

Product Name :
Digital Direct Shear Apparatus

Product Code :
CHINAELABC2690141



Description :

Direct Shear Apparatus - Digital Direct Shear Apparatus

Technical Specification :

This unit except that it can accommodate sample size of 300*300*150 mm. Servomotor can create power to give a shearing load of 50kN. Additional Stepper motor is provided for normal stress. This stepper motor can create a maximum stress of 5kg/sqcm. Total controlling is through the computer. Parameters like shearing load, vertical strain and horizontal strain is shown on the monitor.

Operation is based on the close loop Principle the specimen to be sheared can be loaded either on strain basis or stress basis.

Selection of this mode has to be made at the beginning of the test. Maximum strain rate that can be achieved is 9.9999mm/min where as the minimum strain rate could be programmed as low as 0.0001mm/min.

Loading System

For Horizontal strain controlled through micro stepper motor:

Rate of strain : 0.0001-9.9999mm/min.

Load range capacity : $\pm 50\text{kN}$

Displacement range : $\pm 50\text{mm}$

For Vertical Consolidation:

Capacity : 5kg/cm²

Range : 0-20 mm

Electronic Sensors

Load cell Universal type : 50kN

Displacement sensor horizontal : $\pm 50\text{mm}$
Displacement sensor vertical : $\pm 50\text{mm}$

Salient Features of software and graphical plots

It is supported by user-friendly windows based software for graphical plotting and numerical tabulations.

Horizontal displacement vs. Vertical displacement

Normal stress vs. Shear stress

Displays maximum value of dilation angle along with c and ϕ values.



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