

Benefits and Features

- Choose load capacity to fit user needs up to 8.9 kN (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 7.5 mm per minute (0.000001 to 0.3 inches per minute)
- Full automation of residual shear testing
- Stand alone through front keypad and LCD menu capability

Applicable Test Standards

- ASTM D3080 / T236 Direct Shear Testing of Soils under Consolidated Drained Conditions

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 8.9 kN (2,000 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, in accordance with Engineer Manual (EM 1110-2-1906), Laboratory Soils Testing, Appendix IX and Appendix IXa.



Standard ShearTrac II System

Direct Residual Shear ShearTrac II

TECHNICAL SPECIFICATIONS

CAPACITY

Up to 8.9 kN (2,000 lbs.)
vertical and horizontal

VERTICAL MOTOR

Stepper motor with built-in controls for vertical load

HORIZONTAL MOTOR

Stepper motor with built-in for horizontal load

SPEED RANGE

0.00003 to 15 mm per minute
(0.000001 to 0.6 in. per minute)

VERTICAL TRAVEL

25.45 mm (1.00 in.) resolved to
0.0013 mm (0.00005 in.)

HORIZONTAL TRAVEL

±12.5 mm (±0.50 in.) resolved to
0.0013 mm (0.00005 in.)

POWER

110/220 V, 50/60 Hz, 1 phase

DIMENSIONS

228 x 560 x 762 mm (9 x 22 x 30 inches)

WEIGHT

63 kg (140 lbs.)

LOAD CAPACITY

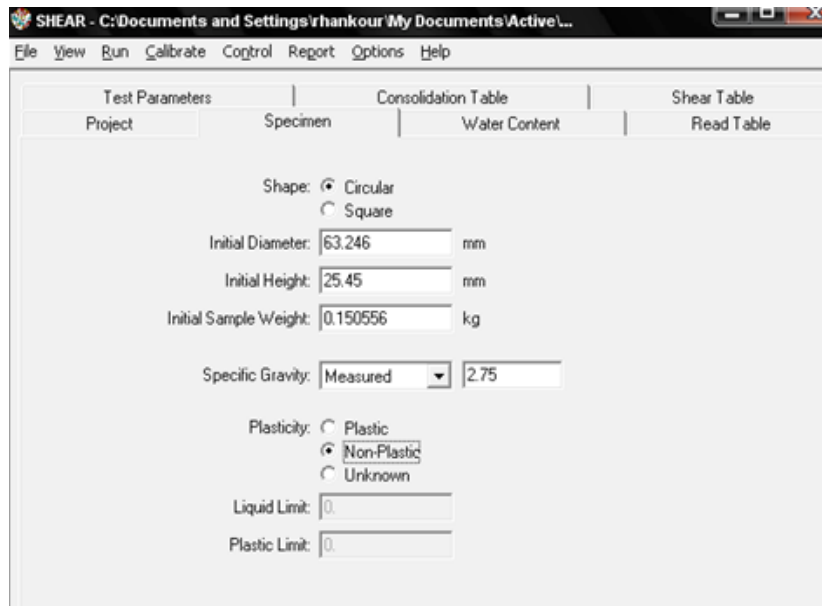
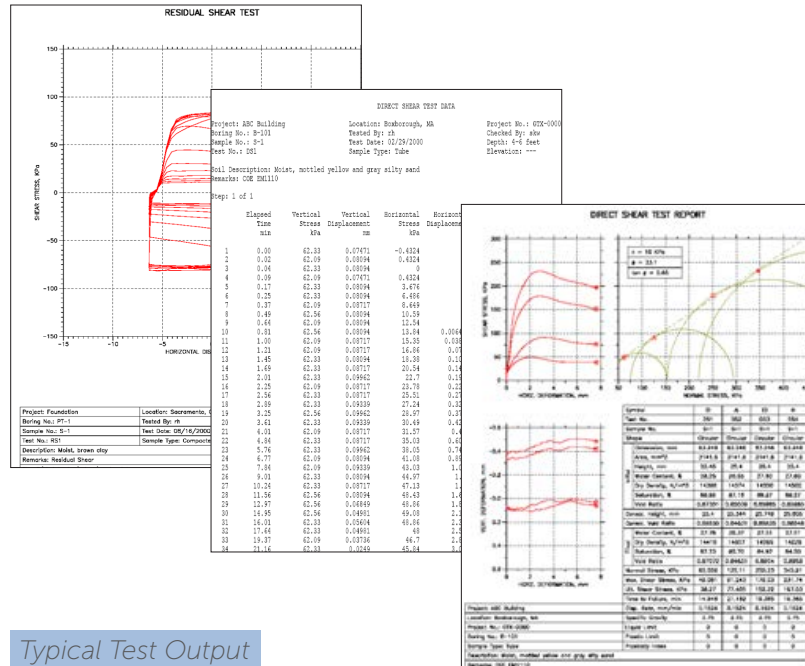
4.5 kN (1,000 lbs.)

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.



User-friendly Interface