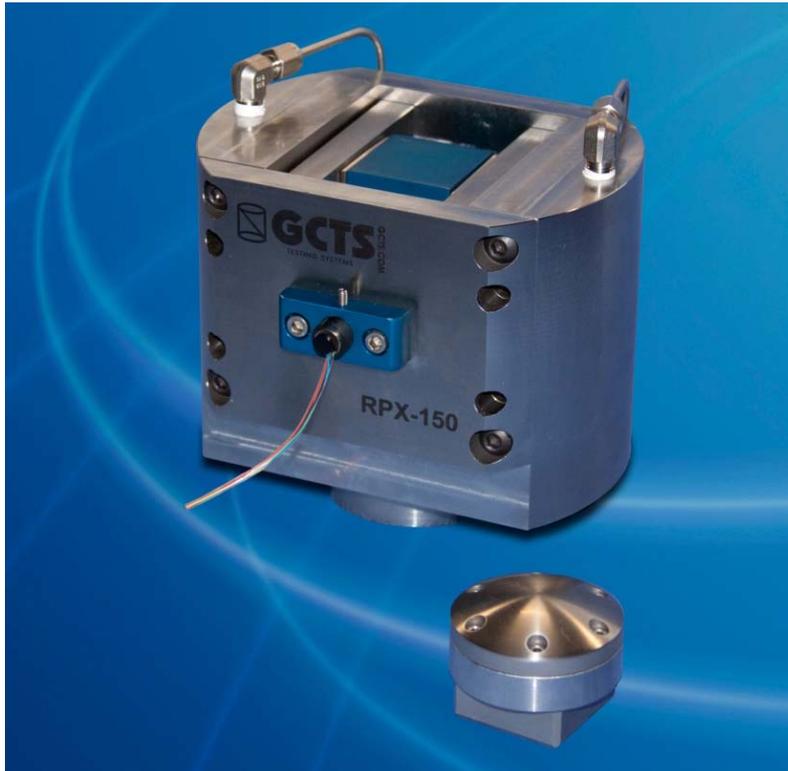


Rock Polyaxial Fixture (RPX-150)



- 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 or cylindrical rock samples with maximum dimensions of 38.1 mm x 38.1 mm x 76.2 mm or 38.1 mm diameter by 76.2 mm height
- 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
- Customizes fixtures available to fit existing triaxial cells
- GCTS also offers stand-alone, large-scale Polyaxial systems built to customer specifications

DESCRIPTION

The GCTS RPX-150 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-150 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 , the cell pressure to apply σ_2 and the pore pressure system to apply σ_3 through the fixture's flat jacks.

GCTS also offer semi-circular platens to test cylindrical specimens together with GCTS hydraulic fracturing fixtures and approximate the effects of anisotropic stress state on borehole stability. Even though the stress state applied with these semicircular loading jacks is not uniform, it is much easier to prepare and test cylindrical specimens.

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-150 and compatibility with your triaxial system.