DIRECT SIMPLE SHEAR
SHEARTRAC II

The ShearTrac II direct simple shear (DSS) system is used to measure undrained shear strength of soils to reflect the average shear strength mobilized in the field during failure of embankments on soft soil foundations and deep excavations in clay. The DSS test generates a fairly homogeneous state of shear stress throughout the specimen, which provides initial stress condition, stress path, and deformation configuration that models numerous field loading conditions more closely than any other test system.

The system design allows for easy interchanging between direct simple shear and direct/residual shear testing if desired. The vertical assembly can also be used to perform consolidation (incremental or CRC/CRS) or unconfined compressive strength tests.

- Highly rigid mechanical design
- Large diameter loading piston with low friction support mechanism to eliminate rocking
- Consolidate with or without shear bias (or shear stress)
- Load capacity up to 11 kN (2.5 klbf)
- Unmatched automation from test start to finish - 2 to 32 times faster results and labor time savings of 30% to 95% vs. manual testing
- Flexible design - perform additional testing on the same platform and save money and space in your lab
- Full test control and remote monitoring allows you to take your testing on the go - view real-time results, check test quality, and change parameters
- Convenient reporting - produce complete, compliant reports instantly or export data for desired manipulation
- Designed for consistent and repeatable testing you can be confident in

Applicable Test Standards

ASTM D2166, D2435, D3080, D4186, D4546, D6528 | AASHTO T208, T216, T236
BS 1377-5, 1377-7 | ISO/TS 17892-5 17892-10 | AS 1289.6.6.1, 1289.6.2.2
**TECHNICAL SPECIFICATIONS**

**LOAD CAPACITY**
Up to 11 kN (2.5 klbf) vertical and horizontal

**VERTICAL/HORIZONTAL MOTORS**
Micro-stepper system with built-in controls

**CONTROL**
- Stress (load)
- Strain (displacement)

**TEST TYPE**
- Drained (constant load)
- Undrained (constant volume with passive or active control)

**RATE OF DISPLACEMENT**
0.000006 to 33 mm/min
(0.0000002 to 1.3 in/min)

**VERTICAL TRAVEL**
44.5 mm (1.75 in)

**HORIZONTAL TRAVEL**
+/- 25.4 mm (1.00 in)

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

**DIMENSIONS**
660 x 406 x 813 mm (26 x 16 x 32 in)

**WEIGHT**
66 kg (145 lbs)

**INCLUDED**
- Geo-NET network card and cable to link to PC
- DSS software module to automatically run and report tests

**ACCESSORIES**
- Top/bottom cap, bronze sintered porous stones with pins, Teflon coated rings, base plate - 50 mm (2.0 in), 63.5 mm (2.5 in), and 100 mm (4.0 in)

**WARRANTY**
- 12 month warranty; extended warranties available

**User-Friendly Interface**