

Product Name :
Automatic Digital Compression Testing Machine

Product Code :
CON-0002



Description :

Automatic Digital Compression Testing Machine

Technical Specification :

The automatic range of 3000 kn capacity Automatic digital compression testing machine has been designed to meet the need for reliable and consistent testing of concrete samples.

All test machines feature the complete automatic test cycle with a closed loop digital readout.

Once the specimen parameters have been introduced, it is sufficient to press the start button to complete the test.

Automatic digital compression testing machine consist of their main parts: frame, power pack and data acquisition & control system.

Each part has been designed to manufacture machines with a high degree of mechanical stability and complies to EN 12390-4, BS 1881 and ASTM C39 (with suitable platen set)

Automatic test cycle with standard rapid approach

Graphical – LCD data acquisition and control system

Menu driven software for easy operation

Load vs time plot and instantaneous load rate displayed

Accurate load rate control within ± 5 from 1 kN/sec to 20 kN /sec

Class 1 starting from % 10 of the full range

Ready stress calculation for the standards of EN 12390-3, EN 12390-5, EN 12390-6, En 1338, EN 1340, EN 196 SI, Metric, Imperial units

Data storage up to 256 tests

RS 232 output for printer or PC

Free of charge PC software for test control and advanced report printout

Automatic compression testing machine

Frame:

The Automatic digital compression testing machine load frame is a welded steel fabrication carrying the ball-seated upper platen.

Positively located on the loading ram which is protected from debris by a cover, the lower platen is marked for the centering of cube and cylinder specimens.

The dimensions of the frame allow the testing of concrete cylinders up to 320 mm long x 160 mm diameter; 100, 150 mm cubes.

All machines are supplied complete with 30 mm, 50mm and 90 mm distance pieces.

To test samples shorter than 150 mm extra distance pieces should be ordered.

All machines are supplied with flexi glass front and rear removable safety doors.

All frames have a single acting upstroking ram with over travel protection to stop the motor when the maximum platen travel be reached.

The Main Characteristics are:

High stability welded assembly

Distance pieces and safety door included

Ball seating assembly and frame tested for stability

50 mm piston stroke with safety limit switch

Platen hardness of min 55 HRC

Data Acquisition And Control System:

Lcd graphics data acquisition and controls system is designed to control the Automatic digital compression testing machine and processing of data from load cells or pressure transducers installed on the compression machine frame.

Contained in light alloy housing and its design satisfies the ergonomic requirements for various use.

The digital graphic display allows real time load vs time graph.

The easy to read lcd graphic display and touch-button data pad keys make the unit quick and straight forward to operate.

All interactions with the measuring system are via the front control panel by using simple menu-driven procedures.

At the end of the test cycle, the results can be stored in the large memory or downloaded to a PC in Labtest software format.

Dedicated software package is available for further online data processing, database management and certificate printing.

The Main Characteristics are:

High resolution 65.000 points

240 x 120 pixel blue-white graphic lcd display

Standalone full automatic testing capacity

CPU card by microprocessor 32 bit arm risk architecture

Can make manual tests if required

A sample type and dimensions can be entered respect to the standard

18 key touch membrane keyboard

Easy to operate with 6 main function keys

Large permanent memory up to 256 test results

Rs232c (optional ethernet) connection at 57600 band

One RS232 serial port for connecting either PC or printer for data transmission

Two analogical channels, use for load cell or pressure transduce

Language select: English

Can control two frames (Compression & Flexural)

Power Pack:

Dual stage power pack which is controlled by is designed to supply required oil to the frames.

Very silent Power pack can load a specimen between 1 kn/ sec to 20 kN/sec.

On the dual stage pump high delivery low pressure pump is used for rapid approach and low delivery high pressure radial piston pump is used for test execution.

On all power packs maximum pressure valve is used to avoid machine overloading.

The Main Characteristics are:

Dual stage pump

750 W power

25 liter oil capacity

60-100 mm/min fast approach speed

Safety Features:

All Automatic digital compression testing machine are fitted with:

Max pressure valve to avoid machine overloading

Ram travel switch to prevent excessive piston travel

Front and rear gates with transparent durable flexiglass

Emergency stop button

Software controlled maximum load value

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