



## LIQUID LIMIT DEVICE WITH COUNTER AZA0853

The AZA0853 Liquid Limit Device with Counter is a precision-engineered instrument designed for determining the liquid limit of soils using the Casagrande method. This test is a fundamental component of Atterberg limits and is essential for soil classification and geotechnical analysis.

The unit features a polished brass cup, hard rubber base, and an integrated mechanical blow counter, ensuring accurate, repeatable, and standards-compliant testing. Its robust and user-friendly design makes it ideal for routine laboratory use as well as academic and research applications.



### Purpose & Importance

The liquid limit represents 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 embankment design
- Pavement and subgrade analysis

### Standards Compliance

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



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### Key Features & Benefits

- Integrated Mechanical Counter

Accurately records number of blows (range: 1–999)

- Standardized Drop Mechanism

Precisely controlled 1 cm drop height

- Manual Operation

Smooth crank mechanism; no electrical power required

- Durable Construction

Polished brass cup and hard rubber base ensure long service life

- High Repeatability

Reduces operator error and ensures consistent results

- Complete Testing Kit

Supplied with grooving tools and calibration accessories

### Applications

- Soil classification and Atterberg limits determination
- Geotechnical investigations
- Foundation and embankment design
- Pavement and subgrade evaluation
- Slope stability and earthwork analysis
- Civil engineering laboratories
- Academic and research institutions

### Scope of Supply

- Liquid limit device with mechanical counter
- Brass Casagrande cup assembly
- Hard rubber base
- Casagrande grooving tool
- ASTM grooving tool
- Height gauge block



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**TECHNICAL SPECIFICATION**

<b>Parameter</b>	<b>Details</b>
Model	AZA0853
Test Method	Casagrande Liquid Limit
Applicable Standards	ASTM D4318, IS 2720 (Part 5)
Cup Material	Polished Brass
Base Material	Hard Rubber
Drop Height	1 cm $\pm$ 0.1 cm
Operation	Manual crank with cam mechanism
Counter	Mechanical, resettable (1-999)
Weight	Approx. 4.5 – 5 kg
Accessories	Grooving tools, height gauge block
Application	Fine-grained soil testing
Brand	AZALAB