



Your supplier of high pressure laboratory instruments

UTC-SERIES - UNIVERSAL TRIAXIAL CELL



The UTC-series triaxial cell functions as a specialized chamber designed to apply both axial and radial compressive forces on cylindrical rock samples. This dual-directional stress is achieved by exerting a surrounding confining pressure alongside an axial force. To operate, the cell needs to be situated within a specialized axial load frame. Within the cell, the rock sample is encased in a Teflon sleeve and sandwiched between hardened steel end platens. This setup is then submerged in pressurized oil for confinement. Electrical and coaxial feedthrough connectors at the top of the cell enable the addition of internal measurement instruments, such as devices for tracking axial and radial deformations, ultrasonic platens, and various specialized transducers. Additionally, a heating system can be included in the cell if needed.

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Specifications

Maximum axial load	1000 kN or 2000 KN
Maximum confining pressure	70 MPa or 140 Mpa
Maximum temperature	200°C
Specimen diameter	up to 54.7 mm (NX) up to 100 mm
Specimen height	twice the diameter
Confining and pore ports	1/8 inch or 1/4 HP
Wetted part material	Stainless steel or Inconel

Benefits

Fast, reliable testing setup: Quick specimen installation, no strain-gage gluing thanks to LVDTs, and spherical seat platen compensates for non-parallel ends.

Accurate deformation & stress measurements: Direct axial and radial strain measurement with effective stress control.

Robust, automated performance: Hardened stainless steel construction with integrated triaxial software and automatic data acquisition for repeatable results.

