

Model: EKE-0550

ROCK TRIAXIAL TESTING SYSTEM



ENKAY



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Rock Servo static Triaxial testing system for rock sample with data acquisition and analysis software. Compression Loading Frame 2000 KN Capacity with Electrical Pumping unit and digital indicator controller.

Compression Loading Frame:

- ☑ Capacity : 2000KN
- ☑ Resolution : 0.1KN
- ☑ Clearance between upper and lower platens : 320 mm
- ☑ Distance between side plates : 220mm
- ☑ Platen size. (diameter) : More than 200 mm.
- ☑ Ram stroke : 60mm
- ☑ Suitable for sample sizes (cylinder) : EX, AX, BX, NX
- ☑ Oil Seal : Teflon

Electrical Pumping Unit:

- ☑ 1 HP, single phase, 220V AC motor driven two-speed hydraulic pump
- ☑ Automatic, precise control over the load application
- ☑ Strain gauge-based pressure transducer

Digital Indicator Controller:

- ☑ Automatic Pace Rate Control, Data Logging,
- ☑ Automatic Stress Determination
- ☑ 7" colour display to view Live load graph, Pace Deviation Bar Graph, Pace rate, Peak Load, Peak Stress, Unique Record number, etc.
- ☑ Peak Stress Calculation based on sample type and shape
- ☑ Configurable Engineering Unit for machine selection
- ☑ User can set break point
- ☑ Data Download through USB in ASCII format
- ☑ Data storage up to 2000 records
- ☑ Calibration can be done on 5 to 10 points
- ☑ Password protection for system & calibration setup

Features:

- ☑ Servo Automatic Loading rate control: Minimum (0.3kN/sec)
- ☑ Suitable for all rock specimens
- ☑ Accuracy: $\pm 1\%$ from 10% to 100% of the maximum capacity.
- ☑ Suitable for unconfined compression test
- ☑ Overload protection facility
- ☑ Auto close/ release dump valve
- ☑ Inbuilt SMPS to ensure constant input voltage to the Machine.

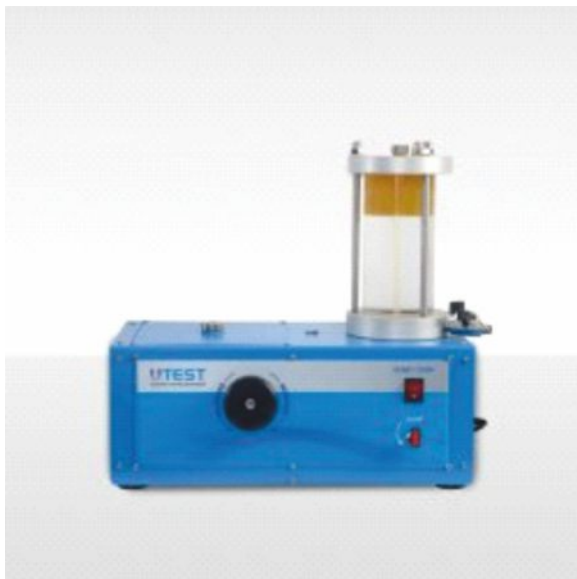
CONFINING PRESSURE FEATURES:

Digital Constant Pressure System:

- ☑ Oil pump : Driven by electric motor to maintain the desired pressure
- ☑ Range : 0-600 Kg/cm sq.
- ☑ Steps of Pressure : 1 Kg/cm sq.
- ☑ Accuracy : $\pm 1\%$ of indicated Load
- ☑ Suitable for operation on : 220V, 50 Hz, Single Phase, AC supply
- ☑ Controller : Controlled by knob

Triaxial Hoek Cell:

- ☑ Steel body having top and bottom caps screwed on to the main body.
- ☑ A urethane rubber sleeve incorporating U-shaped seals to form a pressurization chamber for the hydraulic fluid is mounted within the cell.
- ☑ Plunger & spherical seat - duly hardened & ground are provided for self- alignment & application of axial load.
- ☑ Supplied with the desired Size Hoek Cell.



Digital Constant Pressure System



Triaxial Hoek Cell

Data Acquisition System:

- 8 Channel data Acquisition system with software (1 for confining pressure and others for strain measurement)
- Robust, stand alone with 16-bit resolution and inbuilt LCD Display
- Keypad for data-logger configuration
- Configurable windows-based software
- Capable for displaying different parameters in different channels simultaneously
- Power supply 230 V 50 Hz
- RS 232 Communication
- Integrated with Digital indicator Controller

Data Analysis Software Features:

- User friendly software
- Project information and sample information management
- Manual data entry
- Save your data in specific project file for future use
- Open project file in application
- Print reports
- Automatic calculation
- Automatically draws graph
- Display Value of c & ϕ
- Display Value of Unconfined Compressive strength

Accessories (Supplied with Machine):

- Strain Gauges Disposal Type
- Urethane Rubber sleeves
- Desktop PC for Data Processing and Analysis with latest configuration: Intel Core i7 Processor (min. 3.2 GHz), Intel Series Chipset, 8 GB RAM, 1 GB Graphic Card, 512 GB SSD, 1 TB HDD, 23.5" LED Monitor with inbuilt speakers, and wireless keyboard-mouse
- Windows 11 Professional operating system
- 1 KVA UPS (Uninterrupted Power Supply unit)