

Semi-Automated Permeability FlowTrac II

Benefits and Features

- 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 pressure and volume measurements with integrated sensors
- Stand alone through front keypad and LCD menu capability

Applicable Test Standards

- **ASTM D5084 Flexible Wall Permeability**

The FlowTrac II flow pump provides a unique and versatile way to run flexible wall permeability tests on a wide variety of materials quickly and accurately. By adjusting the gradient or the flow rate across the sample, the system can measure permeabilities of cohesive soils varying from 10^{-4} to 10^{-9} cm/sec. With the appropriate test cells, this one system can determine the permeability of some silty clays within minutes.

The FlowTrac II base unit includes a stepper motor, lead screw, pressure chamber and piston, pressure transducer, electronic controls and network communications. Versions of the unit are available with flow volumes of 250 and 750 cc. Flow rates can be set to any value between 0.000006 and 3.0 cc/sec. Flexible wall tests are run with two flow pumps; first one controls cell pressure and flow, and second one sample pressure and flow. This system requires an external source of compressed air to be used during the flow phase of the permeability test to replace the FlowTrac II controlling the cell pressure which is switched to controlling top sample pressure and flow to establish a constant gradient or a constant flow across the soil sample.

With the network communications module and the appropriate software, the entire test can be automatically controlled, data captured and displayed in real time, and test reports prepared on a PC. With GeoNet-LAN option, the test can be monitored and data reported from any PC located on a LAN to which the FlowTrac II system is connected.



Standard Semi-Permeability
FlowTrac II System

Semi-Automated Permeability FlowTrac II

TECHNICAL SPECIFICATIONS

MOTOR

Stepper motor with built-in controls

FLOW RANGE

0.000006 to 3 cc per second

POWER

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

DIMENSIONS

203 x 406 x 470 mm
(8 x 16 x 18.5 inches)

WEIGHT

14 kg (30 lbs.)

MODELS

FTII-250-nn: 250 cc capacity

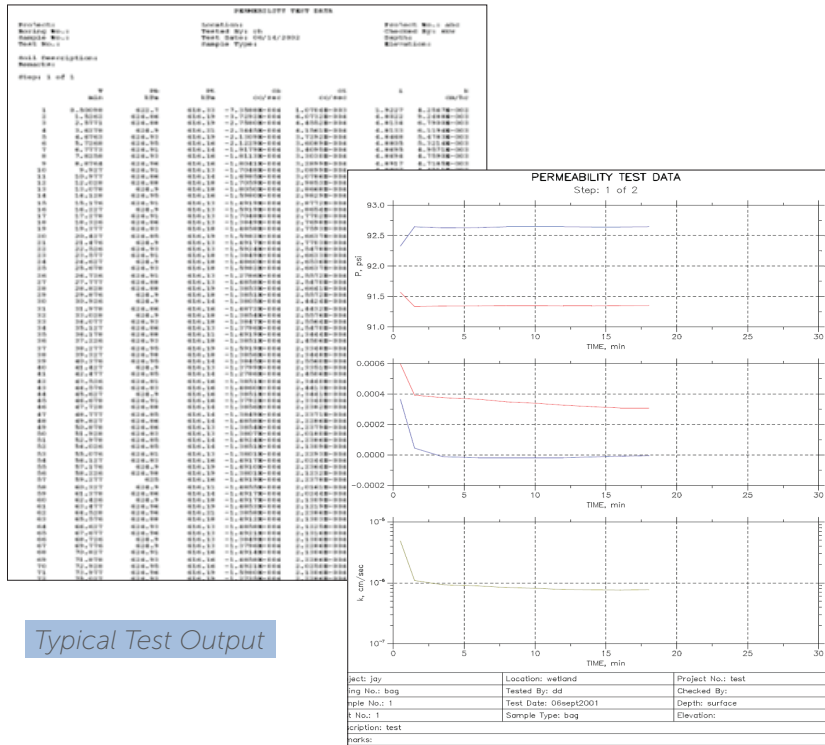
FTII-750-nn: 750 cc capacity

nn: Maximum pressure range for system: 1400, 2100 and 3500 kPa (200, 300, and 500 psi) available (resolution of pressure will be 0.00005 times the range)

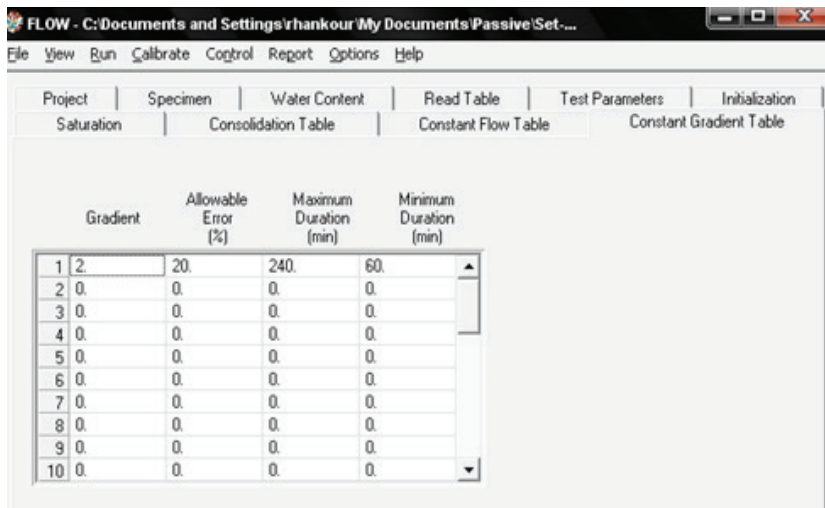
ACCESSORIES

Triaxial cells, membranes, porous stones and sample preparation and set-up accessories upon request.

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



Typical Test Output



User-friendly Interface