DIRECT SHEAR (MOTORISED TWELVE SPEED) AZA0901

The AZA0901 Motorised Twelve-Speed Direct Shear Apparatus is a high-performance geotechnical testing instrument designed for the accurate determination of soil shear strength parameters, including cohesion (c) and angle of internal friction (φ). Engineered for precision, repeatability, and versatility, it is widely used in foundation engineering, slope stability analysis, retaining structure design, and research applications.

The defining feature of the AZA0901 is its motorised twelve-speed drive system, which provides precise control over shear displacement rates. This enables laboratories to perform testing across a wide range of strain rates, ensuring compliance with international standards and supporting advanced geotechnical investigations.

Key Features & Benefits

- Twelve-speed motorised control for versatile testing
- Constant strain rate operation for accurate and repeatable results
- Reduced operator dependency and error
- Compatible with mechanical and digital measurement systems
- Suitable for a wide range of soil types and testing standards
- High repeatability for research and quality control applications

Standards Compliance

- ASTM D3080 – Direct Shear Test of Soils
- IS 2720 (Part 13) – Direct Shear Test
- Relevant ISSMGE Guidelines

AZA LAB UNIVERSE

TECHNICAL SPECIFICATION

Parameter	Specification
Model	AZA0901
Test Type	Direct Shear Test
Operation	Motorised, Constant Rate of Strain
Speed Control	Twelve selectable speeds
Speed Range	~0.001 to 2.0 mm/min
Normal Load Application	Dead Weights with Lever Arm
Maximum Normal Stress	Up to ~8 kg/cm² or higher
Shear Box Sizes	60×60 mm, 100×100 mm, or circular
Shear Load Measurement	Proving Ring / Electronic Load Cell
Horizontal Displacement	Dial Gauge / LVDT
Vertical Displacement	Dial Gauge / LVDT

TECHNICAL SPECIFICATION

Parameter	Specification
Power Supply	230 V AC, 50 Hz
Construction	Steel frame with brass / stainless steel parts
Mounting	Stable benchtop design
Compliance	ASTM D3080, IS 2720 (Part 13)