

FULLY AUTOMATED PERMEABILITY

LOADTRAC II / FLOWTRAC II OR III

The LoadTrac II / FlowTrac II or III system provides a unique and versatile way to run permeability tests on a wide variety of materials quickly and accurately. This system automates the initialization, saturation, consolidation (isotropic, anisotropic, and K_o) and flow phase by adjusting the gradient or the flow rate across the sample. The system can measure permeabilities varying from 10^{-4} cm/sec to 10^{-9} cm/sec. With the appropriate test cells, this one system can determine the permeability of silts and clays within minutes.

- Built in safety features
- Smart and sophisticated technologies to simplify testing
- Repeatable, reliable, and accurate results you can trust
- Real-time and remote test parameter changes for quality control
- Convenient reporting and data export
- Faster, smarter, better: designed with full automation and manual control options
- Easy upgrade to perform additional test types
- Designed and manufactured in the USA

Applicable Test Standards

- ASTM D2434, D5084
- BS 1377-6
- ISO/TS 17892-11



Standard Permeability System

FULLY AUTOMATED PERMEABILITY LOADTRAC II / FLOWTRAC II OR III

TECHNICAL SPECIFICATIONS

LOAD CAPACITY

45 kN (10 klbf) or 90 kN (20 klbf)

MOTOR

Micro-stepper system with built-in controls

RATE OF DISPLACEMENT

0.00003 to 25 mm per minute
(0.000001 to 1.0 in per minute)

PRESSURE/VOLUME CAPACITY

- 150 psi (1035 kPa) / 200 cc
- 200 psi (1400 kPa) or 500 psi (3500 kPa) / 250 cc
- 200 psi (1400 kPa) / 750 cc

FLOW RATE

Min Speed 0.0003 cc/min 0.00001 fl oz/min
Max Speed 1054 cc/min 36 fl oz/min

TRAVEL

Built-in displacement transducer with 76 mm (3 in) range and 0.0013 mm (0.00005 in) resolution

DIMENSIONS

LoadTrac II	FlowTrac II	FlowTrac III
464 x 546 x 1206 mm (18 x 21.5 x 47.5 in)	203 x 406 x 470 mm (8 x 16 x 18.5 in)	203 x 457 x 260 mm (8 x 18 x 10.25 in)

WEIGHT

LoadTrac II	FlowTrac II	FlowTrac III
55 kg (120 lbs)	14 kg (30 lbs)	11 kg (25 lbs)

INCLUDED

- GeoNet-U USB 2.0 network adapter and cable to link to PC/laptop
- PERM software module to automatically run and report tests

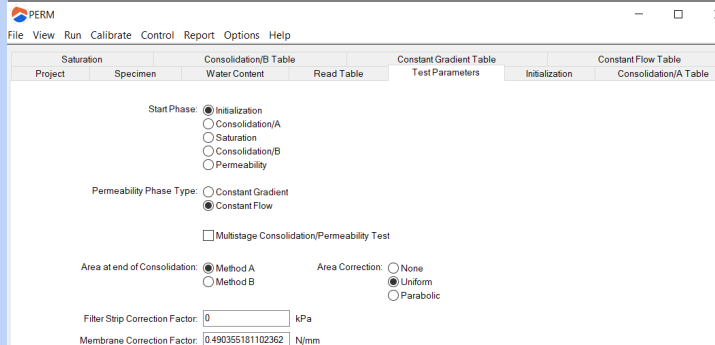
ACCESSORIES

- Triaxial cells up to 152 mm (6 in) diameter, membranes, porous stones, and sample preparation accessories upon request
- TRIAXIAL.REPORT: editing/reporting software for multiple tests

WARRANTY

12 month warranty; extended warranties available

User Friendly Interface



PERM

File View Run Calibrate Control Report Options Help

Saturation Specimen Consolidation/B Table Water Content Read Table Constant Gradient Table Test Parameters Initialization Constant Flow Table Consolidation/A Table

Start Phase: ☒ Initialization
☐ Consolidation/A
☐ Saturation
☐ Consolidation/B
☐ Permeability

Permeability Phase Type: ☐ Constant Gradient
☒ Constant Flow

☐ Multistage Consolidation/Permeability Test

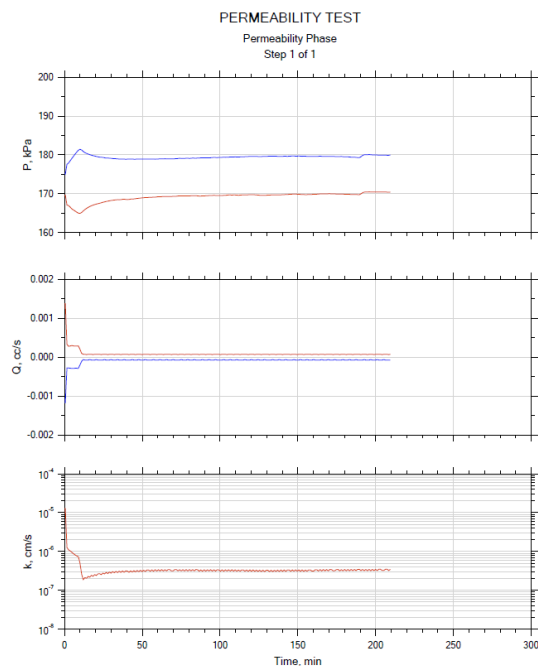
Area at end of Consolidation: ☒ Method A
☐ Method B


Area Correction: ☐ None
☒ Uniform
☐ Parabolic

Filter Strip Correction Factor: 0 kPa

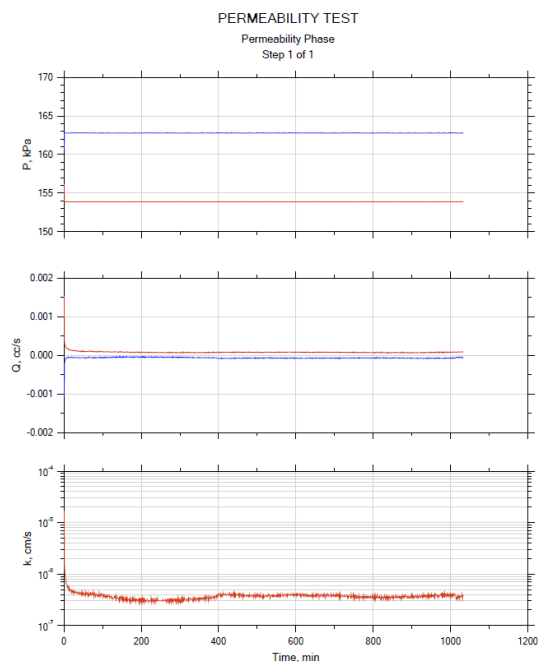
Membrane Correction Factor: 0.490355181102362 N/mm


Typical Test Output (example)



	Project: PERM	Location: USA	Project No.: Flow-1
	Boring No.: 4A	Tested By: se	Checked By: bn
	Sample No.: 4A-1	Test Date: 02/22/2018	Depth: 2 ft
	Test No.: 3	Sample Type: Undisturbed	Elevation: --
	Description: Constant flow rate permeability test		
Remarks:			

Typical Test Output (example)



	Project: PERM	Location: USA	Project No.: Gradient-1
	Boring No.: 4A	Tested By: se	Checked By: bn
	Sample No.: 4A-2	Test Date: 02/28/2018	Depth: 3 ft
	Test No.: 4	Sample Type: Undisturbed	Elevation: --
	Description: Constant gradient permeability test		
Remarks:			

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