

UTM AUTOMATIC TEST MACHINE

101-S0060-050

MatCivTest

MATERIAL CIVIL TEST EQUIPMENT

101-S0060-050

AUTOMATIC 50kN UTM TEST MACHINE Suitable for CBR, Marshall, UCS, Simple triaxial, IDEAL CT, DEAL RT, Cements, Grout, Mortars and other standards

STANDARDS: AS 1289, AS 2341, EN 12697-34, 12697-23, 12697-12, ASTM D6927, D5581, D1559, AASHTO T245, BS 598:107, NF P98-251-2,

Load Measurement: Load, measurement and control with Load Cell that can be applied between 2% to 100% of Capacity as class 1 or better accuracy according to the EN-ISO-7500-1 standard.

Displacement Measurement: the device has a LVDT with measuring length is 25 mm and accuracy as 0.01 mm. for displacement measurement.

Servo electromechanical Drive system: It has precise stepper motor drive mechanism. It can perform precise loads with closed-loop control with mechanic precision gear stepper motor system.

Control Unit: Control unit of machine is advanced controller, control unit allows:

- Loading, unloading
 - Constant load increase adjustable between 0.05 kN/Sec – 25kN/Sec
 - Displacement increase adjustable 0,001 mm/min - 60 mm/min,
 - Mechanical piston release load automatically at sample break, for simple strength test
 - Ramp loading
 - Holding load constant
 - Sinusoidal waveform with Loading and Unloading Control.
 - 1kHz data acquisition and control capability which allows accuracy in control and reading load,
 - Special close loop (PID) control with double loop, automatic gain feature for different sensors, automatic calibration function.
 - The electronic control unit has 8 channels (4 digital and 4 analogue).
- System is supplied with an industrial 10 inch LCD screen (with a high durability to work up to 70 degrees/ -20 degrees C).
The system can be used in "Stand alone Mode" using the built in 10" LCD screen or by connection to a PC driven from the PC

Dynamic and Static Tests can be carried out on computer the Universal Testing Software.

Real time data, test graphs and results can be observed on software.

Results and graphs can be saved on computer and printed. User can personalize the software and report format according to company/corporation etc. Universal Testing Software is compatible with Windows. Universal Testing Software provides solutions to all type of test applications



CBR



Marshall



Mortar Cube

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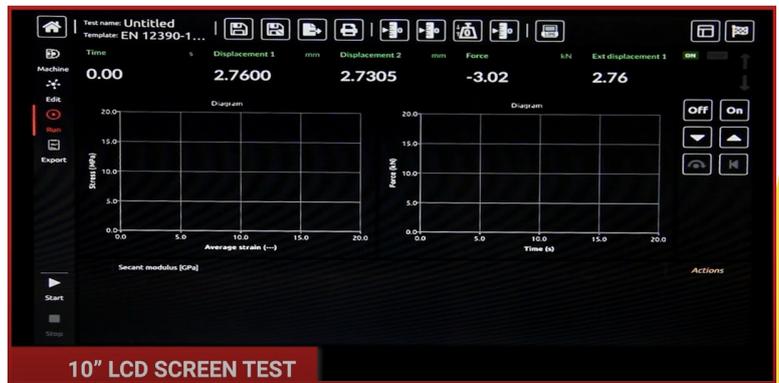


Control system features

Machine Interface

The control system is easy to use with its user-friendly interface and is compatible with all Sensor devices.

10.1 inch touch panel as standard and other options available. Provided with special Universal testing software installed and templates enable test run in a few simple touches.

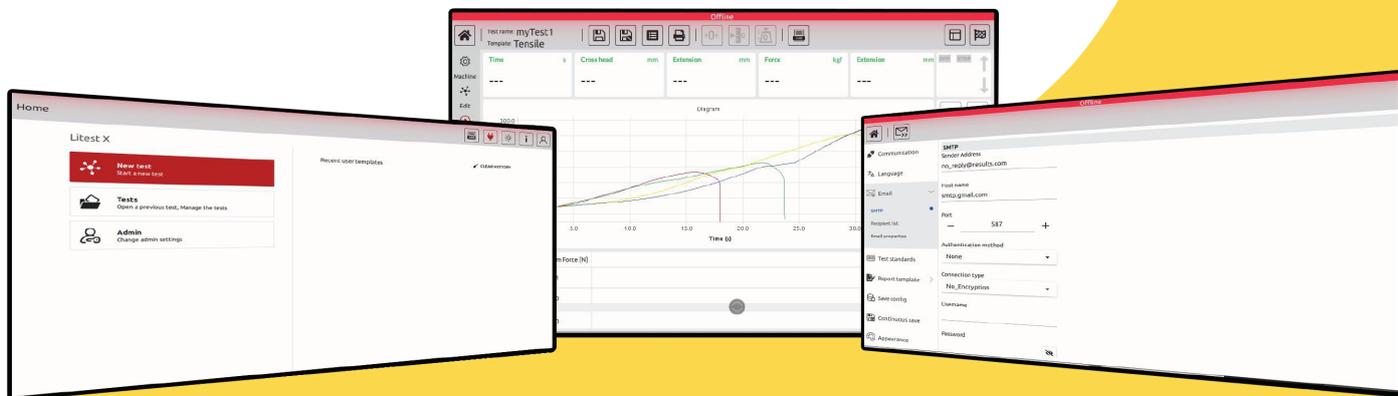


PC Interface

The machine can directly Interface to a PC using USB

The system can be driven from the PC using the advanced software provided.

The images Below are from a PC controlling the machine

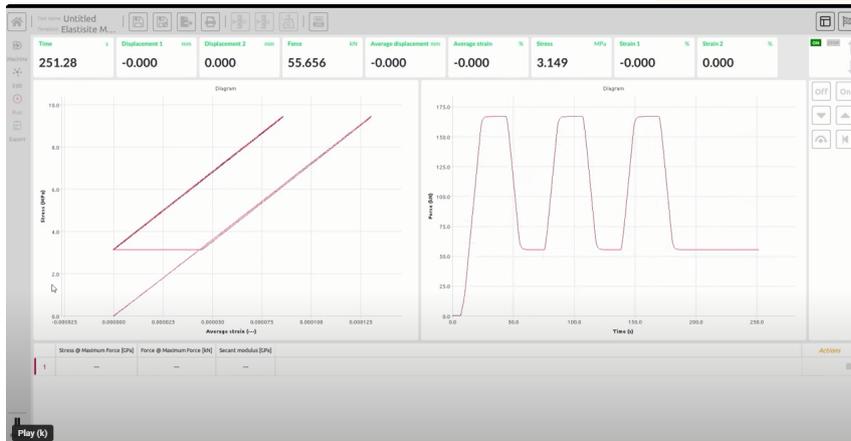


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Control System Specification

Universal digital measurement and control electronics for testing machines

- Analog input amplifier with DC supply and 24-Bit resolution
- Test frequency up to 100 Hz
- Measurement and control frequency up to 1 kHz
- Configuration, calibration and control tuning with PC software
- Suitable for all kind of static and dynamic testing
- 3 channels independent incremental digital sensors
- 4 separated fully differential analogue channels
- Analog amplifier Input range: +/- 5 mV to +/- 10 V
- Adjustable filter time with up to 1000ms @ 1 ms system time
- Operating unit remote-control based on RS-485 communication
- Safety emergency system
- 8 channels logical sensors with SI units
- 8 channels controller parameters
- 8 channels linearization each channel up to 12-points
- 4 channels calculated sensors
- 16 channels Universal digital IO
- Control IO feature with selectable functions
- Synchronous Serial Interface input
- ± 10 V analog and digital command output
- Serial interface for external electronics • Monitoring of safety relevant drive signals
- Support of position limit switches
- Grip control feature
- Supply and monitor of drive control signals
- Ethernet and USB communication
- Firmware updating capability

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UTM AUTOMATIC TEST MACHINE

101-S0060-Accessories

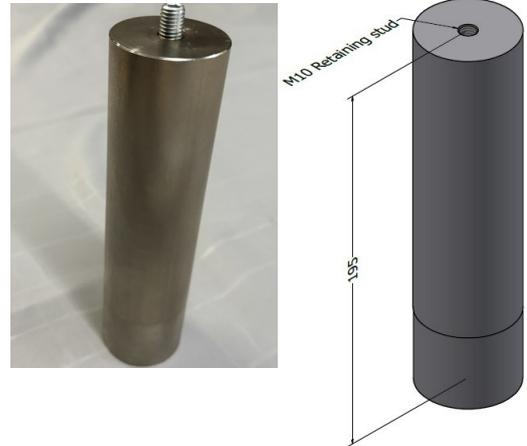
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MATERIAL CIVIL TEST EQUIPMENT

101-S0060-811

PISTON - CBR Ø 50 AS1289

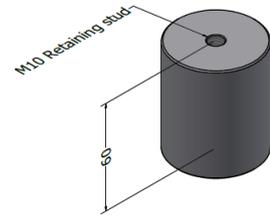
Complying piston total length 195mm



101-S0060-812

PISTON - MARSHALL

Short Piston for use with Asphalts tools total length 60mm



101-S0060-813

PISTON - UCS PLATEN BALL SOCKET TYPE

Supplied with:

-Upper Spherically seated 100mm dia Platen and mounting piston with M10 mounting stud

---The diameter of the spherical seat is 80mm.

---The centre of the sphere in the spherical seat shall coincide with that of the bearing face of the specimen.

---The movable portion of the platen is held closely in the spherical seat,

-Lower platen 100mm dia

---with specimen cantering grooves on the platen face

---10mm dia hole on the underside for spigot location to the load frame

Both Platens are hardened and ground to 55HRC

