

COMPRESSION MACHINE 2000KN

WALL TYPE WELDED-HIGH END

101-C0062-20

MatCivTest

MATERIAL CIVIL TEST EQUIPMENT

COMPRESSION MACHINE 2000KN

Wall type Welded frame design

Standard BS 1610, ASTM C39, NF P18-411, AASH-TO T22, GOST 10180-2012

50mm piston stroke,
Upper platen spherically seated to allow an inclination of 3°, Hardened 56HRC and fine ground machined.

cube samples (150x150x150mm,
200x200x200mm)

cylinder samples (100x200mm, 150x300mm)

Maximum daylight is 330mm between platens
Distance Pieces used for smaller specimens.

Software includes Elastic Modulus and Poisson's ratio and Cyclic loading control.

The load measurement and control: is carried out between 4% and 100% of the capacity with class 1.

Control Unit Features: is "Sematron Touch Series V4" advanced controller:



Loading, unloading, load control, deformation control, constant load increase adjustable between 0.5 kN/Sec – 25 kN/Sec, or mm/min up to 0.1 micron pace rates (requires additional sensors).

Piston release load automatically at sample break, for simple strength test – ramp loading, 24bit - 1kHz data acquisition and control capability.

The amplifier includes

4 channels for independent incremental digital sensors and 4 separated fully differential analogue channels. 8 channels for logical sensors with SI units, 8 channels for controller parameters.

(PID) control with double loop, automatic gain feature for different sensors, automatic calibration function, extra channel for a 2nd load sensor.

Display Unit: 10 inch touch screen LCD.

Built-in software, 4 GB (extendable) internal memory to save test graphics and settings

USB/LAN port to transfer results and connect with internet and PC.

Save results in pdf and excel format, print result, feature directly from Machine – feasible to attach all HP printers also allows mini printer (optional), Email results directly from Machine

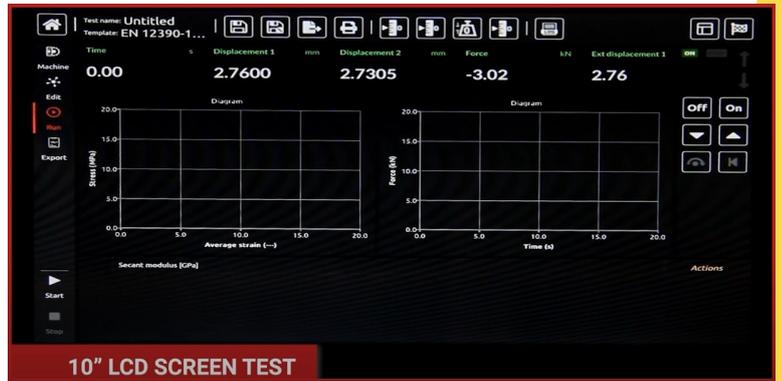
PC Software: supplied which allows controlling machine with computer, PC software allows same features and menus as Machines display.

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.

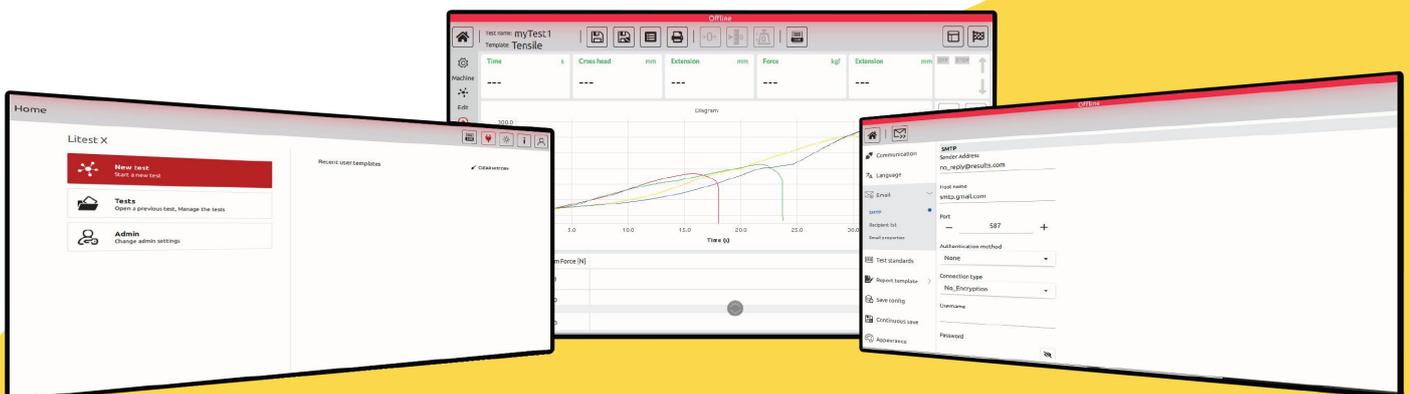


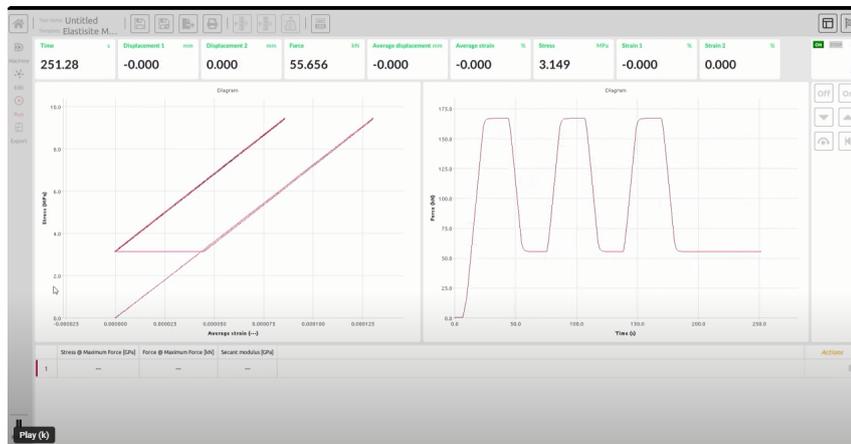
PC Interface

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





Control System Specification

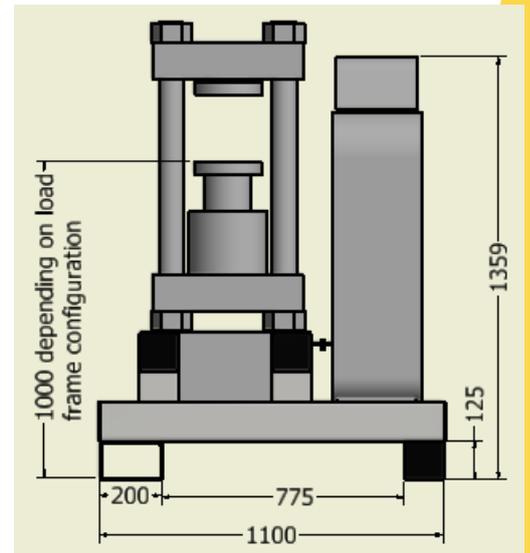
Universal digital measurement and control electronics for testing machines

- 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

101-0591H-01-KIT

COMPRESSION MACHINE LOAD FRAME BASE

- Working height of the lower Platen is just over 1m to reduce bending and back strain
- Fork lift tyne slot on left ensuring load will be stable when lifting
- For easy cleaning
 - ⇒ All pipe end openings are sealed with caps
 - ⇒ 2.5 mm plate covers all surface openings
 - ⇒ Base rail 125mm from ground to allow broom access under frame
- Compression machine is bolted to the Base frame for safe transport
- Frame will be Hot Dipped Galvanised



Frame Base shown here being used on a system upgrade on various different load frames such as Matest , ELE, Controls etc

