

Large-Scale Soil Triaxial Cell (TRX-600)



- Accepts samples with a 300-mm diameter and up to 700-mm height
- 1,000 kPa (150 psi) pressure capacity
- Stainless steel construction
- Light-weight reinforced acrylic cell wall
- Top and bottom specimen drainage
- Low friction graphite seal
- Hardened stainless steel loading piston and extra-precision ball bushing guide
- Rigid loading connection for stress reversal
- External or internal load cells and LVDT's
- Feed-through connectors for GCTS axial and radial strain measurement devices and other transducers
- Complete testing systems available from GCTS

DESCRIPTION

The TRX-600 Triaxial Cell is ideal for testing soils with coarse particles in static or dynamic mode. It is also well suited for testing ballast material composed of crushed gravels and other sharp particles. GCTS can also provide reinforced sample membranes that minimize punctures as well as membrane penetration while offering a low stretch resistance.

This triaxial cell is constructed of stainless steel. It accepts specimens with diameters up to 300-mm and lengths of 2 to 2.25 times the diameter. The standard unit features a light-weight see-through Plexiglas cell wall reinforced with anodized aluminum rings. The ductility of metal rings offer an additional safety factor in case the acrylic cell wall is accidentally damaged.

The TRX-600 triaxial cell comes with a set of top and bottom stainless steel platens, porous stones, and all necessary O-rings. 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. Bleed ports located at the high points on the top plate are also provided to completely remove air bubbles remaining while filling the cell with water. The cell base includes an air cushion channel that allows the triaxial cell to easily slide on a flat surface. This air cushion facilitates the positioning of the triaxial cell under the loading frame.

The TRX-600 includes a stainless steel extra precision ball bearing to guide the loading shaft. Both swivel loading buttons and rigid threaded connectors are provided with this cell. The swivel buttons allow the top cap to rotate during loading. The threaded adaptor is used for a rigid connection, imposing a different boundary condition by forcing the axial deformation to be uniform. Stress reversal is easily applied with this adaptor. A split compaction mold is also included with this cell.

Available options include the GCTS DEF-S1600 Submersible internal instrumentation to measure axial and radial strains. This device can be provided with two or three axial gages and one or two circumferential gages. Also available are pneumatic vibratory compactors with adjustable frequency. Complete testing systems including dynamic load frames, pressure panels, and servo control can be provided by GCTS.

SPECIFICATIONS

Overall Cell Height: 1,400 mm
Overall Cell Width: 660 mm
Load frame connection 1.25" – 12 UNF male threads

SHIPPING

Standard Weight: 470 kg
Standard Volume: 710 mm x 710 mm x 1,400 mm

