

LAB VANE SHEAR

The Lab Vane Shear System is used to quickly calculate peak and/or residual undrained shear strength on intact or remolded specimens in the lab. Once the set-up is in place and the test conditions are selected, the Vane Shear system will run the entire test from start to finish. The Vane Shear utilizes a high speed, precision micro-stepper motor to apply the torque. An embedded control board with a dedicated CPU takes readings from the torque sensor and controls the stepper motor.

- Determine both peak and residual shear strength
- Highly portable and lightweight
- 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 D4648



Standard Lab Vane Shear System

LAB VANE SHEAR SYSTEM



TECHNICAL SPECIFICATIONS

TORQUE CAPACITY

9 lbf-in (1 Nm)

ROTATIONAL MOTOR

Micro-stepper system with built-in controls

ROTATIONAL SPEED RANGE

0 to 8 rad/sec (customizable for higher speeds)

CONTROL

Torque or Rotation

TORQUE MEASUREMENT

Embedded torque sensor

MEASUREMENT RANGE

-1 Nm (-9 lbf-in) to 1 Nm (9 lbf-in)

MEASUREMENT ACCURACY

61 Nm (0.0005 lbf-in)

VERTICAL TRAVEL

6 in (152 mm)

POWER

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

DIMENSIONS

394 x 400 x 394 mm (15.5 x 15.75 x 15.5 in)

WEIGHT

10 kg (22 lbs)

INCLUDED

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

ACCESSORIES

- Four vane blades: 2 short and 2 long (custom lengths available)
 - H:D of 1:1: 12.7 x 12.7 mm (0.5 x 0.5 in)
 - H:D of 2:1: 12.7 x 25.4 mm (0.5 x 1.0 in)

WARRANTY

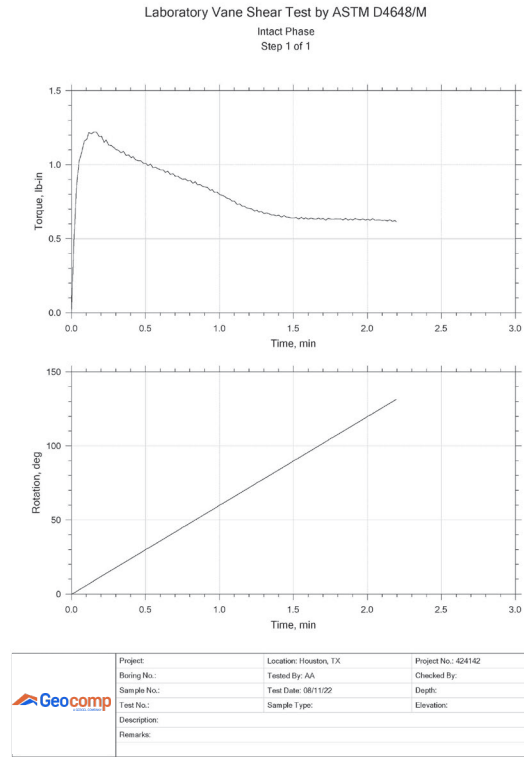
12 month warranty; extended warranties available

User Friendly Interface

The screenshot shows the VS software interface with a menu bar (File, View, Run, Calibrate, Control, Report, Options, Help) and a table with the following columns: Project, Specimen, Water Content, Read Table, Test Parameters, Intact Table, and Residual Table. A data table is displayed with the following content:

Rotation Rate (deg/min)	Maximum Rotation (deg)	Maximum Torque (lbf-in)	Past Peak Time (min)	Torque Ratio
1	60	180	1	0.5
2	90	180	1	0.5
3	0	0	0	0
4	0	0	0	0
5	0	0	0	0
6	0	0	0	0
7	0	0	0	0
8	0	0	0	0
9	0	0	0	0
10	0	0	0	0

Typical Test Output (example)



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