

DATASHEET

Laboratory Vane Apparatus



The laboratory Vane Shear Apparatus measures the shear strength of cohesive soils and is particularly useful for soils with low shear strength. Vane shear testing is a fast and economical method of measuring the shear strength of clay compared with elaborate triaxial or direct shear tests.

How it works

The laboratory Vane Apparatus derives from an original design by the UK based Transport Research Laboratory. The vane is held in a rotating socket situated in the lower part of the vane head assembly. This socket rotates in a ball seating.

Four calibrated springs are supplied, each with a deflection/load chart.

If the vane is prevented from rotating and the hand knob is turned clockwise, the circular graduated scale rotates, and a torque is applied to the springs. The load applied can be determined by noting the angular deflection from the graduate scale and by reading the relevant spring calibration chart.

If the vane is permitted to rotate, the amount of vane deflation can be seen on the secondary scale.

Benefits

Easy preliminary test

A rapid method of determining soft soil shear strength, when an immediate value is required.

Ready to use

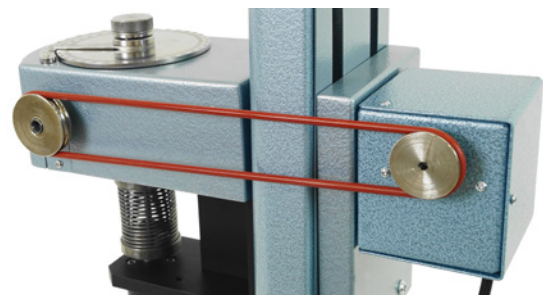
Supplied with a 12.7 mm x 12.7 mm standard Vane and set of four calibrated springs.

Easy to upgrade

Simple upgrade from manual to motorized versions.

Alternative configurations

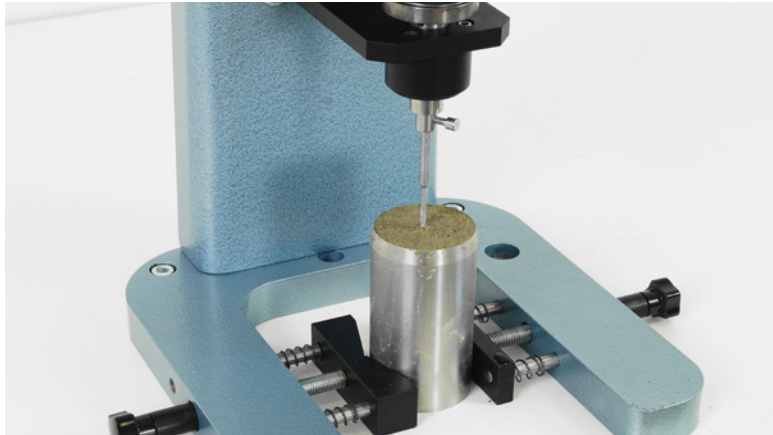
Supplied with a 200 mm base plate for standard specimen molds and sample containers. The optional attachment will also firmly hold sample tubes up to 100 mm, sample jars or a special container.



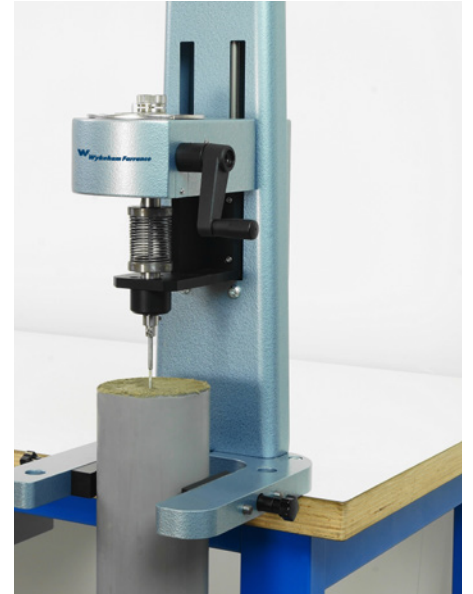
Easily update your manual system with our motorized attachment unit enabling the Vane Apparatus to achieve a constant rate of rotation.

Holding sampling tube

Optional attachments to accommodate the use of sample tubes up to 100 mm, sample jars or special container are available. This will hold the container rigid relative to the apparatus eliminating any errors during the test.



Vane Apparatus (27-WF17D30) fitted with holding sampling tube (27-WF1738) and sample container.



Vane Apparatus (27-WF17D30) fitted with holding sampling tube (27-WF1738) and 100 mm sampling tube.

Accessories

Vanes

27-WF1732 25.4 mm x 25.4 mm vane

27-WF1733 12.7 mm x 25.4 mm vane

27-WF1734 12.7 mm x 19 mm vane



Holding sample tube attachment

27-WF1738

Attachment for sampling tube or cylindrical container

Spare

27-WF1731

12.7 mm x w12.7 mm vane

27-WF1735/A

Set of kgf calibrated springs for laboratory vane apparatus

Motorizing attachment

Model	Standard	Speed [°/min]	Voltage
27-WF17D30/2	BS 1377:7	6 to 12	220V, 50Hz, 1Ph
27-WF17D30/2Y	BS 1377:7	6 to 12	220V, 60Hz, 1Ph
27-WF17D30/3	ASTM D4648	60 to 90	220V, 50Hz, 1Ph
27-WF17D30/3Y	ASTM D4648	60 to 90	220V, 60Hz, 1Ph
27-WF17D30/4	ASTM D4648	60 to 90	110V, 60Hz, 1Ph

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