SAY BOLT VISCOMETER AZA0950

The AZA0950 Saybolt Viscometer from Azalab is a precision laboratory instrument designed for the determination of empirical viscosity of petroleum products, lubricants, and bituminous materials.

Viscosity—defined as a fluid's resistance to flow—is a critical parameter influencing lubrication efficiency, fuel performance, and asphalt workability. The AZA0950 provides a standardized and widely accepted method of viscosity determination through efflux time measurement under controlled temperature conditions.

This instrument remains a benchmark solution for routine quality control, especially in applications governed by legacy specifications and regulatory standards.

Key Functional Features

- Dual Functionality

Supports both Saybolt Universal and Furol testing

- High-Precision Temperature Control (±0.1°C)

Ensures reliable and repeatable results

- Uniform Heat Distribution

Motorized stirring system

- Robust Industrial Design

Long service life in demanding lab environments

- Standards-Compliant Testing

Suitable for regulatory and QC applications

Saybolt Orifice Configurations

- Saybolt Universal (SUV)
- Smaller orifice diameter
- Suitable for light oils and low-viscosity fluids

Typical test temperatures:

- 37.8°C (100°F)
- 98.9°C (210°F)
- Output: SUS

Saybolt Furol (SFV)

- Larger orifice (≈ 2× SUV diameter)
- Designed for high-viscosity materials such as:
  - Bitumen
  - Fuel oils
- Typical test temperatures:
  - 120°C to 240°C
- Output: SFS
- Approximation: SFS ≈ SUS / 10 (for the same fluid range)

Standards Compliance

The AZA0950 conforms to:

- ASTM D88 – Saybolt Viscosity
- AASHTO T72
- IP 70
- IS 1206 (Part 1)
- IS 8887:2004 – Bitumen Emulsions (Furol reference)

TECHNICAL SPECIFICATION

Parameter	Specification
Model	AZA0950
Method	Saybolt efflux viscosity
Test Volume	60 mL
Output Units	SUS / SFS
Temperature Range	Ambient to 240°C
Optional Range	Up to 300°C
Temperature Stability	±0.1°C
Heating	Electric immersion heater
Stirring	Motorized
Power Supply	230 V AC, 50 Hz
Origin	India

SAYBOLT VS KINEMATIC VISCOSITY

Parameter	Saybolt	Kinematic
Type	Empirical (time-based)	Absolute (cSt / mm^2/s)
Method	Efflux time	Capillary flow
Standard	ASTM D88	ASTM D445
Use	Routine QC, legacy specs	Advanced analysis

Standard Accessories

- Saybolt Universal orifice
- Saybolt Furol orifice
- 60 mL receiving flask
- Thermometer holder
- Withdrawal tube
- Filter funnel
- Bath unit