

Soil Triaxial Cell (TRX)



- Stainless steel construction
- 1,000 kPa (150 psi) capacity
- Cells with 2,000 kPa capacity also available
- External cell wall (internal tie rods)
- Top and bottom drainage
- Stiff, low friction loading piston and graphite seal
- External or internal load cells and LVDT's
- Three standard triaxial cells for 70-mm, 100-mm, and 150-mm specimen diameters
- Available large-scale triaxial cells for testing specimens up to 1,000-mm (40") diameter

DESCRIPTION

The triaxial cell is constructed of stainless steel. The standard unit features a see-through Plexiglas external cell wall. The advantages of the external cell wall are that after the specimen is completely ready for a test, the cell wall is lowered over the cell and fastened into place with minimum disturbance to the test sample. All the standard triaxial cells can accommodate smaller diameter specimens using optional platens. These triaxial cells accept specimens with a length of 2 to 2.5 times the diameter.

Standard units comes with a set of top and bottom SS or anodized platens, porous stones, and all necessary O-rings. Reinforced metal rings are also standard with these cells. The ductility of metal rings offer and additional safety factor in case the acrylic cell wall is accidentally damaged. At the bottom of the cell are valves and quick disconnect fittings for top drainage/pore pressure, bottom drainage/pore pressure and chamber filling/emptying. Five bleed ports located at the high points are also provided to completely remove air bubbles remaining while filling the cell with water.

The loading piston diameter for the 70-mm cell is a 15.9 mm (5/8") SS shaft and 25.4 mm (1") for the 100-mm and 150 -mm cells, which is not easily bent. A stainless steel, extra precision ball bearing guides the loading shaft. Both, swivel loading buttons and rigid threaded connectors are provided with these cells. The swivel buttons allow the top cap to rotate during loading. The threaded adaptor is used for a rigid connection. A rigid connection imposes a different boundary condition forcing the axial deformation to be uniform. Stress reversal is easily applied with this adaptor. All triaxial cells include a threaded joint at the other end of the loading shaft to connect to the load frame allowing full compression or tension loads. The TRX-100 connection is a 1/2" 20 UNF male thread and the TRX-200/300 a 5/8"-18 UNF male thread.

Up to eight feed-through ports to connect internal instrumentation can be added as an option. Other options include

SPECIFICATIONS

Model	Max. Specimen Diameter
TRX-100	70 mm
TRX-200	100 mm
TRX-300	150 mm