



UNIVERSE SEMI-AUTOMATIC PENETROMETER AZA0940

The AZA0940 Semi-Automatic Penetrometer from Azalab is a high-precision laboratory instrument designed for the accurate determination of consistency (penetration value) of bituminous materials, including bitumen, asphalt, greases, and waxes.

Engineered to bridge the gap between manual and fully digital systems, the AZA0940 combines robust mechanical construction with digital timing and automatic needle release, delivering enhanced accuracy, repeatability, and operator convenience. It is widely used in civil engineering laboratories, highway authorities, asphalt plants, and quality control environments where reliable, standards-compliant penetration testing is required.

Key Functional Features

- Digital Penetration Measurement

Resolution of 0.01 mm for high-accuracy readings

- Programmable Timer Control

Adjustable duration (0–99 seconds), standard 5-second test automated

- Automatic Needle Release System

Magnetic control ensures smooth and vibration-free operation

- Robust Structural Design

Heavy-duty cast iron base ensures stability and precision





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- Precision Vertical Adjustment

Rack and pinion system for accurate needle positioning

- Integrated Illumination & Magnifier

Improves visibility and contact accuracy

- Complete Accessory Package

Supplied with needle, holder, weights, and sample containers

Applications

- Bitumen and asphalt grading
- Asphalt plant quality control
- Pavement material evaluation
- Research and development laboratories
- Petroleum, grease, and wax testing
- Academic and training institutions

Standards Compliance

Manufactured in accordance 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 results.



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TECHNICAL SPECIFICATION

Parameter	Specification
Model	AZA0940
Operation	Semi-Automatic (timer-controlled release)
Measurement	Digital penetration gauge
Resolution	0.01 mm
Timer	Programmable (0–99 sec)
Standard Test Time	5 seconds
Needle Release	Automatic (magnetic control)
Vertical Adjustment	Coarse & fine (rack and pinion)
Base	Heavy-duty cast iron with leveling screws
Leveling	Built-in spirit level
Illumination	Low-voltage lamp



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TECHNICAL SPECIFICATION

Parameter	Specification
Magnification	Mounted magnifying lens
Accessories	Needle, holder, weights, sample cups
Power Supply	230V, 50/60 Hz, single phase
Standards	ASTM D5, EN 1426, AASHTO T49, IP 49, IS 1203
Dimensions	Approx. 200 × 300 × 500 mm
Weight	Approx. 10–16 kg
Origin	India

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