



UNIVERSE

LIQUID LIMIT DEVICE (MOTORISED) AZA0854

The AZA0854 Motorised Liquid Limit Device is a precision-engineered instrument designed for the accurate and repeatable determination of the liquid limit of soils using the Casagrande method.

Equipped with a geared motor operating at 120 RPM, the device automates the cup lifting and dropping mechanism, ensuring uniform blows and eliminating operator variability. This significantly enhances test consistency, efficiency, and repeatability compared to manual devices.

The system is fully compliant with IS 2720 (Part 5) and ASTM D4318, making it suitable for geotechnical laboratories, infrastructure projects, and quality control applications.

Purpose & Importance

The liquid limit defines the moisture content at which soil transitions from a plastic to a liquid state.

Engineering Significance

- Soil classification (Atterberg Limits)
- Determination of plasticity index
- Evaluation of compressibility and shear strength
- Foundation and pavement design
- Subgrade and embankment analysis

Standards Compliance

- IS 2720 (Part 5) – Methods of Test for Soils
- ASTM D4318 – Liquid Limit, Plastic Limit, and Plasticity Index





UNIVERSE

Key Features & Benefits

- Motorised Operation (120 RPM)

Ensures uniform drop rate and eliminates manual effort

- High Repeatability & Accuracy

Consistent blow frequency improves test reliability

- Standards-Compliant Design

Fully meets IS and ASTM testing requirements

- Robust Construction

Durable metal body with powder-coated finish for long service life

- User-Friendly Operation

Simple controls with minimal operator dependency

- Ready-to-Use Kit

Supplied with grooving tools and calibration block

Applications

- Liquid limit determination (Atterberg limits)
- Soil classification and plasticity evaluation
- Foundation and subgrade design
- Pavement and embankment studies
- Geotechnical investigations
- QA/QC laboratories
- Academic and research institutions

Scope of Supply

- Motorised Liquid Limit Device (AZA0854)
- Casagrande Grooving Tool
- ASTM Grooving Tool
- Height Calibration Block (1 cm)
- Power cord with safety fuse
- Operation & maintenance manual



UNIVERSE

TECHNICAL SPECIFICATION

Parameter	Details
Model	AZA0854
Test Method	Casagrande Liquid Limit (Motorised)
Applicable Standards	IS 2720 (Part 5), ASTM D4318
Operation	Motorised, Geared Drive
Speed	120 RPM
Power Supply	230 V AC, Single Phase, 50 Hz
Drop Height	10 mm \pm 0.2 mm
Cup Material	Brass
Body Construction	Mild Steel / Aluminium Cast
Finish	Powder-Coated
Calibration	Manual (using 1 cm height block)
Application	Fine-grained soil testing
Brand	AZALAB