

Triaxial and Stress Path Testing

LoadTrac II/FlowTrac II

The LoadTrac II/FlowTrac II system for triaxial testing fully automates the conduct of CU, CD and any possible stress path triaxial test on soils. Once a soil sample is in place, and the test conditions are selected, the LoadTrac II/FlowTrac II system will run the entire triaxial test from start to finish. This system is operated by software which automates the initialization, saturation, consolidation (isotropic, anisotropic or K_0) and shear phases of the test.

The system comes as a complete, self-contained unit with all of the equipment required to perform fully automated triaxial and stress path tests. The LoadTrac II/FlowTrac II system utilizes high speed, precision micro stepper motors to apply the vertical load and pressures to the soil specimen. It includes one load frame for vertical stress, one flow pump for cell pressure and one flow pump for back pressure. The system is capable of applying a constant rate of strain at any displacement rate from 0.00003 up to 15 mm per minute (0.000001 to 0.6 inches per minute).

Sensor readings are displayed in SI or English units and stored in memory. With the network communications module and appropriate software, the entire test can be automatically controlled, data captured and displayed in real-time, and test reports prepared on a PC.

Optional software running in Windows NT or XP completely automates running the test, reducing the data and preparing test results.



USER BENEFITS

- ▶ Choose load capacity to fit user needs from 10, 22 and 45kN (2,000, 5,000 and 10,000 lbs.) models
- ▶ Total automation, control, data collection and reporting of test results
- ▶ Prepare tables and plots of report quality within minutes of completing a test
- ▶ Geo-NET compatibility lets unit be accessed and controlled over a computer network
- ▶ Generate columns of data for easy reduction using your own spreadsheet software
- ▶ Choose volume capacity to fit user needs from 250, and 750 cc models
- ▶ Accurate displacement rate control from 0.00003 to 15 mm per minute (0.000001 to 0.6 in. per minute)
- ▶ Accurate pressure and volume measurements with integrated sensors
- ▶ Stand alone through front keypad and LCD menu capability

APPLICABLE TEST STANDARDS

- ▶ ASTM D-4767
- ▶ AASHTO T-297
- ▶ COE EM 1110 Consolidated Undrained Compression/Extension tests, Consolidated Drained Compression/Extension tests, Stress Path tests
- ▶ BS



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SPECIFICATIONS

- MOTOR:** Stepper motor with built-in controls
- TRAVEL:** Built-in displacement transducer with 76 mm (3 in.) range and 0.0013 mm (0.00005 in) resolution
- DISPLACEMENT:** Control from 0.00003 to 15 mm per minute (0.000001 to 0.6 in. per minute)
- FLOW RANGE:** 0.000006 to 3 cc per second
- POWER:** 110/220 V, 50/60 Hz, 1phase
- DIMENSIONS:**
- LoadTrac II: 464 mm x 546 mm x1206 mm (18 in. x 21.5 in. x 47.5 in.)
- FlowTrac II: 203 mm x 406 mm x 470 mm (8 in. x 16in. x 18.5 in.)
- WEIGHT:**
- LoadTrac II: 55 kg (120 lbs.)
- FlowTrac II: 14 kg (30 lbs.)

MODELS

FlowTrac II Models

- FTII-250-nn 250 cc capacity
- FTII-750-nn 750 cc capacity
- nn Maximum pressure range for system: 700, 1000, 2000 and 3500 kPa (150, 300 and 500 psi) available (resolution of pressure will be 0.00005 times the range)

LoadTrac II Models

- Frame capacity
- LTII-2,000 10 kN (2,000 lbs.)
- LTII-5,000 22 kN (5,000 lbs.)
- LTII-10,000 45 kN (10,000 lbs.)
- LTII-40,000 175 kN (40,000 lbs.)

ACCESSORIES

Triaxial cells, membranes, porous stones, sample preparation kit up to 150 mm (6.0 in.) diameter available.

Geo-NET PC network card and cable to link LoadTrac II/FlowTrac II to PC

