

Product Name :
Computer Controlled Servo Hydraulic Compression Testing Machine

Product Code :
TEST5061RFQLAB-0009



Description :

Computer Controlled Servo Hydraulic Compression Testing Machine (Both Load & Displacement Controlled)

Technical Specification :

Automatic Servo controlled Compression Testing Machine is capable of conducting compression tests on concrete specimens and allied products. These compression testing machines are state of the art machines based on the principal of CLOSE LOOP. The system can be loaded in load, displacement or strain control basis. The system accuracy is better than $\pm 1\%$. A special type of 4 piece oil filled spherical seating is provided conforming to IS 14858-2000.

The system has an arrangement for automatic pacing system, which is achieved by the combination of advance hydraulic and electronic system. Control signal from the electronic system is passed on to the servo valve through P.I.D. Controller which in turns control the flow to the hydraulic ram thereby keeping the pace rate within permissible limit of the pre programmed value.

NOTE: The machine is supplied with windows based user friendly for Data acquisition and analysis. It has the features for on line graphical presentation in addition to the numerical test results.

Salient Features:

Conforming to Testing Procedures laid down in various national and international standards for building material/ concrete specimen

Suitable for static and low frequency dynamic tests on rock, concrete and other building materials.

Based on SERVO HYDRAULIC CLOSED LOOP FEEDBACK control mechanism

Capable to control multiple frames (up to 4 from same hydraulic power pack)

Fully Computer Controlled operation with User friendly Software
Controlling on Load or Displacement or user supplied strain gage (quarter Bridge) or External displacement sensors as mounted on specimen
High stiffness compression loading frame
High speed Data Acquisition card with 100 kHz sampling rate
Programmable Rate of Loading (Pace Rate) in all control modes, including user input file for loading/hold/unloading applications
Facility to change the parameter like rate of load or rate of displacement without stopping and restarting during testing
Facility for setup and execution of monotonic, cyclic and user defined test procedures
8 Additional input channels for external transducers such as load cell, pressure transducer, LVDT etc. and the same can be used for controlling also
Windows based user friendly Application Software for controlling and data acquisition
Start, Stop, Hold operation through computer
Inching/Release operation to set Sample
Auto release facility after specimen failure
Facility in the software to study Post failure behaviors of specimens
Online Plotting of Graphs (Load v/s Displacement, Load v/s Time, Displacement v/s Time) with display of data
Advance Statistical Analysis
Safety Limits for Over Load, over travel etc.

The system has following main components-

Loading Frame

Hydraulic Power Pack

PC Based Control System and Application Software

Additional Accessories



Testing lab instruments India