

ROCK SHEAR

SHEARTRAC III

The ShearTrac III system is capable of performing the consolidation and shearing phases of a rock core up to 152 mm (6 in) diameter. The same system can also perform a direct or residual shear test on a 305 x 305 x 205 mm (12 x 12 x 8 in) soil/aggregate specimen, as well as other tests such as interface shear or direct simple shear. Testing is performed under fully automated control with convenient monitoring and instant test results. It consists of a computer-controlled unit using independent, electro-mechanical micro-stepper systems to apply highly precise vertical and horizontal loads.

- 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 D3080, D5607, D6528
- AASHTO T236
- BS 1377-7
- ISO/TS 17892-10
- AS 1289.6.2.2



Standard Rock Shear System

ROCK SHEAR SHEARTRAC III

TECHNICAL SPECIFICATIONS

LOAD CAPACITY

Up to 90 kN (20 klb) vertical
Up to 90 kN (20 klb) horizontal

VERTICAL MOTOR

Micro-stepper system with built-in controls

HORIZONTAL MOTOR

Micro-stepper system with built-in controls

SPEED RANGE

0.00003 to 7.5 mm per min
(0.000001 to 0.3 in per min)

VERTICAL TRAVEL

100 mm (4 in)

HORIZONTAL TRAVEL

+/- 100 mm (4 in)

DIMENSIONS

610 x 1194 x 1168 mm (24 x 47 x 46 in)

WEIGHT

311 kg (685 lbs)

INCLUDED

- GeoNet-U USB 2.0 network adapter and cable to link to PC/laptop
- DS4 software module to automatically run and report tests



ACCESSORIES

- Rock shear rings and jig set
- Gripping plates
- Reduced sample size inserts - 152 mm (6 in) or 205 mm (8 in)
- Direct simple shear hardware
- DS4 REPORT: editing/reporting software for multiple tests

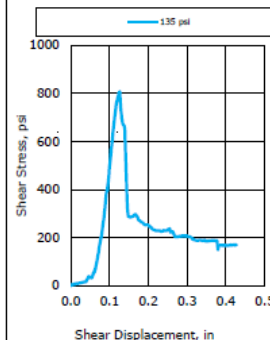
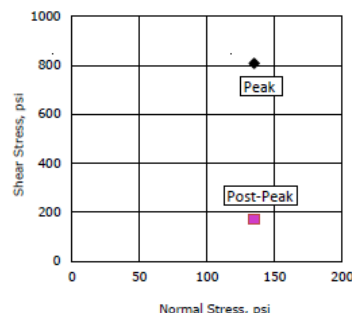
WARRANTY

12 month warranty; extended warranties available

Date Export and Custom Reporting (example)

	Client:	ABC Company
	Project Name:	Rock Shear
	Project Location:	Anywhere, USA
	GTX #:	123456
	Start Date:	8/1/2023
	End Date:	8/1/2023
	Tested By:	JCP
	Checked By:	TLV
	Boring ID:	ABC-123
	Sample ID:	A-1
	Depth, ft:	120.80-121.09
	Visual Description:	Granite

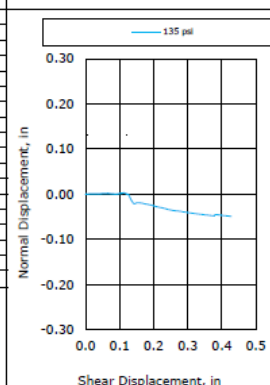
Direct Shear Test of Rock by ASTM D5607



Test No.:	317097-DS-2
Specimen Diameter, in:	3.26
Specimen Length, in:	3.20
Specimen Mass, grams:	1051
Specimen Area, in ² :	8.33
Specimen Bulk Density, pcf:	150
Shear Plane Area, in ² :	8.33
Normal Stress, psi:	135
Peak Shear Stress, psi:	808
Post Peak Shear Stress, psi:	171
Horiz. Displacement Rate, mm/min:	0.2

Peak Friction Angle:	---
Peak Cohesive Intercept, psi:	---
Post-Peak Friction Angle:	---
Post-Peak Cohesive Intercept, psi:	---
JRC Roughness	10-12

Notes: Specimen cut to length using diamond tipped saw blade.
Tested at as-received moisture content and density.
"Hydro-Stone Super X" encapsulating compound used to mount specimen in test rings.
Actual strength parameters may vary and should be determined by an engineer for site-specific conditions.



User-Friendly Interface

DS4

File View Run Calibrate Control Report Options Help

Project Specimen Water Content Read Table Test Parameters Consolidation Table Shear Table

	Delay s	Shear Control	Rate /s	Maximum Disp. mm	Maximum Force N	Read Table	
1	0	Force	-0	0	0	Time	-
2	0	Displacement	-0	0	0	Time	-
3	0	Displacement	-0	0	0	Time	-
4	0	Displacement	-0	0	0	Time	-
5	0	Displacement	-0	0	0	Time	-
6	0	Displacement	-0	0	0	Time	-
7	0	Displacement	-0	0	0	Time	-
8	0	Displacement	-0	0	0	Time	-
9	0	Displacement	-0	0	0	Time	-
10	0	Displacement	-0	0	0	Time	-

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