

Motorised vertical test stand SAUTER TVO-S



SAUTER TVO 1000N500S

Premium test stand in table-top version
 – with precise step motor



SAUTER TVO 2000N500S

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

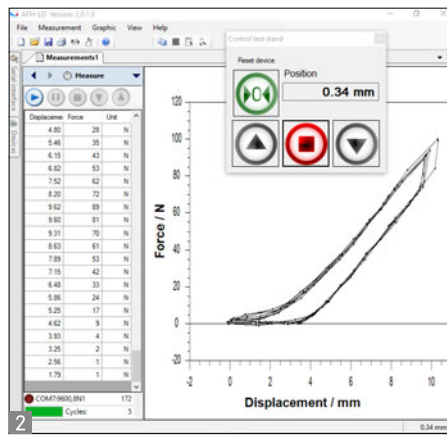


A wide range of application possibilities because of its large travelling distance



Interface for data transmission from SAUTER FH measuring device and for controlling the test stand with SAUTER AFH software

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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
- Automatic or manual process mode
- **1** Premium operating panel
 - Digital speed display
 - Digital repeat function
 - **2** Control of the test stand using PC software SAUTER AFH
- Table-top version for easy operation
- Robust construction
- Fixation of SAUTER force measuring devices up to 2 kN possible
- The large diagram shows the TVO 1000N500S test stand with: SAUTER FH force measuring device, length measuring device SAUTER LD as well as mounts for the force measuring device and test objects (not supplied with the product)

Technical data

- Speed accuracy: 0,5 % of [Max]
- Positioning accuracy when shutting down: ± 0,05 mm






































Accessories

- Linear potentiometer for length measurement, measuring range: 300 mm or 700 mm (for TVO 1000/2000), readout: 0.01 mm, for details see page 46, SAUTER LD
- Mounting the length measuring device 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 gauges with external measuring cell on test stands, for comfortable reading of the measured value, SAUTER TVO-A01

STANDARD	OPTION
STEPPER 2 DAYS	SCALE SOFTWARE

Model	Measuring range [Max] N	Speed range mm/min	Maximum travel distance 2 mm	Overall dimensions W×D×H mm
SAUTER TVO 500N500S	500	1-500	300	236×428×570
SAUTER TVO 1000N500S	1000	1-500	500	265×405×980
SAUTER TVO 2000N500S	2000	1-500	700	300×465×1185

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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