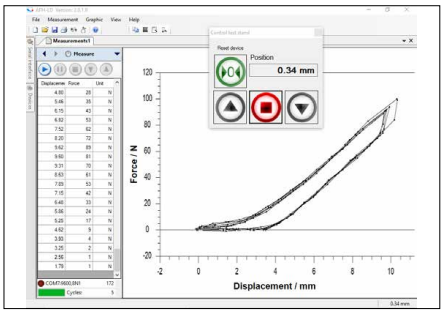
Motorised Vertical Test Stand SAUTER TVS · TVS-LD

PREMIUM ★★★

Motorised test stand incl.
length measuring system LD

Premium test stand with step motor for precise testing up to 50 kN – now also available as a set

Premium operating panel
- Digital speed display for a direct reading of 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 clamps and accessories from the SAUTER product range, see *Accessories*

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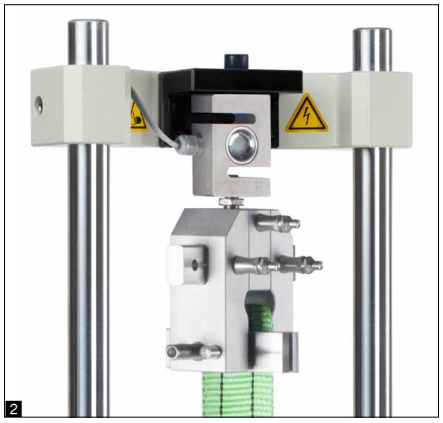
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3

Features

- Motorised test stand for tension/compression force testing
- NEW: Now also available as a practical set TVS-LD for force-displacement-measurements in laboratory and industry
- Set TVS-LD: Five in one - premium motorised test stand, length measuring system LD, interface cable, data transfer software AFH LD, interface converter AFH 12 and mounting
- Stepper 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 displacement speed using the information shown on the display
- Maximum displacement protected by electronic end switches
- Large working area by means of long guide columns as standard, which allows a wide range of fixing options
- Only TVS: SAUTER LA length measuring device as standard, to read the travel distance with a readability of 0,01 mm
- Set TVS-LD: with linear potentiometer for length measurement to create force-displacement diagrams on PC, maximum measuring range 300 mm, readability 0,01 mm, measuring accuracy 0,5 % of [Max], USB-A cable 1,5 m, high data acquisition speed
- Set TVS-LD: Data Transfer Software SAUTER AFH LD included with the delivery
- Particularly flexible mounting options for 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

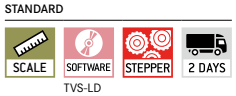
Technical data

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

Accessories

- Only TVS: Data transfer software with graphic display of the measurement process, force-time, SAUTER AFH FAST
- 3 Holder for force measuring devices of the SAUTER FH range with external load cell, SAUTER TVM-A01
- Force gauges see page 11 et seq., clamps and other accessories see page 39 et seq.

STANDARD



TVS-LD

OPTION

TVS

Model	Measuring range	Speed range	Length of columns
SAUTER	[Max] N	[Max] mm/min	mm
TVS 5000N240	5000	1 – 240	1135
TVS 10KN100	10000	1 – 200	1135
TVS 20KN100	20000	1 – 70	1135
TVS 50KN80	50000	1 – 70	1135
Sets incl. test stand, length measuring system, interface cable, software AFH LD, assembly:			
TVS 5000N240-LD NEW	5000	1 – 240	1135
TVS 10KN100-LD NEW	10000	1 – 200	1135
TVS 20KN100-LD NEW	20000	1 – 70	1135
TVS 50KN80-LD NEW	50000	1 – 70	1135

NEW **New model**

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

WIFI 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

Analogue 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 US version available

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

Conformity assessment
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 (ISO)
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