

**Product Name :**  
Cyclic Cum Static Triaxial Test System

**Product Code :**  
CHINAELABC2690085



**Description :**

Cyclic Cum Static Triaxial Test System

**Technical Specification :**

The cyclic triaxial testing system is a highly advanced combination of hydraulic and pneumatic technology where  $s_1$  is applied through hydraulic system in dynamic tests and  $s_2$  &  $s_3$  are applied through pneumatic system. It is totally based on Close Loop principle. The processing of the pre-programmed signal and machine response signal in the P.I.D. Controller is at the speed of 10 KHz. This keeps the machine working within the limits of  $\pm 1\%$  of the programmed signal. Confining pressure & Back pressure are also controlled through computer and operates on close loop control mechanism.

The system is capable of performing following tests as per relevant standard ASTM/BS/AASHTO/IS etc.: Saturation, consolidation, UU, CU, CUBar, CD Triaxial tests with pore pressure and Volume change measurement, Isotropic and Anisotropic tests, Stress & Strain Path control tests, Liquefaction test, Stress Controlled Cyclic Triaxial strength of soils, Strain Controlled Cyclic Triaxial strength of soils, determination of modulus and damping properties of soils, Resilient Modulus of soils etc. (Optional-  $K_o$  consolidation tests & Bender Element tests)

**Salient Features**

Based on SERVO CONTROLLED HYDRAULIC CLOSED LOOP FEEDBACK mechanism

Conforming to stringent requirement as per the International norms (ASTM 3999 & ASTM 5311)

Fully Computer Controlled operation to control Axial Loading, Cell Pressure & Back pressure with User friendly Software

Stress / Strain Controlled Cycling from 0.01 Hz to 10 Hz with 128 data sets per second

Dynamic Loading Range  $\pm 50N$  to  $\pm 9kN$  (Higherloads on request)

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Suitable for Controlled Axial Loading in Stress/Strain basis in Static Triaxial testing to conduct UC, UU, CU, CUBar, CD tests

Facility to study Liquefaction behavior of soil

Digitally controlled Pressure Controllers for applying Confining and Back Pressure Range 10kPa –1000kPa (Standard)

Suitable Triaxial cell to accommodate Sample Sizes up to 100mm diameter x 200mm height and a Cell pressure of 1000kPa (Standard)

Online Plotting of Graphs ( Load v/s Displacement, Load v/s Time, Displacement v/s Time) with real time display of data

Advanced Analysis Software as per ASTM 3999 & 5311 for Cyclic testing and Routine Static Triaxial testing



**Engineering Lab China**