

Cyclic Triaxial LoadTrac II / FlowTrac II

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® OS

Applicable Test Standards

- [ASTM D3999 Determination of the Modulus Properties](#)
- [ASTM D5311 Load Controlled Cyclic Triaxial Testing of Soils](#)

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



Standard Fully-Automated
Cyclic Triaxial System

Cyclic Triaxial LoadTrac II / FlowTrac II

TECHNICAL SPECIFICATIONS

CYCLIC LOADING SYSTEM

High performance custom linear actuator

1.8 kW peak, low inertia servo-drive system for fast response time

High resolution feedback system for precise and accurate control of load and speed

4.5 kN (1,000 lbs. force) continuous load at speeds in excess of 200 mm (8 in.) /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

Maximum number of cycles

Maximum strain

REPORTING OPTIONS

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 the 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 in.)

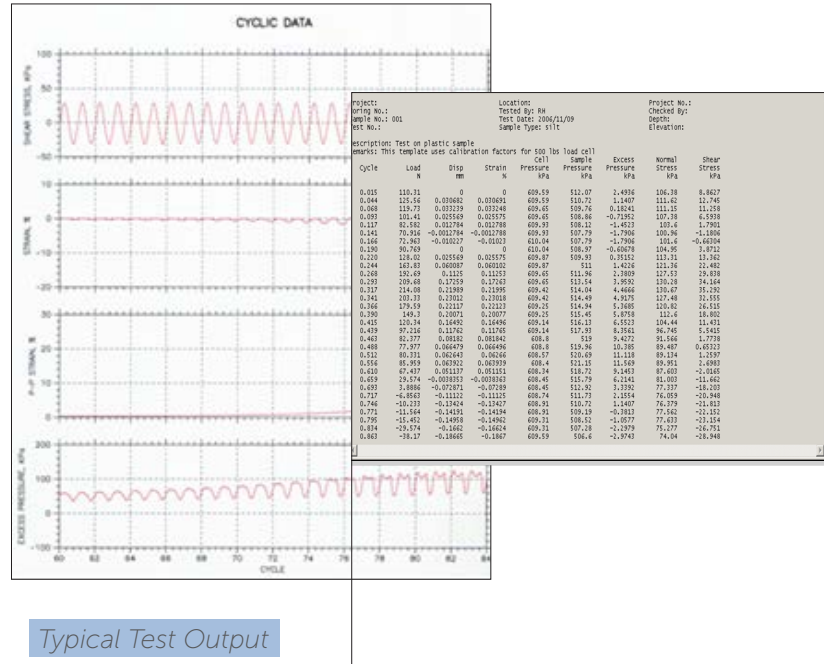
custom sizes by special order

TRANSDUCERS

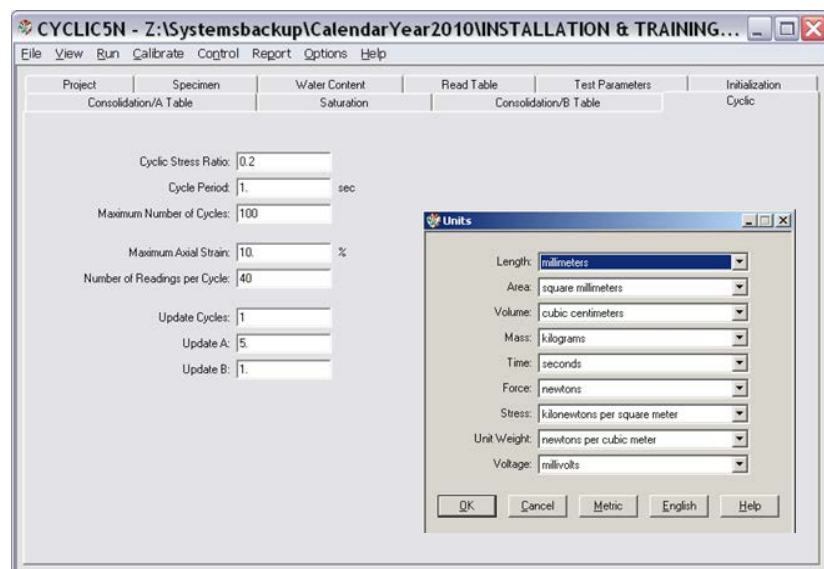
Force: 2.2/4.5/11 kN (500/1000/2500 lbs.)

Displacement: 50 mm (2.0 in.) range

Cell and sample pressures: 0-1400 kPa (0-200 psi)



Typical Test Output



User-friendly Interface