Accuracy Is The
Underlying Strategy.

GCTS
TESTING SYSTEMS

Rock Polyaxial Fixture (RPX-300)

- Stainless steel construction
- Perform Polyaxial (true triaxial) tests within GCTS Rock Triaxial Cells
- Independent control of σ_1, σ_2, σ_3 (where $\sigma_1 \neq \sigma_2 \neq \sigma_3$) or ε_1, ε_2, ε_3 or a combination of stress or strain control for each axis.
- Measures strains in all three orthogonal directions
- Accommodates cubical samples with maximum dimensions of 50.8 mm x 50.8 mm x 101.6 mm
- Stress control up to 70 MPa
- Available ultrasonic sensors to measure P and S wave velocities under different stress states
- Optional hydraulic fracturing platens available to perform wellbore stability tests
- Custom fixtures available to fit existing triaxial cells
- GCTS also offers stand-alone, large-scale Polyaxial systems built to customer specifications

DESCRIPTION

The GCTS RPX-300 Polyaxial fixture can be used to study the intermediate principal stress effect on rock engineering behavior and describe adequately the strength of rock under a general system of Polyaxial compressive stresses. The RPX-300 is a simple and economical fixture that enhances the capabilities of standard GCTS Rock Triaxial systems that includes both, cell and pore pressure control. This fixture is designed to fit inside GCTS triaxial cells and use the load frame to (typically) apply σ_1, σ_2 and σ_3 are applied through the fixture's flat jacks.

Ultrasonic sensors can also be provided to study the effects anisotropic stress conditions on compression and shear wave velocities. Velocities for all three axes can easily be measured during Polyaxial tests with this option.

Please contact GCTS for details on the RPX-300 and compatibility with your triaxial system.