



PARTICLE SIZE SEDIMENTATION (HYDROMETER METHOD) AZA0857

The AZA0857 Particle Size Sedimentation Apparatus (Hydrometer Method) is a comprehensive laboratory system designed for determining the particle size distribution of fine-grained soils, particularly silts and clays smaller than 75 microns.

Based on the hydrometer sedimentation method, the system measures changes in suspension density over time to evaluate the proportion of fine particles. It is widely used in geotechnical laboratories, civil engineering projects, environmental studies, and academic research where accurate soil characterization is essential.

The AZA0857 is supplied as a complete, ready-to-use setup, including sedimentation cylinders, hydrometer, temperature control system, and high-speed stirrer for sample preparation.



Purpose & Importance

The apparatus is used to determine the percentage of soil particles finer than a given size where sieve analysis is not applicable.

Engineering Significance

- Soil classification and grading
- Determination of silt and clay fractions
- Foundation and subgrade design
- Assessment of soil permeability and consolidation
- Environmental and sediment analysis



Key Features & Benefits

- Complete Testing System

Supplied with all required components for hydrometer analysis

- High Accuracy Measurement

ASTM-standard hydrometer with fine resolution

- Temperature-Controlled Testing

Heater and circulation unit ensure stable test conditions

- Efficient Sample Preparation

High-speed stirrer ensures uniform dispersion

- Standards-Compliant Design

Fully aligned with IS, ASTM, and BS testing procedures

- Multi-Sample Capability

Six sedimentation cylinders for parallel testing

Standards Compliance

- IS 2720 (Part IV) – Grain Size Analysis of Soils
- ASTM D422 – Particle Size Analysis of Soils
- BS 1377 – Methods of Test for Soils

Applications

- Geotechnical investigations and soil profiling
- Soil classification (fine-grained soils)
- Foundation and embankment design
- Civil engineering laboratory testing
- Environmental sediment analysis
- Academic teaching and research



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TECHNICAL SPECIFICATION

Parameter	Details
Model	AZA0857
Test Method	Hydrometer (Sedimentation Method)
Applicable Standards	IS 2720 (Part IV), ASTM D422, BS 1377
Hydrometer Type	ASTM 151H
Measurement Range	0.995 – 1.038 g/ml
Least Count	0.001
Sedimentation Cylinders	1000 ml, borosilicate glass
Temperature Range	-10°C to 50°C
Heater Capacity	1000 W
Stirrer Speed	Approx. 4000 RPM
Particle Size Range	< 0.075 mm
Power Supply	230 V AC, 50 Hz
Application	Fine-grained soil analysis
Brand	AZALAB