

GCTS is committed to designing accurate testing systems by integrating innovative software engineering with advanced hardware. GCTS systems perform at the highest levels of reliability, providing efficient systems that satisfy customer needs and expectations.

► **RDS-300**  
**Rock Direct Shear System**



- **Closed-Loop Servo Control System**
- **500 kN Normal Load & 300 kN Shear Load Capacities**
- **Adjustable Locking Mechanism to Prevent Rotation of Top Box in any one Direction, two Directions, or None**
- **Accepts Specimens with up to Ø150 mm (6") & up to 150 mm high**
- **Software for Automatic Performance of Direct Shear Tests Including Normal Stiffness Control**
- **Unconfined or Triaxial Tests with Optional Hardware**
- **Also Available Large-Scale Test Systems for Shear Loads of up to 1,000 kN (100 ton) & Specimen Sizes up to 300 mm Diameter or Side.**

**DESCRIPTION**

The GCTS Rock Direct Shear System is a versatile "turn-key" system for determining shear strength of a wide range of intact or jointed rock specimens. The rock specimen configurations include cylindrical cores, cubes, prisms, and rock fragments.

This system features state-of-the-art, electro-hydraulic, closed-loop digital servo control of shear and normal loads for test automation. The system includes automatic data acquisition and real-time graphics with very precise sensors and 16-bit resolution. The GCTS system is easily programmable to measure residual shear strength during or after any number of cycles specified by the user.

The GCTS software calculates automatically the corrected specimen area, the normal and shear stresses, shear deformation, and the average normal deformation. Loads, stresses or deformations for both the shear and normal

1
2
3
4
5
6
7
8
9
10
11
12
13
14
15
16
17
18
19
20
21





