AUTOMAX MULTITEST COMPUTERIZED CONTROL CONSOLE

AUTOMAX Multitest represents a step change in versatility that allows modular upgrades from basic failure tests up to advanced displacement controlled tests.

The system in fact offers step-by-step flexibility to build your testing system to cover possible future testing needs.
The console is supplied with DATAMANAGER software for standard failure tests to EN and ASTM, but with additional frames, accessories and dedicated software packages, your system can easily perform many tests including:

- Modulus of Elasticity and Poisson Ratio determinations (with optional software package 82-SW/EM)
- Tension on steel rebar (with optional software package 82-SW/UTS)
- Displacement controlled tests for FRC/Shotcrete characterization (with optional software package 82-SW/DC)

See Accessories

AUTOMAX MULTITEST COMPUTERIZED CONTROL CONSOLE

SPECIFICATION

Hydraulics

- Dual stage pump: centrifugal low pressure for fast approach and automatic switching to radial multi-piston high pressure for loading
- DC motor. 720 W, 50-60 Hz
- Maximum working pressure 650 bar
- Third and fourth frame option, active frame selection by software
- Flow-sharing technology to perform loading and unloading cycles
- ES Energy Saving technology to reduce power consumption and silent operation

Hardware

- 131.000 points effective resolution
- High frequency closed-loop P.I.D. control
- Control frequency 500 Hz
- Sampling rate 250 Hz
- 4 channels for load sensors (pressure transducers and load cells)
- 6 channels to measure strain values with transducers (LVDT, magnetostrictive, potentiometetric)
- 4 channels for strain measurement with strain gauges
- Memorization of the calibration curve enables sensors to be connected and used immediately
- Digital linearization of the calibration curve (multi-coefficient)

PC and software

Main software MULTITEST allows:

- Remote control of the whole system and automatic execution of test including: fast approaching, zeroing, test execution, numerical and graphical management of test results, etc.
- Active frame selection via software
- Printing and saving of customized test reports both for single and batch tests in Excel format
- Multi-language selection, customizable with a further local language (only latin characters).
- Automatic load measurement verification procedure including data acquisition and printing of traceable calibration certificates, when the PC is connected to the digital readout unit mod. 82-P0801/E and the suitable load cells
- the use of 4 software packages each one tailored for a specific test method

DATAMANAGER software package (included) for compression, indirect tensile, 3 points and 4 points flexural tests on different types of specimens

E-MODULE software package (optional, see Accessories) for Elastic modulus and Poisson ratio determination allowing:

- Free unlimited programmable load/stress cycles to fulfill any kind of test procedure
- Real time monitoring of test data, stress/time, stress/axial strain, stress/lateral strain graphs
- Automatic verification of sample positioning and sensors functionality, as per standards requirements
- Automatic calculation of test results as per Standards requirements

UTS software package (optional, see Accessories) for steel tensile testing allowing:

- Test control up to yield by:
  - Stress (method B)
  - Strain by using extensometer (method A1)
  - Strain by using crosshead (method A2)
- Control after yield by grips' separation
- Simultaneous display of: stress/elongation [mm], stress/time; stress/elongation [%] and elongation [mm]/time, with possibility to display multi diagrams
- Elaboration of tension test results: ReH, ReL or Rp, fp, Rt, A, At, Ag, Agt, A, At, Ae, E, Z , ft/fy, fy/fynom conforming to EN ISO 6892-1 (methods A1, A2, B) and EN 15630-1

D-Control software package (optional, see Accessories) for displacement controlled tests allowing:

- Automatic calculation of test results according to EN 14651, 14488-3, 14488-5, UNI 11039-2, ASTM C1550, C1609, C947, UNE 83515
- 8 test pre-set testing procedures according to the above Standards
- Customizable test procedure allowing desired loading history
- Possibility to change in real time the test parameters: target load/displacement, control variable, test speed.

Physical specifications

Power rating: 700 W

Dimensions (d x w x h): 650 x 500 x 1350 mm

Weight approx.: 100 kg

STANDARDS

- EN 13398
- EN 12390-4
- ASTM C39
- ASTM C469
- ISO 6784
- DIN 1048
- UNI 6556
- BS 1924:1
- EN 14488-3
- EN 14488-5
- EN 14651
- ASTM C1550
- EN 1338
- EN 12390-13

FEATURES

- **Suitable for any kind of test** from basic failure tests (compression, flexure, splitting, tension) through cyclic tests for elastic modulus and poisson ratio determination up to advanced displacement controlled tests
- **Suitable for any type of sample**, can be connected up to 4 frames ranging from 15 kN up to 5000 kN in compression and 500 kN in tension
- **Suitable for any budget**: the machine can be upgraded in step-by-step investments by adding suitable testing frames, accessories and dedicated software packages
- **Suitable for any user:** 4 easy-to-use software packages available, each one tailored for a specific test method, guiding the operator through all the test phases
- **Test cycle with closed loop PID control automatically performed by pressing the start button via PC**
- **DC-driven variable speed pump for silent operation, energy saving and highly accurate drop-by-drop oil flow for precise control during complex tests**
- **500 Hz high control frequency for optimum oil pressure adjustment during critical tests**
- **Double frame control, expandable to four, with active frame selection via software**
- **Soft platen-to-specimen contact and smooth load rate control from very beginning of the ramp**

ACCESSORIES

50-SW/DC

D-Control software package for energy absorption, displacement/strain controlled tests.

50-SW/EM

E-MODULE software package for Elastic modulus and Poisson ratio determination.

50-SW/UTS

UTS software package for rebars tensile testing.

50-C10D/3F

Third frame facility for AUTOMAX series. Frame selection via display/PC.

50-C20E/4F

Fourth frame facility for AUTOMAX Multitest e and AUOTMAX PRO series. Frame selection via PC.

50-D0630/24K

24000 g cap. x 0.1 g resolution, digital balance. Compatible with Link-LAB laboratory connectivity package. 230V/50-60Hz/1ph

50-D1650/200K

Digital caliper 200 mm x 0.01 mm. Compatible with Link-LAB laboratory connectivity package KLAB/E

50-D1950/K

Barcode reader. Compatible with Link-LAB laboratory connectivity package.

50-KLAB/E

LinK-LAB Enterprise laboratory connectivity package for machines controlled by PC via DATAMANAGER Software.

50-D1650/K1

Kit for caliper model 50-D1650/xxK including Bluetooth emitter, USB dongle receiver and 1.5m extension cable.Compatible with machines controlled by PC via DATAMANAGER software.

50-D1650/300K

Digital caliper 300 mm x 0.01 mm. Compatible with Link-LAB laboratory connectivity package KLAB/E

50-D1650/K2

Connection cable for digital caliper 50-D1650/xxxK

ORDERING CODE

50-C20M82

AUTOMAX MULTITEST computerized control console forup to 2 frames (expandable up to 4) capable to perform the following tests: - compression, flexure, indirect tensile strength (sofware module included); - Elastic modulus and Poisson ratio determinati...

50-C20M84

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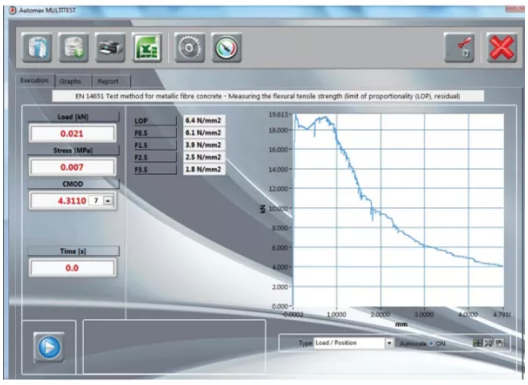
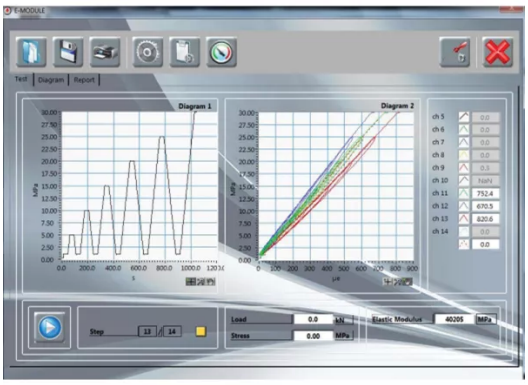
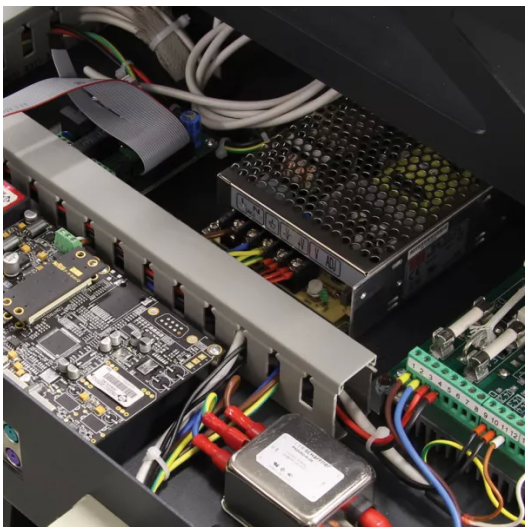
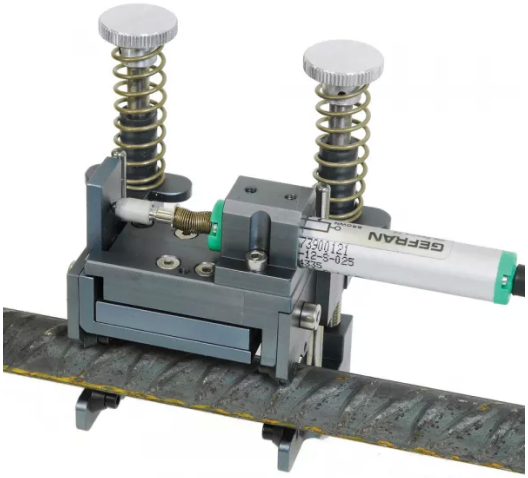




CONTROLS
AUTOMAX

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