

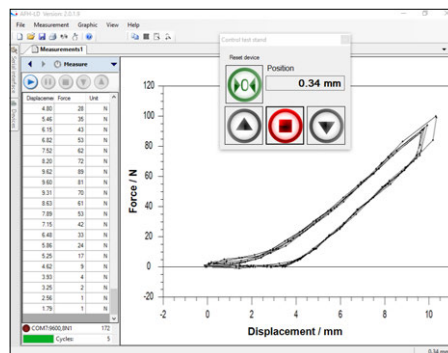
Motorised vertical test stand SAUTER TVS



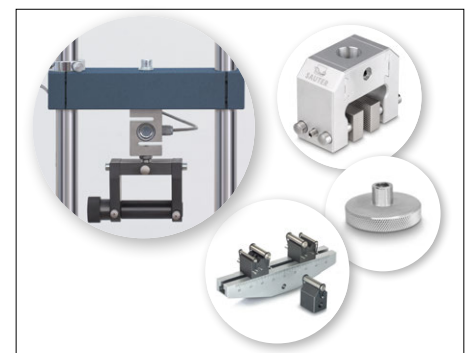
Premium test stand with step motor for precise testing up to 50 kN



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

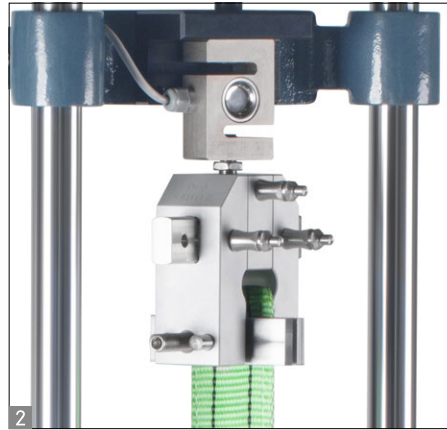


Control of the test stand using SAUTER PC software AFH



Solid and flexible fixing options for many terminals and accessories from the SAUTER product range, see accessories on page 35 et seq.

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 follow-up movement, even at high speeds
 - precise adjustment of the process speed with indication 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 measurement range with a readout of 0.01 mm
- Particularly flexible mounting options for the most variable force measuring devices, such as, SAUTER FC, FH, FA, FK, FL:
 - **1** Direct mounting of measuring devices with internal load cell up to [Max] of 500 N (only at TVS 5000N240N and TVS 10KN100N)
 - **2** Direct mounting of the external measuring cell on the traverse, from 1000N measurement range and higher
 - **3** Mount for force-measuring devices from the SAUTER FH range with external measuring 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 SAUTER LD length measuring device and software AFH LD as well as the factory fitting of the length measuring device with the product

Technical data

- Speed accuracy: 1 % of [Max]
- Positioning accuracy when shutting down: $\pm 0,05$ mm
- Dimensional drawing see on the internet









































Accessories

- Linear potentiometer for length measurement, measuring range: 300 mm, readout: 0.01 mm, for details see page 46, SAUTER LD 300
- 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** Mount for force measuring devices from the SAUTER FH range with external load cell, SAUTER TVM-A01
- Longer columns with the same travel distance, up to 500 mm, SAUTER AFH 18



Model	Measuring range [Max] N	Speed range mm/min	Maximum travel distance mm	Length of columns mm
SAUTER				
TVS 5000N240	5000	1-240	210	1135
TVS 10KN100	10000	1-200	210	1135
TVS 20KN100	20000	1-70	210	1135
TVS 30KN80	30000	1-70	210	1135
TVS 50KN80	50000	1-70	210	1135

Pictograms

 Adjusting program (CAL): For quick setting of the instrument's accuracy. External adjusting weight required	 WLAN data interface: To transfer data from the balance/measuring instrument to a printer, PC or other peripherals	 Protection against dust and water splashes IPxx: The type of protection is shown in the pictogram.
 Calibration block: Standard for adjusting or correcting the measuring device	 Data interface Infrared: To transfer data from the measuring instrument to a printer, PC or other peripheral devices	 ZERO: Resets the display to "0"
 Peak hold function: Capturing a peak value within a measuring process	 Control outputs (optocoupler, digital I/O): To connect relays, signal lamps, valves, etc.	 Battery operation: Ready for battery operation. The battery type is specified for each device
 Scan mode: Continuous capture and display of measurements	 Analogue interface: To connect a suitable peripheral device for analogue processing of the measurements	 Rechargeable battery pack: Rechargeable set
 Push and Pull: The measuring device can capture tension and compression forces	 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)	 Mains adapter: 230V/50Hz in standard version for EU. On request GB, AUS or USA version available
 Length measurement: Captures the geometric dimensions of a test object or the movement during a test process	 Statistics: Using the saved values, the device calculates statistical data, such as average value, standard deviation etc.	 Power supply: Integrated, 230V/50Hz in EU. More standards e.g. GB, AUS or USA on request
 Focus function: Increases the measuring accuracy of a device within a defined measuring range	 PC Software: To transfer the measurement data from the device to a PC	 Motorised drive: The mechanical movement is carried out by a electric motor
 Internal memory: To save measurements in the device memory	 Printer: A printer can be connected to the device to print out the measurement data	 Motorised drive: The mechanical movement is carried out by a synchronous motor (stepper)
 Data interface RS-232: Bidirectional, for connection of printer and PC	 Network interface: For connecting the scale/measuring instrument to an Ethernet network	 Fast-Move: The total length of travel can be covered by a single lever movement
 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.	 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	 Verification possible: The time required for verification is specified in the pictogram
 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	 GLP/ISO record keeping: Of measurement data with date, time and serial number. Only with SAUTER printers	 DAKkS calibration possible: The time required for DAKkS calibration is shown in days in the pictogram
 Data interface USB: To connect the measuring instrument to a printer, PC or other peripheral devices	 Measuring units: Weighing units can be switched to e.g. non-metric at the touch of a key. Please refer to website for more details	 Factory calibration: The time required for factory calibration is specified in the pictogram
 Bluetooth* data interface: To transfer data from the balance/measuring instrument to a printer, PC or other peripherals	 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	 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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