



# A-PMA

## Automatic Pensky-Martens Closed Cup Flash Point Tester

ASTM D93 (A,B,C)

ISO 2719 (A,B,C)

EN ISO 2719 (A,B,C) IP 34 (A,B,C)

- Automatic fire-extinguishing system
- Built-in barometric pressure sensor for automatic flash point correction
- Automatic lifting mechanism for the cup cover installation
- Torch flame ignition and maintenance system
- Colour display, touch screen operation
- Calculation of the flash point mean value
- Experimental data and more than 2000 user programs can be stored in the internal memory
- Remote update of integrated software, data export to LIMS via Ethernet
- Built-in fan to cool down the test cup and surrounding environment at the end of the test

### Determination of the flash point of petroleum products

The A-PMA is a compact and self-contained Pensky-Martens Closed Cup Flash Point Analyzer. It contains all the components for determining the flash point according to standard test methods such as: ASTM D 93 (A, B, C), EN ISO 2719 (A and B), as well as customizable methods.

The A-PMA uses electronic flash point detection and allows the use of both gas and electrical ignition systems for the analyzed sample.



**Pensky-Martens Flash Point Tester** 16.11.20 16:04:17

User: Admin

Sample name: Sample

Method: ASTM D93 A

Estimated temperature, °C: 53.0

Sample temperature, °C: 24.9

Heater temperature, °C: 26.4

Атмосферное давление, кПа: 100.7

Air temperature, °C: 25.7

Flash sensor, °C: 28.3

Test parameters Settings Results **Start**

**Method editor** 09.04.18 18:00:00

Method name: ASTM D93

Heating speed 1, °C/min: 0,5 Measurement interval 1, °C: 1

Stirrer speed, rpm: 50 Measurement interval 2, °C: 1

Degrees before the expected flash point, °C: 10,0

Degrees before the expected flash point, °C: 5,0

Back Save

## Flash point range

The automatic sample heating system allows you to determine the flash point in the ranges from +40°C up to +360°C (standardized range), and from ambient temperature to +405°C (technical range).

## Built-in automatic fire extinguishing system

An automatic fire extinguishing system is built into the device. The automatically (through thermocouples) or manually controlled fire extinguishing system allows inert gas to be supplied around the test crucible throughout the entire area of possible fire. This is done by using an annular nozzle encasing the test area connected to an external inert gas supply.

## Automatic lifting mechanism for the cup cover installation

The special cup cover mechanism with a safe automatic drive moves smoothly for convenient operation. The automatic drive works smoothly and does not pose a threat to human health.

## Built-in fan for cooling after test completion

The test crucible can be cooled very fast after analysis due to the design of the device, which increases labor productivity. There are optional accessories that cool the crucible even faster.

## Built-in barometric pressure sensor for automatic result adjustment

The device has a built-in atmospheric pressure sensor and allows automatic correction for atmospheric pressure.

## Instrument calibration

All required parameters and sensors are calibrated in this device:

- Pt100 temperature sensor calibration
- dynamic, against ASTM certified thermometer (9C or 10C) or alternative, including correction using up to 25 calibration points (user defined)
- calibration of the heater block temperature sensor using an external thermometer
- calibration of the barometric pressure sensor with an external barometer



<b>Methods</b>	ASTM D93 (A,B,C), ISO 2719 (A,B,C), EN ISO 2719 (A,B,C), IP 34 (A,B,C)
<b>Heating</b>	Automatic heating at a constant rate in the range 0.5...12 °C/min
<b>Measuring range</b>	Ambient... 400 °C
<b>Temperature measurement</b>	Glass Pt100 temperature sensor range -50...+450 °C, resolution 0.1 °C
<b>Mixer</b>	Automatic programmable, range 0...300 rpm
<b>Ignition system</b>	Electric or gas with a programmable interval 0.5...5 °C electric – with automatic compensation for spiral aging
<b>Barometric pressure</b>	Built-in barometric pressure sensor for automatic flash point correction
<b>Flash detection</b>	Low mass thermocouple
<b>Custom functions</b>	7 inch color touch screen storage for up to 2000 experiments the ability to transfer data to LIMS keyboard and mouse connectivity
<b>Fire extinguishing system</b>	Built-in fire sensors Built-in fire extinguishing system with gas supply around the test crucible
<b>Preliminary test</b>	Check for light compounds in the sample
<b>Preventive measures</b>	Multi-level access system and reminders for safe use
<b>Operation conditions</b>	Air temperature: 10...+35 °C air humidity: 10...80% relative air humidity at 35 °C
<b>Power supply</b>	1 00-240V, 50/60 Hz
<b>Energy</b>	600 W
<b>Dimensions WxDxH</b>	(240 x 480 x 370) mm
<b>Weight</b>	15 kg
<b>Connections</b>	1 x Ethernet, 4 x USB, Wi-Fi
<b>Accessories</b>	Printer, glass sample temperature sensor