

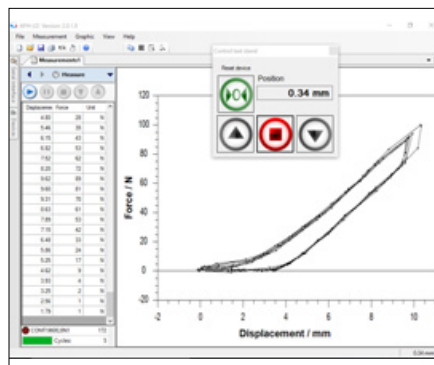
Motorised vertical test stand SAUTER TVM-N · TVM-NL



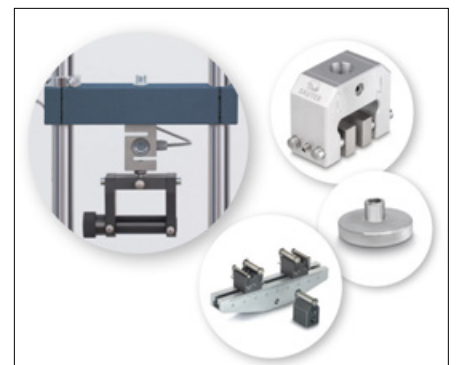
Test stand with electric motor for standard measurements



Premium operating panel
 - Digital speed display
 - Digital repeat function



Control of the test stand using PC software SAUTER AFH



Solid and flexible fixing options for many terminals and accessories from the SAUTER product range

Motorised vertical test stand SAUTER TVM-N · TVM-NL



Features

- Force controlled automatic switchoff, teststop after achieving an adjusted limit load, only in connection with a SAUTER FH force gauge
- Maximum travel distance protected by electronic end switches
- SAUTER LA length measuring device as standard, to read the travel distance with a readout of 0,01 mm
- Particularly flexible mounting options for the most variable force measuring devices, such as, SAUTER FC, FH, FK, FL:
 - **1** Direct mounting of measuring devices with internal load cell up to a measuring range of 500 N (only for TVM 5000N230N)
 - **2** Direct mounting of the external load cell on the traverse, starting with 1000 N measurement range and higher
 - **3** Holder for force measuring devices of the SAUTER FH range with external load cell
- The large figure shows the TVM-N test stand with: SAUTER FH force measuring device, SAUTER LB length measuring device, longer guide columns as well as mount for force measuring device and test objects, not supplied with the product

Technical data

- Maximum travel distance: 210 mm
- Speed accuracy: 3 % of [Max]

Accessories

- Digital length measuring device, measuring range 300 mm, readout 0,01 mm, details see page 47, SAUTER LB 300-2
- Mounting the length measuring device LB onto a SAUTER test stand at the factory, SAUTER LB-A02
- Data transfer software with graphic display of the measurement process, Force-time, SAUTER AFH FAST
Force-displacement only in combination with SAUTER LB, SAUTER AFH FD
- **3** Holder for force measuring devices of the SAUTER FH range with external load cell, SAUTER TVM-A01

STANDARD



OPTION



Model	Measuring range [Max] N	Speed range mm/min	Length of columns mm
SAUTER TVM 5000N230N	5000	10-230	635
SAUTER TVM 5000N230NL	5000	10-230	1135
SAUTER TVM 10KN 120N	10000	30-120	1135
SAUTER TVM 20KN 120N	20000	30-120	1135
SAUTER TVM 30KN70N*	30000	5-70	1135

■ * ONLY WHILE STOCKS LAST!



Adjusting program (CAL):
For quick setting of the instrument's accuracy. External adjusting weight required



Calibration block:
Standard for adjusting or correcting the measuring device



Peak hold function:
Capturing a peak value within a measuring process



Scan mode:
Continuous capture and display of measurements



Push and Pull:
The measuring device can capture tension and compression forces



Length measurement:
Captures the geometric dimensions of a test object or the movement during a test process



Focus function:
Increases the measuring accuracy of a device within a defined measuring range



Internal memory:
To save measurements in the device memory



Data interface RS-232:
Bidirectional, for connection of printer and PC



Profibus:
For transmitting data, e.g. between scales, measuring cells, controllers and peripheral devices over long distances. Suitable for safe, fast, fault-tolerant data transmission. Less susceptible to magnetic interference.



Profinet:
Enables efficient data exchange between decentralised peripheral devices (balances, measuring cells, measuring instruments etc.) and a control unit (controller). Especially advantageous when exchanging complex measured values, device, diagnostic and process information. Savings potential through shorter commissioning times and device integration possible



Data interface USB:
To connect the measuring instrument to a printer, PC or other peripheral devices



Bluetooth* data interface:
To transfer data from the balance/measuring instrument to a printer, PC or other peripherals



WLAN data interface:
To transfer data from the balance/measuring instrument to a printer, PC or other peripherals



Data interface Infrared:
To transfer data from the measuring instrument to a printer, PC or other peripheral devices



Control outputs (optocoupler, digital I/O):
To connect relays, signal lamps, valves, etc.



Analogue interface:
To connect a suitable peripheral device for analogue processing of the measurements



Analog output:
For output of an electrical signal depending on the load (e.g. voltage 0 V - 10 V or current 4 mA - 20 mA)



Statistics:
Using the saved values, the device calculates statistical data, such as average value, standard deviation etc.



PC Software:
To transfer the measurement data from the device to a PC



Printer:
A printer can be connected to the device to print out the measurement data



Network interface:
For connecting the scale/measuring instrument to an Ethernet network



KERN Communication Protocol (KCP):
It is a standardized interface command set for KERN balances and other instruments, which allows retrieving and controlling all relevant parameters and functions of the device. KERN devices featuring KCP are thus easily integrated with computers, industrial controllers and other digital systems



GLP/ISO record keeping:
Of measurement data with date, time and serial number. Only with SAUTER printers



Measuring units:
Weighing units can be switched to e.g. non-metric. Please refer to website for more details



Measuring with tolerance range (limit-setting function):
Upper and lower limiting can be programmed individually. The process is supported by an audible or visual signal, see the relevant model



Protection against dust and water splashes IPxx:
The type of protection is shown in the pictogram cf. DIN EN 60529:2000-09, IEC 60529:1989+A1:1999+A2:2013



ZERO:
Resets the display to "0"



Battery operation:
Ready for battery operation. The battery type is specified for each device



Rechargeable battery pack:
Rechargeable set



Plug-in power supply:
230V/50Hz in standard version for EU. On request GB, AUS or USA version available



Integrated power supply unit:
Integrated, 230V/50Hz in EU. More standards e.g. GB, AUS or USA on request



Motorised drive:
The mechanical movement is carried out by an electric motor



Motorised drive:
The mechanical movement is carried out by a synchronous motor (stepper)



Fast-Move:
The total length of travel can be covered by a single lever movement



Verification possible:
Models with type approval for construction of verifiable systems



DAkKS calibration possible:
The time required for DAkKS calibration is shown in days in the pictogram



Factory calibration:
The time required for factory calibration is specified in the pictogram



Package shipment:
The time required for internal shipping preparations is shown in days in the pictogram



Pallet shipment:
The time required for internal shipping preparations is shown in days in the pictogram

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