

Cyclic Triaxial

LoadTrac II/FlowTrac II Cyclic

The LoadTrac II/FlowTrac II Cyclic system automated test unit completely automates cyclic triaxial testing of soils. Minimum man-time is required.

The LoadTrac II/FlowTrac-II Cyclic consists of a triaxial cell to retain the sample, a load frame with computer-controlled platen for static loading, two computer-controlled flow pumps to control chamber pressure and back pressure, a high performance linear actuator servo control actuator for cyclic loading with update rates of 500 times per second, a micro-processor for accurately controlling cyclic loading, a PC with a Pentium processor to control the test, and to log test data. Editing and reporting is built-in to the test and control software program. The unit arrives in a completely self-contained system with all necessary equipment.

The LoadTrac II/FlowTrac II Cyclic system is menu driven. The Windows® XP, Vista, 7 based software allows users to define the conditions for running the test, logging test data and reporting results. Users can specify the values for controlling the saturation, consolidation and cyclic loading of a test. During testing, current data and system status information is displayed. Collected data are written to a file on the system's hard drive. The reporting software performs all required calculations and permits users a variety of options in graphing and generating test data.



Benefits and Features

- ▶ Reduces time required for testing
- ▶ Run tests on isotropically, anisotropically and K_0 consolidated samples
- ▶ Select number of data points logged per cycle from 10 to 500 readings per second
- ▶ Reduce test error and improve quality control
- ▶ Operates in a Windows® XP/2000/Vista/7 environment

Applicable Test Standards

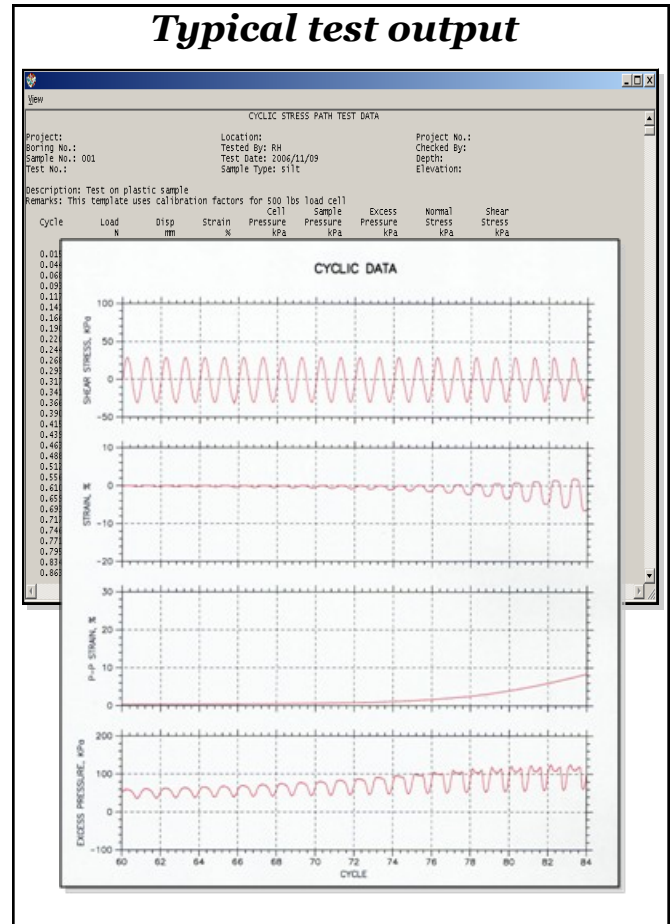
- ▶ ASTM D-3999 Determination of the Modulus Properties
- ▶ ASTM D-5311 Load Controlled Cyclic Triaxial Testing of Soils

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TECHNICAL SPECIFICATION

CYCLIC LOADING SYSTEM	<ul style="list-style-type: none"> ▶ High performance custom linear actuator ▶ 1.8kW peak, low inertia servo-drive system for fast response time. ▶ High resolution feedback system for precise and accurate control of load and speed. ▶ 4.4 kN (1000lbs force) continuous load at speeds in excess of 200 mm (8") /sec ▶ Self-contained and maintenance free ▶ Single Phase 208 VAC/60Hz (US) / 220 VAC/50Hz (international)
TYPE OF CYCLIC LOADING	Load controlled sinusoidal shape
CYCLIC RATE	Up to 10 Hz
OPTIONS TO END TEST	<ul style="list-style-type: none"> ▶ Maximum number of cycles ▶ Maximum strain
REPORTING OPTIONS	<ul style="list-style-type: none"> ▶ Load, displacement, sample, and cell vs. cycle number ▶ Shear stress, strain, p-p strain, excess pore pressure vs. cycle number ▶ Shear stress vs. axial strain ▶ Shear stress vs. normal stress ▶ Automatic or user specified scaling on any of above plots ▶ Plotting to monitor, printer, plotter, or file
TEST CELL	Modified triaxial cell with accessories
UNIT SYSTEMS	U.S., English, metric and SI changeable at any time before, during and after test
SAMPLE DIAMETER	50, 70, up to 100 mm (2/2.8/4 inches) Custom sizes by special order
TRANSDUCERS	Force: 2, 5,10 kN (500, 1000, 2500 lbf.) Displacement: 50mm (2.0 in.) range Cell and sample pressures: 0-1400 kPa (0-200 psi)

Typical test output



User-friendly interface

