

STANDARD: BS 1377-7/1377-8/1924-2, ASTM D2850/D4767, AASH T296/T297

The Triaxial Testing System Apparatus is adopting the advanced technology. It is integrated the technology of mechanic, electronic, fully-automated control and sensor automated checking.

The device consists of Triaxial Loading Frame, Advanced Pressure Volume Controller (APVC), Triaxial Cell, various sensors, temperature control devices and AdvancedGeoLAB® software. The range of Triaxial Loading Frame has been designed to be used as part of computer controlled triaxial system or as a stand alone unit.

SOFTWARE TEST-CONTROL MODULES

Data Acquisition Module

Standard Saturation and Consolidation Module

B check

Saturation ramps of cell pressure and back pressure

Isotropic consolidation

Standard Triaxial Testing Module

Unconsolidated – undrained test (U-U test);

Consolidation – undrained test (C-U test);

Consolidation – drainage test (C-D test);

Post-processing module



TRIAXIAL LOAD FRAME

Triaxial Loading Frame has good rigidity, durability, low noise and smooth operation, adopts the stepper motor coupled with worn gear drive system to supply the power source. It is equipped with upper and lower limit device; the axial deformation is measured and collected by high-precision displacement sensor. Axial load is measure by force sensors. With overload protection device, when the axial force loaded is larger than the measuring range of the sensor, the machine will stops working automatically.



Model	TSZ-5T
Maximum Axial Force (Load Sensor)	50 kN
Chamber	Ø 38mm x76mm (H) & Ø 50mm x100mm (H)
Testing Speed Rate	0.00001 - 9.99999 mm/min
Precision	+/- 0.1% F.S.
Displacement Sensor Measuring Range	25mm with accuracy 0.01mm
Maximum Vertical Clearance	500mm
Horizontal Clearance	300mm
Platen Diameter	148mm
Power	110-240V, 50Hz
Dimension (mm)	580mm (L) x 380mm (W) x1140mm (H)
Weight(kg)	105

ADVANCE PRESSURE VOLUME CONTROLLER

2MPa/200cc confining pressure/ volume controller

- Connection via USB port
- Built-in 16 keys
- 192*64 LCD display
- Confining pressure: 2MPa, regulated and displayed to 1kPa
- Maximum volume change: 200cc, measured and displayed to 1cu.mm (0.001ml)
- Automatic protection to prevent over pressure and volume

2MPa/200cc back pressure/ volume controller

- Connection via USB port
- Built-in 16 keys
- 192*64 LCD display
- Back pressure: 2MPa, regulated and displayed to 1kPa
- Maximum volume change: 200cc, measured and displayed to 1cu.mm (0.001ml)
- Automatic protection to prevent over pressure and volume



TRIAXIAL CELL

It is mainly composed of base, middle ring, upper cover, side wall and loading rod, etc. It is connected by quick clamp rod, which is easy to disassemble. There are 3 drainage ports at the bottom for connecting hole pressure, confining pressure and back pressure.

Model	TPS-YLS50
Sample Size	50/70mm
Maximum Cell Pressure	2000 kPa
Dimensions	Ø 180 mm
Weight	12kg

CONFIGURATION

STANDARD VERSION

No.	Item	Quantity	Remarks
1	Triaxial load frame	1 set	Built-in 3-channel acquisition instrument
2	Triaxial cell	1 set	Suitable for 70mm and 50mm specimens
3	Pressure volume controller	1 set	For back pressure and confining pressure 2MPa/180CC
4	Load cell	1 set	Installation accessories included
5	Pore pressure sensor	1 set	Installation accessories included
6	Automatic water refill system	1 set	Including water tank, water pump, etc.
7	Software	1 set	AdvancedGeoLAB V3.11 UU-CU-CD test
8	High pressure pipe	6m	3.5MPa
9	Accessories	1 set	50mm and 70mm accessories each 1 set, including: Split mould, saturator, membrane stretcher, O ring placing tool each 1 set, latex membrane 5 pcs, seal O ring each 10 pcs.

PREMIUM VERSION

No.	Item	Quantity	Remarks
1	Triaxial load frame	1 set	Built-in 3-channel acquisition instrument
2	Triaxial cell	1 set	Suitable for 100mm, 70mm and 50mm specimens
3	Pressure volume controller	1 set	For back pressure and confining pressure 3MPa/260CC
4	Load cell	1 set	Installation accessories included
5	Pore pressure sensor	1 set	Installation accessories included
6	Automatic water refill system	1 set	Including water tank, water pump, etc.
7	Software	1 set	AdvancedGeoLAB V3.11 UU-CU-CD test
8	High pressure pipe	6m	3.5MPa
9	Accessories	1 set	50mm, 70mm and 100mm accessories each 1 set, including: Split mould, saturator, membrane stretcher, O ring placing tool each 1 set, latex membrane 5 pcs, seal O ring each 10 pcs.



SINCE 2006

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/ / O ring placing tool / water tank / water pump

latex membrane / O ring / porous stone / sample base / top cap / rubber suction bulb