

Product Code

ShearTrac II

The ShearTrac II system is capable of performing the consolidation and shearing phases of a standard direct shear and residual shear test under full automatic control. The system consists of a computer-controlled unit that utilizes micro-stepper motors to apply the vertical and horizontal loads to the soil specimen. Versions of the unit are available to produce vertical and horizontal loads up to 10 kN (2000 lbs.).

The system is capable of running a consolidation phase for up to 32 increments automatically. Horizontal shearing can be applied at a specified rate of deformation or at a specified rate of horizontal force change, or at a specified set of force steps of a specified duration. The system is capable of displaying the current status of a test and graphically portraying the progress of the test in real time. The system includes the capability for the operator to alter the test process and conditions at any stage of the test. The system is also capable of performing repeated direct shear tests to determine residual strength based on a specified number of repeated cycles.

The system comes complete with hardware and software for recording all test input data and settings of selected test parameters, performing standard engineering calculations on the data, and producing graphically plotted and printed output in the standard Corps format.



Applicable Test Standards

- ASTM D3080/T236 Direct Shear testing of soils under Consolidated Drained Conditions.

User Benefits

- Choose load capacity to fit user needs up to 10kN (2,000 lbs.)
- Total automation, control, data collection and reporting of test results
- Prepare tables and plots of report quality within minutes of completing a test
- Geo-NET compatibility lets unit be accessed and controlled over a computer network
- Generate columns of data for easy reduction using your own spreadsheet software
- Accurate displacement rate control from 0.00003 to 15 mm per minute (0.000001 to 0.6 in. per minute)
- Full automation of residual shear testing
- Stand alone through front keypad and LCD menu capability

Technical Specifications

Capacity	Up to 10 kN (2,000 lbs.)
Vertical Motor	Stepper motor with built-in controls for vertical load
Horizontal Mot.	Stepper motor with built-in controls for horizontal load
Speed Range	0.00003 to 15 mm per min. (0.000001 to 0.6 in per minute)
Vertical Travel	25.45 mm (1.00 in.) resolved to 0.0013 mm (0.00005 inches)
Horizontal Travel	±12.5 mm (±0.50 in.) resolved to 0.0013 mm (0.00005 inches)
Power	110/220 V, 50/60 Hz, 1phase

ShearTrac	Load Capacity
II ST-1000	4.4kN(1000lb)

Accessories

- ShearTrac II accessories including ShearTrac II box to test square or round samples up to 101 mm (4 in.) dimension/ diameter, includes top and bottom porous stones.
- Geo-NET-PC Network card and cable to link ShearTrac II to PC.
- SHEAR Software package to automatically run and report direct /residual shear test on ShearTrac II.

Dimensions	228 mm x 560 mm x 762 mm (9 in. x 22 in. x 30 in.)
Weight (approx.)	63 kg (140 lbs.)