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PENSKY–MARTENS CLOSED CUP FLASH POINT TESTER AZA1278

The AZA1278 Pensky–Martens Closed Cup Flash Point Tester is a high-precision, microcomputer-controlled instrument designed for accurate determination of flash points of petroleum products under controlled conditions. Fully compliant with ASTM D93, the system supports Procedures A, B, and C, making it suitable for a wide range of fuels, lubricants, and viscous petroleum samples. It is engineered for reliability, repeatability, and safe laboratory operation.

Standards Compliance

- ASTM D93 (Pensky–Martens Closed Cup)

Measurement Capability

- Flash Point Determination (Closed Cup Method)
- Suitable for low to high viscosity petroleum products
- Controlled test conditions per Procedure A, B, and C

Applications

- Petroleum product flash point testing
- Fuel and lubricant quality control
- Refineries and petrochemical laboratories
- Safety classification and compliance testing
- Research and academic laboratories





UNIVERSE Technical Specifications

Parameter	Specification
Model	AZA1278
Test Method	Pensky–Martens Closed Cup
Standards	ASTM D93
Power Supply	AC 220 \pm 10%, 50 Hz
Total Power	\leq 650 W
Heating Device	Silicon carbide furnace, 600 W
Heating Rates	A: 5–6 °C/min · B: 1–1.5 °C/min · C: 2.5–3.5 °C/min
Stirring Speed	A: 90–120 RPM · B: 250 \pm 10 RPM · C: 90–120 RPM
Ignition	Gas / Liquid fuel
Ambient Temp	15–35°C
Humidity	\leq 85%
Dimensions	340 × 330 × 380 mm
Weight	9 kg



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Functional & Advanced Control Specifications

Function	Specification
Heating System	Silicon carbide furnace, 600 W
Optional Heating/Cooling	Cartridge heater (300 W); optional cryostat cooling to -30°C
Stirring System	Stepper motor controlled; 5–100 RPM (advanced control mode)
Ignition Control	Electric / Gas igniter with 7-step intensity control; $0.5\text{--}5^{\circ}\text{C}$ dip interval
Arm Mechanism	Automatic stepper motor swing arm with integrated igniter, sensors, and cup cover
Flash Detection	Thermal sensor
Fire Detection	Thermal sensor
User Interface	Built-in display; optional Windows-based software with USB output
Auto Calibration	Automatic temperature calibration before test
Pressure Measurement	700–1100 hPa (500–800 mmHg)



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Safety Monitoring & Fault Detection System

Condition	System Response
Temperature sensor failure (sample/bath)	Immediate shutdown with alarm
Flash detector fault	Test abort with diagnostic alert
Igniter failure	Ignition disabled; error indication
Arm positioning error	Test halted; repositioning required
Flash point exceeds limit	Automatic shutdown
Fire detection	Alarm + full system shutdown
Abnormal operation	Fail-safe shutdown

What's Included

- 1 × AZA1278 Analyzer Unit
- 1 × Pensky–Martens Test Cup Assembly
- 1 × Ignition System
- 1 × User Manual
- 1 × Calibration Certificate

Optional Accessories:

- Cryostat cooling unit
- PC software & printer integration
- Spare sensors and ignition components