Geocomp

Test Smart. Test with Confidence. Test for Success.

LARGE CYCLIC SIMPLE SHEAR
SHEARTRAC III

The ShearTrac III large cyclic direct simple shear (LCDSS) system performs consolidation, static, and cyclic direct simple shear phases on large (12 in/ 305 mm) diameter samples under full automatic control. The DSS test generates a fairly homogeneous state of shear stress throughout the specimen, which provides initial stress conditon, stress path, and deformation configuration that models numerous field loading conditions more closely than any other strength tests (such as triaxial). The system consists of a computer-controlled unit that utilizes a micro-stepper motor to apply the vertical load and an advanced servo motor to apply the horizontal cyclic load to the soil specimen.

- **Consolidate with or without initial shear stress**
- **Run drained and undrained (constant load/volume with active or passive volume control) tests**
- **Post cyclic drained/undrained loading**
- **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**

Standard Cyclic Simple Shear ShearTrac III

Applicable Test Standards

- ASTM D6528, D2435, D8296

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TECHNICAL SPECIFICATIONS

LOAD CAPACITY

22 kN (5 klbf) horizontal
45 kN (10 klbf) vertical OR 45 kN (10 klbf) horizontal
45 kN (10 klbf) vertical

VERTICAL/HORIZONTAL MOTORS

Micro-stepper and servo motor systems with built-in controls

CONTROL

- Stress (load)
- Strain (displacement)

CYCLIC RATE

Up to 5 Hz; Typical test range 0.033 to 2 Hz

TYPE OF CYCLIC LOADING

Cyclic stress/strain controlled sinusoidal and irregular user defined waveform

VERTICAL TRAVEL

90 mm (3.5 in) resolved to 0.002 mm (0.00008 in)

HORIZONTAL TRAVEL

90 mm (3.5 in) resolved to 0.002 mm (0.00008 in)

POWER

120/208 V, 3 phase

INCLUDED

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

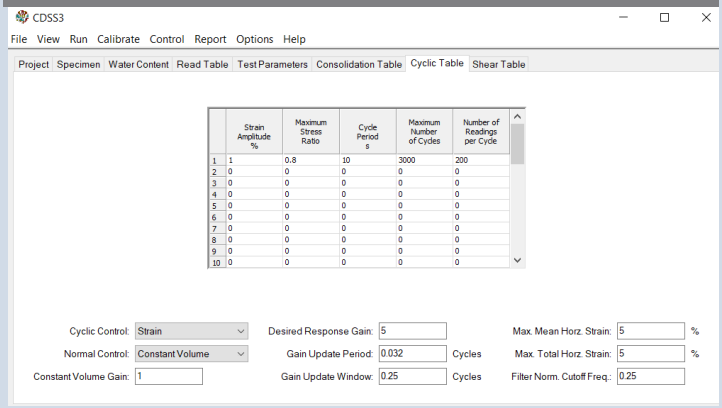
ACCESSORIES

- Gripping plates optional for GCL testing
- 12 in diameter ring set
- DSS software
- Direct Shear software & shear box

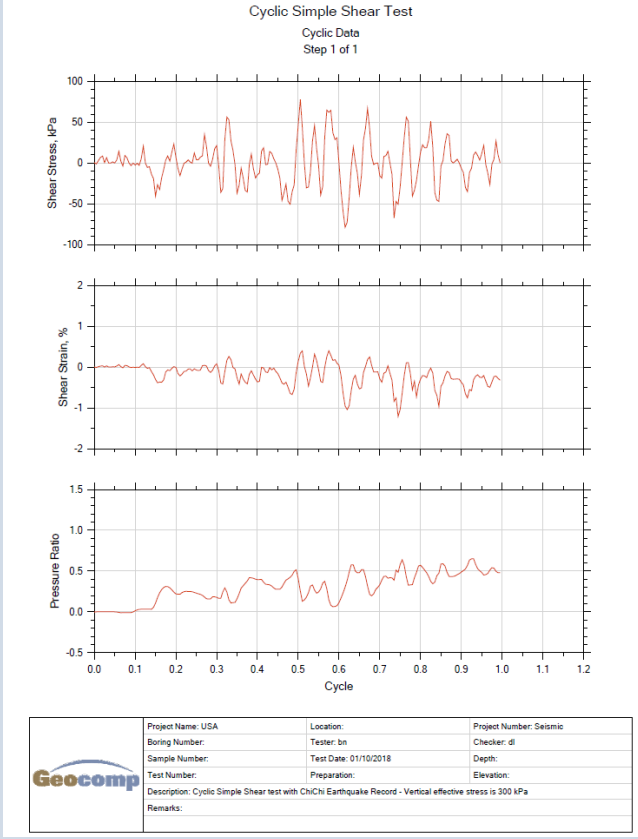
WARRANTY

- 12 month warranty; extended warranties available

User-Friendly Interface



Typical Test Output (example)



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