

## TRIAXIAL & STRESS PATH

### LOADTRAC II / FLOWTRAC II OR III

Our range of systems for triaxial testing fully automate Unconsolidated Undrained (UU), Consolidated Undrained (CU), Consolidated Drained (CD) and/or any possible stress path tests on soil and soft rock. The systems automate the initialization, saturation, consolidation (isotropic, anisotropic, or  $K_0$ ) and shear phases along any stress path (drained, undrained, or mixed) of a test. Once a soil sample is in place, and the test conditions selected, the system will run the entire triaxial test from start to finish. There are multiple configurations available to suit a variety of technical requirements and budgets. The combination of ease of use, flexibility in test parameters and versatility to perform an array of tests is unmatched in the industry.

- 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 D2850, D4767, D7181
- AASHTO T296, T297
- BS 1377-6, BS 1377-7, BS 1377-8
- ISO/TS 17892-8, ISO/TS 17892-9
- AS 1289.6.4.1, AS 1289.6.4.2



Standard Triaxial & Stress Path System

# TRIAXIAL & STRESS PATH LOADTRAC II / FLOWTRAC II OR III



## TECHNICAL SPECIFICATIONS

### LOAD CAPACITY

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

### MOTORS

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 ft oz/min  
Max Speed 1054 cc/min 36 ft oz/min

### TRAVEL

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

### POWER

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

### 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
- UU, CU, CD, SP software modules to automatically run and report tests

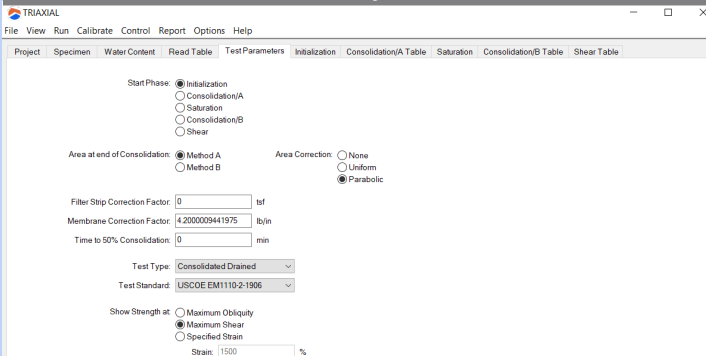
### ACCESSORIES

- 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

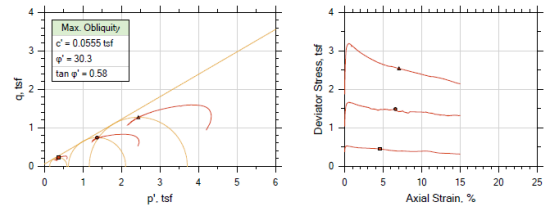
12 month warranty; extended warranties available

## User Friendly Interface



## Typical Test Output (example)

Consolidated Undrained by ASTM D4767



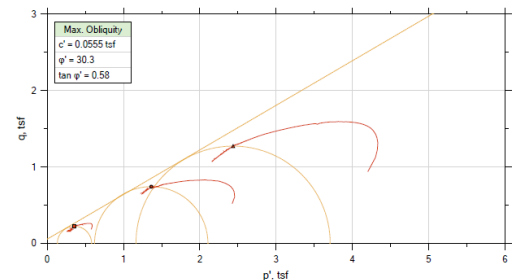
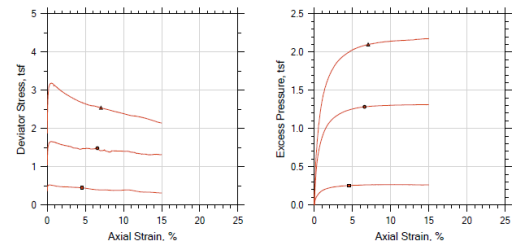
Symbol	■	●	▲
Sample ID	U-3	U-3	U-3
Depth	10-12 ft	24-26 ft	50-52 ft
Test Number	CKU-1	CKU-2	CKU-3
Height, in	4.250	4.200	4.200
Diameter, in	2.010	2.020	2.010
Moisture Content (from Cuttings), %	31.4	32.0	32.8
Dry Density, pcf	93.1	92.0	93.9
Saturation (Wet Method), %	93.6	99.6	99.5
Void Ratio	0.939	0.899	0.924
Moisture Content, %	29.3	25.2	22.6
Dry Density, pcf	96.0	103	107
Cross-Sectional Area (Method A), in <sup>2</sup>	3.073	3.189	3.147
Saturation, %	100.0	100.0	100.0
Void Ratio	0.821	0.705	0.633
Back Pressure, tsf	9.692	9.992	10.87
Vertical Effective Consolidation Stress, tsf	0.7395	2.882	5.039
Horizontal Effective Consolidation Stress, tsf	0.3922	1.904	3.263
Vertical Strain after Consolidation, %	1.572	9.554	14.10
Volumetric Strain after Consolidation, %	1.422	9.388	14.19
Time to 50% Consolidation, min	0.0000	0.0000	0.0000
Shear Strength, tsf	0.2242	0.7425	1.272
Strain at Failure, %	4.55	6.58	7.05
Strain Rate, %/min	0.01600	0.01600	0.01600
Deviator Stress at Failure, tsf	0.4485	1.485	2.544
Effective Minor Principal Stress at Failure, tsf	0.1331	0.6208	1.163
Effective Major Principal Stress at Failure, tsf	0.5816	2.106	3.708
B-Value	0.95	0.95	0.95

Notes:  
 - Uniform Shear Saturation set to 100% for phase calculation.  
 - Moisture Content determined by ASTM D2016.  
 - Backing Limits determined by ASTM D4118.  
 - Deviator Stress includes membrane correction.  
 - Values for  $c'$  and  $\phi'$  determined from best fit straight line for the specific test conditions.  
 - Actual strength parameters may vary and should be determined for an engineer for site conditions.

Project Name: ABC Project	Location: Anywhere, USA	Project Number: TRIAX-1234
Boring Number: B-1	Tester: vwx	Checker: yz
Sample Number: U-3	Test Date: 02/18/2018	Depth: 10-12 ft
Test Number: CKU-1	Preparation: tube	Elevation: Not Recorded
Description: Moist, gray clay		
Remarks:		

## Typical Test Output (example)

Consolidated Undrained by ASTM D4767



Sample No.	Test No.	Depth	Tested By	Test Date	Checked By	Check Date	Test File
■	U-3	CKU-1	10-12 ft	vwx	02/18/2018	yz	02/18/2018 CKU-1.dat
●	U-3	CKU-2	24-26 ft	vwx	02/18/2018	yz	02/18/2018 CKU-2.dat
▲	U-3	CKU-3	50-52 ft	vwx	02/18/2018	yz	02/18/2018 CKU-3.dat

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