

**Product Name :**  
Automatic Digital Compression Testing Machine

**Product Code :**  
ASTConcrete-0001



**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 lab 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 consists 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)

**Standards:**

- 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  $\pm 5$  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

**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
- 50 mm piston stroke with safety limit switch
- Platen hardness of min 55 HRC
- Distance pieces and safety door included
- Ball seating assembly and frame tested for stability

**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. 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. The bc100 is contained in light alloy housing and its design satisfies the ergonomic requirements for various use. The bc100 digital graphic display allows real time load vs time graph. 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
- 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
- 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
- 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

Capacity
Standard
713.2 roughness value for texture of loading and auxiliary platens
300mm platens dimensions (dia.)
300mm platens dimensions (dia.)
340mm vertical clearance between platens
260mm diameter
50mm maximum piston movement
300mm horizontal clearance
750W
20l capacity
Max Bar working pressure
810x590x970 (W x L x H) (mm)
Yes



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