FULLY AUTOMATED CONSOLIDATION & SWELL SYSTEM

Product Code

LoadTrac III (Mini-LoadTrac)

LoadTrac III system for incremental consolidation and swell testing fully automates an entire consolidation test. Constant load and constant volume swell tests can be run automatically. Once a sample is placed into the load frame, the test conditions programmed, and the test started, the LoadTrac III system performs the complete test up to 32 steps without intervention by the user. The computer automatically increments to the next stress by using conditions specified by the user. Incremental consolidation test can be completed in 24 to 48 hours on most materials.

The LoadTrac III system utilizes a high speed, precision microstepper motor to apply the vertical load to the soil specimen. An embedded control board with a dedicated CPU takes readings from the force transducer and displacement transducer to control the stepper motor.

The base unit includes built-in data acquisition and display capability. Sensor readings are displayed in SI or English units and stored in memory. For incremental consolidation, the base unit is linked to a PC using the network communications module and the appropriate software.

Optional software running in Windows® 2000, XP, Vista, 7 completely automates the test, reducing the data and preparing test results.

Other options include running constant rate of consolidation, unconfined compression and triaxial on a 50 mm (2.00 in.) or less diameter sample.

Applicable Test Standards

- ASTM D-2435 Incremental Consolidation
- AASHTO T-216 Incremental Consolidation
- ASTM D-4546 One dimensional swell or settlement potential of cohesive soils

User Benefits

- Total automation, control, data collection and reporting of test results
- Prepare tables and plots of report quality within minutes of completing a test
- Generate columns of data for easy reduction using your own spreadsheet software
- Ability to access and control the unit over a computer network using Geo-Net option

Technical Specifications

Capacity	11 kN (2,500 lbs.)
Motor	Stepper motor with built-in controls
Travel	25 mm (1.0 inches) resolved to 0.0025 mm (0.0001 inches)
Clearance	180 mm (7 inches) horizontal between uprights, 150 mm (6 inches) vertical platen to crosshead standard
Power	110/220 V, 50/60 Hz, 1phase

Accessories

1220	All stainless steel consolidation cell includes 63.5 mm (2.5 in.) sample ring, top cap, top and bottom porous stones.
1230	Consolidation cell with back pressure saturation capability, 62.5 mm (2.5 in.) sample diameter standard. Other sizes available upon request with optional external stainless steel pressure sensor.
Geo NET™	Network/Communication card and cable to link load frame to PC.
ICONP	Software package to automatically run incremental consolidation test and swell tests with built-in editing reporting option.

Dimensions	305 x 381 x 838 mm
Weight (approx.)	20 kg