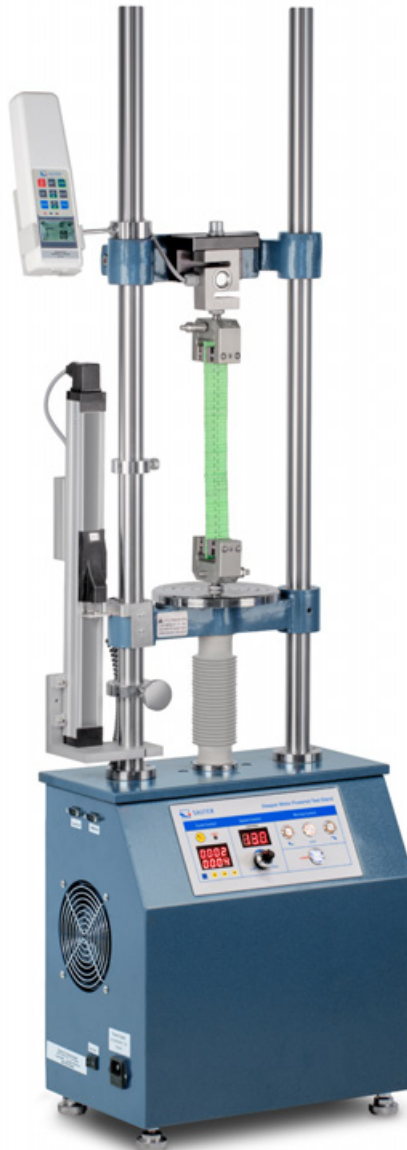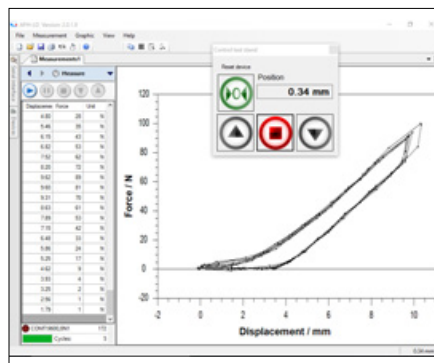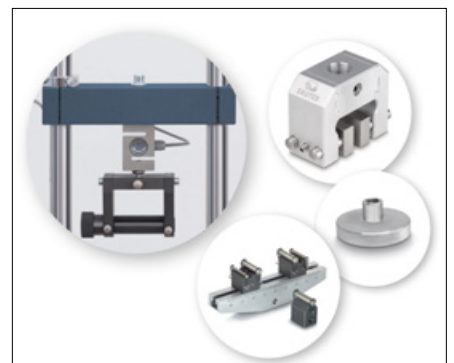Motorised vertical test stand SAUTER TVS

PREMIUM
★★★

Premium test stand with step motor for precise testing up to 50 kN

Premium operating panel
- Digital speed display: shows the displacement speed
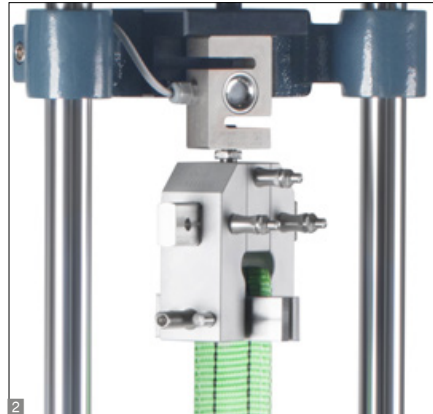- Digital repeat function for long-term stress test

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 TVS

Features

- Motorised test stand for tension/compression force testing
- Step motor for greatest ease of use
  - for constant speed from the smallest to the maximum load
  - allows testing at minimum speed and full load
  - for higher positioning accuracy. Precise starting and stopping, without overrun, even at high speeds
  - precise adjustment of the process speed using the information shown on the display
- Maximum travel distance protected by electronic end switches
- Large working area by means of long guide columns as standard, which allows a wide range of fixing options
- 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, for example, 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 TVS 5000N240)
  - 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 TVS test stand with: SAUTER FH force measuring device, SAUTER LD length measuring device, longer guide columns as well as mount for force measuring device and test objects, not supplied with the product
- For force-displacement testing: Please order the optional SAUTER LD length measuring device as well as the SAUTER AFH LD software with the product

Technical data

- Maximum travel distance: 210 mm
- Speed accuracy: 1 % of [Max]
- Positioning accuracy when shutting down: ± 0,05 mm

Accessories

- Linear potentiometer for length measurement, measuring range: 300 mm, readability: 0,01 mm. For details see page 48, SAUTER LD
- Mounting the length measuring device LD onto a SAUTER test stand at the factory, SAUTER LD-A06
- Data transfer software with graphic display of the measurement process, Force-time, SAUTER AFH FAST
  Force-displacement only in combination with SAUTER LD, SAUTER AFH LD
- 3 Holder for force measuring devices of the SAUTER FH range with external load cell, SAUTER TVM-A01

STANDARD
STEPPER 2 DAYS

OPTION
SCALE SOFTWARE

Model	Measuring range	Speed range	Length of columns
	[Max]		
SAUTER	N	mm/min	mm
TVS 5000N240	5000	1-240	1135
TVS 10KN100	10000	1-200	1135
TVS 20KN100	20000	1-70	1135
TVS 30KN80*	30000	1-70	1135
TVS 50KN80	50000	1-70	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 a 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