

Product Name :
Servo Hydraulic Compression Loading Testing Machines

Product Code :
TEST5044RFQLAB-0003



Description :

Servo Hydraulic Compression Loading Testing Machines with Stress and Strain Controlled Loading

Technical Specification :

Load frame is steel welded fabricated. It is designed to withstand a few million times of full cycles of loading without any sign of distortion or fatigue. These frames are light in weight. The base carries a fine finished hydraulic ram and the lower platen. The top plate has the spherical seating to take care of any irregularity of the specimen surface or slight misplacement of the specimen from the central position. Front cover is provided, made of acrylic sheet, as a protection to the operator while at the same time giving an unobstructive view of the specimen under test.

Pumping Unit

Pumping Unit is kept on the left hand side of the loading unit. It is a multi plunger pump submerged in the tank and is powered by suitable capacity electric motor. Operating on 440 Volts, 50 Hz A.C. supply. (Other voltages optional).

It 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 high speed proportional valve, (closed loop system) as shown in the figure which in turn controls the flow of oil into the the pacing rate constant irrespective of any change that occurs in the specimen during the process of testing. Pacing rate is set on strain or stress basis. All the set parameters are entered through computer. The machine is very simple to operate. Load is automatically released after the peak value is achieved.

Salient Features of Software-

Controlling and On-line Data Acquisition to PC through user friendly software and Statistical Analysis of the results obtained.

Windows based user friendly software with easy user interface

Programmable sample parameters and rate of loading (Pace Rate)

Inching (Rapid Approach)/Release operation

Computer/Software programmable Safety Limits for Load & Displacement

Independent Taring of each channel

Auto release/Auto shut down of system facility after sample failure

To see the Post Failure Behavior of the specimen

Programmable Data Saving Interval

Facility to hold machine and restart the loading during the test.

Online display of numerical values of Load and Displacement simultaneously

Online plotting of data of Load v/s Time, Displacement v/s time and Load v/s Displacement graphs

Real time clock for tracking date, time and runs

Facility to save test data along with order information about the specimen such as age, specimen no., size, dimensions etc. in user defined file/directory

Analysis Software

Plotting of following graphs

Load v/s Time

Displacement v/s Time

Load v/s Displacement

Stress v/s Strain

Calculation of various results (Maximum strain, Compressive Strength, Flexural Strength etc.)

Facility to plot the data for a selected run

Comparative analysis using multi graphs

Statistical analysis of the test results

Batch Summary Report

Detailed Summary Report

Advance Statistical Analysis

Facility to print Test Reports

Facility to Export Data to MS Excel



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