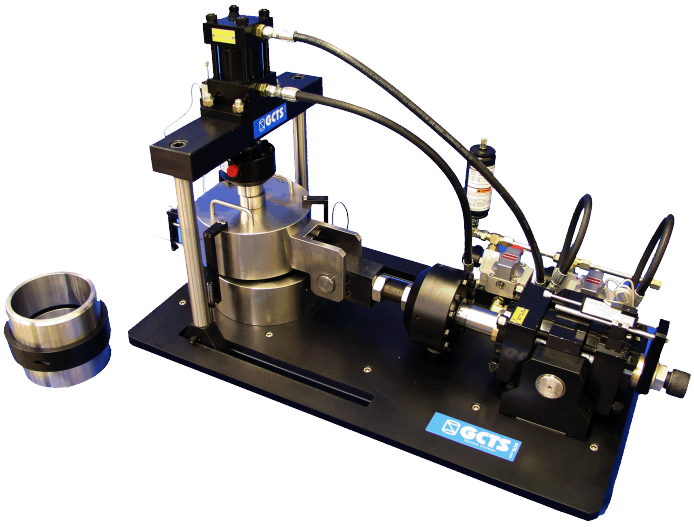
Servo-Controlled Rock Direct Shear System (RDS-200)



- Closed loop servo control of double acting (push/pull) 100 kN (10 ton) shear load actuator with 25 mm stroke and 50 kN (5 ton) normal load capacity with 25 mm stroke
- Normal load stiff reaction frame mounted on sliding bearings to minimize horizontal friction while keeping the normal load vertical throughout the full shear displacement
- 150 mm (6") inside diameter sample rings for specimens up to 150 mm high
- Software for automatic performance of direct shear tests with constant normal stress or normal stiffness
- Real time graphical display of test progress.
- Other load capacities and specimen size dimensions are available, including large-scale test systems for shear loads of up to 1,000 kN (100 ton) and specimen sizes up to 300 mm diameter or side

DESCRIPTION

The GCTS Rock Direct Shear System is a simple and inexpensive 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 electro-hydraulic closed-loop digital servo control of the shear and normal loads for test automation. The included software program accepts inputs from the normal load sensor and up to four normal deformation sensors (the software calculates automatically the average normal deformation). Loads or deformations for both the shear and normal actuators can be prescribed for automatically performing advanced tests such as the Constant or Calculated Normal Stiffness Direct Shear Test.

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

Also available, as an alternative, is an economical Digital Direct Shear system driven with manual pumps.

SPECIFICATIONS

Contact GCTS for full specifications

SHIPPING

Volume 2.7 m3

Weight . . . . . 1,100 kg