

## Fully-Automated Consolidation & Swell LoadTrac III (Mini-LoadTrac)

### Benefits and Features

- Total automation of 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

### Applicable Test Standards

- [ASTM D2435 Incremental Consolidation](#)
- [AASHTO T216 Incremental Consolidation](#)
- [ASTM D4546 One-Dimensional Swell or Settlement Potential of Cohesive Soils](#)

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 micro-stepper 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® 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 in.) or less diameter sample.



*Standard Fully Automated  
Consolidation & Swell Testing System*

# Fully-Automated Consolidation & Swell LoadTrac III (Mini-LoadTrac)

## TECHNICAL SPECIFICATIONS

### CAPACITY

10.35 kN (2,300 lbs.)

### MOTOR

Stepper motor with built-in controls

### TRAVEL

25 mm (1 in.) resolved to 0.0025 mm (0.0001 in.)

### CLEARANCE

180 mm (7 in.) horizontal between uprights, 150 mm (6 in.) vertical platen to crosshead standard

### POWER

110/220 V, 50/60 Hz, 1 phase

### DIMENSIONS

305 x 381 x 838 mm (12 x 15 x 33 inches)

### WEIGHT

20 kg (44 lbs.)

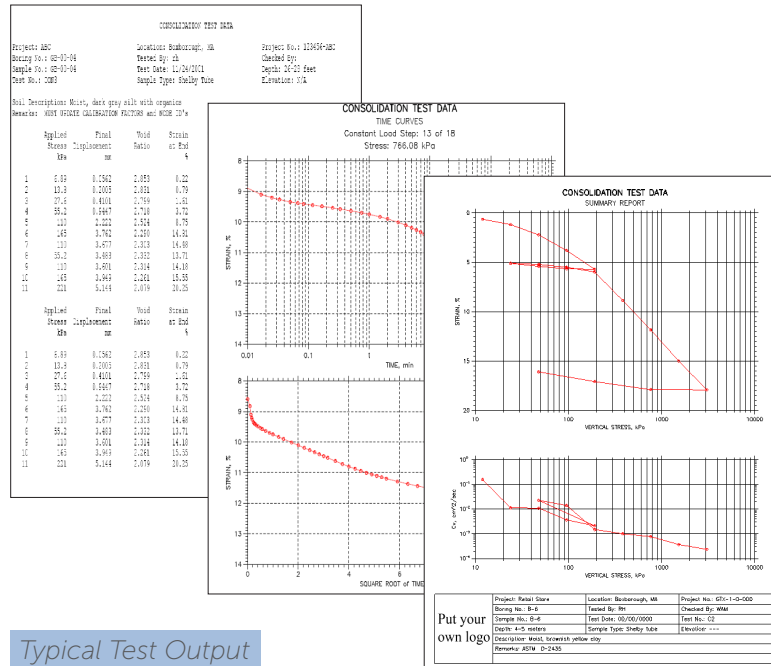
### ACCESSORIES

**43-30302:** All stainless steel consolidation cell includes 63.5 mm (2.5 in.) sample ring, top cap, top and bottom porous stones.

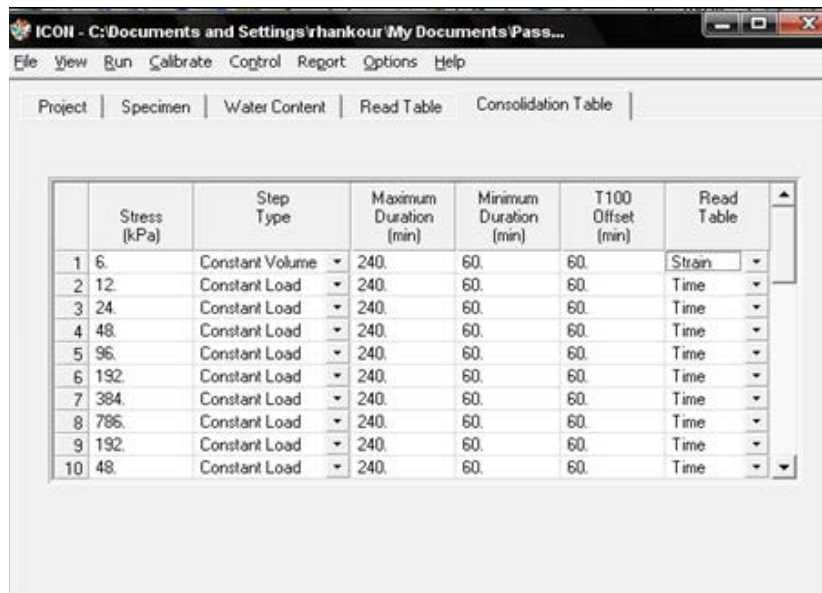
**43-31311:** Consolidation cell with back pressure saturation capability, 62.5 mm (2.5 in.) sample diameter standard. Other sizes available upon request with optional external stainless steel pressure sensor.

**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.



Typical Test Output



User-friendly Interface