

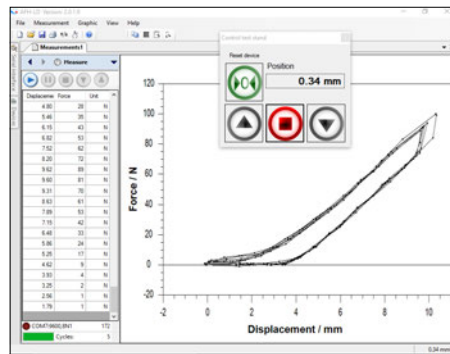
Motorised vertical test stand SAUTER TVS



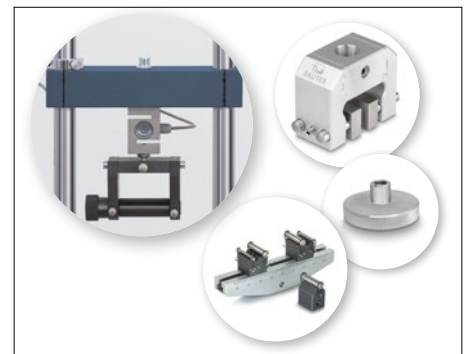
Premium test stand with step motor for precise testing up to 50 kN



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

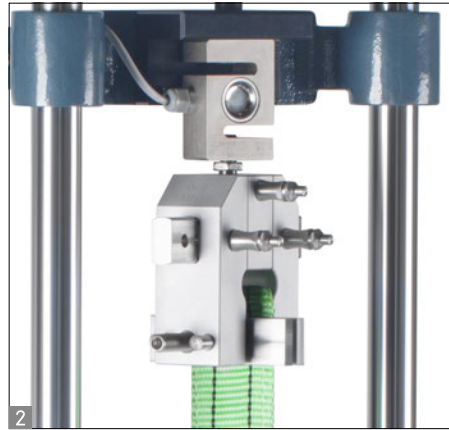


Control of the test stand using SAUTER PC software AFH



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)
 - **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

Accessories

- Linear potentiometer for length measurement, measuring range: 300 mm, readout: 0.01 mm, for details see page 46, 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** Mount for force measuring devices from the SAUTER FH range with external load cell, SAUTER TVM-A01

STANDARD











































OPTION



| 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 |

! *ONLY WHILE STOCKS LAST!

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 cf. DIN EN 60529:2000-09, IEC 60529:1989+A1:1999+A2:2013 |
|  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) |  Plug-in power supply: 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. |  Integrated power supply unit: 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 |
|  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 |  Factory calibration: The time required for factory calibration is specified 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. Please refer to website for more details |  Package shipment: The time required for internal shipping preparations is shown in days 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 |  Pallet shipment: The time required for internal shipping preparations is shown in days in the pictogram |

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