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AUTOMATIC CLEVELAND OPEN CUP FLASH POINT APPARATUS

Automatic Cleveland Open Cup Flash Point Apparatus TT-92E

Automatic Cleveland Open Cup Flash Point Apparatus TT-92E conforms to the ASTM D92 Standard Test Method for Flash and Fire Points by Cleveland Open Cup Tester. This apparatus is suitable for all petroleum products with flash points above 79°C (175°F) and below 400°C (752°F), with the exception of fuel oils.

APPLICATIONS

The primary application of the Automatic Cleveland Open Cup Flash Point Apparatus TT-92E is to **automatically determine the flash point and fire point** of petroleum products, in compliance with the **ASTM D92** standard. This safety-critical test is performed on products with flash points ranging from 79°C to 400°C, such as lubricating oils and other high-boiling point materials (excluding fuel oils). The automated process enhances repeatability and reduces operator time by managing the entire test sequence, from heating and ignition sweeps to cooling and data logging.

Key Industries

- **Lubricant Manufacturing:** This is an essential quality control and safety validation tool. Manufacturers must report the flash and fire points on product specifications and safety data sheets (SDS) for all their lubricants, making this a routine and mandatory test.
- **Petroleum Refining:** Refineries use this instrument to test the quality and safety of various product streams, particularly the base oils that are the primary components of finished lubricants. It ensures these intermediate products meet the required specifications before further processing or sale.
- **Industrial Maintenance & Reliability:** As a key tool in predictive maintenance programs, this tester is used to analyze in-service lubricants from machinery. A significant drop in flash point is a critical indicator of contamination (e.g., by fuel or solvents), which can signal a serious equipment malfunction, preventing costly failures.

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FEATURES

- Single chip control, large LCD touch screen, programmed heating
- Automatic ignition and flash point determination
- Equipped with automatic ignition wire for automatic gas ignition
- Automatic lifting, weeping, and detection of test results
- Fast detection function, allowing setting of the heating rate as needed and quick determination of the flash point of unknown samples
- Equipped with a printer to display and print test results
- Built-in barometric pressure sensor to calibrate test results according to actual barometric pressure
- Temperature correction and barometric pressure correction functions
- Ability to set the maximum detection temperature and ignition times; when the set value is reached, the tester will stop heating automatically

TECHNICAL SPECIFICATIONS

Automatic Cleveland Open Cup Flash Point Apparatus - TT-92E

Technical Specifications

Parameter	Specification
Measuring Range	70°C to 370°C (158°F to 698°F)

Parameter	Specification
Applicable Standard	ASTM D92
Temperature Sensor	Pt100 platinum resistance temperature detector
Flash Point Detection	Ionization ring sensor
Heating Rate	Programmed to follow ASTM D92 heating profile
Igniter Rating	220 V, 1.0 kW
Ignition Mode	Automatic electronic ignition
Power Supply	AC 220 V ±10%, 50 Hz (110 V version available on request)
Dimensions (L x W x H)	350 x 400 x 350 mm (13.8 x 15.7 x 13.8 in)

Configuration

Item	Unit	Qty.
Main Unit	Set	1
Test Cup	Piece	1
Igniter	Piece	1
Fuse Φ5 x 20, 10 A	Piece	2
Micro Printer	Set	1

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