

RESILIENT MODULUS

LOADTRAC II / CYCLIC - RM

Geocomp's LoadTrac II Resilient Modulus unit fully automates resilient modulus tests on base/subbase/subgrade materials. Resilient modulus testing is a complicated test in which the stiffness of the sample changes with loading. Since the performance of cyclic loading systems depends on the stiffness of the sample, most systems fail to apply the correct load throughout the test. Geocomp's RM system uses a very sophisticated adaptive control that makes real-time adjustment of a PID controller to adjust the system control parameters as the stiffness of the specimen changes. This feature permits our system to apply an accurate load from the beginning to the end of the test.

- High-performance, electromechanical actuator
- Self-calibration procedure built in
- 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

- AASHTO T294, T307
- SHRP Protocol P46
- NCHRP RPT 285
- AS 1289.6.8.1, AGPT-T053-07



Standard Resilient Modulus System

RESILIENT MODULUS LOADTRAC II / CYCLIC - RM

TECHNICAL SPECIFICATIONS

LOAD CAPACITY

4.5 (1 klbf) or 9 kN (2 klbf) at 200 mm (8 in) per second

CONTROL

- Stress (load)
- Strain (displacement)

CYCLIC RATE

Up to 10 Hz

TYPE OF CYCLIC LOADING

Standard haversine and any user-defined waveform

PRESSURE

0-500 kPa (0-70 psi)

POWER

208-240 V, 50/60 Hz, 1 phase

DIMENSIONS

LoadTrac II	Cyclic-RM
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)

WEIGHT

LoadTrac II	Cyclic-RM
55 kg (120 lbs)	14 kg (30 lbs)

INCLUDED

- GeoNet-U USB 2.0 network adapter and cable to link to PC/laptop
- CYCLIC7N software module to automatically run and report tests

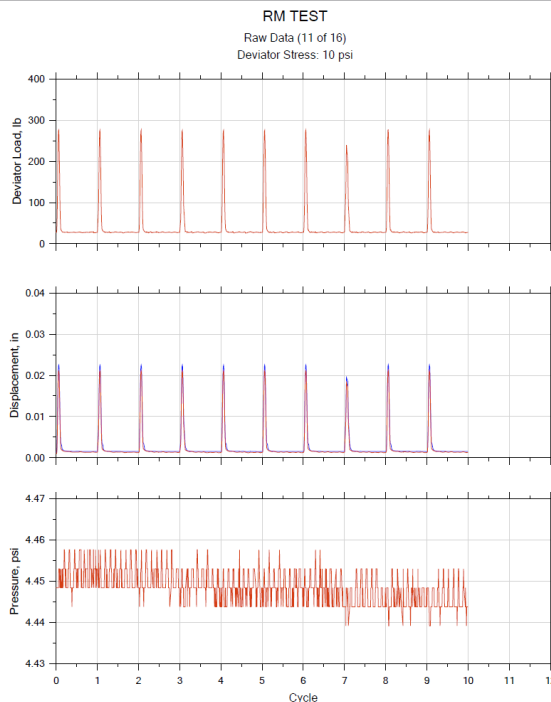
ACCESSORIES


- FlowTrac II models available
 - 200 psi (1400 kPa) or 500 psi (3500 kPa/ 250 cc)
 - 200 psi (1400 kPa)/ 750 cc
- 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

Typical Test Output (example)



	Project Name: QA-Calibration	Location:	Project Number:
	Boring Number:	Tester: SG	Checker:
	Sample Number:	Test Date: 01/22/2019	Depth:
	Test Number:	Preparation:	Elevation:
	Remarks:		

User Friendly Interface

RM6

File View Run Calibrate Control Report Options Help

Project Specimen Water Content Test Parameters Cyclic Table

	Confining Pressure psi	Contact Deviator Stress psi	Maximum Deviator Stress psi	Maximum Peak-Peak Strain %	Cycle Period s	Pulse Period s	Maximum Number of Cycles	Number of Readings per Cycle
1	6	0.4000000..	4.0000003..	1	1	0.1	10	128
2	6	0.2000000..	2.0000001..	1	1	0.1	10	128
3	6	0.4000000..	4.0000003..	1	1	0.1	10	128
4	6	0.6000000..	6.0000005..	1	1	0.1	10	128
5	6	0.8000000..	8.0000006..	1	1	0.1	10	128
6	6	1.0000000..	10.000000..	1	1	0.1	10	128
7	4	0.2000000..	2.0000001..	1	1	0.1	10	128
8	4	0.4000000..	4.0000003..	1	1	0.1	10	128
9	4	0.6000000..	6.0000005..	1	1	0.1	10	128
10	4	0.8000000..	8.0000006..	1	1	0.1	10	128

Phase Control: Stress Desired Response Gain: 1.5 Max. Permanent Strain: 5 %

Update Gain Cycles: 1 Max. Total Strain: 5 %

Filter Norm. Cutoff Freq.: 0

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