ROCK SHEAR INTERFACE SYSTEM

Product Code

RSI-ShearTrac-II

The Rock Shear Interface (RSI) is a versatile system capable of performing the consolidation and shearing phases for natural and artificial rock joints on rock cores up to 83 mm (3.26 in) in diameter, direct and residual shear on soils as well as for determining the interface frictional properties of soil and geosynthetics on sample sizes up to 150 mm x 150 mm (6.00 in x 6.00 in).

The system consists of a computer controlled unit that utilizes micro stepper motors to control and apply verticals load and horizontal displacements. Built-in electronics control test and display data in real time. The computer controlled program runs under the latest Windows platform. It includes the capability to display the current status of latest and graphically portray the progress of the test in real time. The system also includes the capability for the operator to alter the test process and conditions at any stage during the test.

This is a turnkey system that includes 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 accordance with current testing standards.

MODEL

RSI-ShearTrac-II / 13 kN (3,000 lbs.) frame capacity

APPLICABLE TEST STANDARDS

• ASTM D-5607 • ASTM D-5321
• ASTM 3080/T236 • ASTM D-2435/T216

FEATURES / BENEFITS

• Linear bearings for minimum horizontal friction
• Two sets of limit switches to prevent over traveling
• Built-in 4-channel data acquisition with 16-bit resolution
• Stand alone capability
• Horizontal displacement transducers with 75 mm (3.00 in.) range and 0.002 mm (0.00008 in.) resolution
• Vertical displacement transducers with 50 mm (2.00 in.) range and 0.002 mm (0.00008 in.) resolution
• Two universal load cells with 11 kN (2,500 lbs) capacity

Standard Fully-Automated
Rock Shear System

• Accurate displacement rate control from 0.00003 to 15 mm per minute (0.000001 to 0.6 in. per minute)
• Built-in electronic controls for automatic display of data and control of test
• Windows XP, Vista, 7 friendly user interface
• Fully automated incremental consolidation, direct and residual, and interface shear testing capabilities options

ACCESSORIES

• **Geo-NETTM-PC**
• RSI-SHEAR Software package to automatically run consolidation and direct residual shear test either load or displacement control
• **SHEAR.REPORT**
Editing/reporting software package
• **150 mm (6.00 in) shear rings**
For direct residual and interface shear test

Technical Specifications

Capacity	13kN (3,000 lbs.)
Motor	Stepper motor with built-in controls
Vertical Motor	Stepper motor with built-in controls for vertical load
Horizontal Motor	Stepper motor with built-in controls for horizontal load
Speed Range	0.00003 to 15 mm per min. (0.000001 to 0.40 in per minute)
Dimensions	Width = 432 mm (17 in); Length = 902 mm (35.5 in); Height
Horizontal Travel	75 mm (3.00 in.) resolved to 0.002 mm (0.00008 inches)
Vertical Travel	50mm (2.0 in.) resolved to 0.002 mm (0.00008 inches)
Power	110/220 V, 50/60 Hz, 1 phase