

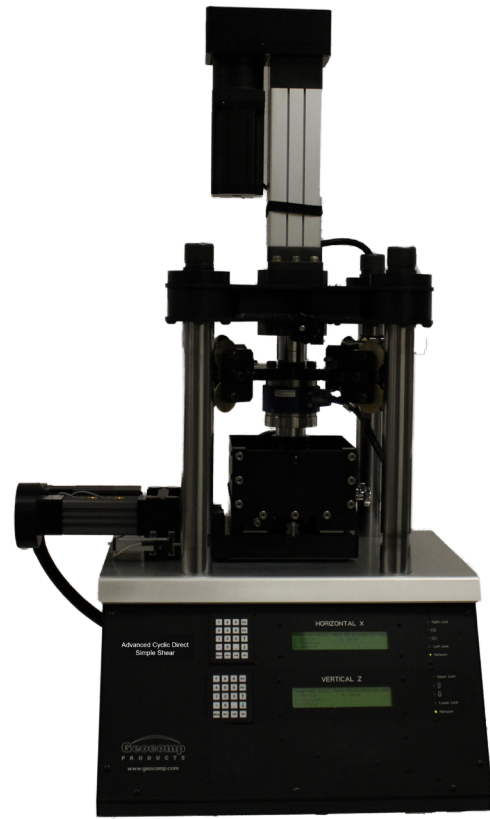
ADVANCED CYCLIC DIRECT SIMPLE SHEAR

The Advanced Cyclic Direct Simple Shear (ACDSS) system is designed to offer superior performance, accuracy and results for academic researchers and commercial testing laboratories. This state-of-the-art machine allows users to measure cyclic strength, liquefaction characteristics, or cyclic properties of soils such as Modulus and Damping. Researchers can also upload stress ratio or strain time history files (e.g. earthquake motion) for analysis. Cyclic direct simple shear testing requires the proper combination of frame stiffness and very precise load and volume control to produce reliable data.

- Built in safety features
- Smart and sophisticated technologies to simplify testing
- Repeatable, reliable, and accurate results you can trust
- Real-time and remote test parameter changes for quality control
- Convenient reporting and data export
- Faster, smarter, better: designed with full automation and manual control options
- Easy upgrade to perform additional test types
- Designed and manufactured in the USA

Applicable Test Standards

- ASTM D6528, D8296



Advanced Cyclic Direct Simple Shear System

ADVANCED CYCLIC DIRECT SIMPLE SHEAR



TECHNICAL SPECIFICATIONS

LOAD CAPACITY

Horizontal load capacity up to 4.5 kN (1 klbf)
Vertical load capacity up to 11 kN (2.5 klbf)

MOTORS

Micro-stepper (V) and zero backlash servo actuation system

CONTROL

- Stress (load)
- Strain (displacement)

CYCLIC RATE

0.033 Hz up to 10 Hz

POWER

208-240 V, 50/60 Hz, 1 phase

DIMENSIONS

559 x 686 x 1270 mm (22 x 27 x 50 in)

WEIGHT

156 kg (345 lbs)

HORIZONTAL TRAVEL

50 mm

VERTICAL TRAVEL

50 mm

INCLUDED

GeoNet-U USB 2.0 network adapter and cable to link to PC/laptop

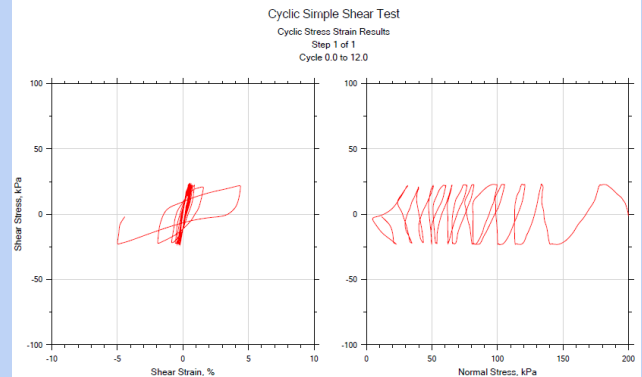
ACCESSORIES

- P&S wave velocity measurement option using bender/extender elements
- BCDSS.REPORT: editing/reporting software for multiple tests

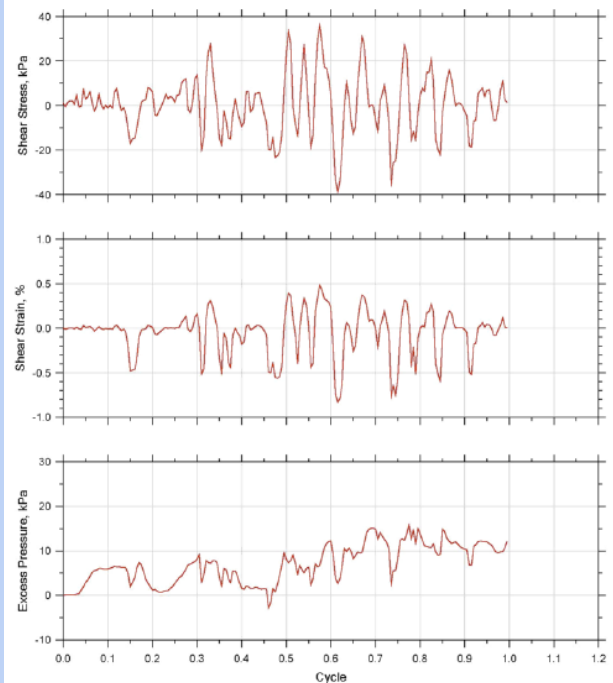
WARRANTY

12 month warranty; extended warranties available

Typical Test Output (example)



Typical Test Output (example)



User Friendly Interface

CDS33

File View Run Calibrate Control Report Options Help

Project Specimen Water Content Read Table Test Parameters Consolidation Table Cyclic Table Shear Table

	Strain Amplitude %	Maximum Stress Ratio	Cycle Period s	Maximum Number of Cycles	Number of Readings per Cycle
1	0.8	10	3000	200	
2	0	0	0	0	
3	0	0	0	0	
4	0	0	0	0	
5	0	0	0	0	
6	0	0	0	0	
7	0	0	0	0	
8	0	0	0	0	
9	0	0	0	0	
10	0	0	0	0	

Cyclic Control: Desired Response Gain: Max. Mean Horz. Strain: %

Normal Control: Gain Update Period: Cycles Max. Total Horz. Strain: %

Constant Volume Gain: Gain Update Window: Cycles Filter Norm. Cutoff Freq:

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