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Instruction Manual
Electrical Test Stand

SAUTER TVM-N

V. 1.2
02/2014
GB

PROFESSIONAL MEASURING

GB

SAUTER TVM-N

V. 1.2 02/2014

Instruction Manual Electrical Test Stand

Summarize:

1 Introduction

Thank you for choosing the SAUTER TVM-N series instrument. With correct use a it will give many years of accurate and reliable service.
The TVM-N is a motorized test stand which you provide a possibility to move up and down with a constant speed, to make your measuring more accurate and repeatable. Ask your SAUTER distributor for additional information or visit our website at www.sauter.eu

2 Before Use

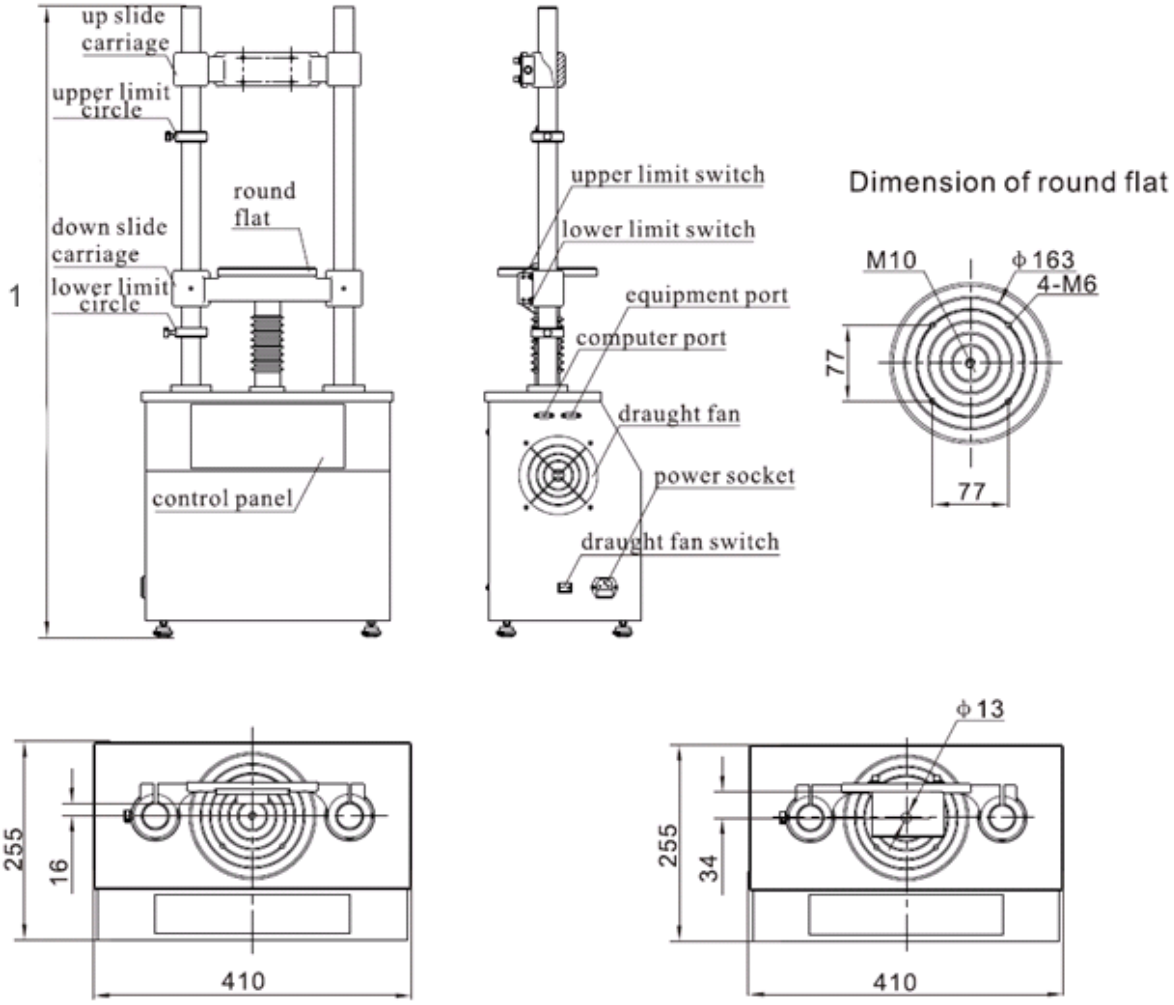
After having received the unit please check that no physical damage has occurred to the packaging material, metall case or the instrument itself. If any damage is evident, please notify SAUTER immediately.

3 Operation Overview

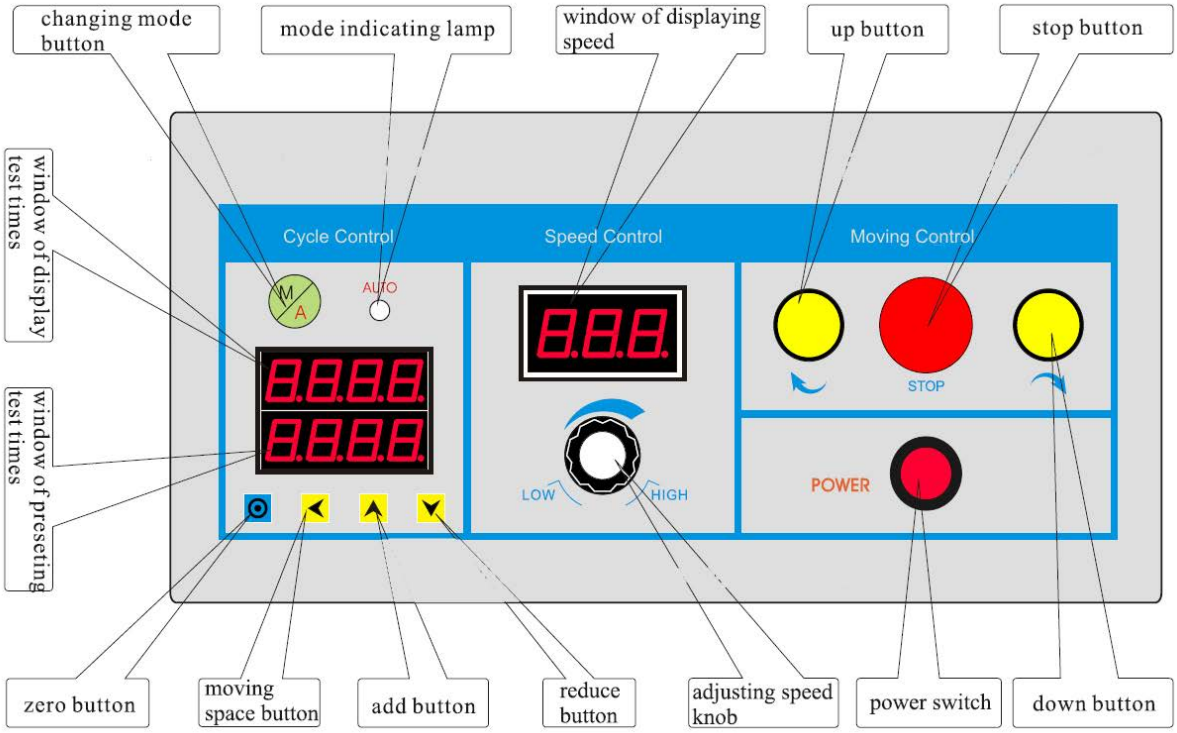
TVM-N Series Test Stand is specially applied for most of the SAUTER Series Force Gauge for tension and compression test. It owns presetting speed, wide application range, advantage of non-polar speed adjustment, manual or automatic operation, suitable for fields of rubber & plastic, textile, construction, complex material, wires & cables, auto accessories, engine and scientific research, etc. It can connect with computer, when applying with SAUTER Series series force gauge, you can control the test stand moving up or down by software. The most of the SAUTER Series force gauge also can preset the stop force, when the force arrived the preset one, the test stand will auto stop.

- Choose the right test stand depend on your request (see Cap XX). Please do not test over maximum load of the test stand or the mounted force gauge.
- Please do not remake or repair the equipment have not allowed for avoiding make more damage or could not repair.
- Keep environment clean for avoiding liquid and scrap iron ect. to the bottom box, otherwise it will make element short out and make mechanical drive damaged.
- Please do not use acute goods to jab operation panel and buttons for avoiding them could not work.
- Using the limit function, please avoid limit circle drop and tamp injury limited switch, let it could not work.
- Add lube oil for Transmission of a pole when the equipment has already work long time.
- Turn off the equipment when you did not use it in short time, pull out the power plug when you long time not use it, do not let it cover grieshoch and rust.

4 Overview


up slide carriage
upper limit circle
round flat
down slide carriage
lower limit circle
control panel
1
upper limit switch
lower limit switch
equipment port
computer port
draught fan
power socket
draught fan switch
Dimension of round flat
M10
Φ163
4-M6
77
77
255
16
410
Φ13
255
34
410

5 Display



Power key: control the whole machine's power on and off.
Up key: the button shines when up, turn off when stop.
Down key: the button shines when down, turn off when stop
Stop key: stop movement.
Speed adjusting key: adjust the moving speed. Displays the percentage of the speed (is not displaying the actual speed)
Speed display window: display the setting moving speed at the present time.
Mode shift: shift test mode, shift during the test mode A (cycle) and M (manual).
Mode indication lamp: light on is test mode A (cycle); light off is test mode M (manual),default is manual.
Time's window preset: display cycle test times setting at the present, the range is 1-lOOOtimes.
Moving space key: character position of moving test times window.
Add key: increase the number in the times window preset, increase "1" when press the key one time.
Reduce key: minus the number in the times window preset, minus "1" when press the key one time.
Test times window: display the run times before ("1" time when touch Upper limit validly).
Zero key: setting the running times to zero (only valid to test times window).

6 Operation Example

6.1 Examination before test:

- Link to power, turn on the power, the display automatic take exam and simultaneous flicker 5 is normal;
- When in "Mode" state, the indicate lamp is extinct, in the state of Manual test mode;
- .0perate without loading, check the sound of operate is in an average state, no anomalous sound.
- Up/down limit function is ok, can limit position effective.

6.2 Function operation

6.2.1 M (Manual) Test

The machine is defaulted to Manual Mode, mode indication lamp of "AUTO" is off. The lamp is shine when press it all the time, and the machine work to test. Loosen the button, it will be off and the machine stop working to test. Touching upper limit or lower limit when testing, the machine stop working to test.

6.2.2 A (Auto Cycle)Test

Press "mode shift" key, pilot lamp of "AUTO" is on. A (Autom cycle) mode test is working. Press the up or down button, it will shine and the machine works to test. When the number in the test time window is the same to the number in the time window preset in the mode test, the machine stop working with 3 alarm buzzer, and end the test. Press stop button can stop machine's working in test and stop testing. Restart testing when repress up or down button. Be attention to running time's record is valid after touching the up limit, so keep the same direction as restart as stop avoid losing"1"running time record.

6.2.3 Single Automatic Test

Press "mode shift" key, pilot lamp of" AUTO" is on. A(Auto cycle) mode test is working. Press the up or down button, the lamp is on and the machine works to test. Press "mode shift "key again, "auto" off, enter Manual test mode, now the equipment keep original move direction. During test, touching up limit or down limit, the test stand will stop work, and finish test.

6.2.4 Speed Adjustment of Moving Base Up and Down

The speed can be adjustable before test or during test. Adjust the speed displaying on "Speed display window" to what you need by adjusting the "Speed" button. As for test speed, please refer to the data in the spec form (Moving speed can be customized according to customer's requirement).

6.2.5 Pre-set Testing Times

The counter includes two parts. The upper is testing times (when power on, it shows the running times of last test), the lower is pre-set times. When applied in recycle test, set the value of each bit by using Moving space button, set the required counter value by Add button and Reduce button. Zero buttons is used for clean zero of the test times. Besides, single cycle times are better controlled within 2 hours, which aims to protect the machine and use it properly.

6.2.6 RS-232 Introduction(Available for Equipping SH, SP Series Force Gauge)

Test Stand connects to outside equipment through the RS-232 output. The test stand are connected to the computer by RS-232, installing the Sauter software (optional AFH-FD/FAST) software from the CD to control up and down, stop function of the test stand. Connecting the instrument port to Sauter force gauge series push pull force gauge, it has the possibility to overload protection; it can also record the force value curve.

Due to the inertia of the machine, the force value displaying on the force gauge will overload when the test stops automatically. The value of the overload will change from the rigidity of the testing material. You can choose a appropriate low testing speed, or reduce the stopping value appropriately.

7 Limit Function

Under M (Manual) test mode, moving plate (down slide carriage) touch up limit or low limit, tester will stop. Under A(auto) test mode, moving plate (down slide carriage) touch up limit or low limit, it will stop 3-5 second then move in opposite direction. Only add up 1 time when the moving plate touches up limit. You should adjust the up limit and low limit distance when you test due to install the force gauge, clamp, test material , so it can avoid could not touch up or low limit not in time. If the moving plate couldn’t touch the limit in time may be let test failure or it will happen an accident.

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Konformitätserklärung

Declaration of conformity for apparatus with CE mark
Konformitätserklärung für Geräte mit CE-Zeichen
Déclaration de conformité pour appareils portant la marque CE
Declaración de conformidad para aparatos con marca CE
Dichiarazione di conformità per apparecchi contrassegnati con la marcatura CE

English	We hereby declare that the product to which this declaration refers conforms to the following standards.
Deutsch	Wir erklären hiermit, dass das Produkt, auf das sich diese Erklärung bezieht, mit den nachstehenden Normen übereinstimmt.
Français	Nous déclarons avec cela responsabilité que le produit, auquel se rapporte la présente déclaration, est conforme aux normes citées ci-après.
Español	Manifestamos en la presente que el producto al que se refiere esta declaración está de acuerdo con las normas siguientes
Italiano	Dichiariamo con ciò che il prodotto al quale la presente dichiarazione si riferisce è conforme alle norme di seguito citate.

TEST STAND: SAUTER TVM, TVM-N, TVO

Mark applied	EU Directives	Standards
CE		EN 61326:1998+A1:1998+A2:2001

Date: 15.09.2011

Signature:

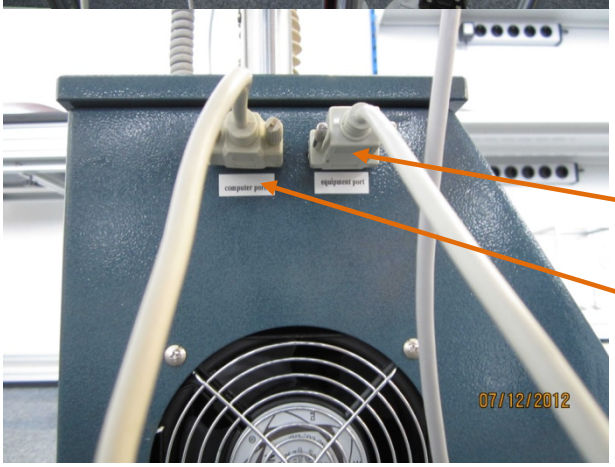
SAUTER GmbH
Management

Cabling TVM and Sauter Force gauge

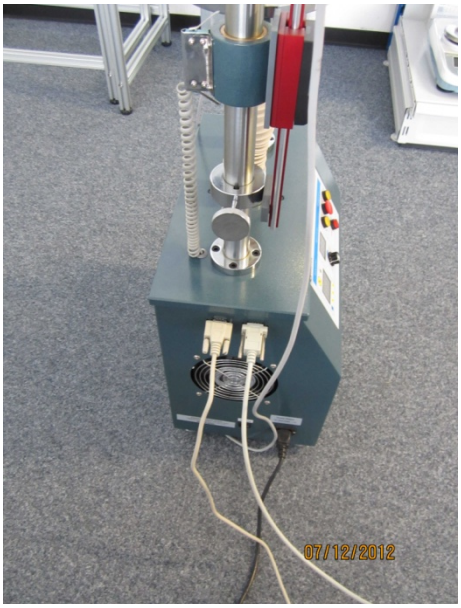
(in this example with the FH the other compatible Gauges of the FL series are similar)

View from the Top.
FH with FH-A01. Put one plug into the socket of the FH the other into the "Equipment port " of the TVM

Put in the plug from the loadzell into the socket at the FH



The ports of the TVM.
Put in the cable from the FH into the right socket (Equipment)
Put the cable for connection to the PC (computer port) into the left socket(for exp. AFH 12)



Connecting the length meter put the plug in the socket of the length meter and connect the other end with your pc. (depending on ordered length meter)
cable for exp. AFH 14

If all is connected
switch on the pc, switch on the components and start the software.
Be sure you known the chosen COM port of your system and compare them with the predefined entries in the software. If needed, change them to the right one.