Accuracy Is The
Underlying Strategy.

GCTS
TESTING SYSTEMS

Rock Direct Shear Testing System (RDS-100)

SPECIFICATIONS

- Precise servo control of double acting (push/pull) 100 kN (10 ton) shear load actuator with ±25 mm stroke
- Shear displacement rate: 0 – 100 mm/minute
- Stiff reaction system to minimize “stick-slip” behavior
- Includes (2) load cells and (2) displacement transducers with 0.05% precision
- Front keypad to manually move shear box during specimen setup
- 150 mm (6") inside diameter sample rings for specimens up to 150 mm high
- 8 input channels with 24-bit resolution
- Windows/iOS/Android software app for automatic test execution, data logging and reporting real time graphical display of test progress
- Meets ASTM D5607
- Economically priced
- Power Requirements: 208-230 VAC, 50/60 Hz @ 1.5 kW
- Shipping:
  Dimensions: 1.5 x 1.3 x 1.8 m. (L x W x H)
  Weight: 650 kg

DESCRIPTION

The GCTS Rock Direct Shear System is a simple and easy to operate device for testing a wide range of rock specimen configurations. Cylindrical cores, cubes, prisms, and rock fragments can be used to determine the shear strength.

This system features servo control of shear deformation or shear stress with exceptional control and accuracy designed for precise testing. Meets and exceed ASTM shear rate required accuracy.

The standard RDS-100 uses a manually operated valve to control the normal load through a potentiometer on the front control panel. A computer-controlled option can be ordered to automatically control the normal load, to maintain a constant normal stress based on the specimen corrected area from the shear displacement.

Also offered as an option is a set of three deformation sensors to measure the roll and pitch of the shear top box.

Specimens are cured within removable specimen rings and then dropped inside the shear box allowing the preparation of multiple specimens, using the additional rings to increase test production.

GCTS also offers a fully computer-controlled servo-hydraulic direct shear machine with servo control of both the shear and normal loads/deformations to perform advanced procedures such the Constant Normal Stiffness test (see RDS-200).