimping: terminal positioned on the fixed part for more effectiveness and precision.
- Capacity 0.5 to 6 mm<sup>2</sup>.
- Shape allowing hand setting.
- Soft touch.



Model	L [mm]	ΔΔ [g]
985895	230	490

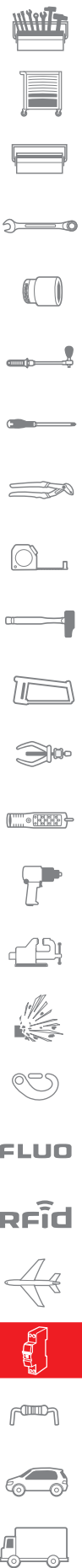


Serkan 360 All in one Crimper

- Ultimate crimping solution – one gun and no extra dies
- Can be used for most jobs from panel board and cable assembly and connection
- 0.14-10mm square connector – to fit all end sleeves with insulated or insulated profiles
- Tested to 50k cycles – for long life
- Crimp conforms to IEC 60999-1.
- Optimized usage for high volumes.
- Comfortable also for left handed workers.
- Maximum force 10,000 N.m.
- Low hand force needed for operation.
- Light weight ideal for heavy duty use.
- Small handle opening – ideal for smaller hands.



Model	L [mm]	ΔΔ [g]
985905	362	176



## WIRE END CRIMPING PLIERS

## Standard wire end crimping pliers



- Capacity: 0.5 to 2.5 mm<sup>2</sup>.
- End nipper.



ED	L [mm]	ΔΔ [g]
985899	140	115

## Production wire end crimping pliers



- Easy unlocking in case of mishandling.
- Comfort grip.



ED	L [mm]	Capacity [mm]	Pattern	ΔΔ [g]
985755	195	0,5 -> 6,0 mm <sup>2</sup>	5	250
985756	195	4,0 -> 10,0 mm <sup>2</sup>	3	500
985896	255	10,0 -> 25,0 mm <sup>2</sup>	3	500

## TRANSMISSION CONNECTORS CRIMPING PLIERS

## Phone connector crimping pliers



- Pliers supplied in a case with the 986022 die for RJ45 connectors.



ED	L [mm]	ΔΔ [g]
985902	205	450

Coax connector crimping pliers

- For BNC connector RG58 - RG59 - RG62.
- Crimping die for coax connectors:
  - 5.36 - 5.46 for RG58.
  - 6.43 - 6.53 for RG59, RG 62.
  - 1.64 - 1.74 for the core.
- Safety rack guaranteeing complete crimping.



🔗	L [mm]	ΔΔ [g]
985758	195	250

Crimping dies for phone connectors

- For crimping pliers 985902.



🔗	d [mm]	ΔΔ [g]
986014	RJ11	50
986022	RJ45	50

TERMINAL SETS

General electricity set

- Including:
- Crimping pliers 449B.
  - Selection of 20 models of pre-insulated terminals and accessories:
    - Eyelets.
    - Fork terminals.
    - Sleeves.
    - Male and female terminals.

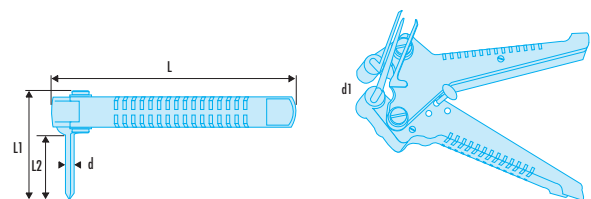


🔗	ΔΔ [g]
449.Z3A	1.850



## SLEEVING PLIERS

## Sleeving pliers



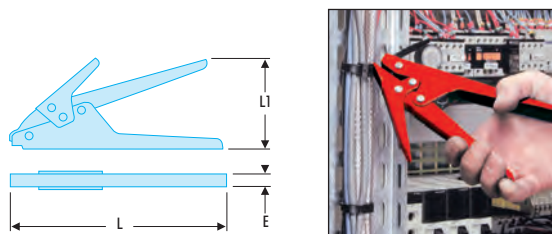
Part No.	d [mm]	d1 [mm]	H [mm]	L [mm]	L1 [mm]	L2 [mm]	Wire Ø [mm]	ΔΔ [g]
985763	3,5	12-16 -24	52	140	52	23	1,25 -> 4,50	165
985764	4,5	13-18 -24	56	140	56	30	1,75 -> 9,00	165
985765	5,0	14-18 -25	66	140	66	40	3 -> 15	165
640171	10,0	19,5 -22,5 - 30,0	82	150	82	56	10 -> 28	149

## PLASTIC CABLE-TIE PLIERS

## Plastic cable-tie pliers



- For all cable-ties 2.4 to 9 mm wide.
- Sturdy and easy to use, very good demultiplication.
- Long travel for a fast approach.
- Manual cable-tie tail cutting.



Part No.	E [mm]	L [mm]	L1 [mm]	ΔΔ [g]
455B	17	190	100	310

## Automatic plastic cable-tie pliers



- For cable-ties 2.2 to 4.8 mm wide and 1.6 mm thick.
- Adjustable tightening strength.
- Automatic cable-tie tail cutting.

Part No.	ΔΔ [g]
986075	290

GLUE GUN

Glue gun

- To glue plastic, synthetic foam, fabric, wood and laminate in the fields of construction, furniture, in assembly workshops for electrical, electronic assemblies, in the garage.
- Voltage: 110-240 V (without automatic switch).
- Maximum power: 40 W.
- Fusion temperature: 206°C.
- Supplied in cardboard box with three versatile glue sticks.
- E.905J50: "refractory" glue: sticks.
- E.906J100: "all-purpose" glue: sticks.

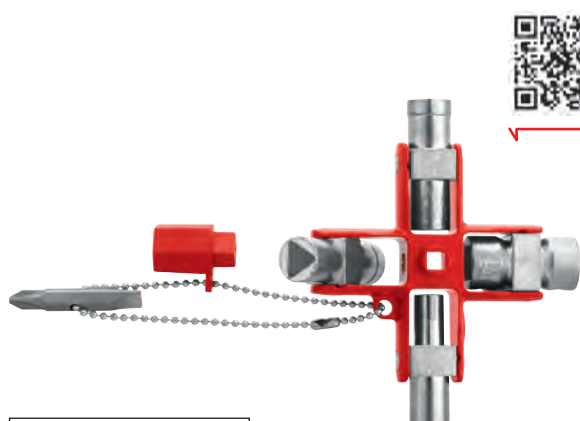


	H [mm]	I [mm]	L [mm]	ΔΔ [g]
<b>E.900B</b>	160	30	195	303

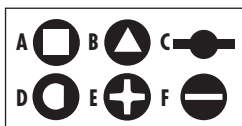
CABINET KEYS

Multi-cavity cross brace

- Good access, opens most doors and elements, whether in industry or in construction.
- 9 cavities in a light, compact and very handy tool.
  - 4 square cavities: 5, 6, 7-8, 9-10 mm (A).
  - 3 triangular cavities: 7, 8-9, 10-11 mm (B).
  - 1 slotted cylindrical cavity: 3-5 mm (C).
  - 1 round cavity with flat: 6 mm (D).
- 1 bit with 2 screwing cavities Phillips® PH 2 (E) and slotted head 7 mm (F), linked with the wrench by a removable chain with bit adapter.

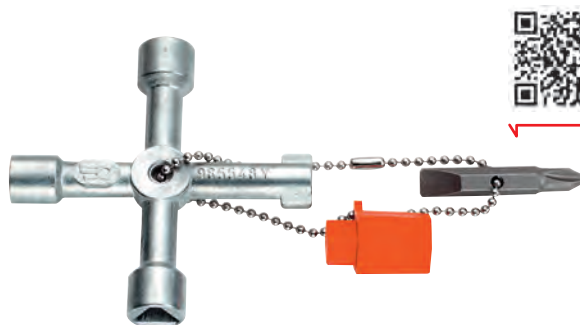


	ΔΔ [g]
<b>838305</b>	210

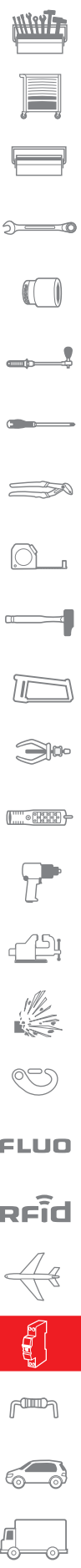
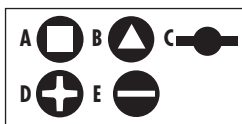


Four-way wrench for cabinets

- Toll supplied with 6-point adaptor for 1/4" - 6.35 mm drive bits.
- 4 cavities:
  - 2 square cavities: 6, 8 mm (A).
  - 1 triangular cavity: 9 mm (B).
  - 1 slotted cylindrical cavity: 5-14 mm (C).
- 1 bit with 2 screwing cavities Phillips® PH 2 (D) and slotted head 7 mm (E).



	ΔΔ [g]
<b>985548</b>	75



FLUO

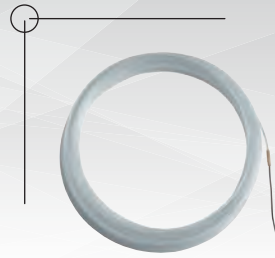
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NYLON RODS

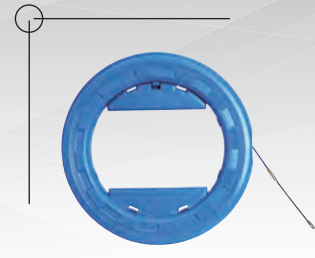
FISH TAPES

# 3 types of wire puller!



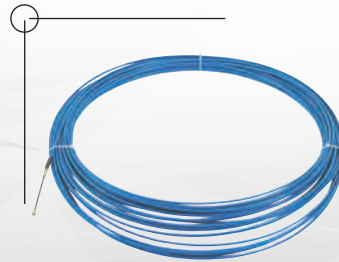
**Nylon**

- Relatively uncongested cable ducts with average bends, Distance < 20 m.
- Very high tensile strength.



**Glass fibre**

- Congested cable ducts with multiple bends, 20 m < distance < 40 m.
- Material has excellent dynamic.
- Maintains its efficiency after passing an obstacle.



**Nylon-coated steel**

- Long runs in highways 30 m < distance < 50 m.
- Excellent dynamic properties.
- Pushing force for tubes Ø 24 mm and over.

■ Nylon rods



- Supplied with:
  - 1 flexible guiding head.
  - 1 pulling eye.
- Breakage load: 120 kN.
- Diameter: 4 mm.

ED	d [mm]	L [m]	ΔΔ [g]
629731	4	10	168
629757	4	20	313

■ Nylon rod 20 m + needle holder casing



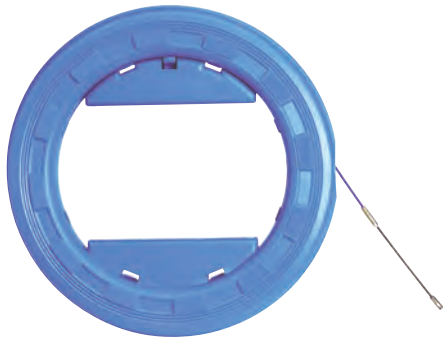
- Supplied with:
  - 1 flexible guiding head.
  - 1 pulling eye.
- Breakage load: 120 kN.
- For poorly clogged and medium curved ducts.
- For distance below 20 m.

ED	d [mm]	L [m]	ΔΔ [g]
669273	4	20	554



GLASS FIBRE RODS

■ Glass fibre rods



- Supplied in a needle holder casing with:
  - 1 flexible guiding head.
  - 1 pulling eye.
  - 1 repair set.
- Breakage load: 120 kN.

Part No.	d [mm]	L [m]	ΔΔ [g]
629853	3	30	585
629861	3	40	684

NYLON RODS

■ Needle holder casing

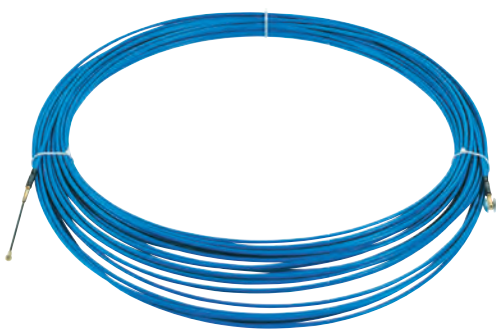


- For a rod 10 to 40 m long.
- Housing for accessories and repair kit.

Part No.	ΔΔ [g]
629765	267

ACCESSORIES

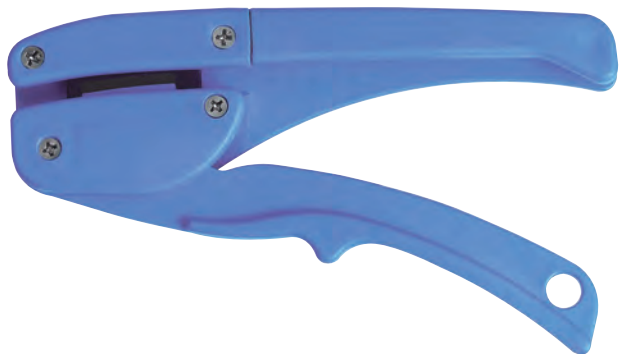
■ Nylon steel rod



- Ideal for long ducts.
- High traction power.
- Breakage load: 200 kN.
- Rod length: 50 m.
- Diameter 6 mm.
- Supplied with:
  - 1 flexible guiding head.
  - 1 slide wheel with swage.
  - 1 snap hook.

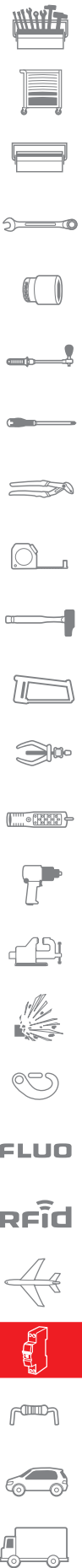
Part No.	ΔΔ [g]
629896	200

■ Fish tape pulling pliers



- Easy handling of rods without damaging them and avoiding hand injuries.
- Shock-proof material.

Part No.	ΔΔ [g]
629773	95



## ACCESSORIES

## ■ Glass fibre rod repair kit



Including:

- 2 bits.
- 1 seal.
- 1 specific glue.

	$\Delta\Delta$ [g]
629888	12

## ■ Lubricant



- To be sprayed on the cable before pulling it.
- Facilitates pulling.
- Supplied in 1-litre bottle.


	$\Delta\Delta$ [kg]
629984	1.1

## CONSUMABLES FOR NYLON AND GLASS FIBRE RODS

## ■ Flexible guiding head for nylon and glass fiber rods

- Female part: M4 threading.



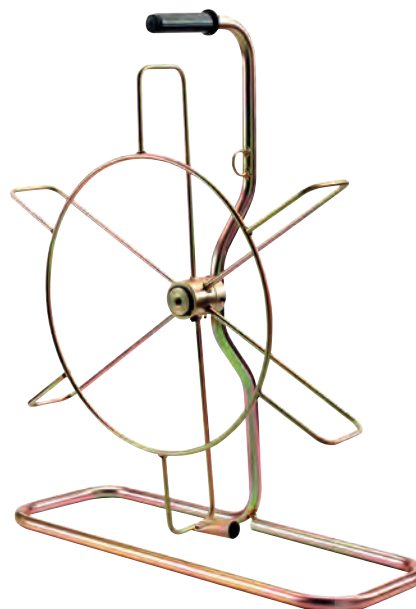
	$\Delta\Delta$ [g]
629781	9



## ACCESSORIES FOR NYLON STEEL RODS

## ■ Tropic-proof steel reel

- Fast guiding and winding of the the rod.
- Ideal for long rods.
- Storage of nylon steel rods up to 150 m.
- Axis on ball bearing.
- Withstands heat and humidity.



	$\Delta\Delta$ [g]
629909	5900

**HOLE PUNCHES FOR ISO HOLE SIZES**

**HOLE PUNCH FOR ISO HOLE SIZES**

- 3 section ISO splitting punch.
- Spread: ISO 12 to ISO 63.
- Blanks split into three, thus preventing the actuating screw from jamming.
- Cutting-point geometry ensures longer life.
- Available with or without a thrust-bearing screw.

**1 - For ordinary steel ST37**

- Max. sheet thickness: 2 mm.
- Pilot hole: - Screw  $\varnothing$  + min 0.2 mm.



**HOLE PUNCH FOR PG HOLE SIZES**

- Spread: PG7 to PG48.

**2 - For ordinary steel ST37**

- 3-point punch.
- Circular blank automatically drops out after punching with a couple more turns of the wrench.
- Max. thickness:
  - 2 mm with screw  $\varnothing$  9.5 mm.
  - 3 mm with screw  $\varnothing$  19 mm.
- Pilot hole:
  - Screw  $\varnothing$  + min 0.2 mm.



**FACOM HOLE PUNCHES CAN BE OPERATED IN THE FOLLOWING WAY:**



**With a wrench  
For hole punches fitted  
with a thrust-bearing screw.**

**DIMENSIONS (mm):**

ISO12	ISO16	ISO20	ISO25	ISO32	ISO40	ISO50	ISO63		
12.5	16.5	20.5	25.5	32.5	40.5	50.5	63.5		
PG7	PG9	PG11	PG13	PG16	PG21	PG29	PG36	PG42	PG78
12.7	15.2	18.6	20.4	22.5	28.3	37	47	54	60

**ISO EN 50262 REQUIREMENTS**

- This international standard specifies the electrical functions and performance of cable entries.
- It stipulates that only ISO metric threads are to be used for cable glands since September '99.
- The use of PG threads will still be allowed for the maintenance of existing equipment despite no longer being covered by any national or international standard.

**Remember to apply lubricant to the screw/pin for optimum operation of the punch.**

**CUSTOM SIZE KNOCKOUT PUNCH**

Please consult us for your specific punch size or shape requirements.



FLUO

RFid



## HOLE PUNCHES FOR ISO SIZES

■ Punches for PG size holes with actuating screw



- For circular cut out in metal sheet and plastic.
- Operated with a wrench or ratchet/socket set.
- Fast, clean and burr-free cut out.
- For all diameters PG 7 to PG 48.
- Parts greased for better use.
- TIP: the round cut falls much easier when applying 2 or 3 additional turns with the tightening wrench after cutting out.
- Supplied with punc, die, and ball stop screw.

Table caption:

- d = PG diameter/mm.
- d1 = drilling diameter/mm.
- Screw = dimension on flat (mm)/ operating screw.
- E = max/thickness steel/soft.

➤	d [mm]	d1 [mm]	E [mm]	PG	PG	Screw Size [mm]	ΔΔ [g]
985968	12,7	11	2	7	7	17	108
985969	15,2	11	2	9	9	17	114
985972	18,6	11	2	11	11	17	120
985974	20,4	11	2	13	13	17	120
985978	22,5	11	2	16	16	17	128
985984	28,3	11	3	21	21	17	130
985995	37,0	11	3	29	29	27	140

■ Punches for ISO size holes with actuating screw



- For circular cut out in metal sheet and plastic.
- Operated with a wrench or ratchet/socket set.
- Fast, clean and burr-free cut out.
- For all ISO diameters from M12 to M63.
- Parts greased for better use.
- PRODUCT PLUS: the round is slit into three parts and falls automatically at the end of the cutting operation.
- Supplied with punch, die, and ball stop screw.

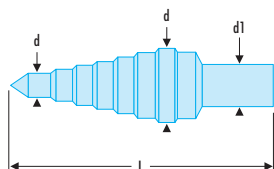
Table caption:

- d = ISO diameter/mm.
- d1 = drilling diameter/mm.
- Screw = dimension on flat (mm)/ operating screw.
- E = max/thickness steel/soft.

➤	d [mm]	d1 [mm]	E [mm]	ISO	Screw Size [mm]	ΔΔ [g]
693716	12,5	11	2	M12	17	55
697590	16,2	11	2	M16	17	122
693695	20,4	11	2	M20	17	148
697602	25,4	11	2	M25	17	183
697611	32,5	22	2	M32	27	436
697645	40,5	22	2	M40	27	576
697637	50,5	22	2	M50	27	816
697653	63,5	22	2	M63	27	754

ACCESSORIES

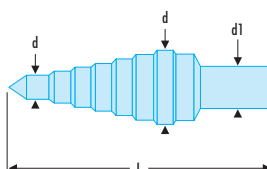
ISO staged drill bit



- For cylindrical high accuracy drilling in all diameters.
- Does not require a tapping hole.
- Cylindrical shank with 3 flats for proper drive, avoiding micro locking.
- Marking of different diameters.
- 678014: Special PG cable gland.
- Panel drilling capacity up to 4 mm thickness.
- Shank diameter 10 mm.

ISO	d mini - maxi [mm]	d1 [mm]	L [mm]	ΔΔ [g]
678006	6,5 - 8,5 - 10,5 - 12,5 - 16,5 - 20,5 - 25,5 - 29,0 - 32,5 - 36,5 - 40,5	10	96	310

PG staged drill bit



- For cylindrical high accuracy drilling in all diameters.
- Does not require a tapping hole.
- Cylindrical shank with 3 flats for proper drive, avoiding micro locking.
- Marking of different diameters.
- 678014: Special PG cable gland.
- Panel drilling capacity up to 4 mm thickness.
- Shank diameter 10 mm.

ISO	d mini - maxi [mm]	d1 [mm]	L [mm]	ΔΔ [g]
678014	6,0 - 9,0 - 12,5 - 15,2 - 18,6 - 20,4 - 22,5 - 26,0 - 28,3 - 30,5 - 34,0 - 37,0	10	100	300

Drill bit diameter 11 mm



- Drill bit diameter 11 mm for tapping hole.

ISO	ΔΔ [g]
986051	310

Lubricating paste



- To lubricate the screws and drive axes.

ISO	ΔΔ [g]
986107	150



## TESTERS

## Clip-on ammeter



- Allows current measurements without contact.
- Compatible with most multimeters.
- Automatic zero point adjustment, perfectly suited to FACOM multimeters 711, 711A, 714 and 714A.
- AC / DC measurement: 0 to 600 A.
- Frequency response: 50 Hz - 60 Hz.
- 600 V CAT III.

**720.P1500**  $\Delta\Delta$  [g] 450

## Clip-on multimeter



- Multimeter for mobile maintenance.
- Current measurement without contact, withstands difficult environments.
- DC / AC voltmeter: 0 to 600 V. • DC / AC ammeter: 0 to 400 A.
- Ohmmeter: 0 to 40 MO.
- Continuity test with buzzer.
- Diode test.
- Temperature measurement with K thermocouple.
- 600 V CAT III.

**712A**  $\Delta\Delta$  [g] 510



## THE RIGHT TESTER FOR YOUR NEEDS

## Simple

- Automatic calibration: easy to use, no risk of error.
- Wide screen providing clear, detailed readings.

## Safe

- Meets safety standard requirements.
- Contact-free measurement with the testing tips.

## Operational

- Shock-proof coating: resistant to industrial environments.
- Cable storage: saves time.



## Multimeter



- Maintenance multimeter.
- Ideal for repairing electronic or electromechanical assemblies and for teaching.
- DC / AC voltmeter: 0 to 600 V.
- DC / AC ammeter: 0 to 10 A.
- Ohmmeter: 0 to 40 MO.
- Capacimeter: 0 to 100  $\mu$ F.
- Frequency meter: 0 to 100 KHZ.
- Cyclic ratio: 5% to 99 %.
- Diode test.
- Continuity test with buzzer.
- 600 V CAT III.

**711A**  $\Delta\Delta$  [g] 803

TESTERS

VAT DETECTOR: WORK SAFELY

- Check the absence of voltage before starting work around or on a component likely to be live.
- Directive C18-510 imposes the use of a VAT tester, such as the FACOM 701B VAT.
- The FACOM 701B is a must for professionals in construction, industrial maintenance and electricians, ensuring safe and fast work.



■ DAT VAT safety tester

NF EN 601010 - 600 V, IEC 612 43 - 3

- Indispensable for construction and repairing in industrial environments.
- The VAT test allows to check the lack of voltage on a circuit before starting the work.
- Auto test.
- Hazardous voltage detection.
- Phase detector.
- Continuity test with buzzer.
- Differential circuit breaker test: 30 mA.
- Phase rotation indicator.
- 600 V CAT III.



Model	Weight $\Delta\Delta$ [g]
701B	380

THERMOMETER

■ Combination electronic thermometer



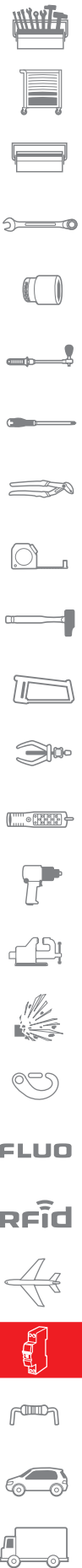
- Infrared thermometer with laser aiming.
- Connector for measuring with "K" thermocouples.
- Adjustable emissivity.
- Infrared measurement range: -60°C to +600°C.
- D/S ratio: 11/1.
- Mode: differential, minimum, maximum, average, alarm.

Model	Weight $\Delta\Delta$ [g]
DX.T100	328

■ DX.12 Temperature probes



Model	For	Weight $\Delta\Delta$ [g]
DX.12-08	Bracelet probe	20
DX.12-11	Standard needle probe	95
DX.12-15	Extension	117
DX.12-17	Surface contact probe	105
DX.12R	Air probe	45



## PLIERS

## NEW 1,000 VOLTS INSULATED PLIERS

Increased durability:  
longer life performance**Less effort**

- Cutting requires less force, return spring reduces total user effort and strain.

**Insulation tests**

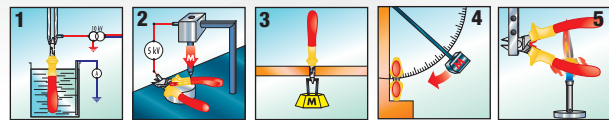
- Tools to EN 60900 specifications
- 1-Immersion test
  - 2-Penetration test
  - 3-Insulation adhesion test
  - 4-Impact test
  - 5-Non-flammability test

- Sculptured upper section with finger-guard provides a natural fit to aid grip.

- Wide lower section to increase contact with the plier aiding both grip and comfort.

**Soft grip**

- For improved comfort.

**Information**

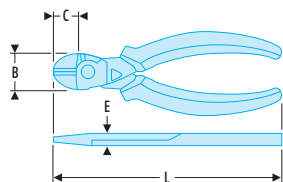
- Compliance with European standard EN 60900.
- For working on live components up to 1,000 volt AC.
- Each and every tool is tested to 10,000 volts for 10 seconds at the end of the manufacturing cycle.
- Our production site is accredited and certified to produce insulated tools.

**Safety**

- Prevent damage to insulation from:
  - Heat (-20 to +70°C working temperature)
  - Chemicals
  - Cuts or perforations.
- Check insulation is sound before using a tool.
- Wear insulating gloves and eye protection.



■ **192A.VE - 1,000 Volt insulated high-performance diagonal cutters**



NF ISO 5749, ISO 5749, DIN ISO 5749, ASME B107.500,  
NF EN 60900, EN 60900, DIN EN 60900

- For your safety, all pliers are tested individually at 10,000 volts for 10 seconds, at the end of the manufacturing cycle.
- New head design to increase durability and cutting capacity
- Cutting edges designed to cleanly cut all types of wire: soft wires and modern materials to a maximum piano wire specification of:
  - 192A.16VE : 2.0mm 210 kg/mm<sup>2</sup>
  - 192A.18VE : 2.2mm 205 kg/mm<sup>2</sup>
- High mechanical advantage due to off-set rivet and cutting edge geometry reducing effort.
- High durability Carbon alloy steel, with induction hardened cutting edges.
- Bi-Material ergonomic grips resistant to chemical agents.
  - Positive return spring
  - Tether ready
- (Tether point adds 10mm to nominal length)
- Varnish finish to help prevent rusting.



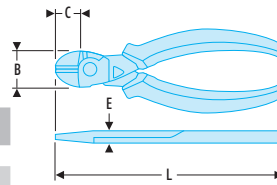
	B [mm]	C [mm]	E [mm]	L [mm]	ΔΔ [g]
<b>192A.16VE</b>	24,0	18,0	10,0	160	200
<b>192A.18VE</b>	26,0	20,0	11,0	180	260



■ 391A.VE - 1,000 volt insulated electricians diagonal cutters

NF ISO 5749, ISO 5749, DIN ISO 5749, ASME B107.500

- Snipe nose for confined space (electrical cabinets, wiring).
  - Cutting edges designed to cleanly cut all types of wire: soft wires and modern materials to a maximum piano wire specification of:
    - 391A.14VE: 1.4mm 225 kg/mm<sup>2</sup>
    - 391A.16VE: 1.6mm 220 kg/mm<sup>2</sup>
  - High mechanical advantage due to off-set rivet and cutting edge geometry reducing effort.
  - High durability chrome-molybdenum-vanadium steel, with induction hardened cutting edges.
  - Bi-Material ergonomic grips resistant to chemical agents.
    - Positive return spring
    - Tether ready
- (Tether point adds 10mm to nominal length)
- Chrome finish for corrosion resistance.

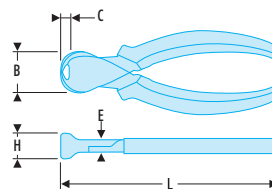


	B [mm]	B1 [mm]	C [mm]	E [mm]	L [mm]	L1 [mm]	ΔΔ [g]
<b>391A.14VE</b>	21,5	14	15,5	9,5	145	9	160
<b>391A.16VE</b>	19	15	21	10	165	9	190

■ 1,000 Volt insulated high-performance end cutters

NF ISO 5748, ISO 5748, DIN ISO 5748, ASME B107.500

- Cutting edges designed to cleanly cut all types of wire: soft wires and modern materials to a maximum piano wire specification of:
    - 190A.16VE: 2.0mm 210 kg/mm<sup>2</sup>
    - 190A.20VE: 2.5mm 200 kg/mm<sup>2</sup>
  - High mechanical advantage due to off-set rivet and cutting edge geometry reducing effort.
  - High durability Carbon alloy steel, with induction hardened cutting edges.
  - Bi-Material ergonomic grips resistant to chemical agents.
    - Positive return spring
    - Tether ready tether point
- (Tether point adds 10mm to nominal length)
- Chrome finish for corrosion resistance.



	A [mm]	B [mm]	C [mm]	E [mm]	L [mm]	ΔΔ [g]
<b>190A.16VE</b>	6,5	28	6,5	11,5	160	200

■ 185-195.VE - 1,000 Volt insulated long half-round nose pliers

NF ISO 5745, ISO 5745, DIN ISO 5745, ASME B107.500, NF EN 60900, EN 60900, DIN EN 60900

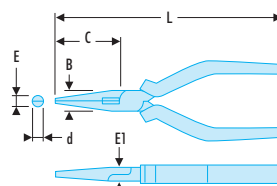
- For your safety, all pliers are tested individually at 10,000 volts for 10 seconds, at the end of the manufacturing cycle.
- Slim, fine serrated noses.
- Lateral wire cutter for copper and hard steel wire.
- 185A.20VE: straight nose. Approved by VDE.
- 195A.20VE: 40° angled nose.
- Removable return spring.
- Ergonomic anti-slip grips.
- Finish: polished, varnished.



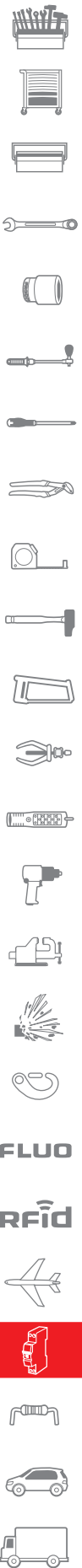
185A.20VE



195A.20VE



	B [mm]	C [mm]	d [mm]	E [mm]	L [mm]	ΔΔ [g]
<b>185A.20VE</b>	18	75	2,9	3,6	200	192
<b>195A.20VE</b>	18	69	2,9	3,6	200	192

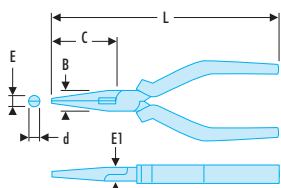


## PLIERS

## ■ 193A-195A.VE - 1,000 Volt insulated short half-round nose pliers



195A.16VE



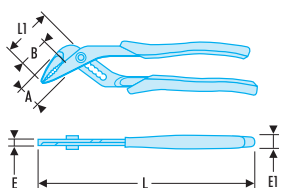
NF ISO 5745, ISO 5745, DIN ISO 5745, ASME B107.500,  
NF EN 60900, EN 60900, DIN EN 60900

- For your safety, all pliers are tested individually at 10,000 volts for 10 seconds, at the end of the manufacturing cycle.
- Narrow, finely serrated tips with side cutting edges.
  - 193A.VE: straight nose.
  - 195A.VE: 40° angled nose.
- Cutting edges for copper and hard steel wire to a maximum specification of 1.6mm 160 kg/mm<sup>2</sup>.
- High durability Carbon alloy steel, with induction hardened cutting edges.
- Bi-Material ergonomic grips resistant to chemical agents featuring:
  - Positive return spring
  - Tether ready (Tether point adds 10mm to nominal length)
- Varnish finish to help prevent rusting.



Model	B [mm]	C [mm]	d [mm]	E [mm]	L [mm]	ΔΔ [g]
193A.16VE	17	50	2,5	3	160	177
195A.16VE	17	50	2,5	3	160	177

## ■ High-capacity 1,000 Volt insulated multigrip pliers



NF ISO 8976, NF EN 60900, ISO 8976, EN 60900,  
DIN ISO 8976, DIN EN 60900, ASME B107.500

- Capacity: 44 mm.
- Ideal for confined spaces: long reach thin noses.
- Double heat-treated tips: high wear resistance, hardness 60/62 HRC.
  - 180.VE: varnish finish, 1,000 V insulated grips designed for electrical safety to EN 60900 and VDE certified for working on or near live components.



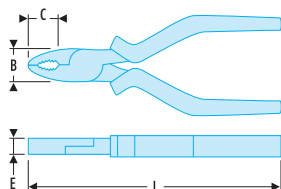
Model	A [mm]	B [mm]	C [mm]	E [mm]	E1 [mm]	L [mm]	L1 [mm]	ΔΔ [g]
180.VE	30	30	35	8	22	250	58	360

## ■ 187A.VE - 1,000 Volt insulated combination pliers



187A.16VE

187A.18VE



NF ISO 5746, ISO 5746, DIN ISO 5746, ASME B107.500,  
NF EN 60900, EN 60900, DIN EN 60900

- For your safety, all pliers are tested individually at 10,000 volts for 10 seconds, at the end of the manufacturing cycle.
- Serrated flat and oval pipe/cable gripping surfaces combined with a high performance cutting edges.
- Cutting edges designed to cleanly cut all types of wire: soft wires and modern materials to a maximum piano wire specification of:
  - 187A.16VE : 1.8mm 215 kg/mm<sup>2</sup>
  - 187A.18VE : 2.0mm 210 kg/mm<sup>2</sup>
- High mechanical advantage due to off-set rivet and cutting edge geometry reducing effort.
- High durability Carbon alloy steel, with induction hardened cutting edges.
- Mono-Material ergonomic grips maintaining accessibility benefits of classic dip grips, resistant to workshop chemical agents
- Varnish finish to help prevent rusting.

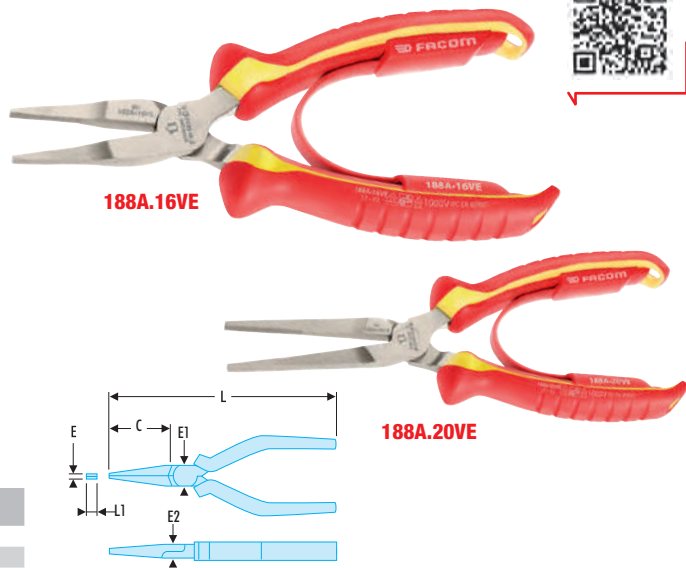


Model	B [mm]	C [mm]	E [mm]	L [mm]	ΔΔ [g]
187A.16VE	21	34	9,5	165	195
187A.18VE	23	36	10,0	185	225

188A.VE - 1,000 Volt insulated flat nose pliers

NF ISO 5745, ISO 5745, DIN ISO 5745, ASME B107.500, NF EN 60900, EN 60900, DIN EN 60900

- For your safety, all pliers are tested individually at 10,000 volts for 10 seconds, at the end of the manufacturing cycle.
- Narrow flat shaped and finely serrated nose for a firm grip and accessibility
- High durability Carbon alloy steel.
- Bi-Material ergonomic grips resistant to chemical agents featuring:
  - Positive return spring
  - Tether ready  
(Tether point adds 10mm to nominal length)
- Varnish finish to help prevent rusting.

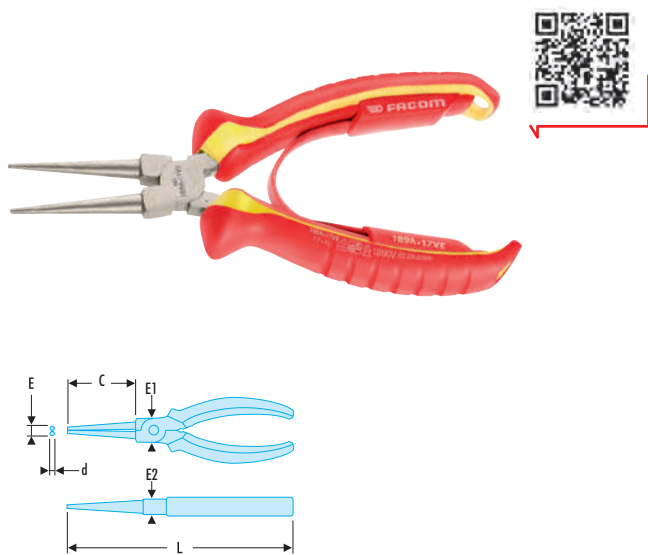


	B [mm]	E [mm]	L [mm]	L1 [mm]	ΔΔ [g]
188A.16VE	46	4	168	6,5	140
188A.20VE	75	4	200	6,5	200

1,000 Volt insulated round nose pliers

NF ISO 5745, ISO 5745, DIN ISO 5745, ASME B107.500, NF EN 60900, EN 60900, DIN EN 60900

- For your safety, all pliers are tested individually at 10,000 volts for 10 seconds, at the end of the manufacturing cycle.
- For shaping loops, bends or rings.
- Finely serrated jaws for a positive grip.
- Diameter of each nose at the end: 2 mm.
- High durability Carbon alloy steel.
- Bi-Material ergonomic grips resistant to chemical agents featuring:
  - Positive return spring
  - Tether ready tether point  
(Tether point adds 10mm to nominal length)
- Varnish finish to help prevent rusting.



	C [mm]	d [mm]	E [mm]	L [mm]	ΔΔ [g]
189A.17VE	41	2	4	170	135

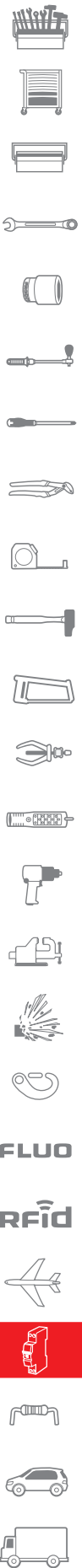
1,000 Volt insulated strippers

NF EN 60900, EN 60900, DIN EN 60900

- For your safety, all pliers are tested individually at 10,000 volts for 10 seconds, at the end of the manufacturing cycle.
- For multiple or single strand wires 0.5 --> 6 mm<sup>2</sup>.
- Adjustment screw with lock nut.
- Metal return screw.
- Ergonomic anti-slip grips.
- Finish: polished, varnished.

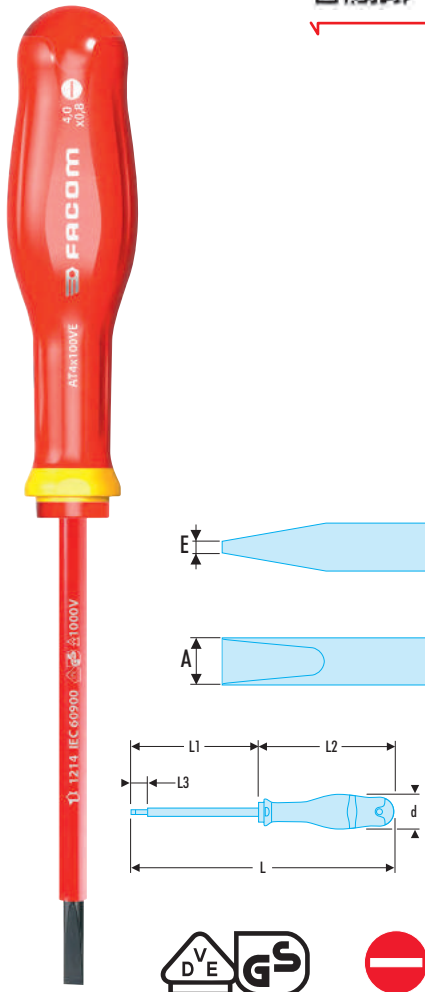


	B [mm]	E [mm]	L [mm]	ΔΔ [g]
194A.17VE	17	8,5	170	185



## SCREWDRIVERS

### AT.VE - PROTWIST® 1,000 Volt insulated screwdrivers for slotted-head screws



NF ISO 2380-1, NF ISO 2380-2, NF EN 60900, ISO 2380-1, ISO 2380-2, EN 60900, DIN ISO 2380-1, DIN ISO 2380-2, DIN EN 60900, ASME B107.600

- For your safety, each screwdriver is tested individually at 10,000 volts for 10 seconds, at the end of the manufacturing cycle.
- 1,000 Volt sheathed round blade.
- Milled blade: --> 5.5 mm included.
- Fillet blade: 6.5 --> 12 mm.
- Bi-material grip resists to impacts, abrasion, and chemicals.
- New chemical resistant handle with "power" channel for higher torque transfer.
- New softer handle material for improved comfort.

	A [mm]	d [mm]	E [mm]	L [mm]	L1 [mm]	L2 [mm]	L3 [mm]	ΔΔ [g]
AT2X75VE	2,0	19	0,4	170	40	95	18	23
AT2.5X50VE	2,5	25	0,4	153	50	103	18	30
AT2.5x75VE	2,5	25	0,4	178	75	103	18	32
AT3X75VE	3,0	25	0,5	178	75	103	18	38
AT3X100VE	3,0	25	0,5	202	100	103	18	39
AT3.5x75VE	3,5	25	0,6	179	75	104	18	42
AT3.5x100VE	3,5	25	0,6	204	100	104	18	44
AT4X100VE	4,0	30	0,8	210	100	110	18	48
AT4X150VE	4,0	30	0,8	260	150	110	18	53
AT5.5x125VE	5,5	30	1,0	235	125	110	18	88
AT5.5x150VE	5,5	30	1,0	260	150	110	18	92
AT5.5x200VE	5,5	30	1,0	310	200	110	18	106
AT6.5x150VE	6,5	36	1,2	270	150	120	18	120
AT6.5x200VE	6,5	36	1,2	320	200	120	18	170
AT8X150VE	8,0	40	1,2	275	150	125	18	160
AT8X200VE	8,0	40	1,2	325	200	125	18	180
AT10X200VE	10,0	40	1,6	325	200	125	18	240
AT12X250VE	12,0	40	2,0	375	250	125	18	360

### ATP.VE - PROTWIST® 1,000 Volt insulated screwdrivers for Phillips® head screws

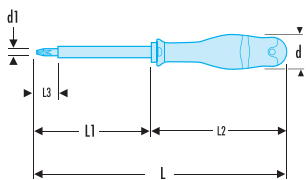


NF ISO 8764-1, NF ISO 8764-2, NF EN 60900, ISO 8764-1, ISO 8764-2, EN 60900, DIN ISO 8764-1, DIN ISO 8764-2, DIN EN 60900, ASME B107.600

- For your safety, each screwdriver is tested individually at 10,000 volts for 10 seconds, at the end of the manufacturing cycle.
- 1,000 Volt sheathed round blade.
- Bi-material grip resists to impacts, abrasion, and chemicals.
- New chemical resistant handle with "power" channel for higher torque transfer.
- New softer handle material for improved comfort.

	Phillips [No]	d [mm]	d1 [mm]	L [mm]	L1 [mm]	L2 [mm]	L3 [mm]	ΔΔ [g]
ATPOX75VE	PH0	25	3,0	179	75	104	18	46
ATP1X100VE	PH1	30	4,5	210	100	110	18	77
ATP2X125VE	PH2	36	6,0	215	125	120	18	127
ATP3X150VE	PH3	40	8,0	275	150	125	18	195
ATP4X200VE	PH4	40	10,0	375	200	125	18	278

■ **ATD.VE - PROTWIST® 1,000 Volt insulated screwdrivers for Pozidriv® head screws**



■ **AT.VE - Sets of PROTWIST® 1,000 Volt insulated screwdrivers**



NF ISO 8764-1, NF ISO 8764-2, NF EN 60900, ISO 8764-1, ISO 8764-2, EN 60900, DIN ISO 8764-1, DIN ISO 8764-2, DIN EN 60900, ASME B107.600

- For your safety, each screwdriver is tested individually at 10,000 volts for 10 seconds, at the end of the manufacturing cycle.
- 1,000 Volt sheathed round blade.
- Bi-material grip resists to impacts, abrasion, and chemicals.

- For your safety, each screwdriver is tested individually at 10,000 volts for 10 seconds, at the end of the manufacturing cycle.
- Supplied in a box.

	Pozidriv [No]	d [mm]	d1 [mm]	L [mm]	L1 [mm]	L2 [mm]	L3 [mm]	ΔΔ [g]
<b>ATD0X75VE</b>	PZ0	25	3,0	179	75	104	18	46
<b>ATD1X100VE</b>	PZ1	30	4,5	209	100	109	18	77
<b>ATD2X125VE</b>	PZ2	36	6,0	245	125	120	18	127
<b>ATD3X150VE</b>	PZ3	40	8,0	275	150	125	18	195

	Qty	ΔΔ [g]
<b>ATD.J5VE</b>	3.5mm, 4mm, 5.5mm, PZ1, PZ2	430
<b>ATD.J8VE</b>	2.5mm, 3mm, 3.5mm, 4mm, 5.5mm, 6.5m, PZ1, PZ2	650
<b>ATP.J5VE</b>	3.5mm, 4mm, 5.5mm, PH1, PH2	430



## BORNEO & SLIM SCREWDRIVERS

433

## MULTIGRIP PLIERS

## FACOM VSE - A COMPREHENSIVE RANGE OF 1,000 VOLT INSULATED TOOLS

## For use on live components!

**"Safety" colour coding**  
**ORANGE:**  
1,000 V protection.



**YELLOW visible:**  
**STOP**  
and change tool.



**"CERTIFIED" SAFETY**  
**Correct use of insulated tools**



ALWAYS wear insulating gloves and eye protection. Check insulation is sound before using a tool.

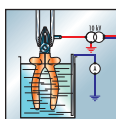
- Never use a tool with cracked, cut or damaged insulation in any way.
- Discard tools if their insulation looks unsafe.
- Don't alter the insulation.
- Don't let other people use your insulated tools.
- Always use the correct tool.
- Check that the tool bears standard and approval markings.
- Read safety recommendations and keep the instructions. These products come with safety recommendations.
- Beware of electrical hazards.
- Prevent damage to insulation from :
  - Heat (-20 to 70°C working temperature),
  - Cuts or perforations.,
  - Chemicals. Visually check the insulation before use.
- Wear insulating gloves and eye protection.
  - 2-colour insulation :
  - Orange = safe.
  - Yellow = STOP.



- 1 Basic tool:** Facom performance and safety.
- 2 Insulation:** Certified and accredited Facom production site. Tested and approved products.
- 3 2-colour warning insulation:** ORANGE = 1,000 V protection. YELLOW VISIBLE = STOP and change tool.
- 4 Ribbing on flexible insulation:** More secure grip.
- 5 Generously-sized guards:** Hand stays clear of the metal.
- 6 Hot markings:** Permanent safety data. Traceability.

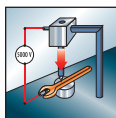
**Tools to EN60900 specifications**

**Individual production test:**  
Each and every tool is tested to 10,000 volts for 10 seconds at the end of the manufacturing cycle.



**Dielectric test:**

After 24 hours immersion, the tool is wiped and tested to 10,000 V for 3 minutes between metal and sheath surface. Leakage current should not exceed specified limits.

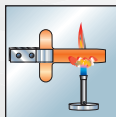


**Penetration test:** After a penetration test on the most vulnerable part of the tool, followed by heating and cooling, no breakdown or flashover should occur when 5,000 volts is applied for a period of 3 minutes.



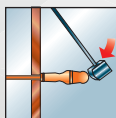
**Insulation adhesion test:**

A 50 kg tear test is carried out for 3 minutes at ambient temperature on a tool heated to 70°C for 168 hours. Sheath and guard should remain bonded to the metal.



**Non-flammability test:**

After exposure to a flame for 10 seconds, flame spread over the tool should not exceed 120 mm high within the next 20 seconds.

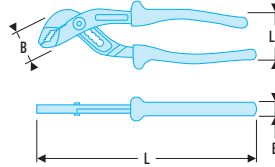


**Impact test:**

A standard force is repeatedly applied to the handle end of a tool cooled to -25°C for 2 hours. The sheathing should not crack.

VSE series 1,000 Volt insulated multigrip pliers

NF ISO 8976, NF EN 60900, ISO 8976, EN 60900,  
DIN ISO 8976, DIN EN 60900  
• Insulation with "safety" colour coding.



▣	B [mm]	E [mm]	L [mm]	L1 [mm]	Δ [g]
180.VSE	40	35	250	85	360

FACOM VSE 1,000 VOLTS®



Tools built for electrical safety  
to European standard EN 60900.  
For working on live components  
up to 1,000 Volt AC and 1,500 Volt DC.

**SAFETY  
COLOUR-  
CODING**

◆ **ORANGE:**  
1,000 Volt protection.

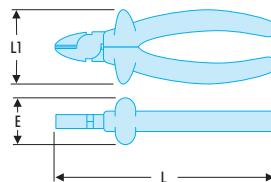
◆ **YELLOW VISIBLE:**  
STOP and change tool.

CUTTING PLIERS

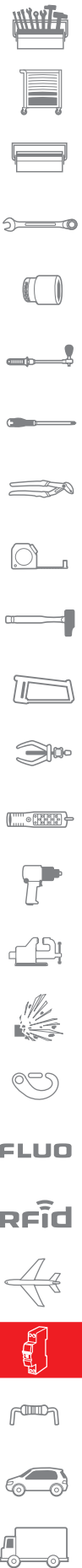
192.AVSE - VSE series 1,000 Volt insulated diagonal cutting pliers for hard wire

NF ISO 5749, NF EN 60900, ISO 5749, EN 60900, DIN ISO 5749,  
DIN EN 60900, ASME B107.500

- Tempered cutting edges for hardness above 60 HRC.
- 3 cutting diameters/200 kg/mm<sup>2</sup>: 1.4 - 1.6 - 1.8 mm.
- Insulation with "safety" colour coding.
- Finish: burnished head.



▣	E [mm]	H [mm]	L [mm]	L1 [mm]	200 kg/mm <sup>2</sup> (Ø mm)	Δ [g]
192.14AVSE	30	30	145	70	1,4	210
192.16AVSE	35	35	165	75	1,6	270
192.18AVSE	40	40	185	75	1,8	370

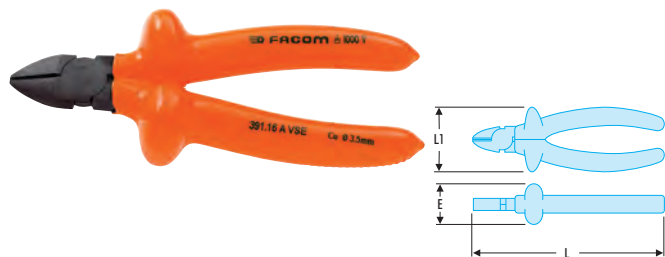


FLUO

RFid



### VSE series 1,000 Volt insulated diagonal cutting pliers for copper



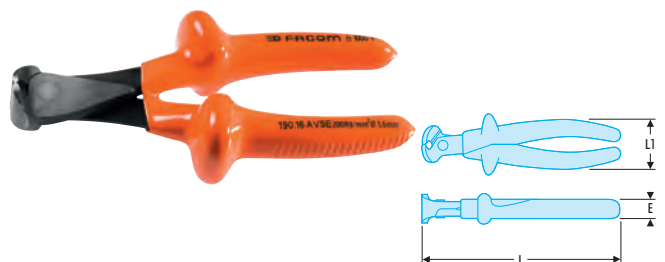
NF ISO 5749, ISO 5749, DIN ISO 5749, ASME B107.500

- Embedded meshing model.
- CU cutting diameter: 3.5 mm.
- Insulation with "safety" colour coding.
- Finish: burnished head.



🔌	E [mm]	L [mm]	L1 [mm]	Cu - Ø max [mm <sup>2</sup> ]	ΔΔ [g]
<b>391.16AVSE</b>	35	165	70	3,5	270

### VSE series 1,000 Volt insulated end nippers for hard wire



NF ISO 5748, NF EN 60900, ISO 5748, EN 60900, DIN ISO 5748, DIN EN 60900, ASME B107.500

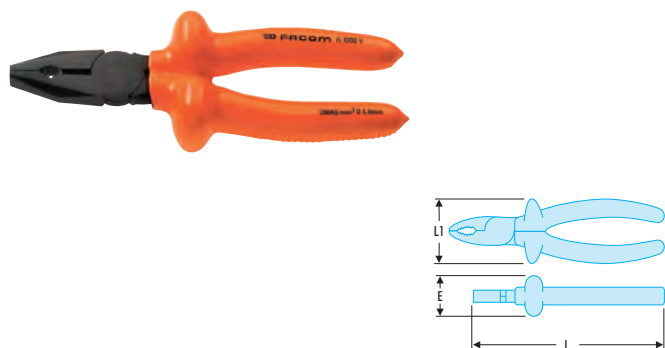
- Tempered cutting edges for hardness above 60 HRC.
- Cutting diameter/200 kg/mm<sup>2</sup>: 1.6 mm.
- Insulation with "safety" colour coding.
- Finish: burnished head.



🔌	E [mm]	L [mm]	L1 [mm]	200 kg/mm <sup>2</sup> [Ø mm]	ΔΔ [g]
<b>190.16AVSE</b>	77	165	35	1,6	250

## COMBINATION PLIERS

### 187.AVSE - VSE series 1,000 Volt insulated combination pliers



NF ISO 5746, NF EN 60900, ISO 5746, EN 60900, DIN ISO 5746, DIN EN 60900, ASME B107.500

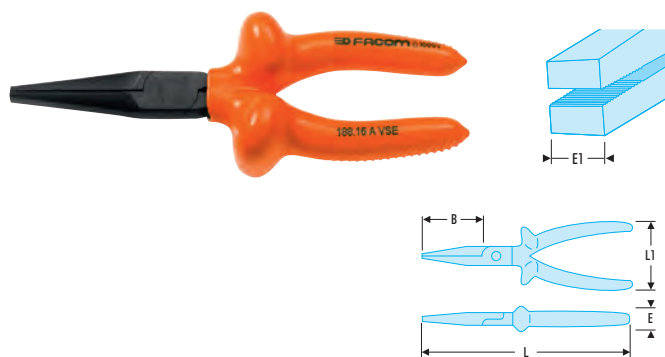
- Tempered pliers for general strength.
- Second treatment on cutting edge for cutting edge hardness above 60 HRC.
- Insulation with "safety" colour coding.
- Finish: burnished head.



🔌	E [mm]	L [mm]	L1 [mm]	140 kg/mm <sup>2</sup> [Ø mm]	200 kg/mm <sup>2</sup> [Ø mm]	Cu - Ø max [mm <sup>2</sup> ]	ΔΔ [g]
<b>187.16AVSE</b>	35	165	65	2,0	1,6	3,3	265
<b>187.18AVSE</b>	35	185	70	1,8	1,8	3,7	320
<b>187.20AVSE</b>	40	205	70	2,0	2,0	4,0	410

## GRIP PLIERS

### VSE series 1,000 Volt insulated flat nose pliers



NF ISO 5746, NF EN 60900, ISO 5746, EN 60900, DIN ISO 5746, DIN EN 60900, ASME B107.500

- Serrated nose tips.
- Insulation with "safety" colour coding.
- Finish: burnished head.



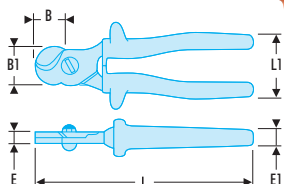
🔌	B [mm]	E [mm]	E1 [mm]	L [mm]	L1 [mm]	ΔΔ [g]
<b>188.16AVSE</b>	50	37	7	165	60	170





## CABLE CUTTER

## ■ 412.AVSE - VSE series 1,000 Volt insulated copper-alu cable cutter



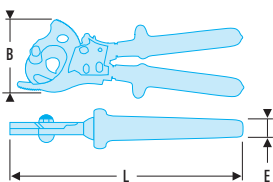
NF EN 60900, EN 60900, DIN EN 60900

- Particularly efficient for limited size.
- Forged safety stops.
- Insulation with "safety" colour coding.
- Finish: burnished head.



	B [mm]	B1 [mm]	E [mm]	E1 [mm]	L [mm]	L1 [mm]	Cu - Ø max [mm <sup>2</sup> ]	ΔΔ [g]
<b>412.10AVSE</b>	25	35	10	35	195	80	8	390
<b>412.14AVSE</b>	30	35	13	35	230	80	14	510
<b>412.150AVSE</b>	60	70	16	70	450	155	32	220

## ■ 414.AVSE - VSE series 1,000 Volt insulated ratchet cable cutter



NF EN 60900, EN 60900, DIN EN 60900

- One-hand cutting.
- No distortion of the cable cut.
- Tempered forged steel blade.
- Insulation with "safety" colour coding.



414.45AVSE

- Cutting dimension: 45 mm.
- Max cutting cross-section copper 300 mm<sup>2</sup> and alu. 400 mm<sup>2</sup>.
- Copper sector cable: 3x70.
- Alu sector cable: 4x70.

414.52AVSE

- Cutting dimension: 52 mm.
- Max cutting cross-section copper 400 mm<sup>2</sup>.
- Max cutting cross-section HVA: 240 mm<sup>2</sup>.
- LV sector cable: 3\*150+70 or 3\*240+95.

	B [mm]	E [mm]	L [mm]	ΔΔ [kg]
<b>414.45AVSE</b>	135	42	260	1.0
<b>414.52AVSE</b>	140	37	280	1.0

## HACKSAW FRAME

## ■ SE series 1,000 Volt insulated hacksaw frame



NF E 73-073, NF EN 60900, EN 60900, DIN 6473, DIN EN 60900

- Hacksaw frame for 300 mm blade.
- 2 blade positions.
- Tension by wing nut.
- Supplied with one bimetal blade.
- Dimensions: 470 x 130 x 20 mm.



	ΔΔ [g]
<b>602.AVSE</b>	590

KNIFE

VSE series 1,000 Volt insulated knife

NF EN 60900, EN 60900, DIN EN 60900

- Model with thick, angled, flat end blade.
- Soft bi-material handle.
- Storage case.
- Active blade length: 60 mm.
- Max dimensions: 185 x 52 x 25 mm.



Model	Weight [g]
1820.AVSE	90

OPEN-END WRENCHES

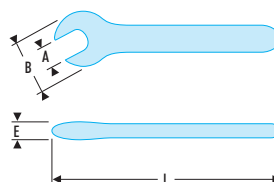
46.AVSE - VSE series 1,000 Volt insulated open end wrenches

NF ISO 4229, NF EN 60900, ISO 4229, EN 60900, DIN 3114, DIN EN 60900

- Insulation with "safety" colour coding.



Model	A [mm]	B [mm]	E [mm]	L [mm]	Weight [g]
46.8AVSE	8	22	8	105	30
46.9AVSE	9	24	9	105	35
46.10AVSE	10	25	9	105	40
46.11AVSE	11	29	10	115	50
46.12AVSE	12	30	10	125	60
46.13AVSE	13	32	11	135	70
46.14AVSE	14	34	11	145	80
46.15AVSE	15	36	11	145	90
46.16AVSE	16	38	12	155	105
46.17AVSE	17	41	12	155	120
46.18AVSE	18	42	12	160	135
46.19AVSE	19	45	12	165	150
46.21AVSE	21	50	14	185	180



RING WRENCHES

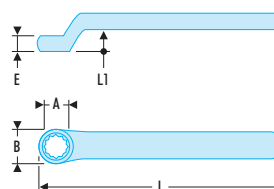
55.AVSE - VSE series 1,000 Volt insulated offset ring wrenches

NF EN 60900, EN 60900, DIN EN 60900

- OGV® profile ring.
- Insulation with "safety" colour coding.



Model	A [mm]	B [mm]	E [mm]	L [mm]	L1 [mm]	Weight [g]
55.8AVSE	8	16	8	150	16	50
55.9AVSE	9	17	9	151	17	55
55.10AVSE	10	19	9	157	17	60
55.11AVSE	11	20	10	160	19	70
55.12AVSE	12	21	11	165	20	100
55.13AVSE	13	23	12	165	20	105
55.14AVSE	14	25	12	180	21	120
55.15AVSE	15	26	12	183	21	130
55.16AVSE	16	27	13	195	26	160
55.17AVSE	17	30	14	198	27	180
55.18AVSE	18	30	14	215	27	200
55.19AVSE	19	32	14	215	27	205
55.21AVSE	21	35	16	245	31	300



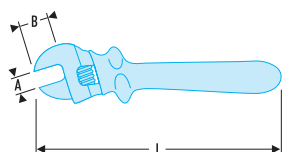
## ADJUSTABLE WRENCHES

## ■ 113.AVSE - VSE series 1,000 Volt insulated adjustable wrenches



NF ISO 6787, NF EN 60900, ISO 6787, EN 60900, DIN EN 60900, ASME B107.100

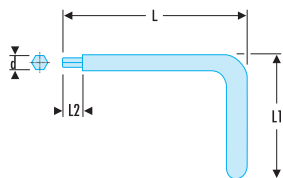
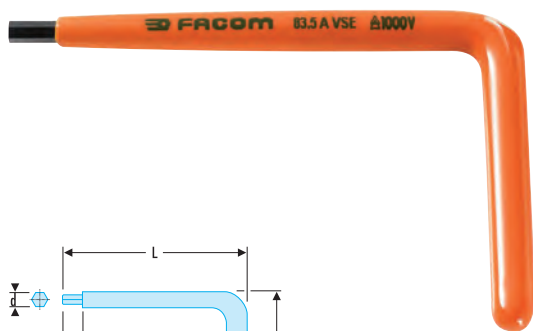
- Models with finger stop.
- Worm: left-hand rotation.
- Insulation with "safety" colour coding.
- Finish: burnished.



ED	A [mm]	B [mm]	L [mm]	ΔΔ [g]
113.8TAVSE	27	24	210	385
113.10TAVSE	30	29	260	655
113.12TAVSE	34	34	310	950
113.15TAVSE	44	44	385	1900

## OFFSET KEYS

## ■ 83.AVSE - VSE series 1,000 Volt insulated keys



NF ISO 2936, NF EN 60900, ISO 2936, EN 60900, DIN ISO 2936, DIN EN 60900

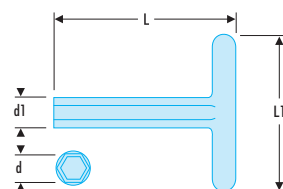
- Key made in allied steel treated for strength above specifications of standards.
- Insulation with "safety" colour coding.



ED	d [mm]	L [mm]	L1 [mm]	L2 [mm]	ΔΔ [g]
83.3AVSE	3	125	85	12	20
83.4AVSE	4	125	85	12	30
83.5AVSE	5	125	85	12	50
83.6AVSE	6	125	85	12	70
83.8AVSE	8	125	85	12	110
83.10AVSE	10	125	85	12	150
83.12AVSE	12	125	85	12	210

## BOX WRENCHES

## ■ 94T-TL.AVSE - VSE series 1,000 Volt insulated box wrenches



NF EN 60900, EN 60900, DIN EN 60900

- 94T.AVSE: box wrenches length 135 mm.
- 94T.L.AVSE: box wrenches length 300 mm.



ED	d [mm]	d1 [mm]	L [mm]	L1 [mm]	ΔΔ [g]
94T.6AVSE	6	13	135	115	150
94T.8AVSE	8	15	135	115	160
94T.10AVSE	10	19	135	115	185
94T.11AVSE	11	23	135	115	185
94T.12AVSE	12	24	135	115	210
94T.13AVSE	13	25	135	115	225
94T.14AVSE	14	26	135	115	240
94TL.10AVSE	10	21	300	205	420
94TL.13AVSE	13	25	300	205	520
94TL.16AVSE	16	30	300	205	800
94TL.17AVSE	17	30	300	205	840
94TL.19AVSE	19	33	300	205	910

SOCKETS 1/4"

**FACOM VSE 1,000 VOLT INSULATED RATCHETS AND SOCKETS**

**A comprehensive range of tools for working on live components**

- 1 Comprehensive range of accessories: extensions, T handles, etc.
- 2 Variety of socket lengths.
- 3 Square drives: 1/2", 3/8", 1/4" for overcoming accessibility problems.

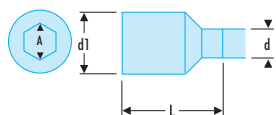


**1000VOLTS**  
EN 60900



And complete box sets.

■ **R.AVSE - VSE series 1,000 Volt insulated 6-point 1/4" sockets**



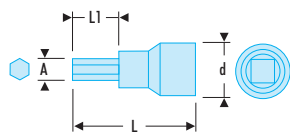
NF ISO 2725-1, NF ISO 1711-1, NF EN EN 60900, ISO 2725-1, ISO 1711-1, EN 60900, DIN 3124, DIN EN 60900, ASME B107.5

- Manual use sockets.
- Drive bit 1/4" - 6.35 mm.

	A [mm]	d [mm]	d1 [mm]	L [mm]	ΔΔ [g]
<b>R.6AVSE</b>	6	22	16	22	10
<b>R.7AVSE</b>	7	22	17	22	16
<b>R.8AVSE</b>	8	22	17	22	16
<b>R.10AVSE</b>	10	22	18	22	20
<b>R.12AVSE</b>	12	22	22	22	30



■ **RT.AVSE - VSE series 1,000 Volt insulated 6-point 1/4" bit sockets**



NF EN 60900, EN 60900, DIN EN 60900

- Manual use sockets.
- Drive bit 1/4" - 6.35 mm.

	A [mm]	d [mm]	L [mm]	L1 [mm]	ΔΔ [g]
<b>RT.4AVSE</b>	4	22	37	11	20
<b>RT.5AVSE</b>	5	22	37	13	20
<b>RT.6AVSE</b>	6	22	37	14	20



RATCHETS AND ACCESSORIES 1/4"

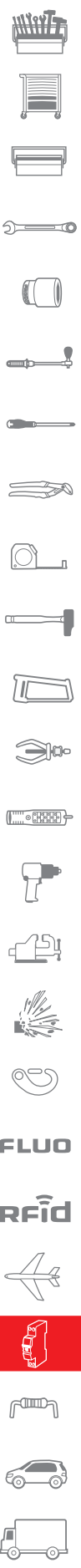
■ **VSE series 1,000 Volt insulated 1/4" ratchet**



NF ISO 3315, NF EN 60900, ISO 3315, EN 60900, DIN 3122, DIN EN 60900, ASME B107.10

- Drive bit 1/4" - 6.35 mm.
- Sockets and accessories held by spring ball (9 N).
- Insulation grip with "safety" colour coding.
- Dimensions: 125 x 45 x 35 mm.

	ΔΔ [g]
<b>R.151AVSE</b>	140



### VSE series 1,000 Volt insulated 1/4" extension



NF ISO 3316, NF EN 60900, ISO 3316, EN 60900, DIN 3123, DIN EN 60900, ASME B107.10

- Drive bit 1/4" - 6.35 mm.



🔧	d [mm]	L [mm]	ΔΔ [g]
<b>R.210AVSE</b>	16,6	116	65

### Set of 10 VSE series 1,000 Volt insulated tools



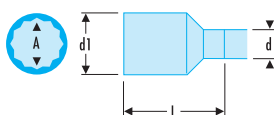
- Including:
  - 5 sockets 6, 7, 8, 10, 12 mm.
  - 3 6-point bit sockets 4, 5, 6 mm.
  - 1 ratchet R.151AVSE.
  - 1 extension R.210AVSE.
- Case dimensions: 322 x 136 x 53 mm.



🔧	H [mm]	L [mm]	ΔΔ [g]
<b>R.400AVSE</b>	53	322	650

### SOCKETS 3/8"

#### J.AVSE - VSE series 1,000 Volt insulated 12-point 3/8" sockets



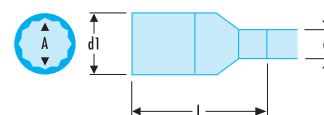
NF ISO 2725-1, NF ISO 1711-1, NF EN 60900, ISO 2725-1, ISO 1711-1, EN 60900, DIN 3124, DIN EN 60900, ASME B107.5

- Manual use sockets.
- Drive bit 3/8" - 9.53 mm.
- OGV® profile.

🔧	A [mm]	d [mm]	d1 [mm]	L [mm]	ΔΔ [g]
<b>J.8AVSE</b>	8	18	17	43	30
<b>J.10AVSE</b>	10	18	18	43	34
<b>J.11AVSE</b>	11	18	20	43	35
<b>J.12AVSE</b>	12	18	21	46	35
<b>J.13AVSE</b>	13	18	22	46	45
<b>J.14AVSE</b>	14	18	23	46	45
<b>J.15AVSE</b>	15	18	25	46	45
<b>J.16AVSE</b>	16	18	25	46	45
<b>J.17AVSE</b>	17	18	27	46	48
<b>J.18AVSE</b>	18	18	27	46	66

### LONG REACH SOCKETS 3/8"

#### J.LAVSE - VSE series 1,000 Volt insulated long 12-point 3/8" sockets



NF ISO 2725-1, NF ISO 1711-1, NF EN 60900, ISO 2725-1, ISO 1711-1, EN 60900, DIN 3124, DIN EN 60900, ASME B107.5

- Manual use sockets.
- Drive bit 3/8" - 9.53 mm.
- OGV® profile.

🔧	A [mm]	d [mm]	d1 [mm]	L [mm]	ΔΔ [g]
<b>J.8LAVSE</b>	8	18	19	63	66
<b>J.13LAVSE</b>	13	18	23	63	75
<b>J.14LAVSE</b>	14	18	23	63	98
<b>J.16LAVSE</b>	16	18	25	69	147
<b>J.17LAVSE</b>	17	18	27	76	147
<b>J.18LAVSE</b>	18	18	28	76	157
<b>J.19LAVSE</b>	19	18	29	76	166

BIT SOCKETS 3/8"

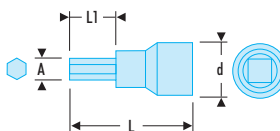
■ JT.AVSE - VSE series 1,000 Volt insulated male 6-point 3/8" bit sockets

NF EN 60900, EN 60900, DIN EN 60900

- Manual use sockets.
- Drive bit 3/8" - 9.53 mm.



	A [mm]	d [mm]	L [mm]	L1 [mm]	ΔΔ [g]
JT.4AVSE	4	18	66	10	43
JT.5AVSE	5	18	66	10	43
JT.8AVSE	8	18	66	10	56



RATCHETS AND ACCESSORIES 3/8"

■ VSE series 1,000 Volt insulated 3/8" ratchet

NF ISO 3315, NF EN 60900, ISO 3315, EN 60900, DIN 3122, DIN EN 60900, ASME B107.10

- Drive bit 3/8" - 9.53 mm.
- Sockets and accessories held by spring ball set (16 N).
- Insulation grip with "safety" colour coding.
- Dimensions: 180 x 50 x 48 mm.



	ΔΔ [g]
J.151AVSE	250

■ VSE series 1,000 Volt insulated 3/8" handle

NF EN 60900, EN 60900, DIN EN 60900, ASME B107.10

- Handle with drive bit 3/8" - 9.53 mm.
- Sockets and accessories held by spring ball set (16 N).
- Insulation grip with "safety" colour coding.
- Dimensions: 205 x 165 x 35 mm.



	ΔΔ [g]
J.121AVSE	380



### J.AVSE - VSE series 1,000 Volt insulated 3/8" extensions



NF ISO 3316, NF EN 60900, ISO 3316, EN 60900, DIN 3123, DIN EN 60900, ASME B107.10

- Drive bit 3/8" - 9.53 mm.



Model	d [mm]	L [mm]	ΔΔ [g]
J.210AVSE	17	150	150
J.215AVSE	17	260	290

### Set of 9 VSE series 1,000 Volt insulated tools



- Including:
  - 6 12-point sockets 8, 10, 11, 12, 13, 14 mm.
  - 1 ratchet J.151AVSE.
  - 2 extensions J.210AVSE, J.215AVSE.
- Dimensions: 390 x 160 x 68 mm.



Model	H [mm]	L [mm]	ΔΔ [kg]
J.400AVSE	68	390	1.7

## SOCKET SETS AND ACCESSORIES 3/8"

### Set of 17 VSE series 1,000 Volt insulated tools



- Including:
  - 9 12-point sockets 8, 10, 11, 12, 13, 14, 15, 17, 19 mm.
  - 5 6-point bit sockets 4, 5, 6, 7, 8 mm.
  - 1 ratchet J.151AVSE.
  - 1 handle J.121AVSE.
  - 1 extension J.210AVSE.
- Dimensions: 345 x 280 x 65 mm.



Model	H [mm]	L [mm]	ΔΔ [kg]
J.401AVSE	65	345	2.3

## SOCKETS 1/2"

### S.AVSE - VSE series 1,000 Volt insulated 12-point 1/2" sockets

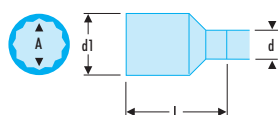


NF ISO 2725-1, NF ISO 1711-1, NF EN EN 60900, ISO 2725-1, ISO 1711-1, EN 60900, DIN 3124, DIN EN 60900, ASME B107.5

- Manual use sockets.
- Drive bit 1/2" - 12.7 mm.
- OGV® profile.



Model	A [mm]	d [mm]	d1 [mm]	L [mm]	ΔΔ [g]
S.8AVSE	8	22	17	52	70
S.9AVSE	9	22	18	52	70
S.10AVSE	10	22	19	52	75
S.11AVSE	11	22	20	52	75
S.12AVSE	12	22	22	52	75
S.13AVSE	13	22	23	52	75
S.14AVSE	14	22	24	52	80
S.17AVSE	17	22	28	52	90
S.19AVSE	19	22	32	52	95
S.21AVSE	21	22	33	52	130
S.22AVSE	22	22	34	52	145





LONG REACH SOCKETS 1/2"

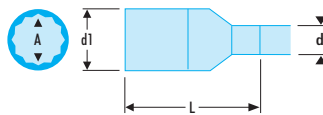
■ S.LAVSE - VSE series 1,000 Volt insulated long 12-point 1/2" sockets

NF ISO 2725-1, NF ISO 1711-1, NF EN EN 60900, ISO 2725-1, ISO 1711-1, EN 60900, DIN 3124, DIN EN 60900, ASME B107.5

- Manual use sockets.
- Drive bit 1/2" - 12.7 mm.
- OGV® profile.



FACOM	A [mm]	d [mm]	d1 [mm]	L [mm]	ΔΔ [g]
S.12LAVSE	12	22	22	77	125
S.13LAVSE	13	22	23	77	135
S.14LAVSE	14	22	24	77	135
S.16LAVSE	16	22	27	77	150
S.17LAVSE	17	22	28	77	161
S.18LAVSE	18	22	29	77	167
S.19LAVSE	19	22	32	77	180



BIT SOCKETS 1/2"

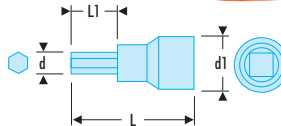
■ ST.AVSE - VSE series 1,000 Volt insulated male 6-point 1/2" bit sockets

NF EN 60900, EN 60900, DIN EN 60900

- Manual use sockets.
- Drive bit 1/2" - 12.7 mm.



FACOM	d [mm]	d1 [mm]	L [mm]	L1 [mm]	ΔΔ [g]
ST.8AVSE	8	22	70	10	90
ST.10AVSE	10	22	70	12	90
ST.12AVSE	12	22	92	12	145
ST.14AVSE	14	22	92	17	150
ST.17AVSE	17	22	92	19	175



RATCHETS AND ACCESSORIES 1/2"

■ VSE series 1,000 Volt insulated 1/2" ratchet

NF ISO 3315, NF EN 60900, ISO 3315, EN 60900, DIN 3122, DIN EN 60900, ASME B107.10

- Drive bit 1/2" - 12.7 mm.
- Sockets and accessories held by spring ball set (38 N).
- Insulation grip with "safety" colour coding.
- Dimensions: 265 x 55 x 70 mm.



FACOM	ΔΔ [g]
S.151AVSE	580

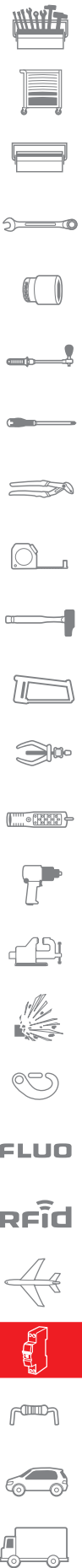
■ VSE series 1,000 Volt insulated 1/2" handle

NF EN 60900, EN 60900, DIN EN 60900

- Handle with drive bit 1/2" - 12.7 mm.
- Sockets and accessories held by spring ball set (38 N).
- Insulation grip with "safety" colour coding.
- Dimensions: 210 x 165 x 25 mm.



FACOM	ΔΔ [g]
S.121AVSE	520



### ■ S.AVSE - VSE series 1,000 Volt insulated 1/2" extensions



NF ISO 3316, NF EN 60900, ISO 3316, EN 60900, DIN 3123, DIN EN 60900, ASME B107.10

- Drive bit 1/2" - 12.7 mm.



FACOM	d [mm]	L [mm]	ΔΔ [g]
S.210AVSE	22	145	250
S.215AVSE	22	265	470

### SOCKET SETS AND ACCESSORIES 1/2"

### ■ Set of 12 VSE series 1,000 Volt insulated tools



NF EN 60900, EN 60900, DIN EN 60900

- Including:
  - 9 12-point sockets 8, 9, 10, 11, 12, 13, 14, 17, 19 mm.
  - 1 ratchet S.151AVSE.
  - Extensions S.210AVSE and S.215AVSE .
- Dimensions: 390 x 160 x 68 mm.



FACOM	H [mm]	L [mm]	ΔΔ [kg]
S.400AVSE	68	390	2.5

### ■ Set of 17 series 1,000 Volt insulated tools



NF EN 60900, EN 60900, DIN EN 60900

- Including:
  - 9 12-point sockets 8, 9, 10, 11, 12, 13, 14, 17, 19 mm.
  - 5 bit sockets 8, 10, 12, 14, 17 mm.
  - 1 ratchet S.151AVSE.
  - Handle S.121AVSE.
  - S.210AVSE Extension.
- Dimensions: 345 x 280 x 65 mm.



FACOM	H [mm]	L [mm]	ΔΔ [kg]
S.401AVSE	65	345	3.4

TORQUE WRENCH

VSE series 1,000 Volt insulated torque wrench

NF EN ISO 6789, NF EN 60900, ISO 6789, EN 60900,  
DIN EN ISO 6789, DIN EN 60900

- Safe precision.
- Adjustment system locking ring.
- Wrench compliant with the ISO EN 6789 standard for torque control.
- Accuracy + or - 4 % for 5,000 cycles min.
- Automatic trigger and reset.
- Re-calibratable wrench: typical procedure for torque wrenches.
- Drive bit 3/8".
- Capacity 10 to 50 N.m.
- One-way wrench.
- Wrench compliant with the EN 60900 standard for insulated tools.
- Protection up to 1,000 Volt AC and 1500 Volt direct.
- Wrench checked at dielectric test per unit on the manufacturing line.
- Wrench supplied with inspection report.



REF	L [mm]	ΔΔ [kg]
J.306-50VSE	380	1.3

BC.VSE - INSULATED GLOVES

BC.VSE - Insulated gloves

NF EN 60903, EN 60903, DIN EN 60903

- Natural latex gloves, AZM classification:
  - Resistance to acid: A.
  - Resistance to ozone: Z.
  - High mechanical strength: M.
- Length: 360 mm.
- Supplied in anti-UV opaque bag.



REF	E [mm]	Class	Size [mm]	Voltage/Volt	ΔΔ [g]
BC.80VSE	0,5	00	9 (B)	500	150
BC.81VSE	0,5	00	10 (C)	500	150
BC.90VSE	1,0	0	9 (B)	1000	150
BC.91VSE	1,0	0	10 (C)	1000	150

BC.VSE - SAFETY OVERGLOVES

BC.VSE - Safety overgloves

NF EN 60903, EN 60903, DIN EN 60903

- Silicon coated leather gloves protecting from mechanical risks.
- Used to protect latex insulated gloves.
- Physical and mechanical grade as per standard EN 388: 2, 1, 2, 1.
  - Abrasion: 2.
  - Cuts: 1.
  - Tears: 2.
  - Perforation: 1.



REF	Size [mm]	ΔΔ [g]
BC.109VSE	9 (B)	160
BC.110VSE	10 (C)	160



## BC.VSE - INSULATED MATS

## BC.VSE - Insulated mats



## NF C 18-421

- Rubber mat for insulation by cladding grounds.
- Thickness: 3.2 mm.
- Hardness: 60 DIDC.
- Dimensions:
  - BC.20VSE: 1 x 0,6 m.
  - BC.21VSE: 1 x 1 m.



ED	L x l [m]	ΔΔ [kg]
BC.20VSE	1 x 0,6	2,5
BC.21VSE	1 x 1,0	4,2

## INSULATED PLIERS

## Insulated plier



- Powerful clamping resin plier for assembly of insulating mats.
- Fitted with a suspension hook.
- Max opening: 40 mm.



ED	L [mm]	ΔΔ [g]
BC.25VSE	155	70

## INSULATED TOOL SETS

## 2180B.VSE - 10-piece set of 1,000 Volt insulated tools



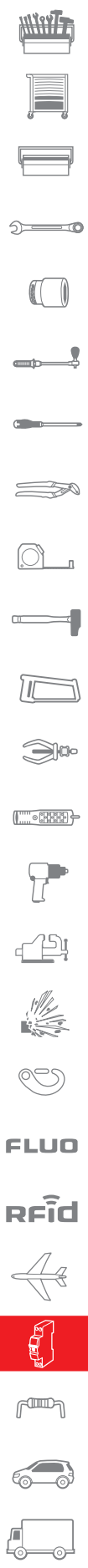
- Basic set for shop electrical maintenance.
- Supplied in leather bag BV.100.
- Dimensions: 350 x 120 x 120 mm.
- Weight: 2.025 kg.



ED	Qtys	Set Description
1820.AVSE	1	1,000 Volt insulated knife
187.18AVSE	1	1,000 Volt insulated combination pliers
189.17AVSE	1	1,000 Volt insulated round nose pliers
194.17AVSE	1	1,000 Volt insulated strippers
391.16AVSE	1	1,000 Volt insulated diagonal cutters for copper
AT4X100VE	1	1,000 Volt insulated screwdriver for slotted heads 4x100 mm
AT5.5x150VE	1	1,000 Volt slotted head screwdrivers 5.5x150 mm
ATP1X100VE	1	1,000 Volt screwdrivers for Phillips® PH 1 head
BC.90VSE	1	Low temperature insulating gloves S9
BV.100	1	Compact leather bag

■ **2185C.VSE** - 19-piece set of 1,000 Volt insulated tools

- In chest with modular storage.
- This general purpose selection includes 19 basic tools in a plastic box.
- Volume available for additional tools.
- Dimensions: 524 x 320 x 214 mm.
- Weight: 9.300 kg.



ED	Qtys	Set Description
1820.AVSE	1	1,000 Volt insulated knife
187.18AVSE	1	1,000 Volt insulated combination pliers
188.16AVSE	1	1,000 Volt insulated flat nose pliers
192.16AVSE	1	1,000 Volt insulated cutters for hard wire
194.17AVSE	1	1,000 Volt insulated strippers
391.16AVSE	1	1,000 Volt insulated diagonal cutters for copper
412.14AVSE	1	1,000 Volt insulated copper/alu cable cutter 14 mm
AT4X100VE	1	1,000 Volt insulated screwdriver for slotted heads 4x100 mm
AT5.5x150VE	1	1,000 Volt slotted head screwdrivers 5.5x150 mm
AT6.5x150VE	1	1,000 Volt slotted head screwdrivers 6.5x150 mm
AT8X150VE	1	1,000 Volt insulated screwdriver for slotted heads 8x150 mm
ATP1X100VE	1	1,000 Volt screwdrivers for Phillips® PH 1 head
ATP2X125VE	1	1,000 Volt screwdrivers for Phillips® PH 2 head
AV.HT1C	1	Voltsage tester screwdriver 90 to 480 Volts
BC.109VSE	1	Safety overgloves S9
BC.90VSE	1	Low temperature insulating gloves S9
DELA.401.00	1	Plastic folding rule (2 m)
R.400AVSE	1	1/4" 1,000 Volt insulated tool set
BP.P26	1	PRO BOX tool box - 26" model - 56 cm

### ■ 2187C.VSE - 32-piece set of 1,000 Volt insulated tools

- For electrical equipment installers.
  - Supplied in leather wallet BV.7A.
  - Dimensions: 445 x 330 x 185 mm.
- Weight: 8.500 kg.



Item Code	Qty	Set Description
113.10AVSE	1	1,000 Volt insulated adjustable wrench 30 mm
187.18AVSE	1	1,000 Volt insulated combination pliers
188.16AVSE	1	1,000 Volt insulated flat nose pliers
189.17AVSE	1	1,000 Volt insulated round nose pliers
194.17AVSE	1	1,000 Volt insulated strippers
391.16AVSE	1	1,000 Volt insulated copper diagonal cutters
412.14AVSE	1	1,000 Volt copper/alu cable cutter 14 mm
46.10AVSE	1	1,000 Volt insulated open-end wrench 10 mm
46.11AVSE	1	1,000 Volt insulated open-end wrench 11 mm
46.12AVSE	1	1,000 Volt insulated open-end wrench 12 mm
46.13AVSE	1	1,000 Volt insulated open-end wrench 13 mm
46.14AVSE	1	1,000 Volt insulated open-end wrench 14 mm
46.17AVSE	1	1,000 Volt insulated open-end wrench 17 mm
46.19AVSE	1	1,000 Volt insulated open-end wrench 19 mm
46.8AVSE	1	1,000 Volt insulated open-end wrench 8 mm
701B	1	Multifunction tester

Item Code	Qty	Set Description
83.3AVSE	1	1,000 Volt insulated keys 3 mm
83.4AVSE	1	1,000 Volt insulated keys 4 mm
83.6AVSE	1	1,000 Volt insulated keys 6 mm
AT3.5x100VE	1	1,000 Volt insulated slotted head screwdrivers 3.5x100 mm
AT4X100VE	1	1,000 Volt insulated screwdriver for slotted heads 4x100 mm
AT5.5x150VE	1	1,000 Volt slotted head screwdrivers 5.5x150 mm
AT6.5x150VE	1	1,000 Volt slotted head screwdrivers 6.5x150 mm
AT8X150VE	1	1,000 Volt insulated screwdriver for slotted heads 8x150 mm
ATPOX75VE	1	1,000 Volt screwdrivers for Phillips® PH 0 head
ATP1X100VE	1	1,000 Volt screwdrivers for Phillips® PH 1 head
ATP2X125VE	1	1,000 Volt screwdrivers for Phillips® PH 0 head
AV.HT1C	1	Voltage tester screwdriver 90 to 480 Volts
BC.109VSE	1	Safety overgloves S9
BC.90VSE	1	Low temperature insulating gloves S9
BV.7A	1	Leather fold-down front case
R.400AVSE	1	10-piece 1/4" insulated tool set

■ **2184C.VSE** - 41-piece set of 1,000 Volt insulated tools

- For electrical equipment shops, worksites.
  - Supplied in leather case BV.5A.
  - Dimensions: 425 x 215 x 320 mm.
- Weight: 14.130 kg.



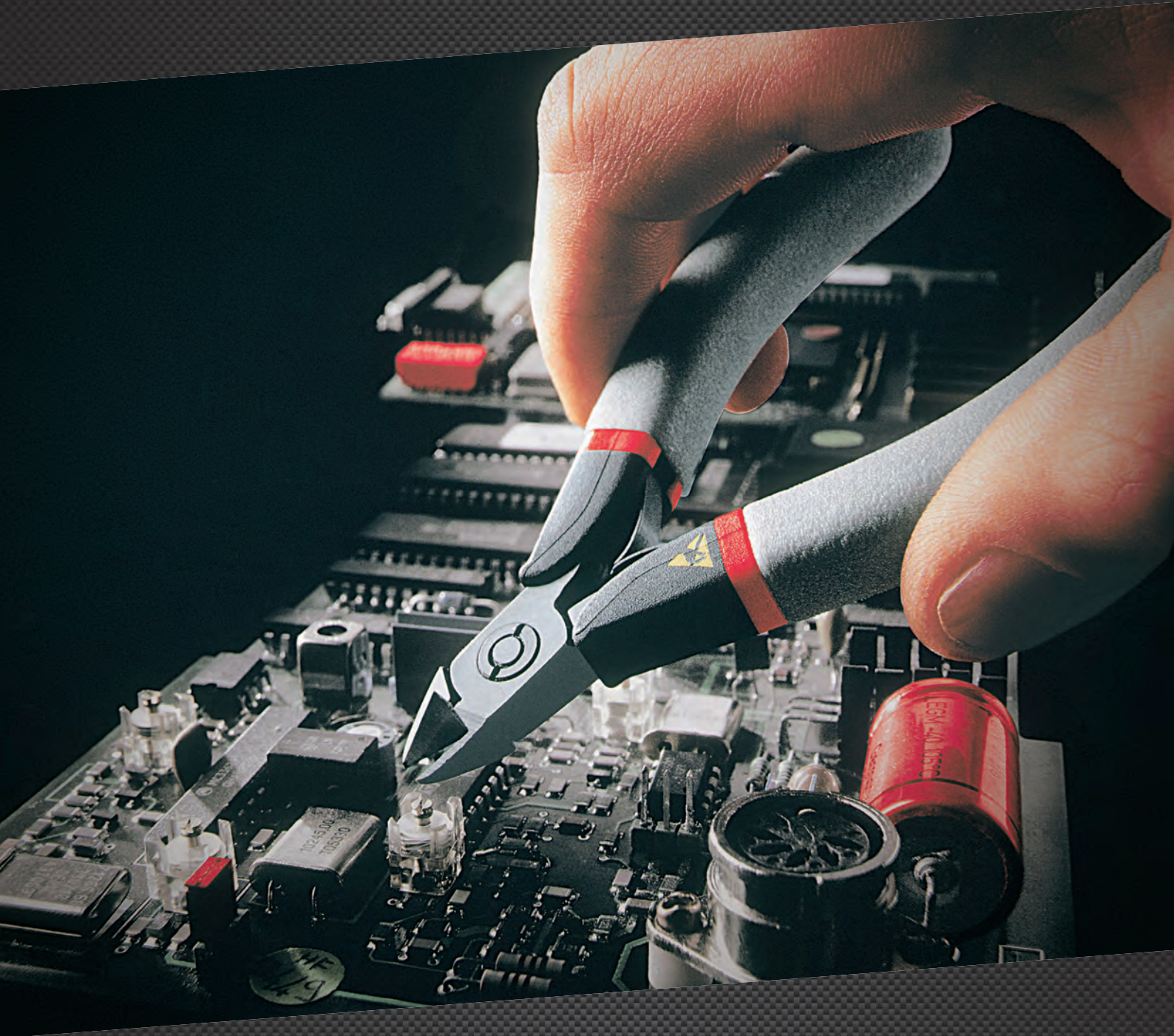
Icon	Qtys	Set Description
	1	1,000 Volt insulated knife
	1	1,000 Volt insulated combination pliers
	1	1,000 Volt insulated flat nose pliers
	1	1,000 Volt insulated round nose pliers
	1	1,000 Volt insulated cutters for hard wire
	1	1,000 Volt insulated cutters for hard wire
	1	1,000 Volt insulated strippers
	1	1,000 Volt insulated ratchet cable cutter 45 mm
	1	1,000 Volt insulated open-end wrench 10 mm
	1	1,000 Volt insulated open-end wrench 12 mm
	1	1,000 Volt insulated open-end wrench 13 mm
	1	1,000 Volt insulated open-end wrench 14 mm
	1	1,000 Volt insulated open-end wrench 17 mm
	1	1,000 Volt insulated open-end wrench 19 mm
	1	1,000 Volt insulated open-end wrench 21 mm
	1	Multifunction tester
	1	1,000 Volt insulated keys 3 mm

Icon	Qtys	Set Description
	1	1,000 Volt insulated keys 4 mm
	1	1,000 Volt insulated keys 6 mm
	1	1,000 Volt insulated box wrench 10 mm
	1	1,000 Volt insulated box wrench 13 mm
	1	1,000 Volt insulated box wrench 8 mm
	1	1,000 Volt insulated slotted head screwdrivers 10x200 mm
	1	1,000 Volt insulated slotted head screwdrivers 3.5x100 mm
	1	1,000 Volt insulated screwdriver for slotted heads 4x100 mm
	1	1,000 Volt slotted head screwdrivers 5.5x150 mm
	1	1,000 Volt slotted head screwdrivers 6.5x150 mm
	1	1,000 Volt insulated screwdriver for slotted heads 8x150 mm
	1	1,000 Volt screwdrivers for Pozidriv® PZ 1 head
	1	1,000 Volt screwdrivers for Phillips® PZ 2 head
	1	1,000 Volt screwdrivers for Phillips® PH 1 head
	1	1,000 Volt screwdrivers for Phillips® PH 0 head
	1	Insulating mat 1 m x 0.6 m
	1	Low temperature insulating gloves S9
	1	Leather drawer case
	1	DELTA.401.00 Synthetic folding rule 2 m

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# ELECTRONICS





## MICRO-TECH® CHOOSING MICRO-PLIERS

### 1 Materials to cut

TYPE OF MATERIALS	WIRES	Mechanical strength in N/mm <sup>2</sup>	HARDNESS (Hrc)
Copper, Nickel, Aluminium	Soft	220	-
Iron nail or wire, pin	Semi-soft	800	22
Iron spring, cable, hard steel wire or nail	Hard	1675	50
Steel spring	Piano wire	2200	59

### 2 Dimension and type of wire or component to cut (diameter or thickness)

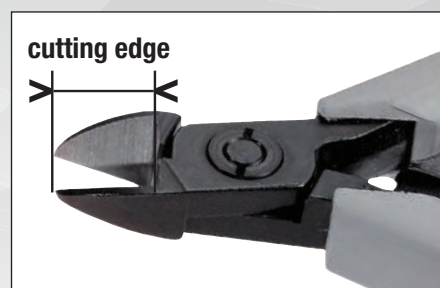
- Cross-section, thickness.
- Semi-soft: copper/Alu alloy.
- Hard wire: soft steel (30Hrc).
- Piano wire: steel spring (50Hrc).

### 3 Access:

- Bullet, pointed, angled, end nose for components.
- Flat half round nose.

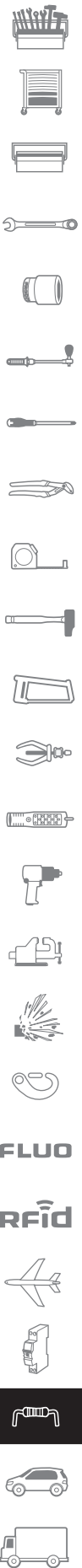
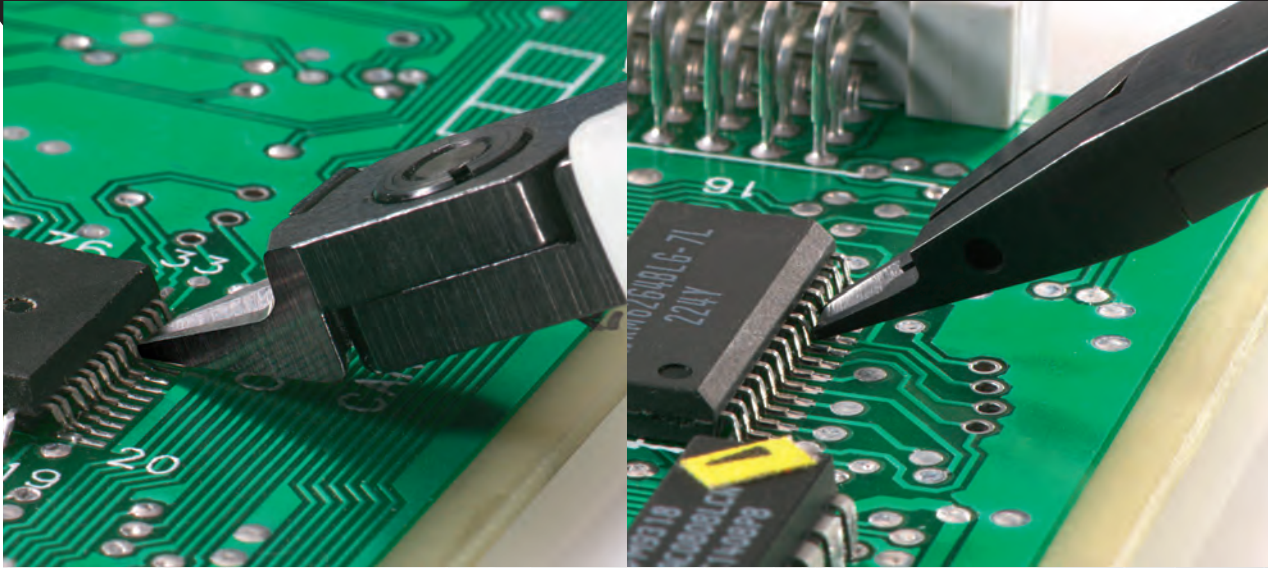
### 4 Cutting edge design and type of cut




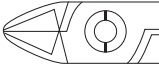

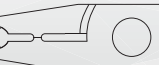


- Axial cut: cutting edges are treated to achieve maximum strength and precision cutting of a wide range of materials, from piano wire to copper.
- Semi-flush cut: suitable for semi-hard wire.
- Flush cut: the most precise shape in terms of cut, but also the most fragile, designed to cut soft materials such as copper.



CUTTING EDGES	PATTERN	FEATURES	WIRE TYPE		OPERATION	APPLICATION
AXIAL CUT		Cutting edges are treated to achieve maximum strength and precision cutting of a wide range of materials, from piano wire to copper.	Cu	●	<ul style="list-style-type: none"> <li>– Production work</li> <li>– Day-to-day use</li> <li>– Maintenance</li> <li>– Hard materials</li> </ul>	<ul style="list-style-type: none"> <li>– Customer service (hi-fi)</li> <li>– Machine-tools</li> <li>– Automotive</li> <li>– Domestic appliances</li> </ul>
			CuNi alloy	●		
			Mild steel 30 HRC	●		
			Hard steel 50 HRC Piano wire	●		
SEMI-FLUSH CUT		Micro-chamfered cutting edges ensure high cutting capacity with clean finish. Precision is maintained throughout a long service life even in intensive use. Suitable for semi-hard wire.	Cu	●	<ul style="list-style-type: none"> <li>– Clean cut in intensive use</li> <li>– Wiring</li> <li>– Batch electronics</li> <li>– Semi-hard materials</li> </ul>	<ul style="list-style-type: none"> <li>– Computers</li> <li>– Telephone exchanges</li> <li>– Video and laser</li> <li>– Micro-Tech® (hi-fi, labs)</li> </ul>
			CuNi alloy	●		
			Mild steel 30 HRC	●		
			Hard steel 50 HRC Piano wire	-		
FLUSH CUT		This range is designed to give a through-cut without crushing the wire. Clean-cut ends allow reliable soldering, without damage to electronic components from arcing. Suitable for soft wire only.	Cu	●	<ul style="list-style-type: none"> <li>– High-frequency apparatus</li> <li>– High precision equipment</li> <li>– Cut-back before soldering</li> <li>– Electrostatically sensitive components</li> </ul>	<ul style="list-style-type: none"> <li>– Defence</li> <li>– Aerospace</li> <li>– Aviation</li> <li>– Laboratory</li> </ul>
			CuNi alloy	●		
			Mild steel 30 HRC	-		
			Hard steel 50 HRC Piano wire	-		

MICRO-TECH® CHOOSING MICRO-PLIERS



NOSE DESIGN		Ø Cu WIRE (mm)		Ø MAX Fe WIRE 30 HRc	Ø MAX PIANO WIRE
		0.05	1.5		
Bullet nose: for strength 	<b>405.8MT-405.8E</b> <b>405.MT-405.E</b> <b>405.10 MT-405.10E</b> <b>405.12MT-405.12E</b> <b>405.E</b> <b>405.10 RMT-405.10RE</b>	0.2 → 1.0 0.3 → 1.3 0.3 → 1.4 0.4 → 2.0 0.3 → 1.1 0.3 → 1.2	0.5 0.7 0.8 1.0 0.7 0.8	0.8 0.4 0.5 0.6	
Bullet nose: for strength 	<b>406.8-MT-406.8E</b> <b>406.MT-406.E</b> <b>435.MT-435.E</b> <b>415.MT-415.E</b> <b>406.RMT</b>	0.1 → 1.0 0.1 → 1.3 0.1 → 1.3 0.3 → 2.0 0.1 → 1.1	0.7 1.0 0.7 0.7	-	
Pointed nose: for control 	<b>416.MT-416.E</b> <b>416.PMT-416.PE</b> <b>416.12 MT-416.12E</b> <b>416.RMT</b>	0.1 → 1.0 0.1 → 0.8 0.3 → 1.6 0.1 → 0.9	0.5 0.4 0.7 0.5		
Bullet nose: for strength 	<b>407.8 MT-407.8E</b> <b>407.MT-407.E</b> <b>425.MT-425.E</b> <b>426.MT-426.E</b>	0.1 → 0.8 0.1 → 1.3 0.1 → 1.3 0.1 → 1.2			
Pointed nose: for control 	<b>417.PMT-417.PE</b>	0.1 → 0.8			
Angled nose for accuracy 	<b>427.MT-427.E</b> <b>429.MT-429.E</b>	0.2 > 0.6 0.2 → 1.0	-	-	
End nose for reach 	<b>418.MT</b>	0.1 → 0.6			

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DIAGONAL CUTTING PLIERS

BULLET NOSE PLIERS

- Are stronger than other profiles.
- Have a high cutting capacity and durability that are useful in a wide variety of applications.



**AXIAL CUT**  
Applications, all materials.

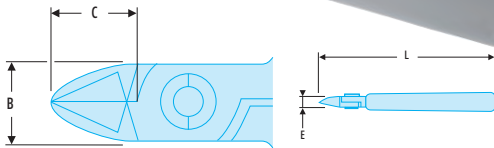


**SEMI-FLUSH CUT**  
Clean, long-life cut in semi-hard materials.



**FLUSH CUT**  
Smooth cut for sound soldered connections.

Micro-Tech® "small mesh" cutters: thin



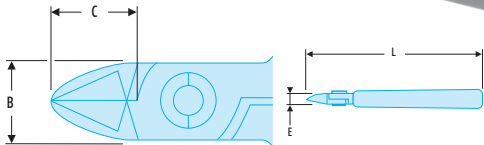
NF ISO 9654, ISO 9654, DIN ISO 9654, ASME B107.500

- These small mesh pliers are ideal for small electronic components.



Model	B [mm]	C [mm]	E [mm]	L [mm]	Cut	Cu - Ni Ø [mm]	Fe 30 HRC diam. [mm]	ΔΔ [g]
405.8MT	8,5	9	6	110		0,2 - 1	0,5	60
406.8MT	8,5	9	6	110		0,1 - 1	-	60
407.8MT	8,5	9	6	110		0,1 - 1	-	60

Micro-Tech® "compact" cutters: handling



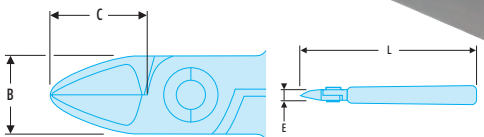
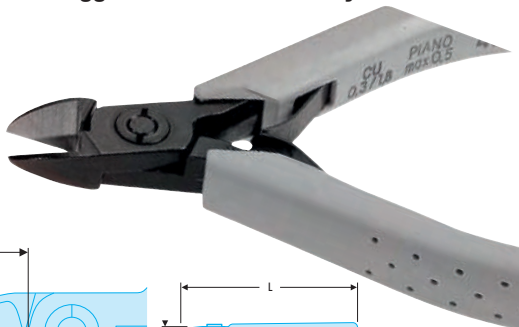
NF ISO 9654, ISO 9654, DIN ISO 9654, ASME B107.500

- These pliers combine cutting performance with accessibility thanks to their new slim diagonal shape.
- Fall prevention models avoid wire ejection. The 405.MT pliers allow to cut piano wire up to 0.4 mm.



Model	B [mm]	C [mm]	E [mm]	L [mm]	Cut	Cu - Ni Ø [mm]	Fe 30 HRC diam. [mm]	Piano Diameter [mm]	Offcut retainer	ΔΔ [g]
405.MT	10,5	9,5	7	110		0,3 - 1,3	0,7	0,4	-	60
406.MT	10,5	9,5	7	110		0,1 - 1,3	0,7	-	-	60
406.RMT	10,5	9,5	7	110		0,1 - 1,1	0,6	-	•	60
407.MT	10,5	9,5	7	110		0,1 - 1,3	-	-	-	60

Micro-Tech® "rugged" cutters: versatility



NF ISO 9654, ISO 9654, DIN ISO 9654, ASME B107.500

- These pliers allow neat cutting of multiple materials: from copper wire to piano wire up to 0.5 mm.
- Fall prevention models avoid wire ejection.

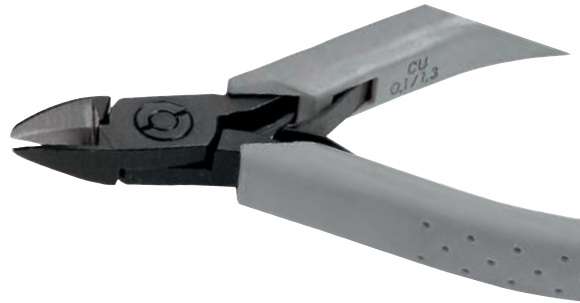


Model	B [mm]	C [mm]	E [mm]	L [mm]	Cut	Cu - Ni Ø [mm]	Fe 30 HRC diam. [mm]	Piano Diameter [mm]	Offcut retainer	ΔΔ [g]
405.10MT	10,5	11,5	7	110		0,3 - 1,4	0,8	0,5	-	60
405.10RMT	10,5	11,5	7	110		0,3 - 1,2	0,7	0,5	•	60

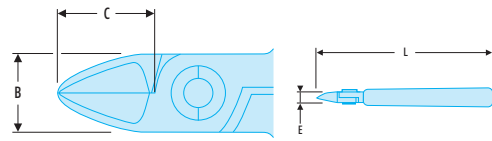
Micro-Tech® "long" cutters: access

NF ISO 9654, ISO 9654, DIN ISO 9654, ASME B107.500

- These pliers allow to go further; up to + 1.5 to 2 mm compared with standard pliers.
- Fall prevention models avoid wire ejection.



	B [mm]	C [mm]	E [mm]	L [mm]	Cut	Cu - Ni Ø [mm]	Fe 30 HRc diam. [mm]	ΔΔ [g]
<b>435.MT</b>	10,5	13	7	110		0,1 - 1,3	0,7	60
<b>425.MT</b>	10,5	13	7	110		0,1 - 1,3	-	60



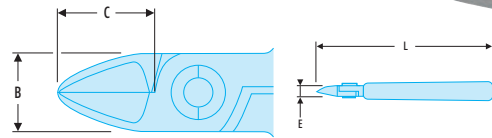
Micro-Tech® "long thin" cutters with clearance

NF ISO 9654, ISO 9654, DIN ISO 9654, ASME B107.500

- These pliers allow to cut behind components and pass under obstacles (coils, resistors...).



	B [mm]	C [mm]	E [mm]	L [mm]	L1 [mm]	Cut	Cu - Ni Ø [mm]	Fe 30 HRc diam. [mm]	ΔΔ [g]
<b>426.MT</b>	10,5	13	7	110	5,5		0,1 - 1,2	-	60



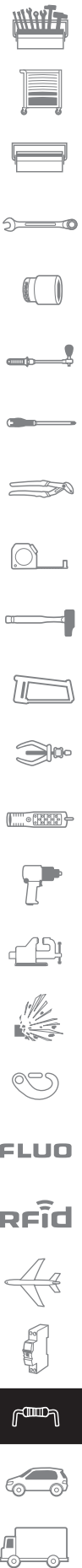
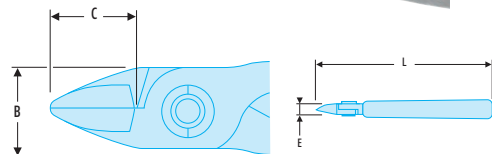
Micro-Tech® "high capacity" cutters: power

NF ISO 9654, ISO 9654, DIN ISO 9654, ASME B107.500

- These pliers are suited to major efforts and repetitive work over a broad range of materials.
- Fall prevention models avoid wire ejection.



	B [mm]	C [mm]	E [mm]	L [mm]	L [mm]	Cut	Cu - Ni Ø [mm]	Fe 30 HRc diam. [mm]	Piano Diameter [mm]	ΔΔ [g]
<b>405.12MT</b>	16	16	8	125	125		0,4 - 2,0	1,0	0,8	95
<b>415.MT</b>	16	16	8	125	125		0,3 - 2,0	0,9	-	95



SLIM NOSE CUTTING PLIERS

POINTED-NOSE PLIERS

- Are ideal where clearance is restricted and allow better visibility of the wire being cut.



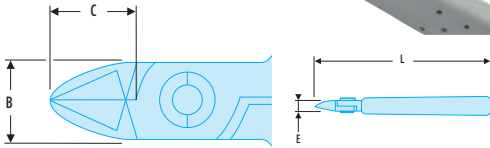
**SEMI-FLUSH CUT**  
Clean, long-life cut in semi-hard materials.



**FLUSH CUT**  
Smooth cut for sound soldered connections.



Micro-Tech® "machined" cutters



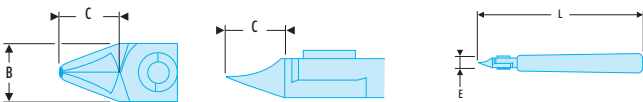
NF ISO 9654, ISO 9654, DIN ISO 9654, ASME B107.500

- Compact noses for difficult access.
- Fall prevention models avoid wire ejection.



	B [mm]	C [mm]	E [mm]	L [mm]	Cut	Cu - Ni Ø [mm]	Fe 30 HRc diam. [mm]	Offcut retainer	ΔΔ [g]
<b>416.MT</b>	10,5	10,5	7	110		0,1 - 1,0	0,5	-	60
<b>416.RMT</b>	10,5	10,5	7	110		0,1 - 0,9	0,5	•	60

Micro-Tech® "thin nose tip" cutters: handling



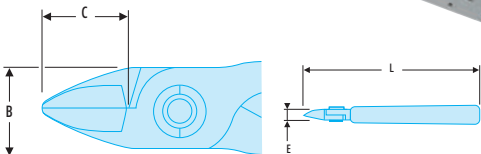
NF ISO 9654, ISO 9654, DIN ISO 9654, ASME B107.500

- These pliers pass under all obstacles of the PCB and provide better visibility.



	B [mm]	C [mm]	C1 [mm]	E [mm]	L [mm]	Cut	Cu - Ni Ø [mm]	Fe 30 HRc diam. [mm]	ΔΔ [g]
<b>416.PMT</b>	10,5	10,5	9,5	7	110		0,1 - 0,8	0,4	60
<b>417.PMT</b>	10,5	10,5	9,5	7	110		0,1 - 0,8	-	60

Micro-Tech® "high capacity machined" cutters



NF ISO 9654, ISO 9654, DIN ISO 9654, ASME B107.500

- Broadly dimensioned for large series work.
- Semi-flush cutting.



	B [mm]	C [mm]	E [mm]	L [mm]	Cu - Ni Ø [mm]	Fe 30 HRc diam. [mm]	ΔΔ [g]
<b>416.12MT</b>	16	16	8	125	0,3 - 1,6	0,7	95

ANGLED NOSE CUTTING PLIERS

ANGLED-NOSE CUTTING PLIERS

- Ideal for use on printed circuits, electronic modules and hybrid circuits.
- Designed for cutting right up against the board in the smallest of spaces.
- Flush cutting edges.



**FLUSH CUT**  
Smooth cut for sound soldered connections.



Micro-Tech® 30° nose cutters

NF ISO 9654, ISO 9654, DIN ISO 9654, ASME B107.500

- Cutting edges angled at 30° with rear clearance.
- Cut: flush.

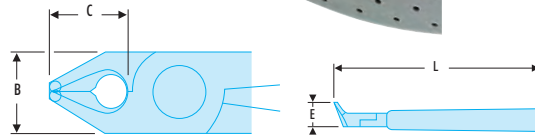
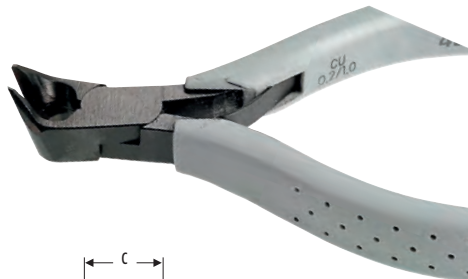


	B [mm]	C [mm]	E [mm]	L [mm]	Cu - Ni Ø [mm]	ΔΔ [g]
<b>427.MT</b>	11	23	7	120	0,2 - 0,6	65

Micro-Tech® 70° nose cutters

NF ISO 9654, ISO 9654, DIN ISO 9654, ASME B107.500

- Model with wide cutting edges angled at 70° broadly cleared.
- Cut: flush.



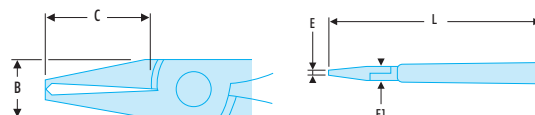
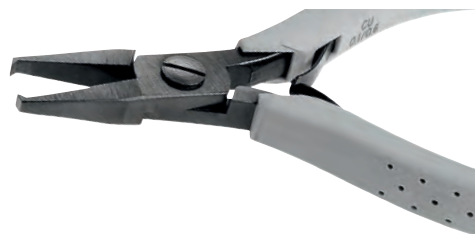
	B [mm]	C [mm]	E [mm]	L [mm]	Cu - Ni Ø [mm]	ΔΔ [g]
<b>429.MT</b>	11,5	12	7	110	0,2 - 1,0	60

"END-TIP" CUTTING PLIERS

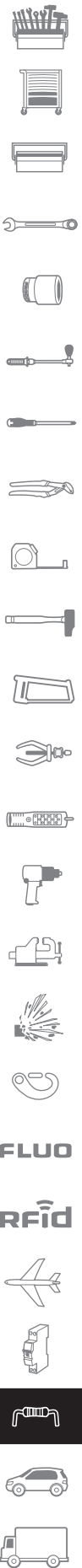
Micro-Tech® "tip" cutters

NF ISO 9654, ISO 9654, DIN ISO 9654, ASME B107.500

- Long and narrow nose for vertical access cut.
- Cut: flush.

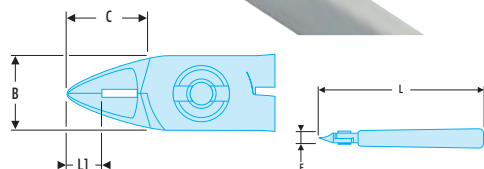
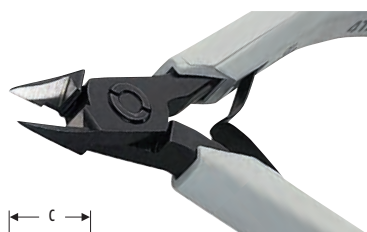


	B [mm]	C [mm]	E [mm]	L [mm]	Cu - Ni Ø [mm]	ΔΔ [g]
<b>418.MT</b>	10,5	21	2,7	120	0,1 - 0,6	75



## CUTTING PLIERS FOR DIP-CMS COMPONENTS

## Micro-Tech® diagonal cutter for DIP - CMS components



NF ISO 9654, ISO 9654, DIN ISO 9654, ASME B107.500

- These pliers provide access between two legs of "DIP" components with a 0.65 mm gap. As they are extremely thin, these pliers can be used only for this function.
- Cut: flush.



	B [mm]	C [mm]	E [mm]	L [m]	L [mm]	L1 [mm]	Cu - Ni Ø [mm]	ΔΔ [g]
<b>417.SPMT</b>	10,5	10,5	7	110	110	6,5	0,1 - 0,6	60

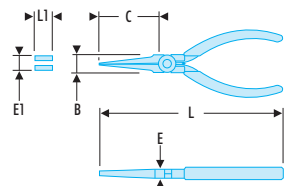
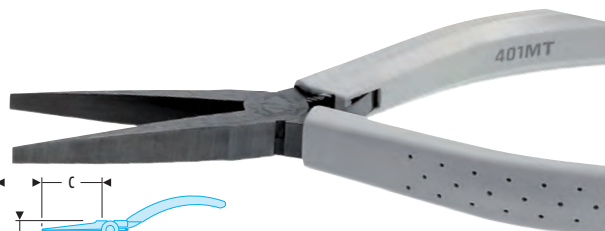
## FLAT-NOSE PLIERS

- These pliers serve all professional needs in laboratory, production and maintenance applications.
- The rectangular-section jaws are smooth with contoured inside edges to avoid damage to components.
- Matt black non-reflective finish.
- Leaf spring.



## FLAT NOSE GRIPPING PLIERS

## Micro-Tech® extra-long nose gripper pliers



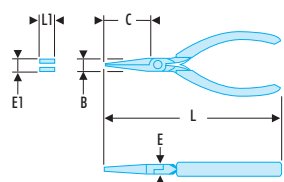
NF ISO 9655, ISO 9655, DIN ISO 9655, ASME B107.500

- For powerful loads.



	B [mm]	C [mm]	E [mm]	E1 [mm]	L [mm]	L1 [mm]	ΔΔ [g]
<b>401.MT</b>	14	48	8	1	160	5	80

## Micro-Tech® long and rigid nose grippers



NF ISO 9655, ISO 9655, DIN ISO 9655, ASME B107.500



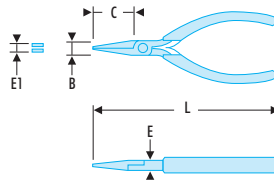
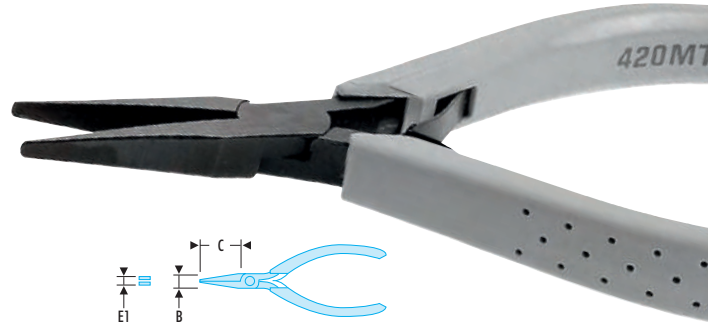
	B [mm]	C [mm]	E [mm]	E1 [mm]	L [mm]	L1 [mm]	ΔΔ [g]
<b>421.MT</b>	11	33	7	1	130	5	70



Micro-Tech® shaping gripper pliers

NF ISO 9655, ISO 9655, DIN ISO 9655, ASME B107.500

- Very thin nose.

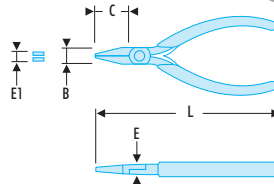
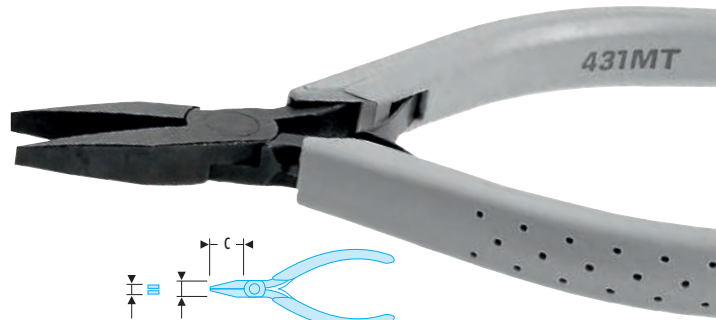


Model	B [mm]	C [mm]	E [mm]	E1 [mm]	L [mm]	ΔΔ [g]
420.MT	9	21	7	1	125	60

Micro-Tech® short nose gripper pliers

NF ISO 9655, ISO 9655, DIN ISO 9655, ASME B107.500

- Narrow mesh, for high precision work.

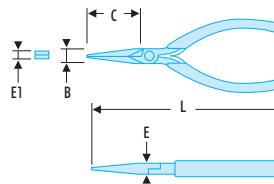
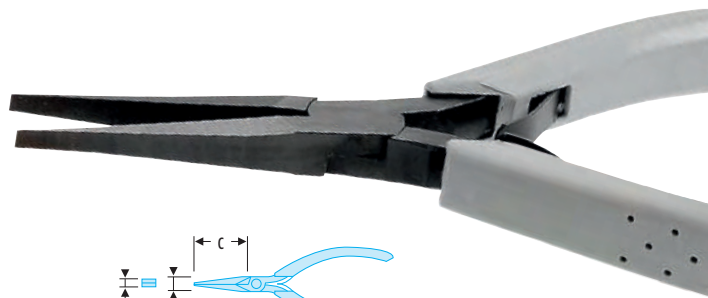


Model	B [mm]	C [mm]	E [mm]	E1 [mm]	L [mm]	ΔΔ [g]
431.MT	9	20	6	1	135	55

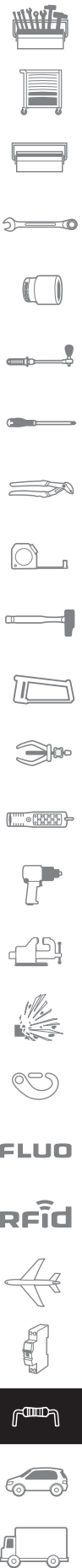
Micro-Tech® thin nose grippers

NF ISO 9655, ISO 9655, DIN ISO 9655, ASME B107.500

- Narrow mesh, for high precision work.



Model	B [mm]	C [mm]	E [mm]	E1 [mm]	L [mm]	ΔΔ [g]
431.LMT	9	35	6	1	135	80



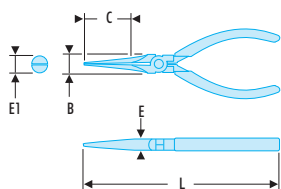
## HALF-ROUND NOSE GRIPPING PLIERS

## HALF-ROUND NOSE PLIERS

- These pliers serve all professional needs in laboratory, production and maintenance applications.
- The half-round jaws are smooth with contoured inside edges to avoid damage to components.
- Matt black non-reflective finish.
- Leaf spring for easy opening.



### Micro-Tech® extra-long nose gripper pliers



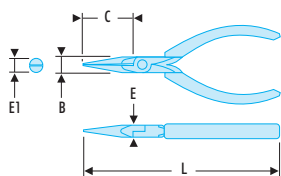
NF ISO 9655, ISO 9655, DIN ISO 9655, ASME B107.500

- For powerful loads.



	B [mm]	C [mm]	E [mm]	E1 [mm]	L [mm]	ΔΔ [g]
<b>402.MT</b>	14	48	8	1,5	160	76

### Micro-Tech® long and rigid nose grippers

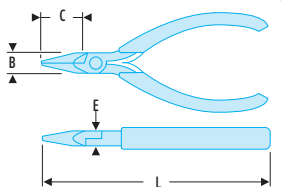


NF ISO 9655, ISO 9655, DIN ISO 9655, ASME B107.500

	B [mm]	C [mm]	E [mm]	E1 [mm]	L [mm]	ΔΔ [g]
<b>422.MT</b>	11	44	7	3,8	130	70



### Micro-Tech® short nose gripper pliers



NF ISO 9655, ISO 9655, DIN ISO 9655, ASME B107.500

- Fine mesh.

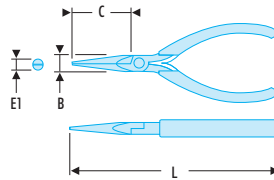


	B [mm]	C [mm]	E [mm]	L [m]	L [mm]	ΔΔ [g]
<b>432.MT</b>	9	26	6	120	120	55

Micro-Tech® thin nose grippers

NF ISO 9655, ISO 9655, DIN ISO 9655, ASME B107.500

- Fine mesh, for high precision work.

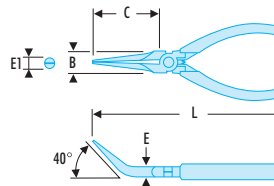


Icon	B [mm]	C [mm]	E1 [mm]	L [mm]	ΔΔ [g]
432.LMT	9	35	1,6	140	65

Micro-Tech® extra-long angled nose grippers

ASME B107.500

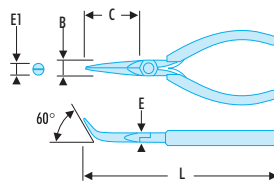
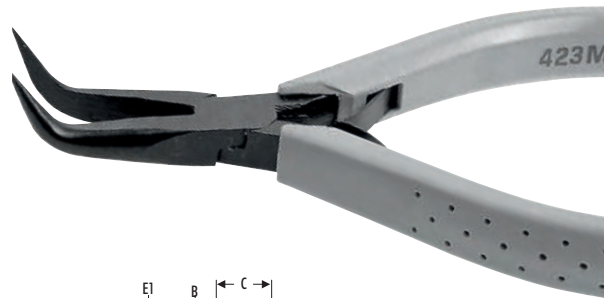
- For powerful loads.



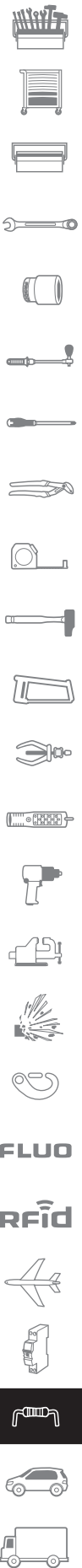
Icon	B [mm]	C [mm]	L [mm]	ΔΔ [g]
403.MT	14	45	155	75

Micro-Tech® 60° angled rigid nose grippers

NF ISO 9655, ISO 9655, DIN ISO 9655, ASME B107.500

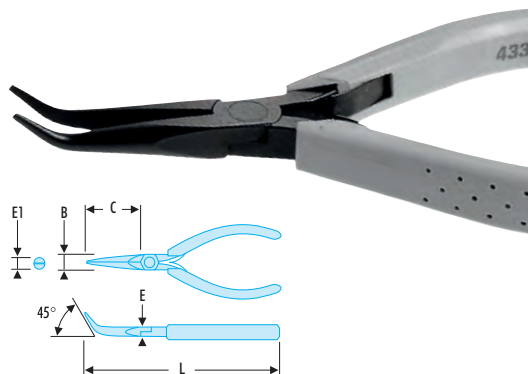


Icon	B [mm]	C [mm]	E [mm]	E1 [mm]	L [mm]	ΔΔ [g]
423.MT	11	25	7	1,4	125	70



## HALF-ROUND NOSE GRIPPING PLIERS

## Micro-Tech® 45° angled thin nose grippers



NF ISO 9655, ISO 9655, DIN ISO 9655, ASME B107.500

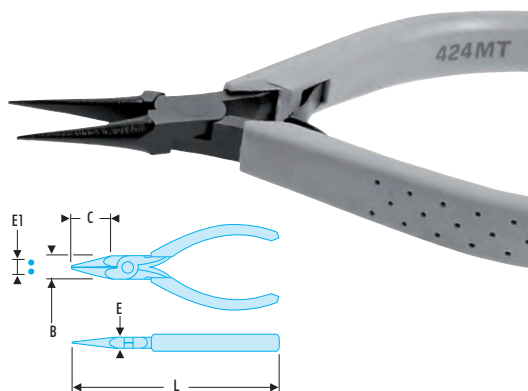
- Thin angled for better accessibility and control.



	B [mm]	C [mm]	E [mm]	E1 [mm]	L [mm]	$\Delta\Delta$ [g]
<b>433.LMT</b>	9	35	6	1,6	135	75

## ROUND NOSE PLIERS

## Micro-Tech® short and rigid nose grippers



NF ISO 9655, ISO 9655, DIN ISO 9655, ASME B107.500



	B [mm]	C [mm]	E [mm]	E1 [mm]	L [mm]	$\Delta\Delta$ [g]
<b>424.MT</b>	11	22	7	2	120	55

## PLIERS SET

## Micro-Tech® 6-pliers set



Contains:

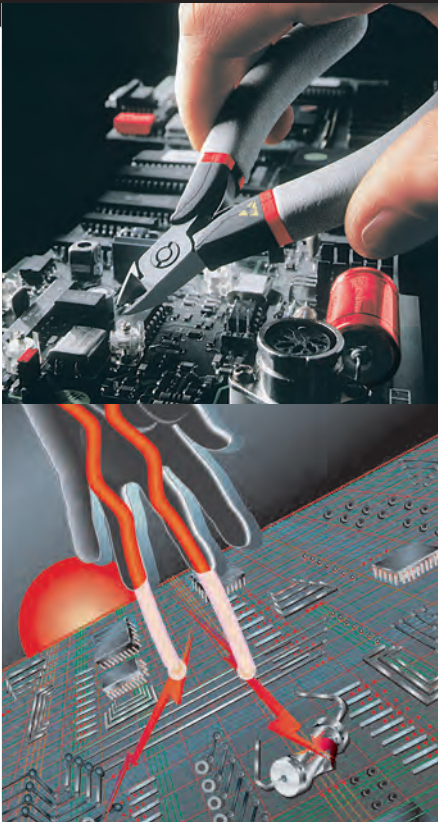
- 405.MT - 405.12MT - 406.MT - 406.8MT - 402.MT - 433.LMT.
- Heat-formed tray PL.612.



	l [mm]	L [mm]	$\Delta\Delta$ [g]
<b>MOD.MT1</b>	175	418	650

DIAGONAL CUTTING PLIERS

ANTI-STATIC SERIES ELECTRONIC PLIERS



# A danger for electronic components!

As they become smaller and more sophisticated, electronic circuits are increasingly at risk from static electricity - especially when the charge can build up to several thousand volts.

## Controlling electrostatic build-up (ESD) makes economic sense.

While the cost of a faulty component at acceptance-test stage is relatively small, it starts to increase once the component has reached the board, and escalates markedly once a fault involves sending back a complete unit. But the most important benefit in controlling static electricity is customer satisfaction. FACOM solves the problem with an antistatic range to EN 61340-5-1 & 2. For safe work on printed circuits, all tools and equipment used should be interlinked and effectively connected to earth. Measurements and tests on antistatic screwdrivers and electronics pliers have been carried out in laboratories approved by the electrical industry.

### SAFETY FIRST

Never use antistatic tools when working on live components.



## ESD BULLET-NOSE CUTTING PLIERS

- Are stronger than other profiles.
- Have a high cutting capacity and durability that are useful in a wide variety of applications.



**AXIAL CUT**  
All applications, all materials.



**SEMI-FLUSH CUT**  
Clean, long-life cut in semi-hard materials.



**FLUSH CUT**  
Smooth cut for sound soldered connections.

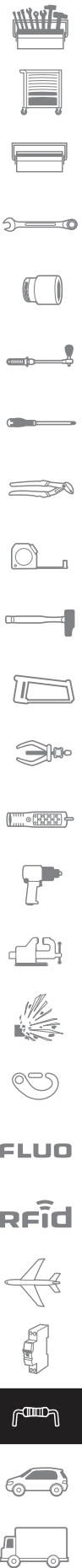
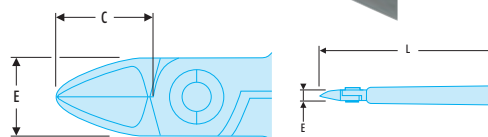


### ESD "small mesh" cutters: thin

NF ISO 9654, ISO 9654, DIN ISO 9654, ASME B107.500

- Protection of electronic components from risks of electrostatic discharge (ESD).
- These small mesh pliers are ideal for small components.
- The flush cutting model was extended to optimise access.

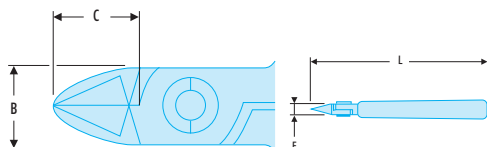
ESD	B [mm]	C [mm]	E [mm]	L [mm]	Cut	Cu - Ni Ø [mm]	Fe 30 HRC diam. [mm]	ΔΔ [g]
405.8E	8,5	9	6	110		0,2 - 1	0,5	55
406.8E	8,5	9	6	110		0,1 - 1	-	55
407.8E	8,5	9	6	110		0,1 - 1	-	55



FLUO

RFid

### ESD "compact" cutters: handling



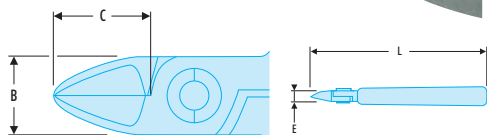
#### NF ISO 9654, ISO 9654, DIN ISO 9654, ASME B107.500

- Protection of electronic components from risks of electrostatic discharge (ESD).
- These pliers combine cutting performance with handling thanks to their new slim diagonal shape.
- The 405.MT pliers allow to cut piano wire up to 0.4 mm.



Model	B [mm]	C [mm]	E [mm]	L [mm]	Cut	Cu - Ni Ø [mm]	Fe 30 HRC diam. [mm]	Piano Diameter [mm]	ΔΔ [g]
405.E	10,5	9,5	7	110	∧	0,3 - 1,3	0,7	0,4	65
406.E	10,5	9,5	7	110	∧	0,1 - 1,3	0,7	-	65
407.E	10,5	9,5	7	110	∧	0,1 - 1,3	-	-	65

### ESD "rugged" cutters: versatility



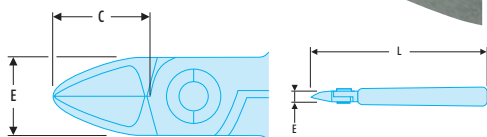
#### NF ISO 9654, ISO 9654, DIN ISO 9654, ASME B107.500

- Protection of electronic components from risks of electrostatic discharge (ESD).
- These pliers allow neat cutting of multiple materials: from copper wire to piano wire up to 0.5 mm.
- Fall prevention models avoid wire ejection.



Model	B [mm]	C [mm]	E [mm]	L [mm]	Cut	Cu - Ni Ø [mm]	Fe 30 HRC diam. [mm]	Piano Diameter [mm]	Offcut retainer	ΔΔ [g]
405.10E	10,5	11,5	7	110	∧	0,3 - 1,4	0,8	0,5	-	65
405.10RE	10,5	11,5	7	110	∧	0,3 - 1,2	0,7	0,5	•	65

### ESD "extended" cutters: access



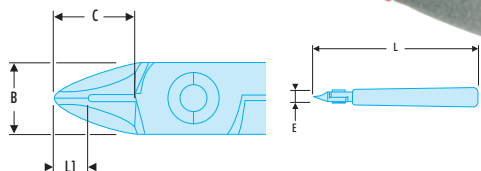
#### NF ISO 9654, ISO 9654, DIN ISO 9654, ASME B107.500

- Protection of electronic components from risks of electrostatic discharge (ESD).
- These pliers allow to go further; up to + 1.5 to 2 mm compared with standard pliers.
- Fall prevention models avoid wire ejection.



Model	B [mm]	C [mm]	E [mm]	L [mm]	Cut	Cu - Ni Ø [mm]	Fe 30 HRC diam. [mm]	Offcut retainer	ΔΔ [g]
425.E	10,5	13	7	110	∧	0,1 - 1,3	-	-	65
435.E	10,5	13	7	110	∧	0,1 - 1,3	0,7	-	65
435.RE	10,5	13	7	110	∧	0,1 - 1,2	0,7	•	65

### ESD "long thin" cutters with clearance



#### NF ISO 9654, ISO 9654, DIN ISO 9654, ASME B107.500

- Protection of electronic components from risks of electrostatic discharge (ESD).
- These pliers allow to cut behind components and pass under obstacles (coils, resistors...).



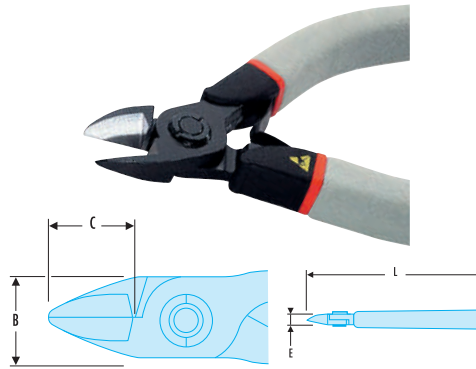
Model	B [mm]	C [mm]	E [mm]	L1 [mm]	L [mm]	Cut	Cu - Ni Ø [mm]	Fe 30 HRC diam. [mm]	ΔΔ [g]
426.E	10,5	13	7	5,5	110	∧	0,1 - 1,2	-	65

ESD "high capacity" cutters:

NF ISO 9654, ISO 9654, DIN ISO 9654, ASME B107.500

- Protection of electronic components from risks of electrostatic discharge (ESD).
- These pliers are suited to major efforts and repetitive work over a broad range of materials.
- Fall prevention models avoid wire ejection.

ESD	B [mm]	C [mm]	E [mm]	L [mm]	Cut	Cu - Ni Ø [mm]	Fe 30 HRc diam. [mm]	ΔΔ [g]
405.12E	16	16	8	130		0,4 - 2,0	1,0	105
415.E	16	16	8	130		0,3 - 2,0	1,0	105



ESD POINTED-NOSE PLIERS

- Are ideal where clearance is restricted and allow better visibility of the wire being cut.



**SEMI-FLUSH CUT**  
Clean, long-life cut in semi-hard materials.



**FLUSH CUT**  
Smooth cut for sound soldered connections.



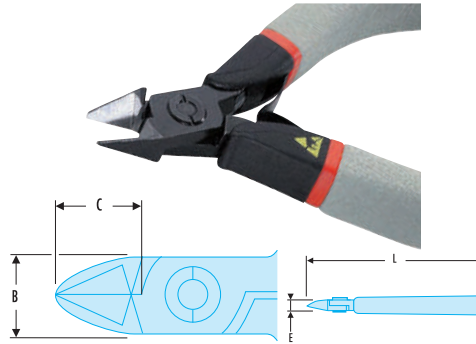
SLIM NOSE CUTTING PLIERS

ESD "tip" cutters

NF ISO 9654, ISO 9654, DIN ISO 9654, ASME B107.500

- Protection of electronic components from risks of electrostatic discharge (ESD).
- Compact noses for difficult access.

ESD	B [mm]	C [mm]	E [mm]	L [mm]	Cut	Cu - Ni Ø [mm]	Fe 30 HRc diam. [mm]	ΔΔ [g]
416.E	10,5	10,5	7	110		0,1 - 1,0	0,5	65

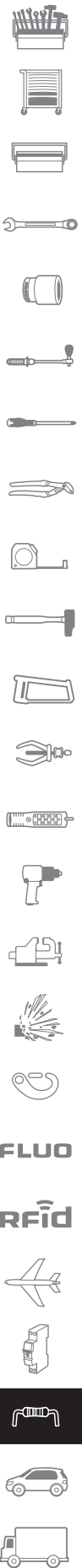
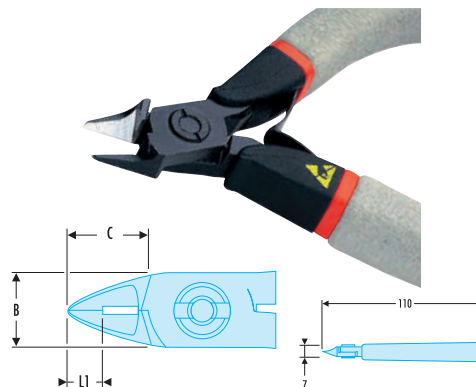


ESD thin nose "machined" cutters: handling

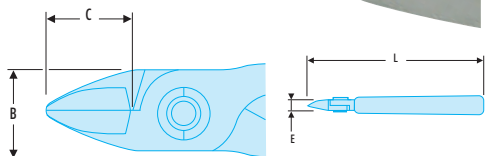
NF ISO 9654, ISO 9654, DIN ISO 9654, ASME B107.500

- Protection of electronic components from risks of electrostatic discharge (ESD).
- These pliers pass under all obstacles of the PCB and provide better visibility.

ESD	B [mm]	C [mm]	E [mm]	L [mm]	L1 [mm]	Cut	Cu - Ni Ø [mm]	Fe 30 HRc diam. [mm]	ΔΔ [g]
416.PE	10,5	10,5	7	110	6,5		0,1 - 0,8	0,4	65
417.PE	10,5	10,5	7	110	6,5		0,1 - 0,8	-	65



### ESD "high capacity machined" cutters



NF ISO 9654, ISO 9654, DIN ISO 9654, ASME B107.500

- Protection of electronic components from risks of electrostatic discharge (ESD).
- Broadly dimensioned for large series work.



	B [mm]	C [mm]	E [mm]	L [mm]	Cut	Cu - Ni Ø [mm]	Fe 30 HRc diam. [mm]	ΔΔ [g]
416.12E	16	16	8	130		0,3 - 1,6	0,7	105

## ESD ANGLED-NOSE PLIERS

- Ideal for use on printed circuits, electronic modules and hybrid circuits.
- Designed for cutting right up against the board in the minutest spaces.
- Flush cutting edges.

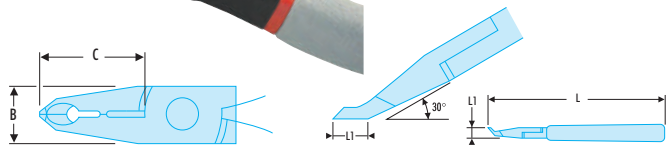
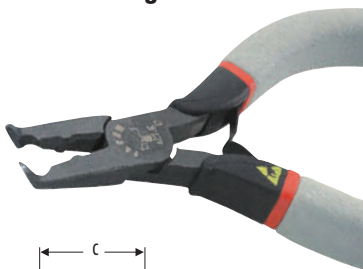


**FLUSH CUT**  
Smooth cut for sound soldered connections.



### ANGLED NOSE CUTTING PLIERS

#### ESD 30° angled cutters



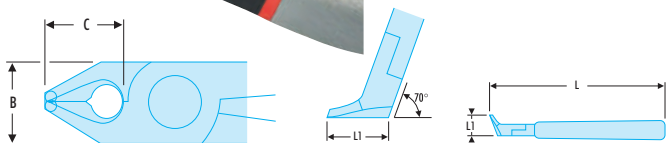
NF ISO 9654, ISO 9654, DIN ISO 9654, ASME B107.500

- Protection of electronic components from risks of electrostatic discharge (ESD).
- Cutting edges angled at 30° with rear clearance.



	B [mm]	C [mm]	E [mm]	L [mm]	L1 [mm]	Cut	Cu - Ni Ø [mm]	ΔΔ [g]
427.E	11	23	7	120	6		0,2 - 0,6	65

#### ESD 70° "angled" cutters



NF ISO 9654, ISO 9654, DIN ISO 9654, ASME B107.500

- Protection of electronic components from risks of electrostatic discharge (ESD).
- Cutting edges angled at 70° with rear clearance.



	B [mm]	C [mm]	E [mm]	L [mm]	L1 [mm]	Cut	Cu - Ni Ø [mm]	ΔΔ [g]
429.E	11,5	12	7	110	12		0,2 - 1,0	66



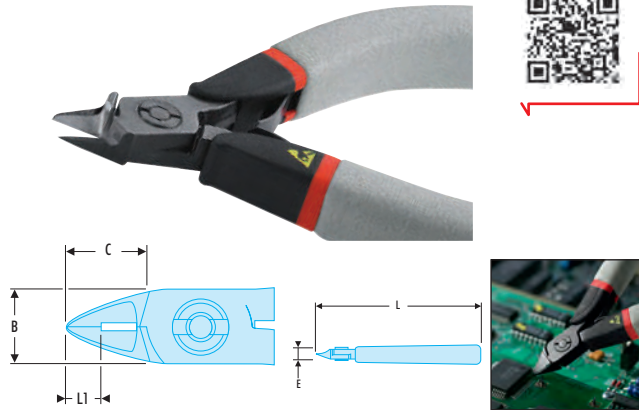
CUTTING PLIERS FOR DIP-CMS COMPONENTS

ESD diagonal cutters for DIP-CMS components

NF ISO 9654, ISO 9654, DIN ISO 9654, ASME B107.500

- Protection of electronic components from risks of electrostatic discharge (ESD).
- These pliers provide access between two legs of "DIP" components with a 0.65 mm gap. Due to their shape, these pliers can be used only in this configuration.

Model	B [mm]	C [mm]	E [mm]	L [mm]	L1 [mm]	Cut	Cu - Ni Ø [mm]	ΔΔ [g]
417.SPE	10,5	10,5	7	110	6,5		0,1 - 0,7	60



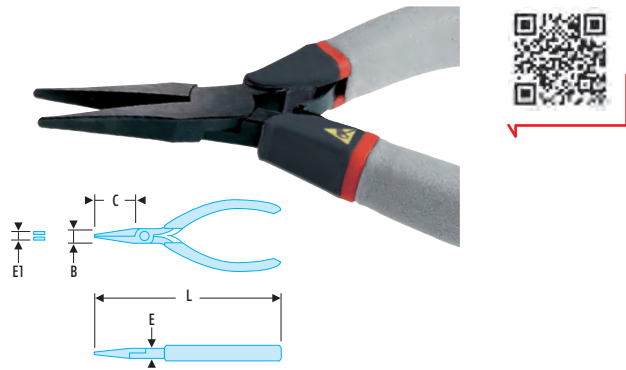
GRIPPING PLIERS

ESD flat nose shaping cutters

NF ISO 9655, ISO 9655, DIN ISO 9655, ASME B107.500

- Protection of electronic components from risks of electrostatic discharge (ESD).
- Very thin nose.

Model	B [mm]	C [mm]	E [mm]	E1 [mm]	L [mm]	ΔΔ [g]
420.E	9	21	7	1	125	65

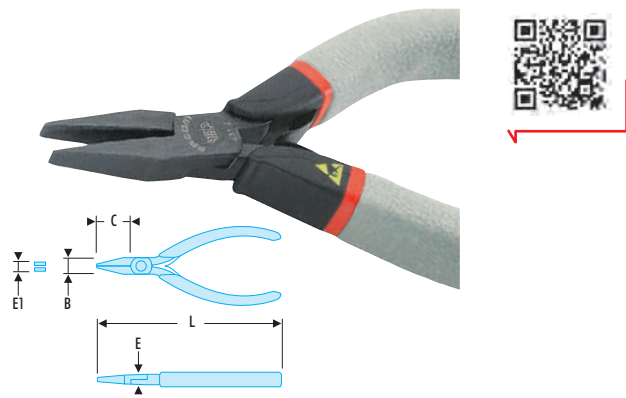


ESD short flat nose cutters

NF ISO 9655, ISO 9655, DIN ISO 9655, ASME B107.500

- Protection of electronic components from risks of electrostatic discharge (ESD).
- Narrow head, for high precision work.

Model	B [mm]	C [mm]	E [mm]	E1 [mm]	L [mm]	ΔΔ [g]
431.E	9	20	6	1	135	75

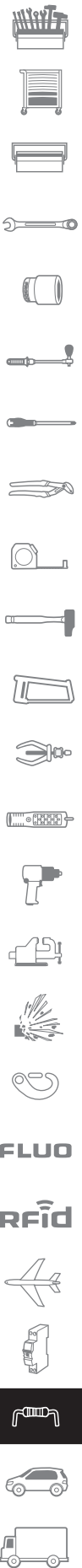
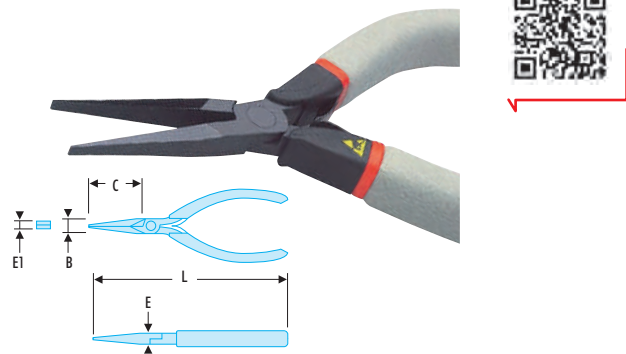


ESD thin flat-nose pliers

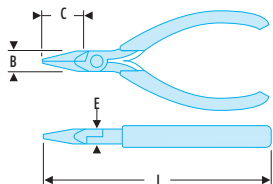
NF ISO 9655, ISO 9655, DIN ISO 9655, ASME B107.500

- Protection of electronic components from risks of electrostatic discharge (ESD).
- Narrow head, for high precision work.

Model	B [mm]	C [mm]	E [mm]	E1 [mm]	L [mm]	ΔΔ [g]
431.LE	9	35	6	1	135	75



### ESD half-round nose cutters



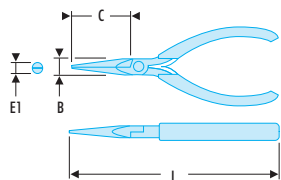
NF ISO 9655, ISO 9655, DIN ISO 9655, ASME B107.500

- Protection of electronic components from risks of electrostatic discharge (ESD).
- Fine mesh.



ESD	B [mm]	C [mm]	E [mm]	L [mm]	$\Delta\Delta$ [g]
432.E	9	26	6	120	70

### ESD half-round thin nose cutters



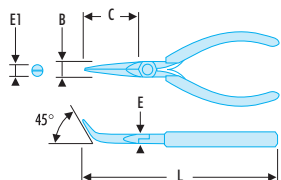
NF ISO 9655, ISO 9655, DIN ISO 9655, ASME B107.500

- Protection of electronic components from risks of electrostatic discharge (ESD).
- Narrow mesh, for high precision work.



ESD	B [mm]	C [mm]	E1 [mm]	L [mm]	$\Delta\Delta$ [g]
432.LE	9	35	1,6	140	70

### ESD half-round angled nose cutters



NF ISO 9655, ISO 9655, DIN ISO 9655, ASME B107.500

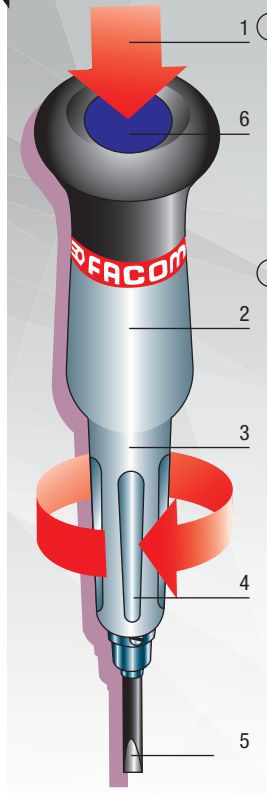
- Protection of electronic components from risks of electrostatic discharge (ESD).
- 45° angled nose.
- Narrow mesh, for high precision work.



ESD	B [mm]	C [mm]	E [mm]	E1 [mm]	L [mm]	$\Delta\Delta$ [g]
433.LE	9	35	6	1,6	135	70

SCREWDRIVERS

MICRO-TECH® SCREWDRIVERS



**1 Efficient**

• The screwdriver end is designed to provide an effective pressure area in each of the three micro-engineering screwdriver positions. This end also rotates to optimise the turning motion.

**2 - 3 Powerful and accurate**

• The body comprises a gripping surface designed for optimum torque transmission with handling accuracy. The handle is shaped so fingers can naturally grip the specially designed handle for total tool control.

**4 Quick and easy to use**

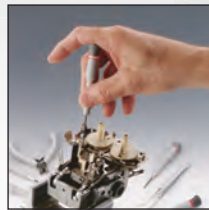
• The ribbed cone provides maximum grip for fast pre-tightening. Blade clearance gives a clear view of the job in hand.

**5 A large choice of blades**

• A selection of over 50 high-precision steel or ceramic fixed or replaceable blades.

**6 Easy identification**

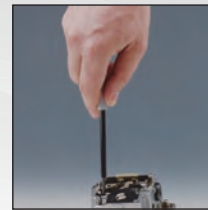
• Colour-coded by size for instant selection of the correct tool.



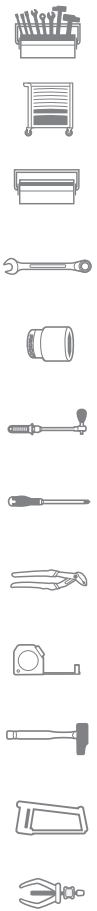
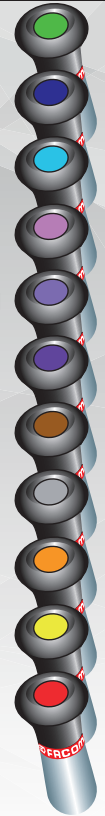
**Finger-tip grip area**



**Watch makers grip area**



**Full palm grip area**

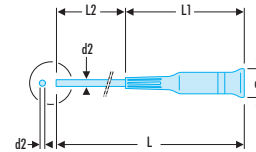


**AEX - Micro-Tech® screwdriver for Torx® screws**

• Chromed blade, hardened tip.



SE	d1 x L1 [mm]	d2 x L2 [mm]	L [mm]	Torx [No]	Colour	ΔΔ [g]
<b>AEX.5X35</b>	17 x 82	2,0 x 35	117	T5	Green	13
<b>AEX.6X35</b>	17 x 82	2,0 x 35	117	T6	Indigo	13
<b>AEX.7X35</b>	17 x 82	2,5 x 35	117	T7	Blue	13
<b>AEX.8X75</b>	21 x 93	2,5 x 75	168	T8	Pink	31
<b>AEX.9X75</b>	21 x 93	3,0 x 75	168	T9	Purple	33
<b>AEX.10X75</b>	21 x 93	3,0 x 75	168	T10	Plum	32
<b>AEX.15X75</b>	21 x 93	3,5 x 75	168	T15	Brown	35
<b>AEX.20X75</b>	21 x 93	4,0 x 75	168	T20	Grey	41



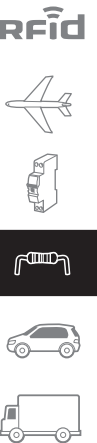
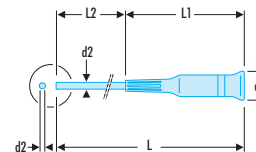
FLUO

**AEFP - AEFD Micro-Tech® screwdriver for Phillips® and Pozidriv® screws**

• AEFP presentation: chromed blade, hardened tip.  
• AEFD presentation: hardened blade.



SE	d1 x L1 [mm]	d2 x L2 [mm]	L [mm]	Phillips [No]	Pozidriv [No]	Colour	ΔΔ [g]
<b>AEFP.000X35</b>	17 x 82	2 x 35	117	PH.000	-	Pink	11
<b>AEFP.00X35</b>	17 x 82	2,5 x 35	117	PH.00	-	Purple	12
<b>AEFP.00X75</b>	17 x 82	2,5 x 75	157	PH.00	-	Purple	15
<b>AEFP.0X35</b>	17 x 82	3,0 x 35	117	PH.0	-	Plum	13
<b>AEFP.0X75</b>	21 x 93	3,0 x 75	168	PH.0	-	Plum	32
<b>AEFP.1X75</b>	21 x 93	4,0 x 75	168	PH.1	-	Brown	37
<b>AEFD.0X35</b>	17 x 82	3,0 x 35	117	-	PZ.0	Orange	13
<b>AEFD.0X75</b>	21 x 93	3,0 x 75	168	-	PZ.0	Orange	32
<b>AEFD.1X75</b>	21 x 93	4,0 x 75	168	-	PZ.1	Brown	37



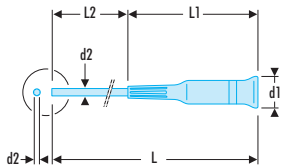
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## SCREWDRIVERS

## ■ AEF - Micro-Tech® screwdriver for slotted head screws



- Swivel head.
- Chromed blade, hardened tip.



➤	d1 x L1 [mm]	d2 x L2 [mm]	L [mm]	Colour	ΔΔ [g]
<b>AEF.1,5X35</b>	17 x 82	1,5 x 35	117	Yellow	12
<b>AEF.1,8X35</b>	17 x 82	1,8 x 35	117	Green	13
<b>AEF.2X35</b>	17 x 82	2,0 x 35	117	Indigo	13
<b>AEF.2X75</b>	17 x 82	2,0 x 75	157	Indigo	14
<b>AEF.2,5X35</b>	17 x 82	2,5 x 35	117	Blue	13
<b>AEF.2,5X75</b>	17 x 82	2,5 x 75	157	Blue	14
<b>AEF.3X75</b>	21 x 93	3,0 x 75	168	Pink	21
<b>AEF.3,5X75</b>	21 x 93	3,5 x 75	168	Purple	25
<b>AEF.4X75</b>	21 x 93	4,0 x 75	168	Plum	26

## ■ 84E - Micro-Tech® screwdriver for male hex screws



- Hardened blade.

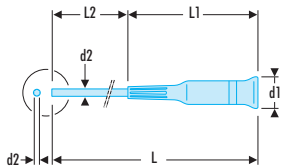


➤	L [mm]	Colour	Hex Size [mm]	ΔΔ [g]
<b>84E.0,9X35</b>	117	Red	0,9	14
<b>84E.1,3X35</b>	117	Orange	1,3	15
<b>84E.1,5X35</b>	117	Yellow	1,5	15
<b>84E.1,5X75</b>	157	Yellow	1,5	15
<b>84E.2X75</b>	168	Green	2,0	30
<b>84E.2,5X75</b>	168	Indigo	2,5	32

## ■ AEF - AEP - Micro-Tech® replaceable blade screwdriver



- Swivel head.
- Chromed blade, hardened tip.

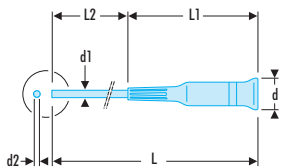


➤	d1 x L1 [mm]	d2 x L2 [mm]	L [mm]	Colour	ΔΔ [g]
<b>AEF.1X35</b>	17 x 82	1,0 x 35	117	Red	11
<b>AEF.1,2X35</b>	17 x 82	1,2 x 35	117	Orange	11

## ■ Micro-Tech® bit holder screwdriver for hex screws 4 mm



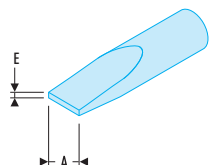
- For bits series 0 - 4 mm drive.
- Hardened blade.



➤	A [mm]	d [mm]	d1 [mm]	L [mm]	L1 [mm]	L2 [mm]	ΔΔ [g]
<b>AEM.M</b>	4	21	6	167	93	72	50

BITS SERIES 0 - 4 MM DRIVE

ES.0 - Screwing bits series 0-drive 4 mm for slotted head screws



NF ISO 2351-1, NF ISO 1173, ISO 2351-1, ISO 1173, DIN ISO 2351-1

ES	E [mm]	E x l [mm]	L [mm]	A fente [No]	ΔΔ [g]
ES.002	0,4	0,4 x 2,0	28	2,0	3
ES.002,5	0,4	0,4 x 2,5	28	2,5	3
ES.003	0,5	0,5 x 3,0	28	3,0	3
ES.004	0,5	0,5 x 4,0	28	4,0	3
ES.004,5	0,6	0,6 x 4,5	28	4,5	3

EP.0 - Screwing bits series 0-drive 4 mm for Phillips® screws



NF ISO 2351-2, NF ISO 1173, ISO 2351-2, ISO 1173, DIN ISO 2351-2

EP	L [mm]	Phillips [No]	ΔΔ [g]
EP.0X2	28	PH.00	3
EP.000	28	PH.0	3

EP.0 - Screwing bits series 0-drive 4 mm for Pozidriv® screws



NF ISO 2351-2, NF ISO 1173, ISO 2351-2, ISO 1173, DIN ISO 2351-2

EP	L [mm]	Pozidriv [No]	ΔΔ [g]
ED.0X2	28	PZ.00	3
ED.000	28	PZ.0	3
ED.001	28	PZ.1	3

EH.0 - Screwing bits series 0-drive 4 mm for hollow hex screws



NF ISO 2351-3, NF ISO 1173, ISO 2351-3, ISO 1173, DIN ISO 2351-3

EH	L [mm]	Hex Size [mm]	ΔΔ [g]
EH.000,9	28	0,9	3
EH.001,3	28	1,3	3
EH.001,5	28	1,5	3
EH.002	28	2,0	3
EH.002,5	28	2,5	3

ETS.0 - Screwing bits series 0-drive 4 mm for hollow hex spherical head screws

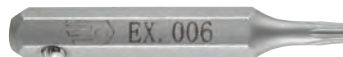


NF ISO 1173, ISO 1173

• The spherical head allows to screw with an angle up to 30°.

ETS	L [mm]	Hex Size [mm]	ΔΔ [g]
ETS.001,5	28	1,5	3
ETS.002	28	2,0	3
ETS.002,5	28	2,5	3

EX.0 - Screwing bits series 0-drive 4 mm for Torx® screws



NF ISO 1173, ISO 1173

EX	L [mm]	Torx [No]	ΔΔ [g]
EX.006	28	T6	2
EX.007	28	T7	2
EX.008	28	T8	2
EX.010	28	T10	2



### Socket holder drive



- Bit to use 1/4" "radio" series sockets with the screwdriver series A.300MT and A.340MT.
- Hex drive 4 mm.



	L [mm]	ΔΔ [g]
<b>ECR.0</b>	22	7

### Micro-Tech® 12-piece screwdriver set



Contains:

- 5 slotted head screwdrivers: AEF.1x35 - AEF.1.2x35 - AEF.1.5x35 - AEF.2x35 - AEF.2.5x35.
- 2 Phillips® screwdrivers: AEFP.00x35 - AEFP.0x35.
- 3 hex screwdrivers: 84E.0.9x35 - 84E.1.3x35 - 84E.1.5x35.
- 2 Torx® screwdrivers: AEX.6x35 - AEX.7x35.



	L [mm]	ΔΔ [g]
<b>MT.RS2</b>	285	420

### Micro-Tech® 5-piece screwdriver set slotted head - Phillips®



Contains:

- 4 slotted head screwdrivers: AEF.1.5x35 - AEF.1.8x35 - AEF.2x35 - AEF.2.5x35.
- 1 Phillips® screwdriver: AEFP.00x35.
- Case dimensions: L.178 x W.91 x H.25.



	l [mm]	L [mm]	ΔΔ [g]
<b>AEF.J1</b>	91	178	170

### Micro-Tech® 8-piece screwdriver set slotted head - Phillips®



Contains:

- 5 slotted head screwdrivers: AEF.2x75 - AEF.2.5x75 - AEF.3x75 - AEF.3.5x75 - AEF.4x75.
- 3 Phillips® screwdrivers: AEFP.00x75 - AEFP.0x75 - AEFP.1x75.
- Case dimensions: L.205 x W.130 x H.31 mm.



	l [mm]	L [mm]	ΔΔ [g]
<b>AEF.J3</b>	130	205	384

Micro-Tech® 5-piece screwdriver set slotted head - Pozidriv®

Contains:

- 3 slotted head screwdrivers: AEF.2x75 - AEF.2.5x75 - AEF.3x75.
- 2 Pozidriv® screwdrivers: AEFD.0x75 - AEFD.1x75.
- Case dimensions: L.183 x W.109 x H.32 mm.



	l [mm]	L [mm]	Dimension [mm]	ΔΔ [g]
<b>AEF.J5</b>	109	183	255 x 180 x 30	230



Micro-Tech® 8-piece screwdriver set slotted head - Phillips® - Pozidriv®

Contains:

- 5 slotted head screwdrivers: AEF.2x75 - AEF.2.5x75 - AEF.3x75 - AEF.3.5x75 - AEF.4x75.
- 1 Phillips® screwdriver: AEFP.00x75.
- 2 Pozidriv® screwdrivers: AEFD.0x75 - AEFD.1x75.
- Case dimensions: L.215 x W.130 x H.31 mm.



	l [mm]	L [mm]	ΔΔ [g]
<b>AEF.J6</b>	130	215	385



Micro-Tech® 5-piece screwdriver set Phillips®

Contains:

- 5 Phillips® screwdrivers: AEFP.00x35 - AEFP.00x75 - AEFP.0x35 - AEFP.0x75 - AEFP.1x75.
- Case dimensions: L.183 x W.109 x H.32 mm.



	l [mm]	L [mm]	ΔΔ [g]
<b>AEFP.J1</b>	109	183	267



Micro-Tech® 5-piece screwdriver slotted head

Contains:

- 5 slotted head screwdrivers: AEF2x75 - AEF2.5x75 - AEF3x75 - AEF3.5x75 - AEF4x75.
- Case dimensions: L.183 x W.109 x H.32 mm.



	l [mm]	L [mm]	ΔΔ [g]
<b>AEF.J2</b>	109	183	237



## MICRO-TECH® SCREWDRIVER KITS

## Micro-Tech® 8-piece 8 piece replacable blade screwdriver set head - Phillips®



Comprising:

- 6 slotted head screwdrivers: AE.1x35 - AE.1.2x35 - AE.1.5x35 - AE.1.8x35 - AE.2x35 - AE.2.5x35.
- 2 Phillips® screwdrivers: AEP.000x35 - AEP.00x35.
- Case dimensions: L.205x W.130 x H.31 mm.



	l [mm]	L [mm]	ΔΔ [g]
<b>AE.J1</b>	130	205	270

## Micro-Tech® 5-piece screwdriver set Torx®



Comprising:

- 5 Torx® screwdrivers: AEX.6x35 - AEX.7x35 - AEX.8x75 - AEX.9x75 - AEX.10x75.
- Case dimensions: L.183x W.109 x H.32 mm.



	l [mm]	L [mm]	ΔΔ [g]
<b>AEX.J1</b>	109	183	280

## Micro-Tech® 8-piece screwdriver set Torx®



Comprising:

- 8 Torx® screwdrivers: AEX.5x35 - AEX.6x35 - AEX.7x35 - AEX.8x75 - AEX.9x75 - AEX.10x75 - AEX.15x75 - AEX.20x75.
- Case dimensions: L.205 x W.130 x H.31 mm.



	l [mm]	L [mm]	ΔΔ [g]
<b>AEX.J2</b>	130	205	335

## 5-piece set of hex screwdrivers



Comprising:

- 5 hex screwdrivers: 84E.0.9x35 - 84E.1.3x35 - 84E.1.5x35 - 84E.2x75 - 84E.2.5x75.
- Case dimensions: L.183 x W.109 x H.32 mm.



	l [mm]	L [mm]	ΔΔ [g]
<b>84E.J1</b>	109	183	250



MICRO-TECH® KIT

10-piece Micro-Tech® set of short combination wrenches

Comprising:

- 10 combination wrenches series 39:  
3.2 - 4 - 5 - 5.5 - 6 - 7 - 8 - 9 - 10 - 11 mm.
- Case dimensions: L. 123 x W.95 x H.28 mm.



Icon	A [mm]	ΔΔ [g]
39.JE10	3,2 - 4 - 5 - 5,5 - 6 - 7 - 8 - 9 - 10 - 11	266

Micro-Tech® 11-tool set

Comprising:

- 5 slotted head screwdrivers: AE.1.2 x 35 - AEF.1.5 x 35 - AEF.1.8 x 35 - AEF. 2 x 35 - AEF.2.5 x 35.
- 3 Phillips® screwdrivers: AEP.000 x 35 - AEP.00 x 35 - AEP.0 x 35.
- 1 pair of tweezers: 140A.
- 2 pair of pliers: 405.10 MT - 432 LMT.
- Case dimensions: L.285 x W.138 x H.26 mm.



Icon	l [mm]	L [mm]	ΔΔ [g]
MT.J3	138	285	726



Micro-Tech® 16-tool set

Comprising:

- 6 slotted head screwdrivers: AE.1 x 35 - AE.1.2 x 35 - AEF.1.5 x 35 - AEF.1.8 x 35 - AEF.2 x 35 - AEF.2.5 x 35.
- 2 Phillips® screwdrivers: AEP.000 x 35 - AEP.00 x 35.
- 3 hex screwdrivers: 84E.0.9 x 35 - 84E.1.3 x 35 - 84E.1.5 x 35 .
- 2 pairs of pliers 405.10MT- 432LMT.
- 1 pair of scissors 841.MT.
- 1 cutter 845.1.
- 1 pair of tweezers 140AA.
- Case dimensions: L.366 x W.180 x H.66 mm.



Icon	l [mm]	L [mm]	ΔΔ [kg]
MT.J1	180	366	1.1



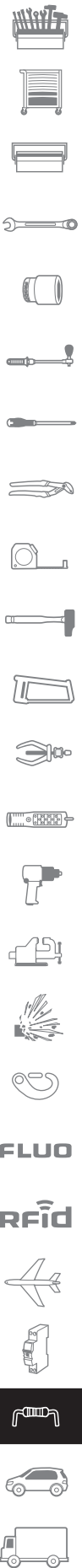
Micro-Tech® 16-tool set - screwdriver + bits

Comprising:

- 1 bit holder screwdriver AEM.M.
- 5 bits series 0 for slotted head screws: ES.002 - ES.002.5 - ES.003 - ES.004 - ES.004.5.
- 2 bits series 0 for Phillips®: EP.0x2 - EP.000.
- 2 bits series 0 for Pozidriv®: ED.0x2 - ED.000.
- 3 bits series 0 hex: EH.001.5 - EH.002 - EH.002.5.
- 3 bits series 0 hex spherical head: ETS.001.5 - EH.002 - EH.002.5.
- Case dimensions: 183 x 109 x 32 mm.



Icon	l [mm]	L [mm]	ΔΔ [g]
AEM.J1	109	183	237



### Micro-Tech® 26-tool set - socket holder + bits + sockets



Comprising:

- 1 bit holder screwdriver AEM.M.
- 5 bits series 0 for slotted head screw: ES.002 - ES.002.5 - ES.003 - ES.004 - ES.004.5.
- 2 bits series 0 for Phillips®: EP.0x2 - EP.000.
- 2 bits series 0 for Pozidriv®: ED.0x2 - ED.000.
- 3 bits series 0 hex: EH.001.5 - EH.002 - EH.002.5.
- 3 bits series 0 hex spherical head: ETS.001.5 - EH.002 - EH.002.5.
- 4 bits series 0 for Torx: EX.006 - EX.007 - EX.008 - EX.010.
- 1 socket holder ECR.0.
- 5 1/4" sockets: R.3.2 - 4 - 5 - 5.5 - 7 mm.
- Case dimensions: 205 x 130 x 31 mm.



	l [mm]	L [mm]	ΔΔ [g]
<b>AEM.J2</b>	130	205	340

### WATCHMAKER SCREWDRIVER SETS

#### 5-piece watchmaker screwdriver set for slotted head screws



Comprising:

- 5 screwdrivers for slotted head screws: 0.8 x 13 - 1 x 16 - 1.2 x 17 - 1.6 x 19 - 2.5 x 21 mm.
- Presentation: chromed, hardened blade.
- In plastic case.



	ΔΔ [g]
<b>HB.1B</b>	130

#### 6-piece watchmaker screwdriver set for Phillips® - hex screw



Comprising:

- 3 hex screwdrivers: 1.5 - 2 - 2.5 mm.
- 3 Phillips® screwdrivers: PH N°00 - 0 - 1.
- Presentation: chromed, hardened blade.
- In plastic case.



	ΔΔ [g]
<b>HB.2B</b>	200

#### 9-piece watchmaker screwdriver set for slotted head screws



Comprising:

- 9 slotted head screwdrivers: 0.6x11 - 0.8x11 - 1x12 - 1.2x12 - 1.4x12 - 1.6x15 - 2x15 - 2.5 x 15.5 - 3x15.5 mm.
- Replaceable blades.
- Supplied on carousel with blade reserve.



	ΔΔ [g]
<b>HB.4</b>	340

STANDARD SERIES

140 - Tweezers anti-magnetic or anti-reflection straight models



- Smooth pointed nose.
- 140.AA: satin polished presentation. Anti-magnetic stainless steel material.
- 140.AAW13: anti-reflection black presentation. Carbon steel material.

Icon	L [mm]	Finish	ΔΔ [g]
140.AA	125	Satin polished	17
140.AAW13	130	Anti-reflection black	16

Tweezers straight model - narrow nose



- Smooth narrow and pointed nose.
- Stainless steel.
- Presentation: fine polished.

Icon	L [mm]	ΔΔ [g]
148	130	15

Tweezers straight model - fine grooved nose



- Long, thin, groove tip nose with guide.
- Stainless steel.
- Presentation: fine polished.

Icon	L [mm]	ΔΔ [g]
149	155	18

Tweezers straight model - strong grooved nose



- Long, strong, groove tip nose with guide.
- Stainless steel.
- Presentation: fine polished.

Icon	L [mm]	ΔΔ [g]
150	165	22

Tweezers model angled at 40°



- Long, strong, groove tip nose with guide.
- Stainless steel.
- Presentation: fine polished.

Icon	L [mm]	ΔΔ [g]
151	155	22

Tweezers model angled at 45°



- Thin, grooved nose with guide.
- Stainless steel.
- Presentation: fine polished.

Icon	L [mm]	ΔΔ [g]
152	150	19



■ Tweezers straight model - cross nose



- Grooved, crossed, self-locking nose.
- Stainless steel.
- Presentation: fine polished.

Icon	L [mm]	ΔΔ [g]
153	150	23

■ Tweezers straight model - power nose



- Power, rigid, grooved nose for wiring.
- Stainless steel.
- Presentation: fine polished.

Icon	L [mm]	ΔΔ [g]
154	155	30

PVC SHEATH SERIES

■ PVC sheath tweezers straight model



Icon	L [mm]	ΔΔ [g]
149.Y	155	25

■ PVC sheath tweezers model angled at 45°



Icon	L [mm]	ΔΔ [g]
152.Y	150	25

■ PVC sheath tweezers model for picking components - straight shank



- Diameter 2.5 to 4 mm, in the axis of the tweezers.

Icon	L [mm]	ΔΔ [g]
146.1Y	140	25

■ PVC sheath tweezers model for picking components - perpendicular shank



- Diameter 2.5 to 4 mm, perpendicular to the tweezers axis.

Icon	L [mm]	ΔΔ [g]
146.2Y	140	25

HIGH PRECISION SERIES

■ Tweezers "high precision" straight very pointy model



• Extra-flexible, smooth very pointed nose.

Icon	L [mm]	ΔΔ [g]
141.11	110	13

■ "High precision" tweezers straight model



• Extra-flexible, smooth very pointed nose.

Icon	L [mm]	ΔΔ [g]
141.12	130	14

■ "High precision" tweezers straight model - cleared nose



• Extra-flexible, smooth very pointed nose.

Icon	L [mm]	ΔΔ [g]
142.1	112	13

■ "High precision" tweezers 15° angled model - cleared nose



• Extra-flexible, smooth very pointed nose.

Icon	L [mm]	ΔΔ [g]
142.2	117	15

■ "High precision" tweezers curved straight model



• Extra-flexible, smooth very pointed nose.

Icon	L [mm]	ΔΔ [g]
143	114	14

■ Tweezers "high precision" straight model - very slim nose



• Fine rounded, smooth nose.

Icon	L [mm]	ΔΔ [g]
144	120	17



### Tweezers "high precision" straight model - wide flat nose



- Smooth nose.
- Nose width: 7 mm.

	L [mm]	ΔΔ [g]
<b>145</b>	123	14

### "High precision" tweezers straight power model



- Thin grooved nose.

	L [mm]	ΔΔ [g]
<b>156</b>	110	15

## SPECIAL TWEEZERS

### Plastic tweezers straight model - sterilizable



- Material: polypropylene, sterilizable 180 °C max.

	L [mm]	ΔΔ [g]
<b>150.P1</b>	125	6

### 150.P - Plastic tweezers straight models - anti-static



- Material: glass fiber reinforced (20%) anti-static polyamide.
- Anti-magnetic.
- Resistant to acid.
- Resistant to temperatures up to 200 °C.
- Precision, smooth nose.
  - 150.P10: wide straight nose.
  - 150.P11: thin angled nose.

	L [mm]	ΔΔ [g]
<b>150.P10</b>	120	5
<b>150.P11</b>	120	5

### Tweezers cutting model for extra-thin wires



- Carbon alloy steel for perfect cutting edges.
- Very high precision cut.
- Presentation: fine polished.
- Nose tip width: 10 mm.



	L [mm]	ΔΔ [g]
<b>139</b>	110	27

SETS OF TWEEZERS

Set of 7 tweezers

- The set is presented in plastic case.



Icon	L [mm]	Set contents	Dimension [mm]	ΔΔ [g]
147.J7	205	140.AA - 141.14 - 142.1 - 142.2 - 143 - 144 - 145	205 x 130 x 31	335

SPECIAL MICRO-TECH® PLIERS

CIRCLIP® PLIERS

Set for inside and outside circlips®

Contains:

- 1 outside circlips plier 467.PMT.
- 1 inside circlips plier 469.PMT.

These pliers include a spring-assisted opening and a screw-stop adjustment to avoid deforming the circlips and ensure precise fitting or removal.

- 6 sets of straight and angled tips.
- 1 key.
- Chrome polished. PVC sheathed branches.
- Supplied in plastic case: 285 x 142 x 46 mm.



Icon	l [mm]	L [mm]	ΔΔ [g]
470.MT	142	285	600

TRUARC® PLIERS

Tool for Truarc® rings

- For fitting and removing Truarc rings, maximum diameter 6 mm, in difficult access locations.



Icon	L [mm]	ΔΔ [g]
1813	170	19



VARIOUS TOOLS

SCISSORS

"Stubby" scissors

- For high precision cutting.
- Left/right hand model.
- Chrome polish, PVC sheathed branches.



Icon	L [mm]	ΔΔ [g]
841.MT	155	10



## CUTTER

## ■ Interchangeable-blade safety knife



- For precise and neat cutting.
- Blades perfectly held.
- 2 types of blades.
- Length: 150 mm.
- Knife supplied with 10 L1-type blades.
- Spare blades:
  - 845.L1: Set of 10 straight thin blades.
  - 845.L2: Set of 10 offset blades.



🔪	L [mm]	ΔΔ [g]
<b>845.1</b>	150	15

## HACKSAW FRAME

## ■ Micro-Tech® hacksaw frame



- Ideal for light duty work on plastic, wood or metal.
- Ergonomic grip handle for comfort.
- Light weight for intensive use.
- Zamak lacquered for longer life.
- Supplied with a 150 mm blade.



🔪	L [mm]	ΔΔ [g]
<b>607.MT</b>	262	140

## ■ Saw blades



- Set of 5 blades 12 teeth/cm



🔪	ΔΔ [g]
<b>608.L12</b>	14

## VARIOUS TOOLS

## ■ Clamp tool-holder



- Each end has a double clamp and a chuck.
- Can be fitted with any cylindrical tool diameter 0.5 to 3.5 mm.

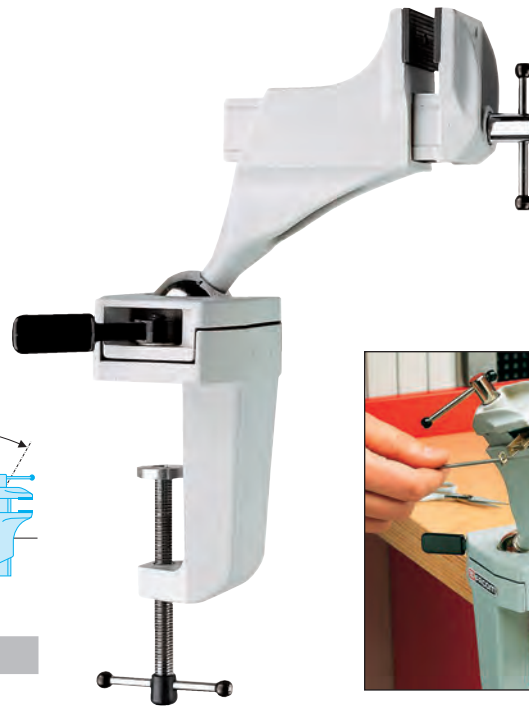
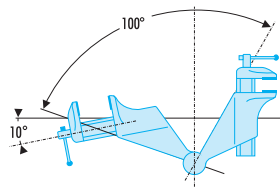


🔪	L [mm]	ΔΔ [g]
<b>1817</b>	110	35



Micro-Tech® swivel-base vice

- Designed for a comfortable work position ensuring high precision.
- Instant locking lever on swivel base.
- Fastener for firm fastening on a support of 80 mm thick max.
- Jaws in glued plastic, width: 50 mm.
- Max opening: 70 mm.
- Max depth: 38 mm.



Icon	Model	Weight [kg]
	1150.MT	1.4

Pen oil can

- For precise greasing, drop by drop, by pressing the button.
- Level visible.
- Protection cap.
- Metal fastener for clipping in the pocket.
- Spread: 5 cm<sup>2</sup>.



Icon	Model	Weight [g]
	372	20

Spring hook

- With pusher hook and traction hook.
- Presentation: chromed, sheathed.



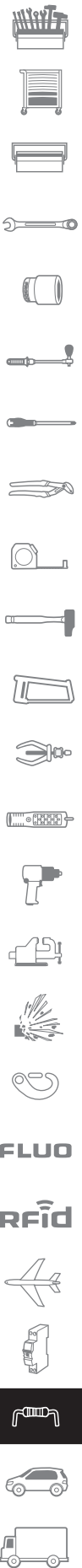
Icon	Model	Length [mm]	Weight [g]
	835A	200	13

Separator

- With a fork and tip diameter 0.5 mm.
- Presentation: chromed, sheathed.



Icon	Model	Length [mm]	Weight [g]
	835.1	210	15



### Pen light



- 1 3W LED.
- 110 lumens.
- 2 304 lux at 0,5 m.
- Running time 3,5 hours.
- Protection rating: IP65.
- Supplied with: 2 AAA batteries, shop and protection pouch.



ED	ΔΔ [g]
779.PBT	58

### 1830 - Brushes



1830.1



1830.3



1830.4

- For cleaning, removing dust.
- 1830.1: Extra-soft silk brush.
- 1830.3: Etching brush: nylon outside, metallic wires at the centre.
- 1830.4: Soft nylon brush.



ED	L [mm]	L1 [mm]	ΔΔ [g]
1830.1	190	-	17
1830.3	190	50	35
1830.4	230	100	30

### Set of 2 tuning screwdrivers for slotted head screws



- Screwdriver dimensions:
  - HT.2x2.4: 2 and 2.4 mm.
  - HT.3x4: 3 and 4 mm.
- Screwdrivers available per unit.
- Supplied in roll.



ED	ΔΔ [g]
HT.3	26

### Mechanical retriever with 4 claws



- To recover small flat parts with max diameter 30 mm.
- Presentation: nickel-plated.

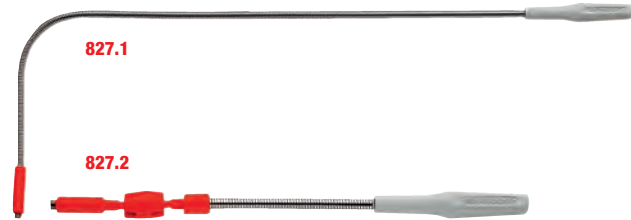


ED	ΔΔ [g]
826.0	20

827 - Extra-thin flexible magnetic retrievers

- 827.1: flexible and long model head diameter 7 mm.
- 827.2: ball joint model head diameter 8 mm.
- Max lifted weight: 120 g.

Icon	L [mm]	ΔΔ [g]
827.1	530	80
827.2	210	26



Flexible magnetic retriever

- Magnet diameter: 12 mm.
- Max lifted weight: 850 g.

Icon	L [mm]	ΔΔ [g]
827.M	570	220



Flexible magnetic retriever - high power

- Powerful magnet (3 kg).
- Magnetic flux conductor prevents sticking to sides.
- Length 560 mm, adjustable stiffness.
- Magnet diameter: 12 mm.

Icon	L [mm]	ΔΔ [g]
827B	560	130



"Luminous" flexible magnetic retriever

- Magnet diameter: 15 mm.
- Max lifted weight: 1.2 kg.
- LR1 battery.

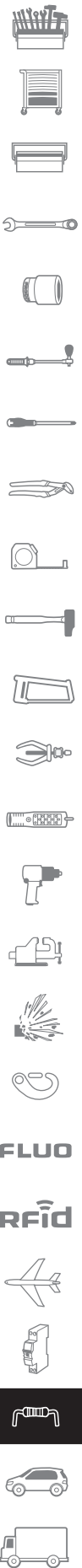
Icon	L [mm]	ΔΔ [g]
828	590	220



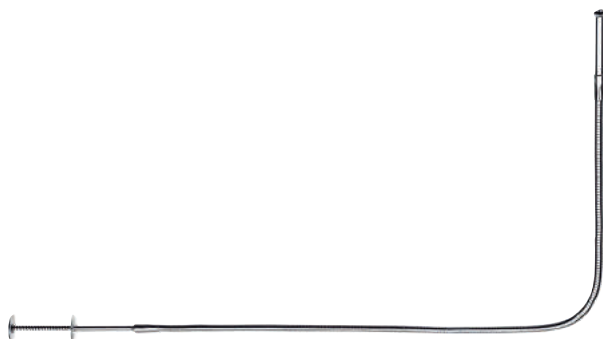
Flexible mechanical retriever 460 mm

- Max nose opening diameter: 29 mm.

Icon	L [mm]	ΔΔ [g]
826.1	460	200



### Flexible mechanical retriever 1000 mm

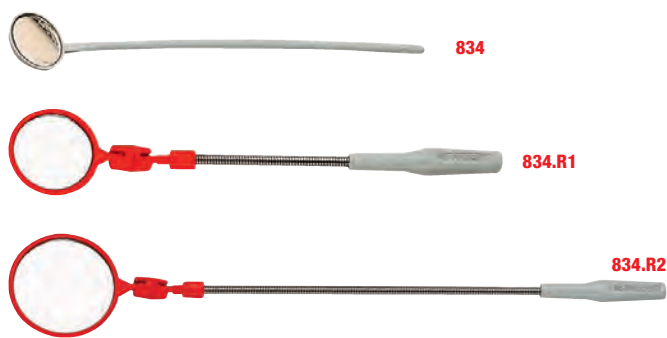


- Max nose opening diameter: 29 mm.



➤	L [mm]	ΔΔ [g]
<b>826.2</b>	1000	400

### 834 - Inspection mirrors



- Mirror crimped on plastic.
- 834: one-piece rigid.
- 834.R1: jointed and flexible.
- 834.R2: jointed and flexible.



➤	d [mm]	L [mm]	ΔΔ [g]
<b>834</b>	24	175	4
<b>834.R1</b>	36	210	13
<b>834.R2</b>	55	360	40

### Inspection mirror

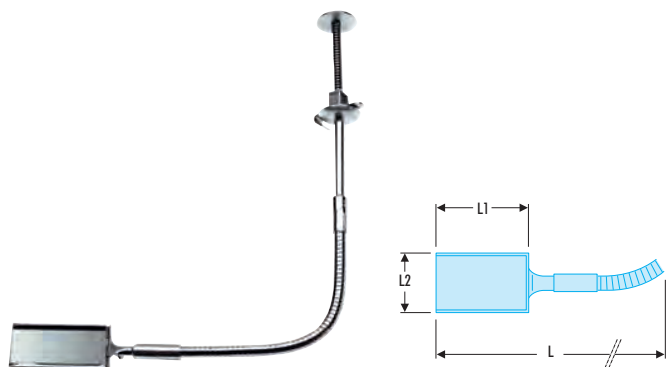


- Mirror in scratch resistant glass, available as spare parts.
- Metallic strapping around the glass for better protection.
- Join easily adjustable, or even locked, by screw.
- Solvent resistant plastic handle: Skydroll, gasoil...
- Max length 850 mm.
- Mirror diameter 55 mm.
- 834B.RT01: Spare mirror.



➤	ΔΔ [g]
<b>834B.RT</b>	80

### Flexible orientable mirror



- The mirror is turned by pressing the button on the handle.



➤	L [mm]	L1 [mm]	L2 [mm]	[g]
<b>829</b>	495	70	45	225

834A.R - Flexible mirrors

- Flexible mirror adapting to all types of parts.
- Hinged head for enhanced visibility in cluttered locations.



834A.R	d [mm]	L [mm]	ΔΔ [g]
	70x45	308	44

834B.RTI - Telescopic mirrors

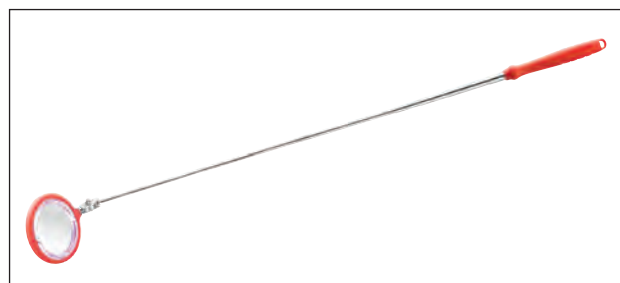
- Mirror with LED back lighting for better visibility in dark areas.
- Scratch resistant glass.
- Molded plastic rim around the glass to protect parts and ensure mirror durability.
- Joint easily adjustable, and lockable by screw.
- Ergonomic plastic handle resistant to solvents: Skydroll, diesel fuel, etc.
- Max length 850 mm.



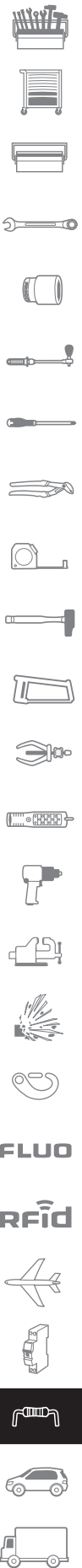
	d [mm]	L [mm]	ΔΔ [g]
834B.RTI	55	955	78
834B.RTIS	33	935	68
834B.RTIR	70x54	970	88

Telescopic mirror with magnifying effect

- Mirror with magnifying effect.
- Scratch resistant glass.
- Molded plastic rim around the glass to protect parts worked on and ensure mirror durability.
- Joint easily adjustable, and lockable by screw.
- Ergonomic plastic handle resistant to solvents: Skydroll, diesel fuel, etc.
- Max length 850 mm.



834B.RTIM	ΔΔ [g]
	78



## VARIOUS TOOLS

## Black mini wire-holder



- Insulated model with 2 claws, flexible tube diameter 3 mm.



	L [mm]	$\Delta\Delta$ [g]
<b>1802A.N</b>	130	10

## Red mini wire-holder



- Insulated model with 2 claws, flexible tube diameter 3 mm.



	L [mm]	$\Delta\Delta$ [g]
<b>1802A.R</b>	130	10

## Black contact tip



- Insulated model, brass tip and socket diameter 4 mm for 1804B chord.
- Supplied with protection cap.



	$\Delta\Delta$ [g]
<b>1803A.N</b>	15

## Red contact tip



- Insulated model, brass tip and socket diameter 4 mm for 1804B chord.
- Supplied with protection cap.



	$\Delta\Delta$ [g]
<b>1803A.R</b>	15

## Black connection cable



- Very flexible insulated model with retractable protection.
- 2 connectors diameter 4 mm for contact tip and mini-wire-holder.
- Length: 2.1 m.



	L [m]	$\Delta\Delta$ [g]
<b>1804B.N</b>	2.1	50

## Red connection cable



- Very flexible insulated model with retractable protection.
- 2 connectors diameter 4 mm for contact tip and mini-wire-holder.



	L [m]	$\Delta\Delta$ [g]
<b>1804B.R</b>	2.1	50

THERMOREGULATED SOLDERING UNITS

■ Anti-static digital welder 68 watts

- Ultra fast heating time: 9 s.
- Automatic standby mode for less power consumption and automatic power off.
- Super compact station.
- Temperature calibration possible for higher accuracy. Reduction of temperature of the display and that of the soldering iron tip.
- Setpoint temperature: 360 °C / 680 °F.
- Temperature range: 150 to 450 °C, 300 to 842 °F.
- Stability: + or - 2°C.
- Power: 68 W.
- Supply voltage: 220 - 240 V ~ 50/60 Hz 110 - 120 V ~ 50/60 Hz.
- Dimensions (L x H x D): 145 mm x 80 mm x 103 mm.
- Soldering iron 1003B.68E:  
Dimensions: L x handle Ø / 175 mm x 12 mm.  
Cable length: 950mm.  
Weight: 30 g (without cable).
- Holder:  
Dimensions (L x H x D): 140 mm x 80 mm x 80 mm.  
Weight: 200 g.
- Spare iron tips 1003B.68E:  
- 1003B.P1: thin pen tip (0.4mm).  
- 1003B.P2: large pen tip (1.0mm).  
- 1003B.P3: screwdriver tip (1.6mm).



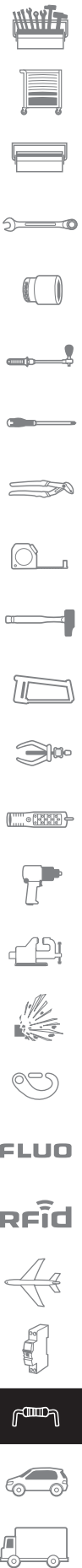
Icon	L [mm]	ΔΔ [kg]
	145	1.0

■ Soldering iron stand

- Stores a soldering iron type Facom 1230 or equivalent immediately after welding work. It can be transported safely in a maintenance case. The insulating part does not contain any asbestos.
- 180 x diameter 35 mm.



Icon	ΔΔ [g]
	210



### Electronic soldering iron



- Power: 68 W.
- Supply voltage: 220 - 240 V ~ 50/60 Hz 110 - 120 V ~ 50/60 Hz.
- Dimensions: L x handle  $\varnothing$  / 175 mm x 12 mm.
- Cable length: 950mm.



1003B.68E

 $\Delta\Delta$  [g]

136

## ELECTRONIC IRONS

### Electronic soldering



- More ergonomic grip
  - Uses less power / more energy efficient
  - Faster heating time / consistent temperature and recovers quickly between usages
  - More suited for electronic applications
  - No change to quality, durability and better temperature results expected by the professional user
  - Power supply 230V
  - Range from 15W to 40W.
  - 1.5M cable length. PVC 2 conductor cable (2x 0.75)
  - Supplied with iron stand.
- Spare tips:  
- Pointy tip 1230.15-35P2  
Supply with standard tip & black stand.



Range [W]

 $\Delta\Delta$  [g]

1230B.15

15

219

1230B.20

20

219

1230B.25

25

219



■ Bi-watt 20-40 electronic soldering



- More ergonomic grip
- Uses less power / more energy efficient
- Faster heating time / consistent temperature and recovers quickly between usages
- More suited for electronic applications
- New higher max temperature at 440
- No change to quality, durability and better temperature results expected by the professional user
- Power supply 230V
- 1.5M cable length. PVC 2 conductor cable (2x 0.75)
- Supplied with iron stand.

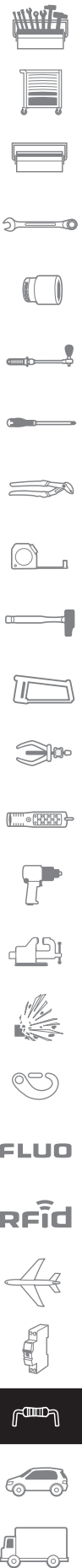
Icon	ΔΔ [g]
1116C.BW	219

■ Instant-heat 100 W - 230 V soldering iron

- Double insulation.
- Ready to run (5 s) once the trigger pressed.
- When the trigger is released, the tip cools down instantly.
- Useful for punctual and intermittent work, handy in maintenance case.
- Lighting device effective and well protected.
- Supplied with 3 stainless steel tips for power 40, 70 and 100 W, a tightening key, a coil of tin and a 1 pot of etching paste in a polystyrene case.
- PVC 2-conductor cable (2 x 0.75 mm<sup>2</sup>). Length: 1.25 m.
- Connector with 2 poles.
- Spare tip: 848.100P2



Icon	L [mm]	ΔΔ [g]
848B.100	270	1000



## HIGH POWER SOLDERING IRONS

## 947A - High power irons - 230 V



- Power range from 50 to 400 W.
- Supplied with an angled tip.
- Very high yield with excellent robustness.
- Shape designed for difficult access.
- Shiny copper tips.
- Stainless steel heating body tube.
- These irons meet the requirements of the EN 60335 - 2 - 45 standard.



Ref	Ø Peak [mm]	L [mm]	Peak	Rating [W]	Peak temp ± 10% [°]	ΔΔ [g]
947.50	6	266	947.50P1	50	390	290
947.80	8	295	947.80P1	80	400	330
947A.100	10	300	947.100P1	100	420	440
947A.200	15	315	947.200P1	200	450	675
947A.300	20	320	947.300P1	300	470	960
947A.400	20	320	947.300P1	400	500	960

## SOLDERING ACCESSORIES

## 839 - Desoldering pumps

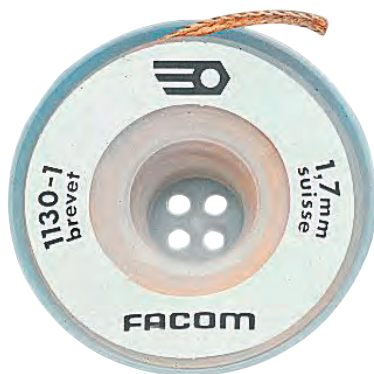


- Double gasket: one provides cleaning, allowing the other to guarantee perfect sealing.
- Sets of 5 spare tips:
  - 839.E1J5: standard, white.
  - 839.EJ5: thin, black, antistatic.



Ref	L [mm]	Contents	ΔΔ [g]
839A	190	Plastic wallet	75
839A.0	165	Plastic wallet	36
839A.1	200	Plastic wallet	78
839A.7	195	Plastic wallet	78

## Desoldering braid



- This braid provides remarkable absorbing qualities. It avoids thermal shock for delicate components.
- Width: 1.6 mm.
- Length: 1.6 m.



Ref	Width l [mm]	L [mm]	ΔΔ [g]
1130.1	1.6	1600	15





# AUTOMOTIVE



**MOBILE LIFTING EQUIPMENT**

**1020**

- Heavy-duty trolley jacks 1020
- Hydraulic presses 1030
- Inspection creepers - Pry bars 1033



**ELECTRIC AND HYBRID VEHICLES**

**1038**

- Consigning kits - Safe 1038
- Sign posts and chains 1040



**LUBRICATION - FILTRATION**

**1042**

- Drain plug wrenches 1042
- Oil-Filter wrenches 1048
- Cap wrenches and sockets 1053



**SPARK PLUGS**

**1056**

- 3/8" Square drive sockets 1057
- Round tip metric thickness gauges 1059
- Glow plug tester 1062



**AUTO ELECTRICS**

**1062**

- Testers and multimeters 1062
- Battery chargers 1065
- Booster 1067
- Battery tools 1071
- Fuses and connectors - Car radio 1073



**ENGINE**

**1075**

- Engine support 1075
- Pressure control 1078
- Common Rail Injector tools 1081
- Fuel injection 1084
- Cooling system tester 1087
- Cylinder head - Valves 1088
- Digital control tools 1093
- Pistons - Piston rings 1095
- Maintenance 1096
- Other 1096



**DIESEL ENGINE TIMING KIT**

**1099**

- Timing kits 1101
- Timing pulley and belt fitting and removal 1109



**TRANSMISSION**

**1111**

- Gearbox and clutch 1111



**BRAKES - HG**

**1111**

- Inspection 1111
- Diagnostics and bleeding 1113
- Disc brakes 1114
- Drum brakes 1116
- Brake lines 1117



**SUSPENSION**

**1118**

- Spring compressors 1119
- Workstation 1123
- Strut removal 1124
- Tools for shock absorbers 1124



**WHEEL - HUB - TRANSMISSION**

**1125**

- Wheel removal and inspection 1125



**BODYWORK**

**1132**

- Inspection lamp - Bodywork 1133
- Supports 1134
- Stripping tools 1135
- Air hammer 1142
- Panel beating hammers 1147
- Air tools - paint preparation 1156
- Windshield tools 1159
- Hydraulic equipment 1162



FLUO

RFID



LIFTING EQUIPMENT RANGE

For FACOM, your safety is paramount



- Conformity with the European directive on machinery and standards checked by an independent laboratory.



- Detailed manual.
- Exploded views.
- Spare parts list.
- Maintenance log.



- Permanent identification markings.



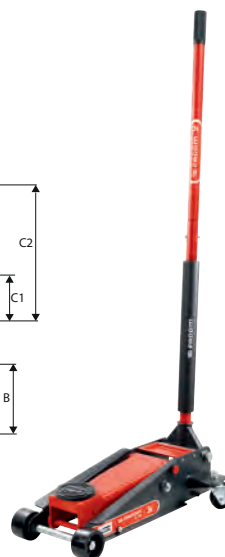
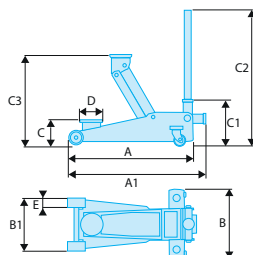
- Comprehensive safety instructions.



HEAVY-DUTY TROLLEY JACKS

3T mutil purpose car and LCV floor jack

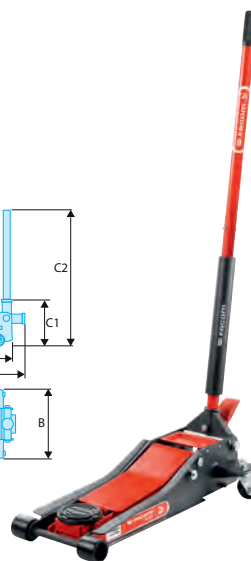
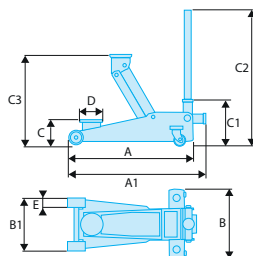
- Force: 3 t.
- Maximum lift: 465 mm
- Minimum under-body clearance: 133 mm.
- Quick-lift device brings jack into contact in a single movement.
- Under-body rubber plate.
- Tube fitted with protection foam.
- Silent-running polyurethane-tired wheels.
- Overload valve.
- Dimensions (L x W x H.): 690 x 337 x 163 mm.
- EC standard EN1494-ASME-PASE.



DL.32A	A	A1	B	B1	C	C1	C2	C3	D	E	H	Width I	L	Tonnes	$\Delta\Delta$
	[mm]	[mm]	[mm]	[mm]	[mm]	[mm]	[mm]	[mm]	[mm]	[mm]	[mm]	[mm]	[mm]	[t]	[kg]
	615	680	344	255	133	220	1305	465	108	48	163	337	690	2	30.5

2T gearbox & engine support trolley jack

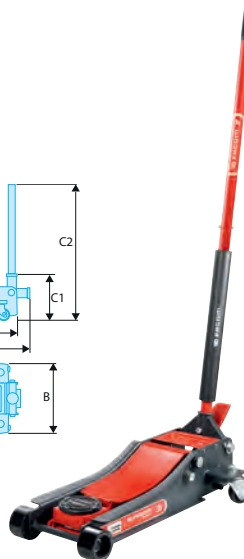
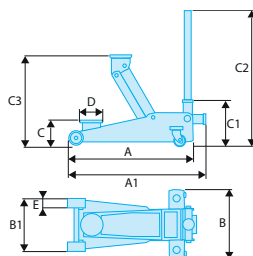
- Ideal for distributions and for low ground clearance vehicles, or fitted with rocker panel protections.
- Lifting capacity: 2 t.
- Maximum lift: 505 mm
- Minimum under-body height: 75 mm.
- Quick lift double piston mechanism.
- Load descent rate regulation.
- Supplied with steel / rubber under-body bearing plate.
- Silent-running polyurethane-tired wheels.
- EC standard EN1494-ASME-PASE.



DL.2LP	A	A1	B	B1	C	C1	C2	C3	D	E	Width I	L	Tonnes	$\Delta\Delta$
	[mm]	[mm]	[mm]	[mm]	[mm]	[mm]	[mm]	[mm]	[mm]	[mm]	[mm]	[mm]	[t]	[kg]
	675	762	350	262	75	215	1305	505	108	53	350	675	2	32.5

3T extra-flat compact trolley jack

- Ideal for low ground clearance vehicles, or fitted with rocker panel protections.
- Load capacity: 3 t.
- Maximum lifting height: 533 mm
- Minimum height under body: 100 mm.
- Quick lift double piston mechanism.
- Load descent rate regulation.
- Supplied with steel / rubber under-body bearing plate.
- Silent-running polyurethane-tired wheels.
- EC standard EN1494-ASME-PASE.



DL.3CLP	A	A1	B	B1	C	C1	C3	D	E	Width I	L	Tonnes	$\Delta\Delta$
	[mm]	[mm]	[mm]	[mm]	[mm]	[mm]	[mm]	[mm]	[mm]	[mm]	[mm]	[t]	[kg]
	688	778	375	285	100	230	533	108	52	375	688	3	42.0



FLUO

RFid



HEAVY-DUTY TROLLEY JACKS

■ Foam jack holder

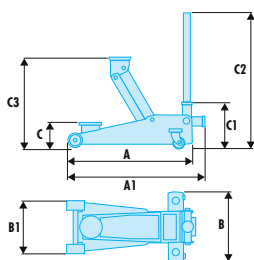
- This plate supports a block of high density foam that spreads the load over a large surface area and avoids damage to aluminium crankcases and under-bodies.
- Can be used on product Ref DL.32A - DL.2LP - DL.3CLP.
- Dimensions with foam block (L. x W. x H.): 305 x 155 x 40 mm.
- Reference of the foam alone DL.20-02M



	$\Delta\Delta$ [kg]
<b>DL.32A-SUP</b>	4

FLOOR JACKS "MAINTENANCE" RANGE

■ 1.5 t aluminium rolling jack

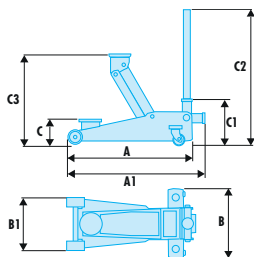


- Load capacity: 1.5 t.
- Maximum lifting height: 360 mm
- Minimum height under body: 90 mm.
- Double piston for fast lifting.
- Side handle for easier carrying and installation.
- Tube fitted with protection foam.
- Supplied with steel / rubber under-body bearing plate.
- Overload valve.
- Dimensions (L. x W x H.): 487 x 246 x 132 mm.
- EC standard EN1494+A1.



	A [mm]	A1 [mm]	B [mm]	B1 [mm]	C [mm]	C1 [mm]	C2 [mm]	C3 [mm]	Oil Capacity [cm <sup>3</sup> ]	Tonnes [t]	$\Delta\Delta$ [kg]
<b>DL.15AL</b>	487	553	248	115	90	132	1082	360	80	1.5	30

■ 2.5 t aluminium rolling jack



- Load capacity: 2.5 t.
- Maximum lifting height: 450 mm
- Minimum height under body: 100 mm.
- Double piston for fast lifting.
- Side handle for easier carrying and installation.
- Tube fitted with protection foam.
- Supplied with steel / rubber under-body bearing plate.
- Overload valve.
- Dimensions (L. x W x H.): 591 x 308 x 173 mm.
- CE compliance Standard EN1494+A1.

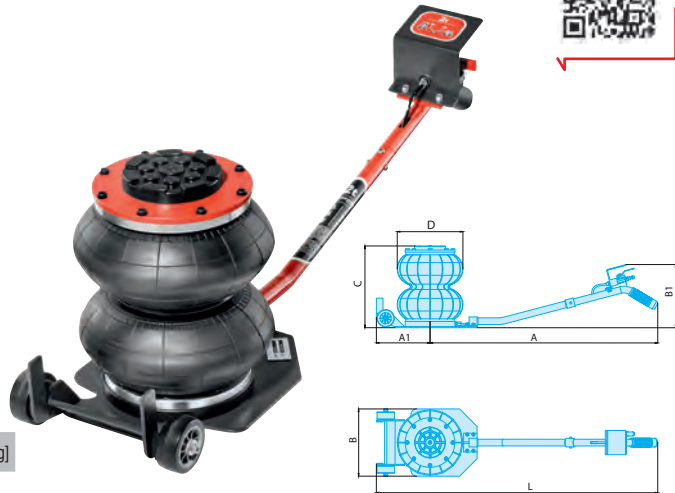


	A [mm]	A1 [mm]	B [mm]	B1 [mm]	C [mm]	C1 [mm]	C2 [mm]	C3 [mm]	Oil Capacity [cm <sup>3</sup> ]	Tonnes [t]	$\Delta\Delta$ [kg]
<b>DL.25AL</b>	591.5	665	308	148	100	173	1370	450	220	2.5	32



2 t pneumatic jack

- Load capacity: 2 t.
- Maximum lifting height: 300 mm
- Minimum height under body: 120 mm.
- Descent speed regulation with the control valve.
- Dimensions (L. x W.): 250 x 1055 mm.
- CE compliance Standard EN1494+A1.
- Fitted with a discharge valve in case of air overpressure.
- Minimum operating pressure: 6 bar.



	A [mm]	A1 [mm]	B [mm]	B1 [mm]	C [mm]	D [mm]	Tonnes [t]	ΔΔ [kg]
<b>DL.2A2L</b>	870	200	250	240	300	250	2	16

2 t safety trolley jack

- Load capacity: 2 t.
- Maximum lifting height: 500 mm
- Minimum height under body: 75 mm.
- Fast approach pedal.
- "Dead man" device.
- Load descent rate regulation.
- Additional safety device: mechanical locking at 290 mm (with a 2nd release pedal), the jack cannot drop accidentally.
- Supplied with rubber plate protection.
- Dimensions (L. x W.): 705 x 350 mm.
- Compliant with the machine directive 2006/42/CE - Standard EN1494+A1.



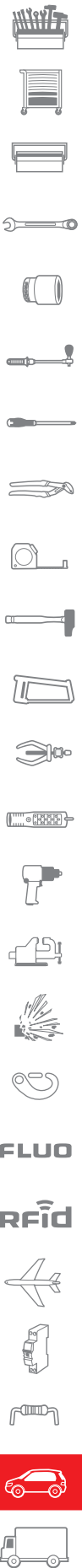
	A [mm]	B [mm]	B1 [mm]	C [mm]	C2 [mm]	C3 [mm]	Tonnes [t]	ΔΔ [kg]
<b>DL.200SECUA</b>	705	350	300	75	1110	500	2	30

5 t "LCV" rolling jack

- Load capacity: 5 t.
- Maximum lifting height: 685 mm
- Minimum height under body: 150 mm.
- Fast foot lifting.
- Handle adjustable in 3 positions 90, 135, 180 degrees.
- Overload valve.
- Dimensions (L. x W x H.): 1506 x 366 x 200 mm.
- EC standard EN1494+A1.

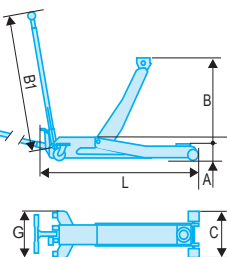


	A [mm]	B [mm]	B1 [mm]	C [mm]	d [mm]	L [mm]	Oil Capacity [cm³]	Tonnes [t]	ΔΔ [kg]
<b>DL.PL5</b>	150	685	1153	150	685	1506	540	5	89



FLOOR JACKS "MAINTENANCE" RANGE

10 t "LUV" rolling jack

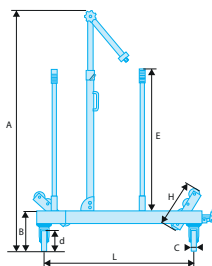
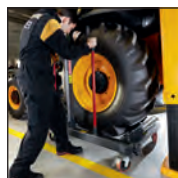


- Load capacity: 10 t.
- Maximum lifting height: 525 mm
- Minimum height under body: 160 mm.
- Fast foot lifting.
- Handle adjustable in 3 positions 90, 135, 180 degrees.
- Overload valve.
- Dimensions (L x W x H.): 1637 x 494 x 249 mm.
- EC standard EN1494+A1.



	A [mm]	B [mm]	B1 [mm]	C [mm]	L [mm]	Oil Capacity [cm <sup>3</sup> ]	Tonnes [t]	ΔΔ [kg]
<b>DL.PL10A</b>	160	525	1153	333	1637	1050	10	129

Hydraulic tractor wheel lift

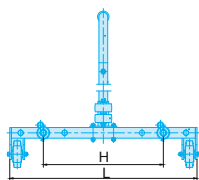
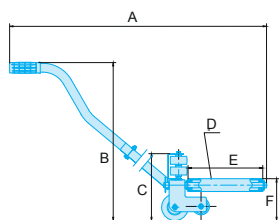


- Load capacity: 1.5 t.
- For easy and secured removal - refitting of wheels on tractors.
- 6 swivel rollers for easy wheel positioning upon refitting.
- Wheel diameter: 1350 to 2150 mm.
- Max width wheels: 800 mm.
- Adjustable width: 1200-1970 mm.
- Floor dimensions: 1310 x 1020 mm.
- 2 wheels with brakes.
- CE Compliance Standard EN1494+A1.



	A [mm]	B [mm]	C [mm]	d [mm]	E [mm]	H [mm]	L [mm]	Tonnes [t]	ΔΔ [kg]
<b>DL.1500</b>	1350-2150	280	50	150	1000	76	210-845	1,5	125

HGV, bus" wheel lift



- Load capacity: 250 Kg.
- Allows easy and secured removal - fitting of wheels on buses, HGVs, forklift trucks
- 2 adjustable rollers for a capacity from 6.5" to 22.5"
- 2 rollers length: 280 mm

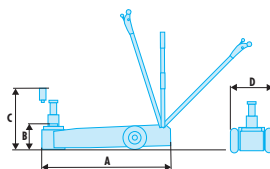


	A [mm]	B [mm]	C [mm]	D [mm]	E [mm]	F [mm]	H [mm]	L [mm]	Tonnes [t]	ΔΔ [kg]
<b>DL.275</b>	1160	758	251	18	280	157	450	702	1,5	12,5

15-25-35T hydropneumatic jack

- Heavy duty construction.
- Long folding handle.
- 2 large wheels for better handling.
- Triple stage: 70 // 55 // 85.
- Air control on handle.
- Pivotal handle, 3 positions.
- Includes 2 adapters to increase lifting height.
- Compliant with EC standard EN 1494-ASME-PASE.

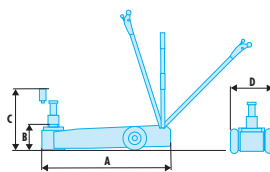
DL.1050	A [mm]	B [mm]	C [mm]	D [mm]	Oil Capacity [cm <sup>3</sup> ]	Tonnes [t]	ΔΔ [kg]
DL.1050	686	151	361	333	1200	10 - 25 - 50	65



15-30T hydropneumatic jack

- Heavy duty construction.
- Long foldable handle.
- 2 large wheels for better handling.
- Double stage: 70 // 75.
- Air control on handle.
- Pivotal handle, 3 positions.
- Includes 2 adapters to increase lifting height and avoid contact with the chassis.
- Compliant with EC standard EN 1494-ASME-PASE.

DL.1530C	A [mm]	B [mm]	C [mm]	D [mm]	Oil Capacity [cm <sup>3</sup> ]	Tonnes [t]	ΔΔ [kg]
DL.1530C	538	151	296	289	1500	15 - 30	48



MOBILE LIFTING ACCESSORIES FOR HYDROPNEUMATIC JACKS

Bottle Jacks

Designed for heavy-duty professional use: the welded base provides enhanced strength to the jack, reducing risks of leaks.

Can be used for special applications:

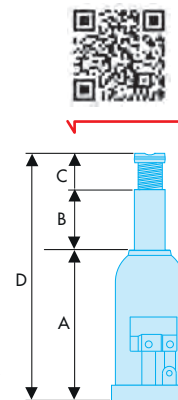
- The internal pump system allows for horizontal use as a pusher jack.
- CE



DL.BTI - Heavy duty series bottle jacks

- Capacity: 2t, 5t, 8t, 12t, 20t, 30t.
- Designed for heavy-duty professional use.
- Welded base plate jacks, control in the axis: Stronger, more stable, less leaks.
- Heat and surface treated pump shaft and actuator.
- Allows for horizontal use as a pusher jack.
- Complies with directive on machinery 2006/42/CE.

DL.28BTI	A [mm]	B [mm]	C [mm]	D [mm]	Oil Capacity [cm <sup>3</sup> ]	Tonnes [t]	ΔΔ [kg]
DL.28BTI	178	177	52	317	0.7	2	2.4
DL.58BTI	198	122	70	390	15	5	3.7
DL.88BTI	198	124	72	394	20	8	5.6
DL.128BTI	238	160	80	468	37	12	8
DL.208BTI	270	160	-	430	62	20	13
DL.308BTI	280	165	-	440	83	30	18.4



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AXLE STANDS

Pair of 3 t axle stands



- Load capacity: 3 t.
- Axle stands with rack and locking pins.
- 9 height settings from 247 to 300 mm.
- Pin chained to the stand.
- Reliable and sturdy construction
- 4-foot base with welded plates for enhanced stability and stiffness.



	H [mm]	Width l [mm]	L [mm]	ΔΔ [kg]
<b>DL.C3</b>	188	207	247	7.0

Pair of 6 t axle stands



- Load capacity: 6 t.
- Axle stands with rack and locking pins.
- 11 height settings from 400 to 620 mm.
- Pin chained to the stand.
- Reliable and sturdy construction.
- 4-foot base with welded plates for enhanced stability and stiffness.



	H [mm]	Width l [mm]	L [mm]	ΔΔ [kg]
<b>DL.C6</b>	250	285	400	14.00

Pair of 22 t axle stands



- Load capacity: 22 t.
- Axle stands with rack and locking axis.
- 4 height settings from 338 to 500 mm.
- Pin linked by wire with storage system.
- Reliable and sturdy construction.
- Square base with welded plates for enhanced stability and stiffness.



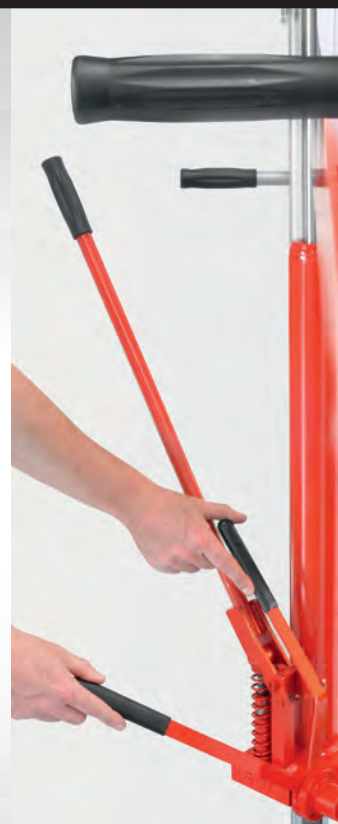
	H mini [mm]	Width l [mm]	L [mm]	ΔΔ [kg]
<b>DL.PL22A</b>	338	250	250	27.5

WORKSHOP CRANES

WORKSHOP CRANES

**Exclusive performance:**

- Easy boom length adjustment without tool nor pin.
- Load lowering with one millimetre accuracy with the high-precision control.
- Rotating jack at 270°: controls boom rising and lowering by the back or side of the crane.



1 t workshop crane

- 1 t folding workshop crane.
- Tool-free jib extension
- Rotating controller: 270°, double acting for quick lift.
- Easy use, pivoting rear wheels.
- Synthetic wheels for low rolling noise.
- Capacity: 1 t.
- 3 positions: 500, 750, 1000 kg.
- Dimensions open: 450 x 1520 x 978 mm.
- Floor dimensions: 1520 mm.
- Max height: 2500 mm.
- CE-Jack with anti-overload valve.



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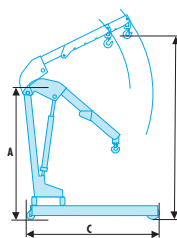
	H maxi [mm]	H mini [mm]	ΔΔ [kg]
<b>DL.1GP</b>	2500	147	80.0

WORKSHOP CRANES

1 t europalette workshop crane



- 1 t folding workshop crane compatible with EU pallet.
- Tool-free jib extension.
- Easy use, pivoting rear wheels.
- Capacity: 1 t.
- 4 positions: 500, 670, 830.1000 kg.
- Max length from arm to hook: 1360 mm
- Width 838 mm, inside the forks
- Footprint: 1527 x 992 mm.
- Hook height: 128-2128 mm.
- Jack fitted with overload valve.
- CE Compliance Standard EN1494+A1.



	A [mm]	B [mm]	C [mm]	Tonnes [t]	$\Delta\Delta$ [kg]
<b>DL.500EU</b>	1613	2128	1527	1	86

LOAD BALANCERS

Device removal jack 500 kg



- Supplied with rubber pad, reversible fork and holes to pass a holding chain.
- Power: 500 kg.
- Min height: 1160 mm.
- Max height: 1960 mm.
- Floor footprint: 530 x 590 mm.
- EC compliant.



	H maxi [mm]	H mini [mm]	$\Delta\Delta$ [kg]
<b>DL.50</b>	1960	1160	32

■ **Lifting plate for 500 Kg jack**

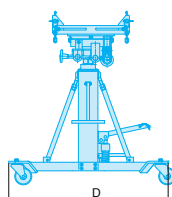
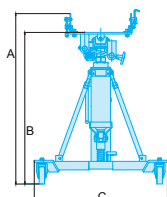
- This plate supports a block of high density foam that spreads the load over a large surface area and avoids damage to guards.
- Usable on product Ref DL.50.
- Dimensions with foam block (L. x W. x H.): 305 x 155 x 40 mm.
- Reference of the foam alone DL.20-02M



DL.50SUP	$\Delta\Delta$ [kg]
	4

■ **Device removal jack 1000 kg**

- Max load 1 ton.
- Adjustable height:
  - Minimum 895 mm
  - Maximum 1820 mm
- Footprint (L. x W.): 790 x 945 mm.
- Castors including 2 with brakes.
- Head tilts in two axes with adjustment wheels and safety chains.
- Foot control: rising, lowering.
- Easy movement with the handling grip.
- CE compliance Standard EN1494+A1



DL.1000	A [mm]	B [mm]	C [mm]	D [mm]	Oil Capacity [cm <sup>3</sup> ]	Tonnes [t]	$\Delta\Delta$ [kg]
	1000	899	790	945	2570	1	80



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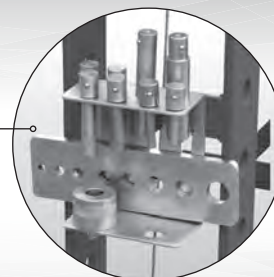


HYDRAULIC PRESSES

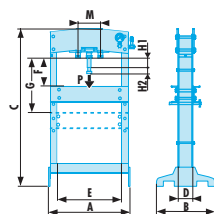
HYDRAULIC PRESSES

30t and 50t Workshop presses

- Table raised by a single operator using the integral winch (50t model).
- Integral pusher support.
- Jack mobile laterally.
- Supplied assembled with a pair of Vees.
- Piston with automatic return spring.
- Base allowing to move it using a pallet jack, ground anchorage.
- CE.



15 t hydraulic bench press

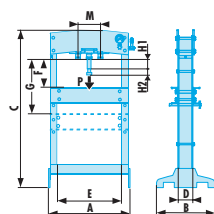
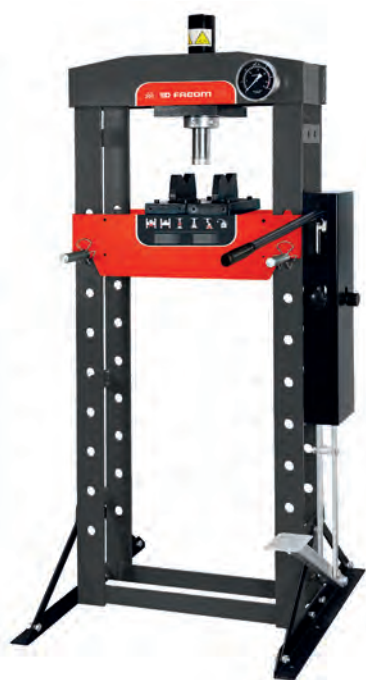


- Lateral adjustable jack.
- Eye-level pressure gauge.
- Piston with automatic return.
- Piston travel: 160 mm.
- Supplied fitted with pair of reversible V and set of pushers.
- CE Compliance Standard EN1494+A1.
- Floor dimensions: 700 x 540 mm.

W.415WBA	A [mm]	B [mm]	C [mm]	D [mm]	E [mm]	Tonnes [t]	ΔΔ [kg]
	700	540	882	965	500	15	75



20 t hydraulic press



- Double pump for fast approach.
- Foot and hand control.
- Eye-level pressure gauge.
- Piston with automatic return.
- Piston travel: 185 mm.
- Supplied fitted with pair of reversible V and set of pushers.
- CE Compliance Standard EN1494A+.
- Floor dimensions: 730 x 560 mm.

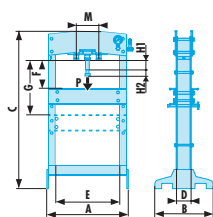
W.420	A [mm]	B [mm]	C [mm]	D [mm]	E [mm]	Tonnes [t]	ΔΔ [kg]
	730	560	1519	1626	510	20	112



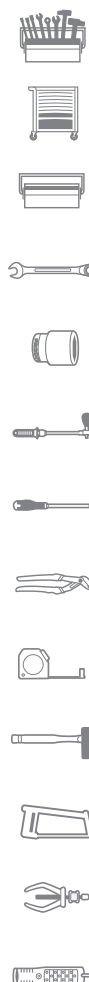
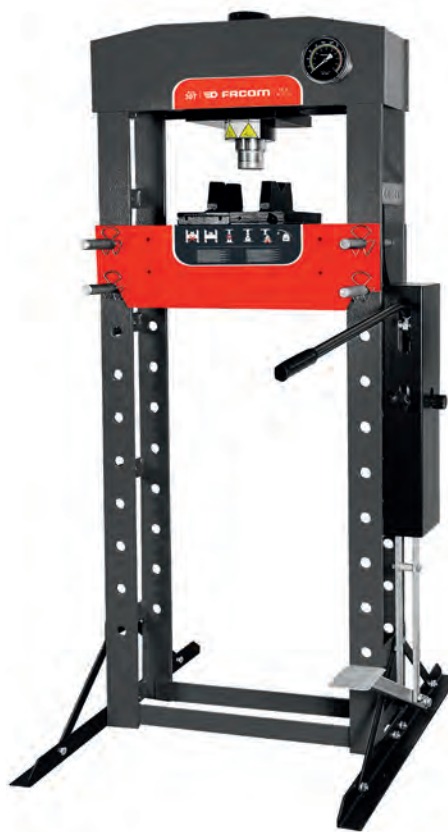


30 t hydraulic press

- Double pump for fast approach.
- Foot and hand control.
- Eye-level pressure gauge.
- Piston with automatic return.
- Piston travel: 150 mm.
- Supplied fitted with pair of reversible V and set of pushers.
- CE.EN1494A+
- Floor dimensions: 730 x 560 mm.

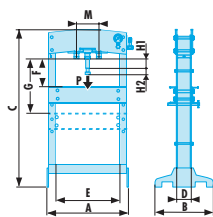


W.430	A [mm]	B [mm]	C [mm]	D [mm]	E [mm]	Tonnes [t]	$\Delta\Delta$ [kg]
W.430	795	700	1773	1830	535	30	167



50 t hydraulic press

- Double pump for fast approach.
- Foot and hand control.
- Eye-level pressure gauge.
- Piston with automatic return.
- Piston travel: 200 mm.
- Supplied fitted with pair of reversible V and set of pushers.
- CE Compliance Standard EN1494A+.
- Floor dimensions: 730 x 560 mm.



W.450	A [mm]	B [mm]	C [mm]	d [mm]	E [mm]	Tonnes [t]	$\Delta\Delta$ [kg]
W.450	1030	800	1831	1877	730	50	300



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HYDRAULIC PRESSES

Set of 8 pushers 10 to 30 mm

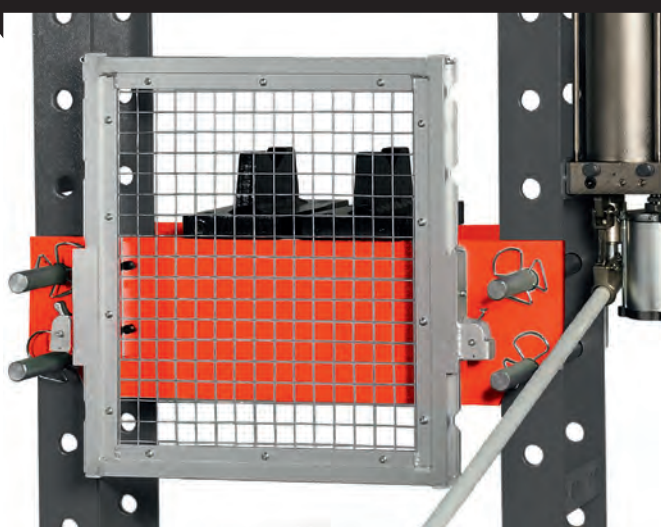


- Diam.10 mm - length 50 mm - max load 2 t.
- Diam.12 mm - length 60 mm - max load 3 t.
- Diam. 16 mm - length 60 mm - max load 8 t.
- Diam.18 mm - length 85 mm - max load 12 t.
- Diam. 20 mm - length 85 mm - max load 14 t.
- Diam. 22 mm - length 85 mm - max load 16 t.
- Diam. 25 mm - length 110 mm - max load 18 t.
- Diam. 30 mm - length 110 mm - max load 20 t.

**W.PUNCHES-A**

$\Delta\Delta$  [kg]  
2.7

PROTECTION FOR WORKSHOP PRESSES



**Flexibility**

- Several height positions of the protection according to the part's size. Allows to position the protection flush with the part for large parts.
- Adapts to 20t, 30t and 50t workshop presses.

**W.PROTECT20** For press 20t W.420

**W.PROTECT30** For press 30t W.430

**W.PROTECT50** For press 50t W.450

Press protector - multi-model



- Protections adaptable to news Facom models except model W.430MA and W 410WB , W.415WB .
- Protections compatible with older models:
  - Presses for W.PROTECT : W.430BO , W.430L , W.450MA.
  - Presses for W.PROTECT1 : W.430H , W.430ML , W.450HP , W.450PN.
- Easy installation . ( Aluminum frame to put on the chassis).
- Easy opening closure (sliding protection with screw locking ).
- Integrated handle to the " glass" by cutting.

	H [mm]	L [mm]	P [mm]	$\Delta\Delta$ [kg]
<b>W.PROTECT</b>	522	446	404	8,2
<b>W.PROTECT1</b>	522	570	404	8,0

## INSPECTION CREEPERS

## HEADLIGHT BEAM ADJUSTER

## Simple and precise

**Double laser aiming**

- Upper laser line perpendicular to the vehicle.
- Single laser for centring on the insert.

**Can be used on all types of vehicles and inserts**

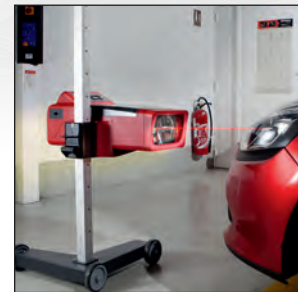
- For headlight inserts between 20 and 150 cm.
- Also suited to xenon, LED, halogen headlights.
- Also suited to Matrix headlights.
- Adjustment of low beam, high beam and fog lights.

**Built-in digital luxmetre**

- Checks lighting intensity in low and high beam.

**Rolling base**

- Accurate side displacement from one insert to the other.

**Vertical deviation adjustment**

- According to the insert's height, up to - 4%.

**Domed glass lens**

- Clear and precise concentration of the light beam on the inside panel for fine adjustment.

### Headlight beam adjuster

- Dual laser aiming headlight adjustment unit.
- Digital luxmeter, checks headlight and dim light intensity.
- CE certified, supplied with a certificate.
- Complies with the new standards for LED headlights.
- Adjustable level.
- Vertical deviation adjustable to -4%.
- Domed glass lens, clear and accurate concentration of the light beam.
- Column in extruded aluminium, lens length between 20 and 150 cm.

740A	$\Delta\Delta$ [kg]
	27



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POWER TOOLS



A comprehensive range suited to your needs



SPECIFIC BODYWORK LAMPS

# Rechargeable light ramp - 779.UH



**More Than one metre of power and constant light**

- Engine compartment lamp to fasten under the hood.
- Can be placed under the vehicle dome light to light the cab

**2 modes :**

- NORMAL :**  
1,000 lumen - 4h operating TIME.
- BOOST :**  
2,000 lumen - 2h operating time.



**248 SMD LEDs.**

- Battery charge indicator.
  - Can be used with the cable or the battery.
  - Resists to chemicals.
- Dimensions: from 1,397 to 2,108 mm (extendable arms).



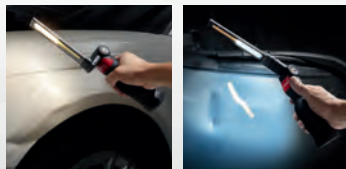
# Wireless bodywork inspection lamp - 779.CML



**Avoid colour errors!**  
**Applications: paint, polish, operation**



Magnet base with hook, swivel insert.

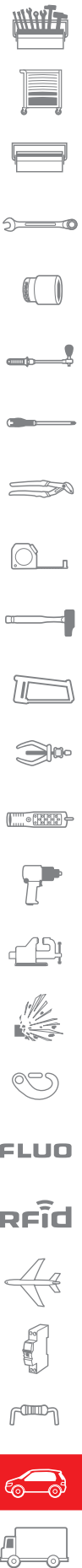


**Zone preparation.**

- 2 setting modes:**
- 4,500 K for light surfaces.
  - 6,500 K for dark surfaces.

**500 lumen for 3 hours operating time**

- CRI (Colour Rendering Index): 95.
- The higher the colour rendering index (CRI), the closer the light to natural light.
  - A high CRI is helpful in paint works and the identification of faults



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INSPECTION CREEPERS

■ Inspection creeper



- High density foam padded vinyl headrest resistant to automotive fluid.
- Frame made of ovoid-shape tube: no protruding angle to improve comfort and better wheel fastening.
- Maximum height: 100 mm.
- Max. chassis load: 150 kg.
- 6 wheels.

FACOM	Width l [mm]	L [mm]	ΔΔ [kg]
<b>DTS.1B</b>	630	1010	8.2

■ Estrado com rodas para inspeção - almofadado uso intensivo



- Adjustable headrest.
- Tool tray.
- High density foam padded vinyl headrest resistant to automotive fluid.
- Maximum height: 100 mm.
- Max. chassis load: 150 kg.
- 6 wheels.

FACOM	Width l [mm]	L [mm]	ΔΔ [kg]
<b>DTS.2B</b>	630	1010	10.0

■ Mid-height work seat



- Ideal for working on wheels, brakes and bodywork.
- High resistance shape memory thick PVC CUshion.
- High stability on 4 castors diameter 75 mm.
- Magnetised surface to receive screws and small components.
- Seat height: 395 mm.
- Dimensions (L. xW.): 385 x 385 mm.

FACOM	Width l [mm]	L [mm]	ΔΔ [kg]
<b>DTS.4A</b>	630	1010	5.5

▪ **Non-magnetic wing cover with suction fasteners**

- Suction fastener system: non-scratch, quick-to-install.
- Each suction fastener can support 3 kg.
- Suitable for use with sheet metal, aluminium and composite materials.
- Adapts to all vehicle types.
- Cut-out provided for wheels.
- Easy maintenance.
- Impact and scratch resistant.
- High quality finish.



	$\Delta\Delta$ [g]
<b>CR.D2</b>	480

**PRY BARS**

▪ **Set of 3 pry bars**

- Numerous uses: suspension, gear train, bodywork, etc.
- Sturdy blade minimising lever spring effect.
- Set comprising: D.3-7 - D.3-12 - D.3-18.
- Supplied in thermoformed tray.




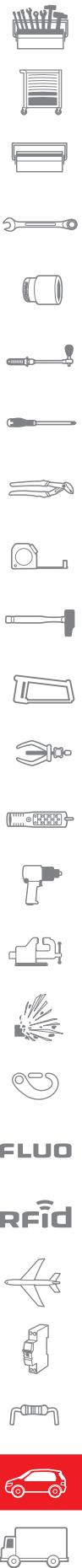
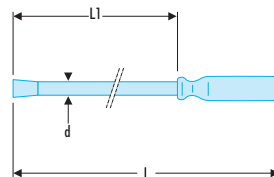
	H [mm]	Width l [mm]	L [mm]	$\Delta\Delta$ [kg]
<b>D.3J3</b>	40	145	670	1.7

▪ **D.3 - Pry bars**

- Numerous uses: suspension, gear train, bodywork, etc.
- Sturdy blade minimising lever spring effect.



	d ["]	L [mm]	L1 [mm]	$\Delta\Delta$ [g]
<b>D.3-7</b>	3/8	292	165	275
<b>D.3-12</b>	3/8	422	305	345
<b>D.3-18</b>	1/2	635	460	810
<b>D.3-24</b>	1/2	787	610	1000
<b>D.3-30</b>	5/8	915	740	1700



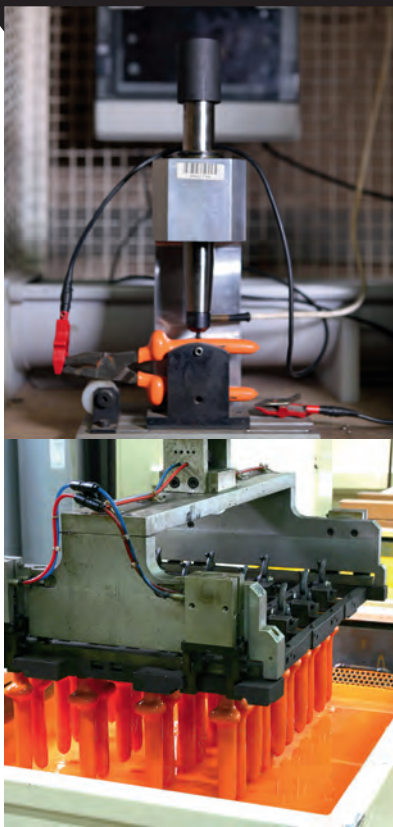
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CONSIGNING KITS

**ELECTRIC VEHICLE: FACOM EXPERTISE**



**Facom, designer-manufacturer of 1,000 Volt tools**

- Leveraging their expertise in designing and making professional tools, Facom offers a range of tools and equipment adapted to maintenance of electric-hybrid vehicles.

**Safety and performance requirements.**

- The particularities of electric-hybrid vehicles require specific tools and working in a 1,000 Volt environment requires observing particularly stringent safety measures.

**Maintenance to be reinvented**

- Design of vehicles, methods and requirements of maintenance of electric-hybrid vehicles clearly changes from habits taken in "combustion" engines. It is a whole new profession!

**Facom's automotive know-how**

- In France and globally, Facom is known for their in-depth knowledge of the specific requirements of automotive maintenance. Facom's know-how in 1,000 Volt tooling is the ideal partner for your "electric-hybrid" workshop.



▪ **Toolkit for electric and hybrid vehicles**



- A 3/8" 1,000 Volt insulated ratchet-socket case, comprising:
  - 6 sockets: 8 - 10 - 11 - 12 - 13 - 14 mm.
  - 1 3/8" insulated T handle.
  - 2 insulated offset wrenches, dim. 10 - 12 mm.
  - 1 1,000 Volt insulated screwdriver for 5.5 x 125 flat-head screws and one 1,000 Volt Phillips® 2 x 125 head screws.
  - 1 pair of insulating gloves to EN 60903 and directive CE/89/686 category C, resistant to acid and ozone (size 10).
  - 1 pair of protection overgloves conformant to directive CE/89/686 (size 10).
  - 1 voltage absence tester conformant to NF EN 61010-600V cat 3 and IEC 61243-3 (VAT/DDT).
  - 1 neutral phase marking, continuity test, 30 mA differential circuit breaker test. Phase rotation indication.
  - Plastic case with padlock clasp (length: 650 mm).



**CM.HYELPB** ΔΔ [kg]  
5.9

▪ **Toolkit for PSA Ion and C-Zero vehicles**



- Including:
  - 1 1,000 Volt insulated 3/8" square drive socket.
  - 4 1,000 Volt insulated sockets: 10 - 11 - 12 - 13 mm.
  - 1 1,000 Volt insulated 3/8" extension.
  - 1 1,000 Volt insulated open end wrench.
  - 1 1,000 Volt insulated half-ROUND PLiers.
  - SET SUlited to Peugeot iOn and Citroën C-zero vehicles.



**CM.ELPSA** ΔΔ [kg]  
1.35



SAFE

CONTROLLED MAINTENANCE OF ELECTRIC-HYBRID VEHICLES



# New technologies: precautions required

- Regulations define that a vehicle is considered as being electric when featuring an electric network of over 49 Vac and/or 120 Vdc, such as 100% electric and hybrid vehicles, and most vehicles featuring the "Stop and Start" system.
- The UTE C 18-550 standard governs the conditions of accreditation for intervention on electric-hybrid vehicles:
  - Trained and accredited operators.
  - Protection equipment.
  - 1,000 Volt insulated tools to ensure safety.



BC.VSE - Safety overgloves



- Silicon coated leather gloves protecting from mechanical risks.
- Used to protect latex insulated gloves.
- Physical and mechanical grade as per standard EN 388: 2, 1, 2, 1.
  - Abrasion: 2.
  - Cuts: 1.
  - Tears: 2.
  - Perforation: 1.

BC	Size [mm]	ΔΔ [g]
BC.109VSE	9 (B)	160
BC.110VSE	10 (C)	160

BC.VSE - Insulated gloves



- Natural latex gloves, AZM classification:
  - Resistance to acid: A.
  - Resistance to ozone: Z.
  - High mechanical strength: M.
- Length: 360 mm.
- Supplied in anti-UV opaque bag.

BC	E [mm]	Class	Size [mm]	Voltage/Volt
BC.80VSE	0,5	00	9 (B)	500
BC.81VSE	0,5	00	10 (C)	500
BC.90VSE	1,0	0	9 (B)	1000
BC.91VSE	1,0	0	10 (C)	1000



**SIGN POSTS AND CHAINS**

■ **Yellow and black marker posts**



- Marker posts.
- Double hook for plastic chains.

	H [mm]	ΔΔ [kg]
<b>EV.BAP</b>	910	4.4



■ **Red and white marker posts**



- Marker posts.
- Double hook for plastic chains.

	H [mm]	ΔΔ [kg]
<b>EV.BAP-RN</b>	910	4.4

■ **Safety zone marker chain - black and yellow links**



- Length: 25 m.
- Link diameter: 7.3 mm.

	ΔΔ [kg]
<b>EV.CH</b>	2.4

■ **Safety zone marker chain - red and white links.**



- Length: 25 m.
- Link diameter: 7.3 mm.

	ΔΔ [kg]
<b>EV.CH-RN</b>	2.4

■ **Safety posters**



- Warning post to be fitted to marker posts EV.BAP or EV.BAP-RN.
- Dimensions (L. x W.): 450 x 150 mm.

	ΔΔ [g]
<b>EV.PP</b>	268



DRAIN PLUG WRENCHES

OIL DRAINING : OIL DRAIN WRENCH AND MAGNETIC BITS

# Simple and effective "Clean-hand" oil drain

D.48



**Hinged wrench**

- Power position for easy unlocking.
- Driver position for pre-unlocking and fast removal.
- Spring-assisted joint for constant retaining load. No risk of slipping.

**Saves time**

- Magnetised drain plug bits avoid drain plugs from falling and being lost in oil collection tanks.
- The complete work support positionable on the arms of the oil collectors ensures all accessories are handy during oil change operations.

**Drain kit**

- Including:
- Drain plug wrench D.48.
  - 15 magnetic bits.
  - General-purpose support tray.



**General-purpose work support**

- Support for storing all drain sockets and bits with the wrench.
- Easy fastening on oil collection containers or just laid on a worktop.



**Handy**

- Oil drain bits are removed easily with the 3/8" ejector drive.

**Safer Cleaner**

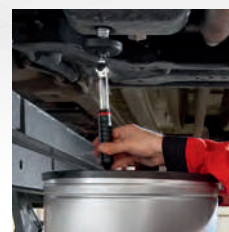
**Protection cup**

- No contact of hands with hydrocarbons.
- Eliminates risks of burns.
- Reduces wiping paper consumption in the workshop.

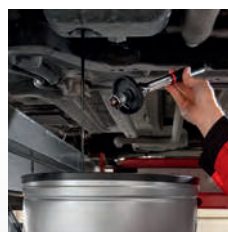
Video demonstration on your smartphone



**1 Drain plug** unlocking in power position.



**2 Drain plug** removal completed in driver position, oil drops are stopped by the protection cup.



**3 Drain plug** dripping above the oil collector.



**4 Bit ejector:** easy bit changing even when covered in oil, just push the protection cup.

**Fittings magnetic**



Square bits: 8 and 10 mm.



6-point bits: 8, 10, 12, 13, 14 and 17 mm.



6-point sockets: 13, 14, 17, 18, 19 and 21 mm.



Torx®: T45



DRAIN PLUG WRENCHES

Oil change kit

- Including:
  - 1 drain wrench: D.48.
  - Magnetic male square bits: 8 - 10 mm.
  - Magnetic female 6-point bits: 8 - 10 - 12 - 13 - 14 - 17 mm.
  - Magnetic female 6-point sockets: 13 - 14 - 17 - 18 - 19 - 21 mm.
  - Magnetic Torx® 45 bits.
  - Support for wrench D.48 and bits.



	$\Delta\Delta$ [kg]
D.48-KIT	1.410

Hinged oil drain wrench

- Oil drain wrench.
- 3/8" drive.
- Length: 280 mm.
- Oil drip cup: D.48-RC.



	L [mm]	$\Delta\Delta$ [g]
D.48	280	440

Oil collector

- Oil collector for gravity oil change.
- For use under an elevator bridge or in a pit.
- Tack capacity 80 L.
- Height adjustable from 1.14 m to 1.68 m.
- Broad steel collector. Ø 530 mm.
- Anti-projection grid.
- 4 orientable wheels.
- Level indicator.
- Tank draining by compressed air with safety valve.
- Drain plug for maintenance.



	$\Delta\Delta$ [kg]
OD.80G	33.8



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DRAIN PLUG WRENCHES

■ Universal funnel



- Universal locking clamp fastens instead of motor oil filling plugs, drums, etc.
- Resists to hydrocarbons.
- For filling motor oil, coolant, etc.
- Height: 275 mm.
- Min clamp diameter: 34 mm.
- Max clamp diameter: 60 mm.

	H [mm]	ΔΔ [g]
<b>DM.UOF</b>	275	242

■ Drain-plug wrench



- For composite drain plugs on VW, AUDI, SKODA, SEAT vehicles.
- For TFSI 1.2L 1.4L 1.8L 2.0L engines.
- Composite drive handle.
- Height: 95 mm.
- Handle width: 80 mm.

	H [mm]	ΔΔ [g]
<b>D.1VAG-H</b>	95	42

■ Drain plug bit



- For composite drain plugs on VW, AUDI, SKODA, SEAT vehicles.
- For TFSI 1.2L 1.4L 1.8L 2.0L engines.
- 3/8" and 17 mm female drive bits, 6-sided male bits.

	H [mm]	ΔΔ [g]
<b>D.1VAG-B</b>	34	26

■ Drain-plug wrench and bit set



- Comprising:
  - 1 wrench D.1VAG-H.
  - 1 drain-plug bit D.1VAG-B.

	ΔΔ [g]
<b>D.1VAG</b>	68

MAGNETIC OIL DRAIN PLUG BITS AND SOCKETS

Set of magnetic oil drain bits and sockets on rack

- Prevents drain plugs from falling in oil trays and collectors.
- Including:
  - Magnetic drain plug bits: MB.S08 - MB.S10 - MB.H08 - MB.H10 - MB.H12 - MB.H13 - MB.H14 - MB.H17 - MB.T45.
  - Magnetic drain plug sockets: MB.13 - MB.14 - MB.17 - MB.18 - MB.19 - MB.21.



	$\Delta\Delta$ [g]
<b>MB-J15</b>	654

MAGNETIC OIL-DRAIN PLUG APPLICATION LIST

	MB.13	MB.14	MB.17	MB.18	MB.19	MB.21	MB.T45	MB.S08	MB.S10	MB.MH08	MB.MH10	MB.MH12	MB.MH13	MB.MH14	MB.MH17
PSA	•	•			•	•		•		•					
Renault	•	•	•		•	•		•	•	•					
Dacia								•		•					
VAG	•		•	•	•						•	•	•		•
Mercedes	•	•						•		•					•
MCC	•														
BMW			•							•					
Opel	•	•	•		•			•	•	•		•			
Mini	•	•								•					
Jaguar	•				•			•							
Rover			•		•	•									
Austin															
Land Rover						•									
Fiat	•		•	•	•		•			•	•	•			
Alfa Roméo		•	•	•						•		•	•		
Lancia				•	•					•	•	•			
Toyota	•	•				•		•		•		•			
Lexus		•													
Nissan	•	•	•		•	•		•		•					
Honda	•		•	•		•									
Suzuki	•		•		•										
Mitsubishi	•		•					•					•		
Kia			•		•										
Daewoo			•		•										
Hyundai			•					•							
Daihatsu		•													
Mazda	•		•		•			•							
Subaru			•			•									•
Ford	•		•		•	•		•	•	•	•	•		•	
Chevrolet			•												
Jeep	•														
Chrysler	•		•		•					•					
Volvo	•		•		•	•		•		•					
Saab	•				•										
Lada			•									•			

3/8" 6-point magnetic oil-drain sockets

- Prevents drain plugs from falling in oil trays and collectors.
- 3/8" drive bit.
- 6-point socket.



	Hex Size [mm]	$\Delta\Delta$ [g]
<b>MB.13</b>	13	22
<b>MB.14</b>	14	23
<b>MB.17</b>	17	34
<b>MB.18</b>	18	42
<b>MB.19</b>	19	45
<b>MB.21</b>	21	49



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MAGNETIC OIL DRAIN PLUG BITS AND SOCKETS

3/8" Torx® magnetic oil-drain key



- Prevents drain plugs from falling in oil trays and collectors.
- 3/8" drive bit.
- Torx® 45.

Part Number	Weight [g]
MB.T45	27

3/8" magnetic oil-drain key



- Prevents drain plugs from falling in oil trays and collectors.
- 3/8" drive bit.

Part Number	Weight [g]
MB.S08	30
MB.S10	34

3/8" magnetic oil-drain male hex bits



- Prevents drain plugs from falling in oil trays and collectors.
- 3/8" drive bit.

Part Number	Weight [g]
MB.H08	30
MB.H10	32
MB.H12	36
MB.H13	38
MB.H14	40
MB.H17	45

GEARBOX AND DIFFERENTIAL DRAIN PLUG BITS

3/8" oil-drain female square bit 10 mm.



- 3/8" square drive bit.
- Square: 10 mm.

Part Number	Weight [g]
D.106-10	40



GEARBOX AND DIFFERENTIAL DRAIN PLUG BITS

3/8" drain plug bit with male triangle

- 3/8" square drive bit.
- Square: 10 mm.



	$\Delta\Delta$ [g]
<b>D.109-10</b>	40

Drain plug bit with XZN pattern

- XZN pattern: diam. 16 mm.
- Drive 3/8".
- V.A.G. gearbox



	$\Delta\Delta$ [g]
<b>D.120-16</b>	40

OTHER DRAIN PLUG WRENCHES

Drain plug wrench for CITROËN, RENAULT, PEUGEOT engine

- Square bit: 8 x 10 mm.
- Length: 230 mm.
- Finish: chromed.



	$\Delta\Delta$ [g]
<b>D.13A</b>	230

Drain plug wrench for CITROËN, PEUGEOT engine

- Male square: 10 mm.



	$\Delta\Delta$ [g]
<b>P.27B</b>	270

Engine, gearbox and differential drain plug wrench

- For auto makers: ALFA ROMEO, FIAT, LANCIA.
- Male hex: 12 mm.



	$\Delta\Delta$ [g]
<b>F.63C</b>	280



OIL-FILTER WRENCHES

A SOLUTION FOR EACH TYPE OF FILTER



**Cartridge filter:**

- To remove cartridge filters, when space allows, strap wrenches are the easiest and fastest to use.
- When space is critical, use automatic or adjustable wrenches.



**Removable filters with a composite bell - 6 point drive:**

- To remove the bell, use a D.163-"size of 6-point" socket.
- With their specific design, sockets for composite oil filter bells allow to work in the most crowded environments, while preserving the composite bell from any damage.



DE series

DP series

**Removable filters with a composite bell - other drives:**

- To remove these oil filter bells, always use an adjustable wrench of the DE or DP series.
  - Their specifications and rigidity eliminate any risks of breakage of the composite bell.
  - Determine the reference of the adjustable wrench with the oil filter dimensions:
    - DE for notched filters, DP for pointed filters.
    - The first group of numbers is the filter diameter.
    - The second group of numbers is the number of points or notches.
- Example: DP.88-16 - adjustable wrench 88 mm, 16-point.

Fast oil-filter wrench



- Fast oil-filter wrench for cars.
- Max length: 290 mm (for filters diam.: 66 --> 106 mm).
- Ratchet effect increment: 5°.
- Spare strap U.46ACL06 for oil filter wrench.



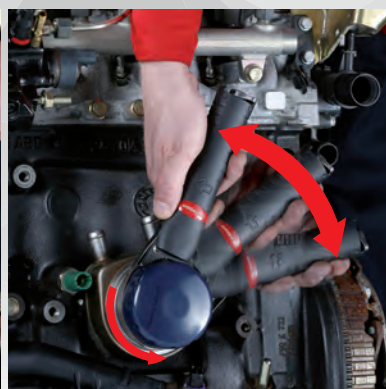
	$\Delta\Delta$ [g]
U.46ACL	345

## U.48 : AUTOMATIC OIL-FILTER WRENCH

## Saves time: automatic, ratchet effect



Set

Position and  
releaseRatchet effect ensures  
quick tightening and  
loosening**No adjustment.**

- Fits diameters 66 to 105 mm.
- Strap torque control for optimum ratchet effect.
- Universal torquing force regardless of the size of the filter.
- Available for HGV for 106 to 150 mm filters.



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OIL-FILTER WRENCHES

Automatic oil-filter wrench for cars



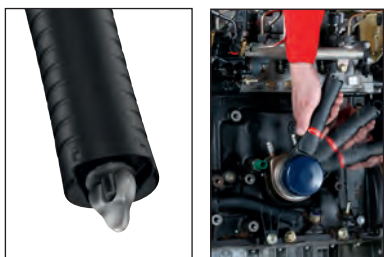
- For cars.
- For filters diam.: 66 --> 105 mm.
- Ratchet effect increment: 5°.
- Optimised automatic tightening.
- Spare strap U.48-2 for oil filter wrench.

	$\Delta\Delta$ [g]
<b>U.48</b>	285

Automatic oil-filter wrench for HGV's



- For HGV's and farming vehicles.
- For filters diam.: 106 --> 145 mm.
- Ratchet effect increment: 5°.
- Optimised automatic tightening.
- Spare strap U.48-PL2 for oil filter wrench.




	$\Delta\Delta$ [g]
<b>U.48PL</b>	290

Multi-make oil change and filter module



- Compatible with the Facom modular storage system:
  - Compatible with CHRONO XL, CHRONO+, JETXL and JET+ roller cabinets.



	H [mm]	Width l [mm]	L [mm]	Contents	$\Delta\Delta$ [kg]
<b>MOD.U48A</b>	40	175	418	XL.PL.399A	1.0

OIL-FILTER WRENCHES

Adjustable oil-filter wrench for cars



- Automatic oil filter wrench for cars.
- Max length: 260 mm (for filters diam.: 65 --> 105 mm).
- Spare strap U.46-2A for oil filter wrench.

	$\Delta\Delta$ [g]
<b>U.46</b>	310

Adjustable oil-filter wrench for HGV's



- Automatic oil filter wrench for HGV's and farming vehicles.
- For filters diam.: 105 --> 145 mm.
- Max length: 300 mm.
- Spare strap U.46APL2 for oil filter wrench.

	$\Delta\Delta$ [g]
<b>U.46PL</b>	350

Chain wrench

- To remove oil filters when access is not possible with an oil-filter wrench.
- 1/2" drive bit.
- For oil filters: 50 --> 110 mm.



	$\Delta\Delta$ [g]
<b>D.149</b>	280

Self-gripping oil-filter wrench for cars

- For cars.
- 3/8" drive bit.
- For oil filters: 65 --> 120 mm.



	$\Delta\Delta$ [g]
<b>D.151A</b>	580

Self-gripping oil-filter wrench for HGV's

- For HGV's and farming vehicles.
- 1/2" drive bit.
- For oil filters diam.: 95 --> 165 mm.



	$\Delta\Delta$ [kg]
<b>D.151PL</b>	1,345



OIL-FILTER WRENCHES

Automatic oil-filter wrench for PEUGEOT, CITROEN, FORD engine



- For Duratorq TDCI / HDI (DW10C) and 2.2 L Duratorq TDCI/ HDI (DW12C) Diesel engines for PEUGEOT, CITROËN and FORD. Diesel engine.
- 3/8" female square drive. 12-point ring 27 mm.
- For major time gain.




	$\Delta\Delta$ [g]
<b>FW.D163-27</b>	568

FW.P - Automatic oil-filter wrench for RENAULT engine



- Oil filters;
  - For 66 mm 6-notch.
  - For 76 mm 12-notch.
  - For 86 mm 18-notch.
  - For 96 mm 18-notch.
- Indispensable for RENAULT and DACIA vehicles.
- For petrol and diesel engines.



	d [mm]	Notches	$\Delta\Delta$ [g]
<b>FW.P66-6</b>	66	6	260
<b>FW.P76-12</b>	76	12	333
<b>FW.P86-18</b>	86	18	349
<b>FW.P96-18</b>	96	18	360

HDI gasoil filter tool



- For 2.0 l and 2.2 l HDI engines on Peugeot, CITROËN, VOLVO, FORD, MITSUBISHI.



	$\Delta\Delta$ [g]
<b>DM.FR1</b>	157

CAP WRENCHES AND SOCKETS

Cap wrenches with flats



- To be used when a strap wrench cannot be used.
- 3/8" square drive.

Ref	Filter [mm]	ΔΔ [g]
D.139	14-point Ø 65.0	135
D.140	14-point Ø 74.0	160
D.141	15-point Ø 92.0	205
D.159	14-point Ø 66.5	140
D.160	15-point Ø 74.0	160
D.161	15-point Ø 79.0	175
D.162	15-point Ø 89.0	200
D.164	8-point Ø 74.0	150

Notched cap wrenches



- To be used when a strap wrench cannot be used.
- 3/8" square drive.

Ref	Notches	Filter [mm]	ΔΔ [g]
D.154	6	66	200
D.155	12	76	225
D.156	18	86	268
D.157	18	96	295

Set of 6 composite cap wrenches

- Including:
  - Cap wrenches: D.163-24 - D.163-27 - D.163-30 - D.163-32 - D.163-36 - D.163-38.
  - Module PL.472.
  - Plastic case BP.102.



Ref	ΔΔ [kg]
D.163-J6	1.022

Composite cap wrench sockets

- Smaller shape and volume for better accessibility.
- 6-point profile for removal without damaging composite oil filter plugs.
- 3/8" drive.

Ref	d [mm]	ΔΔ [g]
D.163-24	24	94
D.163-27	27	115
D.163-30	30	111
D.163-32	32	147
D.163-36	36	168
D.163-38	38	202



Composite cap wrenches with flats

- Special cap wrench to fit and remove composite notched oil filter plugs without damaging them.

Ref	Notches	Filter [mm]	ΔΔ [g]
DE.66-18	18	Ø 66	222
DE.96-18	18	Ø 99	286
DP.76-16	-	16-point Ø 75	220
DP.76-14	-	14-point Ø 76	218
DP.88-16	-	16-point Ø 88	244
DP.102-14	-	14-point Ø 102	274



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CAP WRENCHES AND SOCKETS

**AUTOMATIC OIL-FILTER WRENCH**



**Sturdy. Multi diameter.  
Practical.**



- Single-hand positioning.
- Preserves the filter upon unscrewing.
- Self-tightening wrench: adjust automatically to filter size.
- Suited to all filters from 60 to 100 mm.
- Powerful torque (suited only to metal filters).
- Lifetime guarantee.



**Operation**



The wrench stay in the open position until it is fitted on the filter.



Automatic fastening on the filter at fitting (self-tightening wrench).

■ **Automatic cap wrench**



- Single hand positioning.
- Protects the filter when unscrewing.
- Self-tightening cap: automatic adjustment to filter size.
- Powerful torque (only for metal filters).
- Lifetime guarantee.
- For filters from 60 to 80 mm.



	ΔΔ [g]
<b>C.48-1</b>	388
<b>C.48-2</b>	208



CAP WRENCHES AND SOCKETS

■ Heavy Goods Cap Wrench

- Single hand positioning.
- Protects the filter when unscrewing.
- Self-tightening cap: automatic adjustment to filter size.
- Powerful torque (only for metal filters).
- Lifetime guarantee.
- For filters from 100 to 120 mm.



	$\Delta\Delta$ [g]
<b>C.48-3</b>	499

■ Set of 2 cap wrenches for L.V. / L.U.V.

- Set including:
  - C.48-1: for filters from 60 to 80 mm.
  - C.48-2: for filters from 80 to 100 mm.



	$\Delta\Delta$ [g]
<b>C.48-J2</b>	876

■ Oil filter cap wrench for 4-cylinder TOYOTA engines

- For 4-cylinder petrol or diesel engines from 1.8L to 2.0L.
- Indispensable to avoid damage to TOYOTA aluminium oil filter caps.
- Double drive 1/2" square and 28 mm male 6-pin.
- Forged for more strength.



	$\Delta\Delta$ [g]
<b>DEPT1</b>	170

■ Oil filter cap wrench for 4-, 6- and 8-cylinder TOYOTA engines

- For 4-, 6- and 8-cylinder diesel engines.
- Indispensable to avoid damage to TOYOTA aluminium oil filter caps.
- Double drive 1/2" square and 28 mm male 6-pin.
- Forged for more strength.



	$\Delta\Delta$ [g]
<b>DEPT2</b>	208



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**SPARK PLUG WRENCH SELECTION GUIDE AND RECOMMENDED TORQUES**



# FACOM spark plugs comply with the ISO 11168 standard

**This standard guarantees :**

- Sufficient play to enable the plug to engage in the cylinder head without risk of cross-threading.
- The spark plug's angle of freedom must also be limited to avoid damaging the insulation.

**A range for each application.**

- 3/8" socket: the most compact sockets. Most comprehensive range, 14 mm multi-point spark plug sockets are available only in this range.
- 1/2" sockets: most widely-used range, but not suited to modern multivalve engines.
- Hinged wrenches: ideal for congested spaces. Use for high productivity. To be used when engine layout prevents the use of a torque wrench.
- Box wrenches: compact and lightweight, particularly suited to tool bags



**Torque tightening of spark plugs**

- Cylinder heads are made of aluminium alloy. The cylinder heads of modern engines are subjected to increasingly high stresses. Reduction of thread diameters. Therefore, spark plugs must always be torqued. The J.208-50 torque wrench is ideal for tightening spark plugs.

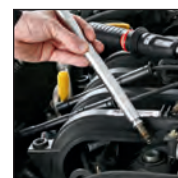
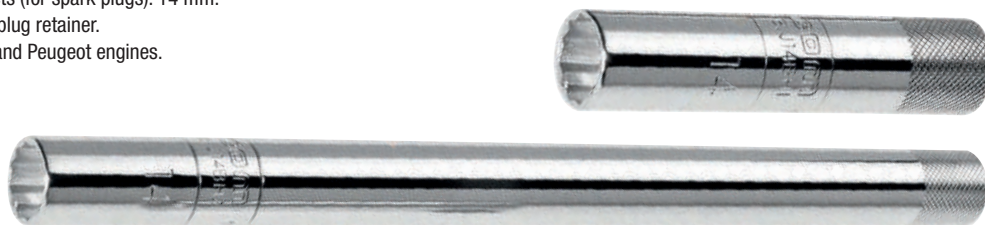
Thread diameter (mm)	Flat seating (with seals)			Conical seating	
	18	14	12	18	14
Cast-iron cylinder head (N.m)	35-45	25-35	15-25	20-30	15-25
Aluminium cylinder head (N.m)	35-40	25-30	15-20	20-30	10-20

- Values indicated for information only, always refer to manufacturer values.

3/8" SQUARE DRIVE SOCKETS

3/8" square drive sockets for 14 mm bi-hexagonal spark plugs

- Slim profile sockets (for spark plugs): 14 mm.
- Fitted with spark plug retainer.
- For new Renault and Peugeot engines.
- 3/8" drive.



⌘	d [mm]	L [mm]	ΔΔ [g]
B.J148H1	14	90	90
B.J148H2	14	250	245

3/8" square drive sockets for 16, 18 and 21 mm spark plugs

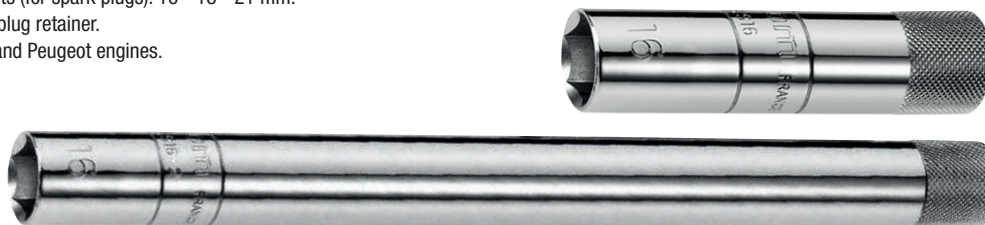
- Sockets with spark plug retainer.



⌘	d [mm]	L [mm]	ΔΔ [g]
B.J16A1	16	90	130
B.J16A2	16	250	350
B.J18A1	18	90	190
B.J21A1	21	90	200

1/2" square drive sockets for 16, 18 and 21 mm spark plugs

- Slim profile sockets (for spark plugs): 16 - 18 - 21 mm.
- Fitted with spark plug retainer.
- For new Renault and Peugeot engines.
- 3/8" drive.



⌘	d [mm]	L [mm]	ΔΔ [g]
B.S16A1	16	90	130
B.S16A2	16	250	350
B.S18A1	18	90	190
B.S21A2	21	250	650



HINGED WRENCHES

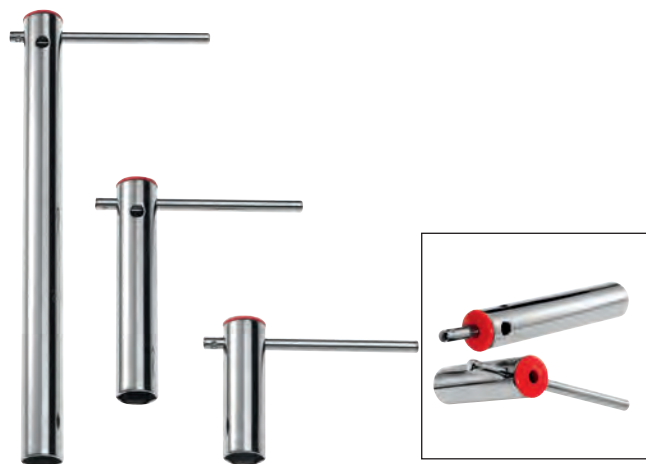
■ B.J - hinged wrenches for 16, 19 and 21 mm spark plugs



REF	L [mm]	L1 [mm]	L2 [mm]	ΔΔ [g]
<b>B.J16R1B</b>	270	90	175	340
<b>B.J16R2B</b>	517	90	175	500
<b>B.J19R1B</b>	270	90	175	600
<b>B.J21R1B</b>	270	90	220	600

BOX WRENCHES FOR SPARK PLUGS

■ Box wrenches for 16 and 21 mm spark plugs



NF ISO 11168, ISO 11168

- Models L and M feature spark plug retainers.
- Removable tee-bar gives working angle at 90°.
- Tee-bar storage within wrench body.



REF	d [mm]	Width l [mm]	L [mm]	ΔΔ [g]
<b>L.16AM</b>	22,0	160	160	235
<b>L.16AL</b>	22,0	300	300	395
<b>L.21C</b>	26,0	90	90	180
<b>L.21M</b>	26,0	160	160	280
<b>L.21L</b>	27,5	300	300	460

SPARK PLUG LEAD PLIERS

■ Spark plug lead pliers



- For disconnecting spark plug without harming leads.
- No damage to connectors.
- Dimensions (L. x W. x H.): 198 x 30 x 55 mm.



REF	H [mm]	Width l [mm]	L [mm]	ΔΔ [g]
<b>DM.28</b>	55	30	198	210

ROUND TIP METRIC THICKNESS GAUGES

Round tip metric feeler gauges

- Set of 19 feeler gauges (round tip): 4/100 --> 100/100 mm.
- Blade length: 90 mm.

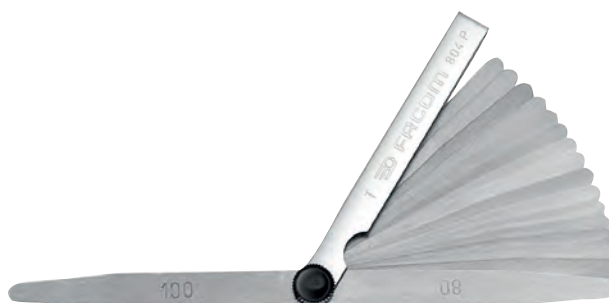
804	$\Delta\Delta$ [g]
	60



Sharp tip metric feeler gauges

- Set of 19 feeler gauges (tapered tip): 4/100 --> 100/100 mm.
- Blade length: 90 mm.

804.P	$\Delta\Delta$ [g]



Anti-magnetic metric feeler gauges

- Set of 19 feeler gauges (tapered tip): 10/100 --> 100/100 mm.
- Blade length: 100 mm.
- Brass blades.

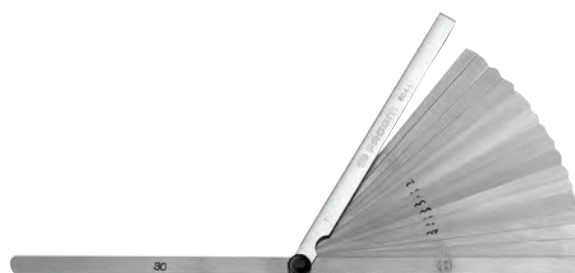
804.AM	$\Delta\Delta$ [g]
	60



Round tip metric feeler gauges

- Set of 19 feeler gauges (round tip): 4/100 --> 25/100 mm.
- Blade length: 150 mm.

804.L	$\Delta\Delta$ [g]
	92



INCH THICKNESS GAUGES

Inch thickness gauges

- Set of 26 feeler gauges (tapered tip): 15/10000 --> 250/10000 inches.
- Blade length: 3" 1/2 (88.9 mm).

804.U	$\Delta\Delta$ [g]
	80



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SPARK PLUG ACCESSORIES

Flexible spark-plug fitter



- Helps engaging a spark plug thread in any location.
- For all types of spark plug.



	L [mm]	ΔΔ [g]
<b>DM.20</b>	316	50

Screw starter



- Helps engage a spark plug thread in any location, regardless of the screw head.
- Square drive: 6 --> 11 mm.
- Length: 305 mm.



	L [mm]	ΔΔ [g]
<b>D.110</b>	305	53

SPARK PLUG FILES

Contact file



- Thickness: 1 mm.



	L [mm]	ΔΔ [g]
<b>276</b>	130	10

COMPLETE SPARK PLUG MODULE

Complete spark plug module



- Compatible with the Facom modular storage system:
  - Compatible with CHRONO XL, CHRONO+, JETXL and JET+ roller cabinets.

Mod.	H [mm]	Width I [mm]	L [mm]	Contents	ΔΔ [kg]
<b>MOD.BJ-GM</b>	40	350	418	PL.661A	2.2

Spark plug service module



- Compatible with the Facom modular storage system:
  - Compatible with CHRONO XL, CHRONO+, JETXL and JET+ roller cabinets.

Mod.	H [mm]	Width I [mm]	L [mm]	Contents	ΔΔ [kg]
<b>MOD.BJC</b>	40	175	418	PL.669A	1.5

Spark plug service module



- Compatible with the Facom modular storage system:
  - Compatible with CHRONO XL, CHRONO+, JETXL and JET+ roller cabinets.

Mod.	H [mm]	Width I [mm]	L [mm]	Contents	ΔΔ [kg]
<b>MOD.BSB</b>	40	175	418	PL.668A	1.2

Glow plug module



- Compatible with the Facom modular storage system:
  - Compatible with CHRONO XL, CHRONO+, JETXL and JET+ roller cabinets.

Mod.	H [mm]	Width I [mm]	L [mm]	Contents	ΔΔ [kg]
<b>MOD.BRA</b>	40	175	418	PL.667	0.910

GLOW PLUG WRENCHES

3/8" square drive hinged wrenches for glow plugs

- Flexible spark plug fitter.
- Universal joint with friction springs for reaching socket angle required.
- Drive bit 3/8".
- Finish: polished chromed.

Mod.	d [mm]	L [mm]	ΔΔ [g]
<b>B.10R8D</b>	12.0	176	114
<b>B.10R9D</b>	13.0	176	116
<b>B.10R9L</b>	13.0	177	125
<b>B.10R12AL</b>	17.0	178	142
<b>B.10R12B</b>	17.0	155	125



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GLOW PLUG TESTER

■ Glow plug tester



- To be used for glow plugs:
  - of all voltages.
  - in ceramic or metal.
- Power supply voltage from 11.8 volt to 13.6 volt.
- Voltage check between 3.5 and 12 volt.
- Easy LED readout.
- minimizes the risk of incorrect result interpretation.
- Optimized cable storage.



		$\Delta\Delta$ [g]
<b>DX.10A</b>		250

AUTO ELECTRICS

AUTOMOTIVE TESTER



The electricity is a headache to you?

AUTO  $\Omega$  METER



Easy to use  
easy to understand

- 3 Functions = 3 Buttons.
- Multicolor screen simplifying diagnostics and measures.

False contact detection

- Single and immediate function.
- Simple pressing of a button.
- Immediate diagnostic.

Designed for all workshops

- Special for 12V & 24V circuits.
- Long contact tips for improved access.
- Voltmeter and Ohmmeter functions.

3 year warranty


TESTERS AND MULTIMETERS

■ Automotive multimeter



- Automotive electrical tester. 100% automatic. 3-color screen for easy interpretation of values. Resistance to impacts.
- False contact detector.
- Voltmeter.
  - Measures DC voltages up to 49 Volts.
  - Automatic detection of MLI / PWM signals.
  - Line test: automatic checking of power supplies with false contact detection.
- Ohmmeter.
  - Measures resistance up to 40 M $\Omega$ .
  - Continuity alarm.
- Supplied with a pair of measurement cables, contact tips, "alligator" clips and a protection bag.



	Width l [mm]	L [mm]	P [mm]	$\Delta\Delta$ [g]
<b>DX.V12</b>	70	150	40	380



ELECTRICITY - HG

714 A : AUTOMOTIVE MULTIMETER



In automotive electricity, the multimeter is the indispensable complement to "diagnostic cases". In addition to typical measurement functions: Voltmeter, Ammeter, Ohmmeter, specialised functions have been added for checking vehicles:



**Cyclic ratio:**

- Test EGR valves, petrol injectors, turbocharger wastegates.

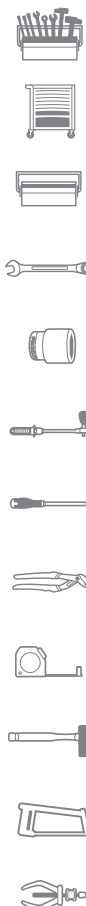
**Measures internal resistance of batteries.**

- Detect battery faults causing voltage fluctuations. In certain vehicles, these fluctuations cause malfunction in electronic equipment.

**Large-size bargraph**

- for Lambda probe test.

Tachometer and cam angle functions to tune older vehicles with non-electronic ignition systems. The 714A is class III 600V, for work on voltages of hybrid and electric vehicles. (Within currently enforced procedures and regulations).



Automotive multimeter



- Measures internal resistance of batteries.
- Automatic calibre.
- Voltmeter: AC / DC 0 --> 600 V.
- Ammeter: AC / DC 0 --> 400 mA.
- Ohmmeter: 0 0 --> 40 MO.
- Continuity and LED test.
- Temperature measurement.
- Cyclic ratio: 5% --> 99% .
- Cam angle.
- Tachometer.
- Frequency meter: 1 Hz --> 400 KHz.
- Compatible with clip-on ammeter Ref 711A.P500.

	$\Delta\Delta$ [g]
714A	1354

Megohmmeter and isolation tester



- Suited to hybrid and electric vehicles.
- Leak current detection.
- Protection cover included.
- Technical characteristics:
  - Isolation tester up to 4,000 Mohm at 250 V, 500 V, 1000 V.
  - AC / DC voltmeter: 0 to 600 V.
  - AC / DC ammeter: 0 to 400 mA.
  - Compatible with clip-on ammeters 711A.P500.
  - Ohmmeter: 0 to 40 MOhm.
  - Frequency meter, continuity tester, diode tester.

	$\Delta\Delta$ [g]
715	1100



TESTERS AND MULTIMETERS

■ Infrared thermometer



- Provides non contact infrared temperature measurement with laser guide or by contact with K thermocouple (not supplied).
- Infrared: measurement -60°C --> +500°C.
- D/S ratio (distance/surface): 11/1.
- Emissivity: adjustable.
- Mode: Min Max Differential, instant.
- Thermocouple measurement performance change according to the K probe.

	$\Delta\Delta$ [g]
<b>DX.T100</b>	328

■ Automotive voltage tester



- Filter diameter: 3 to 48 V.
- LED + or - polarity indicator.
- Complete with prodding probe, cable probe for testing insulated leads, and alligator clip.

	H [mm]	Width l [mm]	L [mm]	$\Delta\Delta$ [g]
<b>705</b>	18	21	135	55

■ Diagnostic accessories



- Facilitates accessibility to connectors.
- For circuit up to 49 Volts.
- Comprising:
  - 1 nylon bag.
  - 2 measurement cables.
  - 2 needles.
  - 2 Pic probes.
  - 1 needle storage tube.

	$\Delta\Delta$ [g]
<b>DX.SET</b>	

■ Diagnostic accessories



- For automotive diagnostics requiring measuring on small connectors without damaging them.
- All these accessories can be used with an electric tester or a diagnostic device.
- Examples of use: Airbag circuit testing, checking of MAP circuits, temperature and throttle valve position, voltage or current measurement.
- For circuit up to 49 Volts.
- Comprising:
  - 36 male connectors: DX.CONECT-1.
  - 36 female connectors: DX.CONECT-2.
  - 8-piece accessories set: DX.CONECT-3.
  - 12-piece diagnostic accessories set: DX.CONECT-4.

	$\Delta\Delta$ [kg]
<b>DX.CONECT</b>	2,9

**BATTERY CHARGERS**

**Fast charging, no need to disconnect the vehicle's battery during charging.**



2 years

- 100% automatic.
- Charge all lead batteries: liquid, VLRA, AGM, GEL.
- Compatible with Start & Stop vehicles and batteries.
- Interface in 5 languages.
- Polarity reversing protection.
- Protection against incorrect voltage.
- Spark-free technology.
- 8-step smart charge program.
- Battery maintenance mode.
- Output voltage limited at 14.7 V.

**VERSATILE 12 V**



**BC.126**

- Nominal voltage: 12V
- Maximum output current: 6A

**BUILT-IN SHOWROOM MODE**



**BC.1215**

- Nominal voltage: 12V
- Maximum output current: 15A

**VERSATILE 24 V**

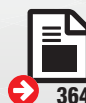


**BC.2410**

- Nominal voltage: 24V
- Maximum output current: 10A

**Recharging accessories:**

- Insulated pliers and ring wires (with fuse).



364



BATTERY CHARGER

Fast battery charger 12 Volts 6 Amperes for LV, LCV and motorcycles



- Compatible with all "lead acid" batteries: VLRA, GEL, AGM, Liquid.
- For 12V batteries, from 6Ah to 130 Ah.
- Charging level indicator.
- "Wake-up" mode for batteries discharged to 0.2V.
- Multimode damage-free fast charging controlled by microchip.
- "Floating" mode to maintain batteries charged.
- Protections against short-circuits, reversed polarities, overloads.
- Compatible with "Stop & Start" batteries.
- Maximum output current 6A.
- Power supply: 220 - 240V, 50 - 60 Hz.
- Supplied with alligator clips and connection kit.

	$\Delta\Delta$ [kg]
<b>BC126</b>	1,3

Fast battery charger 12 Volts 15 Amperes for 12V LV, LCV, HGV. "SHOWROOM" mode



- Compatible with all "lead acid" batteries: VLRA, GEL, AGM, Liquid.
- For 12V batteries, from 10 Ah to 230 Ah.
- "SHOWROOM" mode to supply vehicles in showrooms.
- Charging level indicator.
- "Wake-up" mode for batteries discharged to 0.2V.
- Multimode damage-free fast charging controlled by microchip.
- "Floating" mode to maintain batteries charged.
- Protections against short-circuits, reversed polarities, overloads.
- Compatible with "Stop & Start" batteries.
- Maximum output current 15A.
- Power supply: 220 - 240V, 50 - 60 Hz.
- Supplied with alligator clips.

	$\Delta\Delta$ [kg]
<b>BC1215</b>	1,4

Fast battery charger 24 Volts 10 Amperes for HGV and worksite vehicles.



- Compatible with all "lead acid" batteries: VLRA, GEL, AGM, Liquid.
- For 24V batteries, from 20 Ah to 200 Ah.
- Charging level indicator.
- "Wake-up" mode for batteries discharged to 0.2V.
- Multimode damage-free fast charging controlled by microchip.
- "Floating" mode to maintain batteries charged.
- Protections against short-circuits, reversed polarities, overloads.
- Compatible with "Stop & Start" batteries.
- Maximum output current 10A.
- Power supply: 220 - 240V, 50 - 60 Hz.
- Supplied with alligator clips.

	$\Delta\Delta$ [g]
<b>BC2410</b>	

BOOSTER

12 Volt starting booster

- Starting booster.
- Operating voltage 12V.
- Capacity 20 Ah.
- Sealed internal AGM battery.
- Mac "Peak" current: 3500A.
- Max starting current: 1200A.
- TCFC: 620A.
- Double insulation copper cables 25 mm<sup>2</sup> 1.55 m long.
- Straight pliers 650A.
- Protection by 300A timed fuse.
- Analog charge control voltmeter.
- Cigar lighter protected by a 16A re-arming fuse.
- Automatic charger 2A.



Model	Weight [kg]
B12.1B	11.7

Heavy duty 12 Volt starting booster

- Starting booster.
- Operating voltage 12V.
- Safety switch and reversed polarity alarm.
- Capacity 22 Ah.
- Sealed internal AGM battery.
- Mac "Peak" current: 3500A.
- Max starting current: 1300A.
- TCFC: 780A.
- Double insulation copper cables 25 mm<sup>2</sup> 1.55 m long.
- Straight pliers 650A.
- Protection by 300A timed fuse.
- Analog charge control voltmeter.
- Cigar lighter protected by a 16A re-arming fuse.
- Automatic charger 2A.



Model	Weight [kg]
B12.SECU	11.7



BOOSTER

12 Volt - 24 Volt starting booster



- Starting booster.
- Operating voltage 12V - 24V.
- Power safety and reversed polarity alarm.
- Voltage selection by power plug.
- Capacity 2 X 20 Ah.
- Sealed internal AGM battery.
- Mac "Peak" current: 3700A.
- Max starting current: 1400A.
- TCFC: 1000A.
- Double insulation copper cables 35 mm<sup>2</sup> 1.55 m long.
- Curved clamps 1000A.
- Protection by 300A timed fuse.
- Analog charge control voltmeter.
- Automatic charger 4A.



	ΔΔ [kg]
<b>B124.1A</b>	22.8

Heavy Duty 12 Volt - 24 Volt starting booster



- Starting booster.
- Operating voltage 12V - 24V.
- Power safety and reversed polarity alarm.
- Voltage selection by power plug.
- Auxiliary power plug. (For cables in option).
- Capacity 2 X 50 Ah.
- Sealed internal AGM battery.
- Mac "Peak" current: 7750A.
- Max starting current: 3200A.
- TCFC: 1700A.
- Double insulation copper cables 70 mm<sup>2</sup> 2.10 m long.
- Curved pliers 850A.
- Protection by 500A timed fuse.
- Analog charge control voltmeter.
- Automatic charger 7A.



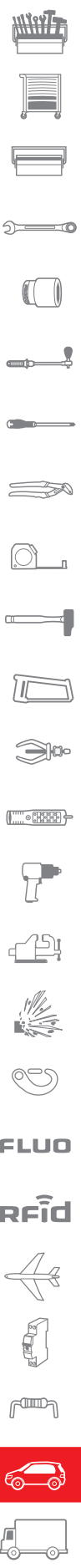
	ΔΔ [kg]
<b>B124.HD</b>	76.7

Starting booster fuse

- Fuse for FACOM starting boosters.
- Packaged in 3 units.



	ΔΔ [kg]
<b>BF300A</b>	0,4
<b>BF500A</b>	0,4



## UCB12A: "NO BATTERY" BOOSTER



# BOOSTER

INFINIMAX TECHNOLOGY

## No need to recharge or connect it!



**12**  
VOLTS

✓  
ANY  
VEHICLES

4,7 KG

+50°C  
-20°C

**1**



**PLUG ON**

• Connect the booster to the vehicle's battery.

**2**



**20**  
SECONDES

• Wait for 20 seconds.

**3**



• Start the vehicle.

**4**



**PLUG OUT**

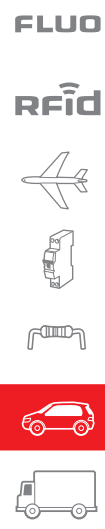
• Disconnect the booster.

Starting booster

- "Infinimax" technology, does not require recharging.
- For 12 V vehicles.
- Operating voltage: 9 V to 14.8 V.
- Max PEAK current: 4500 A certified by a UL Laboratory.
- Operating temperature: -20°C to +50°C.
- Cables: 75 cm Ø 5.6 mm copper.
- Clamps: 900 A bronze. Certified DIN 72553
- Length: 40 cm.
- Height: 20 cm.
- Width: 10.5 cm.
- Certified: CE.
- Guarantee: 5 years



	ΔΔ [kg]
<b>UCB12A</b>	4,7



BOOSTER

■ OBD backup unit



- Backup unit to maintain the power supply voltage when changing a battery.
- Cigar lighter for supply via booster.
- 16-way EOBD compatible with all vehicles from 2000.
- Interface with power supply and good connections indicator.



	$\Delta\Delta$ [g]
<b>B120BD.M</b>	70

BATTERY TOOLS

■ 12V surge limiter



- Saves electronic power supply circuits even when vehicle battery discharged.
- 2 indicators for checking correct battery connection.
- Current limited to 5 amperes: maintains the same power supply in case of irregular consumption.
- Automatic circuit breaker in case of short-circuit.

	$\Delta\Delta$ [g]
<b>DX.8-12A</b>	150

■ 24V surge limiter



- For 24V vehicles.
- Protects electronic components in the vehicle.
- Cable length: 500 mm.

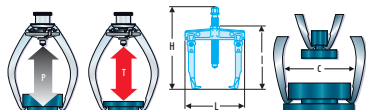
	H [mm]	Width l [mm]	P [mm]	$\Delta\Delta$ [g]
<b>DX.8-24A</b>	100	45	20	190



BATTERY TOOLS

■ Lug disconnecter

- Spring loaded, self-gripping 2-leg puller.
- Example of use = battery lugs.
- Slim puller arms.



U	C mini - maxi [mm]	H [mm]	Width l [mm]	L [mm]	P maxi [mm]	Tonnes [t]	Screw Size	Screw Size [mm]	T [kN]	ΔΔ [g]
U.14A	10 - 35	125	75	60	40	0,5	U.14A04	Spindle	5	340



■ Reamer

- For cleaning contact surfaces on battery lugs and terminals.

U	H [mm]	Width l [mm]	L [mm]	ΔΔ [g]
781	130	92	26	230



■ Battery filler

- Acid, oil and solvent resistant plastic.
- Length: 260 mm.
- Diameter: 70 mm.

U	L [mm]	ΔΔ [g]
785	260	85



■ Acid hydrometer

- For checking specific gravity of battery fluid.
- Diameter: 42 --> 350 mm.

U	ΔΔ [g]
784B	100



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BATTERY TOOLS

■ Battery tester with printer



- Battery tester 6 – 12 V.
- Charging circuit tester 12 – 24 V.
- Built-in printer.
- Replaceable clamps and cables.
- Compatible with Start and Stop vehicles.
- Compatible with "lead acid" batteries:
  - AGM.
  - EFB.
  - Liquid.
  - GEL.
  - VLRA.
- Cable length: 1.9 m.

	H [mm]	Width l [mm]	L [mm]	ΔΔ [g]
<b>BAT.TEST</b>	40	120	220	790

■ Refractometer 4 measurements



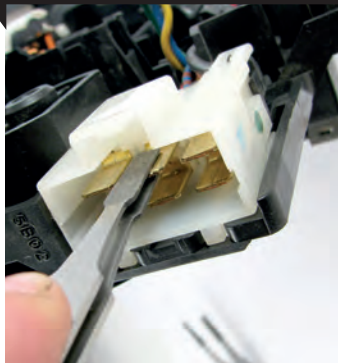
- Four measurement scales:
  - Adblue
  - Coolant
  - Battery acid
  - Washer
- Suited to Euro6 Diesel engines.
- Measures urea concentration of Adblue used.
- Correct, reliable and precise information.

	H [mm]	Width l [mm]	L [mm]	ΔΔ [g]
<b>780B</b>	70	235	700	472

FUSES AND CONNECTORS

DX.45 - CONTACT CLEANERS

Tweezers - diamond-coated needles



- Super abrasive.
- Restores the contacts promptly, eliminates oxidation.
- Facilitates diagnostics and repairs.
- Avoids useless component replacement.
- Reduces the use of chemicals.
- Effective on male and female flat connectors, and female round connectors.

■ Set of 3 diamond-tip contact cleaning tweezers

- Outside-inside diamond-coated nose to deoxidize male and female flat connectors.
- Width: 1.8 - 2.9 - 4.8 mm.
- Length: 114 mm.
- Set supplied in a pouch.



Icon	ΔΔ [g]
DX.145TCJ3	70

■ Diamond-tip contact cleaning tweezers

- Outside-inside diamond-coated nose to deoxidize male and female flat connectors.
- 3 Width: 1.8 - 2.9 - 4.8 mm.
- Length: 114 mm.



DX.145TCS



DX.145TCM



DX.145TCL



Icon	ΔΔ [g]
DX.145TCS	14
DX.145TCM	14
DX.145TCL	14

■ Set of 12 diamond-tip contact cleaning files

- Diamond-coated needle files to deoxidize female round connectors.
- Diameters: 0,75 X2 - 0,98 X2 - 1,29 - 1,48 - 1,76 - 2,03 - 2,26 - 2,52 - 2,78 - 3,02 mm.
- Set supplied in a pouch.



Icon	ΔΔ [g]
DX.RDJ12	30



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FUSES AND CONNECTORS

Auto electricians kit



- For routine automotive electrical servicing and repair tasks: installation of accessories, car radios, trailer socket connections, fuse replacement etc.
- Contains:
  - The 12 most commonly used terminals for automotive applications (210 terminals).
  - 20x 5 dia. ring terminals for 0.5 to 1.5 mm<sup>2</sup>.
  - 20x 4 dia. spade terminals for 0.5 to 1.5 mm<sup>2</sup>.
  - 20x 5 dia. ring terminals for 1.5 to 2.5 mm<sup>2</sup>.
  - 15x 6 dia. ring terminals for 1.5 to 2.5 mm<sup>2</sup>.
  - 20x 4 dia. spade terminals for 1.5 to 2.5 mm<sup>2</sup>.
  - 20x 6.3 mm dia. quick disconnects for 1.5 to 2.5 mm<sup>2</sup>.
  - 15x 6.3 mm dia. combined quick disconnects for 1.5 to 2.5 mm<sup>2</sup>.
  - 20x 6.3 mm dia. tab terminals for 1.5 to 2.5 mm<sup>2</sup>.
  - 15x 8 dia. ring terminals for 3 to 6 mm<sup>2</sup>.
  - 15 cable couplers for 0.5 to 1.5 mm<sup>2</sup>.
  - 15 cable couplers for 1.5 to 2.5 mm<sup>2</sup>.
  - 15 cable couplers for 3 to 6 mm<sup>2</sup>.
  - 1 set of 20 fuses with extractor (5A to 30 A).
  - 1 fuse holder (for 5A to 30 A fuses).
  - 5 quick splice terminals for 0.5 to 1.5 mm<sup>2</sup>.
  - 5 quick splice terminals for 1.5 to 3.5 mm<sup>2</sup>.
  - 1 power fuse remover DX.9 (for 40A to 80A fuses) Ref DX.9: for easy replacement or removal of power fuses (e.g. for removing the fuse when working on airbags).
  - 1 pair of multi-purpose pliers 449I: for cutting wire from 0.5 to 6 mm<sup>2</sup> crimping colour-coded non-insulated terminals, cutting threaded rods from M 2.6 to M5, crimping non-insulated terminals, stripping.
- Supplied in a case.



FACOM	H [mm]	Width I [mm]	L [mm]	ΔΔ [kg]
449.Z1B	60	300	350	1.4

Maintenance crimping pliers for pre-insulated terminals



- CEI60352-2**
- Double crimping for pre-insulated terminals in compliance with the standard, with holding on the conductor core and the insulator.
  - Unlocking accessible at all times.
  - Reversed crimping: terminal positioned on the fixed part for more effectiveness and precision.
  - Stainless steel die with 3 cavities:
    - Red cavity: 0.5 --> 1.5 mm<sup>2</sup>.
    - Blue cavity: 1.5 --> 2.5 mm<sup>2</sup>.
    - Yellow cavity: 4 --> 6 mm<sup>2</sup>.
  - Shape allowing hand setting.
  - Soft touch.



FACOM	L [mm]	ΔΔ [g]
985894	230	490

CAR RADIO

20-piece car radio removal tool set



- 20 special tools for the main makers of car radio (Alpine, Blaupunkt, Becker, Grundig, JVC, Pioneer, VDO).
- Multi-make: BMW, Fiat, Ford, Mercedes, Opel, PSA, Renault, VAG.
- Supplied in a plastic pouch showing applications.



FACOM	ΔΔ [g]
DX.25	176

ENGINE SUPPORT

Engine support

- Holds engines and gearboxes when one or several engine supports is removed.
- Capacity 400 kg.
- The support is fastened under the vehicle.
- Ideal for operations on distribution:



DM.UES	H [mm]	Width I [mm]	L [mm]	ΔΔ [kg]
DM.UES	30	630	1350	14.5

Engine support (1)

- Holds engines and gearboxes when one or several engine supports is removed.
- Capacity 500 kg.
- Needle bearings to facilitate tensioning.
- Pad spacing from 60 to 160 mm.
- Supplied with a set of chains and shackles.



DM.ES	ΔΔ [kg]
DM.ES	20

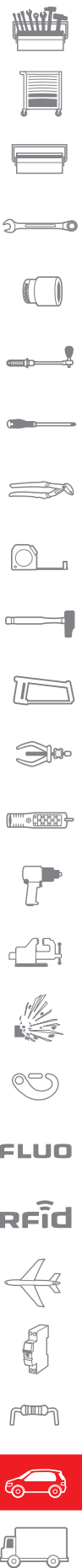
INLET AND TURBO PRESSURE

Manual pressure/vacuum pump

- Manual pressure/vacuum pump.
- To test air actuators such as EGR valves, turbo wastegate valves, boost inlet pressure measurement, pressure sensors, etc.
- Allows to bleed small hydraulic circuits, prime fuel circuits.



DA.160	ΔΔ [kg]
DA.160	2.2






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# APPLICATIONS GUIDE : DUMMY SPARK PLUGS - DUMMY INJECTORS



																		
	PSA	RENAULT DACIA	VAG	FORD	FIAT	OPEL VAUXHALL	BMW MINI	MERCEDES	VOLVO	ROVER	NISSAN	TOYOTA	HONDA	MAZDA	MITSUBISHI	SUZUKI	CHRYSLER	
1,3D	-	-	911-V4	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
1,3CDTI/ JTD/ MULTIJET	-	-	-	911-81	911-81	911-81	-	-	-	-	-	-	-	-	-	-	-	
1,4D/TD	-	-	911-V4	-	-	-	-	-	-	911-V10	-	-	-	-	-	-	-	
1,4TDI/ TDCI/ HDI	911-82	-	911-102	911-182	-	-	-	-	-	-	-	911-82	-	-	-	-	-	
1,5D/TD/ DCI	911-102	911-102	911-V5	-	-	911-107	-	911-105	-	-	911-102	-	-	-	-	911-102	-	
1,6D/TD	-	-	911-V5	-	-	-	911-82	-	-	-	-	-	-	-	-	-	-	
1,6TDCI/ HDI/CDI	911-88	-	-	911-88	-	-	-	-	-	-	-	-	-	-	-	-	-	
1,7D/TD	-	-	-	-	911-V5	911-V5 / 911-V10 / 911-107	-	-	-	-	-	-	-	911-107	-	-	-	
1,7DTI/ CDTI	-	-	-	-	-	911-110	-	-	-	-	-	-	-	-	-	-	-	
1,8D/TD	-	-	911-V5	911-V5	-	-	911-105	-	-	911-V5 / 911-V10	-	-	911-V10	911-V5	-	-	-	
1,9D	911-V4	911-V10	-	-	911-V5	-	-	-	-	-	-	-	-	-	-	911-V5	-	
1,9D 64	-	-	911-V5	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
1,9TD	911-V10	911-V10	-	-	911-V5 / 911-V10	-	-	-	911-V5	-	-	-	-	-	911-V10	-	-	
1,9TDI 75/SDI	-	-	911-V5	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
1,9TDI/ DTI	-	911-B2	911-102	911-102	-	-	-	-	-	-	-	-	-	-	-	-	-	
1,9DCI/ TDCI/ CDTI/ JTD	-	911-B5	-	911-102	911-B3	911-B3	-	-	-	-	-	-	-	-	-	-	-	
2,0D/TD	-	-	-	911-106	911-V5	-	-	-	-	-	911-V5	-	-	911-V10	-	-	-	
2,0TDI 105/ DCI/DTI/ TDCI	-	911-106	911-102	911-88	-	911-105	-	-	-	-	-	-	-	-	-	-	-	
2,0HDI	911-104 / 911-85	-	-	-	-	-	-	-	-	-	-	-	-	-	-	911-104 / 911-85	-	
2,0HDI 136/138/ JTD/CDI	911-88	-	-	-	911-104	-	-	911-105	-	-	-	-	-	-	-	-	-	
2,1TD	911-V10	-	-	-	911-V10	-	-	-	-	-	-	-	-	-	-	-	-	
2,2DT	-	911-V10	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
2,2HDI/ CDI/DTI/ TDCI/ DCI	911-104 / 911-88	911-105	-	911-106	-	911-105	-	911-105	-	-	-	-	-	-	-	-	-	
2,3D/TD	-	-	-	-	-	911-V5 / 911-V10	-	-	-	-	-	-	-	-	-	-	-	
2,4D/TD	-	-	911-V5	-	911-V5	-	-	-	-	-	-	-	-	-	-	-	-	
2,4JTD/ D5	-	-	-	-	911-91	-	-	-	911-82	-	-	-	-	-	-	-	-	
2,5D	-	-	-	911-B5 / 911-B1	-	-	-	-	911-102	-	-	-	-	-	-	-	-	
2,5TD/ TDI	-	-	911-104	911-V10	-	-	-	-	-	911-102	-	-	-	-	-	-	911-102	
2,7TD/ HDI/CDI	911-88	-	-	-	-	-	-	911-105	-	-	911-107	-	-	-	-	-	-	
3,0D/ CDTI	-	-	-	-	-	911-110	911-102	-	-	-	-	-	-	-	-	-	-	
3,5D	-	-	-	-	-	-	911-102	-	-	-	-	-	-	-	-	-	-	

HIGH-PRESSURE DUMMY GLOW PLUGS

■ Diesel dummy glow plugs 8 mm

- For testing diesel engine compression.
- For use with FACOM 911 reader.
- Fitted with a non-return valve.

Part Number	$\Delta\Delta$ [g]
911-81	38
911-82	38



■ Diesel dummy glow plugs 9 mm

- For testing diesel engine compression.
- For use with FACOM 911 reader.
- Fitted with a non-return valve.

Part Number	$\Delta\Delta$ [g]
911-91	45



■ Diesel dummy glow plugs 10 mm

- For testing diesel engine compression.
- For use with FACOM 911 reader.
- Fitted with a non-return valve.

Part Number	$\Delta\Delta$ [g]
911-102	58
911-104	40
911-105	85
911-106	57



HIGH-PRESSURE DUMMY INJECTORS

■ Dummy injectors

- For testing diesel engine compression.
- For use with FACOM 911 reader.
- Fitted with a non-return valve.

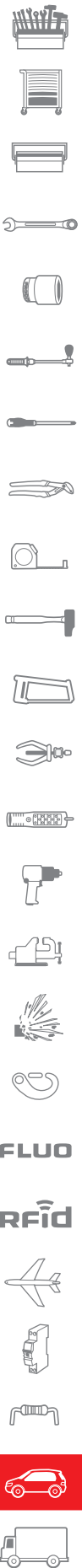
Part Number	$\Delta\Delta$ [g]
911-B2	184
911-B5	151
911-B8	327



■ Screw-on dummy injectors

- For testing diesel engine compression.
- For use with FACOM 911 reader.
- Fitted with a non-return valve.

Part Number	$\Delta\Delta$ [g]
911-V4	140
911-V5	164
911-V10	233



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PRESSURE CONTROL

## 911 AND 912: COMPRESSION GAUGES



Compression testing is a pre-requisite for good engine diagnosis. With incorrect compressions, the engine cannot run normally. Electronic engine control and its self-diagnosis system will behave erratically if engine compressions are bad. More than ever, compression testing is the pre-requisite for good engine diagnosis.

**Test sheet:**

- Compression readings are printed on a ticket allowing simple and immediate comparison of all engine cylinders. This ticket is also used for diagnostics or return under guarantee.

**Range of adaptors:**

- FACOM offer a range of dummy spark plugs and dummy injectors for precise coverage of most vehicles. All these adaptors are fitted with check valves close to the engine combustion chamber and guarantee accurate measurements.



■ Diesel engine compression tester



- Test cards up to 12 cylinders.
- Integral starter-motor control.
- Suitable for all types of diesel engine: using dummy injectors and dummy heater plugs.
- Working range 5 to 60 bars.
- Including:
  - 912-01-02: Hose for 911 and 912.
  - 911TN: Bare diesel compression tester.
  - 911-82 - 911-102 - 911-104 - 911-105 - 911-B2 - 911-B5 - 911-B8 - 911-V4 - 911-V5 - 911-V10: Diesel dummy glow plug.
  - 911.C90: Angle adaptor.
  - 911B.FC: Pack of 100 test cards.
  - 911B.016: Starter-motor control lead.



	H [mm]	Width l [mm]	L [mm]	ΔΔ [kg]
<b>911</b>	85	340	430	2.0

■ Set of 100 test cards for diesel engine



- Accessory for diesel engine compression tester.



	ΔΔ [g]
<b>911B.FC</b>	104



**Petrol engine compression tester**

- Test cards up to 12 cylinders.
- Integral starter-motor control.
- Working range 3 to 18 bars.
- Including:
  - 912-01-02: Hose for 911 and 912.
  - 912TN: Bare compression tester.
  - 912-12: Dummy petrol spark plugs 12 mm.
  - 912-14: Dummy petrol spark plugs 14 mm.
  - 912A.FC: Set of 100 test cards.
  - 911B.016: Starter-motor control lead.



	H [mm]	Width l [mm]	L [mm]	ΔΔ [kg]
<b>912</b>	85	340	430	2.0

**Flexible dummy spark plug 14 mm**

- Accessory for petrol engine compression tester.
- Flexible dummy spark plug 14 mm (spark plug size 16 mm).



	ΔΔ [g]
<b>912-14</b>	141

**Flexible dummy spark plug 12 mm**

- Accessory for petrol engine compression tester.
- Flexible dummy spark plug 12 mm (spark plug size 14 mm).



	ΔΔ [g]
<b>912-12</b>	135

**Flexible dummy spark plug 18 mm**

- Accessory for petrol engine compression tester.
- Flexible dummy spark plug 18 mm (spark plug size 18 and 21 mm).



	ΔΔ [g]
<b>912-18</b>	163



PRESSURE CONTROL

Angle adaptor



- Accessory for diesel engine compression tester.



	$\Delta\Delta$ [g]
911-C90	72

Flexible fitting



- Accessory for petrol and diesel engine compression tester.
- Converts all older generations of 911 and 912 to make them compatible with the current "dummy spark plugs" and "dummy injectors" program.



	$\Delta\Delta$ [g]
912-01-02	50

Non-return valves



- Accessory for petrol and diesel engine compression tester.
- Compatible with all petrol and diesel dummy spark plugs and all dummy injectors.



	$\Delta\Delta$ [g]
911-VA	10

COMMON RAIL INJECTOR TOOLS

### COMMON RAIL



- Most modern diesel engines use the common rail technology. To meet issues related with injectors, FACOM offer a comprehensive range for testing and extraction.
- Pressure constraints require perfect renovation of mating surfaces before refitting a new element, and changing gaskets at every removal.
- FACOM offer a range of tools to renovate mating surfaces and pull gaskets blocked at the bottom of injector wells.

■ DENSO injectors puller set

- For "Common Rail" diesel engines.
- For: Opel, Vauxhall, Renault, Nissan, Mazda, Toyota, Lexus.
- Supplied in plastic case with foam module.
- Instructions.



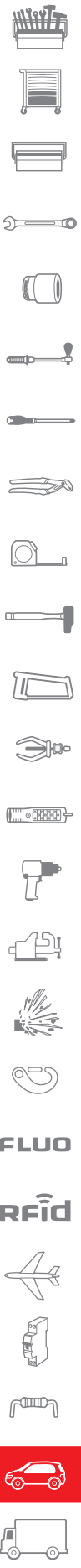
	Width l [mm]	L [mm]	P [mm]	ΔΔ [kg]
<b>DCR.IP-DA</b>	300	390	105	4.7

■ Common rail diesel injector return flow tester

- For 2 to 8 cylinder engines.
- 4 sets of 8 brass couplings for BOSCH and Siemens injectors.
- 1 set of 8 plastic couplings for DELPHI injectors.
- Supplied with universal connecting tubes.



	ΔΔ [kg]
<b>DCR.IT</b>	3.2




## COMMON RAIL INJECTOR TOOLS

### Seized common rail injector slide hammer



- For more than 80% seized injectors.
- 4 Sockets for injector heads 25 - 27 - 29 - 30 mm.
- Tool for removing the inside mechanism for BOSCH injectors.
- Dual height slide hammer.
- Supplied with adaptors for BOSCH, SIEMENS, DELPHI injectors.

Icon	$\Delta\Delta$ [kg]
 DCR.IP	3.2

### Seized common rail injector screw puller on PSA engines



- PSA 2.0L HDI 16V and 2.2L HDI 16V engines.
- Designed for use on "minivan" and utility vehicles when access does not allow to use the puller DCR.IP.

Icon	$\Delta\Delta$ [kg]
 DCR.IPPSA	15.4

### Seized common rail injector screw puller on RENAULT engines



- RENAULT 2.2L DCI and 2.5L DCI engines.
- Designed for use on "minivan" and utility vehicles when access does not allow to use the puller DCR.IP.

Icon	$\Delta\Delta$ [kg]
 DCR.IPREN	15.8

### PSA and RENAULT common rail injectors puller set



- Comprises the elements and covers vehicles of the DCR. IP-PSA and DCR.IP-REN pullers.

Icon	$\Delta\Delta$ [kg]
 DCR.IPM	19.1

Injector gaskets slide hammer

- To pull injector gaskets blocked at the bottom of the injector well.
- Avoids cylinder head removal.



Image	Weight [kg]
	$\Delta\Delta$ [kg]
DCR.SR	1.630

Multiple-make electrode puller set

- For glow plugs.
- Indispensable for Renault, Peugeot, Citroën, Fiat, Volkswagen vehicles.
- For plugs size 8, 9 and 10 mm.
- Supplied in plastic case with foam module.
- Instructions.



Image	H [mm]	L [mm]	P [mm]	Weight [g]
				$\Delta\Delta$ [g]
DCR.HR-EU	75	320	265	980

Injector well cleaning set

- For all COMMON RAIL diesel engines.
- To clean injector wells and parting surfaces.
- To be used with a bolter or drill.
- 2 x cylindrical brushes, 20 mm and 25 mm, for cleaning the wells.
- 2 x brushes (Nylon and brass) for parting surfaces.
- Patch to surface parting surfaces.
- Protection caps to avoid contaminating engine cylinders.
- Adapters and extensions.



Image	Weight [g]
	$\Delta\Delta$ [g]
DCR.ICA	500



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COMMON RAIL GLOW PLUG TOOLS

TO PREVENT GLOW PLUGS FROM SEIZING



Glow plug well cleaning grinder.

- Built-up scale between the glow element and the cylinder head results in breaking glow plugs when removing them.
- Using a glow plug well cleaning grinder reduces the risk of breakage. On "sensitive" engines, glow plugs should be changed every 80 000 KM and the glow plug wells be cleaned.

■ Cylinder head tool for 10 x 100 and 10 x 125 glow plugs



- Removes scale deposits between the cylinder head and the spark plug heating element.
- Prevents seizing and breakage of glow plugs in the cylinder heads.



	$\Delta\Delta$ [g]
<b>DCR.HC10</b>	219

FUEL INJECTION

■ 1/2" square drive diesel injectors sockets



- 1/2" square drive 12-point long reach sockets.
- D.27A.
- D.132B.
- Available for:
  - MAZDA Familia 1.7.
  - MERCEDES 250C > 94.
  - MITSUBISHI Pajero 2.
  - NISSAN Serena 2.3.
  - PEUGEOT 106/605/2.5.
  - SEAT Terra 1.7.
  - VOLKSWAGEN Polo D.
- CITROËN Saxo 1.5/Boxer TD.
- FORD Maverick.



	d [mm]	Width l [mm]	L [mm]	$\Delta\Delta$ [g]
<b>D.27A</b>	36	87	87	265
<b>D.132B</b>	29	98	98	160

■ Injector test pump



- For checking injector leak-back, injection pressure and fuel spray pattern.
- Dial gauge: 0-600 bar.
- Reservoir complete with filter.
- For use with fluid to NF ISO 4113 and vapour extractor Ref D.144.



	H [mm]	Width l [mm]	L [mm]	$\Delta\Delta$ [kg]
<b>916.600</b>	410	100	220	4.4

FUEL INJECTION

Vapour extractor

- Collects fumes and fluid checking or adjusting injectors.
- Air inlet hose fitted with shut-off valve.
- Inlet pressure: 6 bar.



	H [mm]	Width l [mm]	L [mm]	ΔΔ [kg]
<b>D.144</b>	420	380	400	5,2

Fuel gauge wrench

- Used to dismount and refit fuel gauges bushes.
- Capacity: 88 -> 170 mm.
- Opening regulation through diaphragm.



	ΔΔ [kg]
<b>DM.JL</b>	0,200



Automatic clamp pliers

- Pliers to open or close automatic clamps.
- Multi-direction gripping of clamps to work either vertically or horizontally (right or left).



	ΔΔ [g]
<b>DM.CC</b>	200



Diesel filter fitting and removal tool

- For multi-jet 1.3 and 1.9 diesel engines in Fiat and Opel.
- Filter holder support for lock grip.
- Filter holder wrench with 3/8" square bit.
- Allows retightening at the original torque value (value indicated on the plastic cap).



	ΔΔ [g]
<b>DM.FR2</b>	894



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FUEL CIRCUIT TOOLS

Fast fit fuel pliers



- For petrol and diesel vehicles.
- To disconnect fast fuel fittings.
- Length: 175 mm.



	$\Delta\Delta$ [g]
<b>DM.F</b>	171

DM.MUB - SPRING CLAMP PLIERS



For an easier reach

Time-saving

- No need to remove components obstructing the hose clamp.
- Compact and lightweight for confined spaces.

Comfortable

- Non-slip grips.
- Ratchet lock system for reduced effort.

Capacity 18 to 54 mm.

Pliers for removing and fitting self-tightening spring clips

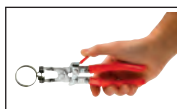


- Fits self-tightening spring clips diameter: 18 --> 51 mm.
- Can be used one-handed.
- Non-slip bi-material handle for a better grip.
- Rack system for reduced effort.
- Sheath length: 560 mm.
- Total length: 780 mm.



	$\Delta\Delta$ [g]
<b>DM.MUB-A</b>	456

Self-tightening clamp pliers



- For hose clamps on cooling, heating, fuel or screen-washer.
- DM.25: slip-joint model.
- DM0.27: long-reach model with lock and pivoting jaws.
- DM0.29: standard-reach model with lock and pivoting jaws.



	d [mm]	Width l [mm]	L [mm]	P [mm]	Dimension [mm]	$\Delta\Delta$ [g]
<b>DM.25</b>	12..60	55	275	20	275 x 55 x 20	400
<b>DM.27</b>	15..56	60	275	25	275 x 60 x 25	395
<b>DM.29</b>	15..56	60	215	25	215 x 60 x 25	340

Flexible nut drivers (6 point)



- For loosening and tightening hose clamps.



	d [mm]	$\Delta\Delta$ [g]
<b>D.133B6</b>	6	185
<b>D.133B7</b>	7	187
<b>D.133B8</b>	8	188
<b>D.133B10</b>	10	189



SEALS

217 - Set of Master bearing race and seal driver

- Smart multi diameter tool: Place seals, bearing race without any damages. Adjustable jaws.
- All in one design, eliminating the need for a driver and several different heads.
- 2 SKUs:
  - Jaws from 9,5 to 50 mm.
  - Jaws from 18 to 90 mm.
- 3-stepped jaws quickly adjust to accommodate bearing races and seals.
- Can be used on most vehicles, including motorcycles.



Part Number	Weight [kg]
217.J2	1,1

Gasket centrer, 50 mm cages

- Multiple diameter tool to place and centre sealing gaskets, bearings... Adjustable jaws.
- Inserts gaskets without damaging them.
- Jaws from 9.5 to 50 mm.
- 3 stages per jaw to adapt to all types of gaskets and bearing cages.
- Adapted to most vehicles, including motorcycles.



Part Number	Weight [g]
217.50	280

Gasket centrer, 90 mm cages

- Multiple diameter tools to place and centre sealing gaskets, bearings... Adjustable jaws.
- Inserts gaskets without damaging them.
- Jaws from 18 to 90 mm.
- 3 stages per jaw to adapt to all types of gaskets and bearing cages.
- Adapted to most vehicles, including motorcycles.



Part Number	Weight [g]
217.90	834

COOLING SYSTEM TESTER

Vacuum cooling circuit fillers

- For total filling of cooling circuits also without bleed screw.
- Supplied in a plastic case (complete with 5 can adaptors).



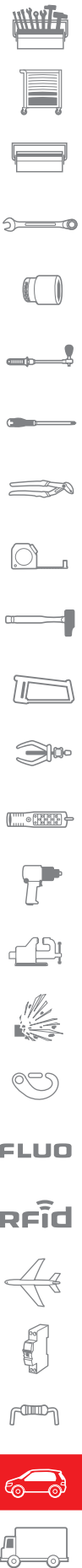
Part Number	Weight [kg]
935A	1,960

Anti-freeze hydrometer

- Measures antifreeze levels in engine coolant.
- Two scales for cold or warm engines.



Part Number	Width l [mm]	L [mm]	Weight [g]
778A	42	350	90



COOLING SYSTEM TESTER

■ Cooling circuit tester with 14 adapters



- Manual pump 0 to 2.5 bar.
- Set of 14 plugs.
- For vehicles by: RENAULT, PEUGEOT, CITROEN, FIAT, ALFA, LANCIA, MINI, VOLVO, NISSAN, TOYOTA, MITSUBISHI, SUZUKI, OPEL, SAAB, FORD, MAZDA, MERCEDES, VOLKSWAGEN, SEAT, SKODA, AUDI, PORSCHE, BMW, CHEVROLET EUROPE, SMART.
- Plastic storage case.
- Supplied with instructions.



➤	ΔΔ [kg]
<b>920B</b>	2.1

AFKNIJPTANGEN

■ Screw-type hose clamps



- Metal structure.
- Applications:
  - Cooling circuit.
  - Fuel circuit.
  - Air circuit.



➤	d [mm]	Width l [mm]	L [mm]	ΔΔ [g]
<b>DM.90</b>	27	65	65	190
<b>DM.91</b>	45	85	85	240

■ Hose clamps



- Hoses are clamped shut instantly without damage.
- Plastic structure.



➤	d [mm]	Width l [mm]	L [mm]	ΔΔ [g]
<b>DM.33</b>	8...15	160	160	170
<b>DM.34</b>	15...28	180	180	190
<b>DM.34GM</b>	25...55	205	205	210

CYLINDER HEAD - VALVES

■ Valve lifter



- For removing valve springs.
- Complete with jaws ref U.13B.



➤	H [mm]	Width l [mm]	L [mm]	ΔΔ [kg]
<b>U.13L</b>	20	365	265	1,1

Collet clamp and cup

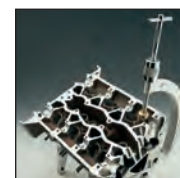
- To fit U.13L, the collet replacing the screw, with the cup inserted between the 2 jaws.
- U.13DB: For 16-valve engines.



🔧	d [mm]	ΔΔ [g]
U.13DB	30	335
U.13DC	33	340

Slide-hammer valve lifter

- For removing valve springs.
- The slide hammer is used to free split collets.
- Diameter: 34 mm.



🔧	H [mm]	Width l [mm]	L [mm]	ΔΔ [kg]
U.43LA	36	390	200	1.4

Collet clamp

- For 16-valve engines.
- Fits U.43LA.
- Diameter: 29 mm.



🔧	L [mm]	ΔΔ [g]
U.43LA16A	54	55

Cylinder-head rest

- Adjustable distance between feet.
- Designed for easy use of valve lifters U.13L - U.43LA.



🔧	H [mm]	Width l [mm]	L [mm]	ΔΔ [kg]
U.43	165	500	215	1.8



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CYLINDER HEAD - VALVES

Special pliers

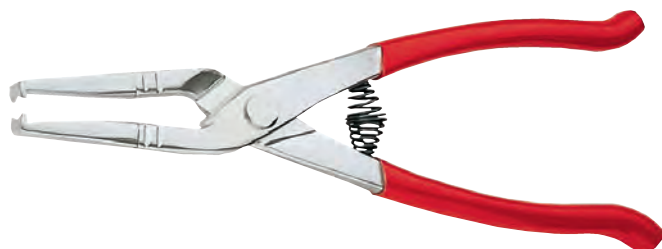


- For removing valve guide seals.
- Length: 245 mm.
- Finish: Nickel, burnished jaws.



	L [mm]	ΔΔ [g]
<b>DM.7</b>	245	350

Valve stem seal pliers

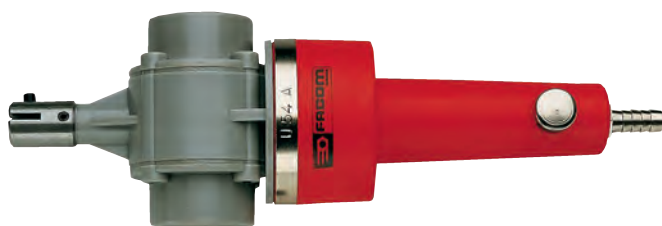


- For removing valve guide seals.



	H [mm]	Width I [mm]	L [mm]	ΔΔ [g]
<b>DM.10A</b>	15	80	235	135

Air-operated valve grinder



- Working pressure: 8 bar.
- Air consumption: 0.08 m<sup>3</sup>/min.
- Supplied with 2 suction cups (diam.: 22 and 33 mm).
- Suction cup 22 mm: U.54AV1.
- Suction cup 33 mm: U.54AV2.
- Suction cup 30 mm: U.54AV3.
- Suction cup 45 mm: U.54AV4.



	H [mm]	Width I [mm]	L [mm]	ΔΔ [g]
<b>U.54A</b>	70	90	280	800

Valve grinder



- Suction pads: 19 - 22 mm.



	Width I [mm]	L [mm]	ΔΔ [g]
<b>D.51</b>	22	235	30

Scraper



- For deburring and scraping off gasket debris.
- Triple-edge blade.



	H [mm]	Width I [mm]	L [mm]	ΔΔ [g]
<b>D.1</b>	20	25	200	105

7-piece set of 6-spline bits 1/2"

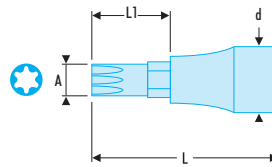
- Comprising: D.34B7 - D.34B7L - D.34B9L - D.34B10 - D.34B12L - D.34B14L - D.34B16L.
- Supplied on a rack.



Part No.	Weight [g]
D.34J7	900

D.34B - Long-reach 6-spline bits

Part No.	A [mm]	d [mm]	Width l [mm]	L [mm]	L1 [mm]	Weight [g]
D.34B7	7	7	60	60	15	70
D.34B7L	7	7	100	100	63	120
D.34B9L	9	9	100	100	63	130
D.34B10	10	10	60	60	15	75
D.34B12L	12	12	100	100	63	140
D.34B14L	14	14	100	100	63	150
D.34B16L	16	16	100	100	63	160



Set of Torx® socket wrenches and bits

- J.235: Bit holder.
- R0.235: 1 bit holder socket 1/4".
- S.236: 1/2" bit holder socket.
- EX.2 40 - 45 - 50 - 55: 5/16 bits.
- EXR. 10 - 15 - 20 - 25 - 30 - 40: 1/4 bits.
- JTX. 8 - 10 - 12 - 14 - 16: 3/8" sockets.
- STX 18 - 20: 1/2" sockets.
- 59TX 6 x 8 - 10 x 12 - 14 x 18 - 20 x 24: Ring wrenches.



Part No.	H [mm]	Width l [mm]	L [mm]	Contents	Weight [kg]
MOD.TX1A	40	175	418	PL.360	0.995



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CYLINDER HEAD - VALVES

5-piece set of drive bits for spline socket head (XZN) bits 1/2"



- Comprising the bits: SV.14LB - SV.12LB - SV.10LB - SV.8LB - SV.6LB.
- Bit length: 64 mm.
- Supplied on a rack.



	$\Delta\Delta$ [g]
<b>SV.J5</b>	670

20-piece set of short-reach bits



- Tray PL.393A.
- Plastic case BP.102.
- Dimensions (L. x W. x H.): 204 x 122 x 52 mm.

	$\Delta\Delta$ [g]
<b>SE.1A</b>	475

Storage holder for cylinder head



- For engines up to 4 cylinders.
- 8 or 16 valves.
- Single or dual camshaft.
- Holder for valves, springs, key, camshaft.

	H [mm]	Width l [mm]	L [mm]	$\Delta\Delta$ [kg]
<b>U.43-ORG</b>	22	40.5	45	2.3

**TORQUE TIGHTENING : WRENCHES AND DRIVES**

**E.306 and E.316 series**

- 9 torque and/or angle values can be preset.
- 250 results can be saved, downloaded via USB.

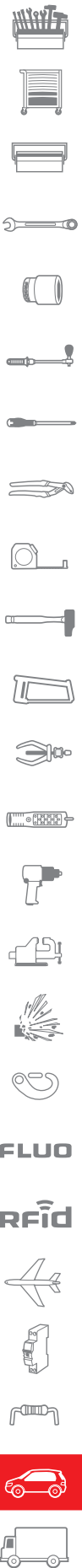
**Series E.506**

- 9 torque and/or angle values can be preset.
- 50-result memory.



**Series E.406**

- 9 preset angle values.
- 50-result memory.



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DIGITAL CONTROL TOOLS

■ E.506 - Torque and angled adapter



NF EN ISO 6789, ISO 6789, DIN EN ISO 6789

- Drive bit 1/2".
- Accuracy:
  - Torque:  $\pm 3\%$  between 20% and 100% wrench capacity.
  - Angle:  $\pm 2^\circ$ .
- Measuring mode: peak or track follower.
- Cycle counter.
- Locking keypad (the operator has access only to program choices and memorise results).
- Measuring unit: N.m, ft.lb, In.lb, kg.cm, deg.
- Presetting possible of 9 torque and/or angle values.
- Memory 50 values.
- Length: 80 mm.
- Supplied in plastic case with calibration certificate.



	L [mm]	Capacity [N.m]	Résolution	$\Delta\Delta$ [g]
<b>E.506-135S</b>	80	6,7 - 135,0	0,1	268
<b>E.506-200S</b>	80	10 - 200	0,1	268
<b>E.506-340S</b>	80	17 - 340	0,1	268

■ Angular adapter



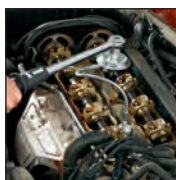
- Accuracy:  $\pm 2^\circ$ .
- Angular range: 1 - 360°.
- Measuring unit: degree.
- Presetting possible of 9 angle values.
- Memory 50 values.
- Supplied in plastic case with calibration certificate.



	$\Delta\Delta$ [g]
<b>E.406</b>	

ANALOG CONTROL TOOLS

■ Angular torque gauge 1/2" drive



- Including:
  - 3 bits (length: 24 - 45 - 65 mm).
  - 1 flexible.
  - 1 pair of pliers.
  - 1 magnet.



	H [mm]	Width l [mm]	L [mm]	$\Delta\Delta$ [g]
<b>DMP.360L</b>	145	180	375	550

■ Side-graduated angular torque gauge 1/2" drive bit



- Lateral reading tapered drum for maximum legibility.
- Double index (red line) for presetting. To tighten, simply align the two markers. Ideal with low lighting.
- 2° resolution.
- Supplied with a limit stop (length: 24 - 45 - 65 mm).

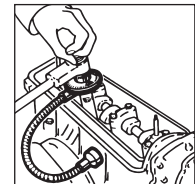


	$\Delta\Delta$ [g]
<b>D.360L</b>	414



DM - Angular torque gauge

- 2° graduations.
- Male and female square drive.
- Fixed point by flexible with magnet.



DM	d [mm]	L [mm]	Square ["]	ΔΔ [g]
DM.360	63	410	1/2	350
DM.370	73	430	3/4	550

PISTONS - PISTON RINGS

Piston ring compressors

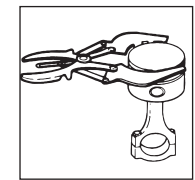
- For easy insertion of piston into cylinder bore and even compression over full ring length.
- Ratchet mechanism.
- Complete with key (length: 6 mm).



DM	d [mm]	L [mm]	ΔΔ [g]
750.TB	55...110	80	260
750.KB	100...160	80	300

Piston ring pliers

- Even expansion over full ring length.
- Quick and easy to use.



DM	d [mm]	Width l [mm]	L [mm]	ΔΔ [g]
751.T	45...100	210	210210	280
751.K	90...150	255	255	330

LAMBDA PROBE

Lambda probe wrench and sockets

- For use on lambda probes.
- Featuring a slot for the connecting lead.
- Square drive bit 1/2".
- N.B. Lambda probes must be torqued to manufacturers specified values.



DM	d [mm]	ΔΔ [g]
D.145A	33 x 85	200
D.146A	33 x 85	230



MAINTENANCE

PSA exhaust collar pliers



- Bi-material grip, for opening exhaust collars.



	Open Position maxi [mm]	ΔΔ [g]
DE.C	60	442

Ratchet tube cutter



- Precise cutting line with the ratchet system.
- Load reduction thanks to the screw blade movement.
- No risk of sparks or damage to the lower part of the vehicle.
- Ø 31 to 65 mm - Tube thickness up to 3 mm.



	ΔΔ [kg]
DE.8	1,084

OTHER

Set of threading repair inserts



- M5, M6, M8, M10, M12 stainless steel inserts.
- Special taps to repair M5, M6, M8, M10, M12 threads.
- Special drill bits to repair M5, M6, M8, M10, M12 threads.
- Mixed tools (mounting inserts and tap wrench) for M5, M6, M8, M10, M12 inserts.
- Magnetic "bit breaker" tools for M5, M6, M8, M10, M12 threads.



	H [mm]	Width l [mm]	L [mm]	ΔΔ [kg]
TRK5-12	40	310	330	1,2

Right angle hook



- Multi-function hook to catch gaskets in grooves, pull small springs.



	ΔΔ [g]
AR.90	23

Curved angle hook



- Multi-function hook to catch gaskets in grooves, pull small springs.



	ΔΔ [g]
AR.C	23

OTHER

Strait tip

- Multi-function hook to catch gaskets in grooves.



Icon	Model	Weight [g]
	AR.D	22

Set of 4 hooks

- Multi-function hook to catch gaskets in grooves, pull small springs.



Icon	Model	Weight [g]
	AR.CJ4	108

Open angle hook

- Multi-function hook to catch gaskets in grooves, pull small springs.



Icon	Model	Weight [g]
	AR.CR	23

Curved spatula

- Multi-function spatula allowing to recover gaskets from grooves, separate small parts.
- Rounded shape ensuring parts are neither marked or damaged.



Icon	Model	Weight [g]
	AR.PSPC	20



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OTHER

Set of 4 spatulas



- Multi-function spatulas allowing to recover gaskets from grooves, separate small parts.
- Rounded shape ensuring parts are neither marked or damaged.

	$\Delta\Delta$ [g]
AR.SPJ4	105

Straight spatula



- Multi-function spatula allowing to recover gaskets from grooves, separate small parts.
- Rounded shape ensuring parts are neither marked or damaged.

	$\Delta\Delta$ [g]
AR.PSPD	19

Straight and long spatula



	$\Delta\Delta$ [g]
AR.GSPD	24

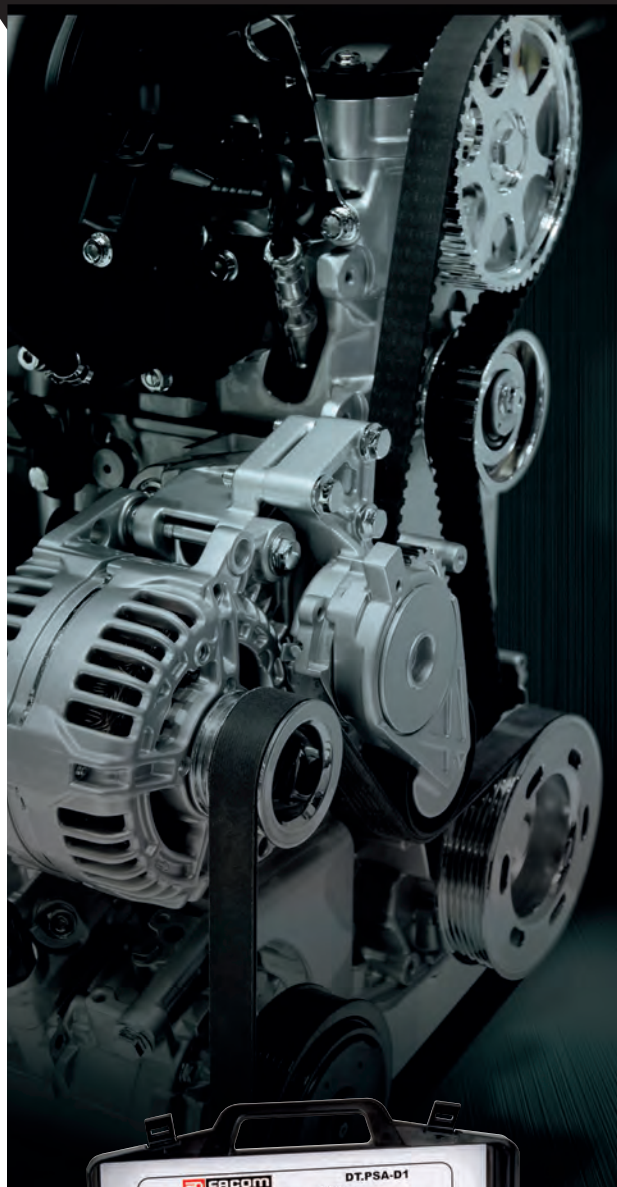
Long curved spatula



- Multi-function spatula allowing to recover gaskets from grooves, separate small parts.
- Rounded shape ensuring parts are neither marked or damaged.

	$\Delta\Delta$ [g]
AR.GSPC	24

**DT SERIES : TIMING ADJUSTMENT**



# Accuracy and speed

**For safe accurate timing adjustment.**

The ignition timing of modern multi-valve petrol and high pressure diesel engines requires accurate adjustment.

Inaccurate adjustment can lead to :

- Over-consumption, engine breakage, malfunction, pollution, etc.

On many modern twin-cam engines, at least one of the two pulleys will turn when the timing belt is removed :

- The method of aligning timing marks is no longer appropriate.

Poor timing adjustment will at the very least cause engine malfunction, requiring the work to be restarted :

- The use of timing tools really does save time.

**For all of these reasons, it is essential to immobilise the engine when readjusting timing or changing the timing belt.**

**The right equipment ensures profitability**

With a separate kit for each make or range of engines, you only buy the tools that you need.

The kits are defined according to the European vehicle fleet and timing belt sales statistics.

**A clear and precise method.**

Each kit comes with precise instructions that are sufficient for changing a timing belt or chain, or for adjusting the timing.

Regular updates : See [www.facom.com](http://www.facom.com) for our latest products and applications.



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## TIMING KITS: ALLOCATION TABLE

**RENAULT**

- **Timing Belt Diesel engine:** 1.5dCi - 1.9dCi - 1.9dTi - 2.2dCi - 2.5dCi.  
Models: Clio, Espace, Kangoo, Laguna, Logan (LSO), Megane Scenic, Modus, Scenic, Scenic RX4, Traffic.
- **Timing Belt Petrol engine:** 1.2 16V - 1.4 - 1.4 16V - 1.6 - 1.6 16V - 1.8 - 2.0 - 2.0 16V.  
Models: Clio, Espace, Grand Scenic, Kangoo, Laguna, Logan, Megane, Megane Scenic, Modus, Twingo, Wind.

**NISSAN**

- **Timing Belt Diesel engine:** 1.5dCi - 1.9dCi - 2.5dCi.  
Models: Almera, Cube, Interstar, Juke, Kubistar, Micra, Note, NV200, Primastar, Primera, Qashqai, Tiida.

**MAZDA**

- **Timing Belt Diesel engine:** 1.4TDCi - 1.6D.  
Models: 2, 3, 5.

**OPEL**

- **Timing Belt Diesel engine:** 1.9CDTi - 2.2DTi - 2.5CDTi.  
Models: Astra H, Movano-A, Signum, Vectra C, Vivaro, Zafira B.
- **Timing Belt Petrol engine:** 1.6 - 1.6 OPC/VXR - 1.8 - 2.0 TURBO.  
Models: Agila, Ascona, Astra, Astra Max, Belmont, Cavalier, Combo, Corsa, Insignia, Kadett-E, Meriva, Nova, Signum, Tigra, Vectra, Zafira.

**AUDI - VOLKSWAGEN - SEAT - SKODA**

- **Timing Belt Diesel engine:** "TDI PD": 1.2 - 1.4 - 1.9 - 2.0 • "TDI CR": 1.6 - 2.0 • "SDI": 1.7 - 1.9 - 2.0 • 1.7D - 1.9D - 1.9TDI - 1.9D TURBO - 2.5 TDI (6-cylinder engine with rotating pump).  
Models: AUDI: A2, A3, A4, A5, A6, A8, Allroad, Q5. SEAT: Altea, Arosa, Cordoba, Exeo, Ibiza, Leon, Toledo. SKODA: Fabia, Felicia/Van/Pick Up, Octavia, Praktik, Roomster, Superb, Yeti. VW: Beetle, Bora, Caddy, Eos, Fox, Golf, Golf Plus, Jetta, Lupo, Passat, Polo, Scirocco, Sharan, Tiguan, Touran, Transporter.
- **Timing Belt Petrol engine:** 1.4 16V - 1.4 FSI - 1.6 - 1.6 16V - 1.6 FSI - 1.8 - 1.8 TURBO - 2.0 - 2.0FSI - 2.0FSI.  
Models: AUDI: A2, A3, A3 Cabrio, A4, A6, S3, TT. SEAT: Alhambra, Altea, Cordoba, Ibiza, Inca, Leon, Toledo, Sharan. SKODA: Fabia, Octavia. VW: Beetle, Bora, Caddy, Corrado, Golf, Jetta, Lupo, Passat, Polo, Scirocco, Sharan, Touran, Vento.

**FORD**

- **Timing Belt Diesel engine:** 1.4TDCi - 1.6TDCi - 1.8D - 1.8D TURBO - 1.8TDCi - 1.9TDI PD - 2.0TDCi - 2.2TDCi - 2.5D - 2.5D TURBO.  
Models: C-Max, Courier, Escort, Fiesta, Fiesta Econetic, Focus, Focus C-MAX, Fusion, Galaxy, Mondeo, Orion, Tourneo Connect, Transit, Transit Connect.
- **Timing Belt Petrol engine:** 1.25 - 1.4 - 1.6 - 1.6 Ti - VCT - 1.6SCTi EcoBoost - 1.8 - 2.0.  
Models: C-Max, Cougar, Fiesta, Focus, Focus C-MAX, Fusion, Grand C-max, Mondeo, Puma, Tourneo Connect, Transit Connect.

**PEUGEOT - CITROEN**

- **Timing Belt Diesel engine:** 1.4HDi - 1.5D - 1.6HDi - 1.9D - 2.0HDi - 2.0DHDi 16V - 2.2HDi - 2.5D TURBO.  
Models: AX, Berlingo, Bipper, C1, C2, C3, C4, C5, Dispatch, Nemo, Jumper, Jumpy, Relay, Saxo, Xsara / 106, 107, 205, 206, 207, 306, 307, 308, 309, 405, 406, 407, 605, 607, 806, 807, 1007, 3008, 5008, Boxer, Expert, Partner.
- **Timing Belt Petrol engine:** 1.0 - 1.1 - 1.4 - 1.6 - 1.6 VTS - 1.8 16V - 2.0 - 2.0 16V - 2.2.  
Models: AX, Berlingo, BX, C2, C3, C3 Pluriel, C4, C5, C8, C15, Dispatch, Evasion, Jumper, Jumpy, Relay, Saxo, Synergie, Xantia, XM, Xsara, ZX / 106, 205, 206, 306, 307, 309, 405, 406, 407, 605, 607, 806, 807, 1007, Boxer, Expert, Partner/Ranch.

**ALFA ROMEO - FIAT - LANCIA**

- **Timing Belt Diesel engine:** 1.6JTDM 16V - 1.6 MULTIJET - 1.9 MULTIJET - 1.9JTD - 1.9JTD/MULTIJET - 2.0JTDM 16V - 2.0 MULTIJET - 2.4JTD.  
Models: ALFA: 147, 156, 159, 166, Brera, Crosswagon, Giulietta, GT, Mito, Spider. FIAT: Brava, Bravo, Cromia, Doblo, Doblo Cargo, Grande Punto, Idea, Linea, Marea, Marengo, Multipla, Palio Weekend, Punto, Punto Evo, Sedici, Stilo, Strada Pick-up. LANCIA: Delta, Kappa, Lybra, Musa, Thesis.



TIMING KITS

FIAT timing kit - Diesel engines no.1

- Makes: FIAT, ALFA ROMEO, LANCIA, FORD, OPEL, SUZUKI.
- Timing chain diesel engine: 1.3 MULTIJET - 1.3 CDTi - 1.3 TDCi - 1.3 JTD/MULTIJET.
- Models:
  - ALFA: Mito.
  - FIAT: 500, Doblo, Doblo Cargo, Fiorino, Grande Punto, Idea, Linea, Panda, Punto, Punto Evo, Qubo, Strada Pick-up.
  - LANCIA: Musa, Ypsilon.
  - OPEL: Agila, Astra H, Combo C, Corsa C, Corsa D, Meriva, Tigra B.
  - SUZUKI: Ignis, Swift, Wagon/Wagon R+.
  - FORD: Ka.
- Supplied in plastic case.

SE	H [mm]	L [mm]	P [mm]	ΔΔ [kg]
DT.FIAT-D1	77	325	265	1.4



FIAT timing kit - Diesel engines no.2

- Makes: FIAT, LANCIA, ALFA ROMEO, OPEL.
- Timing belt diesel engine: 1.6 JTDM 16V - 1.6 MULTIJET - 1.9 MULTIJET - 1.9 CDTi (engine Z19) - 1.9 JTD - 1.9 JTD/MULTIJET - 2 JTDM 16V - 2 MULTIJET - 2.4 JTD.
- Models:
  - ALFA: 147, 156, 159, 166, Brera, Crosswagon, Giulietta, GT, Mito, Spider.
  - LANCIA: Delta, Kappa, Lybra, Musa, Thesis.
  - OPEL: Astra H, Signum, Vectra C, Zafira B.
  - FIAT: Brava, Bravo, Cromia, Doblo, Doblo Cargo, Grande Punto, Idea, Linea, Mareva, Marengo, Multipla, Palio Weekend, Punto, Punto Evo, Seidici, Stilo, Strada Pick-up.
- Supplied in plastic case.

SE	H [mm]	L [mm]	P [mm]	ΔΔ [g]
DT.FIAT-D2	45	250	205	935



FIAT timing kit - Petrol engines

- Makes: FIAT, ALFA ROMEO.
- Petrol engine: 0.9 TWINAIR - 1.4 MULTIAIR.
- Models:
  - ALFA: Giulietta, Mito.
  - FIAT: 500, Punto Evo.
- Supplied in plastic case.

SE	H [mm]	L [mm]	P [mm]	ΔΔ [kg]
DT.FIAT-P1	77	325	265	1.6



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TIMING KITS

■ FORD timing kit - Diesel engines



- Makes: FORD, MAZDA.
- Timing belt diesel engine: 1.4 TDCi - 1.6D -1.6 TDCi - 1.8 D - 1.8 D TURBO - 1.8 TDCi - 1.9 TDI PD - 2.0 TDCi - 2.2 TDCi -2.5 D - 2.5 Tci - 2.5 D TURBO.
- Models:
  - FORD: C-Max, Courier, Escort, Fiesta, Fiesta Econetic, Focus, Focus C-MAX, Fusion, Galaxy, Mondeo, Orion, Tourneo Connect, Transit, Transit Connect.
  - MAZDA: 2, 3, 5.
- Supplied in plastic case.

	H [mm]	L [mm]	P [mm]	$\Delta\Delta$ [kg]
<b>DT.FORD-D1</b>	77	325	265	2.2

■ FORD timing kit - Petrol engines



- Make: FORD.
- Timing belt petrol engine: 1.25 - 1.4 - 1.6 - 1.6 Ti-VCT - 1.6 SCTi EcoBoost - 1.8 - 2.0.
- Models:
  - FORD: C-Max, Cougar, Fiesta , Focus, Focus C-MAX, Fusion, Grand C-max, Mondeo, Puma, Tourneo Connect, Transit Connect.
- Supplied in plastic case.

	H [mm]	L [mm]	P [mm]	$\Delta\Delta$ [kg]
<b>DT.FORD-P1</b>	77	325	265	1.1

■ OPEL timing kit - Diesel engines



- Make: OPEL.
- Diesel engine: 1.5 D - 2.0 DTi (chain) - 2 D TURBO - 2.2DTi (chain) - 2.2D - 3.0 D TURBO - 3.1 D TURBO.
- Models:
  - OPEL: Astra G, Cavalier, Frontera B, Midi, Monterey, Omega B, Signum, Sintra, Vectra B, Vectra C, Zafira A.
- Dimensions (L. x W. x H.): 325 x 265 x 77 mm.
- Supplied in plastic case.

	H [mm]	L [mm]	P [mm]	$\Delta\Delta$ [kg]
<b>DT.OPEL-D1</b>	77	325	265	2.9



■ OPEL timing kit - Petrol engines

- Make: OPEL.
- Petrol engine: 1.0/1.2/1.4 ("X" & "Z" chain engines) - 1.6 - 1.6 OPC/VXR - 1.8 - 2.0 TURBO.
- Models:
  - OPEL: Agila, Ascona, Astra, AstraMax, Belmont, Cavalier, Combo, Corsa, Insignia, Kadett-E, Meriva, Nova, Signum, Tigra, Vectra, Zafira.
- Supplied in plastic case.

	H [mm]	L [mm]	P [mm]	ΔΔ [kg]
<b>DT.OPEL-P1</b>	77	325	265	1.5



■ PSA timing kit - Diesel engines

- Makes: CITROEN, PEUGEOT.
- Timing belt diesel engine: 1.4 HDi - 1.5 D - 1.6 HDi - 1.9 D - 2.0 HDi - 2.0 DHDi 16V - 2.2 HDi - 2.5 D TURBO.
- Models:
  - CITROEN: AX, Berlingo, Bipper, C1, C2, C3, C4, C5, Dispatch, Nemo, Jumper, Jumpy, Relay, Saxo, Xsara.
  - PEUGEOT: 106, 107, 205, 206, 207, 306, 307, 308, 309, 405, 406, 407, 605, 607, 806, 807, 1007, 3008, 5008, Boxer, Expert, Partner.
- Supplied in plastic case.

	H [mm]	Width I [mm]	L [mm]	ΔΔ [kg]
<b>DT.PSA-D1</b>	95	335	400	2.4



■ PSA timing kit - Petrol engines

- Makes: CITROEN, PEUGEOT.
- Timing belt petrol engine: 1.0 - 1.1 - 1.4 - 1.6 - 1.6 VTS - 1.8 16V - 2.0 - 2.0 16V - 2.2.
- Models:
  - CITROEN: AX, Berlingo, BX, C2, C3, C3 Pluriel, C4, C5, C8, C15, Dispatch, Evasion, Jumper, Jumpy, Relay, Saxo, Synergie, Xantia, XM, Xsara, ZX.
  - PEUGEOT: 106, 205, 206, 306, 307, 309, 405, 406, 407, 605, 607, 806, 807, 1007, Boxer, Expert, Partner/Ranch.
- Dimensions (L. x W. x H.): 325 x 265 x 77 mm.
- Supplied in plastic case.

	H [mm]	Width I [mm]	L [mm]	ΔΔ [kg]
<b>DT.PSA-P1</b>	77	265	325	1.9



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TIMING KITS

- Timing kit for PSA & MINI 1.4L and 1.6L gasoline chain engines.



- For the 1.4L engines N12, B14(AB), EPC(C), 8FP, 8FR, present in PEUGEOT, CITROEN, MINI gasoline vehicles.
- For the 1.6L engines N12 B16(A), N14 B16A, N14 B16CD (T0), EP6(5FW), EP6C, (5FH) (5FS), EP6CDT(5FV), EP6DT, 5FD, 5FE, 5FF, 5FK, 5FM present in PEUGEOT, CITROEN, MINI vehicles.
- Compliant with manufacturer tools.
- Supplied with the list of allocations and a cross-reference table between FACOM references and manufacturer references.
- Supplied in plastic case.

FACOM	H [mm]	L [mm]	P [mm]	$\Delta\Delta$ [kg]
<b>DT.PCM-P1</b>	80	325	260	2.4

- Timing kit for PSA, MINI and BMW 1.6 L and 2.0 L gasoline chain engines.



- For the 1.6L and 2.0L engines DV6TED4, DV6ATED4, DV6C, DV6, DV6UC, DV6DU, 9HZ, 9HX, 9HY, 9HP, 9HR, 9HJ, 9HL, 9HU, 9HW, 9HH, W16 D16, and N47 present in PEUGEOT, CITROEN, MINI, BMW Diesel vehicles.
- Compliant with manufacturer tools.
- Supplied with the list of allocations and a cross-reference table between FACOM references and manufacturer references.
- Supplied in plastic case.

FACOM	H [mm]	L [mm]	P [mm]	$\Delta\Delta$ [kg]
<b>DT.PCMB-D1</b>	75	315	257	1.9

- Blocking kit for PSA 1.0L and 1.2L gasoline engines



- For vehicles since 2012.
- CITROEN vehicles: C1 II, C3 III, C4 II, C4 CACTUS, DS4.
- PEUGEOT vehicles: 108, 208, 308.
- Cross-reference between manufacturer and FACOM references.
- Supplied in plastic case with foam module.
- Instructions.

FACOM	Width l [mm]	L [mm]	P [mm]	$\Delta\Delta$ [kg]
<b>DT.PSA-P10</b>	245	280	80	1.3

RENAULT timing kit - Diesel engines

- Makes: RENAULT, NISSAN, OPEL.
- Timing belt diesel engine: 1.5 dCi - 1.9 dCi - 1.9 dTi - 1.9CDTi (F9Q engines) - 2.2 dCi - 2.2 DTI - 2.5 dCi - 2.5 CDTi.
- Models:
  - NISSAN: Almera, Cube, Interstar, Juke, Kubistar, Micra, Note, NV200, Primastar, Primera, Qashqai, Tiida.
  - OPEL: Movano-A, Vivaro.
  - RENAULT: Clio, Espace, Kangoo, Laguna, Logan (LSO), Megane Scenic, Modus, Scenic, Scenic RX4, Traffic.
- Supplied in plastic case.

	H [mm]	L [mm]	P [mm]	ΔΔ [kg]
<b>DT.REN-D1</b>	75	325	260	2.3



RENAULT timing kit - Petrol engines

- Make: RENAULT.
- Timing belt petrol engine: 1.2 16V - 1.4 - 1.4 16V - 1.6 - 1.6 16V - 1.8 - 2.0 - 2.0 IDE - 2.0 16V.
- Models:
  - RENAULT: Clio, Espace, Gran Scenic, Kangoo, Laguna, Logan, Megane, Megane Scenic, Modus, Twingo, Wind.
- Supplied in plastic case.

	H [mm]	L [mm]	P [mm]	ΔΔ [kg]
<b>DT.REN-P1</b>	75	325	260	2.2



Timing set for RENAULT 1.6 dci - 2.0 dci engines

- For 1.6 dci R9M engines mounted in RENAULT vehicles.
- For 2.0 dci M9R engines mounted in RENAULT, NISSAN, OPEL vehicles.
- Compliant with manufacturer tools.
- Supplied with a list of allocations and a cross-reference table between FACOM references and manufacturer references.
- Supplied in plastic case.

	H [mm]	L [mm]	P [mm]	ΔΔ [kg]
<b>DT.REN-D2</b>	90	400	314	1.9



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VAG timing kit - Diesel engines no.1

- Makes: AUDI, SEAT, VW, SKODA.
- Timing belt diesel engine: "TDI PD": 1.2 - 1.4 - 1.9 - 2.0 - "TDI CR": 1.6 - 2.0 - "SDI": 2.0.
- Models:
  - AUDI: A2, A3, A4, A5, A6, Q5.
  - SEAT: Altea, Arosa, Cordoba, Exeo, Ibiza, Leon, Toledo.
  - SKODA: Fabia, Octavia, Praktik, Roomster, Superb, Yeti.
  - VW: Beetle, Bora, Caddy, Eos, Fox, Golf, Golf Plus, Jetta, Lupo, Passat, Polo, Scirocco, Sharan, Tiguan, Touran, Transporter.
- Supplied in plastic case.

	H [mm]	L [mm]	P [mm]	ΔΔ [kg]
<b>DT.VAG-D1</b>	74	325	262	1.9



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TIMING KITS

■ VAG timing kit - Diesel engines no.2



- Additional tooling kit for the timing case DT.VAG-A.
- Makes: Audi, VW, Seat, Skoda.
- Timing belt diesel engine: "TDI PD": 1.9 - 2.0 with oval crankshaft pulley.
  - Models:
    - AUDI: A3, A4, A6.
    - SEAT: Altea, Cordoba, Ibiza, Leon, Toledo.
    - SKODA: Fabia, Octavia, Roomster, Superb.
    - VW: Beetle, Bora, Caddy, Eos, Golf, Jetta, Passat, Polo, Scirocco, Sharan, Touran, Transporter.
- Supplied in blister.



	H [mm]	L [mm]	P [mm]	ΔΔ [g]
<b>DT.VAG-D2</b>	40	145	80	310

■ VAG timing kit - Petrol engines no.1



- Makes: AUDI, SEAT, VW, SKODA.
- Chain petrol engine: 1.2 (6V & 12V 3-cylinder engine) - 1.4 FSI - 1.4 TSI - 1.6 FSI.
- Models:
  - AUDI: A3.
  - SEAT: Cordoba, Ibiza.
  - SKODA: Fabia, Praktik, Roomster.
  - VW: Eos, Fox, Golf, Jetta, Passat, Polo, Scirocco, Sharan, Tiguan, Touran.
- Supplied in plastic case.



	H [mm]	L [mm]	P [mm]	ΔΔ [kg]
<b>DT.VAG-P1</b>	77	325	265	1.9

■ VAG timing kit - Petrol engines no.2



- Makes: AUDI, SEAT, VW, SKODA.
- Timing belt petrol engine: 1.4 16V - 1.4 FSI - 1.6 - 1.6 16V - 1.6 FSI - 1.8 - 1.8 TURBO - 2.0 - 2.0TFSI - 2.0 FSI.
- Timing belt diesel engine: 1.7 D - 1.7 SDI - 1.9 D - 1.9 TDI - 1.9 SDI - 1.9 D TURBO - 2.5 TDI (rotating pump 6-cylinder engine).
- Models:
  - AUDI: A2, A3, A4, A6, A8, Allroad, S3, TT.
  - SEAT: Alhambra, Altea, Arosa, Cordoba, Ibiza, Inca, Leon, Toledo.
  - SKODA: Fabia, Felicia/Van/Pick Up, Octavia, Superb n.
  - VW: Beetle, Bora, Caddy, Corrado, Fox, Golf, Jetta, Lupo, Passat, Polo, Scirocco, Sharan, Touran, Transporter Vento.
- Supplied in plastic case.



	H [mm]	L [mm]	P [mm]	ΔΔ [kg]
<b>DT.VAG-PTD1</b>	77	325	265	2.2

■ Blocking kit for VAG 1.0L gasoline engines



- For vehicles since 2011.
- SEAT vehicles: Mil.
- SKODA vehicles: CitiGO And Fabia III.
- Volkswagen vehicles: UP! AND POLO.
- Cross-reference between manufacturer and FACOM references.
- Supplied in plastic case with foam module.
- Instructions.



	Width l [mm]	L [mm]	P [mm]	ΔΔ [kg]
<b>DT.VAG-P10</b>	245	280	80	1.4

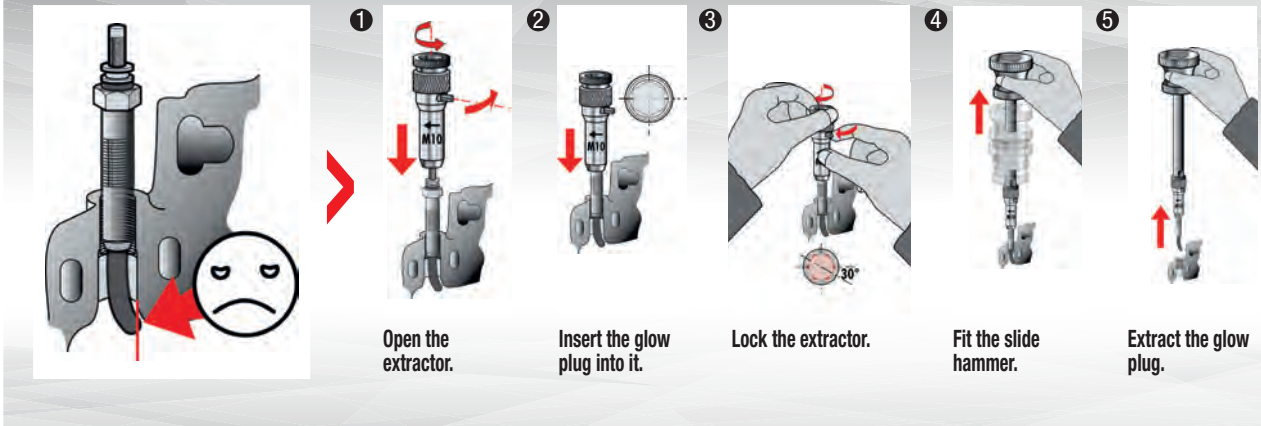
**Flywheel stay**

- To lock the flywheel crown gear.



	H [mm]	Width l [mm]	L [mm]	ΔΔ [g]
<b>D.86</b>	25	46	30	21

**DCR.HR-100: DEFORMED GLOW PLUGS EXTRACTOR**



**Composite chisels to separate casings**

- To separate chain timing casings, rocker covers, crank cases, for engine and gearbox.
- No damage to the parting surfaces.
- Comprising:
  - Short straight chisel.
  - Long straight chisel.
  - Short round chisel.
  - Long round chisel.



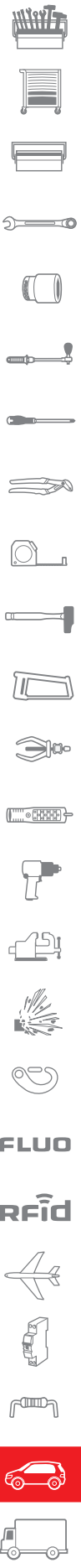
	ΔΔ [g]
<b>DM.PS4</b>	164

**Set of pullers for deformed glow plugs**

- For diesel engines.
- To extract deformed glow plugs from the combustion chambers.
- 3 x Pliers to work with 8, 9 and 10 mm glow plugs.
- Inertia puller:
  - Mass: 1.37 kg.
  - Length: 19 cm.



	ΔΔ [kg]
<b>DCR.HR-100</b>	2.4



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BELT TENSION TESTING

DT.HERTZ - BELT TENSION TESTER

# The right tension guaranteed



### Avoid breakage

The correct belt tension is essential:

- If insufficiently tight,
  - The auxiliary belts will slip and become worn.
  - Timing belts may jump (engine breakdown)
- If over-tightened,
  - The forces will damage the rollers and pumps.
  - Risk of premature belt failure.

### Easy, accurate testing

- Simply place the ultra-compact sensor against the belt and induce a vibration in the belt (like a guitar string).
- Compare the displayed reading with the recommended value in the guide.

### Regular updates.

- The DT.DOC guide is regularly updated.
- See [www.facom.com](http://www.facom.com) for the reference number of the latest version.

Multi-make electronic belt tension-meter



- Quickly and easily checks the tension of timing and auxiliary belts.
- Can be used for all belts on the market.
- Compact, manoeuvrable tool, can be operated one-handed.
- Cable length: 1,200 mm.
- Supplied in a plastic case; with reference value guide.

	H [mm]	Width l [mm]	L [mm]	ΔΔ [g]
<b>DT.HERTZ</b>	28	50	135	150

Multi-make electronic belt tension-meter



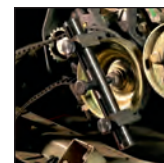
- For checking timing belt tension.
- Comes in a plastic case with 6 interchangeable ends, a belt thickness measuring gauge and a calibration checking gauge.

	H [mm]	Width l [mm]	L [mm]	ΔΔ [g]
<b>DM.16</b>	50	120	170	420

TIMING PULLEY AND BELT FITTING AND REMOVAL

Multi-diameter damper pulley puller

- Removes crankshaft multi-groove pulleys without damage.
- Lockable, adjustable legs to fit the various pulley sizes.
- Compact design for working on engine in situ.
- Pulley capacity: 45 to 175 mm.
- No groove: 3.56 mm.



	$\Delta\Delta$ [kg]
DM.50	1,120

Multi-diameter timing and injection pump pulley puller

- Removes pulleys without damage.
- Adjustable legs adapt to differing pulley diameters.
- Compact design for working on engine in situ.



	Width l [mm]	L [mm]	$\Delta\Delta$ [g]
DM.17A	110	90	925

DT.TW - BELT TENSIONER WRENCHES



Handy

- One "arm" = 5 dimensions.
- Suited to most vehicles on the market.
- Angled wrenches for optimised access
- Mechanical wrench locking on the arm.



Hand and fast hanging system

5-piece set of belt-tensioner nut wrenches

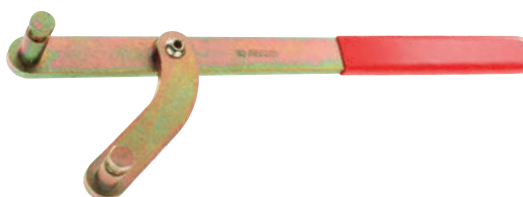
- To turn tensioner belts, timing pulley nuts and auxiliary elements even in confined positions.
- Wrench easy fastening / unfastening system integral to the handle.
- Comes with 445 mm handle and 5 ring wrenches 13 - 15 - 16 - 17 - 19 mm.



	$\Delta\Delta$ [kg]
DT.TW	1.4

Universal pulley wrench

- For blocking, cranking and holding camshaft and injection pump pulleys.



	L [mm]	$\Delta\Delta$ [g]
DT.CLE	410	950



Alternator pulley kit



- For fitting and removing the alternator pulley.
- 13 tools.
- Comprising:
  - 2 TORX bits T40 - T50.
  - 2 XZN bits M8 - M10.
  - 2 6-point bits 8 - 10mm.

- 1 TORX COMBI socket.
- 1 XZN COMBI socket.
- 2 special fitting / removal sockets.
- 1 double 6-point socket.
- 1 square / 6-point adapter.
- Supplied in a plastic case,



	H [mm]	L [mm]	P [mm]	ΔΔ [kg]
DM.APR	65	330	140	1.6

Flexible belt kit



- For fitting / removing flexible service belts (A/C, power steering, alternator) without tensioner.
- Comprises two special tools for fitting and removing the belt.
- Special profile allowing use also on different diameter pulleys.
- Compact dimensions for access into the engine compartment.
- No regulations required for use on different pulleys.
- Supplied in a plastic case, dim. (L. x W. x H.): 210 x 120 x 55 mm.

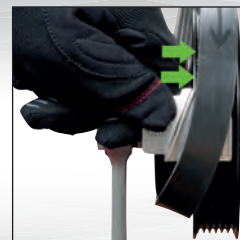


	ΔΔ [g]
DT.SFB	400

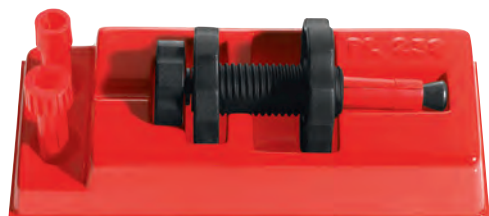
DT.SFB - FLEXIBLE BELT FITTING/REMOVING TOOL

Handy

- Tool suited to simple and double diameter pulleys.
- No adjustment required for fitting or removing.
- Suited to all types of elastic belts: A/C, alternators, belts.



Universal clutch aligner no.2



- The tool centres and holds the clutch disc and mechanism.
- Supplied complete with 3 expanding clamps:
  - Clamp for diameter 18 to 21 mm.
  - Clamp for diameter 22 to 25 mm.
  - Clamp for diameter 14.5 to 18 mm.



	ΔΔ [g]
DM.30	258

Inside and outside circlip® pliers



- Interchangeable tips for:
  - Diameter 8 to 63 mm for inside Circlips®.
  - Diameter 3 to 63 mm for outside Circlips®.
- Contains:
  - 469.PA: Inside circlip® pliers.
  - 467.PA: Outside circlip® pliers.
  - 82H.2.5: Key.
  - Set of 18 removable tips.
  - Plastic box.



	ΔΔ [kg]
470	1,500



GEARBOX AND CLUTCH

Set of spare screws

- For Ref.: 467 - 469 - 470.

	$\Delta\Delta$ [g]
467.01AJ2	4



Transmission collar clamp

- To crimp collars on transmission bellows.
- For OETIKER collar.



	H [mm]	Width l [mm]	L [mm]	$\Delta\Delta$ [g]
DM.14	20	50	280	475

BRAKES - HG

INSPECTION

Disc brake vernier caliper

- Vernier caliper for checking the thickness of brake discs.
- Accurate, error-free reading.
- Measurements can be taken with wheel in place (if no protective bodywork).
- Can quickly demonstrate to customers the need for changing brakes.
- Capacity 0 to 50 mm, outer thickness measurement of the disc brakes of cars and LCV's.
- Nose length: 50 mm.
- 0.1 mm reading increments.
- Mechanical memory device.
- Supplied in a reinforced fabric case with serial number for traceability in ISO certified workshops.



	$\Delta\Delta$ [g]
DF.18-01	

Drum brake vernier caliper

- Capacity and reading to suit requirements of car, LCV and HGV applications.
- Capacity: 40 to 300 mm, inner thickness measurement of brake drums on cars and LCVs.
- Nose length: 100 mm.
- 0.20 mm reading increments internal drum measurements for cars and LCVs.
- 0.10 mm increments for readings between tips.
- Supplied in a reinforced fabric case with serial number for traceability in ISO certified workshops.



	$\Delta\Delta$ [g]
DF.19-01	



INSPECTION

**DF.16 - BRAKE FLUID TESTER**

**Quick brake fluid tester**



**A quick, cost-effective analysis. For the safety of your customers.**

- Water in the brake fluid can turn into vapour under severe or repeated braking, making the brake pedal ineffective.

**The boiling point of brake fluids must exceed a specified minimum value :**

<b>DOT 3</b>	140°C
<b>DOT 4</b>	155°C
<b>DOT 5.1</b>	180°C

**■ Brake fluid tester**



- For testing brake fluids (DOT3 - DOT4 - DOT5.1).
- Measures brake fluid boiling point.
- Automatic test lasting up to 1 min.
- LCD display.
- °C / °F switch.
- Accuracy: 3%.
- Power supply: 12 V (vehicle battery).
- Plastic case.

	H [mm]	Width l [mm]	L [mm]	ΔΔ [kg]
<b>DF.16</b>	80	285	350	1,17

## DIAGNOSTICS AND BLEEDING

## ■ Analog brake bleeder

- Tank 10L.
- Accessory storage.
- Connects to the vehicle's 12 V battery.
- "High volume" 1.5 litre /min pump (open circuit. allowing fast brake fluid renewal.
- Pressure adjusted by button.
- Automatic low level stop gauge.
- Regulated pressure adjustable from 0.5 to 4 bar with Glycerine pressure gauge.



**DF.81**  $\Delta\Delta$  [kg] 16,2



## ■ Digital brake bleeder

- Tank 10L.
- Connects to the vehicle's 12 V battery.
- "High volume" 1.5 litre /min pump (open circuit. allowing fast brake fluid renewal.
- A vehicle battery can be integrated to make it stand-alone.
- Digital controls for accurate pressure settings (pitch 0.1 bar).
- Automatic depressurization when stopping the bleeder.
- Low level indication with automatic stop.
- "BA" type warning indicating the battery is low.
- Lateral hose storage tab.
- Certificate of compliance issued at end of manufacturing (individual check).
- Storage tray covering the battery.
- Regulated pressure adjustable from 0 to 4 bar.



**DF.101**  $\Delta\Delta$  [kg] 17



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DIAGNOSTICS AND BLEEDING

Universal plug for bleeding brakes and clutches of LCV's and HGV's



- Can be used for bleeding the brakes and clutches of 90% vehicles (incl. Asian makes, except Honda).
- Can also be used for bleeding HGV clutches.
- Claw system overcomes the many different bayonet shapes and different types and diameters of screw heads used by the various vehicle manufacturers.
- Working diameter: 35 to 83 mm.
- Minimum clearance required above the jar: 80 mm.
- Maximum working pressure of the bleeder: 3 bar.
- Connection by Rectus series 21 male coupling.
- 90° swivel connection.



	H [mm]	Width l [mm]	L [mm]	ΔΔ [g]
<b>DF.20-12A</b>	85	195	115	475

Aluminium brake bleeder plug



- Special thread: 44 - 45 mm.
- 90° rotating coupling.
- Height including plunger: 46 mm.  
Height of the rotating part above the alu body: 16.3 mm
- Used with DF.81 and DF.101 drains to automatically level the brake fluid jar.



	ΔΔ [g]
<b>DF.20-07A</b>	70

Aluminium brake bleeder plug



	ΔΔ [g]
<b>DF.2007D</b>	60



DISC BRAKES

Brake disc module



- Including:
  - 31.14X15 - 31.16X17: Extra-slim open end wrenches for removing the locknuts on the caliper yokes.
  - 467BF.12 - 467BF.13 - 467BF.14: Hinged combination wrench ratchets for removing the caliper yokes.
  - NJ.260: Impact screwdriver + bit holder sockets.
  - NJ.236A: 3/8" bit holder impact socket.
  - 83SH.7: Spherical head male key 7 mm.
  - 249.G4: Sheathed drift punch, diam. 4 mm.
  - Bits: Torx® ENX.230 - ENX.240, Phillips® N° 2 and 6-point ENH.205 5 mm.
- Thermoformed module.



	H [mm]	Width l [mm]	L [mm]	Contents	ΔΔ [kg]
<b>MOD.DFD</b>	40	175	418	PL.685	1.7

Wire brush



- For cleaning calipers.



	H [mm]	Width l [mm]	L [mm]	ΔΔ [g]
<b>DF.3</b>	15	45	225	65

## DF.17 : PNEUMATIC DISC BRAKE PISTON PUSHING/TURNING TOOLS



### Essential for replacing brake pads.

#### Quick and easy to use

- The pneumatic cylinder holds the flange against the head of the brake piston and the long handle allows the piston to be wound-back in a clockwise or anti-clockwise direction with minimum effort.

#### Saves time

- The special Facom flange design covers the entire European vehicle fleet with only 9 flange types, minimising the number of flange changes and saving time.

### ■ Brake disc caliper tool

- Pneumatic cylinder for retracting and rotating the piston.
- Frequency of use: at each brake pad replacement.
- Compatible with flanges DF.6A.
- Can be used on clockwise and anti-clockwise pistons.
- Max pressure: 6.2 bars 1/4 NPT, Diameter 10 mm 3/8".
- Supplied in a plastic case with operating instructions and application guide.



ΔΔ [kg]

DF.17



### ■ Pneumatic piston pushing tool

- Pneumatic cylinder for retracting and rotating the piston.
- Can be used on clockwise and anti-clockwise pistons.
- Max pressure 6.2 bars 1/4 NPT. Ø 10 mm 3/8".
- Including:
  - 1 pneumatic tool DF.17.
  - 9 cups: DF.6-2A, DF.6-3A, DF.6-4A, DF.6-5, DF.6-8, DF.6-9, DF.6-14, DF.6-15, DF.6-16.

Examples of allocation:

- DF.6-2A: Ford Focus - Renault Megane III - Volkswagen Touran...
- DF.6-3A: Alfa Romeo Mito - Audi A3 - Citroën C3, C4, C5, Picasso, DS3, Ford Focus - Opel Astra - Peugeot 308, 3008, 508, 5008, 607, Renault Megane III - Volkswagen Golf V and 6, Polo...
- DF.6-4A: Citroën C5 - Ford C-Max, Focus - Renault Espace, Laguna, Megane III...
- DF.6-5: BMW Series 7 - Honda Accord - Mercedes Class B - Toyota Land Cruiser...
- DF.6-8: Honda CRZ - Hyundai IX20, I10 - Mini Cooper - Renault Clio III, Megane III, Twingo - Suzuki Swift - Toyota Prius...
- DF.6-9: Mini Cooper - Toyota Auris.
- DF.6-14: Iveco Daily.
- DF.6-15: Renault Scenic, Laguna.
- DF.6-16: Renault Master 3 phase I.
- Supplied in a plastic case with operating instructions and application guide.



ΔΔ [kg]

DF.17-100A



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DISC BRAKES

Multiple diameter piston pushing tool



- Fork with 2 Pins, spacing: min 15 mm- max 34 mm.
- Fork with 3 Pins, spacing: min 15 mm- max 30 mm.
- Thickness 21 mm pins included.
- Allows working on most brake pistons.
- Evolutive for future vehicles.



FACOM	$\Delta\Delta$ [kg]
DF.6-2P	0.136
DF.6-3P	0.131

Brake calliper piston pusher



- Pushes back double or quadruple pistons perfectly parallel simultaneously.
- Thrust power 215 kg with one hand (2,200 N).
- Handle can be used to push or release pressure.
- Rotating head: easy work to the left and right.
- AUDI / MERCEDES / BMW / RENAULT (e.g. Megane RS)/ CITROËN (e.g. DS3 Racing) specifications.



FACOM	$\Delta\Delta$ [kg]
DF.23	1.271

DRUM BRAKES

Hand-brake pliers

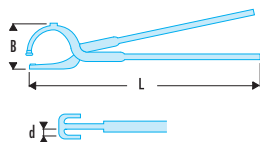


- For holding the handbrake cable spring.
- For easy hook-up of hand-brake cable with both hands.
- Set of 2 "spring stop" ends, dim.(L x W.): 70 x 10 mm.
- 1 magnetic bit holder ref AM.M1.



FACOM	Width l [mm]	L [mm]	$\Delta\Delta$ [g]
DF.2	10	70	40

196 Brake-spring pliers



- For removing shoe springs.
- Suitable for right-handed and left-handed working.



FACOM	B [mm]	d [mm]	L [mm]	$\Delta\Delta$ [kg]
196.TS	83	3	350	0.580
196.KS	100	5	485	1.2

Hand-brake pliers



- For easy hook-up of hand-brake cable.



FACOM	L [mm]	$\Delta\Delta$ [g]
D.79A	230	180

DRUM BRAKES

Steady-spring tool

- Fits steady-spring caps for compression against drum-brake shoes.
- Adapts to all makes.
- Length: 240 mm.
- Diameter: 34 mm.



Icon	L [mm]	ΔΔ [g]
<b>D.104B</b>	240	240

Drum brake servicing module

- Including:
  - D.104A: Steady-spring tool.
  - DF.2: Hand-brake cable screwdriver.
  - D.79A: Hand-brake pliers.
  - 43.8x10 - 43.11x13: Flare-nut wrenches.



Icon	H [mm]	Width l [mm]	L [mm]	Contents	ΔΔ [kg]
<b>MOD.DFT</b>	40	175	418	PL.684	0.855

BRAKE LINES

Flange press

- Specifically designed for flanging (diam. 4.75 mm) automotive brake lines.
- SAE or DIN fittings are formed easily with the help of its 3 T hydraulic jack.
- Compact size allows working in situ on vehicles.
- Diameter: 4.75 mm.



Icon	H [mm]	Width l [mm]	L [mm]	ΔΔ [kg]
<b>DF.475A</b>	75	200	212	1.1

Flange press set for S.A.E., DIN, S.A.E./DIN fittings

- Capacity: for copper and steel pipework diameter 4.75 to 12 mm; 3/16" to 1/2".
- Wall thickness: 0.7 to 1 mm.
- Press can be secured in a vice for increased stability.
- Fast and effortless forming.
- Kit includes 11 punches and 10 dies. Instructions explain selection according to flange type.
- Steel case.



Icon	H [mm]	Width l [mm]	L [mm]	ΔΔ [kg]
<b>347</b>	82	224	396	7.9



FLUO

RFid



## DLS.500HP : SUSPENSION

## Spring compressors

### Safety and efficiency

DLS.500HP offers the highest productivity.

- Easy and fast changing of struts to adapt to the vehicle concerned.
- Effortless pneumatic compression.

While guaranteeing optimum safety.

- By full application of the European Directive on Machinery 2006 42/CE.

### Springs = Danger

Compression of springs, increasingly strong and complex-shaped remains a frequent source of occupational accidents in workshops.

### 4 safety benefits

- Strut strength tested at 1.5 times the max pressure of the machine.
- Protection barrier closing mandatory, checked by an air intake cut-off valve preventing use in open position.
- Compression speed regulated at less than 10 cm /second.
- Check valves preventing clamps from opening in case of accidental air supply cut.



**DLS.500HP =  
MAXIMUM  
SAFETY**





SPRING COMPRESSORS

■ Pneumatic spring compressor

- Pneumatic spring compressor for removing and fitting shock absorbers on Mac Pherson struts.
- Pressure: 1200 to 2200 kg according to air pressure (7 to 10 bars).
- Compression travel: 440 mm.
- Triple safety device:
  - Protection barrier with automatic air stop device.
  - Regulated compression speed.
  - Protection valve preventing jaw opening in case of accidental air cut off.
- Supplied with 2 flanges (springs 78 to 220 mm).

	H [mm]	L [mm]	P [mm]	ΔΔ [kg]
<b>DLS.500HP</b>	1530	590	590	66,0



■ High safety pneumatic spring compressor

- Pneumatic spring compressors for removing and fitting shock absorbers on Mac Pherson struts.
- Pressure: 1200 --> 2200 kg according to air pressure (7 to 10 bars).
- Compression travel 440 mm.
- 6 safety devices:
  - Reinforced frame.
  - Air cut off when the cage is opened.
  - Valve preventing the arms from raising in case of accidental air supply cut-off. No sudden spring decompression.
  - Cage locked when the arms start lowering.
  - Highly enveloping cage (upper, centre and lower protection).
  - Long pedal to allow the operator to stand far.
- Supplied with 2 flanges (springs 78 to 182 mm).
- Other cups also available.
- EC compliance certified by an independent laboratory.
- Meets the CE directive on machinery and the French labor code. Directive 2006/42/CE of the European Parliament and Council of 17 May 2006 on machinery.

	H [mm]	L [mm]	P [mm]	ΔΔ [kg]
<b>DLS.500HPS</b>	1535	648	731	89,0



■ Special forks for Asian vehicles

	ΔΔ [kg]
<b>DLS.500-04</b>	0,970



SPRING COMPRESSORS

Special upper fork for Mercedes prior to 2010



Part Number	Weight [kg]
DLS.500-05	4,510

Lower fork for Renault - Nissan



• For Renault Koleos / Nissan Qashquai, reversed pitch springs.

Part Number	Weight [kg]
DLS.500-07HP	4,400

Lower fork 105-182 mm



Part Number	Weight [kg]
DLS.500-08HP	4,300

Lower fork 125-205 mm



Part Number	Weight [kg]
DLS.500-02HP	4,500

Vice for lower grip on Mc Pherson strut



• For long and regular springs.

Part Number	Weight [kg]
DLS.500-06HP	3,966

## U.89 SPRING COMPRESSOR - AN UPGRADEABLE INVESTMENT



### The most universal system

Whether used on a workbench or workstation, this tool evolves according to your needs through its range of accessories available.

- Since it was set up in 1995, our database lists all vehicles U.89 adapts to.
- Each unit is supplied with a list of allocations and updates are available on [www.facom.com](http://www.facom.com).



#### Mini mechanical set

- Kit includes
  - U.89M: Mechanical body.
  - U.89J1: Set of forks.
  - U.89J2: Set of forks.
- Supplied with operating instructions and vehicle application guide.



U.89M20	$\Delta\Delta$ [kg]
	14.7

#### Standard mechanical set

- Kit includes
  - U.89M: Mechanical body.
  - U.89J1: Set of forks.
  - U.89J2: Set of forks.
  - U.89J3: Set of forks.
- Supplied with operating instructions and vehicle application guide.



U.89M30	$\Delta\Delta$ [kg]
	19.1

#### Mechanical body

- Two-stage screw operated telescopic body.
- Hexagonal drive: 22 mm.
- Can be used with an electric or mechanical impact wrench.
- Tested to 100,000 N.
- Fitted with a safety pin.
- Can be used with all U.89 forks.
- Travel: 235 mm.
- Extended length: 540 mm.
- Compressed length: 305 mm.
- Diameter: 70 mm.



U.89M	L [mm]	$\Delta\Delta$ [kg]
	305	5.0



SPRING COMPRESSORS

■ Mechanical compressor with multi-diameter fork set



- Kit includes
  - U.89M2: Mechanical body with two-position spacer.
  - U.89JMA: Pair of multi-diameter forks for spring diam. 100 to 215 mm.
- Supplied with operating instructions and vehicle application guide.



	$\Delta\Delta$ [kg]
<b>U.89M2JM</b>	11.6

■ Spring compressor - Universal system with interchangeable forks



- Two-stage screw operated telescopic body (hexagonal up to 22 mm).
- Mobile spacer for two possible working positions for the forks.
- Drive possible by 1/2 inch impact wrench.
- Body tested to 100,000 N.
- Travel: 235 mm.
- Compressed length: 305 mm.
- Extended length: 540 mm.
- Diameter: 70 mm.
- Supplied with 3 sets of plastic-coated forks J1 - J2 - J3.
- CE.



	L [mm]	$\Delta\Delta$ [kg]
<b>U.89M230</b>	305	14.7

■ Mechanical body



- Two-stage screw operated telescopic body.
- Hexagonal drive size 22 mm. Can be used with 1/2 inch electric or pneumatic impact wrench.
- Tested to 100,000 N.
- Spacer allowing to place the lower fork in two positions: allows for maximum travel on springs with few coils.
- Can be fitted with all U.89 forks.
- Travel: 235 mm.
- Compressed length: 305 mm.
- Extended length: 540 mm.
- Diameter: 70 mm.



	L [mm]	$\Delta\Delta$ [kg]
<b>U.89M2</b>	305	5.1

■ Multi-diameter fork set



- Offset forks: grip the spring at the end of the coil, this increasing the compressor's effective travel. This shape of fork is particularly effective for use on new-generation springs having a small number of coils.
- A hinged joint at the connection to the compressor allows the fork to be aligned with the slope of the coil.
- New design, fork fits directly onto the springs for quick installation.
- Suitable for 100 to 215 mm springs.
- Compatible with all U.89 bodies without modification.



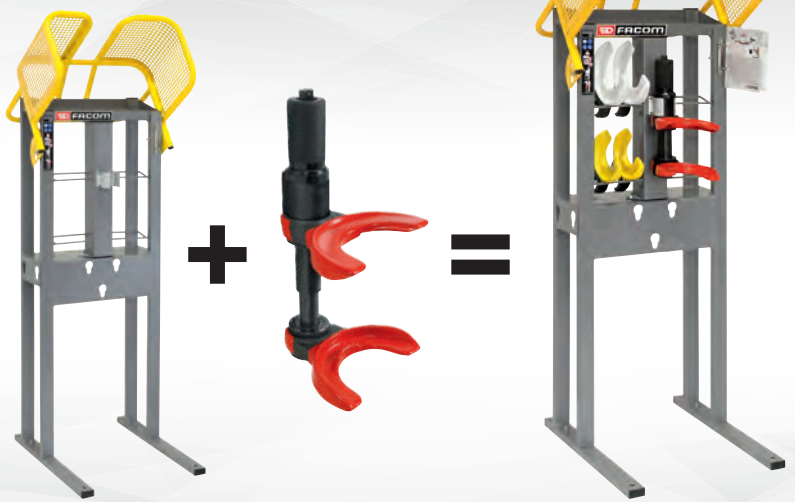
	$\Delta\Delta$ [kg]
<b>U.89JMA</b>	6.6

WORKSTATION

SUSPENSION - WORKSTATION



Upgrade your U.89 spring compressor.



Spring compressor workstation (naked)

- Designed to receive FACOM compressor ref U.89M2 - U.89H2.
- Can accommodate up to 6 sets of forks.
- Impact wrench storage space.
- Space for set D.83C (new XL module).
- Space for application list.
- Hook for torque wrench.
- Small plan dimensions: 590 x 590 mm.
- Closed height 1.430 max height: 1.726 mm.
- Supplied with operating instructions and vehicle application guide.

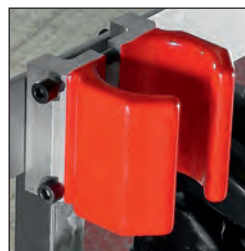
	$\Delta\Delta$ [kg]
<b>DLS.400</b>	39.385



Compressor holder

- For attaching a compressor type U.89M or U.89H to workstation DLS.300.
- For bodies of max. diameter: 55 mm.

	$\Delta\Delta$ [kg]
<b>DLS.300-03</b>	0.7



Special workbench vice

- For holding struts vertically on the workbench.
- Max diameter: 65 mm.
- Dimensions (L. x W.): 410 x 190 mm.
- Finish: zinc.

	Width l [mm]	L [mm]	$\Delta\Delta$ [kg]
<b>D.22B</b>	190	410	3.5



STRUT REMOVAL

Mac Pherson clamp separator set



- Including:
  - DS.10A: 7.5 x 9 mm.
  - DS.11A: 5.2 x 6.9 mm.
  - DS.12A: 6.6 x 7.9 mm.
  - DS.13: 4.3 x 6.0 mm.
  - DS.14: 12.7 x 16.7 mm.
  - DS.P: 3/8" (9.53 mm) square drive operating handle.
  - J.236: Bit holder socket.
- Helps open the clamp on vehicles fitted with Mac Pherson struts.
- Allows shock-absorbers to be stripped down at the work bench.
- Fast and efficient.
- All vehicles fitted with removable clamps (Citroen, Peugeot, Ford, VAG, Audi).
- A "junior" series ratchet can be used instead of the handle (space provided in the case).



	$\Delta\Delta$ [kg]
<b>DS.J5</b>	0,484

TOOLS FOR SHOCK ABSORBERS

Set of 28 tools in modules for Mac Pherson strut rods



- Including:
  - 10 long-reach sockets 14 - 15 - 16 - 17 - 18 - 19 - 21 - 22 - 24 mm.
  - Slotted bits (3 No.) 5, 6 and 8 mm.
  - 6-point sockets (3 No.) 8, 9 and 11 mm.
  - 1 magnetic bit holder extension 7.94 mm.
  - 1 bit-holder extension 6.35 mm.
  - 1 extension with square drive 8 mm.
  - EH bits: 6 - 7 - 8 mm .
  - Bits: EXR.140 - EX.245 - XZN EV.212.
  - 1 handle: J.120.
  - 1 wrench 68: 17x19.
  - 1 torque wrench adaptor.
- For holding the strut rod while tightening or loosening of the nut, for tightening with a torque wrench to a specified torque.
- Tool can be extended to include other bits (Torx, XZN, 6-point).
- XL module.
- Supplied in modules for placing in the drawer of a roller cabinet or workbench. Empty spaces for additional tools.



	H [mm]	Width l [mm]	L [mm]	Contents	$\Delta\Delta$ [kg]
<b>D.83C</b>	40	188	418	PL.647	3.8

Shock absorber removing lever



- Chrome finished steel arm.
- 6 adjustment positions by ball locked axis (similar to ratchet square).
- Length: 120 cm.
- Tube diameter: 32 mm.
- Tube thickness: 3 mm.
- Knurled grip zone. length: 300 mm.
- Hook with two adjustment heights.
- DLS.40A-1: Axis, diameter 11.7 mm.



	L [mm]	$\Delta\Delta$ [kg]
<b>DLS.40A</b>	120	5.6

WHEEL REMOVAL AND INSPECTION

Wheel nut tightening module

- 77AT0D: Cross brace.
- S.208 - 200: Torque wrench 40 to 200 Nm.
- NSB.17 - 19 - 21: Long-reach impact sockets.
- SH.17 - 19 - 21: 6-point sockets.
- Tray PL.337.



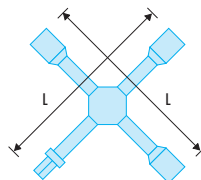
Mod.	H [mm]	Width l [mm]	L [mm]	Contents	ΔΔ [kg]
MOD.208	40	350	418	PL.337A	5.5

Cross braces

- Designed for removing wheel nuts on cars, light commercial and heavy goods vehicles.
- Replaceable bit on wrenches featuring a square drive.
- 77.P1: Spare male 3/4" square bit.
- 77.T1: Spare male 1/2" square bit.



Mod.	d [mm]	L [mm]	Square ["]	ΔΔ [kg]
77A.TO	17 - 19 - 23	400	1/2	1.8
77A.T02	17 - 19 - 21	400	1/2	1.8
77A.T0D	17 - 19 - 22	400	1/2	1.8
77A.PL1	24 - 27 - 30 - 32	700	-	4.7
77A.PL2	24 - 27 - 33	700	3/4	4.6



Air-line connector and gauge

- Pressure range: 0 to 12 bar.
- Impact-resistant rubber casing.



Mod.	H [mm]	Width l [mm]	L [mm]	ΔΔ [g]
U.179A	80	120	250	850

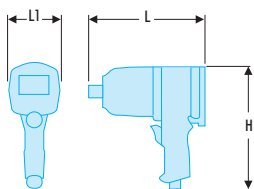


1/2" IMPACT WRENCHES

1/2" impact wrench



- High torque 1/2" Impact Wrench
- Progressive trigger for better control
- Cold forged twin hammer impact system for greater durability
- 3 forward, 1 reverse speed with single hand operation
- Ergonomic handle provides user comfort"



FACOM	H [mm]	L [mm]	L1 [mm]	Maximum RPM [min]	BPM	Sound Pressure DB[A]	Vibration [M/S2]	ΔΔ [kg]
<b>NS.3100G</b>	212	162	75.3	7000	1300	93 (K=3)	6.2 (K=2.5)	2

1/2" reinforced impact sockets:



- Up to 7 times stronger.
- Separation with metallic strapping.
- Teflon lining to protect alloy rims.
- Short-reach sockets 15, 17, 19, 21, 22 mm.



FACOM	ΔΔ [kg]
<b>NSI.15L</b>	0,156
<b>NSI.17L</b>	0,156
<b>NSI.19L</b>	0,156
<b>NSI.21L</b>	0,156
<b>NSI.22L</b>	0,156

1/2" reinforced long-reach impact sockets



- Up to 7 times stronger.
- Separation with metallic strapping.
- Teflon lining to protect alloy rims.
- Long-reach sockets 17, 19, 21 mm.



FACOM	ΔΔ [kg]
<b>NSI.19EL</b>	0,400
<b>NSI.21EL</b>	0,400



Set of 1/2" reinforced long-reach impact sockets

- Up to 7 times stronger.
- Separation with metallic strapping.
- Teflon lining to protect alloy rims.
- New Detection Box set: instant availability check even when the box is closed.
- Easy to store and carry in a pocket or tool box.
- Content: - NSI.17EL - NSI.19EL - NSI.21EL.

🔧	H [mm]	L [mm]	P [mm]	ΔΔ [kg]
<b>NSI.3EL</b>	120	200	120	1.3



Set of 1/2" reinforced impact sockets

- Up to 7 times stronger.
- Separation with metallic strapping.
- Teflon lining to protect alloy rims.
- New Detection Box set: instant availability check even when the box is closed.
- Easy to store and carry in a pocket or tool box.
- Content: - NSI.15L - NSI.17L - NSI.19L - NSI.21L - NSI.22L.

🔧	H [mm]	L [mm]	P [mm]	ΔΔ [kg]
<b>NSI.5L</b>	45	185	120	1.3



Set of 1/2" reinforced impact sockets

- Up to 7 times stronger.
- Separation with metallic strapping.
- Teflon lining to protect alloy rims.
- New Detection Box set: instant availability check even when the box is closed.
- Easy to store and carry in a pocket or tool box.
- Content: - NSI.17L - NSI.19L - NSI.21L.

🔧	H [mm]	L [mm]	P [mm]	ΔΔ [g]
<b>NSI.3L</b>	40	210	160	689



FLUO

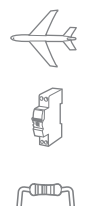
Impact sockets for Mercedes wheel nuts

- 1/2" square drive bit.
- Rim protection tube.

🔧	d [mm]	d1 [mm]	L [mm]	ΔΔ [g]
<b>NS.MB</b>	26	27,4	80,3	172



RFid



WHEEL REMOVAL AND INSPECTION

■ Air-hose reel



- Polyurethane hose, inner diam. 10 mm.
- Specifically designed for high air consuming tools (impact wrenches).
- Very high strength, return spring tested to 20,000 cycles minimum.
- Length: 15 m + 1.
- Hose stop every 50 cm.
- Pressure: 15 bar.



Ref	ΔΔ [kg]
N.709	7.8

■ Valve core remover



- The swivelling head and fluted body derived from the Facom Microtech screwdriver simplifies valve core removal and fitting.



Ref	L [mm]	[g]
D.93	102	15

■ D.3 - Tyre-remover



- Double tee section for added strength.
- Finish: zinc and chrome-plated.



Ref	Width l [mm]	L [mm]	ΔΔ [g]
D.3-300	300	300	200
D.3-400	400	400	400
D.3-500	500	500	570
D.3-600	600	600	900

■ Silent valve core remover



- Noise < 85 dB(A) in compliance with the French labour code and the European Directive 2003/10/CE.
- Safety against core and particle projection.
- No impact on deflating speed.
- Adapted to all tires whatever the size (particularly suited to Heavy Goods Vehicle tires).
- Supplied with a 2-slot case (contains one valve core remover only).



Ref	ΔΔ [g]
DR.SIL	101

■ 1 Silencer for deflating HGV wheels + 2-slot cover



- Maintains noise < 85 dB(A) in compliance with the French labour code and the European directive 2003/10/CE.
- Safety against the risk of projection of the valve and particles.
- Does not slow down deflating.
- Suited to all sizes of tires (particularly adapted to HGV tires).
- Supplied with 2-slot bag (contains one valve core remover only).



Ref	ΔΔ [g]
DR.SILH	101

U.16 - Ball joint pullers

- Used to dismount steering and suspension ball joints.
- Supplied with a set of 2 spare safety pins.
- U.16-05J3: Set of 3 pins for U.16B and U.16A18.
- U.16-A45-05J3: Set of 3 shear pins for U.16B32 and U.16B45.

Part No.	A [mm]	d [mm]	L [mm]	ΔΔ [kg]
U.16A18	45	16	100	0,635
U.16B	45	22	100	0,665
U.16B32	80	32	158	2,5
U.16A45	80	45	158	2,6



Lower ball-joint socket

- Castle nut socket.
- 6-point drive: 32 mm.
- Tightening torque: 250 N.m.
- For models:
  - CITROEN: BX / Xsara / XM / Xantia.
  - PEUGEOT: 306 / 309 / 405 / 406.

Part No.	Width l [mm]	L [mm]	ΔΔ [g]
D.138	48	52	230



Socket for angular tightening of the hub nut

- Drive bit: 3/4".
- 6-point drive 36 mm.

Part No.	ΔΔ [g]
D.143B	415



Transmission collar clamp

- To crimp collars on transmission bellows.
- For OETIKER collar.

Part No.	H [mm]	Width l [mm]	L [mm]	ΔΔ [g]
DM.14	20	50	280	475



FLUO

RFid



WHEEL REMOVAL AND INSPECTION

Steering ball joint separator



- Used to disassemble and assemble steering ball joints.
- Capacity Ø: 35-45 mm.
- Usable with 27 mm socket or wrench or 1/2" bit.
- Length: 402 mm.
- Head diameter: 89 mm.
- Guarantee: 2 years - repair.



	L [mm]	ΔΔ [kg]
<b>U.7-3545</b>	402	1.8

TPMS valve kit



- 12-tool set for reliable controlled torquing of TPMS type valves.
- Comprising:
  - a torque screwdriver 2 to 10 N.m A.404. Supplied with certificate of compliance, adjustment key and force grip A.300PA.
  - 3 long bits for Resistor<sup>®</sup> screws T10-T15-T20.EXR.110L-EXR.115L-EXR.120L
  - 1 1/4" adapter for ECR sockets.
  - 2 1/4" long-reach 6-point sockets size 11 and 12 mm, R.11LA-R.12LA
  - 1 steel valve puller with rubber protection.
  - 1 gasket tool.
- Supplied in case BP.102 and foam module PM.DRV2.



	H [mm]	L [mm]	P [mm]	ΔΔ [g]
<b>DR.V2</b>	70	390	170	458

U.11M - Universal joint pusher - mechanical hub puller



- Complete set comprising:
- One U.9-03 screw diameter 19 mm, length 390 mm. Drive by 24 mm 6-point.
  - One slide hammer U.2A of 9.8 kg ideal for SUVs, 4X4, Light utility vehicles. Rod length 750 mm, threaded length 70 mm. Diameter M22.
  - Tray U.9-01A diameter 236 mm. Central threading M22. Suitable for 90%+ automotive fleet thanks to versatile configurations offered and the 5 legs.
  - 1 set of 5 legs U.9-02, length 169 mm. Diameter for wheel axles up to 16 mm.



	ΔΔ [kg]
<b>U.11M</b>	15

Universal joint pusher - hydraulic hub puller.



- Complete set comprising:
- One hydraulic screw U.3 power 10 t, stroke 14 mm, threading M22X200.
  - Slide hammer U.2A of 9.8 kg ideal for SUVs, 4X4, Light utility vehicles. Rod length 750 mm, threaded length 70 mm. Diameter M22.
  - Tray U.9-01A diameter 236 mm. central threading M22. Suitable for 90%+ automotive fleet thanks to may solutions offered and the 5 legs.
  - 1 set of 5 legs U.9-02, length 169 mm. Diameter for wheel axles up to 16 mm.



	ΔΔ [kg]
<b>U.11VHA</b>	26,5

■ Screw

- Diameter 19 mm.
- Length 390 mm.
- Drive by 24 mm 6-point.



Part Number	Weight [kg]
U.9-03	1,13

■ Tray for hub puller

- Diameter 236 mm.
- Central threading M 22 X 200.



Part Number	Weight [kg]
U.9-01A	4,6

■ Slide hammer 9.8 Kg

- Rod length under handle 750 mm
- Threaded length 70 mm.
- Diameter M22.



Part Number	Weight [kg]
U.2A	14,3



**AUTOMOTIVE BODYWORK**



**Time-saving tools at every stage**

**Stripping, cutting, forming, assembling, painting, windshields, pneumatics.**

In order to improve your everyday working life, Facom offers customised solutions for :

- Saving time.
- Optimising storage.

**Workstations**



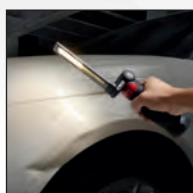
**Supports**



INSPECTION LAMP - BODYWORK

779.CML BODYWORK INSPECTION LAMP

2-in-1 lamp ideal for paint and bodywork operations.



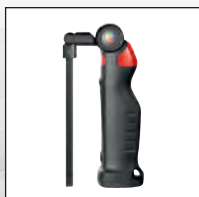
**Warm light (4,500K)**  
 • To check light coloured surfaces.



**Cold light (6,500K)**  
 • To check dark coloured surfaces.



**Large lighting surface**  
 • Contrasted and natural lighting: colours respected (IRC 95).  
 • Multi-position head swivelling at 360°.



**Long Operating Time & Comfort**  
 • 3h constant lighting: 500 lumen / 190 lux at 1 m.  
 • High power COB LEDs. Li-ion batteries.  
 • Attachment hook and magnet for more comfort.

■ Inspection lamp - bodywork

- Ideal to compare colour charts and detect imperfections on the vehicle's bodywork.
- Two lighting modes: cold 4500K hot 6500K.
- Operating time: 3 hours.
- Charging time: 4 hours.
- 1 magnet.
- 1 removable hook.
- Supplied with mains charger and USB cable (5 V - 2A).
- Beam pivots through 360°.
- Mains or USB charging.



	$\Delta\Delta$ [g]
779.CML	396

SUPPORTS

Bodywork component storage stand



- Maximum supported weight 150 kg.
- For storing bonnets, doors and exhaust systems.
- Incorporates anti-slide stops & gravity stabiliser.
- Dimensions: 90 x 60 x 190 cm.
- 4 castor wheels.



	H [mm]	Width l [mm]	L [mm]	ΔΔ [kg]
<b>CR.S1</b>	190	60	90	41.0

Mechanical component storage stand



- Storage of removed components on 4 levels for easy identification of the order of reassembly.
- 4 castor wheels for east manoeuvring around the vehicle.
- 2 fluid storage containers (water, oil) for a clean workshop.
- 2 plastic bins for fasteners.



	H [mm]	Width l [mm]	L [mm]	ΔΔ [kg]
<b>CR.S11</b>	61	90	165	40.0

Heavy-duty support stand for engines, gearboxes, etc.



- Maximum supported weight 450 kg.
- Modular support: many applications in bodywork and mechanical workshops.
- Raised stand (CR.S9) transforms the tool into a waist-height work table.
- Allows high pressure jetting before reassembly.
- Sliding, removable containers allow recovery of liquids.



	H [mm]	Width l [mm]	L [mm]	ΔΔ [kg]
<b>CR.S6</b>	40	80	90	27.0

Raised stand for CR.S6



- Maximum supported weight 450 kg.
- Raised stand transforms support (CR.S6) into a waist-height work table.
- Allows high pressure jetting before reassembly.
- Transforms into a work table with raised stand CR.S9.



	H [mm]	Width l [mm]	L [mm]	ΔΔ [kg]
<b>CR.S9</b>	80	80	90	15.5





STRIPPING TOOLS

Fastener removal tool



- For removing plastic fasteners securing carpets, trim and panels.
- Capacity:
  - Fitter diameter: 9 to 22 mm springs.
  - Body diameter: 4 to 9 mm springs.



	H [mm]	Width l [mm]	L [mm]	ΔΔ [g]
<b>D.137A</b>	40	28	200	110

Set of 1/4" and 1/2" drive sockets and Torx driver bits



- Tray PL.393A.
- Plastic case BP.102.



	H [mm]	Width l [mm]	L [mm]	ΔΔ [g]
<b>RSX.19A</b>	52	122	204	620

PLASTIC MULTIFUNCTION TOOLS



**Handy**

- To remove plastic parts inside or outside the vehicle.

**Safe**

- They protect plastic or varnished parts, trim, ceramics, etc.

Plastic component removal tool set



- For removing or unclipping plastic components (dashboard, door, external trim, snap rings, etc.).
- Set of 5 tools for different applications.
- Supplied in blister pack.



	ΔΔ [g]
<b>CR.D5</b>	275

4-piece set of plastic multi-use tools

- For removing adhesive weights from wheels in alloy, silicon, elastic sealing products, hub caps, etc.
- No damage to plastic or varnished parts, trim, ceramics, etc.
- 4 widths: 19 - 22 - 25 - 38 mm.
- For use with a hammer and resharpenable with a file.
- Supplied in blister pack.



	$\Delta\Delta$ [g]
CR.D4	525

518A - Vice pliers for bodywork

- Bodywork vice pliers for tacking and welding operations of automotive bodywork elements.
- 518A.1: Ultra wide nose pliers.
- 518A.2: Clearance pliers.
- 518A.3: Wide pliers.
- 518A.4: Compact clearance pliers.
- 518A.5: Compact pliers.



	H [mm]	Width l [mm]	L [mm]	$\Delta\Delta$ [g]	$\Delta\Delta$ [kg]
518A.1	70	60	200	500	0,550
518A.2	45	50	230	500	0,560
518A.3	45	50	210	500	0,508
518A.4	25	40	210	500	0,475
518A.5	25	40	195	500	0,456
518A.6	49	66	198	495	0,495

Set of 6 vice pliers for bodywork

- Bodywork vice pliers for tacking and welding operations of automotive bodywork elements.
- Including:
- 518A.1: Ultra wide nose pliers.
- 518A.2: Clearance pliers.
- 518A.3: Wide pliers.
- 518A.4: Compact clearance pliers.
- 518A.5: Compact pliers.



	$\Delta\Delta$ [kg]
518A-J6	2.9

Corded plastic stapler

- Stapler for plastic: indispensable for repairing plastic bodywork parts.
- Fast heating and temperature programming by level.
- Use on 220-240V 50hz.
- Supplied with a set of staples.



	Width l [mm]	L [mm]	P [mm]	$\Delta\Delta$ [kg]
CR.PS	220	310	95	2.0



STRIPPING TOOLS

■ Cordless plastic stapler



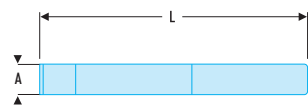
- Indispensable for repairing plastic bodywork parts.
- Two heating levels.
- LED lighting.
- Operating time about 50 staples.
- Supplied with a set of staples.



	Width l [mm]	L [mm]	P [mm]	ΔΔ [kg]
<b>CR.PSC</b>	250	355	90	1.3

CHISELS

■ Slim-profile chisels



- Slim profile chisel.
- Chrome vanadium forged steel, treated 57 HRC on edge and 40 HRC on impact head.
- Blade width: 26 mm.
- Length: 235 mm.
- Presentation: lacquered.



	L [mm]	ΔΔ [g]
<b>259</b>	235	240

■ Slim-profile chisel with guard



- Chisel with guard, diameter: 85 mm.
- Chrome Vanadium forged steel, treated 57 HRC on edge and 40 HRC on impact head.
- Blade width: 26 mm.
- Presentation: lacquered.



	L [mm]	ΔΔ [g]
<b>259.P</b>	235	400

■ Wide chisel with guard



- Chisel with guard, diameter: 85 mm.
- Chrome vanadium forged steel and hardened to 57 HRC on edge.
- Edge resharpening with grinder.
- Head hardened to prevent head effect.
- Blade width: 60 mm.
- Presentation: lacquered.



	L [mm]	ΔΔ [g]
<b>260.P</b>	250	630

CHISELS

Three-square scraper

- Finish: high quality steel blade, polished chrome finish and varnished wood handle.
- Shank length: 200 mm.



ED	L [mm]	ΔΔ [g]
231	200	180

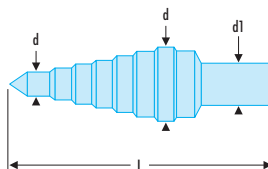
DRILL BITS

229A - Stepped bits

- For cylindrical high accuracy drilling in all materials.
- HSS steel.
- Cylindrical shank with 3 flats for proper drive, avoiding micro locking.
- Laser marking of different diameters in a groove.



ED	d mini - maxi [mm]	d1 [mm]	L [mm]	ΔΔ [g]
229A.ST0	4 - 5 - 6 - 7 - 8 - 9 - 10 - 11 - 12	6	65	25
229A.ST1	4 - 6 - 8 - 10 - 12 - 14 - 16 - 18 - 20	8	75	65
229A.ST2	4 - 6 - 9 - 12 - 15 - 18 - 21 - 24 - 27 - 30 - 33 - 36 - 39	10	107	315
229A.ST3	6 - 9 - 13 - 16 - 19 - 21 - 23 - 26 - 29 - 32 - 35 - 38	10	100	320



Set of 3 tapered bits

- Capacity: 3 to 30.5 mm.
- Supplied with a bottle of lubricant.
- Supplied in a pressed sheet box,



ED	H [mm]	Width l [mm]	L [mm]	ΔΔ [g]
229A.J3	38	100	120	555



DRILL BITS

Set of mills



- Set with a 230 module, 2 centring tips and 10 reversible mills.
- Dimensions (L. x W. x H.): 115 x 65 x 22 mm.
- Set of 5 spare tips: ref 230.A1J5.

Ref	H [mm]	Width l [mm]	L [mm]	ΔΔ [g]
230.J1	22	65	115	90

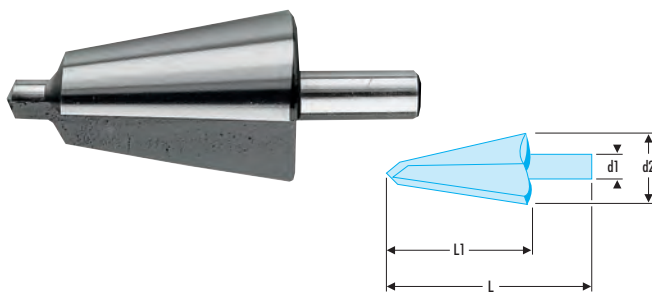
Welding spot mill



- This tool, fitted on a drill, separates two spot-welded metal sheets.
- Includes the mill holder assembly, reversible mill and centring tip.
- Not compatible with ref V.781B.
- Length: 70 mm.
- Set of 5 spare tips: 230.A1J5.

Ref	ΔΔ [g]
230	23

229A - Boring bits



- For drilling, deburring, boring thin materials: press sheet, non ferrous metals.
- HSS steel.
- Max. thickness recommended: 4 mm.
- Does not require a tapping hole.

Ref	d1 [mm]	d2 [mm]	L [mm]	L1 [mm]	ΔΔ [g]
229A.1	6	3 - 14	59	37	25
229A.2	8	5 - 20	71	41	45
229A.3	9	16,0 - 30,5	76	48	130

VFA - Filing burrs



- Tungsten carbide mill.
- Right-hand cut.

Ref	d [mm]	L [mm]	No.	tr/min	ΔΔ [g]
VFA.600	6	18	1	50000	25
VFA.602	6	18	2	50000	25
VFA.604	6	18	3	50000	25
VFA.606	6	18	4	50000	20
VFA.608	6	18	5	50000	20
VFA.610	6	15	6	50000	20
VFA.1200	12	25	1	20000	55
VFA.1202	12	25	2	20000	55
VFA.1204	12	25	3	20000	50
VFA.1206	12	25	4	20000	30
VFA.1208	12	25	5	20000	35
VFA.1210	12	20	6	20000	40

MISCELLANEOUS

Steel wire brush



Icon	H [mm]	Width l [mm]	L [mm]	ΔΔ [g]
270A.MA	60	34	280	150

Set of 3 stainless steel scrapers

- Dimensions:
  - Length: 215 mm.
  - Width: 32 mm straight - 32 mm angled - 50 mm straight.



Icon	L [mm]	ΔΔ [g]
235.J1	215	427

Set of 3 flexible wide scrapers

- Dimension:
  - Length: 215 mm.
  - Width: 32 mm - 50 mm - 75 mm.



Icon	ΔΔ [g]
237.J1	273



AIR HAMMER

Chisel hammer set



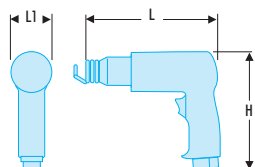
- Kit includes
  - V.320FH: 1 power chisel.
  - 1 sheet-metal cutter.
  - 1 double edge sheet-metal cutter.
  - 1 weld point cutter.
  - 1 straight chisel.
  - 1 punch.

	H [mm]	L [mm]	P [mm]	Air Consumption [l/min]	BPM	Piston Stroke [mm]	Sound Pressure DB[A]	Vibration [M/S <sup>2</sup> ]	ΔΔ [kg]
<b>V.321AH</b>	100	320	245	90	3000	67	102.62 (K=3)	8.01 (K=1.5)	6,3

Power chisel with hexagonal shank



- Chisels available:
  - Straight chisel: V.320HA1.
  - Punch (hexagonal shank): V.320HA2.
  - Weld point cutter (hexagonal shank): V.320HA3.
  - Sheet metal cutter (hexagonal shank): V.320HA4.
  - Double-edge sheet-metal cutter (hexagonal shank): V.320HA5.
- Kit with the 5 chisels: V.321AH.



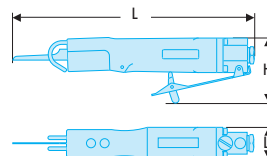
	H [mm]	L [mm]	L1 [mm]	Air Consumption [l/min]	BPM	Piston Stroke [mm]	Sound Pressure DB[A]	Vibration [M/S <sup>2</sup> ]	ΔΔ [kg]
<b>V.320FH</b>	160	171	50	90	3000	67	102.62 (K=3)	8.01 (K=1.5)	1,6



AIR TOOLS - BODYWORK

▪ Sabre saw

- 10000 oscillations per minute for efficient cutting.
- Adjustable guide for the saw blade.
- Comfort rubber grip over aluminium to insulate.
- Teasing trigger for great control.
- Air inlet swivels to avoid coiling of the hose.
- Delivered in a starter package with 3 x 10 teeth/cm and 3 x 12 teeth/cm blades.
- Blows per minute 10000 bpm.
- Working pressure 6,2 bar.
- Average air consumption 32 l/min.
- Air inlet 1/4".
- Minimum hose diameter 10 mm - 3/8".
- Vibration 17,10 m/s<sup>2</sup>/a.
- Vibration 2,19 m/s<sup>2</sup>/K.
- Sound pressure 83,50 dB(A).
- Sound power 94,50 dB(A).
- Available as accessories:
  - Set of 6 x 12 teeth/cm blades: V.770F1.
  - Set of 6 x 10 teeth/cm blades: V.770F2.

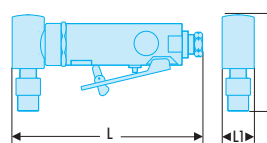


Icon	H [mm]	L [mm]	L1 [mm]	ΔΔ [g]
V.770F	75	270	36	800



▪ Angle die grinder - 6 mm collet

- Built in air regulator which can be adjusted with a screwdriver.
- Compact angled head for difficult-to-reach places.
- Feather teasing trigger for optimum control.
- Rear exhaust hose blows air away from the workplace, and reduces the sound level.
- Supplied with 6 mm pliers + 2 open end wrenches.

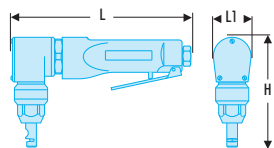


Icon	H [mm]	L [mm]	L1 [mm]	Maximum RPM [min]	Air Consumption [l/min]	Sound Pressure DB[A]	Vibration [M/S <sup>2</sup> ]	ΔΔ [kg]
V.347F	347	160	27	18000	110	90.9 (K=3)	1.52 (K=0.53)	0,66



AIR TOOLS - BODYWORK

■ Air nibbler

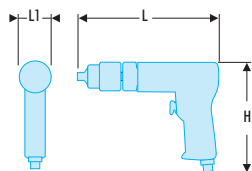
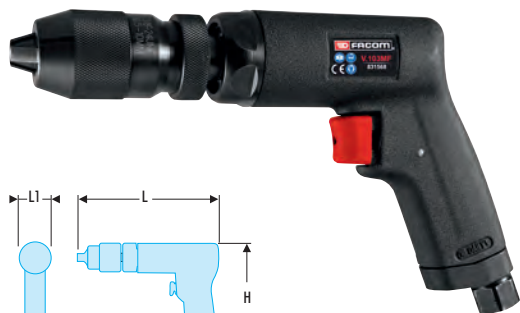


- Lever throttle for precise control and low-speed start.
- Easy access to replace the punch: V.850FKR2.
- Can produce rounded edges up to 6.5 mm radius.
- Can cut 1.8M of sheet metal per minute at a max depth of 1.2 mm.
- Durable motor design encased in a strong and robust aluminium housing.
- Blows per minute 4300 cpm.
- Working pressure 6,2 bar.
- Average air consumption 280 l/min.
- Average air consumption 9,6 cfm.
- Air inlet 1/4".
- Minimum hose diameter 10 mm - 3/8".
- Vibration 6 m/s<sup>2</sup>/a.
- Vibration 1,09 m/s<sup>2</sup>/K.
- Sound pressure 95,90 dB(A).
- Sound power 106,90 dB(A).
- Available as accessory:
  - Punch set: V.850FKR2.



	H [mm]	L [mm]	L1 [mm]	ΔΔ [kg]
<b>V.850F</b>	118	179	40,5	1.0

■ Drill 10 mm with self-locking chuck

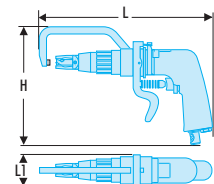


- The powerful 450 watt motor is suitable for many applications and is resistant to stalls.
- Ergonomic grip maximises operator comfort.
- Industrial quality keyless chuck for durability.
- Teasing trigger offers maximum control for the operator.
- Rear handle exhaust blows away air from the workplace.
- Swivel air inlet avoids coiling of the hose.



	H [mm]	L [mm]	L1 [mm]	Maximum RPM [mn]	Sound Pressure DB[A]	Vibration [M/S <sup>2</sup> ]	ΔΔ [kg]
<b>V.103MF</b>	145	234	44	2800	87.4 (K=3)	7.2 (K=1.21)	1,48

■ Spot weld drill remover



- Fast drilling action at 1800 RPM to get points drilled out quickly.
- Fitted with a counterarm to hold the workpiece in position.
- Depth of drilling can be easily adjusted by the operator to suit his application.
- Feather teasing trigger for optimal speed control.
- Durable and robust thanks to an aluminium casted housing.
- Delivered with one 8 mm drill point which can be ordered as an accessory.
- Milling bit diameter 8 mm.
- Available as accessory: Milling bit diameter 8 mm: V.781A1 (minimum order quantity: 5).
- Free speed 1800 tr/min.
- Milling bit size 8 mm.
- Working pressure 6,2 bar.
- Average air consumption 110 l/min.
- Average air consumption 3,9 cfm.
- Air inlet 1/4".
- Minimum hose diameter 10 mm - 3/8".
- Vibration <250 m/s<sup>2</sup>/a.
- Vibration 0,54 m/s<sup>2</sup>/K.
- Sound pressure 90,70 dB(A).
- Sound power 101,70 dB(A).



	H [mm]	L [mm]	L1 [mm]	ΔΔ [kg]
<b>V.781F</b>	198	270	53	2.1

BODYWORK REPAIR WORKSTATION

Bodywork repair workstation

- A lid:
  - Containing a panel fitted with a system for securing dressers and hammers.
  - PK perforations for freely hanging other tools.
  - 2 gas springs for comfort of use.
- 2 trays that pull out sideways to reveal a large bin for storing heavier tools such as dollies and spoons. The bottom of the trays and the bin are fitted with non-slip mats.
- 3 drawers (2 x 60 + 1 x 130 mm) compatible with the Facom modular storage system and 1 bin drawer (270 mm high) for storing bulky items and pneumatic tools.
- Galvanised steel worktop: easy-to-maintain and high resistance.
- Safe: central key locking of lid and drawers.
- Corner bumpers to avoid damage to vehicles in case of accidental contact.
- Manoeuvrability ensured by 4 large diameter wheels, 2 fixed, 2 castors, one with a brake.



	H [mm]	L [mm]	P [mm]	ΔΔ [kg]
<b>CR.T4XL</b>	1035	825	546	77.0

DENT REMOVAL

Slide puller for dent removal without paint

- Supplied with a set of 10 bits CR.GP-1
- Dimensions: 370 X 33 X 33 mm.
- Use recommended with FACOM glue CR.GLUE



	Width l [mm]	L [mm]	P [mm]	ΔΔ [g]
<b>CR.GPSH</b>	33	370	33	890

Manual paint-free dent removal puller

- Use by hand.
- Pads 35 X 82 mm with elastomer bodywork protection.
- Supplied with a set of 10 bits CR.GP-1.
- Dimensions: 127 X 110 X 83 mm.
- Use recommended with FACOM glue CR.GLUE



	H [mm]	L [mm]	P [mm]	ΔΔ [g]
<b>CR.GPP</b>	127	110	83	310

Paint-free dent removal by glue dots kit

- Special bodywork glue cleaned with rubbing alcohol. Easy to use.
- CR.GPSH Slide puller and set of 10 bits.
- CR.GPP Screw puller and set of 10 bits.
- CR.PRK-3 Set of 3 plastic jets.
- CR.GLUE: Box of dent removal glue for. (1 KG) to be used with hot glue gun type FACOM 900A.
- Storage box BP.C19.



	ΔΔ [kg]
<b>CR.GP-KIT</b>	4,4



DENT REMOVAL

Slide suction puller by manual pump



- To pull dents over large areas. For door panels and LUV.
- Vacuum by manual pump.
- Supplied with 3 suction cups Ø80 mm 105 mm and 126 mm.
- Supplied in plastic box.



	Width l [mm]	L [mm]	P [mm]	ΔΔ [kg]
<b>CR.SSH</b>	165	750	100	4.6

Slide suction puller by venturi



- To pull dents over large areas. For door panels and LUV.
- Vacuum by venturi supplied with compressed air.
- Supplied with 3 suction cups Ø80 mm 105 mm and 126 mm.
- Supplied in plastic box.



	Width l [mm]	L [mm]	P [mm]	ΔΔ [kg]
<b>CR.ASH</b>	310	610	100	4.2

Set of 34 paint-free dent removal tools



- Short rods.
- Long rods.
- Flexible pads.
- Composite rod tips.
- Set of 3 composite jets.
- Hooks.
- Carry bag.



	ΔΔ [kg]
<b>CR.PRK</b>	8.60

Set of 3 plastic jets

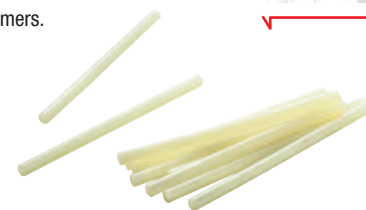
- For finish of dent removal operations without paint.
- Jet Ø 15 mm X 101 mm.
- 1 round tip jet.
- 1 sharp tip jet.
- 1 flat face round tip jet.



	ΔΔ [g]
<b>CR.PRK-3</b>	78

Glue sticks

- Glue based on thermoplastic polymers.
- For use with hot glue gun FACOM E.900A or equivalent.
- Sticks Ø 11 mm X 198 mm.
- Suited to bodywork dent removal operations.
- Cleaned with rubbing alcohol.
- Packaged in 1 kg box.



	L [mm]
<b>CR.GLUE</b>	198

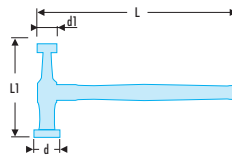
PANEL BEATING HAMMERS

861D - Bumping hammers

- Stretching and planishing hammer.
- Convex, round and square heads.
- Secure handle attachment.
- Finely polished planishing surfaces.
- Facetted hickory handle.
- Spare handle and wedge: 211.MH26.



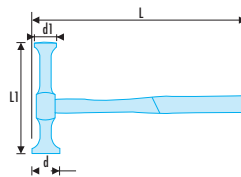
	d [mm]	d1 [mm]	L [mm]	L1 [mm]	ΔΔ [g]
861D.26	25	30	310	100	300
861D.30	30	35	310	100	390



Round, flat, and convex head hammer

- Bumping and planishing hammer.
- Flat, round and convex heads.
- Secure handle attachment.
- Finely polished heads.
- Hickory handle.
- Spare handle and wedge: 211.MH26.

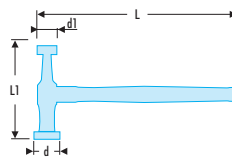
	d [mm]	d1 [mm]	E [mm]	L [mm]	L1 [mm]	ΔΔ [g]
861D.RPC	32	40	40	310	150	600



866D - Shrinking hammers

- Stretching and planishing hammer.
- 1 round ribbed face, one square smooth face.
- Secure handle attachment.
- Hickory handle.
- Spare handle and wedge: 211.MH26.

	d [mm]	d1 [mm]	L [mm]	L1 [mm]	ΔΔ [g]
866D.32	30	35	310	100	310
866D.41	35	40	310	100	380

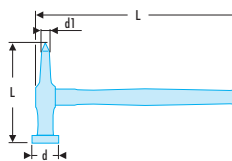


Hammer with round flat face and straight pein

- Planishing hammer.
- 1 round flat face, 1 straight pein.
- Secure handle attachment.
- Finely polished head.
- Hickory handle.
- Spare handle and wedge: 211.MH26.



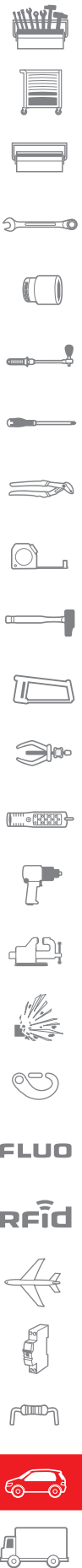
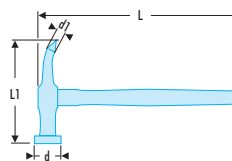
	d [mm]	d1 [mm]	L [mm]	L1 [mm]	ΔΔ [g]
868D.40PLD1	40	23	310	140	320



Hammer with round domed face and curved pein

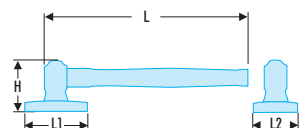
- Planishing hammer.
- 1 round domed face, 1 curved pein.
- Secure handle attachment.
- Finely polished head.
- Hickory handle.
- Spare handle and wedge: 211.MH26.

	d [mm]	d1 [mm]	L [mm]	L1 [mm]	ΔΔ [g]
868D.40BOC	40	23	310	23	430



DRESSERS

Flat dresser

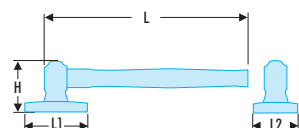


- Flat dresser.
- Secure handle attachment.
- Finely polished head.
- Hickory handle.
- Spare handle and wedge: 211.MH26.



	H [mm]	L [mm]	L1 [mm]	L2 [mm]	ΔΔ [g]
<b>862D.60</b>	70	295	50	30	320

Wide-dome dresser

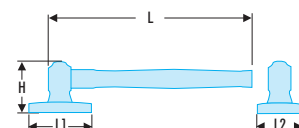


- Surface curved widthwise.
- Secure handle attachment.
- Finely polished head.
- Hickory handle.
- Spare handle and wedge: 211.MH26.



	H [mm]	L [mm]	L1 [mm]	L2 [mm]	ΔΔ [g]
<b>864D.60</b>	70	295	50	30	320

Shrinking dresser no.1

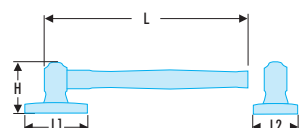


- Ribbed face.
- Secure handle attachment.
- Finely polished head.
- Hickory handle.
- Spare handle and wedge: 211.MH26.



	H [mm]	L [mm]	L1 [mm]	L2 [mm]	ΔΔ [g]
<b>867D</b>	70	295	50	30	310

Shrinking dresser no.2



- Ribbed face.
- Secure handle attachment.
- Finely polished head.
- Hickory handle.
- Spare handle and wedge: 211.MH26.



	H [mm]	L [mm]	L1 [mm]	L2 [mm]	ΔΔ [g]
<b>867D.DS</b>	70	295	50	30	310

DOLLIES

Regular dolly no.1



- Finish: polished.

	H [mm]	Width l [mm]	L [mm]	ΔΔ [kg]
<b>870A</b>	35	60	88	1.1

Regular dolly no.2



- Combination of sharp and rounded edges.
- Finish: polished.

	H [mm]	Width l [mm]	L [mm]	ΔΔ [kg]
<b>870B</b>	35	55	90	1.2

Slim shaping dolly



- Finish: polished.

	H [mm]	Width l [mm]	L [mm]	ΔΔ [g]
<b>909A</b>	23	60	88	750

Slim wedge dolly



- Slim model with a domed face.
- Finish: polished.

	H [mm]	Width l [mm]	L [mm]	ΔΔ [g]
<b>871B.45</b>	37	55	125	900

Dished dolly



- Curved on all sides.
- Finish: polished.

	H [mm]	Width l [mm]	L [mm]	ΔΔ [g]
<b>874A</b>	26	65	106	980

Pinch wedge dolly



- One curved face and one flat face.
- Finish: polished.

	H [mm]	Width l [mm]	L [mm]	ΔΔ [kg]
<b>906A</b>	25	68	130	1.2



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SPoons AND BLADES

Long single spoon



- Bumping spoon.
- Finish: polished.



🔧	L [mm]	ΔΔ [kg]
<b>875.3</b>	390	1.3

Angled, flat short double spoon



- Double bumping spoon, very cranked at one end.
- Also available in a long version (ref: 877A, length: 510 mm).
- Length: 400 mm.
- Finish: polished.



🔧	L [mm]	ΔΔ [kg]
<b>876A</b>	400	1.7

Short single spoon



- Bumping spoon.
- Length: 285 mm.
- Finish: varnished and polished.



🔧	L [mm]	ΔΔ [g]
<b>895A</b>	285	820

Flat shrinking blade



- Ribbed face.



🔧	L [mm]	ΔΔ [g]
<b>891A.PL</b>	350	700

FILES

850 milled files



- Recommended for soft metal, cast iron, mild steel and soft plastics.
- For use with frame 851B.



🔧	L [mm]	Teeth [cm]	Tooth shape	Blade profile	Number of Teeth per [cm]	Size [mm]	ΔΔ [g]
<b>850.S300</b>	300	31/2	Courbe	Curved	3 1/2	Standard	190
<b>850.S350</b>	350	31/2	Courbe	Curved	3 1/2	Standard	270
<b>850.SD350</b>	350	31/2	Droite	Straight	3 1/2	Standard	260
<b>850.F350</b>	350	41/2	Courbe	Curved	4 1/2	Slim	270
<b>850.EF350</b>	350	6	Courbe	Curved	6	Extra-slim	300

Frame for milled files



- Ergonomic handle with a choice of two working positions according to the task to be performed.
- Accurate setting of the file profile.
- Takes both 300 and 350 mm file lengths.
- Dimensions (L. x W. x H.): 360 x 33 x 140 mm.
- Supplied without file.



🔧	H [mm]	Width l [mm]	L [mm]	ΔΔ [g]
<b>851B</b>	140	33	360	630



FORMING TOOL SETS

■ **CR.CM92** 135-piece bodywork tool set



Item Code	Qty	Set Description
440.JP9	9	Combination wrenches 8 to 19 mm
R2NANO	38	1/4" sockets: 5.5 to 14 mm and accessories
SL.DBOX1	21	1/2" sockets: 8, 10 to 19, 21, 22, 24, 27, 30, 32 mm and accessories
AMZ.M1	1	Short bit holder
BP.102	1	Plastic case
ED.T	3	1/4" Pozidriv® tips 101-102-103
EH	4	1/4" 6-point tips 103 - 104 - 105 - 106
EP.T	3	1/4" Phillips® tips 101 - 102 - 103
ES.T	3	1/4" bits for slotted heads 134.5 - 136.5 - 148
EXR	6	1/4" Resistor® tips 110 to 140
PL.400A	1	Plate for screwing bits
181A.25CPE	1	Lockable multigrip pliers
192A.16CPE	1	Piano wire diagonal cutters
185A.20CPE	1	Sheathed straight half-round nose pliers
501A	1	Long-nose lock-grip pliers
893.316	1	Locking tape measure 3 m
234	1	Scriber
601	1	Hacksaw frame
668B.10	10	Saw blades
882A	1	Metal shears
RD.MD200EMA	1	Flat second-cut file 200 mm
DRD.MD200EMA	1	Half-round second-cut file 200 mm

Item Code	Qty	Set Description
200H.50	1	Riveting hammer
208A.32CBA	1	Interchangeable-tip mallets
249	2	Drift punches 2 - 4 mm
256.6	1	Precision centre punch
259.P	1	Extra-flat chisel
861D.RPC	1	Round, flat, and convex head hammer
871B.45	1	Slim wedge dolly
861D.30	1	Bumping hammer
866D.32	1	Finishing hammer
868D.40BOC	1	Offset peening hammer
862D.60	1	Flat dresser
870B	1	Thin toe dolly
906A	1	Flat wedge dolly
875.3	1	Long single spoon
895A	1	Short single spoon
518.3	1	Lock-grip pliers
518.4	1	Lock-grip pliers
225.J3	3	End mills
851B	1	Frame for milled files
850.S350	1	Standard file
CR.D10	1	Windshield wiper arm remover
CR.D1	1	Trip removal tool

■ **CR.858J5** Specialist 5-piece forming tool set: a must-have

• Supplied without content, detail below.



Item Code	Qty	Set Description
861D.30	1	Bumping hammer
862D.60	1	Flat dresser
870B	1	Thin toe dolly
906A	1	Flat wedge dolly
871B.45	1	Slim wedge dolly



FORMING TOOL SETS

■ **CR.858J15** Specialist 15-piece forming tool set: basic for professionals



• Supplied without content, detail below.

Ref	Qtys	Set Description
868D.40BOC	1	Offset peening hammer
866D.32	1	Finishing hammer
861D.30	1	Bumping hammer
862D.60	1	Flat dresser
870B	1	Thin toe dolly
906A	1	Flat wedge dolly
871B.45	1	Slim wedge dolly
872A	1	Curved head dolly
875.3	1	Long single spoon
876A	1	Offset flat spoon
895A	1	Short single spoon
891A.PL	1	Flat shrinking blade
851B	1	Frame for milled files
850.S350	1	Standard file
209.50	1	Wood mallet

■ **CR.858J20** Specialist 20-piece forming tool set: a must-have for specialists



• Supplied without content, detail below.

Ref	Qtys	Set Description
868D.40BOC	1	Offset peening hammer
866D.32	1	Finishing hammer
861D.30	1	Bumping hammer
861D.RPC	1	Round, flat, and convex head hammer
862D.60	1	Flat dresser
870B	1	Thin toe dolly
906A	1	Flat wedge dolly
908A	1	Flat regular dolly
871B.45	1	Slim wedge dolly
874A	1	Dished dolly
872A	1	Curved head dolly
875.3	1	Long single spoon
875.4	1	40° single spoon
876A	1	Offset flat spoon
895A	1	Short single spoon
891A.PL	1	Flat shrinking blade
851B	1	Frame for milled files
850.S350	1	Standard file
850.F350	1	Fine file
209.50	1	Wood mallet

MODULES

Bodywork module no.2

- Comprising:
  - 259: Slim-profile chisel 235 mm.
  - 209.50: Wooden mallet 50 mm.
  - 225.J3: Set of 3 end mills.
  - 850.S350: Standard angled milled file.
  - 851B: Frame for milled files.
  - 860H.28: Round head hammer 28 mm.
  - 861D.30: Bumping hammer.
  - 862D.60: Flat dresser.
  - 867D: Shrinking dresser.
  - 870B: Thin toe dolly.
  - 871B0.55: Wedge dolly.
  - 874A: Dished dolly.
  - 875.3: Long single spoon.
  - 906A: Pinch wedge dolly.
  - Thermoformed module PL.679 (value 3 modules).



	H [mm]	Width l [mm]	L [mm]	Contents	ΔΔ [kg]
<b>MOD.CAR2</b>	40	525	418	PL.679	10.0

PLIERS

Hand punch

- Punch: 5 mm.
- Max. sheet thickness: 0.8 mm.
- Punch and die, 5 mm diameter: CAD.10RN1.



	H [mm]	Width l [mm]	L [mm]	ΔΔ [kg]
<b>CAD.9</b>	30	130	290	1.2

Hand crimper and punch

- Crimp width: 12 mm.
- Punch 5 mm.
- Swivel head.
- Max. sheet thickness: 0.8 mm.
- Punch and die, 5 mm diameter: CAD.10RN1.



	H [mm]	Width l [mm]	L [mm]	ΔΔ [kg]
<b>CAD.10</b>	30	130	290	1.2

SUPPORTS

Multi-functional bodywork support cradle

- Maximum supported weight by CR.S8: 80 kg.
- Foam protections to prevent scratches.
- Ergonomic design, flexible fabric sling moulds to the shape of the panel supported.
- 4 castor wheels (2 castors with brake).
- Floor dimensions.
- Easy to store.
- Foam protection CR.S7PRO.
- Set of 2 slings CR.S7-05.



	H [mm]	Width l [mm]	L [mm]	ΔΔ [kg]
<b>CR.S7</b>	93	82	90	8.0



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SUPPORTS

Painters support



- Maximum supported weight by CR.S8: 50 kg.
- Multi-adjustable support for bonnets, doors, etc.
- Modular: 16-point adjustment, adjustable height, 360° rotation, with locking supports.
- With 2 large-size wheels.
- Small floor dimensions
- Dimensions (L. x W. x H.): 130 x 120 x 70 cm.



	H [mm]	Width l [mm]	L [mm]	ΔΔ [kg]
<b>CR.P1</b>	70	120	130	19.0

Bodywork component horizontal stand



- Maximum supported weight by CR.S8: 80 kg.
- 3-point support stand with anti-scratch protection.
- Work height: min. 800 mm and max. 1100 mm.
- Small floor dimensions, easy storage.
- Foam protection CR.S7PRO.



	ΔΔ [kg]
<b>CR.P2</b>	8.0

Surface preparation workstation



- Workstation comprising:
  - 2 sloping upper shelves for storing consumables.
  - 1 drawer 130 mm high with padlock for expensive items, safety items, etc.
  - 1 2-way sloping shelf for ordinary tools.
  - 1 storage area for bulky consumables.
  - Perforated recessed side panels for attaching accessories: 2 bottle-shelves, 1 paper-roll holder, wire supports to hold paint guns, 1 waste bag holder.



	H [mm]	L [mm]	P [mm]	ΔΔ [kg]
<b>CR.T3XL</b>	1645	825	546	51.0

■ **Magnetic holder for painting small bodywork parts**

- For rear view mirror shell, motorbike parts, etc.
- Withstands parts up to 2 kg.
- Length: 255 mm.
- Diameter 1: 10 mm.
- Diameter 2: 58 mm.

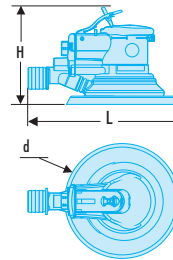


	L [mm]	ΔΔ [g]
<b>CR.SMP</b>	255	275

**AIR TOOLS - PAINT PREPARATION**

■ **Orbital palm sander 150 m - 5 mm orbit**

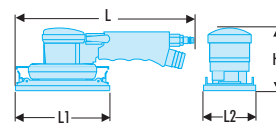
- Central vacuum exhaust port to allow easy removal of dust if connected to a central vacuum system.
- Easy to access speed regulator just below the trigger.
- Ergonomic trigger for perfect control.
- Productivity increased with low vibration level.
- Composite body is lightweight and insulates against cold.



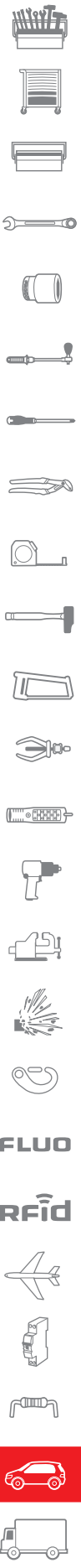
	A [mm]	d [mm]	E [mm]	H [mm]	Maximum RPM [mn]	Air Consumption [l/min]	Pad Dimensions [mm]	Sound Pressure DB[A]	Vibration [M/S2]	ΔΔ [kg]
<b>V.252F</b>		152		115	10000	212	150	79.9 (K=3)	11.86 (K=1.67)	0,84

■ **Jitterbug sander - 95 x 170 mm - 8 holes**

- One hand forward reverse "butterfly" trigger
- Two hand design great for work on large and / or vertical surfaces.
- 29 mm central vacuum exhaust port to allow easy removal of dust.
- Easy to access speed regulator.
- Composite body is lightweight and insulates against cold.
- Easy to use clips for abrasive attachment.
- Supplied with 8 hole 95 x 170 mm velcro pad.
- Supplied with pad and 8-hole abrasive perforator.

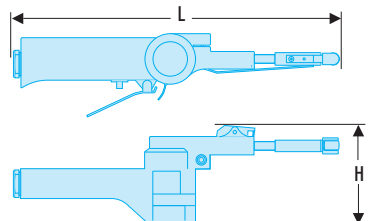


	H [mm]	L2 [mm]	L [mm]	L1 [mm]	Maximum RPM [mn]	Air Consumption [l/min]	Pad Dimensions [mm]	Sound Pressure DB[A]	Vibration [M/S2]	ΔΔ [kg]
<b>V.260F</b>	120	288	170	8500	115	95x170	95.2 (K=3)	53.8 (K=5.82)	2,1	



AIR TOOLS - PAINT PREPARATION

▪ Belt sander - 10 x 330 mm



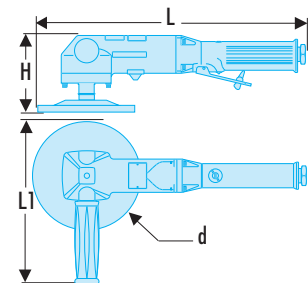
- Handle rotates enabling the operator to always have the best grip.
- Easy and fast changing of belts with the quick change arm.
- Feather teasing trigger for great control.
- Starter pack with tool delivered with 3 abrasives: 2 x P120 and 1 x P80.
- Long and Narrow 10 mm arm to get in the most confined spaces.



	H [mm]	L [mm]	Maximum RPM [mn]	Air Consumption [l/min]	Sound Pressure DB[A]	Vibration [M/S <sup>2</sup> ]	ΔΔ [kg]
<b>V.402F</b>	83	283	16000	110	86.1 (K=3)	<2.5 (K=0.63)	0,8

AIR TOOLS - PAINT PREPARATION

▪ Angle sander diameter 178 mm



- Feather teasing trigger for optimum control.
- Speed control screw for use in different applications.
- Second handle for better grip.
- Hardened and ground spiral bevel gears for best durability.
- Delivered with a 178 mm backing pad for efficient sanding on large surfaces.



	d [mm]	H [mm]	L [mm]	L1 [mm]	Maximum RPM [mn]	Air Consumption [l/min]	Pad Dimensions [mm]	Sound Pressure DB[A]	Vibration [M/S <sup>2</sup> ]	ΔΔ [kg]
<b>V.411F</b>	178	101	373	229	4500	110	178	95 (K=3)	9.2 (K=1.78)	2,6

**SELF-ADJUSTABLE SANDING BLOCK**



**Work better and faster**



**SAVE TIME**

- Faster operation due to greater surface area coverage.

**EASY TO USE**

- Easy and accurate shape restoration.



**Versatile**

- Compatible with 3M® sanding paper, Velcro® paper.



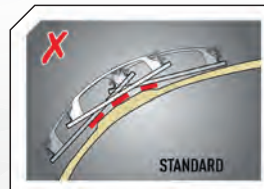
**Complete**

- 2 sizes adapted to all your needs.
- 200 mm to 400 mm.



**Handy**

- Can be connected to a vacuum cleaner.
- The vacuum cleaner bit can be changed or removed.



**High quality finish**

- Perfect finish when working on curved surfaces.



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SELF ADJUSTING SANDING WEDGES

Set of 2 self adjusting sanding wedges



- Wedge for dressing putty repairs in bodywork.
- 1 CR.SBL, 1 CR.SBS.
- Sole with self-gripping grip.
- Peripheral dust vacuuming.
- Legal guarantee.
- Shoe CR.SBL-01.



	$\Delta\Delta$ [kg]
<b>CR.SB-J2</b>	1.1

Compact self adjusting sanding wedge



- Wedge for dressing putty repairs in bodywork.
- Sole with self-gripping grip.
- For dressing cuts 70 x 200 mm.
- Peripheral dust vacuuming.
- Removable vacuum tip  $\varnothing$  20 mm.
- Legal guarantee.
- Useful dimensions (L. x W. x H.): 200 x 70 x 90 mm
- Shoe CR.SBS-01.



	H [mm]	Width l [mm]	L [mm]	$\Delta\Delta$ [g]
<b>CR.SBS</b>	90	70	200	340

Long self adjusting sanding wedge



- Wedge for dressing putty repairs in bodywork.
- Sole with self-gripping grip.
- For dressing cuts 70 x 400 mm.
- Peripheral dust vacuuming.
- Removable vacuum tip  $\varnothing$  20 mm.
- Legal guarantee.
- Useful dimensions (L. x W. x H.): 400 x 70 x 90 mm
- Shoe CR.SBS-01.



	H [mm]	Width l [mm]	L [mm]	$\Delta\Delta$ [g]
<b>CR.SBL</b>	120	70	400	660

Short sanding wedge



- Sanding wedge for repairs with bodywork putty.
- Sole with self-gripping grip
- For sanding cups 70 x 200 mm.
- Dust extraction.
- Removable extraction bit  $\varnothing$  20 mm.
- Legal warranty.
- Useful dimensions (L x W x H): 200 x 70 x 90 mm.



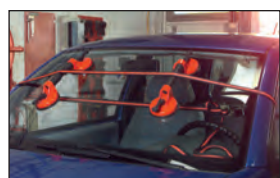
	$\Delta\Delta$ [kg]
<b>CR.SBF-S</b>	0.34





WINDSHIELD TOOLS

Windshield replacement kit



- Comprising:
  - D.28A1: Suction cups (2x).
  - D.28A2: Ratchet strap.
  - D.28-3: Removal tool.
  - D.28-4: Pull handle.
  - D.28-5: Braided wire for windshields (18 m).

	$\Delta\Delta$ [kg]
<b>D.28B</b>	3.3

Windshield tools

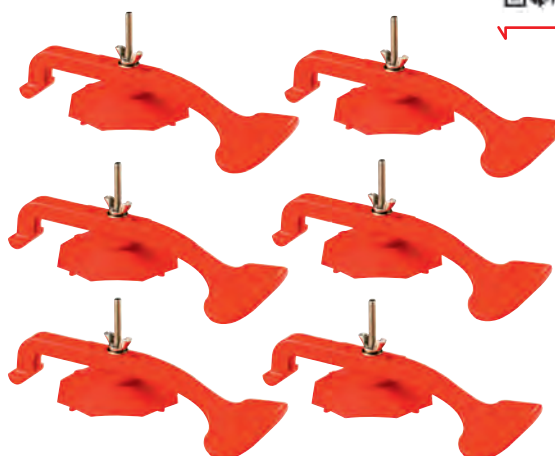


- Set of 3 tools.
- Comprising:
  - D.80-01: Windshield fitting tool.
  - D.80-02: Trim fitting tool.
  - 82H.4: Hexagon key (4 mm).
  - For narrow trim: D.80-02-04.
  - For medium trim: D.80-02-05.
  - For wide trim: D.80-02-06.
  - Supplied in a plastic case.

	H [mm]	Width l [mm]	L [mm]	$\Delta\Delta$ [g]
<b>D.80</b>	50	135	325	820

Set of 6 suction cups

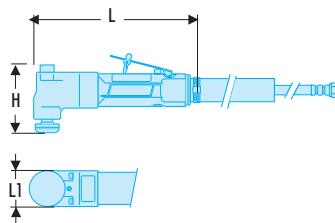
- Secures components while curing.
- Many bodywork applications:
  - Windshield trims.
  - Names and badges.
  - Interior mirrors, etc.
- Excellent suction on painted panels and windows.



	$\Delta\Delta$ [g]
DCR.20J6	470


Windshield cutter

- 20,000 oscillations per min reduces time to replace a windshield.
- Exhaust hose muffles the sound and drives air away from the workplace and the operator.
- Safety trigger protects the user from switching on the tool accidentally.
- Durable aluminium housing.
- Oscillations per minute : 22000.
- Working pressure 6,2 bar.
- Average air consumption 100 l/min.
- Average air consumption 3,4 cfm.
- Air inlet 1/4".
- Minimum hose diameter 10 mm - 3/8".
- Vibration 7,30 m/s<sup>2</sup>/a.
- Vibration 1,22 m/s<sup>2</sup>/K.
- Sound pressure 82 dB(A).
- Sound power 93 dB(A).
- Supplied with instructions, without blade.



	H [mm]	L [mm]	L1 [mm]	$\Delta\Delta$ [kg]
CAD.P300F	85	209	45	1.2

Windshield cutter blades CAD.P300F

	L [mm]	No.
CAD.P300F1	63	F1
CAD.P300F2	30	F2
CAD.P300F3	36	F3
CAD.P300F4	57	F4
CAD.P300F5	18	F5
CAD.P300F6	35	F6
CAD.P300F7	35	F7
CAD.P300F8	90	F8
CAD.P300F9	90	F9
CAD.P300F10	25	F10
CAD.P300F11	35	F11
CAD.P300F12	45	F12



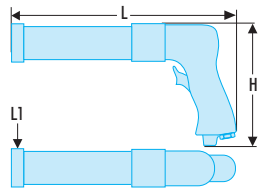
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AIR TOOLS - WINDSHIELDS

■ Caulking gun - 50 x 215 mm cartridge



- For applying silicon, mastics, adhesives in standard 50 x 215 mm cartridges.
- Easy to use regulator to adjust the actual flow coming out.
- Automatic pressure release halting flow of mastic: When trigger is depressed flow is immediately stopped.
- 70 dB(A) sound level increases operator comfort.
- Robust aluminium housing for high durability.
- Working pressure 6,2 bar.
- Average air consumption 85 l/min.
- Average air consumption 2,9 l/min.
- Air inlet 1/4".
- Minimum hose diameter 10 mm - 3/8".
- Vibration <2,50 m/s<sup>2</sup>/a.
- Vibration 0,51 m/s<sup>2</sup>/K.
- Sound pressure 97,60 dB(A).
- Sound power 108,60 dB(A).



	H [mm]	L [mm]	L1 [mm]	ΔΔ [kg]
V.801F	168	305	62	1.1

HYDRAULIC EQUIPMENT

■ 10 T hydraulic straightening kit



- Comprising:
  - 1 hand pump (600 cm<sup>3</sup>).
  - 1 push-jack (154 mm stroke).
  - 1 plier-spreader jack.
  - 4 extension pieces (127 to 711 mm).
  - 7 accessories: flat base, spreading legs, heads (V, chequered, rubber).
- Quick couplers.
- Working pressure: 700 bar.
- Supplied in a wheeled storage case.
- CE.

	ΔΔ [kg]
CR.10TA	37,100

4 T hydraulic straightening kit



- Comprising:
  - 1 hand pump (270 cm<sup>3</sup>).
  - 1 push-jack (122 mm stroke).
  - 1 plier-spreader jack.
  - 5 extension pieces (115 to 534 mm).
  - 7 accessories: flat base, spreading legs, heads (V, chequered, rubber).
- Quick couplers.
- Working pressure: 700 bar.
- Supplied in a storage case.
- EC standard

Icon	Model	Weight [kg]
	CR.4TA	21,400

DIVERS

Rechargeable aerosol

- Examples of use:
  - Cleaning with detergent.
  - Dusting with blower.
  - Degreasing.
  - Releasing with an appropriate liquid.
  - Applications: automotive, industrial maintenance, motorbike, bicycle, marine, DIY, etc.
- CAUTION!
  - Never use the DM.SPRAY in medical and biological applications.
  - Never use the DM.SPRAY in agro-food applications.
  - Never apply DM.SPRAY under a pressure above 5 bars (pressurize with a bicycle pump (5 bars)).
- Fluid content: 50 ~ 350 cc.
- Length: 280 mm.
- Diameter: 65 mm.
- Capacity: 650 ml.
- Spare parts: DM.SPRAY-1: Bottle, DM.SPRAY-2: Cap, DM.SPRAY-3: Nozzle



Icon	Model	Length [mm]	Weight [g]
	DM.SPRAY	280	186



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# HEAVY GOODS VEHICLES - INDUSTRIAL VEHICLES



**MOBILE LIFTING EQUIPMENT - HG**

**1166**

- Trolley jacks 1167
- Hydropneumatic jacks 1168
- Bottle jacks 1169
- Heavy load props 1169
- Hoists 1170
- Device removal jack 1171



**HYDRAULIC PRESSES - HGV**

**1172**

- Hydraulic presses - HGV 1172



**STORAGE - HG**

**1174**

- Roller cabinets and mobile tables 1174
- JET+ roller cabinets 1176



**RATCHETS - SOCKETS - HG**

**1178**

- Ratchets - Sockets - HG 1178



**TORQUE CONTROL - HG**

**1179**

- Torque control - HG 1179



**PNEUMATIC TOOLING - HG**

**1181**

- Pneumatic tooling - HG 1181



**PULLERS - HG**

**1182**

- Pullers - HG 1182



**CYLINDER HEAD - PISTONS - VALVES**

**1183**

- Cylinder head - pistons - valves 1183



**LUBRICATION - FILTRATION - HG**

**1184**

- Automatic oil-Filter wrench 1184



**BRAKES - HG**

**1185**

- Inspection Drum 1185
- Drum 1186



**CLUTCH CENTRING - HG**

**1186**



**WHEEL - STEERING - TRANSMISSION - HG**

**1186**

- Wheels 1186
- Steering ball joints 1187



**ELECTRICITY - HG**

**1188**

- Electricity - HG 1188



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## SERVICE TRUCKS INDUSTRIAL VEHICLES



## Demonstrations, Technical information, Online updates and Automated chest inventories

You can also make an appointment with a FACOM distributor to produce an inventory of your tooling base (roller cabinets, chests, work benches...).

### Advice, demonstration.

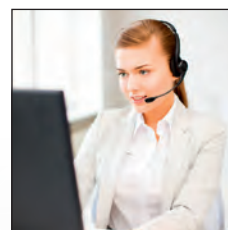
- For a presentation, demonstration, call our sales department or local dealer to speak to a FACOM adviser.

### Internet.

- Access the entire up-to-date Facom product range in one click, download the whole catalogue, specific sections, and much, much more on [www.facom.com](http://www.facom.com).

### Technical information.

- For information on a product, spare part, etc...



### Inventory of boxes.

- Save time.
  - Optimise your expenses.
  - Control your tooling budget.
  - Individual lists and box harmonisation help certifying your workshop to ISO.
1. During the first inventory, we define, for each worker (mechanical, bodywork, electricity, 24/24 service...), the computerised list of tools contained in his box.
  2. Every year, we produce an annual inventory against the original list. This allows to manage the equipment stock precisely, keep the right equipment and empower all persons. You complete your workshop equipment effectively. (Service available only in mainland France).

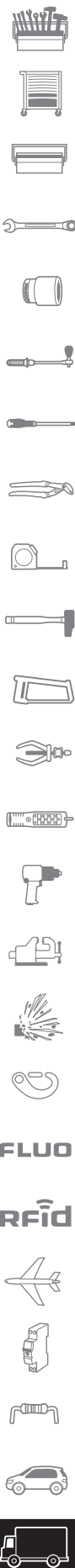


TROLLEY JACKS

"HEAVY DUTY" MOBILE LIFTING ROLLER JACKS

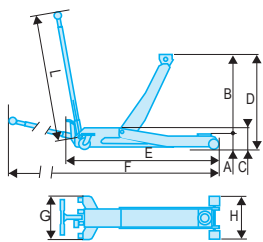
Characteristics common to "heavy duty" hydraulic jacks

- Fast approach pedal.
- "Dead man" device.
- Load descent rate regulation.
- Conformity with EC Directive on machinery 2006 and EN 1494.



5 t rolling jack

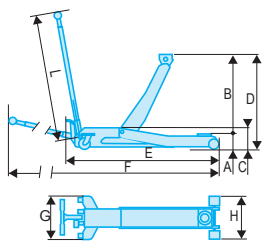
- Load capacity: 5 t.
- Maximum lifting height: 685 mm
- Minimum height under body: 150 mm.
- Fast foot lifting.
- Handle adjustable in 3 positions 90, 135, 180 degrees.
- Overload valve.
- CE Compliance Standard EN1494+A1.



	A [mm]	B [mm]	B1 [mm]	C [mm]	D [mm]	H [mm]	L [mm]	Oil Capacity [cm <sup>3</sup> ]	Tonnes [t]	ΔΔ [kg]
<b>DL.PL5</b>	150	685	1153	150	685	1380	1506	540	5	89

10 t rolling jack

- Load capacity: 10 t.
- Maximum lifting height: 525 mm
- Minimum height under body: 160 mm.
- Fast foot lifting.
- Handle adjustable in 3 positions 90, 135, 180 degrees.
- Overload valve.
- CE Compliance Standard EN1494+A1.



	A [mm]	B [mm]	B1 [mm]	C [mm]	D [mm]	L [mm]	Oil Capacity [cm <sup>3</sup> ]	Tonnes [t]	ΔΔ [kg]
<b>DL.PL10A</b>	160	525	1153	333	525	1637	1050	10	129

FLUO

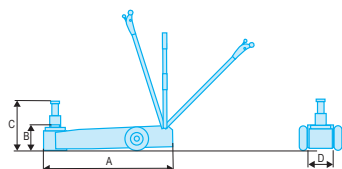
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## HYDROPNEUMATIC JACKS

**"HEAVY DUTY" MOBILE LIFTING ROLLER JACKS****Characteristics common to "heavy duty" hydraulic jacks**

- Fast approach pedal.
- "Dead man" device.
- Load descent rate regulation.
- Conformity with EC Directive on machinery 2006 and EN1494-ASME-PASE.

### 15-25-35T hydropneumatic jack

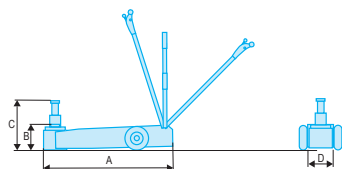


- Heavy duty construction.
- Long folding handle.
- 2 large wheels for better handling.
- Triple stage: 70 // 55 // 85.
- Air control on handle.
- Pivotal handle, 3 positions.
- Includes 2 adapters to increase lifting height.
- Compliant with EC standard EN 1494-ASME-PASE.



	A [mm]	B [mm]	C [mm]	D [mm]	Oil Capacity [cm <sup>3</sup> ]	Tonnes [t]	$\Delta\Delta$ [kg]
<b>DL.1050</b>	686	151	361	333	1200	10 - 25 - 50	65

### 15-30T hydropneumatic jack



- Heavy duty construction.
- Long foldable handle.
- 2 large wheels for better handling.
- Double stage: 70 // 75.
- Air control on handle.
- Pivotal handle, 3 positions.
- Includes 2 adapters to increase lifting height and avoid contact with the chassis.
- Compliant with EC standard EN 1494-ASME-PASE.



	A [mm]	B [mm]	C [mm]	D [mm]	Oil Capacity [cm <sup>3</sup> ]	Tonnes [t]	$\Delta\Delta$ [kg]
<b>DL.1530C</b>	538	151	296	289	1500	15 - 30	48

BOTTLE JACKS

MOBILE LIFTING ACCESSORIES FOR HYDROPNEUMATIC JACKS



# Bottle Jacks

Designed for heavy-duty professional use: the welded base provides enhanced strength to the jack.

**Can be used for special applications:**

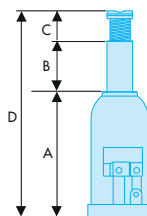
- The internal pump system allows for horizontal use as a pusher jack.
- CE.

DL.BTI - Heavy duty series bottle jacks

- Capacity: 2t, 5t, 8t, 12t, 20t, 30t.
- Designed for heavy-duty professional use.
- Welded base plate jacks, control in the axis: Stronger, more stable, less leaks.
- Heat and surface treated pump shaft and actuator.
- Allows for horizontal use as a pusher jack.
- Complies with directive on machinery 2006/42/CE.



Model	A [mm]	B [mm]	C [mm]	D [mm]	Oil Capacity [cm³]	Tonnes [t]	ΔΔ [kg]
DL.2BTI	178	177	52	317	0.7	2	2.4
DL.5BTI	198	122	70	390	15	5	3.7
DL.8BTI	198	124	72	394	20	8	5.6
DL.12BTI	238	160	80	468	37	12	8
DL.20BTI	270	160	-	430	62	20	13
DL.30BTI	280	165	-	440	83	30	18.4



HEAVY LOAD PROPS

Pair of 22 t axle stands (1)

- Load capacity: 22 t.
- Axle stands with rack and locking axis.
- 4 height settings from 338 to 500 mm.
- Pin linked by wire with storage system.
- Reliable and sturdy construction.
- Square base with welded plates for enhanced stability and stiffness.
- Closed dimensions (L. x W. x H.): 250 x 250 x 338 mm.
- Weight: 27.5 kg (per pair).



Model	H mini [mm]	Width l [mm]	L [mm]	ΔΔ [kg]
DL.PL22A	338	250	250	27.5



HOISTS

WORKSHOP CRANES



**Exclusive performance:**

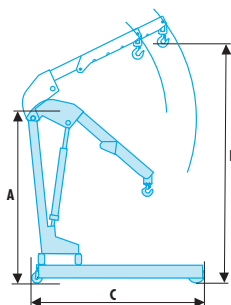
- Easy boom length adjustment without tool.
- Load lowering with one millimetre accuracy with the high-precision control.
- Rotating jack at 270°: controls boom rising and lowering by the back or side of the crane.



■ 1 t europalette workshop crane



- 1 t folding workshop crane compatible with EU pallet.
- Tool-free jib extension.
- Easy use, pivoting rear wheels.
- Capacity: 1 t.
- 4 positions: 500, 670, 830.1000 kg.
- Max length from arm to hook: 1360 mm
- Width 838 mm, inside the forks.
- Floor dimensions: 1527x992 mm.
- Hook height: 128-2128 mm.
- Jack fitted with overload valve.
- CE Compliance Standard EN1494+A1.

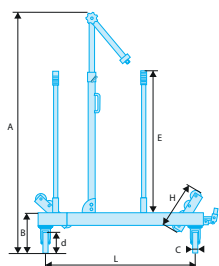


	A [mm]	B [mm]	C [mm]	Tonnes [t]	ΔΔ [kg]
<b>DL.500EU</b>	1613	2128	1527	1	86

DEVICE REMOVAL JACK

Hydraulic tractor wheel lift

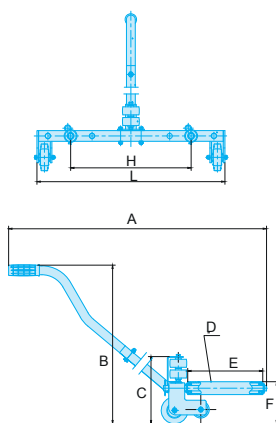
- Load capacity: 1.5 t.
- Easy and secured removing - fitting of tractor wheels
- 6 orientable rollers for easy wheel positioning upon refitting.
- Wheel diameter: 1350 to 2150 mm.
- Max width wheels: 800 mm.
- Adjustable width: 1200-1970 mm.
- Floor dimensions: 1310 x 1020 mm.
- 2 wheels with brakes.
- CE Compliance Standard EN1494+A1.



DL.1500	A [mm]	B [mm]	C [mm]	d [mm]	E [mm]	H [mm]	L [mm]	Tonnes [t]	ΔΔ [kg]
DL.1500	1350-2150	280	50	150	1000	76	210-845	1,5	125

HGV, bus' wheel lift

- Load capacity: 250 kg.
- For easy and secured removal - refitting of wheels on buses, HGVs, forklift trucks.
- 2 rollers adjustable in width from 6.5" to 22.5".
- 2 rollers length: 280 mm.



DL.275	A [mm]	B [mm]	C [mm]	d [mm]	E [mm]	H [mm]	L [mm]	Tonnes [t]	ΔΔ [kg]
DL.275	1160	758	251		280	450	702	1,5	12,5

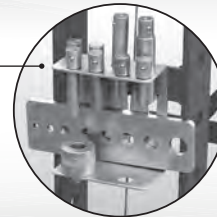


## HYDRAULIC PRESSES - HGV

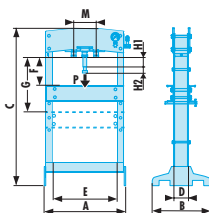
## HYDRAULIC PRESSES

## 30t and 50t Workshop presses

- Table raised by a single operator using the integral winch (model 50t).
- Integral pusher support.
- Jack mobile laterally.
- Supplied assembled with a pair of Veets.
- Piston with automatic return spring.
- Base allowing to move it using a pallet jack, ground anchorage.
- CE.



## 15 t hydraulic bench press

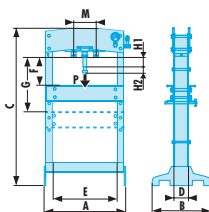


- Lateral adjustable jack.
- Eye-level pressure gauge.
- Piston with automatic return.
- Piston travel: 160 mm.
- Supplied fitted with pair of reversible V and set of pushers.
- Floor dimensions: 700 x 540 mm.
- CE compliance Standard EN1494+A1.



	A [mm]	B [mm]	C [mm]	D [mm]	E [mm]	Tonnes [t]	$\Delta\Delta$ [kg]
<b>W.415WBA</b>	700	540	882	965	500	15	75

## 20 t hydraulic press



- Double pump for fast approach.
- Foot and hand control.
- Eye-level pressure gauge.
- Piston with automatic return.
- Piston travel: 185 mm.
- Supplied with pair of reversible V and set of pushers.
- Floor dimensions: 730 x 560 mm.
- CE compliance Standard EN1494+A1.

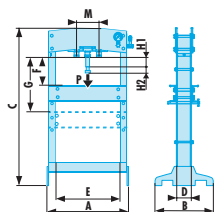


	A [mm]	B [mm]	C [mm]	D [mm]	E [mm]	Tonnes [t]	$\Delta\Delta$ [kg]
<b>W.420</b>	730	560	1519	1626	510	20	112

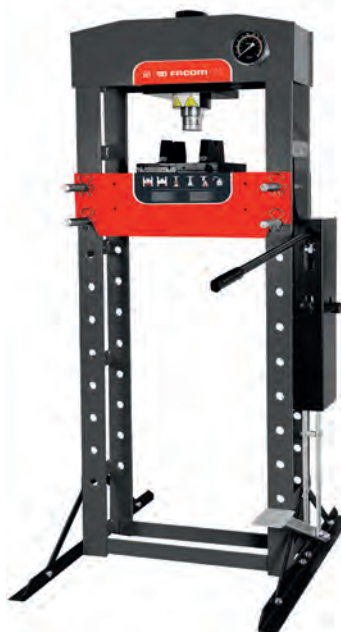
HYDRAULIC PRESSES - HGV

30 t hydraulic press

- Double pump for fast approach.
- Foot and hand control.
- Eye-level pressure gauge.
- Piston with automatic return.
- Piston travel: 150 mm.
- Supplied with pair of reversible V and set of pushers.
- Floor dimensions: 795 x 700 mm.
- CE compliance Standard EN1494+A1.

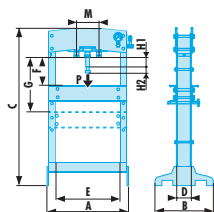


W.430	A [mm]	B [mm]	C [mm]	D [mm]	E [mm]	Tonnes [t]	$\Delta\Delta$ [kg]
W.430	795	700	1773	1830	535	30	167



50 t hydraulic press

- Double pump for fast approach.
- Foot and hand control.
- Eye-level pressure gauge.
- Piston with automatic return.
- Piston travel: 200 mm.
- Supplied with pair of reversible V and set of pushers.
- Table adjustable by winch.
- Floor dimensions: 730 x 560 mm.
- CE compliance Standard EN1494+A1.



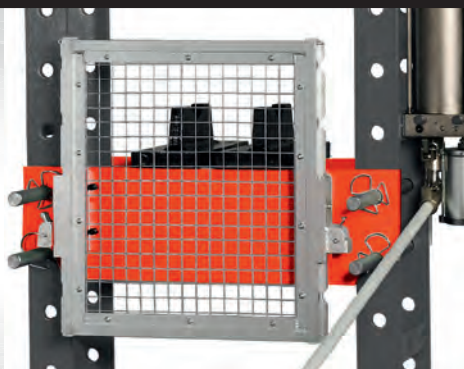
W.450	A [mm]	B [mm]	C [mm]	d [mm]	E [mm]	Tonnes [t]	$\Delta\Delta$ [kg]
W.450	1030	800	1831	1877	730	50	300



PROTECTION FOR WORKSHOP PRESSES

FLEXIBILITY

- Several height positions of the protection according to the part's size. Allows to position the protection flush with the part for large parts.
- Adapts to 20t, 30t and 50 t workshop presses.



W.PROTECT20 for press 20 t W.420  
 W.PROTECT30 for press 30 t W.430  
 W.PROTECT50 for press 50 t W.450

ROLLER CABINETS AND MOBILE TABLES

HEAVY LOAD MOBILE WORKBENCHES



**Max resistance:**

- Acceptable load 500 kg - Extremely strong welded steel tubular structure.
- Upper top and lower shelf in 20/10th steel.

**Multi function:**

- Laying plan (for 600 x 800 mm pallet), Worktop (locked wheels) and Transport.

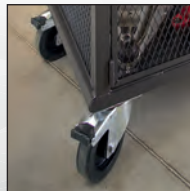


**Max manoeuvrability:**

- 4 large wheels: 2 castors with brake and 2 fixed wheels, Ø 160 mm, rubber tread, for easy manoeuvrability even with heavy load.
- Sturdy and comfortable manoeuvring handle.

**Max safety:**

- Upper worktop with retaining lips on 3 sides (including 2 folding), 25 mm high preventing objects/tools from falling while moving.
- Rounded base providing ankle protection.



■ Heavy-duty roller table



- Ideal to deposit and transport heavy loads.
  - Max strength and handling:
    - Load acceptable 500 kg - extreme resistance mechanically welded steel tubular structure.
    - Upper surface and lower shelf in steel 20/10th.
  - Handling:
    - 4 large size wheels: 2 castors with brake and 2 fixed rollers, Ø 160 mm, rubber tire, for easy handling of the trolley, even when heavily loaded.
    - Robust and comfortable handle.
  - Multi function:
    - Laying surface (for pallet 600x800 mm), worktop (locked wheels) and transport.
  - Max safety:
    - Worktop with edges on 3 sides (including 2 retractible), height 25 mm to avoid prevent objects/tools from falling during transport.
    - Lower panel rounded to protect ankles.
  - Colours: grey ELIAN.
  - Dimensions: L.1092 x D.617 x H.903 mm.
- Accessories:
- Additional shelf in galvanised metal sheet thickness 2 mm with anti-fall edges dimensions: L.960 x D.546 x H.20mm / 9kg.



FACOM	H [mm]	L [mm]	W [mm]	ΔΔ [kg]
2702	903	1092	617	9



## ROLLER CABINETS AND MOBILE TABLES

## Additional shelf

- In galvanised metal sheet thickness 2 mm with anti-fall edges.



FACOM	H [mm]	L [mm]	W [mm]	ΔΔ [kg]
2702.TAB	20	960	546	9.0

## Heavy-duty trolley

- Ideal for secured transport or storage of tools and components.
  - Max strength and handling:
    - Load acceptable 500 kg - extreme resistance mechanically welded steel tubular structure.
    - Upper surface and lower shelf in steel 20/10th.
  - Handling:
    - 4 large size wheels: 2 castors with brake and 2 fixed rollers, Ø 160 mm, rubber tire, for easy handling of the trolley, even when heavily loaded.
    - Robust and comfortable handle.
  - Multi function:
    - Laying surface (for pallet 600x800 mm), worktop (locked wheels) and transport.
  - Max safety:
    - Worktop with edges on 3 sides (including 2 retractible), height 25 mm to avoid prevent objects/tools from falling during transport.
    - Lower panel rounded to protect ankles.
  - Steel grid sides. (deployed metal 40\*23 thickness 1.5mm).
  - Padlock clasp (padlock not supplied).
  - Acceptable load 500 kg.
  - Extreme resistance steel tubular structure.
  - Colours: grey ELIAN.
  - Dimensions: L.1092 x D.617 x H.903 mm.
- Accessories:
- Additional shelf in galvanised metal sheet thickness 2 mm with anti-fall edges.
  - L.960 x D.546 x H.20mm / 9kg.
  - Weight: 54 kg.



FACOM	H [mm]	L [mm]	W [mm]	ΔΔ [kg]
2703	903	1092	617	54.0



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JET+ ROLLER CABINETS

M5 ROLLER CABINET

**Extra wide worktop, unequalled storage capacity, exceptional handling.**



- + **Extra-wide drawers - 5 modules per drawer. 25 to 45 modules** distributed in 60 and 130 mm high drawers (200 and 270 mm drawers can also be fitted with modules).
- + **235 to 320 kg** total acceptable load in the drawers according to drawer composition.
- + **250 to 255 litres** effective volume according to drawer composition.
- + **0.40 m<sup>2</sup>** effective working surface (440 X 876 mm).



**Technical data**

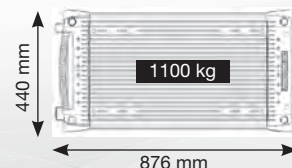
- Overall dimensions (wheels and worktop included): L.1154 x D.546 x H.1000 mm.
- Effective drawer dimensions: L.948 x D.421 x H.60 / 130 / 200 / 270 mm.

**Load per drawer for M5 versions**

- Drawer 60 mm high: 35 kg
- Drawer 130 mm high: 40 kg
- Drawer 200 mm high: 50 kg
- Drawer 270 mm high: 60 kg

**Effective drawer volume in litres on M5 version**

- Drawer 60 mm high: 25 L
- Drawer 130 mm high: 50 L
- Drawer 200 mm high: 80 L
- Drawer 270 mm high: 110 L



■ JET+ 6-drawer roller cabinets - 5 modules per drawer



- 6 drawers = 25 modules distributed in the 60 and 130 mm drawers:
  - 3 drawer 60 mm wall = 15 modules.
  - 2 drawer 130 mm wall = 10 modules.
  - 1 drawer 200 mm wall.
- The 200 and 270 mm drawers can also be fitted with modules.
- Supplied with 12 partitions for 60 mm drawers and 4 partitions for 130 mm drawers.
- Total load in the drawers: 235 kg.
- Wall storage capacity: 255 litres.
- Drawer useful size: L.948 x D.421 x H.60 / 130 / 200 mm.
- Furnished with 8 separators for drawers of 60 mm and 8 separators for drawer of 130 mm.



	H [mm]	L [mm]	P [mm]	Colour	ΔΔ [kg]
JET.6M5	1000	1154	546	Rouge 3020	104.5
JET.6GM5	1000	1154	546	Noir 9004	104.5

JET+ ROLLER CABINETS

Jet+ 6-drawer mobile workbenches - 3 modules per drawer



- 6 drawers = 15 modules distributed in the 60 and 130 mm drawers:
  - 4 drawers 60 mm high = 12 modules.
  - 1 drawer 130 mm high = 3 modules.
  - 1 drawer 270 mm high.
- The 200 and 270 mm drawers can also be fitted with modules.
- Supplied with 6 partitions for 60 mm drawers and 2 partitions for 130 mm drawers.
- Total load in the drawers: 140 kg.
- High storage capacity drawers: 155 litres.
- 1 full-length closed compartment for storing long tools:
  - Door with key lock.
  - Identical key for the drawers and the compartment.
- Supplied with the plastic carrier tray.
- For the wood top version, just add wood top JET.A14M5.
- Compatible with the JET+ and JET.XL range of accessories.
- 4 very high performance wheels 160 mm diameter - 2 castors (including 2 with brakes) and 2 fixed.
- Drawer useful size: L.569 x D.421 x H.60/130/200 mm.
- Compartment dimensions: L.378 x D.430 x H.679 mm (passage width with door open 310 mm).



ED	H [mm]	L [mm]	W [mm]	Colour	ΔΔ [kg]
JET.T6M3	1000	1154	546	Red 3020	100.0
JET.T6GM3	1000	1154	546	Black 9004	100.0



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FIND THE COMPLETE RANGE ROLLER CABINET JET +



PAGE 54



RATCHETS - SOCKETS - HG

3/4" 6-point sockets set 19 - 55 mm



Including:

- 1 K.152 3/4" 72-teeth square drive, length: 505 mm.
  - 13 12-point OGV® sockets 3/4" square drive: 19 - 21 - 22 - 24 - 27 - 30 - 32 - 34 - 36 - 41 - 46 - 50 - 55 mm.
  - 2 3/4" extensions:
    - K.210B: length 200 mm.
    - K.215B: length 400 mm.
  - 1 K.240A 3/4" square drive universal joint, length: 105 mm.
  - Supplied in plastic case BV.COMPO-K, compatible with drawers of JET+ rolling cabinets and JETLINE units.
- Dimensions (L. x D. x H.): 565 x 412 x 105 mm.

	$\Delta\Delta$ [kg]
<b>K.500</b>	13.7

3/4" 12-point sockets set 19 - 55 mm

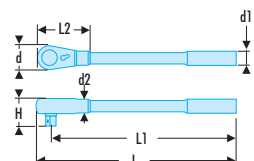


Including:

- 1 K.152 3/4" 72-teeth square drive, length: 505 mm.
  - 13 6-point OGV® sockets 3/4" square drive, KHB or KB: 19 - 21 - 22 - 24 - 27 - 30 - 32 - 34 - 36 - 41 - 46 - 50 - 55 mm.
  - 2 3/4" extensions:
    - K.210B: length 200 mm.
    - K.215B: length 400 mm.
  - 1 K.240A 3/4" square drive universal joint, length: 105 mm.
  - Supplied in plastic case BV.COMPO-K, compatible with drawers of JET+ rolling cabinets and JETLINE units.
- Dimensions (L. x D. x H.): 565 x 412 x 105 mm.

	$\Delta\Delta$ [kg]
<b>K.501</b>	13.7

3/4" drive "heavy duty" ratchet



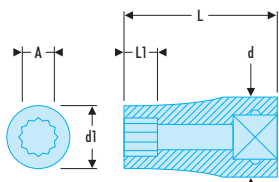
NF ISO 3315, ISO 3315, DIN 3122, ASME B107.10

- Suitable for outdoor working:
  - Sturdy mechanism protected against dirt.
  - Recessed reversing switch.
  - 9° increments.
  - 40 tooth mechanism.
  - Removable handle K.149M.
- Plunger lock.
- Finish: mat chrome.

	d [mm]	d1 [mm]	d2 [mm]	H [mm]	L [mm]	L1 [mm]	$\Delta\Delta$ [kg]
<b>K.149</b>	65,5	25	32	62	510	475	2.9

RATCHETS - SOCKETS - HG

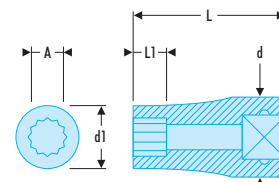
3/4" hexagonal socket 43 mm "IVECO HGV's"



- Examples of use: IVECO HGV's hub removal.
- OGV® profile.
- Safe locking with ratchets and accessories fitted with plungers.
- Fitted with quick release button.
- Finish: chromed.

Part No.	A [mm]	d [mm]	d1 [mm]	L [mm]	L1 [mm]	Hex [mm]	ΔΔ [g]
<b>K.43HB</b>	43	40	60,7	66,9	27	6	560

1" 12-point sockets 65 mm



- Example of use:
  - IVECO: disc bearing nut.
  - Mercedes: transfer or transmission box gears.
- Thinner, lighter body.
- Safe locking with ratchets and accessories fitted with plungers.
- Push-button release.
- Finish: chromed.

Part No.	A [mm]	d [mm]	d1 [mm]	L [mm]	L1 [mm]	Hex [mm]	ΔΔ [kg]
<b>M.65B</b>	65	58,3	85,4	92	42	12	1.7

TORQUE CONTROL - HG

Click wrenches with removable ratchet



- Factory accuracy: ± 4%.
- Reliability of mechanism: 50 000 cycles (wrenches up to 200 N.m).
- Can be used with Ø 30 mm accessories.
- One-way wrenches usable for unscrewing by reversing the bits.
- Numbered wrench supplied with ISO 6789 calibration certificate.
- Supplied in plastic box with ratchet.

Part No.	L [mm]	Attachment	Capacity [N.m]	Clé	Cliquets	Graduation [N.m]	ΔΔ [kg]
<b>K.306A1000</b>	1280	Ø 30 mm	200 - 1000	K.306-1000D	K.151A	4,00	5.9



FLUO

RFid



TORQUE CONTROL - HG

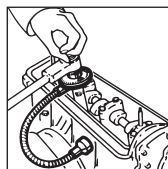
■ Torque and angle adapter



- Accuracy:
  - Torque:  $\pm 3\%$  between 20% and 100% wrench capacity.
  - Angle:  $\pm 2^\circ$ .
- Measuring mode: peak or follower.
- Cycle counter.
- Locking keypad (the operator has access only to program choices and result memorising).
- Measuring unit: N.m, ft.lb, ln.lb, kg.cm, deg.
- Presetting possible of 9 torque and/or angle values.
- Memory: 50 values.
- Supplied in plastic case with calibration certificate.

➤	L [mm]	Capacity [N.m]	Resolution	$\Delta\Delta$ [g]
<b>E.506-340S</b>	80	17 - 340	0,1	268

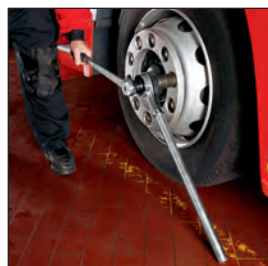
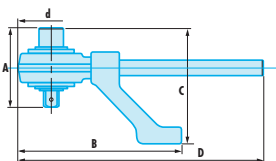
■ DM - Angular tightening gauges



- Magnetic attached angle gauge for cylinder heads.
- Allows accurate measurement of angle following tightening with a torque wrench.
- Flat drum with top reading.
- Drum positioning on the value recommended by the manufacturer, then tightening to zero.
- Graduations:  $2^\circ$ .
- Male and female square drive.
- Fixed point by flexible with magnet.

➤	d [mm]	L [mm]	Square ["]	$\Delta\Delta$ [g]
<b>DM.360</b>	63	410	1/2	350
<b>DM.370</b>	73	430	3/4	550

■ MC.B Torque Multiplier



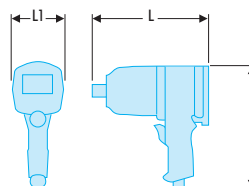
- Compact and lightweight models suited to maintenance work on vans, trucks.
- Multiplication ratio: 5:1.
- Supplied with 2 reaction arms (straight and angled) and one spare drive square.

➤	A [mm]	B [mm]	C [mm]	d [mm]	L [mm]	Capacity Maxi [N.m]	F Square	Male Square	$\Delta\Delta$ [kg]
<b>MC.130B</b>	126	263	180	106	396	1300	3/4	1/2	3.8
<b>MC.270B</b>	128	263	186	106	396	2700	1	1/2	3.8

PNEUMATIC TOOLING - HG

3/4" titanium impact wrench

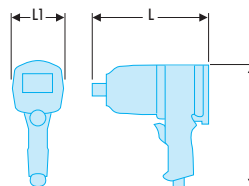
- Lightweight titanium housing for maximum durability.
- Feather throttle for maximum operator control.
- Titanium exhaust deflector & muffler.
- Over molded comfort grip.
- One hand power & reverse adjustment.
- Innovative motor construction increases durability.



FACOM	H [mm]	L [mm]	L1 [mm]	ΔΔ [kg]
NK.3000F	227	227	97	3,8

3/4" composite impact wrench

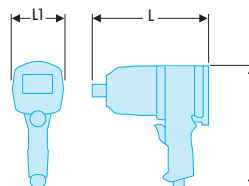
- Durable twin hammer mechanism encased in a strong aluminium housing.
- One switch integrating regulation and forward reverse.
- Insulating and lightweight durable composite housing.
- Feather teasing trigger for optimal speed regulation.
- Specific short design to get into confined spaces.
- Socket ring retainer for safety.



FACOM	H [mm]	L [mm]	L1 [mm]	ΔΔ [kg]
NK.2000F2	213	221	86	3,9

3/4" aluminum impact wrench

- Durable twin hammer mechanism encased in a strong aluminium housing.
- One hand forward reverse switch with integrated regulator with 6 positions.
- Feather teasing trigger for optimal speed regulation.
- Socket ring retainer for safety.



FACOM	H [mm]	L [mm]	L1 [mm]	ΔΔ [kg]
NK.1000F2	233	222	93	5,6



## PULLERS - HG

### Hydraulic puller 10 T for outside puller - 3 sets of legs



- Versatile: takes 2 or 3 legs.
- Safety: power is limited hydraulically to 10 tonnes.  
No risk of breakage.
- Comprising:
  - A 10-tonne hydraulic jack (100 kN) U.312-01 + and guide tip U.312-02 + set of 2 extensions U.312-03.
  - A body with 2 or 3 legs U.312-04 + centering screw U.312-04-01 + set of 3 screws/nuts U.312-04-02.
  - 3 sets of legs: U.312G160, U.312G210 and U.312G260.
- Supplied in plastic case U.312VAL.



	H [mm]	W [mm]	L [mm]	ΔΔ [kg]
<b>U.312HJ3</b>	105	412	565	13.2

### Hydraulic puller 10 T for outside puller - 4 sets of legs



- Versatile: takes 2 or 3 legs.
- Safety: power is limited hydraulically to 10 tonnes.  
No risk of breakage.
- Comprising:
  - A 10-tonne hydraulic jack (100 kN) U.312-01 + and guide tip U.312-02 + set of 2 extensions U.312-03.
  - A body with 2 or 3 legs U.312-04 + centering screw U.312-04-01 + set of 3 screws/nuts U.312-04-02.
  - 4 sets of legs: U.312G110, U.312G160, U.312G210 and U.312G260.
- Supplied in plastic case U.312VAL.



	H [mm]	W [mm]	L [mm]	ΔΔ [kg]
<b>U.312HJ4</b>	105	412	565	14.4



CYLINDER HEAD - PISTONS - VALVES

■ Piston ring compressors 100 - 160 mm

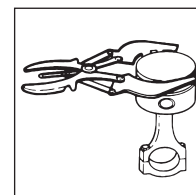
- For easy insertion of piston into cylinder bore and even compression over full ring length.
- Ratchet mechanism.
- Complete with key (length: 6 mm).



	d [mm]	L [mm]	ΔΔ [g]
750.KB	100...160	80	300

■ Piston ring pliers

- Even distribution of the load around the piston ring.
- Fast.



	d [mm]	W [mm]	L [mm]	ΔΔ [g]
751.K	90...150	255	255	330

■ Renault and Volvo Trucks OIL filter WRENCH

- For filters in confined spaces.
- Filters situated in compact clusters make using a strap or chain wrench very difficult, even impossible.
- Diameter 106 mm.
- 15-point.
- 1/2" drive bit or 36 mm - 6-point socket.



	ΔΔ [g]
DP.106-15	450

PULLERS

Complete range of pullers see section 12 p. 624.

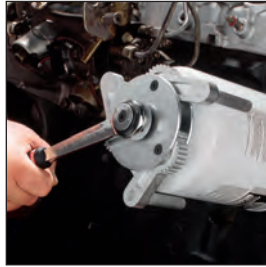


## AUTOMATIC OIL-FILTER WRENCH

## Self-gripping oil-filter wrench for HGV's



- For HGV's and farming vehicles.
- 1/2" drive bit.
- For oil filters diam.: 95 --> 165 mm.



	$\Delta\Delta$ [kg]
<b>U.151PL</b>	1,345

## Automatic oil-filter wrench for HGV's

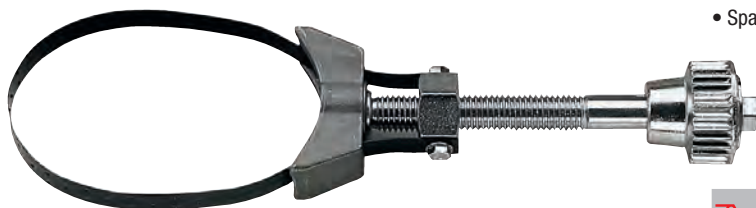


- For HGV's and farming vehicles.
- For filters diam.: 106 --> 145 mm.
- Ratchet effect increment: 5°.
- Optimised automatic tightening.
- Spare strap U.48-PL2 for oil filter wrench.



	$\Delta\Delta$ [g]
<b>U.48PL</b>	290

## Adjustable oil-filter wrench for HGV's



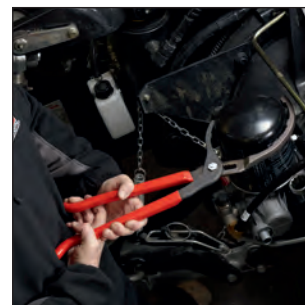
- Automatic oil filter wrench for HGV's and farming vehicles.
- For filters diam.: 105 --> 145 mm.
- Max length: 300 mm.
- Spare strap U.46APL2 for oil filter wrench.

	$\Delta\Delta$ [g]
<b>U.46PL</b>	350

AUTOMATIC OIL-FILTER WRENCH

XL filter pliers

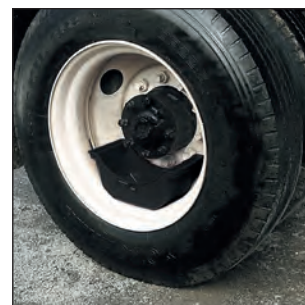
- Forged pliers.
- Capacity: diameter 95 to 178 mm .
- Fast and precise adjustment, 8-position slip-joint.
- Return spring.
- "triangle" teeth for enhanced filter tightening.
- Main applications industrial vehicles, buses, nautical (desiccator filters, oil filters, plugs).



	L [mm]	$\Delta\Delta$ [kg]
170.FIL	500	1.5

Hub truck oil pan

- Shaped to follow the wheel.
- 2.6 l capacity.
- Additional hole on the upper part to drain the oil from the nuts.
- Two magnets for improved stability.



	$\Delta\Delta$ [g]
D.HUP	738

BRAKES - HG

INSPECTION

Disc brake vernier caliper

- Vernier caliper for checking the thickness of brake discs.
- Accurate, error-free reading.
- Measurements can be taken with wheel in place (if no protective bodywork).
- Can quickly demonstrate to customers the need for changing brakes.
- Capacity 0 to 50 mm, outer thickness measurement of the disc brakes of cars and LCV's.
- Nose length: 50 mm.
- 0.1 mm reading increments.
- Mechanical memory device.
- Supplied in a reinforced fabric case with serial number for traceability in ISO certified workshops.

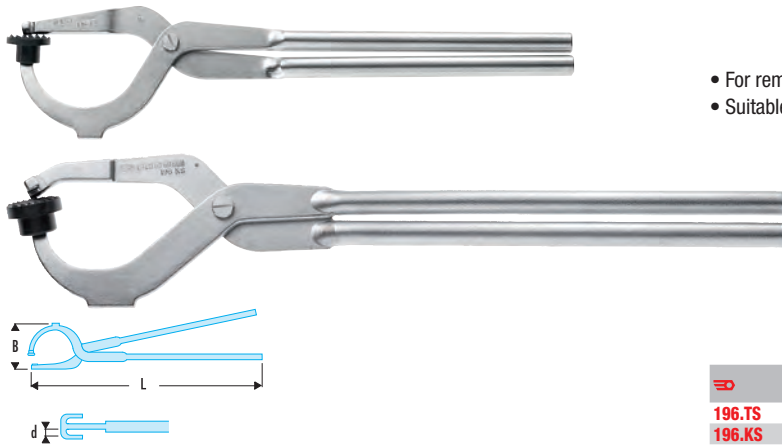


	$\Delta\Delta$ [g]
DF.18-01	250



## DRUM

## 196 Brake-spring pliers



- For removing shoe springs.
- Suitable for right-handed and left-handed working.



Ref	B [mm]	d [mm]	L [mm]	$\Delta\Delta$ [kg]
196.TS	83	3	350	0.580
196.KS	100	5	485	1.2

## HEAVY GOODS - INDUSTRIAL VEHICLES

## HGV clutch centring set



Includes:

- 4 cylinders diameter 20 -25 -27 -30 mm for bearings. References DM.30PL-20/-25/-27/-30.
- 2 expandable positioning tools:
  - DM.30PL-3645 capacity 36 to 45 mm.
  - DM.30PL-4252 capacity 42 to 52 mm.
- Rubber rings reference DM.30PL-01.
- Set supplied in case BP.112 with Tray PL.490.

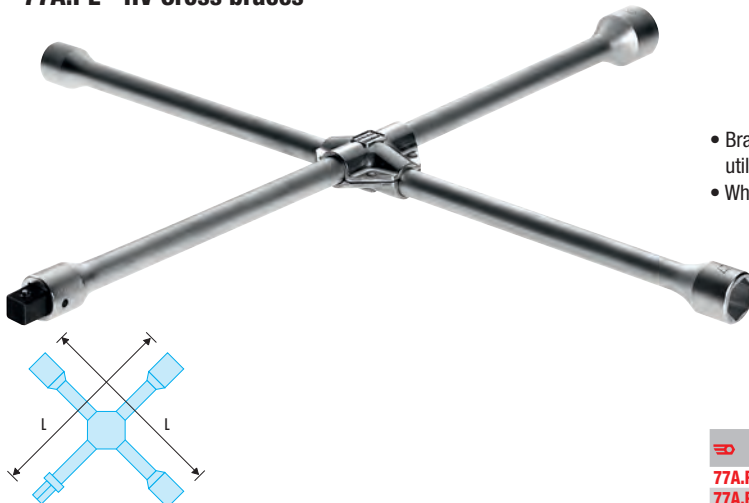


Ref	$\Delta\Delta$ [kg]
DM.30PL	3.260

## WHEEL - STEERING - TRANSMISSION - HG

## WHEELS

## 77A.PL - HV Cross braces



- Braces used to remove nuts from wheels of light, utility and heavy vehicles.
- When the brace has a drive bit, it is interchangeable.



Ref	d [mm]	L [mm]	Square ["]	$\Delta\Delta$ [kg]
77A.PL1	24 - 27 - 30 - 32	700	-	4.7
77A.PL2	24 - 27 - 33	700	3/4	4.6

STEERING BALL JOINTS

Hydraulic ball joint puller



- Examples of allocation: Volvo, RVI, Scania, Mercedes.
- Capacity: diameter 36 mm, can be used on ball joints of trucks, coaches.
- Jack power: 8 tonnes.

	H [mm]	W [mm]	L [mm]	ΔΔ [kg]
<b>U.18H36</b>	400	100	480	6.8

HGV's ball joint puller



- Mechanical screw model.
- Diameter 36 mm.

	H [mm]	L [mm]	P [mm]	ΔΔ [kg]
<b>U.18-36</b>	80	210	180	4.3

Ball joint puller



- Used to dismount steering and suspension ball joints.
- Length: 158 mm, height: 75 mm.
- Capacity diameter 32 mm, opening 80 mm.
- U.16A-45-05J3: Set of 3 safety pins.

	A [mm]	d [mm]	H [mm]	L [mm]	ΔΔ [kg]
<b>U.16B32</b>	80	32	75	158	2.5

LCV's, HGV's ball joint puller



- Used to dismount steering and suspension ball joints.
- Length: 158 mm, height: 90 mm.
- Capacity diameter 45 mm, opening 80 mm.
- U.16A-45-05J3: Set of 3 safety pins.

	A [mm]	d [mm]	H [mm]	L [mm]	ΔΔ [kg]
<b>U.16A45</b>	80	45	90	158	2.6



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## ELECTRICITY - HG

## ■ Crimping pliers for tubular terminals with rotating dies



- Rotating dies indexable in 6 positions:  
6 - 10 - 16 - 25 - 35 - 50 mm<sup>2</sup>.
- The pliers can be disengaged during crimping.
- Capacity: 6 to 50 mm<sup>2</sup>



	L [mm]	ΔΔ [kg]
<b>986095</b>	390	1.185

## HYDRAULIC CRIMPING



## Reliability and safety

- Effortless crimping, identical to original fit, of all large-size electrical terminals (10 to 70 mm<sup>2</sup>) found on a heavy vehicle.
- Repair faster and higher quality than soldering.
- Easier access and better grip than mechanical liers.
- Examples of use: terminals on batteries, alternators, starters, ground studs, electric lifts, gate links, etc.

## ■ Hydraulic crimping pliers



- Example of use: battery, alternator, starter, tailgate, trailers.
- High quality crimping in a shape identical to what is done in the factory thanks to the 35,000 N jack and crimping complete trigger system guaranteeing proper pressure.
- Faster and more reliable than welding.
- Crimps electric terminals from 10 to 70 mm.
- Heads rotating over 360° for difficult access.
- Travel adjustable from 5 to 8 mm.
- Pliers dimension (L. x D. x H.): 215 x 180 x 30 mm.
- Pliers supplied in a box with 5 hexagon-shaped dies:  
10 - 25 - 35 - 50 - 70 mm<sup>2</sup>.



	H [mm]	L [mm]	W [mm]	ΔΔ [kg]
<b>789.5</b>	30	215	180	1.7

12 - 24 volt battery charger for HGV's, CGV's, LGV's, farm equipment

- Compatible with all "lead acid" batteries: VLRA, GEL, AGM, CALCIUM, Liquid.
- "Standard" mode for humid battery.
- "Power supply" mode to supply and save memory when changing a battery.
- "Dry" mode for charging AGM, GEL and VLRA batteries.
- Can be used as maintaining charger.
- "BOOST" mode to save limit batteries.
- Automatic charge compensation according to the temperature around the battery.
- Automatic 12 - 24 V switching.
- For batteries 12 V and 24 V, 90 Ah to 600 Ah batteries.
- Power supply: 200 V, 50 - 60 Hz.
- Supplied with alligator clips.



BC2410	ΔΔ [kg]
	2,3

Automotive multimeter

- Measures internal resistance of batteries.
- Automatic calibre.
- Voltmeter: AC / DC 0 --> 600 V.
- Ammeter: AC / DC 0 --> 400 mA.
- Ohmmeter: 0 0 --> 40 MO.
- Continuity and LED test.
- Temperature measurement.
- Cyclic ratio: 5% --> 99% .
- Cam angle.
- Tachometer.
- Frequency meter: 1 Hz --> 400 KHz.
- Compatible with clip-on ammeter Ref 711A.P500.



714A	ΔΔ [kg]
	1.265



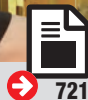
**YOUR HEALTH IS IMPORTANT.**  
**PROTECT YOURS BY USING THE BEST QUALITY TOOLS**  
**DESIGNED FOR YOUR SPECIFIC APPLICATION. USING TOOLS IN THE CORRECT**  
**MANNER IS YOUR BEST GUARANTEE.**



**GLOVES**



**EYE PROTECTION**



**MASKS**



**MATS**



**GENERAL RECOMMENDATIONS :**

These safety recommendations for tool usage reflect good engineering practice and are not intended to be a comprehensive set of rules. They complement, but do not replace, standard precautions to be taken by every user complying with professional guidelines, company procedures and national regulations.

**PERSONAL SAFETY**

- Wear eye protection for any job involving chips, splinters, sparks, dust, flashes or UV rays.
- Wear gloves to protect against cuts, knocks and burns.

**1,000 V INSULATED TOOLS FOR ELECTRICAL SAFETY**

- Never work on or near live components without 1,000 V tools. Only these can provide the insulation required for adequate protection. Plastic handles of other tools are not designed to insulate.

**SENSIBLE PRECAUTIONS**

- Secure balance especially when pushing and pulling, e.g. tight fasteners.
- Straight back and bent knees when lifting.

**TOOL CARE**

- Keep tools clean to prevent risk of slipping and give a more secure grip.
- Check tools before use for any defects such as excessive wear or breakage. Some mechanisms need regular cleaning and lubrication.
- Keep and follow manufacturers' operating instructions. Use the complete contents of any service kits.

**CORRECT TOOL SELECTION**

- Use the right tool. Each tool is designed for a specific application and should not be used for other jobs. Only the right tool will ensure safety, comfort and productivity.
- Never attempt DIY modifications to a tool, whether by grinding, welding or heating. Altered specifications could make it unsafe.
- Do not exceed tool capacities with inappropriate extensions or impact accessories.



## WORKSHOP FURNITURE AND STORAGE

### ROLLER CABINETS

- Never open more than one loaded drawer at a time, otherwise the unit may tip.
- Do not exceed drawer load capacity.
- Apply the brake when stationary. Close and lock all drawers before moving.
- Do not pull the cabinet towards you, always push it and avoid balancing items on top.

### TOOLBOXES AND CHESTS

- Watch your back when lifting heavy containers.
- Do not stand on toolboxes.
- Mind your hands and wear gloves. Sharp or rough objects should not be kept loose.



- Don't pull behind you.
- Nothing balanced on top.



- Only one drawer at a time



55

## WRENCHES

### SENSIBLE PRECAUTIONS

- Secure your balance and pull the wrench towards you rather than push it.
- Wear gloves and eye protection.
- Do not grind, weld or heat your tool. It could become unsafe.
- Check condition of both fastener and tool before use.

### CORRECT TOOL SELECTION, WITHOUT OVERLOAD

- Never exceed tool capacity. Do not use an extension or a hammer.
- Always use the right size for the fastener head.
- Select a ring wrench for high torques. When using an open-end wrench, engage fastener head fully to avoid distorting the nose of the wrench, and work in a straight line.



- Always pull the wrench towards you.



- No metric tools on inch sizes.



- Only fit slogging wrenches.



197

## SOCKETS

### PERSONAL SAFETY WITH IMPACT SOCKETS

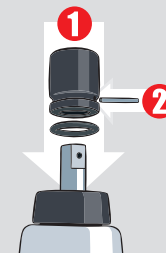
- Always secure sockets to the machine with locking ring and pin (references given for each socket).
- Never hold a socket or accessory while the machine is turning.
- Wear gloves and eye protection.
- Never use a manual or simple machine socket on a power impact tool.

### SENSIBLE PRECAUTIONS

- Secure your balance. Pull the tool towards you rather than push it.
- Use only recommended extensions and do not overload.
- Check that ratchet mechanisms engage fully.
- Select 6-point sockets if fasteners are worn or hardened.
- Do not use tools showing signs of breakage or excessive wear.



- Don't exceed tool capacity or use oversize extensions.



- Only use impact sockets when locked.



261

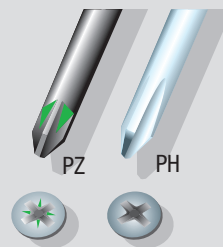
## SCREWDRIVERS

### PERSONAL SAFETY

- Plastic-handled screwdrivers are not insulated, with the exception of 1,000V tools.
- Keep your free hand clear when driving home a fastener in case the screwdriver slips.
- Wear gloves.

### CORRECT TOOL SELECTION

- Avoid using screwdrivers as chisels, levers or punches.
- Avoid damage to fastener heads or tool blades, always select the appropriate pattern.
- Do not modify or heat blades as this will impair performance.
- For extra torque select a screwdriver with a hexagonal bolster.
- Wood-handled through-blade screwdrivers withstand gentle tapping on the end to free seized fasteners.



- Select the correct pattern :  
Black blades PZ : Pozidriv®.  
Chrome blades PH : Phillips®.



- Never use a screwdriver as a chisel or lever.



415

## PLIERS

### PERSONAL SAFETY

- Wear eye protection, especially when cutting wire and fitting circlips or rivets.
- Sheathed handles are not insulating. Only 1,000V tools are designed for working with live components.

### CORRECT TOOL SELECTION

- Keep within cutter capacity (wire diameter and hardness).
- Do not modify or heat tips as this will impair performance.
- Cut at right angles and avoid twisting the wire. Use the throat rather than the tip of cutting edges.
- When fitting circlips, use a tool within the correct range and only compress or expand the clip just enough.
- Lock-grip pliers should not be used as a permanent clamp. Components can move due to vibration or shock.



- Never modify the shape of a tool.



- Always use a 1,000V insulated tool when working with live components.



## HAMMERS, IMPACT TOOLS

### PERSONAL SAFETY

- Wear gloves and eye protection.
- Avoid striking equally hard surfaces. Do not use a hammer on surfaces exceeding 46 HRC. Use a mallet instead.
- Do not use suspect tools such as hammers with chipped heads, insecure or cracked handles, excessively mushroomed chisels or punch ends. Check handle fit before use.
- Hammering may generate sparks. Do not use hammers in a fire-risk area.

### CORRECT TOOL SELECTION

- Rule of thumb: hammer head should have a diameter about 10 mm larger than the surface to be struck. Avoid hitting with the edge of the hammer.
- Select chisels and punches fitted with a guard for increased safety and comfort.
- Do not use punches for leverage.



- Select tools with a guard.



- Never use tools with ill-fitting or damaged handles.



- Never "hard on hard".
- Check tool condition before use.



## SAWING, CUTTING, DRILLING

### WATCH OUT FOR CHIPS

- Wear eye protection and gloves when sawing, cutting or drilling, and when handling sheet metal or metal objects while machining.
- Keep hands away from the cutting path.
- Metal shears are designed for cutting sheet metal, not for wire.
- Keep within capacities.



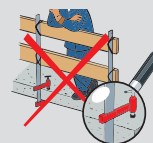
- Don't cut wire with metal shears.



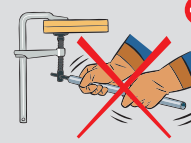
## PRESSES AND BAR CLAMPES

### REMAIN WITHIN CAPACITY

- Presses and bar clamps are not designed for permanent clamping and should never be used to construct a guard rail or platform.
- Avoid using bar clamps to hold assemblies subject to vibration or shock, as the joint could work loose.
- Do not use these tools for lifting.
- Always check before use and keep within clamping capacity (do not use extensions or impact tools).



- Never erect guard rails or platforms using clamps.



- Don't use an extension for tightening.



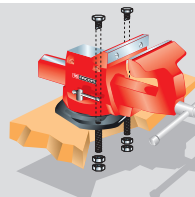
## VICES

### PERSONAL SAFETY

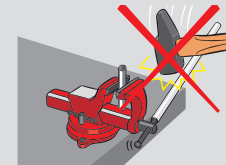
- Fit the vice securely to a suitably sized support.
- Never use an extension or a hammer to tighten a vice. Avoid clamping hard towards the end of the jaws.
- Do not use the jaws as an anvil.
- Never repair or modify a vice.
- Always wear eye protection and gloves when grinding, sawing, drilling and hammering.

### CORRECT TOOL SELECTION

- Select a swivel-base vice so that you approach the workpiece from the best angle.



- Fix vice securely to bench.



- Don't use a hammer or extension to increase pressure.



## TORQUE CONTROL

### SENSIBLE PRECAUTIONS FOR PRECISION TOOLS

- Avoid overloading by applying torques beyond rated capacity.
- Never fit an extension as this would modify lever ratios and give incorrect readings.
- Always store torque wrenches carefully after use.
- Torque wrenches are precision tools. Have yours checked regularly by accredited Facom facilities.
- Read operating instructions before use.
- Do not use impact drivers on torque multipliers. Always use a torque wrench.



- Careful storage and regular inspection by accredited Facom facilities.



- Never fit an extension to a torque wrench.



365

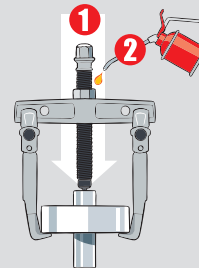
## PULLERS

### PERSONAL SAFETY

- Wear gloves, eye protection and safety shoes.
- Pullers generate several tonnes of force during use.
- Ensure correct positioning – centred, in line with the pulling axis and with a good grip on each leg.
- Steady a puller where necessary to avoid rotation during tightening.
- Cover the assembly to contain components if the fitting splits suddenly or the puller slips.
- Do not stand in line with the puller and keep other people away.

### CORRECT TOOL SELECTION

- Never exceed puller capacity.
- Use a 3-leg puller rather than a 2-leg, and select short legs.
- Always check tool condition before use and lubricate the screw. If a leg needs changing, replace the complete set.
- Never modify or heat the legs as this will make them unsafe.
- Do not operate with an impact wrench.
- Use a mallet if the screw needs tapping to unstick a fitting.
- Do not use impact drivers on nut splitters.



- Always check that the pressure screw is properly centred and legs have secure purchase.
- Lubricate the screw regularly.



- Don't modify the legs of a puller as this will make it unsafe.



625

## AIR TOOLS

### PERSONAL SAFETY

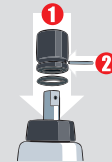
- Wear gloves and eye protection. Wear a dust mask when sanding.
- For intensive use, protect your hearing with ear muffs.
- Consider the safety of bystanders.

### SENSIBLE PRECAUTIONS

- Always disconnect tools before fitting drill bits, grinding wheels or impact sockets.
- Keep within accessory rated diameters and speeds.
- Retain original guards (e.g. on grinding tools).
- On impact power wrenches, use only impact sockets with appropriate locking pin and ring.
- Read operating instructions before use.



- Always wear appropriate protective gear.



- Always lock sockets to the machine.



- Always disconnect power tools before fitting accessories.

- Facom air tools conform to current standards.



741

## WORKING ON OR NEAR LIVE COMPONENTS

- Only 1,000V insulated tools protect from electrical hazards up to 1,000V AC.
- Facom 1,000V insulated tools conform to European standard EN 60900 and are individually tested and checked.
- Inspect your tool after each use. Discard if the insulation is damaged.
- Give yourself additional protection by using gloves, mats and anti-UV goggles.



- 1,000V insulated tools must be used when working near live components.



- Never use a tool with damaged insulation.



950

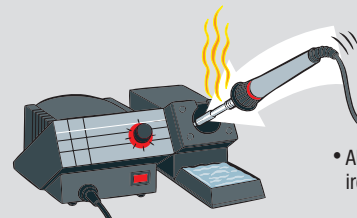
## ELECTRICAL AND ELECTRONIC ASSEMBLIES

### PERSONAL SAFETY

- Wear eye protection when there is a risk of flying debris, e.g. for wire cutting, stripping, crimping or soldering. Choose wire strippers with off-cut retainers.
- Work with loaded capacitors or live components using antistatic tools (dissipating sheaths).

### CORRECT TOOL SELECTION

- Do not leave a hot soldering iron on fragile or flammable surfaces. Always use a stand. Do not store a soldering iron while hot. Disconnect after use.
- Use ESD antistatic tools to IEC 61340-5-1 and IEC 61340-5-2 to protect sensitive electronic components.



- Always rest a hot soldering iron on its stand.



975

# CONVERSION OF MEASURING UNITS

- The table below gives the SI unit conversion factors of a certain number of units that do not belong to the SI system. Some of these are still in use in France or abroad, in general or specialised applications, others belong to old systems of measurement that are now obsolete.
- Units that are specific to the United States or the United Kingdom are indicated
- respectively by "US" or "UK" in brackets.

## SYMBOLS AND ABBREVIATIONS

UNITS	SYMBOL OR ABBREVIATION	SI UNIT CONVERSION FACTOR	PHYSICAL QUANTITY	COMMENT
Ampere-hour	Ah	$3,6 \times 10^3 \text{c}$ (exact)	Quantity of electricity	Used for storage batteries
Angström	Å	$10^{-10} \text{m}$ (exact)	Length	Wavelength, atomic distance
Bar	bar	105Pa (exact)	Pressure	Fluids
Barrel (US)	bbl	$0,158\,987\,3 \text{ m}^3$	volume	1 barrel (US) = 42 gallons (US).
Calorie I.T	cal I.T	4,186 8 J (exact)	Energy	Quantity of heat
Candela	cd	Basic SI unit	Luminous intensity	
Cheval vapeur (horsepower)	ch	735,498 75 W (exact)	Power	1ch = 75 kgm/s (exact).
Degree	°	$1,745\,329 \times 10^{-2} \text{ rad}$ (2/360 rad)	Angle	
Degree Celsius	°C	$T_k = 0^\circ\text{C} + 273,15$ (exact)	Temperature	The origin of the Celsius scale is set by convention at 273.15 K.
Degree Fahrenheit	°F	$T_k = 5/9 (0^\circ\text{F} + 459,67)$ (exact)	Temperature	$0^\circ\text{C} = 5/9 (0^\circ\text{F} - 32)$ (exact)
Electronvolt	eV	$1,602\,177\,33 \times 10^{-19} \text{ J}$	Energy	Atomic and nuclear physics
Farad	F	Derived SI unit $1\text{F} = 1\text{C/V}$	Electric capacitance	
Faraday		$9,648\,70 \times 10^{-4} \text{ C}$	Quantity of electricity	Based on carbon 12.
Fluid ounce (UK)	fl oz (UK)	$2,841\,30 \times 10^{-5} \text{ m}^3$	volume	
Fluid ounce (US)	fl oz (US)	$2,957\,35 \times 10^{-5} \text{ m}^3$	volume	Liquids
Foot	ft	30,48 cm (exact)	Length	The symbol ' is also used
Gallon (UK)	gal (UK)	$4,546\,09 \times 10^{-3} \text{ m}^3$	volume	
Gallon (US)	gal (US)	$3,785\,41 \times 10^{-3} \text{ m}^3$	volume	Liquids
Hertz	Hz	Derived SI unit $1\text{Hz} = 1\text{s}^{-1}$	Frequency	
Horsepower (UK)	hp	745,700 W	Power	The US value of horse power varies according to the field.
Inch	in	2,54 cm (exact)	Length	The symbol " is also used.
Joule	J	Derived SI unit $1\text{J} = 1\text{N.m}$	Energy	Work, quantity of heat
Kelvin	K	Basic SI unit	Temperature	Thermodynamics
Kilogram-meter	kgm	$9,806\,65 \text{ J}$ (exact)	Work	
Kilogram-force	kgf	$9,806\,65 \text{ N}$ (exact)	Force	
Kilowatt-hour	kWh	$3,6 \times 10^{-6} \text{ J}$ (exact)	Energy	Electrical energy consumption
Liquid pint (US)	liq pt (US)	$4,731\,76 \times 10^{-4} \text{ m}^3$	volume	Liquids
Liquid quart (US)	liq qt	$9,463\,529 \times 10^{-4} \text{ m}^3$	volume	Liquids
Litre	l, L	$10^{-3} \text{ m}^3$ (exact)	volume	C.G.P.M. 1964.
Lux	lx	Derived SI unit $1\text{lx} = 1\text{lm/m}^2$	Illumination	
Micron	μ	$10^{-6} \text{ m}$ (exact)	Length	Replaced by micrometer
Mile	mile	$1,609\,344 \times 10^3 \text{ m}$ (exact)	Length	Also called "statute mile"
International nautical mile		$1,852 \times 10^3 \text{ m}$ (exact)	Length	Sea and air navigation
Millimetre of mercury (conventional)	mmHg	133,322 4 Pa	Pressure	Equal to 13..595 1 mmH2O. (exact).
Nautical mile (UK)		$1,852 \times 10^3 \text{ m}$ (exact)	Length	Since 1970, the UK nautical mile is equal to the international nautical mile.
Newton	N	Derived SI unit $1\text{N} = 1\text{kg.m.s}^{-2}$	Force	
Ohm	Ω	Derived SI unit $1\Omega = 1\text{V/A}$	Electrical resistance	
Ounce	oz	28,349 5 g	Mass	16 oz = 1 lb
Pascal	Pa	Derived SI unit $1\text{Pa} = 1\text{N/m}^2$	Pressure, stress	
Pound	lb	$0,453\,592\,37 \text{ kg}$ (exact)	Mass	
Pound-force	lbf	4,448 22 N	Force	
Psi	psi	$6,894\,757 \times 10^3 \text{ Pa}$	Pressure	Abbreviation of "poundforce per square inch".
Radian	rad	Derived SI unit $1\text{m/m}$	Angle (plane)	The symbol rd has also been used in France
Second	s	Basic SI unit	Time	
Torr	torr	133,322 4 Pa	Pressure	1/760 normal atmosphere (exact).
Volt	V	Derived SI unit $1\text{V} = 1\text{W/A}$	Electric potential	
Voltampère	VA	1 W (exact)	Apparent power	Electricity.
Watt	W	Derived SI unit $1\text{W} = 1\text{J/s}$	Power	
Watt-hour	Wh	3600 J (exact)	Energy	Electrical energy consumption
Weber	Wb	Derived SI unit $1\text{Wb} = 1\text{V.s}$	Magnetic induction	
Yard	yd	$0,914\,4 \text{ m}$ (exact)	Length	

## WHAT IS A STANDARD?

- A standard is a reference document providing answers to product-related technical or commercial problems that present themselves repeatedly in relations between economic, scientific or technical partners, etc.
- It is drawn up by consensus within standardisation bureaux (or organisations) by all volunteering economic operators.
- Standardisation assists dialogue between manufacturers, users, public authorities and other partners.
- Standardisation is essentially a technical activity serving an economic purpose. It helps to clarify transactions, rationalise production, and assist commercial exchanges.



## EXTRACT FROM EUROPEAN STANDARD NF EN 45020

• Standard document established by consensus and approved by a recognised body, that provides, for common and repeated use, rules, guidelines for activities or their results, aimed at the achievement of the optimum degree of order in any given context.

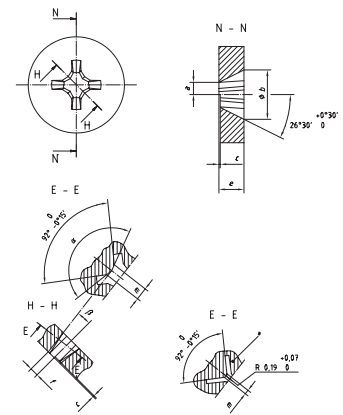
## ISO/IEC GUIDE 2

• A standard is a document established by consensus that provides, for common and repeated use, rules, guidelines for activities or their results, aimed at the achievement of the optimum degree of order in an given context

## DIMENSIONS OF THE PH END PENETRATION GAUGE

End	a	b	c	e	f	m	a	β
no	± 0,005	min.	± 0,025	max.	± 0,005	0	0	+0°15'
						-0,02	-0°15'	0
	mm	mm	mm	mm	mm	mm		
0	0,419	3		2,38	0,284	0,29	-	7°
1	0,648	4,5		2,38	0,493	0,49	138°	
2	1,156	6	0,254	3,97	0,769	1,08	140°	5°45'
3	1,918	8		6,34	1,257	2,07	146°	
4	2,553	10		7,94	1,804	2,71	153°	7°

## PH END GAUGES

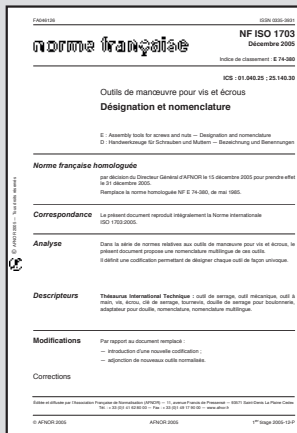


## FACOM, 30 YEARS OF INVOLVEMENT IN INTERNATIONAL STANDARDISATION

- FACOM is actively involved in the various standardisation committees (French - NF, International - ISO or American ASME or SAE) for hand tools.
- FACOM's involvement at an early stage in the elaboration process allows it to continuously adapt its products to the requirements of future standards and provide tools of the required quality, ensuring greater ease and safety of use.
- FACOM informs its users by indicating the main standards applying to its tools :
  - European and International standards (EN / ISO)
  - French standards (NF)
  - German standards (DIN)
  - American standards (ASME / SAE)

## WRENCHES

Désignation New Old	Term	ISO standards	Tool	Use
1 1 01 01 0 1 1 01 01 1	1 Single open- end	4229 (691, 1711-1)		
1 1 01 02 0	4 Double open- end	10102 (691, 1085, 1711-1, 3318)		
1 1 01 03 0	3 Open-end slogging wrench	(691)		
1 1 01 04 0	2 Adjust- able wrench	6787		
1 1 01 05 0	13 Angled combi- nation wrench	7738 (691, 1711-1, 3318)		
1 1 01 06 0	14 Offset combi- nation wrench	7738 (691, 1711-1, 3318)		

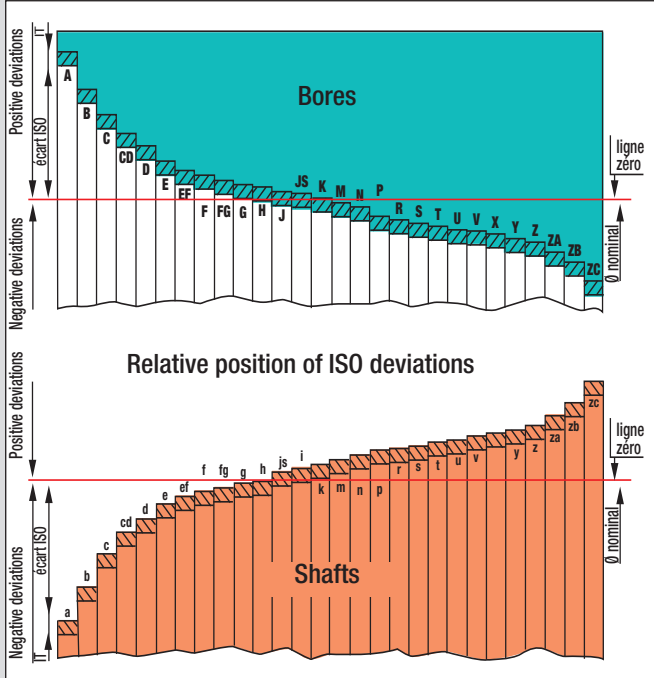


Extracts from the AFNOR standard. Only the full version of the standard has authority. It can be obtained from the Afnor Web site [www.boutique-normes.afnor.org](http://www.boutique-normes.afnor.org) (DIN Standard) Reproduced by permission of DIN Deutsches Institut für Normung e.V. The definitive version for the implementation of this standard is the edition bearing the most recent date of issue, obtainable from Beuth Verlag GmbH, 10772 Berlin, Germany.

# MECHANICAL FITS

Fits are categories of standard tolerated dimensions that are used for assembling two cylindrical or prismatic parts.

## STANDARD DESIGNATION AND MARKINGS



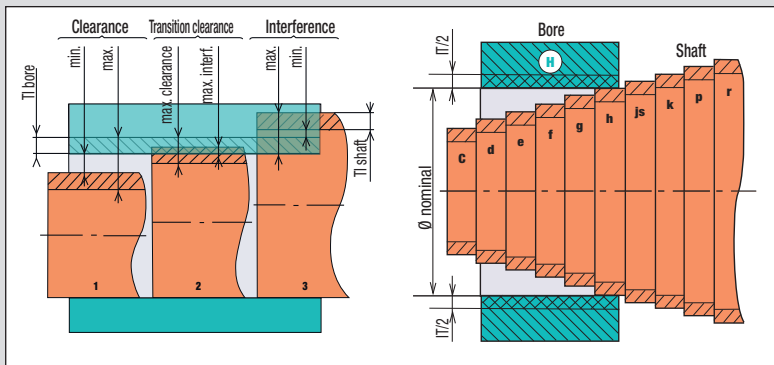
## STANDARD FITS

Standard fits (H bore system)								
Type	shaft	Bores					Comments	
		H6	H7	H8	H9	H10		H11
Moving parts	high clearance	c11						Standard fits for long spans, poor alignment, expansion, etc.
		c10						
		c9						
	medium clearance	d9						Standard fits for rotating or sliding guides (good lubrication ensured)
		d8						
		e9						
		e8						
		e7						
	low clearance	f7						For high-precision guides
		f6						
Non-moving parts	adjusted	h9					Can be assembled by hand	For centring and locating, cannot transfer forces
		h7						
		h6						
	highly adjusted	js7					Can be assembled with a mallet (Press recommended)	
		js6						
		js5						
	not very tight	k6					Assembled with a press	
		k5						
		m7						
		m6						
tight	n6					Assembled with a heavy-duty press or by dilation (shrink-fitting)	Parts damaged when disassembled	
	p6							
	r6							
	s7							
	s6							
	t5							
	u6							
x7								

most commonly used

most commonly used (to be known)

## STANDARD TOLERANCE INTERVALS (OR QUALITIES)



Main ISO qualities or tolerances (TI)  
(IT in micrometres : 1µm = 0.001 mm)  
Nominal dimensions (mm):

above → to (inclusive) →	1	3	6	10	18	30	50	80	120	180	250	315	400
IT5	4	5	6	8	9	11	13	15	18	20	23	25	27
IT6	6	8	9	11	13	16	19	22	25	29	32	36	40
IT7	10	12	15	18	21	25	30	35	40	46	52	57	63
IT8	14	18	22	27	33	39	46	54	63	72	81	89	97
IT9	25	30	36	43	52	62	74	87	100	115	130	140	155
IT10	40	48	58	70	84	100	120	140	160	185	210	230	250
IT11	60	75	90	110	130	160	190	220	250	290	320	360	400
IT12	100	120	150	180	210	250	300	350	400	460	520	570	630
IT13	140	180	220	270	330	390	460	540	630	720	810	890	970

### • Ajustements avec jeu :

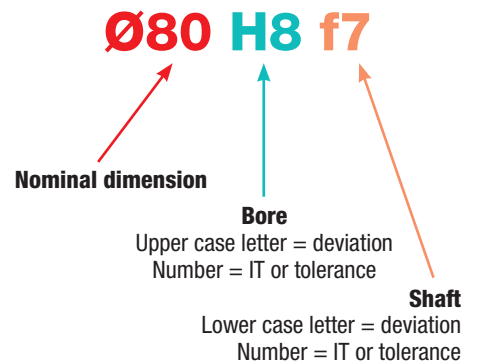
Ø80 H8 f7  
Jeu mini = 0.030 mm  
Jeu Maxi = 0.106 mm

### • Ajustements avec jeu incertain (jeu ou serrage) :

Ø80 H7 k6  
Jeu Maxi = 0.009 mm  
Serrage Maxi = 0.002 mm

### • Ajustements avec serrage ou interférence :

Ø80 H7 p6  
Serrage mini = 0.002 mm  
Serrage Maxi = 0.051 mm



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## LIGHTING SAFETY

- It is essential to use the correct light for the situation to avoid tired eyes and accidents at work.
- Engineering or maintenance tasks require an illumination of 300 to 500 lux.
- Inspection, finishing and painting tasks require an illumination of 750 to 1000 lux.
- The light source must be designed and arranged to avoid uncomfortable glare.




## IP INGRESS PROTECTION RATING

- The IP code indicates the degree of protection against access to hazardous parts, as well as the penetration of solid foreign bodies and of water.
- The code consists of two figures (e.g. IP 64), defined right according to NF EN 60529

## IP rating: What does it mean?

1st FIGURE Protection of live components against ingress of solid objects		2nd FIGURE Protection of live components against ingress of liquids	
0	No protection	0	No protection
1	Solid objects greater than 50mm diameter cannot penetrate	1	Vertically falling drops of water
2	Solid objects greater than 12.5 mm diameter cannot penetrate	2	Water dripping on the enclosure tilted at 15° from its normal position
3	A steel wire of 2.5 mm diameter cannot penetrate	3	Spraying water at an angle of up to 60° from the vertical
4	A steel wire of 1 mm diameter cannot penetrate	4	Splashing water against the enclosure from any direction
5	Invisible amount of talcum powder deposited when tested in a dust chamber	5	Water projected in jets (6.3 mm) against the enclosure from any direction
6	No talcum powder deposited when tested in a dust chamber	6	Water projected in jets (12.5 mm) against the enclosure from any direction
		7	Immersion to 1 mm
		8	Submersible equipment according to manufacturer's specifications

## THERE ARE A NUMBER OF LIGHTING TECHNOLOGIES TO CHOOSE FROM:

Technology	Advantages	Disadvantages	Lighting power	FACOM product
Fluorescent and compact fluorescent lamps  IP 55	Diffuse lighting, low temperature, low consumption	Average impact resistance	300 to 400 lux	777 range  678
Leds IP 64	Very good impact resistance, low temperature, very low consumption, long operating life	Cost, concentrated light beam	500 to 1000 lux	779 range  669



## SAFETY RECOMMENDATIONS

- Use fluorescent inspection lamps complying with the requirements of EN 60 598-2-8.
- For mains powered lights, preferably choose inspections lamps powered at a voltage of less than 50V.

# STANDARDISATION AND SELECTION GUIDE

## SOCKETS



483



## PLIERS



261



## WRENCHES



197



## TIPS



458



## SCREWDRIVERS



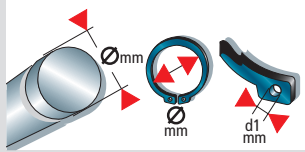
416



## CIRCLIPS®

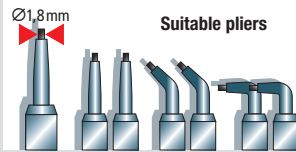
### External Circlips®

• Slit spring rings for shafts to NF E 22-163



Standard range		
3 ▶ 5	2,7 ▶ 4,7	1
6 ▶ 9	5,6 ▶ 8,4	1,2
10 ▶ 13	9,3 ▶ 11,9	1,5
14 ▶ 17	12,9 ▶ 15,7	1,7
18 ▶ 30	16,5 ▶ 27,9	2
32 ▶ 63	31,5 ▶ 58,8	2,5
65 ▶ 82	60,8 ▶ 76,5	3
85 ▶ 120	82,5 ▶ 113	3,5
125 ▶ 200	118 ▶ 190,5	4

Heavy-duty range		
15 ▶ 30	13,8 ▶ 27,9	2
32 ▶ 60	29,6 ▶ 55,8	2,5
65 ▶ 80	60,8 ▶ 74,5	3
85 ▶ 100	79,5 ▶ 94,5	3,5



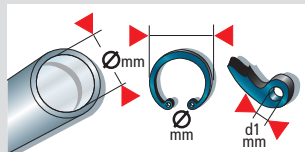
Ø	177A.9	167A.9	197A.9
0,9	177A.9	167A.9	197A.9
1,3	177A.13	167A.13	197A.13
1,8	177A.18	167A.18	197A.18
2,3	177A.23	167A.23	197A.23
3,2	177A.32		197A.32

Ø	177A.18	167A.18	197A.18
1,8	177A.18	167A.18	197A.18
2,3	177A.23	167A.23	197A.23
3,2	177A.32		197A.32

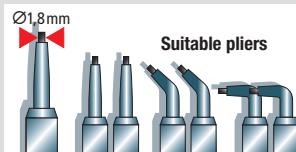
### Internal Circlips®

• Slit spring rings for shafts to NF E 22-165



Standard range		
8 ▶ 3	8,7 ▶ 9,8	1
10 ▶ 11	10,8 ▶ 11,8	1,2
12 ▶ 13	13 ▶ 14,1	1,5
14 ▶ 17	15,1 ▶ 18,3	1,7
18 ▶ 30	19,5 ▶ 32,1	2
31 ▶ 63	33,4 ▶ 67,2	2,5
65 ▶ 82	69,2 ▶ 87,5	3
85 ▶ 120	90,5 ▶ 127	3,5
125 ▶ 200	135 ▶ 209,5	4

Heavy-duty range		
20 ▶ 30	21,5 ▶ 32,1	2
32 ▶ 62	34,4 ▶ 66,2	2,5
65 ▶ 80	69,2 ▶ 85,5	3
85 ▶ 100	90,5 ▶ 105,5	3,5



Ø	179A.9	169A.9	199A.9
0,9	179A.9	169A.9	199A.9
1,3	179A.13	169A.13	199A.13
1,8	179A.18	169A.18	199A.18
2,3	179A.23	169A.23	199A.23
3,2	179A.32		199A.32

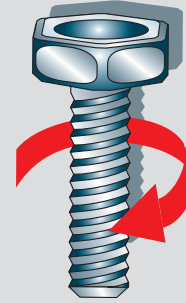
Ø	179A.18	169A.18	199A.18
1,8	179A.18	169A.18	199A.18
2,3	179A.23	169A.23	199A.23
3,2	179A.32		199A.32

## TIGHTENING TORQUES



368

Nm



Circlips®

Hexagon heads

Hexagon socket heads

Torx® heads

Male Torx® heads

Slotted heads

Vis à empreinte Phillips®

Pozidriv® heads

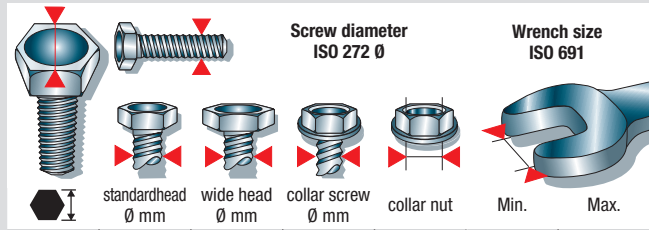


## Hexagon heads



• For inch to mm conversions, see "Inch dimensions".

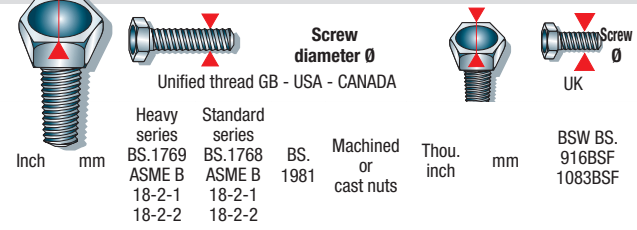
### Metric sizes (\*recommended sizes)



Screw diameter ISO 272 Ø				Wrench size ISO 691	
standard head Ø mm	wide head Ø mm	collar screw Ø mm	collar nut	Min.	Max.
3,2*	1,6			3,22	3,28
3,5				3,52	3,58
4*	2			4,02	4,12
4,5				4,52	4,62
5*	2,5			5,02	5,12
5,5*	3			5,52	5,62
6				6,03	6,15
7*	4	5		7,03	7,15
8*	5	6	5	8,03	8,15
9				9,03	9,15
10*	6	8	6	10,04	10,19
11*	7			11,04	11,19
12				12,04	12,24
13*	8	10	8	13,04	13,24
14				14,05	14,27
15*		12	10	15,05	15,27
16*	10			16,05	16,27
17				17,05	17,30
18*	12	14	12	18,05	18,30
19				19,06	19,36
21*	14	12	16	21,06	21,36
22				22,06	22,36
23				23,06	23,36
24*	16	14	16	24,06	24,36
26				26,08	26,48
27*	18	16	20	27,08	27,48
29				29,08	29,48
30*	20	18	20	30,08	30,48
32				32,08	32,48
34*	22	20		34,10	34,60
35				35,10	35,60
36*	24	22		36,10	36,60
38				38,10	38,60
41*	27	24		41,10	41,60
42				42,10	42,60
46*	30	27		46,10	46,60
50*	33	30		50,10	50,60
54				54,12	54,72
55*	36	33		55,12	55,72
58				58,12	58,72
60*	39	36		60,12	60,72
63				63,12	63,72
65*	42	39		65,12	65,72
67				67,12	67,72
70*	45			70,12	70,72
71				71,15	71,85
75*	48			75,15	75,85
77				77,15	77,85
80*	52			80,15	80,85
82				82,15	82,85
85*	56			85,15	85,85
88				88,15	88,85
90*	60			90,15	90,85
94				94,15	94,85
95*	64			95,15	95,85
100*	68			100,15	100,85
105*	72			105,20	106,00
110*	76			110,20	111,00
115*	80			115,20	116,00
116				116,20	117,00
120*	85			120,20	121,00

## Relationship screw diameter/size across flats

### Inch sizes



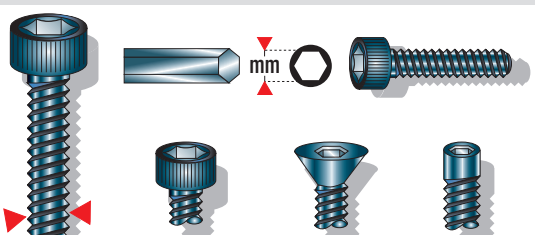
Inch		Screw diameter Ø		Machined or cast nuts		Thou. inch		mm		BSW BS. 916BSF 1083BSF	
							.117	2,97			
							.131	3,32			
1/8	3,17			2			.152	3,86			
							.172	4,37			
3/16	4,76			3-4-5	2-3		.193	4,90			
7/32	5,56						.220	5,59			
1/4	6,35			6-8	4		.248	6,30			
9/32	7,14						.282	7,16			
5/16	7,94			10-12	5-6		.324	8,23			
11/32	8,73				8						
3/8	9,52				10		.365	9,27			
7/16	11,11		1/4		1/4 - 12		.413	10,49			
1/2	12,70	1/4 (1)	5/16				.445	11,30	1/4		
9/16	14,29	5/16 (1)	3/8		5/16		.525	13,33	5/16		
5/8	15,87		7/16		3/8		.600	15,24	3/8		
11/16	17,46	3/8 (1)					.710	18,03	7/16		
3/4	19,05	7/16 (1)	1/2								
13/16	20,64		9/16				.820	20,83	1/2		
7/8	22,22	1/2									
15/16	23,81		5/8				.920	23,37	9/16		
1"	25,40										
1 1/16	26,99	5/8					1.010	25,65	5/8		
1 1/8	28,57		3/4								
1 1/4	31,75	3/4					1.200	30,48	3/4		
1 5/16	33,34		7/8				1.300	33,02	7/8		
1 3/8	34,92										
1 7/16	36,51	7/8									
1 1/2	38,10		1"				1.480	37,59	1"		
1 5/8	41,27	1"									
1 11/16	42,86		1 1/8				1.670	42,42	1 1/8		
1 13/16	46,04	1 1/8									
1 7/8	47,62		1 1/4				1.860	47,24	1 1/4		
2"	50,80	1 1/4									
2 1/16	52,39		1 3/8				2.050	52,07	1 3/8		
2 3/16	55,56	1 3/8									
2 1/4	57,15						2.200	56,39	1 1/2		
2 3/8	60,32	1 1/2	1 1/2				2.410	61,22	1 5/8 (4)		
2 7/16	61,91										
2 9/16	65,09						2.580	65,53	1 3/4		
2 5/8	66,67		1 3/4 (2)								
2 3/4	69,85	1 3/4					2.760	70,10	2"		
2 13/16	71,44										
2 15/16	74,61										
3"	76,20		2" (2)								
3 1/8	79,37	2"					3.150	80,01	2 1/4 (4)		
3 3/8	85,72		2 1/4 (3)								
3 1/2	88,90	2 1/4					3.550	90,17	2 1/2 (4)		
3 3/4	95,25		2 1/2 (3)								
3 7/8	98,42	2 1/2					3.890	98,81	2 3/4 (4)		
4 1/8	104,80		2 3/4 (3)								
4 1/4	107,95	2 3/4					4.180	106,20	3" (4)		
4 1/2	114,30		3" (3)				4.530	115,06	3 1/4 (4)		
4 5/8	117,50	3"									
							4.850	123,20	3 1/2 (4)		
							5.180	131,60	3 3/4 (4)		
							5.550	141	4" (4)		
							6.380	162	4 1/2 (4)		

For inch sizes  
 (1) USA ASME B.18-2-2 only.  
 (2) Except Norway.  
 (3) Except Norway.  
 (4) BSW BS 916 BSF only.

## HEXAGON SOCKET HEADS

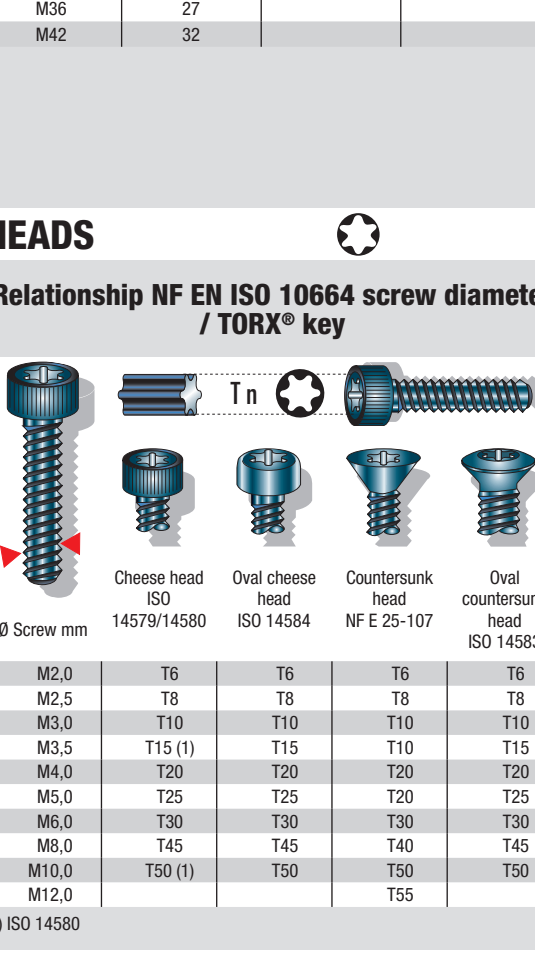
### Relationship screw diameter/hexagon socket size

#### Metric sizes



Ø Screw mm	Cheese heads screws ISO 4762	Countersunk head screws ISO 10642	Headless set screws ISO 4026
M1,6	1,5		0,7
M2	1,5		0,9
M2,5	2		1,3
M3	2,5	2	1,5
M4	3	2,5	2
M5	4	3	2,5
M6	5	4	3
M8	6	5	4
M10	8	6	5
M12	10	8	6
M14	12	10	
M16	14	10	8
M18	14		
M20	17	12	10
M22	17		
M24	19		12
M27	19		
M30	22		
M33	24		
M36	27		
M42	32		

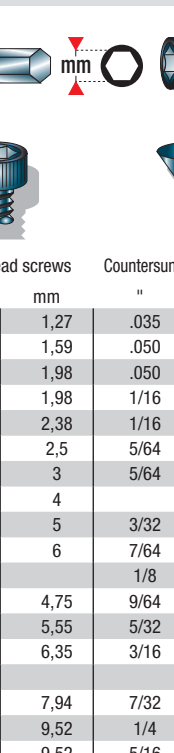
#### Inch sizes



Ø Screw mm	"	mm	"	mm	"	mm
n° 0	1,52	0,50	1,27	.035	0,89	.028
n° 1	1,85	1/16	1,59	.050	1,27	.035
n° 2	2,18	5/64	1,98	.050	1,27	.035
n° 3	2,51	5/64	1,98	1/16	1,59	.050
n° 4	2,84	3/32	2,38	1/16	1,59	.050
n° 5	3,17	3/32	2,5	5/64	1,98	1/16
n° 6	3,5	7/64	3	5/64	1,98	1/16
n° 7	3,5	1/8	4			
n° 8	4,16	9/64	5	3/32	2,38	5/64
n° 10	4,82	5/32	6	7/64	2,78	3/32
n° 10	4,82			1/8	3,17	
1/4	6,35	3/16	4,75	9/64	3,57	7/64
1/4	6,35	7/32	5,55	5/32	3,97	1/8
5/16	7,94	1/4	6,35	3/16	4,75	9/64
5/16	7,94					5/32
3/8	9,52	5/16	7,94	7/32	5,55	3/16
7/16	11,11	3/8	9,52	1/4	6,35	7/32
1/2	12,7	3/8	9,52	5/16	7,94	1/4
5/8	15,87	1/2	12,7	3/8	9,52	5/16
3/4	19,05	5/8	15,88	1/2	12,7	3/8
7/8	22,2	3/4	19,05	9/16	14,29	1/2
1	25,4	3/4	19,05	5/8	15,88	9/16
1"1/8	28,57	7/8	22,2	3/4	19,05	9/16
1"1/4	31,75	7/8	22,2	7/8	22,2	5/8
1"3/8	34,92	1"	25,4	7/8	22,2	5/8
1"1/2	38,10	1"	25,4	1"	25,4	3/4

## TORX® HEADS

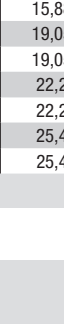
### Relationship NF EN ISO 10664 screw diameter / TORX® key



Ø Screw mm	Cheese head ISO 14579/14580	Oval cheese head ISO 14584	Countersunk head NF E 25-107	Oval countersunk head ISO 14583
M2,0	T6	T6	T6	T6
M2,5	T8	T8	T8	T8
M3,0	T10	T10	T10	T10
M3,5	T15 (1)	T15	T10	T15
M4,0	T20	T20	T20	T20
M5,0	T25	T25	T20	T25
M6,0	T30	T30	T30	T30
M8,0	T45	T45	T40	T45
M10,0	T50 (1)	T50	T50	T50
M12,0			T55	

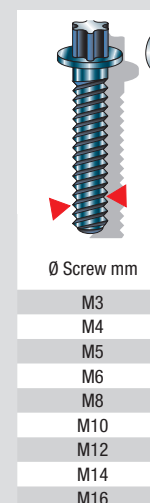
(1) ISO 14580

### Key pattern identification



T N°	mm
T6	1,65
T8	2,30
T10	2,72
T15	3,26
T20	3,84
T25	4,40
T27	4,96
T30	5,49
T40	6,60
T45	7,77
T50	8,79
T55	11,22

### Relationship screw diameter / TORX® socket



Ø Screw mm	Wide collar
M3	E4
M4	E5
M5	E6
M6	E8
M8	E10
M10	E12
M12	E14
M14	E18
M16	E20

## SLOTTED HEADS



### Relationship screw diameter/slot size

Engineering screws				
Screw mm	Countersunk head	Oval countersunk head	Cheese head	Widecheese head
	NF EN ISO 2009	NF EN ISO 2010	NF EN ISO 1207	NF EN ISO 1580
	e x A	e x A	e x A	e x A
M1,6	0,4 x 2,5	0,4 x 2,5	0,4 x 2,5	0,4 x 2,5
M2	0,5 x 3	0,5 x 3	0,5 x 3	0,5 x 3
M2,5	0,6 x 3,5	0,6 x 3,5	0,6 x 3,5	0,6 x 3,5
M3	0,8 x 4	0,8 x 4	0,8 x 4	0,8 x 4
M3,5	1,0 x 5,5	1,0 x 5,5	1,0 x 5,5	1,0 x 5,5
M4	1,2 x 6,5	1,2 x 6,5	1,2 x 6,5	1,2 x 6,5
M5	1,2 x 8	1,2 x 8	1,2 x 8	1,2 x 8
M6	1,6 x 10	1,6 x 10	1,6 x 8	1,6 x 10
M8	2,0 x 12	2,0 x 12	2,0 x 12	2,0 x 12
M10	2,5 x 14	2,5 x 14	2,5 x 14	2,5 x 14

Self-tapping screws			
Screw mm	Countersunk head	Oval countersunk head	Wide cheese head
	NF EN ISO 1482	NF EN ISO 1483	NF EN ISO 1481
	e x A	e x A	e x A
ST.2,2	0,5 x 3	0,5 x 3	0,5 x 3
ST.2,9	0,8 x 4	0,8 x 4	0,8 x 4
ST.3,5	1 x 5,5	1 x 5,5	1 x 5,5
ST.4,2	1,2 x 6,5	1,2 x 6,5	1,2 x 6,5
ST.4,8	1,2 x 8	1,2 x 8	1,2 x 8
ST.5,5	1,6 x 8	1,6 x 8	1,6 x 10
ST.6,3	1,6 x 10	1,6 x 10	1,6 x 10
ST.8	2 x 12	2 x 12	2 x 1,2
ST.9,5	2,5 x 14	2,5 x 14	2,5 x 14

Wood screws			
Screw mm	Countersunk head	Oval countersunk head	Round head
	NF E 25-604	NF E 25-605	NF E 25-606
	e x A	e x A	e x A
1,6	0,4 x 2,5		0,4 x 2
2	0,5 x 3	0,5 x 3	0,5 x 3
2,5	0,6 x 3,5	0,6 x 3,5	0,6 x 3,5
3	0,8 x 4	0,8 x 4	0,8 x 4
3,5	1,0 x 5,5	1,0 x 5,5	1,0 x 5,5
4	1,2 x 6,5	1,2 x 6,5	1,2 x 6,5
4,5	1,2 x 8	1,2 x 8	1,2 x 6,5
5	1,2 x 8	1,2 x 8	1,2 x 8
6	1,6 x 10	1,6 x 10	1,6 x 10
7	2,0 x 12		2,0 x 10
8	2,0 x 12		2,0 x 12



**PROTWIST**

➔ 418



**HEXAGON KEYS**

➔ 444



**BITS**

➔ 197

## PHILLIPS® AND POZIDRIV® HEADS



### Relationship screw diameter/pattern size

Engineering screws				
Screw mm	Countersunk head	Oval countersunk head	Oval cheese head	Wide oval cheese head
	ISO 7046	ISO 7047	ISO 7045	NFE 25-122
	Nbr.	Nbr.	Nbr.	Nbr.
M 1,6	0	0	0	-
M 2,0	0	0	0	-
M 2,5	1	1	1	-
M 3,0	1	1	1	1
M 3,5	2	2	2	2
M 4,0	2	2	2	2
M 5,0	2	2	2	2
M 6,0	3	3	3	3
M 8,0	4	4	4	4
M 10,0	4	4	4	-

Self-tapping screws			
Screw mm	Countersunk head	Oval countersunk head	Wide oval cheese head
	ISO 7050	ISO 7051	NF E 25-659
	Nbr.	Nbr.	Nbr.
ST.2,2	0	0	0
ST.2,9	1	1	1
ST.3,5	2	2	2
ST.4,2	2	2	2
ST.4,8	2	2	2
ST.5,5	3	3	3
ST.6,3	3	3	3
ST.8	4	4	4
ST.9,5	4	4	4

Wood screws			
Screw mm	Countersunk head	Oval countersunk head	Round head
	NF E 25-601	NF E 25-602	NF E 25-603
	Nbr.	Nbr.	Nbr.
2,5	1	1	1
3	1	1	1
3,5	2	2	2
4	2	2	2
4,5	2	2	2
5	2	2	2
6	3	3	3



## FACOM GUARANTEE



**FACOM GUARANTEES  
ITS PRODUCTS  
AGAINST FAULTY MATERIALS  
OR WORKMANSHIP  
UNDER THE CONDITIONS  
DEFINED BELOW.**



The FACOM Guarantee is fully part of the brand's commitments towards its clients. It ensures total satisfaction with FACOM products.

Over the last 60 years, FACOM guarantees the quality of its products, by means of free replacement or repair guarantee of its products without any time limit (excluding technical products, torque tools, roller cabinets and furniture).

The **FACOM Guarantee** is applicable by all FACOM dealers.

**FACOM has implemented a specific organisation to manage and follow up returned products, for unequalled responsiveness to client requests:**

- Returned products are first managed by the distributor network, entrusted with applying the **FACOM Guarantee** and replacing items on stock (under reservation of availability).
- Daily processing of returns within FACOM, by an 18-person department dedicated to applying the warranty.



## IMPLEMENTATION OF THE GUARANTEE

- The FACOM guarantee takes the form of an exchange or repair limited to replacement of the faulty parts in accordance with the terms and conditions specified below.
- The faulty product must be returned to the Facom distributor, failing which repair under guarantee may be refused.
- This guarantee includes the parts and the labour provided by the Facom after sales service or the approved distributor.
- All repairs are guaranteed six months parts and labour. This guarantee only applies to the components changed during the previous repair, with the exception of consumables.
- In line with its policy of continual product improvements to meet user needs and technological developments, Facom may upgrade or discontinue the models shown in its catalogue without notice and without entailing any obligation on

its part to repair tools or equipment sold previously. Those items no longer included in the range will then be replaced by a technically equivalent product or a credit note will be issued.

## CONDITIONS OF APPLICATION OF THE FACOM GUARANTEE

**UNLESS OTHERWISE SPECIFIED, THE FACOM GUARANTEE APPLIES TO ALL TOOLS UNDER NORMAL CONDITIONS OF USE.**

### The guarantee excludes the following :

Consumables (i.e. products that become deteriorated or damaged during use). These include, but are not limited to, drill bits, saw blades, abrasive discs, knife blades, files, batteries, driving bits, etc.

Normal wear and tear (in particular of wearing parts), failure to use the product for its intended purpose or in accordance with our instructions, neglect or inadequate maintenance on the part of the user.

Defective operation due to modifications or repairs not carried out by Facom's after sales service or that of its approved distributors. Defective operation due to causes external to the pro-

duct (theft, dropping, lightning, flooding, fire, damage during transport, product not returned in its original packaging, etc.).

- The guarantee period takes effect from the date of purchase by the customer from the Facom customer-distributor. A copy of the invoice proving the date of purchase from the distributor may be requested in the event of a claim under the guarantee. In the case of technical products covered by a limited guarantee type D, it shall systematically be supplied by the user customer together with the serial number where one is indicated on the tool.
- The guarantee will apply for the period indicated in the price list applying on the date of purchase.

- Where the product is no longer covered by the guarantee (expiry of the guarantee period, guarantee inapplicable for the reasons given in paragraph 2) yet is repairable, this repair will be carried out only after acceptance by the user of the repair estimate.
- The application of the guarantee will not give risk to any kind of indemnity or damages for any reason whatsoever.

## TYPES OF GUARANTEE (PRICE LIST COLUMN G)

**GUARANTEE TYPE E** : the tool will be exchanged free of charge, in accordance with the conditions of implementation and application of the guarantee (cf. paragraphs 1 and 2 above) and without limit of time.

**GUARANTEE TYPE R** : the tool will be repaired or replaced with a repaired tool in a similar condition in accordance with the conditions of implementation and application of the guarantee (cf. paragraphs 1 and 2 above) and without limit of time.

**GUARANTEE TYPE D** : this guarantee is subject to a time limit. The guarantee period is specified by a figure after

the D. It applies mainly to technical products or machines. In accordance with the conditions of implementation and application of the guarantee (in particular the exclusion of wearing parts - cf. paragraphs 1 and 2 above), this guarantee covers the repair and replacement of defective parts, free of charge, during the period of validity.

- In the event that Facom is no longer able to exchange a product under guarantee with another having the same reference, it undertakes to provide a technically equivalent product or to issue a credit note if no corresponding product is available.

- The type of guarantee applying to a product can be determined simply by referring to the current price list (column G) available at any Facom distributor. For certain product references, the type of guarantee is indicated on the packaging or in the accompanying documentation.
- Those items for which no guarantee type is specified (column G empty), are covered only by the statutory guarantee.
- Each item of a set continues to be covered by its own guarantee jurisdiction. Applicable legislation.

## JURISDICTION. APPLICABLE LEGISLATION

**IN THE EVENT OF PROBLEMS CONCERNING THE APPLICATION HEREOF, THE USER CAN CONTACT:**

### In France :

– Facom Customer Services, 6 and 8 rue Gustave Eiffel, 91420 Morangis.

### Outside France:

– The Facom subsidiaries listed on page 868 of the Catalogue and on the Facom Web site [www.facom.fr](http://www.facom.fr)  
– Facom distributors

- Any dispute in relation to the interpretation or execution hereof that cannot be amicably resolved between the parties will be subject to French law and the sole jurisdiction of the Paris Courts.

## TERRITORIAL EXTENT

The FACOM contractual guarantee applies in all countries in which the product is officially sold and distributed.

## STATUTORY GUARANTEE

Irrespective of the FACOM contractual guarantee, the user is also covered by the provisions of articles 1641 to 1649 of the French Civil Code relating to hidden defects.

'Auto electricians' kit .....	1074	1/2" fast ratchet with rotating handle .....	326	1/4" drive tee with universal joint .....	288
'C-clamp' arc-welding lock-grip pliers .....	515	1/2" female Torx® impact sockets .....	354	1/4" drive tee with universal joint .....	288
'Connector' pliers .....	519	1/2" Hi-Lok® ratchet - FLUO .....	819	1/4" electrical ratchet 10.8V 2.0Ah .....	715
'Connector' pliers - FLUO .....	841	1/2" Hi-Lok® ratchet - Flu .....	918	1/4" fast ratchet with rotating handle .....	282
'Contact' file .....	1060	1/2" impact bit holder sockets .....	356	1/4" fast ratchet with rotating handle - FLUO .....	813
'Extra-wide capacity' straight-jaw pliers .....	503	1/2" impact screwdriver .....	481	1/4" fast ratchet with rotating handle - RFID .....	860
'Heavy-duty' offset ring wrenches .....	236	1/2" impact socket for Mercedes wheel nuts .....	1127	1/4" high performance sealed locking ratchet .....	282
'Heavy-duty' offset ring wrenches - SLS .....	783	1/2" impact sockets for wheel nuts .....	1126	1/4" high performance sealed locking ratchet - FLUO .....	813
HGV, bus' wheel lift .....	1024	1/2" interchangeable male drive .....	344	1/4" high performance sealed locking ratchet - RFID .....	860
HGV, bus' wheel lift .....	1171	1/2" locking extensions .....	330	1/4" high performance sealed ratchet .....	282
'LCV' trolley jacks .....	1023	1/2" locking extensions - RFID .....	871	1/4" high performance sealed ratchet - SLS .....	785
'Long-reach' lock-grip pliers .....	516	1/2" long-reach impact sockets for wheel nuts .....	1126	1/4" lock-ring bit holder - FLUO .....	828
'Low torque' click torque wrenches .....	376	1/2" long-reach ratchet .....	327	1/4" locking extension .....	287
'Low torque' click torque wrenches - RFID .....	876	1/2" offset ratchet .....	328	1/4" locking extension - RFID .....	861
'Micromécanique' open-end wrenches .....	226	1/2" original ratchet .....	327	1/4" locking extensions - FLUO .....	814
'Micromécanique' open-end wrenches - FLUO .....	810	1/2" reinforced impact socket set .....	1127	1/4" long-reach sockets Spline .....	912
'Multi-model' press protection .....	1032	1/2" screwdriver long-reach and extra long-reach sockets for 6-point countersunk head screws .....	335	1/4" metric 6-point socket and bit set .....	281
'No vernier' adjustable angle torque wrenches .....	387	1/2" screwdriver sockets for countersunk hex head screws .....	334	1/4" mini ratchet .....	692
'No vernier' adjustable click torque wrenches .....	387	1/2" screwdriver sockets for countersunk hex head screws .....	355	1/4" original ratchet .....	283
'Refrigeration' flaring tool .....	730	1/2" sockets for 16, 18 and 21 mm spark plugs .....	1057	1/4" reversible gun screwdriver .....	694
'Refrigeration' kit .....	730	1/2" Titanium pneumatic ratchet .....	691	1/4" reversible screwdriver .....	694
'Screw jaw' lock-grip pliers .....	516	1/2" to 3/4" coupler .....	331	1/4" screwdriver handle .....	285
'Screw sliding jaw' lock-grip pliers .....	516	1/2" to 3/4" impact coupler .....	356	1/4" screwdriver sockets for hex head screws .....	294
'Two-hands' orbital sander 150 mm - 10 mm orbit .....	696	1/2" to 3/8" coupler .....	331	1/4" secure spring-clip bit holder - FLUO .....	815
'Two-hands' orbital sander 150 mm - 5 mm orbit .....	696	1/2" to 3/8" coupler - RFID .....	872	1/4" sockets Spline .....	912
'Junior' model multiblade screwdrivers .....	440	1/2" to 3/8" impact coupler .....	356	1/4" standard extension .....	286
'Pocket' bit holder handle .....	463	1/2" to CDX® coupler .....	331	1/4" standard extension - RFID .....	861
'Production' torque screwdrivers .....	395	1/2" Torx® bit impact screwdriver sockets .....	355	1/4" Standard ratchet .....	693
'Radio' model multiblade screwdrivers .....	440	1/2" Torx® impact screwdriver sockets .....	355	1/4" to 3/8" coupler .....	288
'Standard' model multiblade screwdrivers .....	440	1/2" Torx® impact sockets .....	354	1/4" to 3/8" coupler - FLUO .....	815
'11-in-1" flat set .....	216	1/2" Torx® screwdriver sockets .....	335	1/4" to 3/8" coupler - RFID .....	862
1 t europalette workshop crane .....	1028	1/2" Torx® sockets .....	334	1/4" Torx® screwdriver sockets .....	294
1 t workshop crane .....	1027	1/2" universal joint .....	330	1/4" Torx® sockets .....	293
1" 1/2 impact extension .....	363	1/2" universal joint - RFID .....	872	1/4" ultra compact ratchet for 1/4" end bits .....	284
1" 1/2 impact universal joint .....	363	1/2" VSE series 1000 Volt insulated 12-point long-reach sockets .....	966	1/4" ultra-compact 180° flexible head ratchet for 1/4" end bits .....	283
1" 1/2 to 1" impact coupler .....	363	1/2" VSE series 1000 Volt insulated 12-point sockets .....	966	1/4" ultra-compact 180° flexible head ratchet for HX series 1/4" sockets .....	284
1" 1/2 to 2" 1/2 impact coupler .....	363	1/2" VSE series 1000 Volt insulated extensions .....	968	1/4" universal joint .....	288
1" 12-point impact socket .....	362	1/2" VSE series 1000 Volt insulated handle .....	967	1/4" universal joint - RFID .....	861
1" 12-point sockets - ADF .....	749	1/2" VSE series 1000 Volt insulated male 6-point sockets .....	967	1/4" VSE series 1000 Volt insulated 6-point sockets .....	963
1" 12-point sockets 65 mm .....	1179	1/2" XZN® impact screwdriver sockets .....	355	1/4" VSE series 1000 Volt insulated extension .....	964
1" 6-point extra-long impact sockets .....	362	1/2" XZN® long-reach impact screwdriver sockets .....	355	1/4" VSE series 1000 Volt insulated ratchet .....	963
1" 6-point impact sockets .....	361	1/2" XZN® screwdriver socket set .....	336	1/4" wobble extension .....	287
1" 6-point long-reach impact sockets .....	361	1/2" - 3/4" - 1" ratchets - ADF .....	746	10 t hydraulic jack for U.312H .....	639
1" 6-point long-reach thin wall impact sockets .....	362	1/2" - 3/4" - 1" sliding handles - ADF .....	747	10 t hydraulic screw .....	639
1" drive 12-point sockets .....	348	1/2" - 3/4" - 1" universal joints - ADF .....	747	10-piece case of 18 mm snap-off blades .....	618
1" drive 6-point sockets .....	348	1/2" - 3/4" - 1" extension - ADF .....	747	10-piece case of 9 mm snap-off blades .....	618
1" drive impact extensions .....	362	1/4 Hi-Lok® ratchet - FLUO .....	812	10-piece set if 1/4" inch 12-point long-reach sockets set on rack - FLUO .....	816
1" drive impact universal joint .....	362	1/4 Hi-Lok® ratchet - Flu .....	918	10-piece set of 1/4" bits 50 mm long with groove - series 1 .....	465
1" drive ratchet without handle .....	346	1/4" - 5/16" bit holder ratchet .....	284	10-piece set of 1/4" bits 50 mm long - series 1 .....	465
1" drive sliding tee .....	347	1/4" - 5/16" bit holder ratchet - FLUO .....	814	10-piece set of 1000 Volt insulated tools .....	970
1" extensions .....	347	1/4" - 5/16" bit holder ratchet - RFID .....	861	10-piece set of metric ratchet open end combination wrenches .....	207
1" to 1" 1/2 impact coupler .....	363	1/4" 'no handle' ratchet .....	284	10-piece set of Micro-Tech® short-reach combination wrenches .....	999
1" to 3/4" coupler .....	347	1/4" 'Palm control' ratchet .....	693	10.8V pack - 1/2" compact impact wrench + Drill/Bolter 10 mm 2Ah .....	716
1" 1/2 6-point impact sockets .....	363	1/4" 12-point hinged sockets .....	293	1000 Volt insulated combination pliers - RFID .....	893
1/2" 12-point impact sockets .....	353	1/4" 12-point hinged sockets - RFID .....	865	1000 Volt insulated electricians diagonal cutters - RFID .....	892
1/2" 12-point long-reach impact sockets .....	354	1/4" 12-point long-reach sockets .....	292	1000 Volt insulated flat nose pliers - RFID .....	893
1/2" 12-point long-reach sockets .....	333	1/4" 12-point long-reach sockets - FLUO .....	817	1000 Volt insulated half-round long nose pliers - RFID .....	892
1/2" 12-point long-reach sockets - RFID .....	875	1/4" 12-point long-reach sockets - RFID .....	864	1000 Volt insulated half-round short nose pliers - RFID .....	893
1/2" 12-point sockets .....	332	1/4" 12-point sockets .....	291	1000 Volt insulated strippers - RFID .....	893
1/2" 12-point sockets - ADF .....	748	1/4" 12-point sockets .....	291	1000 Volt multitrip pliers - RFID .....	892
1/2" 12-point sockets - RFID .....	874	1/4" 12-point sockets - FLUO .....	816	11-piece set of Micro-Tech® tools .....	999
1/2" 6-point impact sockets .....	352	1/4" 12-point sockets - RFID .....	863	12 - 24 Volt surge limiter .....	1070
1/2" 6-point long-reach impact sockets .....	353	1/4" 12-point sockets - FLUO .....	816	12-piece set of contact cleaning diamond needle files .....	1073
1/2" 6-point long-reach sockets .....	333	1/4" 6-point hexagonal sockets .....	290	120 t mechanical screw jack .....	640
1/2" 6-point long-reach sockets - RFID .....	873	1/4" 6-point long-reach sockets .....	291	12V - 24V starting booster .....	1067
1/2" 6-point long-reach thin-wall impact sockets .....	353	1/4" 6-point long-reach sockets - RFID .....	865	135-piece bodywork tool set .....	1151
1/2" 6-point sockets .....	332	1/4" 6-point sockets .....	290	136-piece set of inch fluorescent tools .....	808
1/2" 6-point sockets - RFID .....	873	1/4" 6-point sockets - FLUO .....	815	14 x18 mm open end bit set .....	406
1/2" angular extensions .....	330	1/4" 6-point sockets - RFID .....	816	14 x18 mm polygon bit set .....	407
1/2" battery impact wrenches .....	712	1/4" 6-point sockets - FLUO .....	815	143-piece set of metric fluorescent tools .....	807
1/2" bit holder socket .....	331	1/4" 6-point sockets - RFID .....	816	15 t hydraulic bench press .....	1030
1/2" bit holder sockets with retaining clip .....	331	1/4" 6-point sockets - FLUO .....	816	15-piece set of forming tools: the essential for professionals .....	1152
1/2" drive hinged handle - 381 mm .....	328	1/4" 6-point sockets - RFID .....	862	15° angled offset-ring ratchets .....	212
1/2" drive impact bits set .....	479	1/4" and 1/2" sockets and Torx® screwdriver bit set .....	1136	15° angled offset-ring ratchets - FLUO .....	810
1/2" drive impact extensions .....	356	1/4" angular extension .....	287	15° angled offset-ring ratchets - RFID .....	857
1/2" drive impact universal joint .....	356	1/4" bit holder socket .....	289	16-piece set of Micro-Tech® tools .....	999
1/2" drive long-reach Torx® bit sockets .....	335	1/4" bit set .....	281	18-piece set of partitions for drawers 50 and 75 mm high .....	123
1/2" drive long-reach XZN® spline bit sockets .....	335	1/4" crowfoot open end bit set .....	408	18V pack - 1/2" high performance impact wrench + Drill/Bolter 13 mm 5Ah .....	716
1/2" drive metal-grip hinged extending handle .....	328	1/4" Crowfoot open end bit set .....	916	19-piece set of 1000 Volt insulated tools .....	971
1/2" drive metal-grip hinged handle - 410 mm .....	328	1/4" crowfoot open end bits .....	404	2-piece set of extra-long reach double jointed pliers .....	518
1/2" drive offset adaptor .....	331	1/4" drive flexible spinner .....	286	2-piece set of multiple opening metric straight ratchet ring wrenches .....	215
1/2" drive sliding tee .....	328	1/4" drive hinged handle - 150 mm .....	285	2-piece set of nut splitters .....	662
1/2" drive speed brace .....	329	1/4" drive long spinner .....	286	2-piece set of reversible pliers .....	508
1/2" drive tee with universal joint .....	329	1/4" drive long spinner - FLUO .....	815	2-piece set of sanding wedges .....	1159
1/2" drive XZN® spline bit sockets .....	335	1/4" drive medium spinner - FLUO .....	814	2-piece set of self-adjusting sanding wedges .....	1158
1/2" extension - RFID .....	872	1/4" drive short spinner .....	286	2-piece set of tuning screwdrivers for slotted head screws .....	1008
1/2" extensions .....	329	1/4" drive short spinner - FLUO .....	814	2-piece sets of bits .....	648
1/2" extra-long drive tee with universal joint .....	329	1/4" drive sliding tee .....	285	2-piece sets of spare pins .....	254
		1/4" drive speed brace .....	286		

# ALPHABETIC INDEX

2-set of caps for HGV / LUV.....	1055	3/8" 6-point long-reach sockets .....	309	4-piece set of spatulas .....	1098
2-speed hydraulic hand pump .....	639	3/8" 6-point long-reach sockets - RFID .....	869	4-piece set of straight Torx® ring wrenches.....	234
20 t and 30 t hollow jacks for U.320H and U.330H.....	639	3/8" 6-point magnetic oil-drain sockets.....	1045	4-Ton kit .....	657
20 t hydraulic press .....	1030	3/8" 6-point sockets .....	308	41-piece set of 1000 Volt insulated tools .....	973
20-piece car radio removal tool kit.....	1074	3/8" 6-point sockets - RFID .....	869	5-piece set of "T" spinner hexagon keys.....	455
20-piece set of forming tools: the indispensable for specialists.....	1152	3/8" angular extensions.....	306	5-piece set of 3-in-1 PROTWIST® screwdrivers.....	441
20-piece set of short-reach cylinder head bits .....	1092	3/8" bit holder impact sockets .....	352	5-piece set of belt-tensioner nut wrenches.....	1109
21-piece set of 1/4" and 1/2" Torx® sockets and bits.....	334	3/8" bit holder socket with locking ring for 1/4" squares .....	307	5-piece set of clockwork screwdrivers for slotted head screws.....	1000
21-piece set of 1/4" and 1/2" Torx® sockets and bits.....	294	3/8" bit holder sockets with retaining clip .....	307	5-piece set of drive bits for spline socket head (XZN) bits 1/2".....	1092
26-piece sets of letter punches and punch .....	549	3/8" crowfoot 12-point end bits .....	404	5-piece set of forming tools: the indispensables.....	1151
27-piece set of partitions for drawers 75 mm high.....	123	3/8" crowfoot 12-point spline end bits.....	404	5-piece set of long shank Torx® screwdriver .....	425
3-in-1 PROTWIST® screwdriver set.....	441	3/8" crowfoot box end bits .....	406	5-piece set of metric flare-nut wrench angled at 15°.....	252
3-piece CPE plier set .....	520	3/8" Crowfoot open end bit set .....	917	5-piece set of metric half-moon ring wrenches.....	235
3-piece set of 'mechanical' pliers .....	521	3/8" crowfoot open end bits .....	405	50 t hydraulic screw .....	1031
3-piece set of 1000 Volt pliers .....	521	3/8" drain plug bit with male triangle.....	1047	57-piece set of plastic boxes .....	124
3-piece set of contact cleaning diamond tweezers.....	1073	3/8" drive hinged handle - 260 mm .....	304	6-piece set of 15° angled offset-ring ratchets .....	212
3-piece set of couplers .....	289	3/8" drive impact bits set .....	479	6-piece set of bodywork vice pliers.....	1137
3-piece set of couplers .....	307	3/8" drive impact extensions.....	351	6-piece set of clockwork screwdrivers for hex Phillips® head screws.....	1000
3-piece set of couplers .....	331	3/8" drive impact universal joint .....	351	6-piece set of fluorescent PROTWIST® screwdrivers + 1 12-LED UV lamp - FLUO .....	824
3-piece set of flexible stainless steel spatulas.....	607	3/8" drive metal-grip hinged handle - 255 mm .....	304	6-piece set of keys for 6-point safety screws.....	447
3-piece set of High Perf® bits for Phillips® screws.....	467	3/8" drive sliding tee .....	304	6-piece set of PROTWIST® stainless steel screwdrivers.....	426
3-piece set of High Perf® bits for Pozidriv® screws .....	467	3/8" drive speed brace .....	304	6-piece set of suction cups.....	1161
3-piece set of High Perf® bits for slotted head screws.....	467	3/8" drive tee with universal joint .....	305	6-piece set of T-handle wrenches with sliding bar .....	456
3-piece set of plastic boxes .....	191	3/8" electrical ratchet 10.8V 2.0Ah .....	715	63-piece set of bits - FLUO .....	825
3-piece set of plastic nozzles.....	1146	3/8" extension - RFID .....	866	7-piece set of 6-dplnr bits 1/2".....	1091
3-piece set of power levers.....	722	3/8" extensions .....	305	7-piece set of metric ratchet open end combination wrenches .....	206
3-piece set of screw bits series 1 for metric countersunk hex head screws.....	462	3/8" fast ratchet with rotating handle .....	302	7-piece set of short drill bits for straight chucks .....	604
3-piece set of series 1 Torx® bits T20-25-30.....	461	3/8" Hi-Lok® ratchet - Fluo.....	817	75° plastics cutters.....	517
3-piece set of series 1 Torx® bits T8-10-15.....	461	3/8" Hi-Lok® ratchet - Fluo.....	918	8-piece set of angled keys in pocket - FLUO .....	824
3-piece set of socket wrenches .....	217	3/8" high performance sealed locking ratchet.....	302	8-piece set of partitions for drawers 125 mm high.....	123
3-piece set of stainless steel scrapers .....	607	3/8" high performance sealed locking ratchet - FLUO .....	818	8-piece set of pushers 10 to 30 mm .....	1032
3-piece sets of bits for Phillips® screws - High Perf® - series 6.....	473	3/8" high performance sealed locking ratchet - RFID .....	866	9 x12 mm open end bit set .....	406
3-piece sets of bits for Pozidriv® screws - High Perf® - series 6.....	473	3/8" high performance sealed locking ratchet - SLS .....	785	9 x12 mm polygon bit set .....	407
3-piece sets of High Perf® bits series 1 .....	467	3/8" high performance sealed ratchet.....	302	9-piece set of adapters for ratchet ring wrenches 464.M14X19 .....	215
3-piece sets of High Perf® Titanium bits series 1 .....	468	3/8" high performance sealed ratchet.....	303	9-piece set of angled keys in pocket - FLUO .....	825
3-piece sets of High Perf® titanium bits series 6 .....	473	3/8" high performance sealed ratchet with locking extending handle.....	303	9-piece set of clockwork screwdrivers for slotted head screws.....	1000
3-piece sets of screw bits series 1 for metric countersunk hex head screws.....	462	3/8" impact screwdriver .....	480	9-piece set of hexagonal stainless steel keys.....	452
3-piece sets of screw bits series 6 for countersunk hex head screws .....	471	3/8" impact socket Spline 14 (7/16").....	913	9-piece sets of bits and 6 drainage sockets .....	.....
3-piece sets of standard bits - series 6 for Torx® screws.....	472	3/8" locking extensions .....	306	9-piece sets of digit punches .....	549
3-piece sets of standard bits for slotted head screws - series 6.....	472	3/8" locking extensions - RFID .....	866	9-piece sets of High Perf® bits .....	463
3-piece sets of standard Torx® bits series 1 .....	461	3/8" long-reach drive tee with universal joint.....	305		
3/4" socket set .....	1178	3/8" long-reach sockets Spline.....	913	<b>A</b>	
3/4" 12-point impact sockets .....	358	3/8" magnetic oil-drain key .....	1046	ABS body tape measure - 3 metres - RFID.....	882
3/4" 12-point long-reach impact sockets .....	359	3/8" magnetic oil-drain male hex bits.....	1046	ABS body tape measure - mm and inches .....	551
3/4" 12-point metric sockets - ADF .....	749	3/8" Mini pneumatic ratchet.....	692	ABS body tape measures .....	551
3/4" 12-point sockets .....	345	3/8" offset ratchet .....	305	ABS body tape measures - SLS .....	796
3/4" 6-point impact sockets .....	358	3/8" oil-drain female square bit 10 mm .....	1046	Accessories for punches and callipers .....	623
3/4" 6-point long-reach impact sockets .....	358	3/8" original ratchet.....	303	Acid hydrometer .....	1071
3/4" 6-point long-reach sockets .....	346	3/8" piping bit set .....	917	Adaptable magnet for slim lamp .....	672
3/4" 6-point long-reach thin wall impact sockets .....	359	3/8" piping crowfoot open end bit set .....	409	Adapter bit for pliers U.49P5 to P9 on slide hammer or jib .....	651
3/4" 6-point sockets .....	345	3/8" screwdriver sockets for countersunk hex head screws .....	311	Adapter bits for U.301 / U.302 pullers on slide hammer U.49AM .....	651
3/4" drive 'Site' ratchet.....	342	3/8" sockets for 14 mm bi-hexagonal spark plugs.....	1057	Additional and spare tips for pliers 477 to 499.....	507
3/4" drive fixed adaptor.....	343	3/8" sockets for 16, 18 and 21 mm spark plugs .....	1057	Additional shelf.....	1175
3/4" drive hinged handle .....	343	3/8" sockets Spline .....	913	Additional shelf.....	77
3/4" drive impact extensions .....	360	3/8" square drive hinged wrenches for glow plugs .....	1061	ADF saw blade .....	757
3/4" drive impact universal joint .....	360	3/8" Standard ratchet.....	693	ADF wedges .....	755
3/4" drive ratchet with removable handle .....	341	3/8" Titanium pneumatic ratchet .....	692	Adjustable tap wrench .....	601
3/4" drive ratchet without handle.....	342	3/8" to 1/2" coupler.....	307	Adjustable wrenches.....	257
3/4" drive sliding tee .....	343	3/8" to 1/2" coupler - RFID.....	867	Adjustable wrenches - ADF.....	746
3/4" extensions .....	344	3/8" to 1/2" impact coupler .....	351	Adjustable wrenches - FLUO .....	811
3/4" hexagonal socket 43 mm "PL-IVECO".....	1179	3/8" to 1/4" coupler.....	307	Adjustable wrenches - RFID .....	859
3/4" high performance sealed ratchet.....	341	3/8" to 1/4" coupler - RFID.....	867	Adjustable wrenches - SLS.....	784
3/4" impact screwdriver sockets for countersunk hex head screws .....	359	3/8" Torx® magnetic oil-drain key .....	1046	Air hammer .....	704
3/4" impact socket set .....	357	3/8" Torx® screwdriver sockets.....	311	Air impact wrenches.....	685
3/4" interchangeable male drive.....	347	3/8" Torx® sockets .....	311	Air needle rust remover .....	709
3/4" long-reach Torx® impact sockets.....	359	3/8" universal joint .....	306	Air scribe pen .....	709
3/4" screwdriver sockets for countersunk hex head screws .....	346	3/8" universal joint - RFID.....	867	Air-hose reel .....	710
3/4" socket for angular tightening of the hub nut.....	1129	3/8" VSE series 1000 Volt insulated 12-point long-reach sockets.....	964	Air-line connector and gauge .....	1125
3/4" Tamper Torx® impact sockets.....	360	3/8" VSE series 1000 Volt insulated 12-point sockets .....	964	Air-operated valve driver.....	1090
3/4" to 1" coupler.....	344	3/8" VSE series 1000 Volt insulated extensions.....	966	Aluminium brake bleeder plug .....	1114
3/4" to 1" impact coupler .....	361	3/8" VSE series 1000 Volt insulated handle.....	965	Aluminium rivet maintenance set.....	731
3/4" to 1/2" coupler.....	344	3/8" VSE series 1000 Volt insulated male 6-point sockets.....	965	Aluminium trolley jacks .....	1022
3/4" to 1/2" impact coupler .....	360	3/8" wobble extension .....	306	Analog brake bleeders .....	1113
3/4" universal joint .....	344	30 t hydraulic press .....	1031	Angle grinder with 6 mm collet .....	702
3/4" XZN® impact sockets .....	360	30 t mechanical screw jack .....	640	Angle sander diameter 178 mm .....	1156
3/8 crowfoot open end bit set .....	408	32-piece set of 1000 Volt insulated tools .....	972	Angle sander diameter 178 mm.....	697
3/8" 'Palm control' ratchet.....	693	36-piece set of plastic boxes .....	124	Angled box wrenches .....	243
3/8" 12-point hinged sockets .....	311	37-piece set of 1/4" metric hexagon keys and bits .....	290	Angled composite pneumatic grinder 125 mm.....	702
3/8" 12-point hinged sockets - RFID.....	871	3M tape measure with grip body.....	550	Angled open-socket wrenches .....	240
3/8" 12-point long-reach sockets .....	310	4-piece set of 'mechanical' pliers .....	521	Angled open-socket wrenches - RFID .....	858
3/8" 12-point long-reach sockets - FLUO.....	819	4-piece set of 90° cone bits .....	606	Angled open-socket wrenches - SLS .....	784
3/8" 12-point long-reach sockets - RFID.....	870	4-piece set of Circlip® pliers .....	506	Angled pneumatic grinder 0.3 HP 120° with 6 mm collet.....	701
3/8" 12-point sockets .....	308	4-piece set of CPE pliers.....	520	Angled pneumatic grinder 0.5 HP 90° with 6 mm collet.....	701
3/8" 12-point sockets - FLUO .....	818	4-piece set of hooks .....	1097	Angled pneumatic grinder 125 mm .....	703
3/8" 12-point sockets - RFID .....	868	4-piece set of nipples .....	710	Angled pneumatic grinder 50 mm - 2".....	703
3/8" 12-point spline socket set.....	409	4-piece set of plastic multi-use scrapers .....	1137	Angled pneumatic grinder diam. 100 mm .....	703
3/8" 12-point thin wall sockets.....	309	4-piece set of pliers - FLUO .....	833	Angled pneumatic grinder with 90° angle 0.3 HP with 6 mm collet.....	701
3/8" 6-point impact sockets .....	351	4-piece set of socket wrenches .....	217		

Angled screwdrivers - for Phillips® screws.....	444
Angled screwdrivers for slotted head screw.....	444
Angled socket wrenches - ADF.....	744
Angled, flat short double spoon.....	1150
Angular tightening wrenches.....	1095
Angular tightening wrenches.....	1180
Angular tightening wrenches.....	410
Angular torque coupler.....	391
Angular wrenches 1/2" drive bit.....	1094
Anti-freeze hydrometer.....	1087
Anti-theft bar for roller cabinets.....	83
Antistatic 68-watt digital soldering station.....	1013
Antistatic tweezers.....	1004
Arc-welding lock-grip pliers.....	515
Arc-welding press.....	737
Automatic centre punch.....	577
Automatic lateral wire strippers.....	930
Automatic multigrip pliers.....	503
Automatic oil-filter cap.....	1054
Automatic plastic cable-tie pliers.....	940
Automatic pliers for clamps.....	1085
Automatic screwdriver with hex 1/4" bit holder.....	442
Automatic wire cutters-strippers.....	930
Automotive multimeter.....	1062
Automotive voltage tester.....	1064
Axial steering ball joint puller.....	1130
<b>B</b>	
Backup unit OBD.....	1070
Bag fitted with 2 retractable lanyards - SLS.....	773
Bag for carrying spare parts - SLS.....	773
Bag of 3 HOOK holders - SLS.....	769
Ball head mechanics hammers.....	564
Ball joint puller.....	1187
Ball joint pullers.....	1129
Bar for 3/4" ratchet.....	343
Bars for 1" ratchet M.151.....	347
Bars for wrenches 91A - 92A - 97.....	244
Basic flanged squares - Class I.....	544
Basic flanged squares - Class II.....	544
Basic squares - Class I.....	543
Basic squares - Class II.....	544
Battery chargers for vehicles.....	1066
Battery filler.....	1071
Battery terminals puller.....	1071
Battery tester with printer.....	1072
Beam for U.28 and U.51B pullers.....	649
Beam for U.51B and U.306 pullers.....	649
Beams for jacks.....	655
Bearing bit puller set.....	647
Belt sander - 10 x 330 mm.....	1156
Belt sander - 10 x 330 mm.....	699
Belt with double point metal buckle - SLS.....	772
Bending clamps.....	726
Bi-material toolbox.....	186
Bit holder impact sockets.....	477
Bit holder impact sockets.....	479
Black roller cabinet.....	181
Blind nut pliers.....	733
Blind nut set.....	731
Blocking tray for roller cabinet drawers.....	86
Blocks - drawers.....	120
Bluetooth corded lamp.....	677
Bodywork component horizontal stand.....	1154
Bodywork component storage stand.....	1134
Bodywork inspection lamp.....	673
Bodywork lock-grip pliers.....	1137
Bolt cropper.....	610
Borehole drill bits.....	603
Bottle holder.....	79
Box of 1" sockets.....	349
Box wrench holder.....	128
Box wrenches for 16 and 21 mm spark plugs.....	1058
Box wrenches with screwdriver handle.....	246
Brake calliper piston pusher.....	1116
Brake fluid tester.....	1112
Brake-spring pliers.....	1116
Brake-spring pliers.....	1186
Brushes.....	1008
BSP female gas tapped snap coupling.....	711
BSP gas threaded conical male coupler with Teflon.....	711
Bumping hammers.....	1147
<b>C</b>	
Calibration sensors for torque tools.....	413
Calibration testers for torque tools.....	411
Calliper class 0 - 1/50th.....	533
Calliper puller.....	646
Canted angle hammers.....	566
Cap wrenches with flats.....	1053
Cape chisels.....	579
Carpenters hammer.....	566
Carrier strap.....	187
Cast iron surface plates.....	538
Caulking gun - 50 x 215 mm cartridge.....	708
Centring square.....	545
Chain pipe wrenches - ADF.....	759
Chain wrenches.....	725
Chalk line reel.....	557
Chest - 4 drawers - 3 modules per drawer.....	70
Chisel holder.....	129
Chisels.....	578
Chisels - ADF.....	755
CHRONO + chests.....	69
CHRONO heavy-duty and safety roller cabinets.....	73
CHRONO+ Roller cabinets.....	68
Clamp tool-holder.....	1006
Clamps.....	738
Cleanliness set for roller cabinets.....	79
Click torque wrenches.....	380
Click torque wrenches.....	375
Click torque wrenches - 20 x 7 mm coupler.....	376
Click torque wrenches with fixed ratchet.....	380
Click torque wrenches without accessories - RFID.....	876
Click torque wrenches without accessories - SLS.....	787
Clip extraction spatula.....	1136
Clip-on ammeter.....	948
Clip-on multimeter.....	948
Clutch centre.....	1110
Coax and multipair cable sheath stripper and stripper.....	928
Coax cable sheath-stripper and stripper.....	928
Coax connector crimping pliers.....	939
Cobalt steel bimetal saw blade.....	587
Combination electronic thermometer.....	949
Combination pliers - FLUO.....	832
Combination pliers - RFID.....	888
Combination pliers - SLS.....	793
Combination pliers with retention system - FLUO.....	834
Combination wrenches.....	219
Combination wrenches - ADF.....	743
Combination wrenches - FLUO.....	809
Combination wrenches - RFID.....	852
Combination wrenches - SLS.....	779
Combined set of 10 1/4" bits - series 1 - 25 mm.....	464
Combined set of 10 1/4" bits - series 1 - 25 mm.....	464
Combined set of 10 1/4" Resistorx® bits - series 1 - 25 mm.....	464
Combined set of 10 1/4" Torx Plus® bits - series 1 - 25 mm.....	465
Combined set of 10 1/4" Torx® bits - series 1 - 25 mm.....	464
Combined set of 10 Tamper Proof Torx Plus® 1/4" bits - series 1 - 25 mm + bit holder.....	465
Combined set of 28 High Perf® 1/4" bits - series 1.....	465
Common Rail diesel injector return flow tester.....	1081
Compact leather bag.....	177
Compact ratchets - drive 14 x 18 mm.....	400
Compact ratchets - drive 9 x 12 mm.....	398
Composite cap wrench sockets.....	1053
Composite cap wrenches with flats.....	1053
Composite chisels to separate casings.....	1107
Compressor holder.....	1123
Connecting lead.....	1012
Consigning kit for electric and hybrid vehicles.....	1038
Contact cleaning diamond tweezers.....	1073
Contact tip.....	1012
Container foam divider.....	191
Container turnbuckle wrench.....	255
Cooling circuit tester.....	1088
Copper pipe cutter.....	728
Copper-Aluminium ratchet cable cutters.....	612
Corded inspection lamp.....	677
Cordless LED inspection lamp.....	669
Countersunk mill 90°.....	606
CPE series combination pliers.....	490
CPE series diagonal cutters.....	487
CPE series electricians diagonal cutters.....	487
CPE series end nippers.....	487
CPE series flat nose pliers.....	490
CPE series half-round nose pliers.....	489
CPE series half-round slim-profile nose pliers.....	489
CPE series round nose pliers.....	490
Crimping and punch pliers.....	1153
Crimping dies for phone connectors.....	939
Crimping pliers for tubular terminals.....	935
Crimping pliers for tubular terminals with rotating dies.....	936
Crimping pliers for tubular terminals with rotating dies.....	1188
Cross-beam 2 Jetline + units.....	107
Cross-beams 1 foot and 1 Jetline + unit.....	107
Cross-test level.....	553
Cup press.....	1089
Curved spatula.....	1097
Cut All.....	619
Cut bits.....	602
Cut out 3-3 foam trays.....	85
Cut-out body tape measure 20 m.....	552
Cutters - ADF.....	752
Cylinder-head rest.....	1089
<b>D</b>	
DAT VAT safety tester.....	949
Dead-blow drifts.....	570
Dead-blow mallets, interchangeable tips.....	567
Dead-blow mallets, interchangeable tips - FLUO.....	843
Dead-blow mallets, interchangeable tips - SLS.....	800
Deburring-chamfer case set.....	729
Depth gauges class 0 - 1/50th.....	534
Desoldering harness.....	1016
Desoldering pumps.....	1016
Detachable compartmented magnetic shelf + paper roll holder.....	79
Device removal jack 1000 kg.....	1029
Device removal jack 500 kg.....	1028
Diagnostic accessories.....	1064
Diagonal cutters - FLUO.....	831
Diagonal cutters - RFID.....	886
Diagonal cutters - SLS.....	791
Diagonal cutters with retention system - FLUO.....	834
Dial gauge.....	537
Dial gauge-hinged magnetic base set.....	537
Dial gauge-magnetic base set.....	537
Die holder.....	601
Diesel dummy glow plug.....	1077
Diesel engine compression tester.....	1078
Diflex pvc hose diameter 10 x 16 mm + end bits.....	711
Digital brake bleeders.....	1113
Digital display callipers - 1/100th.....	531
Digital display depth gauges 300 mm - 1/100th.....	532
Digital display dial gauge.....	532
Digital display micrometer 25 mm.....	532
Digital heat gun.....	723
Disc brake vernier calliper.....	1111
Disc brake vernier calliper.....	1185
Document holder.....	80
Dolly.....	1149
Double scale torque wrenches in Lbf.In and N.m. - RFID.....	877
Double scale torque wrenches in Lbf.In or Lbf.Ft and N.m.....	376
Double SLS hook.....	768
Double stripping automatic wire cutters-strippers.....	930
Drain plug bit.....	1044
Drain plug bit with XZN pattern.....	1047
Drain plug wrenches.....	1043
Drain-plug wrench and bit set.....	1044
Draining kit.....	1043
Drawer.....	121
Drawer partitions.....	84
Dressers.....	1148
Drift punch.....	575
Drift punch - ADF.....	755
Drift punch - FLUO.....	844
Drift punch - RFID.....	882
Drift punch sets.....	576
Drill bit diameter 11 mm.....	947
Drive squares - coupler 14 x 18 mm.....	400
Drive squares - coupler 20 x 7 mm.....	402
Drive squares - coupler 9 x 12 mm.....	398
Drum brake vernier calliper.....	1111
Dummy injectors.....	1077
Dummy squares and dummy sliding squares.....	556
<b>E</b>	
Electrical engineers 'compact' diagonal cutters.....	493
Electrical engineers diagonal cutters.....	493
Electrical engineers extra long-reach half-round nose pliers.....	518
Electrical engineers half-round nose pliers.....	494
Electricians all-in-one / Set of mobile industrial cable ties.....	933
Electricians diagonal cutters - RFID.....	887
Electricians hammers.....	565
Electricians knife.....	621
Electricians knife - RFID.....	885
Electricians knife - SLS.....	799
Electricians scissors - FLUO.....	844
Electricians set - mobile crimping tool.....	933
Electromechanical technician roller container case.....	192





Inside Circlip® pliers with 'closing' rack .....	507
Inside grip puller .....	632
Inside grip puller and beam set .....	649
Inside puller .....	650
Inside/outside puller kit .....	631
Inspection creepers .....	1036
Inspection mirror .....	1010
Inspection mirror .....	1010
Inspection mirror - FLUO .....	845
Instant soldering iron 100 W – 230 V .....	1015
Insulating gloves .....	720
Insulating mats .....	721
Insulating pliers .....	970
Interchangeable 4-die crimping pliers .....	932
Interchangeable cylinder .....	110
Interchangeable steel tip scriber .....	548
Interchangeable steel tip scriber - SLS .....	795
Interchangeable-tip mallets .....	568
Interchangeable-tip mallets - SLS .....	801
Interchangeable-tip mallets - SLS .....	801
Iron pipe cutter .....	727
ISO hollow punch with screw .....	946
ISO staged drill bit .....	947
ISORYL screwdriver for slotted-head screws - forged blade - T handle .....	435
ISORYL screwdriver for slotted-head screws - handle with clasp .....	435
ISORYL screwdriver for slotted-head screws - milled blade .....	434
ISORYL screwdriver for slotted-head screws - short blade .....	435
ISORYL screwdrivers for Phillips® screws .....	435
ISORYL screwdrivers for Phillips® screws - short blade .....	436
ISORYL screwdrivers for Pozidriv® screws .....	436
ISORYL screwdrivers for Pozidriv® screws - short blade .....	436
<b>J</b>	
Jack foam holder .....	1022
JET + roller cabinets - 3 modules per drawer .....	58
JET + roller cabinets - 4 modules per drawer .....	61
JET + roller cabinets - 5 modules per drawer .....	64
JET+ chests 4 drawers - 3 modules per drawer .....	60
JET+ chests 4 drawers - 4 modules per drawer .....	63
JET+ chests 4 drawers - 5 modules per drawer .....	66
JET+ Mobile workbench .....	67
JET+ roller cabinets - E-ACCESS range .....	71
JET+ roller cabinets - safety range .....	72
Jetline + angle half-panel (400 mm) .....	103
Jetline + assembly kit .....	108
Jetline + beech angle worktop .....	104
Jetline + brushed stainless steel angle worktop .....	105
Jetline + cabinets .....	101
Jetline + cable tray .....	109
Jetline + elec half-panels (400 mm) .....	103
Jetline + foot, height 1025 mm .....	106
Jetline + foot, height 850 mm .....	106
Jetline + half-panels (400 mm) - 1452 mm .....	103
Jetline + half-panels (400 mm) - 724.5 mm .....	103
Jetline + high unit .....	96
Jetline + high unit with shutter .....	124
Jetline + high unit, single solid doors and drawers .....	125
Jetline + light ramp .....	108
Jetline + low unit .....	91
Jetline + metal worktop .....	106
Jetline + panel (800 mm) - 1452 mm .....	102
Jetline + panel (800 mm) - 724.5 mm .....	102
Jetline + risers .....	95
Jetline + top box .....	99
Jetline + wooden and stainless steel worktop .....	105
Jetline + wooden worktop .....	104
Jointed nose tip lock-grip pliers .....	512
<b>K</b>	
Key file sets .....	590
Key with 4 cavities for cabinets .....	941
<b>L</b>	
Lambda probe wrenches and sockets .....	1095
Lanyard 1.2 m - 80 mm stainless steel double snap hook with screw - SLS .....	771
Lanyard 1.2 m - retractable loop and 80 mm stainless steel double snap hook with screw - SLS .....	771
Lanyard 1.2 m steel cable - 80 mm stainless steel double snap hook with screw - SLS .....	771
Lanyard 20 cm - 60 mm stainless steel double snap hook with screw - SLS .....	771
Lanyard 20 cm - Stainless steel 50 mm spring hook + swivel and 60 mm stainless steel snap hook with screw - SLS .....	769
Large offset presses .....	737
Large-capacity lock-grip pliers .....	513
Laser telemeter .....	529
Leather bag .....	177
Leather case with drawers .....	193
LED pen light .....	671
Legs contained in U.312HJ3 .....	637
Legs contained in U.312HJ4 .....	637
Lever grease pump .....	734
Li-Ion batteries .....	717
Lifting plate for 500 Kg jack .....	1029
Lineman's pliers - ADF .....	753
Lock back knife .....	620
Lock-back knife - RFID .....	885
Lock-grip pliers for angle sections .....	515
Lock-grip pliers for round sections .....	515
Lockable 2-leg sliding-leg puller .....	641
Locking clips for CKS hooks .....	126
Locking ring bit holder .....	475
Locking ring bit holder - FLUO .....	829
Locking slip-joint multigrip pliers .....	500
Locking slip-joint multigrip pliers - FLUO .....	830
Locking slip-joint multigrip pliers - RFID .....	886
Locking slip-joint multigrip pliers - SLS .....	790
Locking-wire pliers .....	510
Locking-wire pliers - FLUO .....	841
Locking-wire pliers - RFID .....	894
Locks .....	110
Long curved spatula .....	1098
Long keys .....	450
Long leg for U.27AS3 .....	634
Long ratcheting tap wrenches .....	601
Long socket holder - 1/4" drive square - FLUO .....	829
Long socket holder - 1/4" square drive .....	476
Long socket holder - 3/8" square drive .....	476
Long tie-rod for U.27AS3 .....	635
Long-nose automatic lock-grip pliers .....	514
Long-nose lock-grip pliers .....	512
Long-nose lock-grip pliers - SLS .....	794
Long-nose single setting lock-grip pliers .....	514
Long-reach 10° angled offset ring wrenches .....	232
Long-reach 15° angled offset ring wrenches .....	233
Long-reach 15° angled offset ring wrenches - Spline .....	911
Long-reach hexagon key ring sets .....	445
Long-reach offset ring wrenches .....	231
Long-reach ring wrenches .....	909
Low voltage-tester screwdrivers .....	442
Low-effort cutters .....	485
Low-effort diagonal cutters .....	519
Lubricant .....	944
Lubricating paste .....	947
<b>M</b>	
MAC PHERSON clamp separator set .....	1124
MAC PHERSON damper rod tool set .....	1124
Magnetic holder for painting small bodywork parts .....	1155
Magnetic levels .....	555
Magnetic levels, 1 machined sole plate .....	555
Magnetic ring bit holder .....	475
Magnetic snap ring bit holder .....	475
Magnetic snap ring bit holder - beryllium .....	475
Magnetic snap ring bit holder - FLUO .....	828
Magnetic sockets for hex screws .....	472
Magnetic trapezoidal levels .....	554
Magnetizer - Demagnetizer .....	442
Maintenance crimping pliers for pre-insulated terminals .....	1074
Maintenance leg puller set .....	650
Maintenance workbench - galvanized steel worktop - 1.5 m .....	120
Maintenance workbench - galvanized steel worktop - 2 m .....	120
Maintenance workbench - multi-ply beech worktop - 1.5 m .....	121
Maintenance workbench - multi-ply beech worktop - 2 m .....	121
Maintenance workbench - 6 drawers, galvanized steel worktop - 2 m .....	117
Maintenance workbench - 6 drawers, wooden worktop, 2 m .....	117
Maintenance workbench 1.5 m .....	119
Maintenance workbench 2 m .....	118
Maintenance workbench 2 m with drawers .....	118
Mallet body .....	569
Manual Copper-Aluminium cable cutters .....	612
Manual oil syringe .....	734
Manual pressure/vacuum pump .....	1075
Manual reset torque wrenches .....	381
Manual reset torque wrenches .....	382
Manual reset torque wrenches with square drive and handle .....	381
Mechanical component storage stand .....	1134
Mechanics hammers .....	563
Mechanics hammers - RFID .....	883
Mechanics riveting hammer with graphite grip - FLUO .....	843
Mechanics riveting hammers .....	563
Mechanics riveting hammers - RFID .....	883
Metal cases .....	184
Metal rings - SLS .....	774
Metal shears .....	608
Metal tool boxes .....	180
Metric "T" socket universal joint wrenches with slide handle .....	247
Metric "T" socket wrenches with slide handle .....	247
Metric double-ended forged socket wrenches .....	244
Metric flare-nut wrenches angled at 15° .....	252
Metric forged socket wrenches with "T" handle .....	246
Metric forged socket wrenches with screwdriver handle .....	245
Metric forged socket wrenches with screwdriver handle - FLUO .....	812
Metric forged socket wrenches with screwdriver handle - RFID .....	859
Metric hexagon T-handle spinner keys - SLS .....	789
Metric hinged socket wrenches .....	249
Metric long combination wrenches .....	223
Metric open end bits - drive 9 x 12 mm .....	399
Metric straight flanged flare-nut wrenches .....	251
Metric straight flanged flare-nut wrenches .....	250
Metrology-control set .....	536
Micro-Tech® 'low torque' screwdrivers .....	393
Micro-Tech® 'Production' torque screwdriver .....	395
Micro-Tech® cutters .....	978
Micro-Tech® diagonal cutters - ESD .....	988
Micro-Tech® diagonal cutters - FLUO .....	836
Micro-Tech® diagonal cutters - RFID .....	889
Micro-Tech® electronic torque screwdriver sets .....	393
Micro-Tech® grippers .....	982
Micro-Tech® grippers - FLUO .....	838
Micro-Tech® grippers - RFID .....	889
Micro-Tech® hexagonal key 4 mm bit holder screwdriver .....	994
Micro-Tech® hexagonal key screwdriver .....	994
Micro-Tech® hexagonal key set .....	998
Micro-Tech® joint vice .....	1007
Micro-Tech® replaceable blade screwdrivers .....	994
Micro-Tech® saw frame .....	1006
Micro-Tech® screwdriver set .....	996
Micro-Tech® screwdrivers for Phillips® and Pozidriv® head .....	993
Micro-Tech® screwdrivers for slotted head screws .....	994
Micro-Tech® screwdrivers for Torx® screws .....	993
Micro-Tech® tool set .....	999
Micrometers 1/100 mm accuracy .....	535
Mid-height work seat .....	921
Mill .....	1071
Milled files .....	1150
Mini bolt cropper .....	612
Mini copper pipe cutter .....	728
Mini mechanical set .....	1121
Mini wire grip .....	1012
Mixed thermometer .....	1064
Mobile crimping pliers .....	932
Modular sets with sockets .....	382
Monkey wrenches .....	259
Monkey wrenches - ADF .....	759
Motorist pliers - ADF .....	753
Muffler core remover .....	1128
Muffler for HGV wheel deflating .....	1128
Multi-cavity cross brace .....	941
Multi-diameter damper pulley puller .....	1109
Multi-diameter timing and injection pump pulley puller .....	1109
Multi-functional bodywork support cradle .....	1153
Multi-make electronic belt tension-meter .....	1108
Multi-purpose angle-nose automatic lock-grip pliers .....	513
Multi-purpose drift punch holder .....	128
Multi-purpose holder for stud pullers .....	128
Multi-purpose key holder .....	128
Multi-purpose screwdriver holder .....	128
Multifunction brush .....	698
Multifunction sheath stripper .....	928
Multifunction trigger sheath-stripper .....	926
Multifunction trigger sheath-stripper - SLS .....	799
Multimeter .....	948
Multimeter megohmmeter and insulation tester .....	1063
Multiple diameter piston pushing tools .....	1116
Multiple function hook .....	1096
Multiple grip pliers - ADF .....	752
Multiple grip pliers - FLUO .....	830
Multiple grip pliers - RFID .....	886
Multiple grip pliers - SLS .....	791
Multiple make broken electrode puller set .....	1083
Multiple opening straight ratche offset-ring wrenches .....	215
Multiple use carrier trolley .....	185
<b>N</b>	
Nail sets .....	577
Natural Briançon chalk sticks .....	557
Needle file sets .....	597
Needle holder casing .....	943



Screw	1131	Sets of Protwist® screwdrivers	418	Spherical head P-handle keys	453
Screw bits for countersunk hex head screws	459	Sets of sheathed impact tools	573	Spherical head spinner hexagon keys	456
Screw bits for countersunk hex spherical head screws	459	Sets of short-reach combination ratchets in portable case	208	Spherical head spinner hexagon keys - FLUO	824
Screw bits for Phillips® screws	459	Sets of short-reach combination wrenches	222	Spinner keys - ADF	751
Screw bits for Pozidriv® screws	459	Sets of straight ratchet offset-ring wrenches	211	Spiralled polyurethane extension	710
Screw bits for slotted head screws	459	Sets of straight ring wrenches	234	Spine 15° angled offset-ring ratchets	909
Screw bits for Torx® screws	459	Sets of Torx® wrenches in wallet	445	Spine 15° angled offset-ring ratchets	213
Screw bits series 0 - drive 4 mm	995	Sets of wood handle screwdrivers	436	Spring compressor forks	1120
Screw for UWG jack	639	Sheath strippers	927	Spring compressor with interchangeable forks	1122
Screw pitch gauges	539	Sheathed automatic centre punch	574	Spring compressors workstation (naked)	1123
Screw starter	1060	Sheathed cape chisels	574	Spring holder	1116
Screw starter	443	Sheathed centre punches	573	Spring puller	1007
Screw starter for Phillips® screws	443	Sheathed centre punches - SLS	802	Square bastard files with handle	595
Screw starter for Pozidriv® screws	443	Sheathed chisels	574	Square face dinging hammer	564
Screw starter for slotted-head screws	443	Sheathed chisels - SLS	802	Square piston ring compressor	1183
Screw-on dummy injectors	1077	Sheathed nail punches	572	Square semi-cut files with handle	594
Screw-type hose clamps	1088	Sheathed nail punches - SLS	801	Square tips	549
Screwdriver rack	418	Sheathed nail-sets	572	Stainless body 2 metre tape measure	551
Screwdriver sockets with 6 grooves	335	Sheathed nail-sets - SLS	802	Stainless steel basic precision squares - Class 0	543
Screwdrivers for Phillips® heads ADF	750	Sheet metal - bodywork workstation	1145	Stainless steel flanged precision squares - Class 0	543
Screwdrivers for Pozidriv® heads ADF	750	Sheet metal - bodywork workstation	74	Stainless steel flexible rule - 2 faces - FLUO	842
Screwdrivers for slotted heads ADF	750	Shelf for A1000 cabinets	109	Stainless steel flexible rule - 2 faces - RFID	882
Scriber	547	Shelf for A500 cabinets	109	Stainless steel flexible rules - 1 side	542
SE series 1000 Volt insulated hacksaw frame	960	Shelf for high units MHS	110	Stainless steel flexible rules - 2 faces - SLS	795
Sealed roller boxes - Flycase	188	Shock absorber removal lever	1124	Stainless steel flexible rules - 2 sides	541
Secured impact wrenches	237	Shop digital display calliper	531	Stainless steel joiners squares	556
Seized Common Rail injector inertia puller	1082	Short 10° angled offset ring wrenches	232	Stainless steel lock back knife	621
Seized common rail injector screw puller	1082	Short combination wrenches	221	Stainless steel pipe cutter	727
Self-gripping slim leg outside pullers	632	Short combination wrenches - FLUO	809	Stainless steel semi-rigid 'long' rules - 1 side	542
Self-gripping wide leg outside pullers	645	Short combination wrenches - RFID	853	Stainless steel semi-rigid 'short' rules - 2 sides	542
Self-tightening clamp pliers	1086	Short hexagon key ring sets	445	Stainless steel snap hook - SLS	774
Semi-cut square files	594	Short keys	450	Standard bits series 1 for BNAE head screws	463
Separator	1007	Short ratchet combination wrenches	208	Standard bits series 1 for countersunk hex screws	462
Separator and beam set	653	Short ratchet combination wrenches - SLS	781	Standard bits series 1 for countersunk hex screws - FLUO	827
Separators	654	Short ratcheting tap wrenches	601	Standard bits series 1 for Phillips® screws	460
Serkan 360	937	Short Resistor® keys	453	Standard bits series 1 for Pozidriv® screws	460
SERKAN® ratchet crimping pliers for pre-insulated terminals	934	Short snap ring bit holder	475	Standard bits series 1 for Resistor® screws	461
Set for alternator pulleys	1110	Short Torx® keys	452	Standard bits series 1 for Robertson® square head screws	460
Set for fitting / removing flexible belts	1110	Short XZN® keys	457	Standard bits series 1 for slotted head screws	460
Set of 100 test cards for diesel engine	1078	Short-nose lock-grip pliers	512	Standard bits series 1 for Tamper Resistant Torx Plus® screws	461
Set of 15° angled head 'micromechanic' open end wrenches	227	Short-nose lock-grip pliers - SLS	794	Standard bits series 1 for Torq Set® head screws	463
Set of 2 wrench adapters 10 mm to 1/4" square drive	213	Short-nose single setting lock-grip pliers	514	Standard bits series 1 for Torq Set® head screws - FLUO	828
Set of 2 wrench adapters to 1/4" and 1/2" square drive	213	Simple open end wrench	228	Standard bits series 1 for Torq Set® head screws - FLUO	828
Set of 3/8" sockets in case	310	Single effect oil cans	735	Standard bits series 1 for Torx Plus® screws	461
Set of 3/8" sockets on metallic rack	310	Single key option for Jetline + furniture	108	Standard bits series 1 for Torx® screws	460
Set of angled keys for multiple XZN teeth	457	Single position lock-grip pliers	512	Standard bits series 1 for Torx® screws - FLUO	827
Set of cage gasket centres	1087	Single shelf for low units MBS	110	Standard bits series 1 for Tri-Wing head screws	463
Set of chisels and cape chisels on holder	579	Single spoon	1150	Standard bits series 1 for Tri-Wing head screws - FLUO	828
Set of greasing end bits	735	Sledge hammer	566	Standard bits series 1 for XZN multiple teeth head screws	462
Set of heavy-duty ring wrench set	236	Sledgehammers - ADF	754	Standard bits series 1 with spherical head for countersunk hex screws	462
Set of hexagon spinner keys	457	Sleeving pliers	940	Standard bits series 2 for BNAE head screws	470
Set of metric combination and long-reach wrenches	223	Slide hammer 9.8 Kg	1131	Standard bits series 2 for countersunk hex screws	469
Set of metric double-ended forged socket wrenches	244	Slide hammers	652	Standard bits series 2 for Phillips® screws	469
Set of metric ratchet combination wrenches	204	Sliding 2-leg sliding-leg puller	643	Standard bits series 2 for Pozidriv® screws	469
Set of metric straight flanged flare-nut wrenches	251	Slim LED inspection lamp	672	Standard bits series 2 for slotted head screws	469
Set of mills	1140	SLS HOOK wrist bracelet	768	Standard bits series 2 for Torq Set® head screws	470
Set of multi-diameter forks	1122	Small dimension presses	737	Standard bits series 2 for Torx® screws	469
Set of pictograms	84	Small grease pump	734	Standard bits series 2 for XZN multiple teeth head screws	470
Set of plastic component removal tools	1136	Snap ring bit holder sockets	475	Standard bits series 6 for countersunk hex screws	471
Set of pullers for deformed glow plugs	1107	Snap ring bit holder sockets for 1/4" - 6.35 mm hex series 1 bits	474	Standard bits series 6 for countersunk hex screws - FLUO	827
Set of roller-type stud drivers	662	Snap ring bit holder sockets for 5/16" - 7.94 mm series 2 bits	474	Standard bits series 6 for Phillips® screws	470
Set of sheathed tools	575	Socket for PSA lower ball joint castle nut	1129	Standard bits series 6 for Pozidriv® screws	471
Set of spare screws	1111	Socket holder	129	Standard bits series 6 for ROBERTSON square head screws	471
Set of spare screws	509	Socket holder - 1/4" drive square	476	Standard bits series 6 for slotted head screws	470
Set of spherical head spinner hexagon keys	456	Socket holder - 1/4" drive square - FLUO	829	Standard bits series 6 for slotted head screws - FLUO	826
Set of stud pullers	660	Socket holder - 3/8" drive square	476	Standard bits series 6 for Torq Set® head screws	471
Sets of 'extra-slim' open-end wrenches	226	Socket holder bit	996	Standard bits series 6 for Torq Set® head screws - FLUO	828
Sets of 'micromechanic' open-end wrenches in wallet	227	Socket holder bit - 1/4"	394	Standard bits series 6 for Torx® screws	471
Sets of 'T' socket universal joint wrenches with slide handle	248	Socket holder bit - 1/4" drive - 1/4" 6-point	474	Standard bits series 6 for Torx® screws - FLUO	827
Sets of 1/2" sockets on metallic rack	324	Socket holder bit 4 mm - 1/4"	394	Standard CKS hook	126
Sets of 1/4" sockets in case	293	Socket holder bit 4 mm - 1/4"	460	Standard crimping pliers for pre-insulated terminals	935
Sets of 1/4" sockets on metallic rack	292	Sockets for 1/2" square drive Diesel injectors	1084	Standard crimping pliers for pre-insulated terminals - FLUO	840
Sets of angled box wrenches	243	Sockets for hex screws	472	Standard crimping pliers for pre-insulated terminals - RFID	894
Sets of angled open-socket wrenches	241	Soft cases	194	Standard crimping pliers for pre-insulated terminals - SLS	794
Sets of combination ratchets in portable case	204	Soldering iron stand	1013	Standard drifts	570
Sets of combination wrenches	220	Solid stainless steel rules	541	Standard levels, 1 machined sole plate	555
Sets of flare-nut ratchet wrenches	250	Spare bits for mallets	569	Standard long bits series 2 for countersunk hex screws	469
Sets of forged socket wrenches with screwdriver handle	245	Spare blades for bolt croppers	611	Standard long bits series 2 for XZN multiple teeth head screws	470
Sets of hinged combination ratchets in portable case	210	Spare legs for U.32T	642	Standard mechanical set	1121
Sets of ISORYL screwdrivers	434	Spare strap	726	Standard multigrip pliers	502
Sets of metric combination wrenches in portable case	220	Spare tie rods for jib	656	Standard trapezoidal levels	555
Sets of metric offset combination wrenches	223	Spare tips for circlip® pliers 467 and 469	509	Standard wire end crimping pliers	938
Sets of metric tube wrenches	242	Spark plug jointed wrenches for 16, 19 and 21 mm spark plugs	1058	Starting booster fuse	1068
Sets of offset ring wrenches	230	Spark plug lead pliers	1058	Steady-spring tool	1117
Sets of open-end wrenches	225	Special workbench vice	1123	Steel cable cutter	613
Sets of PROTWIST® 1000 Volt insulated screwdrivers	430	Spherical head long-reach keys	449	Steel scriber	548
Sets of PROTWIST® 1000 Volt insulated screwdrivers	955	Spherical head long-reach Torx® keys	452	Steel scriber - FLUO	842
Sets of PROTWIST® BORNEO® screwdrivers for mixed heads	433	Spherical head metric hexagon keys - FLUO	825	Steel wire basket	187

Steel wire brush.....1141  
 Steel wire brush.....721  
 Stepped bits .....603  
 Sterilizable tweezers .....1004  
 Sticks of all-purpose glue .....1146  
 Storage holder for cylinder head .....1092  
 Straight curved spatula.....1098  
 Straight frame with blade backing .....586  
 Straight pneumatic grinder 0.3 HP with 6 mm collet .....700  
 Straight pneumatic grinder 0.5 HP with 6 mm collet .....699  
 Straight pneumatic grinder with 6 mm collet .....700  
 Straight pneumatic grinder with shank extension 0.3 HP with 6 mm collet 699  
 Straight pneumatic grinder with shank extension 0.5 HP with 6 mm collet 700  
 Straight ratchet offset-ring wrenches .....211  
 Straight ratchet offset-ring wrenches - FLUO .....810  
 Straight ratchet offset-ring wrenches - RFID .....856  
 Straight ratchet ring wrench opening 14 and 19 mm .....215  
 Straight ring wrenches .....234  
 Straight spatula .....1098  
 Straight tip .....1097  
 Straight Torx® ring wrenches .....234  
 Strippers for coax cables types RG.58, RG.59 and RG.62 .....928  
 Stud extraction drill-bits and pullers .....661  
 Stud extractors set.....659  
 Stud pullers .....660  
 Suction cup inertia puller by manual pump .....1146  
 Suction cup inertia puller by venturi .....1146  
 Support for 6 posts .....1041  
 Support for large van organization - FSVANL .....170  
 Support for moving vehicles with no steering gear .....1135  
 Support for standard van organization - FSVAN .....170  
 Surface preparation workstation .....1154  
 Surface preparation workstation .....74  
 SWINGO 90® automatic strippers and cutters.....929  
 SWINGO® automatic strippers.....929  
 Swivel handle .....403  
 Swivel handles - drive 20 x 7 mm .....402  
 Synthetic blade rule Class III 2 meters - 10 branches .....556

**T**

T-handle keys .....456  
 T-handle Torx® spinner keys - SLS .....790  
 Tap and drill-bit sets .....600  
 Tap, die and tool holder sets .....600  
 Tape measure 50 m .....553  
 Taps .....598  
 Technicians case .....191  
 Telescopic mirror with magnifying effect .....922  
 Telescopic mirror with magnifying effect .....1011  
 Telescopic mirrors .....1011  
 Telescopic mirrors .....922  
 Temperature probes .....949  
 Thread repair insert kit .....1096  
 Thread restoring tools .....600  
 Threaded adaptors .....656  
 Threaded bit couplers .....656  
 Three-square scraper .....606  
 Timing kit .....1101  
 Timing kit for PSA 1.0L and 1.2L petrol engines .....1104  
 Timing kit for VAG 1.0L petrol engines .....1106  
 Tip type puller - inside grip .....648  
 TOOL BOX .....172  
 Tool carry bag - SLS .....775  
 Tool for fitting / removing filter elements .....1085  
 Tool storage foam modules for drawers .....145  
 Tool storage heat formed modules for drawers .....130  
 Tools for cylinder heads fitted with glow plugs .....1084  
 Tools for Truarc® rings .....1005  
 Torch .....675  
 Torque and angle torque couplers .....391  
 Torque drivers with adjustment Vernier .....393  
 Torque multiplier sets .....385  
 Torque multipliers .....385  
 Torque reading electronic torque wrenches .....396  
 Torque screwdriver sets .....394  
 Torque screwdriver torque meters .....413  
 Torque tool calibration bench .....413  
 Torque wrench couplers - 20 x 7 mm coupler .....402  
 Torx® key ring sets .....445  
 Torx® key ring sets .....448  
 Tough System mobile chest .....167  
 Tough System organizer case .....166  
 Tough System tool basket .....166  
 Tough System tool boxes .....164  
 Tough System trolley .....168  
 Tough System worksite radio .....167  
 TOUGHSYSTEM box stand .....80

TOYOTA oil filter plug cap .....1055  
 TPMS valve set .....1130  
 Transmission collar clamps .....1111  
 Transmission collar clamps .....1129  
 Triangle bastard files with handle .....596  
 Triangle semi-cut files .....595  
 Triangle semi-cut files with handle .....595  
 Trim removal tools .....1135  
 Tripod for SPOT lamp .....676  
 Trolley and workshop supports .....168  
 Trolley jacks .....1167  
 Tropicalized steel turret .....944  
 Tweezers .....1001  
 Twin slip-joint multigrip pliers .....502  
 Two-vial level .....553  
 Tyre remover .....1128  
 Ultra compact multi-tightening ratchet set .....209  
 Universal 'LV-LCV' trolley jacks .....1021  
 Universal calliper - 150mm - 1/20th .....534  
 Universal calliper - 300 mm - 1/50th .....534  
 Universal callipers class 0 - 1/50th .....533  
 Universal funnel .....1044  
 Universal joint pusher - hydraulic hub puller .....1130  
 Universal joint pusher - mechanical hub puller .....1130  
 Universal plug for bleeding LV and HGV brakes and clutches .....1114  
 Universal pulley wrench .....1109  
 Unstapling pliers .....1135  
 US chest - 8 drawers, black .....75  
 US Roller cabinets .....75  
 Utility knife with 18 mm automatically reloading blade - RFID .....884  
 Utility knife with 18 mm snap-off blade .....616  
 Utility knife with 9 mm snap-off blade .....616  
 Utility knife with Micro-Tech® interchangeable blade .....1006  
 UV torch .....675

**V**

Vacuum cooling circuit fillers .....1087  
 Valve core remover .....1128  
 Valve grinder .....1090  
 Valve lifter .....1088  
 Valve retaining ring pliers .....1090  
 Valve stem seal pliers .....1090  
 Valve wrenches - ADF .....759  
 Van supports .....170  
 Vapour extractor .....1085  
 Variable pitch hole saws .....605  
 Variable-pitch holed saw with chuck sets .....605  
 Varnished wire strippers .....931  
 VE series 1000 Volt insulated combination pliers .....497  
 VE series 1000 Volt insulated diagonal cutters .....495  
 VE series 1000 Volt insulated electricians diagonal cutters .....496  
 VE series 1000 Volt insulated end nippers .....496  
 VE series 1000 Volt insulated flat nose pliers .....498  
 VE series 1000 Volt insulated half-round long nose pliers .....497  
 VE series 1000 Volt insulated half-round short nose pliers .....497  
 VE series 1000 Volt insulated round nose pliers .....498  
 VE series 1000 Volt insulated strippers .....498  
 Vertical board for JET+ roller cabinets .....82  
 Vertical sander with rotating plate 178 mm .....697  
 Very low voltage-tester screwdrivers .....442  
 Very sharp stubby blade scissors .....1005  
 Vibrating sander - 95 x 170 mm - 8 holes .....1155  
 Vibrating sander - 95 x 170 mm - 8 holes .....696  
 Vice for lower grip on MacPherson strut .....1120  
 Vice holder .....81  
 VSE series 1000 Volt insulated 1/2" ratchet .....967  
 VSE series 1000 Volt insulated 3/8" ratchet .....965  
 VSE series 1000 Volt insulated adjustable wrenches .....962  
 VSE series 1000 Volt insulated box wrenches .....962  
 VSE series 1000 Volt insulated combination pliers .....958  
 VSE series 1000 Volt insulated copper-alu cable cutter .....960  
 VSE series 1000 Volt insulated diagonal cutters .....957  
 VSE series 1000 Volt insulated end nippers .....958  
 VSE series 1000 Volt insulated flat nose pliers .....958  
 VSE series 1000 Volt insulated hexagon keys .....962  
 VSE series 1000 Volt insulated knife .....961  
 VSE series 1000 Volt insulated multigrip pliers .....957  
 VSE series 1000 Volt insulated offset ring wrenches .....961  
 VSE series 1000 Volt insulated open end wrenches .....961  
 VSE series 1000 Volt insulated ratchet cable cutter .....960  
 VSE series 1000 Volt insulated round nose pliers .....959  
 VSE series 1000 Volt insulated semi-round nose pliers .....959  
 VSE series 1000 Volt insulated strippers .....959  
 VSE series 1000 Volt insulated tools set .....964  
 VSE series 1000 Volt insulated torque wrenches .....969

**W**

Wall-mounted cupboard .....125  
 Wallet sets of angled Torx® keys .....447  
 Wallet sets of hexagon keys .....447  
 Wallet sets of hexagonal keys .....444  
 Waste bin .....79  
 Welders chipping hammers .....565  
 Welding spot mill .....1140  
 Welding spot mill .....708  
 Welding squares .....403  
 Wheel nut cross braces for HGV .....1186  
 Wheel nut cross braces for LV .....1125  
 Windshield cutter .....1161  
 Windshield cutter blades CAD.P300F .....1161  
 Windshield replacement kit .....1160  
 Windshield tools .....1160  
 Windshield wiper arm remover .....1159  
 Wire basket .....129  
 Wire brush .....1114  
 Wire cutter and stripper .....931  
 Wire end crimping pliers .....937  
 Wire strippers .....491  
 Wood handle screwdriver for Phillips® screws - hexagonal blade .....437  
 Wood handle screwdriver for Pozidriv® screws - hexagonal blade .....438  
 Wood handle screwdrivers for slotted head screws - forged blade .....437  
 Wood handle screwdrivers for slotted head screws - hexagonal forged blade .....437  
 Wood handles for files and rasps .....589  
 Wooden worktop for CHRONO .....83  
 Wooden worktop for JET+ .....83  
 Woodwork hammers .....565  
 Workbench with 1.5 m vertical panel .....119  
 Worksite organization support FSWORKSHOP .....169  
 Worksite-maintenance vices .....736  
 Wrap-around protection glasses .....721  
 Wrecking bars .....722  
 Wrench for nuts with top holes .....255  
 Wrench for nuts with top slots .....255  
 Wrist bracelet with metal ring - SLS .....769

**X**

XL fastener stand .....82  
 XL filter pliers .....1185  
 XL side cupboard .....81

**Y**

Yellow and black consigning posts .....1040

<b>■ A</b>			
A.300MT.....	393	AR.C.....	1096
A.300MTJ1.....	393	AR.CJ4.....	1097
A.300PA.....	394	AR.CR.....	1097
A.301MT.....	393	AR.D.....	1097
A.301MTJ1.....	393	AR.GSPC.....	1098
A.340MT.....	395	AR.GSPD.....	1098
A.341MT.....	395	AR.PSPC.....	1097
A.402.....	393	AR.PSPD.....	1098
A.402J1.....	394	AR.SPJ4.....	1098
A.402J2.....	394	ARA.....	435
A.404.....	393	ARB.....	435
A.404J1.....	394	ARZ.....	444
A.404J2.....	394	AS.12LBC100T.....	597
A.442.....	395	AS.12LBP140T.....	597
A.444.....	395	AS.12LBP160T.....	597
A1000PP.04.....	109	AS.12LTP180T.....	597
AAM.PE.....	442	AS.....	434
ACL.1A.....	441	AS.6L140T.....	597
ACL.2A.....	439	AT.J10.....	418
AD.....	436	ATVE.....	431
ADVEF.....	823	AT.....	419
ADVERFID.....	881	ATTVE.....	432
ADB.....	436	ATST.....	427
AE.J1.....	998	ATB.J4TVE.....	433
AEF.....	994	ATB.J8TVE.....	433
AEF.J.....	996	ATD.J.....	418
AEFD.....	993	ATD.J5VE.....	430
AEFP.J1.....	997	ATD.J8VE.....	430
AEM.J.....	999	ATD.....	423
AEM.M.....	994	ATDVE.....	431
AEX.....	993	ATDST.....	427
AEX.J.....	998	ATDTVE.....	432
AF.....	443	ATDBTVE.....	434
AFP.....	443	ATDST.J6.....	426
AFR.....	443	ATF.....	419
AFU.....	443	ATFST.....	427
AGT.....	435	ATH.....	437
AJ.3.....	434	ATHH.....	437
AJT.2.....	436	ATHH.D.....	438
AKZ.....	444	ATHH.J7.....	436
AM.....	438	ATHH.JS5.....	436
AM.D.....	439	ATHH.P.....	437
AM.H.....	441	ATHH.PJ3.....	436
AM.M.....	441	ATP.J.....	418
AM.M2F.....	829	ATP.J5VE.....	430
AME.B.....	463	ATP.....	422
AMJ.....	440	ATPVE.....	431
AMR.....	440	ATPST.....	427
AMS.....	440	ATPTVE.....	432
AMZ.....	438	ATPBTV.....	434
AMZ.M1.....	1151	ATPST.J6.....	426
ANSR.....	750	ATSQ.....	424
ANF.....	820	ATWCK.....	429
ANRFID.....	878	ATWDH.....	423
ANSL.....	787	ATWDHCK.....	429
ANDF.....	821	ATWH.....	420
ANDFRFID.....	879	ATWH.J13.....	418
ANDSR.....	750	ATWHCK.....	429
ANDSLS.....	788	ATWP.J6.....	418
ANFSL.....	787	ATWPH.....	422
ANP.J6F.....	824	ATWPHCK.....	429
ANPSR.....	750	ATX.J6.....	418
ANPFRFID.....	878	ATX.....	424
ANPSLS.....	788	ATXST.....	428
ANPF.....	821	ATX275.J5.....	425
ANPSR.....	750	ATXP.J6.....	418
ANXRFRFID.....	879	ATXP.....	424
AP.....	435	ATXR.J5.....	418
APVEF.....	822	ATXR.....	425
APVERFID.....	881	ATXRP.J5.....	418
AP.....	549	ATXRP.....	425
APB.....	436	AVEF.....	823
APZ.....	444	AVERFID.....	880
AR.....	434	AV.BT.....	442
AR.90.....	1096	AV.HT.....	442
		AWF.....	820
		AWFRFID.....	878
		AWHH.JT6.....	457
		AWHH.....	457
		AWPF.....	821
		AWSH.JT6.....	456
		AWSH.....	456
		AWSHF.....	824
		AWSHFRFID.....	880
		<b>■ B</b>	
		B.10R.....	1061
		B12.....	1067
		B124.....	1068
		B120BD.M.....	1070
		BAG-BOLTSLS.....	773
		BAG-CLIMBSLS.....	775
		BAG-RECT2SLS.....	773
		BAT.TEST.....	1072
		BC.VSE.....	720
		BC.....	721
		BC2410.....	1189
		BF300A.....	1068
		BF500A.....	1068
		B.J.....	1057
		BP.....	173
		BP.C.....	172
		BPEXTMS.....	179
		BP.P26.....	971
		BP.Z46A.....	173
		BP.Z8.....	173
		B.S.....	1057
		BS.12.....	194
		BS.EXTM.....	179
		BS.L30.....	176
		BS.LMBC.....	177
		BS.MCB.....	176
		BS.PC15.....	175
		BS.R20.....	175
		BS.SMB.....	176
		BS.T14.....	174
		BS.T20.....	174
		BS.TLB.....	175
		BSYS.BP.....	165
		BSYS.BPC.....	166
		BSYS.BPMUSIC.....	167
		BSYS.BPT450.....	167
		BSYS.BPT0280.....	166
		BSYS.BPZ100.....	166
		BSYS.CKP.....	80
		BSYS.CKPVAN.....	170
		BSYS.TK.....	169
		BSYS.TKVAN.....	170
		BSYS.TKVANL.....	170
		BSYS.TR.....	168
		BT.11A.....	180
		BT.13A.....	180
		BT.200.....	186
		BT.200STRAP.....	187
		BT.203.....	186
		BT.4A.....	181
		BT.6A.....	181
		BT.9.....	180
		BT.C2TA.....	184
		BT.C3TA.....	184
		BT.C4TA.....	184
		BT.C6TA.....	184
		BT.HT1.....	185
		BT.HT1BASKET.....	187
		BT.HT1SUP.....	187
		BV.100.....	177
		BV.16.....	194
		BV.21-10.....	1013
		BV.21BP.....	191
		BV.21M.....	191
		BV.21TR1.....	190
		BV.51A.....	191
		BV.51APR.....	191
		BV.5A.....	193
		BV.61A.....	190
		BV.7A.....	193
		BV.E1063F.....	825
		BV.FC.....	188
		BV.FC4S.....	189
		<b>■ C</b>	
		C.48.....	1054
		C.48-J2.....	1055
		CAD.....	1153
		CAD.P300F.....	707
		CAD.P300F11.....	707
		CAD.P300F.....	707
		CAR.B.....	595
		CAR.MD.....	594
		CD.12A.....	413
		CDS.....	413
		CHRONO.6GM3A.....	68
		CHRONO.6GM3HD.....	73
		CHRONO.6M3A.....	68
		CHRONO.7GM3A.....	69
		CHRONO.7M3A.....	69
		CHRONO.8GM3A.....	69
		CHRONO.8GM3HD.....	73
		CHRONO.8M3A.....	69
		CHRONO.A14M3.....	83
		CHRONO.C4GM3A.....	69
		CHRONO.C4K2.....	60
		CHRONO.C4M3A.....	69
		CK.....	126
		CKLA.....	126
		CKS.....	128
		CL3.BA.....	717
		CL3.C10SD.....	713
		CL3.C10SD2.....	713
		CL3.CH115.....	717
		CL3.CH18SD.....	712
		CL3.CH18SP2.....	712
		CL3.CHP18SP2.....	716
		CL3.CP10SJD2.....	716
		CL3.P10JD.....	714
		CL3.P10JD2.....	714
		CL3.P18SD.....	714
		CL3.P18SD2.....	714
		CL3.R10JD.....	715
		CL3.R10JD2.....	715
		CL3.R10RD.....	715
		CL3.R10RD2.....	715
		CLE.BAM100A.....	590
		CLE.DAM100A.....	590
		CLE.MDAM100A.....	590
		CM.ELPSA.....	1038
		CM.HYELPB.....	1038
		CPE.1F.....	833
		CPE.A3.....	520
		CPE.A4.....	520
		CR.10TA.....	1162
		CR.12H.....	1135
		CR.4TA.....	1163
		CR.ASH.....	1146
		CR.D.....	1135
		CR.D10.....	1151
		CR.GLUE.....	1146
		CR.GP-KIT.....	1145
		CR.GPP.....	1145
		CR.GPSH.....	1145
		CR.P.....	1154
		CR.PRK.....	1146
		CR.PRK-3.....	1146
		CR.PS.....	1137
		CR.PSC.....	1138
		CR.S.....	1134
		CR.SB-J2.....	1158
		CR.SBF-J2.....	1159
		CR.SBF.....	1159
		CR.SBL.....	1158
		CR.SBS.....	1158
		CR.SMP.....	1155

# ALPHANUMERIC INDEX

CR.SSH .....	1146	DCR.IP .....	1081	DL.500EU .....	1028	DX.12R .....	949
CR.T3XL .....	74	DCR.IP-DA .....	1081	DL.50SUP .....	1029	DX.145 .....	1073
CR.T4XL .....	74	DCR.IPM .....	1082	DL.5BTI .....	1025	DX.25 .....	1074
CT-ACC .....	774	DCR.IPPSA .....	1082	DL.8BTI .....	1025	DX.8 .....	1070
CT-ACC2M .....	774	DCR.IPREN .....	1082	DL.C3 .....	1026	DX.CONECT .....	1064
CT100-140 .....	772	DCR.IT .....	1081	DL.C6 .....	1026	DX.RDJ12 .....	1073
CT70-100 .....	772	DCR.SR .....	1083	DL.PL10A .....	1024	DX.SET .....	1064
		DE.66-18 .....	1053	DL.PL22A .....	1026	DX.T100 .....	949
		DE.8 .....	1096	DL.PL5 .....	1023	DX.V12 .....	1062
		DE.96-18 .....	1053	DLS.300-03 .....	1123		
<b>■ D</b>		DE.C .....	1096	DLS.400 .....	1123	<b>■ E</b>	
D.1 .....	1090	DELA.1021 .....	542	DLS.40A .....	1124	E.110 .....	464
D.104B .....	1117	DELA.1051.F .....	842	DLS.500-02HP .....	1120	E.111 .....	464
D.106-10 .....	1046	DELA.1051.03RFID .....	882	DLS.500 .....	1119	E.112 .....	464
D.109-10 .....	1047	DELA.1051 .....	541	DLS.500-HP .....	1120	E.113 .....	464
D.110 .....	1060	DELA.1056 .....	542	DLS.500HP .....	1119	E.114 .....	465
D.115A .....	1135	DELA.1208 .....	556	DLS.500HPS .....	1119	E.116 .....	465
D.120-16 .....	1047	DELA.1223 .....	556	DM.10A .....	1090	E.120 .....	465
D.132B .....	1084	DELA.1256 .....	544	DM.14 .....	1111	E.2000 .....	411
D.137A .....	1136	DELA.1257 .....	544	DM.16 .....	1108	E.2002B .....	723
D.138 .....	1129	DELA.1272 .....	545	DM.17A .....	1109	E.2015 .....	723
D.139 .....	1053	DELA.1290.00 .....	545	DM.20 .....	1060	E.306-135D .....	390
D.13A .....	1047	DELA.1292.00 .....	545	DM.25 .....	1086	E.306-200D .....	390
D.140 .....	1053	DELA.13299 .....	557	DM.27 .....	1086	E.306-30D .....	390
D.141 .....	1053	DELA.1589.00A .....	548	DM.28 .....	1058	E.306-340D .....	390
D.143B .....	1129	DELA.1786.00 .....	539	DM.29 .....	1086	E.306A135J .....	390
D.144 .....	1085	DELA.1787.00 .....	539	DM.30 .....	1110	E.306A135S .....	390
D.145A .....	1095	DELA.1790.00 .....	539	DM.30PL .....	1186	E.306A200S .....	390
D.146A .....	1095	DELA.1880.00 .....	546	DM.33 .....	1088	E.306A30R .....	390
D.149 .....	1051	DELA.1897.02 .....	546	DM.34 .....	1088	E.306A340S .....	390
D.151A .....	1051	DELA.1901 .....	547	DM.34GM .....	1088	E.316-135D .....	391
D.151PL .....	1051	DELA.1905.05 .....	547	DM.360 .....	410	E.316-200D .....	391
D.154 .....	1053	DELA.1905.05 .....	547	DM.370 .....	410	E.316-30D .....	391
D.155 .....	1053	DELA.2883.04 .....	553	DM.50 .....	1109	E.316-340D .....	391
D.156 .....	1053	DELA.3151.01 .....	553	DM.7 .....	1090	E.316A135J .....	391
D.157 .....	1053	DELA.3180 .....	553	DM.90 .....	1088	E.316A135S .....	391
D.159 .....	1053	DELA.3224.00 .....	556	DM.91 .....	1088	E.316A200S .....	391
D.160 .....	1053	DELA.3298 .....	557	DM.APR .....	1110	E.316A30R .....	391
D.161 .....	1053	DELA.3310.00 .....	557	DM.CC .....	1085	E.316A340S .....	391
D.162 .....	1053	DELA.3400.00 .....	557	DM.ES .....	1075	E.406 .....	391
D.163 .....	1053	DELA.35.00EX .....	551	DM.F .....	1086	E.506-135S .....	391
D.163-J6 .....	1053	DELA.401 .....	556	DM.FR1 .....	1052	E.506-200S .....	391
D.164 .....	1053	DELA.62881.02C .....	552	DM.FR2 .....	1085	E.506-340S .....	391
D.169 .....	289	DEPT .....	1055	DM.JL .....	1085	E.6000-C .....	412
D.1VAG .....	1044	DF.101 .....	1113	DM.MUB-A .....	1086	E.611 .....	465
D.1VAG-B .....	1044	DF.16 .....	1112	DM.PS4 .....	1107	E.612 .....	465
D.1VAG-H .....	1044	DF.17 .....	1115	DM.SPRAY .....	1163	E.900B .....	723
D.22B .....	1123	DF.17-100A .....	1115	DM.UES .....	1075	EA .....	569
D.27A .....	1084	DF.18-01 .....	1111	DM.UOF .....	1044	EB .....	569
D.28B .....	1160	DF.19-01 .....	1111	DMP.360L .....	1094	EBNA.1 .....	463
D.3-12 .....	722	DF.2 .....	1116	DOT .....	1112	EBNA.2 .....	470
D.3-18 .....	722	DF.20-07A .....	1114	DP.102-14 .....	1053	EC.25 .....	569
D.3-24 .....	722	DF.20-12A .....	1114	DP.106-15 .....	1183	ECAR.1 .....	460
D.3-30 .....	722	DF.2007D .....	1114	DP.76 .....	1053	ECAR.6 .....	471
D.3-300 .....	1128	DF.23 .....	1116	DP.88-16 .....	1053	ECR .....	394
D.3-400 .....	1128	DF.3 .....	1114	DR.SIL .....	1128	ECR.0 .....	394
D.3-500 .....	1128	DF.475A .....	1117	DR.V2 .....	1130	ED.000 .....	459
D.3-600 .....	1128	DF.6 .....	1116	DRD.B .....	593	ED.001 .....	459
D.3-7 .....	722	DF.81 .....	1113	DRD.MD .....	592	ED.0X2 .....	459
D.34B .....	335	D.HUP .....	1185	DRD.MDSR .....	756	ED.1 .....	460
D.34BL .....	335	DL.1000 .....	1029	DRD.MDSLS .....	797	ED.1T .....	466
D.34J7 .....	1091	DL.1050 .....	1025	DS.J5 .....	1124	ED.1TF .....	826
D.360L .....	1094	DL.12BTI .....	1025	DT.CLE .....	1109	ED.13T .....	468
D.3J3 .....	722	DL.1500 .....	1024	DT.FIAT .....	1101	ED.2 .....	469
D.48 .....	1043	DL.1530C .....	1025	DT.FORD .....	1102	ED.601T .....	472
D.48-KIT .....	1043	DL.15AL .....	1022	DT.HERTZ .....	1108	ED.6TF .....	826
D.51 .....	1090	DL.16P .....	1027	DT.OPEL-D1 .....	1102	ED.6TF .....	826
D.79A .....	1116	DL.200SECUA .....	1023	DT.PCM-P1 .....	1104	ED.6TF .....	826
D.80 .....	1160	DL.20BTI .....	1025	DT.PCMB-D1 .....	1104	ED.631T .....	473
D.83C .....	143	DL.25AL .....	1022	DT.PSA .....	1103	ED.632T .....	473
D.86 .....	1107	DL.275 .....	1024	DT.REN .....	1105	ED.633T .....	473
D.93 .....	1128	DL.2A2L .....	1023	DT.SFB .....	1110	ED.661 .....	471
DA.160 .....	1075	DL.2BTI .....	1025	DT.TW .....	1109	ED.662 .....	471
DB1.RFID .....	851	DL.2LP .....	1021	DT.VAG .....	1105	ED.663 .....	471
DCR.20J6 .....	1161	DL.30BTI .....	1025	DTS .....	921	DX.10A .....	1062
DCR.HC10 .....	1084	DL.32A .....	1021	DX.12 .....	949		
DCR.HR-100 .....	1107	DL.32A-SUP .....	1022				
DCR.HR-EU .....	1083	DL.3CLP .....	1021				
DCR.ICA .....	1083	DL.50 .....	1028				

ED.T	1151	EP.6TF	826	EX110.J3	461	J.161-4P6	297
ED1.J3	467	EP.63T	473	EX115.J3	461	J.161B	303
ED101T.J3	467	EP.66	470	EX12.J3	461	J.202A	382
ED102T.J3	467	EP.69	470	EX120.J3	461	J.203A	381
ED103T.J3	467	EPT	1151	EX125.J3	461	J.203DA	381
ED131T.J3	468	EP1.J3	467	EX127.J3	461	J.203E	402
ED133T.J3	468	EP101T.J3	467	EX130.J3	461	J.205E	382
ED601T.J3	473	EP102T.J3	467	EX140.J3	461	J.208	305
ED603T.J3	473	EP103T.J3	467	EX610.J3	472	J.208-50	380
ED631T.J3	473	EP131T.J3	468	EX615.J3	472	J.208-50D	380
ED632T.J3	473	EP132T.J3	468	EX620.J3	472	J.208A50	380
ED633T.J3	473	EP133T.J3	468	EX625.J3	472	J.208RFID	866
EF.6DL	472	EP601T.J3	473	EX630.J3	472	J.209	305
EF.6DML	472	EP603T.J3	473	EX640.J3	472	J.209RFID	866
EF.6J	476	EP631T.J3	473	EXP.1	461	J.209S	306
EF.6JL	476	EP632T.J3	473	EXR.1	461	J.210	305
EF.6P	475	EP633T.J3	473	EXR.1L	461	J.210AVSE	966
EF.6PF	828	ES.0	459	EXRP.1	461	J.210RC	306
EF.6R	476	ES.1	460			J.210RCRFID	866
EF.6RF	829	ES.1T	466	<b>F</b>		J.210S	306
EF.6RL	476	ES.1TF	826	F.63C	1047	J.215	305
EF.6RLF	829	ES.175.5T	468	FAS. K	75	J.215AVSE	966
EF.J	307	ES.2	469	FCF894N	713	J.215RC	306
EF.JF	828	E.S401	396	FCF894P2	713	J.215RCRFID	866
EFR	289	E.S401J1	396	FW.D163-27	1052	J.216	306
EFS	331	E.S404	396	FW.P	1052	J.217	305
EFPZ	463	E.S404J1	396			J.217RC	306
EH	1151	ES.6	470	<b>G</b>		J.217RCRFID	866
EH.00	459	ES.63TF	826	GJPA3	521	J.228	305
EH.1	462	ES.T	1151	GJPA4	521	J.229A	305
EH.1TF	827	ES1.J3	467			J.230	307
EH.201/4	469	ES134.5T.J3	467	<b>H</b>		J.230RFID	867
EH.203/8	469	ES134T.J3	467	HB.B	1000	J.232	307
EH.204	469	ES135.5T.J3	467	HB.4	1000	J.232RFID	867
EH.204L	469	ES136.5T.J3	467	HT.3	1008	J.235	307
EH.205	469	ES148T.J3	467			J.236	307
EH.205/16	469	ES603.J3	472	J.240A	306	J.240A	306
EH.205L	469	ES604.5.J3	472	J.240ARFID	867	J.248-50D	387
EH.206	469	ES604.J3	472	J.248-50D	387	J.274	402
EH.206L	469	ES605.5.J3	472	J.306-50D	375	J.306-50DRFID	876
EH.207L	469	ES606.5.J3	472	J.306-50DSLS	787	J.306-50VSE	969
EH.208	469	ES608.J3	472	J.306A100	375	J.306A50	375
EH.208L	469	ETOR.10	463	J.306U	376	J.306URFID	877
EH.210	469	ETOR.10TF	828	J.360	302	J.360-3P12	297
EH.210L	469	ETORM.10	463	J.360-3P6	297	J.372	398
EH.3/32TF	827	ETORM.10TF	828	J.372V	398	J.373	398
EH.5/64TF	827	ETORM.11	463	J.400	310	J.400AVSE	966
EH.601/8TF	827	ETORM.20	470	J.401	310	J.401AVSE	966
EH.603	471	ETORM.21	470	J.404	310	J.404	310
EH.603/16TF	827	ETORM.60	471	J.405	310	J.40E	310
EH.603TF	827	ETORM.60TF	828	J.40U	310	J.446-50	387
EH.604	471	ETORM.61	471	J.446-50	387	J.8HLARFID	869
EH.605	471	ETRI.10	463	J.8HRFID	869	J.LAVSE	964
EH.605/32TF	827	ETRI.10TF	828	J.8RFID	868	J.9/16FRFID	871
EH.605TF	827	ETS.00	459	J.9/16FRFID	871	J.J11CFU	409
EH.606	471	ETS.10	462	J.151AVSE	965	J.J14CF	408
EH.607/32TF	827	EV.10	462	J.151B	303	J.J7RU	409
EH.608	471	EV.11	462	J.152	402	J.J8FLU	409
EH1.J3	462	EV.20L	470	J.156	305	J.J9SPR	409
EH10.J3	462	EV.20	470	J.161-1P12	296	JB	309
EH60.J3	471	EV.21	470	J.161-1P12U	298	JET.3WS	76
E.LM30	529	EV.21L	470	J.161-1P6	296	JET.5GM3	58
END.2	477	EV.BAP	1040	J.161-2P12	296	JET.5M3	58
ENH.2	477	EV.BAP-RN	1040	J.161-2P12U	298	JET.6GM3	58
ENH.3	478	EV.CH	1040	J.161-2P6	296	JET.6GM3S	72
ENP.20	476	EV.CH-RN	1040	J.161-3P12	297		
ENS.20	476	EV.JET-KIT	1041	J.161-3P12U	298		
ENS.21	476	EV.JET-SUP	1041	J.161-3P6	297		
ENS.31	478	EV.PP	1040	J.161-4P12	297		
ENX.2	477	EX.0	459				
EP.000	459	EX.1	460				
EP.OX2	459	EX.1TF	827				
EP.1	460	EX.2	469				
EP.1T	466	EX.2L	469				
EP.1TF	826	EX.6TF	827				
EP.13T	468	EX.6	471				
EP.20	469	EX108.J3	461				
EP.6T	472	EX11.J3	461				



# ALPHANUMERIC INDEX

JET.6GM4	61	JL.41E	310	JTX	311	M.230C	347
JET.6GM5	64	JLS2-1KEY	108	JX	311	M.230C1	347
JET.6M3	58	JLS2-2201	97	JXL.171	303	M.240SR	747
JET.6M4	61	JLS2-2MS13DH	115	<b>K</b>		M.SR	749
JET.6M5	64	JLS2-2MS13DL	113	K.120B	343	M.423E	349
JET.6MWB	66	JLS2-2MS7DH	114	K.120SR	747	M.431E	349
JET.7GM3	59	JLS2-2MS7DL	112	K.125A	343	M.431U	349
JET.7GM3EACC	71	JLS2-2MS7DSCH	116	K.126A	343	M.441E	349
JET.7GM4	62	JLS2-2MS7DSCL	114	K.140A	343	M.555SR	749
JET.7GM5	64	JLS2-2MW13DH	115	K.149	342	M.65B	348
JET.7M3	59	JLS2-2MW13DL	113	K.149SR	746	MAN	589
JET.7M4	62	JLS2-2MW7DH	114	K.B	345	MB-J15	1045
JET.7M5	64	JLS2-2MW7DL	111	K.151B	342	MB	1045
JET.8GM3	59	JLS2-2MW7DSCH	116	K.154AM	342	MB.H	1046
JET.8GM3EACC	71	JLS2-2MW7DSCL	112	K.154B	341	MB.H13	1046
JET.8GM3S	72	JLS2-A1000PP	101	K.SR	749	MB.MH	1045
JET.8GM4	62	JLS2-A1000PP.05	110	K.HB	345	MB.S	1045
JET.8GM5	65	JLS2-A1000PV	102	K.LA	346	MB.T45	1045
JET.8M3	59	JLS2-A500PP	101	K.PB	345	MC.130B	385
JET.8M4	62	JLS2-A500PP.03	109	K.DB	383	MC.270B	385
JET.8M5	65	JLS2-BASEMBD	95	K.200E	343	MOD.208	1125
JET.9GM3	59	JLS2-BASEMBS	95	K.208B	344	MOD.234	548
JET.9GM4	62	JLS2-CHD	99	K.210B	344	MOD.43	251
JET.9GM5	65	JLS2-CHDPP	100	K.210SR	747	MOD.44-1	225
JET.9M3	59	JLS2-CHS	99	K.214A	381	MOD.44-2	225
JET.9M4	62	JLS2-CHSPP	100	K.215B	344	MOD.440-1	221
JET.9M5	65	JLS2-LIGHT	108	K.230B	344	MOD.440-1XL	221
JET.A13XL	81	JLS2-LIGHTSUP	109	K.230B1	344	MOD.440-2	221
JET.A14M3	82	JLS2-MBD5T	91	K.232A	344	MOD.440-2XL	221
JET.A14M4	83	JLS2-MBD6T	91	K.240A	344	MOD.440-4	221
JET.A14M5	83	JLS2-MBDPP	93	K.240SR	747	MOD.467BFJ12	210
JET.A16	81	JLS2-MBDPP.06	110	K.306-1000D	375	MOD.467BJ12	204
JET.A17	81	JLS2-MBS.01	110	K.306-600D	375	MOD.467BJ13	204
JET.A18	80	JLS2-MBS2TV	92	K.306A1000	375	MOD.467BRJ12	207
JET.A1GXL	79	JLS2-MBS6T	90	K.382A	400	MOD.467BRJ14	207
JET.A2GXL	80	JLS2-MBS7T	90	K.383	400	MOD.467BXL	204
JET.A3	81	JLS2-MBSEN	94	K.500	1178	MOD.55-1	230
JET.A5-1GXL	79	JLS2-MBSPP	93	K.501	1178	MOD.55-2	230
JET.A5-2XL	79	JLS2-MBSPP.04	110	KL.161	341	MOD.55-3	230
JET.A5-3GXL	79	JLS2-MBSPV	92	KT.A	346	MOD.57LJ6	233
JET.A5GXL	79	JLS2-MHDR	124	<b>L</b>		MOD.59LJ6	231
JET.A6M3	82	JLS2-MHDR	98	L.161	268	MOD.601	587
JET.A6M4	82	JLS2-MHDR.06	110	L.16AL	1058	MOD.64J7	211
JET.A6M5	82	JLS2-MHSPC	97	L.16AM	1058	MOD.65J7	213
JET.A7GXL	82	JLS2-MHSPP	96	L.171	268	MOD.66A-1	249
JET.A8GXL	81	JLS2-MHSPP.01	110	L.21C	1058	MOD.66A-2	249
JET.A9M	83	JLS2-MHSPV	96	L.21L	1058	MOD.75-1	241
JET.A9XL	83	JLS2-MHTR	98	L.21M	1058	MOD.84TZSA	453
JET.C4GM3	60	JLS2-PAV1	102	LAN-WRT1.2	771	MOD.89TXA	454
JET.C4GM4	63	JLS2-PAV2	102	LAN0.2	771	MOD.97	244
JET.C4GM5	66	JLS2-PB1	104	LAN0.2TSL	769	MOD.99B	248
JET.C4M3	60	JLS2-PB2	104	LAN1.2	771	MOD.AT1	418
JET.C4M4	63	JLS2-PB3	104	LAN1.2MSLS	771	MOD.AT1VE	430
JET.C4M5	66	JLS2-PBA	104	LIM200EM.J5	591	MOD.AT2	418
JET.CR4GM3	182	JLS2-PBAST	105	LIM250EM.J5	591	MOD.AT3	418
JET.CR4M3	60	JLS2-PBST1	105	LT.01	255	MOD.AT4	418
JET.T6GM3	67	JLS2-PBST2	105	<b>M</b>		MOD.AT5	418
JET.T6M3	67	JLS2-PBST3	105	M.HA	348	MOD.AT6	418
JET.T7GM3	67	JLS2-PM1	106	M.120A	347	MOD.AT7	418
JET.T7M3	67	JLS2-PM2	106	M.120SR	747	MOD.ATX	418
JET2.15	84	JLS2-PPAV1	103	M.125A	347	MOD.ATXR	418
JET2.16	84	JLS2-PPAV1ELEC	103	M.126A	347	MOD.BJ-GM	1061
JHX.14A	479	JLS2-PPAV2	103	M.151	346	MOD.BJC	1061
JL.161	302	JLS2-PSB	106	M.151SR	746	MOD.BRA	1061
JL.161-2P12	296	JLS2-PSH	106	M.200B	383	MOD.BSB	1061
JL.161-2P12U	298	JLS2-TC	109	M.200DB	383	MOD.CAR2	1153
JL.161-2P6	296	JLS2-TRAA2	107	M.200M	383	MOD.CG	141
JL.161-3P12	297	JLS2-TRAA3	107	M.201B	383	MOD.CG1	141
JL.161-3P6	297	JLS2-TRAB2	107	M.210A	347	MOD.CH	137
JL.161HLF	817	JLS2-TRAB3	107	M.210SR	747	MOD.CPE5	140
JL.171	302	JLS2-TRBB3	107	M.215A	347	MOD.CPEA0	522
JL.171-3P12	297	JLS2-TUBESUP400	108			MOD.CPEA5	522
JL.171-3P6	297	JLS2-TUBESUP800	108			MOD.DFD	1114
JL.171F	818	JLS2.02	110			MOD.DFT	1117
JL.171RFID	866	JT	311			MOD.E20L	466
JL.171SLS	785	JT.AVSE	965			MOD.E41	466
JL.40E	310					MOD.HLB	136
JL.40U	310					MOD.J161-212U	135

MOD.J161-36.....134  
 MOD.J360-36.....134  
 MOD.JL161-212U.....135  
 MOD.JL161-36.....134  
 MOD.JL171-36.....134  
 MOD.LIM.....590  
 MOD.MET.....536  
 MOD.MI1.....142  
 MOD.MI3.....142  
 MOD.MI4.....142  
 MOD.MI7.....141  
 MOD.MT1.....986  
 MOD.NS260.....481  
 MOD.PC.....523  
 MOD.PCSN.....523  
 MOD.PR11.....523  
 MOD.PR12.....523  
 MOD.PR4.....522  
 MOD.PR8.....522  
 MOD.PR9.....522  
 MOD.R161-16.....133  
 MOD.R161-1U.....276  
 MOD.R161-26.....134  
 MOD.R161-66.....133  
 MOD.S161-112U.....136  
 MOD.S161-212U.....136  
 MOD.S161-36.....135  
 MOD.S161-46.....135  
 MOD.SHPA.....137  
 MOD.SL161-112U.....136  
 MOD.SL161-212U.....136  
 MOD.SL161-36.....135  
 MOD.SL161-46.....135  
 MOD.TX1A.....136  
 MOD.U306.....631  
 MOD.U48A.....1050  
 MOD.VEAO.....522  
 MOD.Y105.....731  
 MODM.440-1.....221  
 MODM.440-2.....221  
 MODM.440-4.....905  
 MODM.440J17SLS.....780  
 MODM.440J5SLS.....780  
 MODM.44J9SLS.....782  
 MODM.467BFJ12.....210  
 MODM.467BJ12.....204  
 MODM.467BRJ12.....207  
 MODM.467BRJ14.....207  
 MODM.467BSJU10.....208  
 MODM.467FJU8.....905  
 MODM.467J12SLS.....781  
 MODM.467J4SLS.....781  
 MODM.467JU12.....905  
 MODM.467SJU10.....905  
 MODM.501A.....525  
 MODM.55A-1.....231  
 MODM.55A-2.....231  
 MODM.56JU8.....906  
 MODM.57LJ7.....905  
 MODM.57LJU5.....905  
 MODM.57LSPL6.....906  
 MODM.59LJ6.....907  
 MODM.59LJU4.....907  
 MODM.601SLS.....798  
 MODM.603F.....586  
 MODM.64JU6.....906  
 MODM.65J7.....213  
 MODM.65JU6.....906  
 MODM.65SPL7.....906  
 MODM.75.....241  
 MODM.84TZJ6SLS.....790  
 MODM.99B.....248  
 MODM.AN1SLS.....788  
 MODM.AT1.....418  
 MODM.AT2.....418  
 MODM.AT3.....418  
 MODM.AT4.....418  
 MODM.AT5.....418

MODM.AT6.....418  
 MODM.ATXR.....418  
 MODM.CG.....153  
 MODM.CHA.....149  
 MODM.CPE-R.....835  
 MODM.CPE1SLS.....795  
 MODM.CPE2SLS.....795  
 MODM.CPEA0.....524  
 MODM.CPEA1.....524  
 MODM.CPEA2.....524  
 MODM.CPEA3.....525  
 MODM.ENG-R.....907  
 MODM.HLA.....149  
 MODM.J161-36.....147  
 MODM.JL161-36.....147  
 MODM.JL1SLS.....786  
 MODM.JL2U.....907  
 MODM.MI1.....152  
 MODM.MI1SLS.....803  
 MODM.MI3.....152  
 MODM.MI4.....152  
 MODM.MI5.....153  
 MODM.MI6.....153  
 MODM.MI7.....153  
 MODM.PCSN.....525  
 MODM.R161-36.....147  
 MODM.RL161-36.....147  
 MODM.RL1SLS.....785  
 MODM.RL1U.....906  
 MODM.RL2U.....907  
 MODM.ROUE.....161  
 MODM.S161-212U.....148  
 MODM.S161-36.....149  
 MODM.S1A.....148  
 MODM.SHP.....149  
 MODM.SL1.....148  
 MODM.SL171-36.....148  
 MODM.SL1SLS.....786  
 MODM.SL2U.....907  
 MODM.SPL.....908  
 MOUSQ8X80SLS.....774  
 MP.....589  
 MT.J.....999  
 MT.RS2.....996

**N**

N.14-NPT-RFID.....894  
 N.14-PT-RFID.....894  
 N.18-NPT-RFID.....894  
 N.38-NPT-RFID.....894  
 N.38-PT-RFID.....894  
 N.38A-10C.....195  
 N.38A-12C.....195  
 N.38A-4B.....195  
 N.38A-6F.....195  
 N.580.....710  
 N.581.....710  
 N.582.....710  
 N.600.....710  
 N.630.....711  
 N.631.....711  
 N.632.....711  
 N.633.....711  
 N.641.....711  
 N.643.....711  
 N.644.....710  
 N.650.....711  
 N.651.....711  
 N.709.....710  
 N.820.....711  
 N.841.....711  
 N.842.....711  
 NEX.A.....478  
 NG.A.....363  
 NHX.14B.....479  
 NJ.A.....351  
 NJ.1300F2.....682

NJ.1400F2.....682  
 NJ.14S.....913  
 NJ.2000F2.....682  
 NJ.210A.....351  
 NJ.211A.....351  
 NJ.232A.....351  
 NJ.236A.....352  
 NJ.237A.....352  
 NJ.240A.....351  
 NJ.260.....480  
 NJ.261M.....480  
 NJ.262.....480  
 NJ.3000F.....682  
 NJ.A1700F2.....687  
 NK.1000F2.....682  
 NK.A.....358  
 NK.LA.....358  
 NK.2000F2.....682  
 NK.210A.....360  
 NK.215A.....360  
 NK.218A.....360  
 NK.230A.....360  
 NK.232A.....361  
 NK.240A.....360  
 NK.3000F.....682  
 NK.A.....358  
 NK.LA.....358  
 NK.500E.....357  
 NK.500U.....357  
 NKB.....359  
 NKD.A.....358  
 NKD.L.....359  
 NKD.500.....357  
 NKHM.....359  
 NKTX.L.....359  
 NKVR.....360  
 NM.1000F2.....690  
 NM.1010LF2.....682  
 NM.209A.....362  
 NM.210A.....362  
 NM.215A.....362  
 NM.A.....361  
 NM.LA.....361  
 NM.230A.....362  
 NM.231A.....362  
 NM.232A.....363  
 NM.240A.....362  
 NM.24A.....361  
 NM.3000F.....682  
 NM.3000LF.....690  
 NM.3030LF.....689  
 NM.ELA.....362  
 NMB.....362  
 NMD.65A.....362  
 NP.B.....385  
 NS.A.....352  
 NS.LA.....353  
 NS.1400F.....682  
 NS.1600F.....686  
 NS.210A.....356  
 NS.215A.....356  
 NS.219A.....356  
 NS.230A.....356  
 NS.232B.....356  
 NS.236A.....356  
 NS.237A.....356  
 NS.240A.....356  
 NS.2500G.....686  
 NS.260A.....481  
 NS.263M.....481  
 NS.265M.....481  
 NS.3100G.....682  
 NS.3500G.....682  
 NS.A1700F2.....687  
 NS.MB.....1127  
 NSB.....353  
 NSD.B.....353  
 NSD.L.....354

NSHM.....355  
 NSI.L.....1126  
 NSI.EL.....1126  
 NSTX.....354  
 NSTX.L.....354  
 NSV.....355  
 NSVL.....355  
 NSX.L.....355  
 NSX.B.....355

**O**

OD.80G.....1043

**P**

P.27B.....1047  
 PAM.B150A.....592  
 PAM.B150EMA.....592  
 PAM.B200A.....592  
 PAM.B200EMA.....592  
 PAM.B250A.....592  
 PAM.B250EMA.....592  
 PAM.B250EMASLS.....796  
 PAM.MD150A.....591  
 PAM.MD150EMA.....591  
 PAM.MD200A.....591  
 PAM.MD200EMA.....591  
 PAM.MD200SR.....756  
 PAM.MD250A.....591  
 PAM.MD250EMA.....591  
 PAM.MD250EMASLS.....797  
 PAM.MD250SR.....756  
 PAM.MD300SR.....756  
 PCJ4.....506  
 PCSNJ4.....506  
 PL.400A.....1151  
 PL.636.....86  
 PL.655.....87  
 PL.656.....87  
 PL.656M4.....87  
 PL.656M5.....87  
 PL.L384.....85  
 PL.M384.....85  
 PL.S384.....85  
 PM.384.....85  
 PM.MOD3/3.....85

**R**

R.....290  
 R.CF.....405  
 R.E.....291  
 R.EF.....816  
 R.EL.....292  
 R.ELF.....817  
 R.F.....293  
 R.FLA.....404  
 R.FLUO.....816  
 R.HX.....290  
 R.LA.....291  
 R.LARFID.....865  
 R.RFID.....862  
 R.S.....912  
 R.SEL.....912  
 R.110.....286  
 R.120A.....285  
 R.AVSE.....963  
 R.140A.....285  
 R.150A.....284  
 R.151-1P6.....273  
 R.151B.....283  
 R.161-1P6U.....275  
 R.161-2P6.....273  
 R.161-2P6U.....275  
 R.161-3P6.....273  
 R.161-3P6U.....275  
 R.161-4P12U.....276

# ALPHANUMERIC INDEX

R.161-4P6	274	R.400U	293	RL.NANO-U2	272	S.208RFID	872
R.161-4P6U	276	R.401	293	RL.NANO1	271	S.208S	330
R.161-5P12	274	R.401U	293	RL.NANO112	271	S.208SR	747
R.161-5P6	274	R.404	293	ROLL.6GM3	70	S.210	329
R.161-5P6U	276	R.404U	293	ROLL.6M3	70	S.210AVSE	968
R.161-6M6	274	R.405	293	ROLL.C4M3	70	S.210RC	330
R.161-6P6	274	R.40U	292	ROLL.CR4M3	70	S.210RCRFID	871
R.161-6P6HX	290	R.446-25	387	ROLL.UC3S	76	S.210S	330
R.161B	283	R.HX	290	RSX.19A	1136	S.210SR	747
R.180	267	R.ELRFID	864	RSX.19B	294	S.212SR	747
R.180HX	267	R.ERFID	863	RT	294	S.215	329
R.180J31	267	R.FLUO	815	RT.AVSE	963	S.215AVSE	968
R.200P	402	R.J6CFU	408	RTX	293	S.215RC	330
R.203A	381	R.J8CF	408	RX	294	S.215RCRFID	871
R.203DA	381	R.PE	267	RXPICO	267	S.215S	330
R.205E	382	R.PEJ31	267			S.215SR	747
R.208-25	380	R1PICO	267			S.217	329
R.209	286	R2NANO	271			S.217RC	330
R.209RFID	861	RAB.DRDB250A	596	<b>S</b>		S.217RCRFID	871
R.209S	287	RAB.DRDB300EMA	596	S.	332	S.21AVSE	966
R.210	286	RAB.DRDMD250A	596	S.AVSE	966	S.228	329
R.210AVSE	964	RAB.DRDMD250EMA	596	S.H	332	S.229A	329
R.210RC	287	RAB.DRDMD300A	596	S.HRFID	873	S.22AVSE	966
R.210RCF	814	RAB.DRDMD300EMA	596	S.LA	333	S.230	331
R.210RCRFID	861	RAB.PB250A	597	S.LARFID	875	S.230RFID	872
R.210S	287	RAB.PMD250A	597	S.RFID	874	S.231	331
R.215	286	RAB.RD250A	597	S.SR	748	S.232B	331
R.215RC	287	RAB.RD250EMA	597	S.110	329	S.234	331
R.215RCF	814	RB	291	S.120A	328	S.236	331
R.215RCRFID	861	RB.161-4P12U	276	S.HLA	333	S.237	331
R.216	287	RB.40AE	292	S.HLARFID	873	S.240A	330
R.217	286	RB.40AU	292	S.LAVSE	967	S.240ARFID	872
R.217RC	287	RD.B150A	594	S.141A	328	S.240SR	747
R.217RCF	814	RD.B150EMA	594	S.145	328	S.248-D	387
R.217RCRFID	861	RD.B200A	594	S.151-1P12	314	S.25H	332
R.222B	286	RD.B200EMA	594	S.151-1P6	314	S.284	402
R.227A	286	RD.B250A	594	S.151-2P12	314	S.305P	403
R.227AF	815	RD.B250EMA	594	S.151-2P6	314	S.305PRFID	877
R.228	288	RD.MD150A	593	S.151, S.151B, S.154	325	S.306-100D	375
R.229A	288	RD.MD150EMA	593	S.151B	327	S.306-100DRFID	876
R.232	288	RD.MD150SR	756	S.151B-KIT	325	S.306-100DSLS	787
R.232F	815	RD.MD200A	593	S.152	402	S.306-100R	376
R.235	289	RD.MD200EMA	593	S.154	327	S.306-200D	375
R.235F	815	RD.MD200EMASLS	797	S.155SR	746	S.306-200DRFID	876
R.236A	285	RD.MD200SR	756	S.156	328	S.306-200DSLS	787
R.236AF	814	RD.MD250A	593	S.161-1P12U	316	S.306-200R	376
R.236AFRFID	860	RD.MD250EMA	593	S.161-1P6U	316	S.306-350D	375
R.236C	286	RD.MD250SR	756	S.161-2P12	314	S.306-350DRFID	876
R.236CF	814	RD.MD300SR	756	S.161-2P12U	316	S.306-350DSLS	787
R.240A	288	REL.40	292	S.161-2P6	314	S.306-350R	376
R.240ARFID	861	REL.40U	292	S.161-2P6U	316	S.306A100	375
R.245	289	REL.40UF	816	S.161-3P12	314	S.306A200	375
R.248-25D	387	REL.41	292	S.161-3P12U	316	S.306A350	375
R.301A	375	RL.161	282	S.161-3P6	314	S.306U	376
R.304DA	375	RL.161-1P6	273	S.161-3P6U	316	S.360	326
R.304DARFID	876	RL.161-1P6U	275	S.161-4P12	315	S.360-3P12	314
R.306-25D	375	RL.161-2P6	273	S.161-4P6	315	S.360-3P6	314
R.306-25DRFID	876	RL.161-3P6	273	S.161-5P12	315	S.360-4P12	315
R.306-25DSLS	787	RL.161-3P6U	275	S.161-5P6	315	S.360-4P6	315
R.306-5	376	RL.161-4P12U	276	S.161B	326	S.372	398
R.306-5RFID	876	RL.161-4P6	274	S.161B-KIT	325	S.372V	398
R.306A25	375	RL.161-4P6U	276	S.200P	402	S.373	398
R.306U	376	RL.161-5P12	274	S.202A	382	S.382	400
R.306URFID	877	RL.161-5P6	274	S.203A	381	S.382V	400
R.344DA	387	RL.161-5P6U	276	S.203DA	381	S.383	400
R.360	282	RL.161-6P6	274	S.203E	402	S.400AVSE	968
R.360-1P6U	275	RL.161HLF	812	S.205E	382	S.401AVSE	968
R.360-2P6	273	RL.171	282	S.206	329	S.40E	324
R.360-4P6	274	RL.171-1P6U	275	S.206RFID	872	S.40U	324
R.360F	813	RL.171-2P6	273	S.208	329	S.41E	324
R.360NANO	271	RL.171-4P6	274	S.208-100	380	S.41U	324
R.360NANO-U1	272	RL.171F	813	S.208-100D	380	S.446-100	387
R.360NANO-U112	272	RL.171RFID	860	S.208-200	380	SE.1A	1092
R.360RFID	860	RL.171SLS	785	S.208-340	380	SH-BAG1SLS	769
R.372	398	RL.40E	292	S.208-340D	380	SH-SLS	768
R.373	398	RL.41E	292	S.208A100	380	SH-SUPSLS	769
R.400	293	RL.NANO-U1	272	S.208A200	380	SHPLA	335
R.400AVSE	964	RL.NANO-U112	272	S.208A340	380	SHP.5ELA	335

SHP.6EL1A..... 335  
 SHP.6EL2A..... 335  
 SJ.214..... 381  
 SJ.235..... 474  
 SJ.236..... 474  
 SL.161..... 326  
 SL.161-1P12U..... 316  
 SL.161-1P6U..... 316  
 SL.161-2P12..... 314  
 SL.161-2P12U..... 316  
 SL.161-2P6..... 314  
 SL.161-2P6U..... 316  
 SL.161-3P12..... 314  
 SL.161-3P6..... 314  
 SL.161-3P6U..... 316  
 SL.161-4P12..... 315  
 SL.161-4P6..... 315  
 SL.161-5P12..... 315  
 SL.161-5P6..... 315  
 SL.161HLF..... 819  
 SL.171..... 326  
 SL.171-3P12..... 314  
 SL.171-3P6..... 314  
 SL.171-4P12..... 315  
 SL.171-4P6..... 315  
 SL.171RFID..... 871  
 SL.171SLS..... 786  
 SL.DBOX1..... 1151  
 SLS.G..... 776  
 SLS.GKIT1..... 777  
 SLS.GKIT1-GUN..... 777  
 ST..... 334  
 ST.AVSE..... 967  
 STG..... 590  
 STM..... 334  
 STU..... 590  
 STX..... 334  
 SV.B..... 335  
 SV.ELB..... 335  
 SV.LB..... 335  
 SV.J5..... 1092  
 SV.J7A..... 336  
 SV.J8B..... 336  
 SV.LJ6B..... 336  
 SVL.J7A..... 336  
 SX.LA..... 335  
 SXL..... 268  
 SXL.161..... 327  
 SXL.161-4P12..... 315  
 SXL.161-4P6..... 315  
 SXL.171..... 327  
 SXL.180..... 328  
 SXM..... 335

**T**

TRI.B150EMA..... 596  
 TRI.B200EMA..... 596  
 TRI.B250EMA..... 596  
 TRI.MD150A..... 595  
 TRI.MD150EMA..... 595  
 TRI.MD200A..... 595  
 TRI.MD200EMA..... 595  
 TRI.MD200EMASLS..... 798  
 TRI.MD250A..... 595  
 TRI.MD250EMA..... 595  
 TRK5-12..... 1096

**U**

U.102T..... 658  
 U.103A..... 658  
 U.11M..... 1130  
 U.11VHA..... 1130  
 U.13DB..... 1089  
 U.13DC..... 1089  
 U.13L..... 1088  
 U.14A..... 643

U.14L..... 643  
 U.16A18..... 1129  
 U.16A45..... 1129  
 U.16B..... 1129  
 U.16B32..... 1129  
 U.179A..... 1125  
 U.18-36..... 1187  
 U.18H36..... 1187  
 U.2..... 652  
 U.20..... 633  
 U.20B..... 633  
 U.232..... 643  
 U.23D..... 648  
 U.23J1A..... 647  
 U.23J2..... 647  
 U.23J3..... 647  
 U.23K1A..... 655  
 U.23K1A-03..... 656  
 U.27AS3..... 634  
 U.27B..... 635  
 U.27D..... 634  
 U.28..... 649  
 U.28J1..... 649  
 U.2A..... 652  
 U.3..... 639  
 U.30..... 649  
 U.301..... 643  
 U.301BJ1..... 658  
 U.301E1..... 651  
 U.301E2..... 651  
 U.301L..... 645  
 U.301M..... 644  
 U.301P..... 645  
 U.302..... 632  
 U.306-N..... 630  
 U.306..... 630  
 U.306A130N..... 630  
 U.306A140..... 630  
 U.306J1..... 631  
 U.306M..... 652  
 U.310..... 631  
 U.310-230N..... 632  
 U.312-01..... 639  
 U.312G..... 637  
 U.312HJ3..... 637  
 U.312HJ4..... 637  
 U.320..... 635  
 U.320H..... 638  
 U.32T15..... 641  
 U.32T15GA..... 642  
 U.32T2..... 641  
 U.32T2GA..... 642  
 U.32T6..... 641  
 U.32T6GA..... 642  
 U.330..... 635  
 U.330H..... 638  
 U.33A..... 640  
 U.34..... 645  
 U.35..... 645  
 U.35L..... 645  
 U.35P..... 645  
 U.40..... 649  
 U.42..... 646  
 U.42B..... 644  
 U.43..... 1089  
 U.43-ORG..... 1092  
 U.43LA..... 1089  
 U.43LA16A..... 1089  
 U.46..... 1051  
 U.46ACL..... 1048  
 U.46PL..... 1051  
 U.48..... 1050  
 U.48PL..... 1050  
 U.49AM..... 652  
 U.49BR1..... 651  
 U.49L..... 652  
 U.49P..... 650  
 U.49PJ1..... 650

U.49PJ2..... 650  
 U.49PJ3..... 651  
 U.49PJ4..... 651  
 U.51B..... 648  
 U.52..... 646  
 U.53E..... 656  
 U.53H..... 656  
 U.53J1..... 653  
 U.53J2..... 654  
 U.53K..... 655  
 U.53KLO..... 655  
 U.53KLO-02..... 656  
 U.53KL2..... 655  
 U.53RL..... 656  
 U.53R4LA..... 656  
 U.53S2A..... 655  
 U.53S4A..... 655  
 U.53T..... 654  
 U.54A..... 1090  
 U.66A..... 640  
 U.7-3545..... 1130  
 U.89JMA..... 1122  
 U.89M..... 1121  
 U.89M2..... 1122  
 U.89M20..... 1121  
 U.89M230..... 1122  
 U.89M2JM..... 1122  
 U.89M30..... 1121  
 U.9-01A..... 1131  
 U.9-03..... 1131  
 U.J2..... 657  
 U.JA1..... 657  
 U.JA3..... 657  
 UCB12A..... 1069  
 UWG.320..... 639  
 UWG.320H01..... 639  
 UWG.330..... 639  
 UWG.330H01..... 639  
 UWP.10MA..... 639

**V**

V.103MF..... 694  
 V.252F..... 696  
 V.254F..... 696  
 V.256F..... 696  
 V.258F..... 696  
 V.260F..... 696  
 V.320FH..... 705  
 V.321AH..... 705  
 V.331AH..... 704  
 V.336AH..... 704  
 V.345F..... 700  
 V.347F..... 702  
 V.352F..... 709  
 V.401F..... 697  
 V.402F..... 699  
 V.403F..... 699  
 V.410F..... 697  
 V.411F..... 697  
 V.445F..... 700  
 V.462F..... 703  
 V.472F..... 703  
 V.500F..... 698  
 V.582F..... 702  
 V.610RF..... 694  
 V.620RF..... 694  
 V.770F..... 706  
 V.775F..... 706  
 V.781F..... 708  
 V.801F..... 708  
 V.820F..... 709  
 V.850F..... 706  
 V.902F..... 704  
 V.97F..... 694  
 V.999A..... 710  
 V.AG50F..... 703  
 V.CA50F..... 703

V.D100QR..... 695  
 V.D130KR..... 695  
 V.D600QR..... 695  
 V.DA100KR..... 695  
 V.DG300F..... 700  
 V.DG500F..... 699  
 V.DG515F..... 700  
 V.DGA305F..... 701  
 V.DGA310F..... 701  
 V.DGA505F..... 701  
 V.DGE300F..... 699  
 V.PF300F..... 709  
 VE.A3..... 521  
 VF.1200..... 606  
 VF.1202..... 606  
 VF.1210..... 606  
 VFA.1200..... 606  
 VFA.1202..... 606  
 VFA.1204..... 606  
 VFA.1206..... 606  
 VFA.1208..... 606  
 VFA.1210..... 606  
 VFA.600..... 606  
 VFA.602..... 606  
 VFA.604..... 606  
 VFA.606..... 606  
 VFA.608..... 606  
 VFA.610..... 606  
 VH30.200SR..... 759  
 VH40.300SR..... 759  
 VH50.400SR..... 759  
 VH60.500SR..... 759  
 VH80.700SR..... 759  
 VM.600..... 702  
 VM.604..... 702  
 VM.606..... 702  
 VM.610..... 702  
 VM.612..... 702  
 VM.624..... 702  
 VR.J154..... 693  
 VR.J254..... 692  
 VR.J3108..... 693  
 VR.JZ300F2..... 692  
 VR.R127..... 693  
 VR.R227..... 692  
 VR.S3136..... 693  
 VR.SZ300F2..... 691

**W**

W.415WBA..... 1030  
 W.420..... 1030  
 W.430..... 1031  
 W.450..... 1031  
 W.PROTECT20..... 1032  
 W.PROTECT30..... 1032  
 W.PROTECT50..... 1032  
 W.PROTECT..... 1032  
 W.PROTECT1..... 1032  
 W.PUNCHES-A..... 1032  
 WB.1500GSA..... 120  
 WB.1500WA..... 121  
 WB.2000GSA..... 120  
 WB.2000WA..... 121  
 WB.DRAWER..... 121  
 WF135.50SR..... 755  
 WF150.30SR..... 755  
 WF150.40SR..... 755  
 WF180.32SR..... 755  
 WF180.50SR..... 755  
 WF200.20SR..... 755  
 WF200.40SR..... 755  
 WF230.40SR..... 755  
 WF250.40SR..... 755  
 WF80.13SR..... 755  
 WRT-DSLS..... 769  
 WRT-SHSLS..... 768

# ALPHANUMERIC INDEX

<b>■ Y</b>			
Y.103B.....	732	136A.....	725
Y.104.....	732	136A.SR.....	759
Y.107.....	733	136C.4.....	725
Y.113B.....	733	137A.....	759
Y.116B.....	732	137A.SR.....	759
Y.135F.....	733	137B.....	725
Y.M46.....	731	138.S.....	726
Y.RIV1.....	731	138A.....	726
Y.RIV3.....	731	139.....	1004
		14.....	403
		140.AA.....	1001
		140.AAW13.....	1001
		141.....	1003
		142.....	1003
		143.....	1003
		144.....	1003
		145.....	1004
		146.Y.....	1002
		147.J7.....	1005
		148.....	1001
		149.....	1001
		149.Y.....	1002
		150.....	1001
		150.P.....	1004
		151.....	1001
		151B.....	268
		152.....	1001
		152.Y.....	1002
		153.....	1002
		154.....	1002
		156.....	1004
		160A.....	244
		161B.....	268
		163.....	931
		165.1.....	930
		167A.....	506
		169A.....	505
		170.FIL.....	1185
		170A.....	502
		171.20EL.....	519
		173A.....	931
		177A.....	505
		177A.RFID.....	891
		177A.SLS.....	793
		177A.F.....	840
		179A.....	504
		179A.RFID.....	891
		179A.SLS.....	793
		179A.F.....	840
		180.....	501
		180.CPE.....	501
		180.CPEF.....	830
		180.CPERFID.....	886
		180.CPESLS.....	791
		180.VE.....	501
		180.VERFID.....	892
		180.VSE.....	957
		1802A.N.....	1012
		1802A.R.....	1012
		1803A.N.....	1012
		1803A.R.....	1012
		1804B.N.....	1012
		1804B.R.....	1012
		1813.....	1005
		1817.....	1006
		181A.CPE.....	500
		181A.CPEF.....	830
		181A.CPERFID.....	886
		181A.CPESLS.....	790
		181A.18G.....	500
		181A.G.....	500
		181EF.25CPE.....	500
		181EF.25G.....	500
		1820.AVSE.....	961
		183.20CPEF.....	832
		183.20CPEF-R.....	835
		1830.....	1008
		183A.20CPE.....	489
		183AE.20CPE.....	489
		185.20AVSE.....	959
		185.20CPEF-R.....	834
		185.20CPEFID.....	887
		185.20CPESLS.....	792
		185.20VERFID.....	892
		185.L.....	518
		185A.20CPE.....	489
		185A.20G.....	492
		185A.20VE.....	497
		186.SR.....	753
		187.AVSE.....	958
		187.16CPEF.....	832
		187.16CPEF-R.....	834
		187.16CPEFID.....	888
		187.CPESLS.....	793
		187.SR.....	753
		187.18CPEF-R.....	834
		187.18CPEFID.....	888
		187.18VERFID.....	893
		187A.CPE.....	490
		187A.16G.....	492
		187A.VE.....	497
		187A.G.....	492
		187AP.20CPE.....	490
		188.16AVSE.....	958
		188.CPEF.....	833
		188.CPERFID.....	888
		188.20VERFID.....	893
		1885.00.....	546
		188A.CPE.....	490
		188A.G.....	493
		188A.VE.....	498
		188A.20VE.....	953
		188AC.16CPE.....	490
		189.17AVSE.....	959
		189.17CPEF.....	833
		189A.17CPE.....	490
		189A.17VE.....	498
		190.16AVSE.....	958
		190.CPEF.....	831
		190.CPERFID.....	887
		190.CPESLS.....	791
		190A.CPE.....	487
		190A.G.....	491
		190A.16VE.....	496
		191A.22EL.....	519
		192.AVSE.....	957
		192.CPEF.....	831
		192.CPEF-R.....	834
		192.CPERFID.....	886
		192.CPESLS.....	791
		192.SR.....	752
		192A.CPE.....	487
		192A.G.....	491
		192A.VE.....	495
		192T.18UPE.....	485
		193.16AVSE.....	959
		193.16CPEF.....	832
		193.16CPEFID.....	888
		193.16VERFID.....	893
		193.20G.....	518
		193A.16CPE.....	489
		193A.16G.....	492
		193A.16VE.....	497
		194.12.....	494
		194.17AVSE.....	959
		194.17VERFID.....	893
		194A.17CPE.....	491
		194A.17VE.....	498
		195.16CPEF.....	831
		195.16CPEF-R.....	835
		195.CPERFID.....	888
		195.CPESLS.....	792
		195.20AVSE.....	959
		195.20CPEF.....	831
		195.20VERFID.....	892
		195.34L.....	518
		195A.CPE.....	489
		195A.G.....	492
		195A.VE.....	497
		196.KS.....	1116
		196.TS.....	1116
		197A.....	506
		197A.RFID.....	891
		197A.18F.....	840
		199A.....	505
		199A.18F.....	840
		199A.RFID.....	891
		20.....	403
		2000.ROLL6M3W.....	117
		200C.....	561
		200C.F.....	843
		200C.SLS.....	800
		200H.....	563
		200H.RFID.....	883
		202H.....	564
		202H.SR.....	754
		203H.....	565
		204.....	566
		205C.....	561
		205C.SLS.....	800
		205H.....	563
		205H.RFID.....	883
		207A.....	569
		207A.CB.....	568
		207A.CBSLS.....	801
		208A.A.....	569
		208A.CBA.....	568
		208A.BBA.....	568
		208A.CBASLS.....	801
		208A.CCA.....	568
		209.50.....	1152
		2092B.....	181
		212A.....	567
		212A.F.....	843
		212A.SLS.....	800
		213H.....	565
		214.....	570
		214.R.....	570
		215H.....	565
		216.....	567
		217.....	1087
		217.GJ1.....	571
		217.J2.....	1087
		217.R12.....	571
		22.....	226
		22.JE6T.....	227
		2202XL.....	125
		221.....	599
		221.227J1.....	600
		221.227J2.....	600
		221.227SJ1.....	600
		221.227SJ2.....	600
		221.....	599
		2225.A1.....	84
		222A.T.....	602
		222A.TJ19.....	602
		222A.TJ25.....	602
		222A.TJ32.....	603
		222A.TJ50.....	602
		222A.TJ81.....	602
		223.SJ7.....	604
		2235.AT2.....	120
		2235.AT3.....	120
		2245.....	119
		2245.PVAT3.....	119
		225.J3.....	1151
		2250.....	118
		2250.AT3.....	118
		227.T2.....	598
		227.T3.....	598
		227.J1.....	600
		227.J2A.....	600
		227.ST2.....	599
		227.ST3.....	599

227.SJ1.....	600	2702.....	77	391.16VERFID.....	892	421.MT.....	982
227.SJ2A.....	600	2702.TAB.....	77	391A.CPE.....	487	421.MTF.....	838
229.TT.....	606	2703.....	77	391A.G.....	491	421.MTFRFID.....	889
229.TTJ4.....	606	270A.MA.....	721	391A.VE.....	496	422.MT.....	984
229A.....	603	271A.....	737	395.....	517	422.MTF.....	837
229A.J3.....	604	271A.150L.....	737	396.....	517	422.MTFRFID.....	889
229A.ST.....	603	271A.80S.....	737	3067.200.....	554	423.MT.....	985
230.....	1140	272.L.....	738	3067.300.....	554	423.MTF.....	837
230.J1.....	1140	272A.....	738	3071.200.....	553	423.MTFRFID.....	890
231.....	606	274.....	739	40.LA.....	223	424.MT.....	986
232.....	607	275.....	739	401.....	494	425.....	493
234.....	548	276.....	1060	401.MT.....	982	425.E.....	988
234.SLS.....	795	285.....	660	402.....	494	425.MT.....	979
234A.S.....	548	285.F.....	660	402.MT.....	984	425F.....	839
234F.....	842	285.J10.....	659	403.....	494	425FRFID.....	889
235.J1.....	607	285.JS10.....	659	403.MT.....	985	426.E.....	988
236.....	549	285.JS5.....	659	405.....	493	426.MT.....	979
237.....	600	286A.....	661	405.10E.....	988	427.E.....	990
237.J1.....	607	286A.PL.....	661	405.10MT.....	978	427.MT.....	981
238B.16.....	728	287B.....	661	405.10MTFRFID.....	889	429.E.....	990
239.....	730	287B.JS5.....	662	405.10RE.....	988	429.MT.....	981
240.M.....	730	289.J1.....	662	405.10RMT.....	978	43.....	251
242.....	730	289.M.....	662	405.10RMTF.....	836	43.JE5T.....	251
245A.M.....	623	292A.....	549	405.12.....	493	431.E.....	991
245A.P1.....	623	2930.B.....	124	405.12E.....	989	431.LE.....	991
245A.T.....	623	2930.C.....	123	405.12F.....	839	431.LMT.....	983
246.....	576	2936B.....	122	405.12MT.....	979	431.LMTF.....	838
246.JS6.....	576	2937B.....	122	405.12MTFRFID.....	889	431.LMTFRFID.....	890
246.JT6.....	576	2938B.....	123	405.8E.....	987	431.MT.....	983
247.....	577	2939B.....	123	405.8MT.....	978	432.E.....	992
247.249JS12.....	576	293A.....	549	405.E.....	988	432.LE.....	992
247.265JT10.....	576	307B.....	555	405.MT.....	978	432.LMT.....	985
247.G.....	572	307BM.....	554	405A.15.....	493	432.MT.....	984
247.GSLS.....	802	31.....	226	406.8E.....	987	433.LE.....	992
248.....	575	31.JE6T.....	226	406.8MT.....	978	433.LMT.....	986
248.JS6.....	576	31.JE8T.....	226	406.E.....	988	433.LMTF.....	837
248.JT7.....	576	311B.....	555	406.MT.....	978	433.LMTFRFID.....	890
249.....	575	325.....	729	406.RMT.....	978	435.....	493
249.F.....	844	329.....	607	406.RMTF.....	836	435.E.....	988
249.RFID.....	882	333C.67.....	728	407.8E.....	987	435.MT.....	979
249.SR.....	755	333C.67M.....	728	407.8MT.....	978	435.RE.....	988
249.G.....	572	333C.67NX.....	727	407.E.....	988	44.....	224
249.G247GJ12.....	573	334C.35.....	728	407.MT.....	978	44.F.....	811
249.SLS.....	801	334C.35NX.....	727	40LA.JE17.....	223	44.SLS.....	782
249.GJ.....	573	335.25.....	728	41.....	222	44.JE.....	225
249.JS7.....	576	335.63.....	729	41.JE12T.....	223	44.JU.....	225
249.JT7.....	576	335B.40.....	729	41.JE18.....	223	44.P16E.....	225
251A.....	576	337A.2.....	727	41.P24M.....	223	440.....	219
251A.JS9.....	576	338B.1.....	727	410.....	519	440.RFID.....	852
251A.JT9.....	576	34.....	227	410.S.....	519	440.SLS.....	779
255.G.....	573	34.F.....	810	410.SF.....	841	440.SR.....	743
255.GSLS.....	802	34.JL16T.....	227	411A.....	509	440.H.....	219
255.G8.....	573	34.JU13T.....	227	412.AVSE.....	960	440.HRFID.....	852
256.....	577	344B.....	726	412.....	612	440.JE.....	220
256.F.....	844	347.....	730	412B.10.....	612	440.JN.....	220
256.RFID.....	882	360.....	268	413.52.....	612	440.JP.....	220
257.G.....	574	372.....	1007	413A.32.....	612	440.JP9.....	1151
257A.....	577	373.....	735	414.45AVSE.....	960	440.JU.....	220
259.....	1138	376A.....	734	415.E.....	989	440.P25M.....	220
259.P.....	578	377B.....	734	415.MT.....	979	442.....	494
259SLS.....	803	378A.50.....	734	416.....	493	445.DS.....	921
260.P.....	579	379A.....	735	416.12E.....	990	445.DSF.....	841
2600.A2.....	84	380.....	735	416.MT.....	980	445.R.....	510
2600.M.....	84	39.....	221	416.E.....	989	445.RRFID.....	894
262A.....	579	39.F.....	809	416.PE.....	989	449.Z1B.....	1074
262A.JS4.....	579	39.H.....	221	416.PMT.....	980	449.Z3A.....	939
263.....	578	39.HF.....	809	416.RMT.....	980	449B.....	935
263.265JS5.....	579	39.RFID.....	853	416.RMTF.....	836	449BF.....	840
263.SR.....	755	39.HRFID.....	853	417.PE.....	989	449BFRFID.....	894
263.G.....	574	39.JE10.....	222	417.PMT.....	980	449BSLS.....	794
263.GSLS.....	802	39.JE10T.....	222	417.SPE.....	991	45.....	228
263.GJ4.....	575	39.JE16T.....	222	417.SPMT.....	982	455B.....	940
263.P.....	578	39.JE9T.....	222	418.MT.....	981	455BSLS.....	794
265.....	579	39.JP6.....	222	42.....	252	46.AVSE.....	961
265.SR.....	755	39.JU10T.....	222	42.JE5T.....	252	464.J1.....	216
265.G18.....	574	39.JU14T.....	222	420.E.....	991	464.M14X19.....	215
268.3.....	722	391.16AVSE.....	958	420.MT.....	983	464.MKIT.....	215
269.....	722	391.16CPERFID.....	887	421.....	494	464TX.....	217

# ALPHANUMERIC INDEX

464TX.J3.....	217	55A.JN.....	230	697653.....	946	804.LF.....	842
464TX.J4.....	217	55A.JU10.....	230	701B.....	949	804.P.....	1059
467.....	509	55A.P14E.....	230	703232.....	177	804.U.....	1059
467.01AJ2.....	509	56A.....	232	705.....	1064	804F.....	842
467.RFID.....	854	56L.....	232	70A.....	250	804FSLs.....	796
467.SLS.....	780	57.....	235	70A.JE5T.....	250	805.....	533
467.ADAPT10-19.....	213	57.JE5.....	235	70A.JN6.....	250	805.M.....	533
467.ADAPT10MM.....	213	57L.....	233	711A.....	948	805.S.....	534
467B.....	203	57L.SPL.....	911	712A.....	948	806.C25.....	535
467B.J7.....	204	580.....	513	714A.....	1063	806.F.....	535
467B.JP.....	204	582.7.....	514	715.....	1063	806C.....	535
467BF.....	210	59.....	234	720.P1500.....	948	807C.....	535
467BF.JP.....	210	59.JE12.....	234	740A.....	1033	809.....	541
467BR.....	206	59.JN.....	234	74A.....	245	809.IN500.....	541
467BR.J7.....	206	599.....	585	74A.F.....	812	809.ING500.....	541
467BR.JP10.....	207	599SR.....	757	74A.JL14.....	245	809.J2.....	536
467BS.....	208	59L.....	231	74A.JL9.....	245	809.J3.....	536
467BS.BOX.....	209	59TX.....	234	74A.P14E.....	245	811B.....	534
467BS.JP.....	208	59TX.J4.....	234	74T.....	246	811C.250.....	534
467F.RFID.....	855	601.....	585	75.....	240	812.3.....	537
467FLUO.....	841	601SLS.....	796	75.SR.....	744	812A.....	537
467S.SLS.....	781	602.AVSE.....	960	75.RFID.....	858	812B.AC.....	537
469.....	509	603F.....	584	75.J12.....	241	812B.P.....	537
469F.....	841	603FRFID.....	884	75.JE16.....	241	813B.S.....	546
470.....	508	605.B.....	586	75.JN10.....	241	814.G.....	539
470.E.....	509	606A.....	586	75.JN8.....	241	814.M.....	539
470.MT.....	1005	607.MT.....	1006	75.JU10.....	241	814.NI.....	539
475A.....	508	608.L12.....	1006	75.P22M.....	241	814.WH.....	539
475A.J1.....	508	609A.....	605	750.KB.....	1095	816.....	534
477.32.....	507	609A.J1.....	605	750.TB.....	1095	817.....	545
479.32.....	507	609A.J3.....	605	751.K.....	1095	818.CLO.....	543
481.40.....	503	629731.....	942	751.T.....	1095	818B.....	543
482.SR.....	752	629757.....	942	76.....	242	819.CLO.....	543
484A.....	502	629765.....	943	76.RFID.....	858	819810.....	933
484A.30.....	502	629773.....	943	76.SLS.....	784	819832.....	932
485.....	503	629781.....	944	76.JE16.....	242	819B.15.....	544
49.SR.....	746	629853.....	943	76.JN.....	242	821416.....	932
490.SE.....	507	629861.....	943	76.P22M.....	242	823.25.....	547
495A.EL.....	517	629888.....	944	777.SPOT.....	677	826.....	923
497.32.....	507	629896.....	943	777.SPOTBT.....	677	827.....	923
499.32.....	507	629909.....	944	777A.F.....	679	827.M.....	1009
50.SR.....	745	629984.....	944	777B.F.....	679	827B.....	1009
50.SH.....	239	64.....	211	778A.....	1087	828.....	923
500A.....	512	64.F.....	810	779.CBT.....	675	829.....	922
500ASLS.....	794	64.RFID.....	856	779.CL4.....	669	829AR.....	922
501.....	1151	64.J4.....	211	779.CML.....	673	82H.....	450
501A.....	512	64.JE6T.....	211	779.CRT.....	675	82H.SR.....	751
501AMP.....	512	64.JU6T.....	211	779.EYE.....	677	82H.JE10.....	444
501ASLS.....	794	640171.....	940	779.FRT2.....	671	82H.JL.....	444
502A.....	515	640180.....	621	779.MAG.....	672	82H.JP.....	447
503.....	515	640180RFID.....	885	779.PBT.....	674	82H.JU.....	444
504A.....	515	640180SLS.....	799	779.PBTSLS.....	803	83.AVSE.....	962
505A.....	513	64C.J2.....	215	779.PCA.....	670	830A.10.....	601
506A.....	512	64C.S.....	215	779.PEN.....	671	830A.10L.....	601
512.....	515	65.....	212	779.SILC.....	672	830A.10RN.....	601
513.....	514	65.RFID.....	857	779.SILR.....	672	830A.5.....	601
513A.7.....	514	65.F.....	810	779.TRIPOD.....	676	830A.5L.....	601
514.45R.....	516	65.SPL.....	213	779.UH.....	674	830A.5RN.....	601
514A.....	516	65.JP6.....	212	779.UVT.....	675	831.....	601
514A.R.....	516	65.JU6T.....	212	77A.PL.....	1125	832.....	601
514A.65.....	516	65.PE.....	284	77A.TO.....	1125	834.....	1010
517.....	514	65.PEF.....	814	780B.....	1072	834.R.....	1010
518.....	1151	65.PERFID.....	861	781.....	1071	834A.R.....	922
518A.J6.....	1137	660A.10SR.....	757	784B.....	1071	834B.RT.....	1010
518A.....	1137	668A.....	587	785.....	1071	834B.RTF.....	845
51B.....	238	669273.....	942	789.5.....	1188	834B.RTI.....	922
51BS.....	237	66A.....	249	793936.....	929	834B.RTIM.....	922
520A.....	516	673838.....	934	793940.....	929	834B.RTIR.....	922
521.....	516	678006.....	603	795A.....	538	834B.RTIS.....	922
54.MB.....	236	678006.....	947	796B.....	538	835.1.....	1007
54.MBSLS.....	783	678014.....	603	80.....	457	835A.....	1007
54.P9M.....	236	693695.....	946	80.JL7.....	457	837.....	442
54A.....	236	693716.....	946	800A.216.....	551	838.CX58.....	928
54A.SLS.....	783	697590.....	946	803.200MSLS.....	795	838305.....	941
55.AVSE.....	961	697602.....	946	803.300MSLS.....	795	839A.....	1016
55A.....	229	697611.....	946	804.....	1059	83H.....	450
55A.JD.....	230	697637.....	946	804.AM.....	1059	83H.JL.....	444
55A.JE.....	230	697645.....	946	804.L.....	1059	83H.JP9A.....	447

83H.JU10	444	871B.45	1149	985548	941
83R.JP6	447	872271	926	985753	935
83S.L	449	872271SLS	799	985755	938
83S.JP9AL	447	872A	1152	985756	938
83SH	449	874A	1149	985757	937
83SH.ST	451	875	1150	985758	939
83SH.JL	444	876A	1150	985761	930
83SH.JP	447	87H.JE8	445	985762	930
83SH.JP8UF	824	87H.JU8	445	985763	940
83SH.JP9F	825	87HL.JE8	445	985764	940
83SH.JU8	444	87HL.JU8	445	985765	940
83SHST.JP9	452	880	608	985894	1074
840.1	622	882A	609	985894	935
840.4A	621	882A.65	608	985895	937
840.F	620	883.32	608	985896	938
840.FRFID	885	883B	608	985899	938
840B	622	883B.G	608	985902	938
840LE	621	884.30	608	985905	937
841	620	884A.65	608	985912	613
841.MT	1005	884B	608	985913	936
841A	620	885	660	985914	936
841A.SLS	799	885.EH	661	985915	936
843	622	885.F	661	985916	936
844.D	615	887A	610	985917	936
844.DRFID	884	89	452	985918	936
844.DSLS	799	89.JA8	445	985919	936
844.R	616	89.JL	445	985920	936
844.S18	616	89.JP	447	985921	936
844.S18L10	618	891A.PL	1150	985922	936
844.S18RFID	884	893.316	1151	985923	936
844.S9	616	893.316FLUORFID	882	985925	613
844.S9L10	618	893.316SLS	796	985936	928
844.SE18	616	893.519SLS	796	985951	927
844.TCL10	618	893B	551	985952	927
844.TRL10	617	895A	1150	985953	927
844.TTL10	617	897A	550	985954	927
845.1	1006	89A.JM8	448	985955	927
848.P2	1015	89R	453	985956	927
848.P3	1015	89R.JM8	448	985957	927
848.P4	1015	89R.JP6	447	985962	928
848B.100	1015	89S	452	985964	928
84E	994	89S.JP8A	447	985966	935
84E.J1	998	89TX.SLS	790	985968	946
84TC	455	89TXA	454	985969	946
84TC.JE5	455	906A	1149	985972	946
84TCD	456	908A	1152	985974	946
84TCD.J6	456	909A	1149	985978	946
84TZ.SLS	789	911	1077	985984	946
84TZA	454	911-B2	1077	985995	946
84TZS.F	825	911-B5	1077	986014	939
84TZSA	453	911-B8	1077	986022	939
850.EF350	1150	911-C90	1080	986051	947
850.F350	1150	911-V10	1077	986058	930
850.S300	1150	911-V4	1077	986059	930
850.S350	1150	911-V5	1077	986075	940
850.SD350	1150	911-VA	1080	986095	1188
851B	1150	911B.FC	1078	986095	936
855367	933	912	1079	986107	947
859H	564	912-01-02	1080	98B	247
861D	1147	912	1079	990.B	611
861D.RPC	1147	916.600	1084	990.BF	610
862D.60	1148	920B	1088	990.BRF0	611
866D.32	1147	92A	243	990.LB	611
866D.41	1147	92A.JE8	243	990.LRB	611
867D	1148	92A.P16M	243	990.RB	611
867D.DS	1148	935A	1087	996	614
868D.40BOC	1147	947	1016	996A	614
868D.40PLD1	1147	947A	1016	99C	247
86H.JE	448	94A	246	99C.JE	248
86H.JE7AFRFID	881	94T.AVSE	962	99C.P12E	248
86H.JE7ASLS	789	94TL.AVSE	962		
86H.JE7BFRFID	881	97	244		
86H.JE7BSLS	789	97.JE6	244		
86H.JU	448	980	619		
86H.JU6FRFID	881	980C	619		
86H.JU7FRFID	881	982	609		
870A	1149	982.G	609		
870B	1149	985	609		



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