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Product Name :
Digital Triaxial Shear Test Apparatus

Product Code :
LBNY-0005-20200012



Description :

Once the specimen is assembled in the triaxial cell, required parameters like strain rate, confining pressure and back pressure are programmed through the computer. Digital Triaxial is totally automated stress path system for soils and conforms to the test requirements of All the modules namely load frame, confining pressure, back pressure, pore pressure or volume change are totally controlled by the dedicated computer.

Controlling and data acquisition is supported by window based software. which can perform tests under the following conditions:

- Shear in UC, UU, CU, CU & CD
- Stress path triaxial test
- K0 consolidation and swelling test.

Technical Specification :

Capacity of the load frame : 50 kN
Rate of strain: 0.00001 - 9.9999 mm/min
Load Frame

It is a two-pillar type load frame that can accommodate triaxial cell up to 100mm dia specimen. Rate of strain is precisely controlled through micro stepper motor of fractional horsepower operating at 220volts, 50 Hz single phase supply (other voltages optional).

Tri axial Cells

Selection could be made from wide range of triaxial cells, they are light weight cells. Transfer bar (loading ram) passes through linear bearing making it almost friction free. Base has four no-volume change valves one each for back pressure/pore pressure, confining pressure and top drainage.

Travel : 100 mm Limit switches and L.E.D are incorporated in the hardware to arrest the travel limits and also to

indicate the direction of movement (up/down).

Pressure Controller For Confining Pressure

A micro stepper motor runs pressure controller and the controlling is done through computer. Sensitivity of controlling is within +10 kPa. Volume displacement in one filling is approximately 300 c.c. Sensing of pressure is through sensitive pressure sensor.

Pressure range : 1700 kPa

Controlling accuracy : +10 kPa

Volume capacity : 300 cc

Sensors

Force Sensor Load cell capacity: 10kN

Displacement Sensor Range : + 20mm

Pressure Sensor Range : 2000 kPa

Computer

Pentium IV - 3.0Ghz or higher 512MB RAM, 80 GB HDD, CD writer, Standard Keyboard , Scroll Mouse, Color Monitor, DeskJet/ Laser Printer.



Laboratory Instrument India