



## UNIVERSE STANDARD PENETROMETER AZA0938

The AZA0938 Standard Penetrometer from Azalab is a robust, precision-engineered, manually operated laboratory instrument designed for the accurate determination of consistency (penetration value) of bituminous materials, including bitumen, asphalt, waxes, and greases.

Widely used in civil engineering laboratories, highway authorities, asphalt plants, and quality control environments, the AZA0938 provides highly reliable and repeatable penetration measurements, essential for grading and performance evaluation of bituminous binders.

The instrument operates on the classical penetration principle and offers a cost-effective, durable, and standards-compliant solution in accordance with ASTM, EN, AASHTO, IP, and IS specifications.

### Key Functional Features

- High-Precision Dial Gauge

Resolution of 0.1 mm (1 penetration unit) for accurate readings

- Manual Needle Release System

Controlled initiation and termination of penetration

- Stable and Durable Construction

Heavy base and rigid frame reduce measurement errors





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- Integrated Leveling System

Adjustable screws with built-in spirit level ensure proper alignment

- Complete Standard Accessories

Supplied with needle, weights, and sample containers

- Cost-Effective Solution

Ideal for routine QA/QC and educational laboratories

### **Applications**

- Road construction and pavement QA/QC
- Bitumen and asphalt production plants
- Civil and geotechnical laboratories
- Petroleum and lubricant testing
- Academic and research institutions

### **Standards Compliance**

Designed in full compliance with:

- ASTM D5 – Penetration of Bituminous Materials
- EN 1426 – Determination of Needle Penetration
- AASHTO T49
- IP 49
- IS 1203

Ensures globally accepted, reproducible, and auditable test results.



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**TECHNICAL SPECIFICATION**

<b>Parameter</b>	<b>Specification</b>
Operation	Manual
Measurement System	Dial Gauge
Resolution	0.1 mm (1 penetration unit)
Measurement Range	0 – 400 penetration units
Standard Load	100 g (extendable with weights)
Plunger Weight	~47.5 g
Base	Heavy-duty cast iron with leveling screws
Vertical Adjustment	Rack and pinion
Needle Release	Manual
Timing	External stopwatch required
Accessories	Needle (2.5 g), weights, sample cups
Standards	ASTM D5, EN 1426, AASHTO T49, IP 49, IS 1203
Dimensions	Approx. 200 × 250 × 400 mm
Weight	Approx. 6–10 kg