AZA LAB / MATERIAL TESTING EQUIPMENT

IN-SITU VANE SHEAR TEST APPARATUS

AZA0922 | TECHNICAL DATASHEET



PRODUCT OVERVIEW

The AZA0922 In-Situ Vane Shear Test Apparatus is intended to determine the in-place shearing resistance of saturated cohesive soil deposits from the bottom of a borehole. The vane is rotated in the soil while applied torque is measured through a split proving ring and dial gauge.

A geared crank and graduated gear wheel provide controlled vane rotation. Deformation of the split proving ring is indicated by the dial gauge and interpreted using the supplied calibration chart. A detachable stand and rod-holding arrangement support field operation.

KEY CAPABILITIES

- Designed for in-situ testing of saturated cohesive soils
- Base-mounted torque applicator with geared crank and graduated wheel
- Split proving ring with dial gauge for torque indication
- Two vane sizes: Ø37.5 × 75 mm and Ø50 × 100 mm
- Quick-coupling extension rods and matching dummy rods
- Detachable stand, rod holder, pointer and calibration chart

TECHNICAL SPECIFICATIONS

01 / TECHNICAL SPECIFICATIONS

Parameter	Specification
Model	AZA0922
Equipment	In-Situ Vane Shear Test Apparatus
Referenced standard	IS 4434:1967 (as supplied)
Torque applicator	Geared crank; split proving ring
Dial gauge	0.002 mm graduation × 5 mm travel (as supplied)
Vane 1	Ø37.5 mm × 75 mm high — 1 no.
Vane 2	Ø50 mm × 100 mm high — 1 no.
Square torque rod	0.6 m — 1 no.
Quick-coupling rods	1.0 m and 1.5 m — 1 each
Dummy rods	For Ø37.5 and Ø50 mm vanes — 1 each
Torque capacity (supplier stated)	2000 kg/cm^2 — unit requires verification
Readout and calibration	Graduated wheel, pointer, calibration chart

The vane is lowered into the saturated cohesive deposit at the borehole bottom. Torque is applied progressively using the geared crank. The dial gauge records deformation of the split proving ring, while the graduated wheel and pointer indicate vane rotation. The supplied calibration chart is used to interpret torque readings; shear strength is determined using the appropriate vane geometry and test method.

Fill the slump cone with fresh concrete and compact it in accordance with the applicable test procedure. Lift the cone vertically and measure the reduction in height of the concrete using the graduated rod. Record the slump in millimetres.

Supplied: torque applicator assembly with split proving ring and dial gauge (1 set); vane Ø37.5 × 75 mm (1); vane Ø50 × 100 mm (1); square torque rod 0.6 m (1); quick-coupling rods 1.0 m and 1.5 m (1 each); matching dummy rods (1 each); detachable stand, pointer and calibration chart.

Supplied components: steel slump cone, base plate with securing clamps and lifting handle, and graduated steel tamping rod.

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