

LARGE DIRECT / RESIDUAL SHEAR SHEARTRAC III

The ShearTrac III system is capable of performing the consolidation and shearing phases of a 305 x 305 x 205 mm (12 x 12 x 8 in) direct or residual shear test 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 the vertical and horizontal loads to soil specimens.

- **Choose load capacity up to 160 kN (35 klbf) vertical and 115 kN (25 klbf) horizontal**
- **Unmatched automation from test start to finish - 2 to 32 times faster results and labor time savings of 30% to 95% vs. manual testing**
- **Flexible design - perform additional testing on the same platform and save money and space in your lab**
- **Full test control and remote monitoring allows you to take your testing on the go - view real-time results, check test quality, and change parameters**
- **Convenient reporting - produce complete, compliant reports instantly or export data for desired manipulation**
- **Designed for consistent and repeatable testing you can be confident in**



Standard Large Direct/Residual Shear System

Applicable Test Standards

- ASTM D3080
- AASHTO T236
- BS 1377-7
- ISO/TS 17892-10
- AS 1289.6.2.2

LARGE DIRECT/RESIDUAL SHEAR SHEARTRAC III

TECHNICAL SPECIFICATIONS

LOAD CAPACITY

Up to 160 kN (35 klbf) vertical
Up to 115 kN (25 klbf) 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)

INCLUDED

- Geo-NET network card and cable to link to PC
- DS4 software module to automatically run and report tests

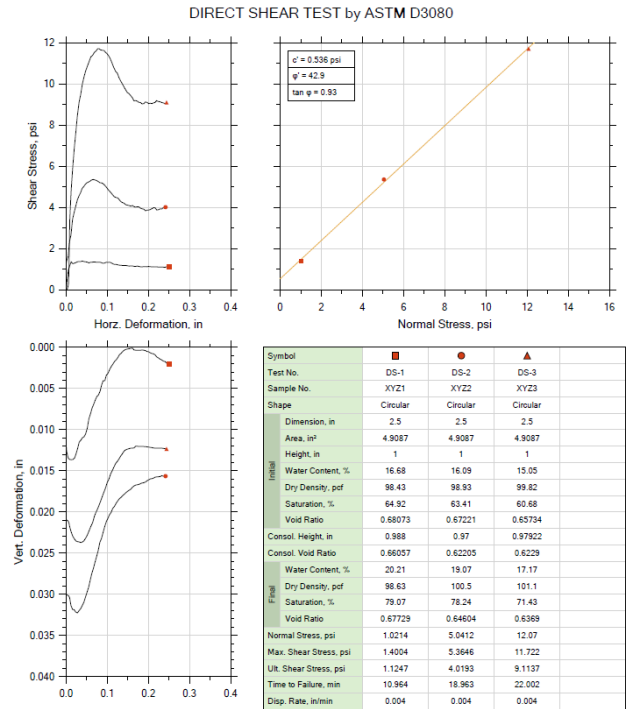
ACCESSORIES

- Gripping plates: optional for GCL testing
- Shear box
- DS4.REPORT: editing/reporting software for multiple tests

WARRANTY

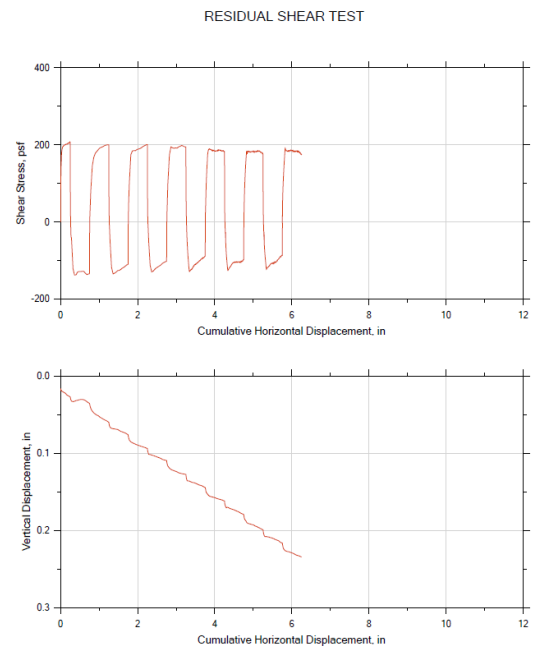
- 12 month warranty; extended warranties available

Typical Test Output (example)



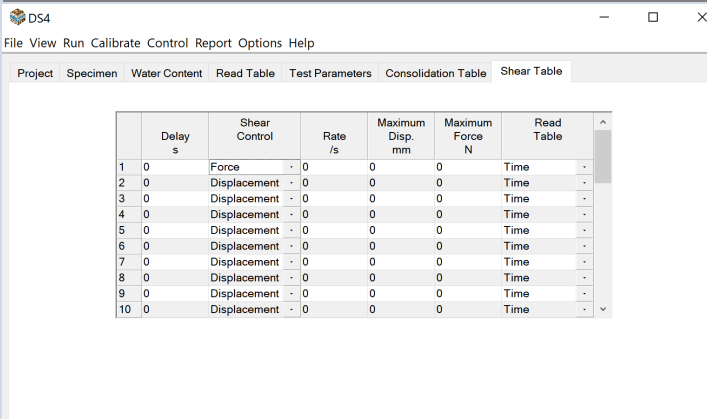
Project: ABC Landfill	Location: USA	Project No.: ABC-11
Boring No.: 2A	Tested By: td	Checked By: aw
Sample No.: XYZ1	Test Date: 02/20/2018	Depth: 10 ft.
Test No.: DS-1	Sample Type: remolded	Elevation: N/A
Description: Moist, brown sand		
Remarks: Target Compaction: 90% of max dry density (110.0 pcf) at optimum moisture (13%) + 3%, 24 hr saturation.		

Typical Test Output (example)



Project: ABC123	Location: USA	Project No.: RES123
Boring No.: SGH-2	Tested By: gv	Checked By: mn
Sample No.: ST-1	Test Date: 02/22/2018	Depth: 5 ft.
Test No.: RS-7	Sample Type: tube	Elevation: N/A
Description: Moist, dark reddish brown clay		
Remarks:		

User-Friendly Interface



The screenshot shows the DS4 software interface. At the top, there are menu options: File, View, Run, Calibrate, Control, Report, Options, Help. Below the menu is a toolbar with icons for Project, Specimen, Water Content, Read Table, Test Parameters, Consolidation Table, and Shear Table. The main window displays a table with columns for Delay (s), Shear Control, Rate (/s), Maximum Disp. (mm), Maximum Force (N), and Read Table. The table contains 10 rows of data, all with a delay of 0 and a rate of 0.

	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