



# OilLab 600 Pensky Martens



ASTM D93 procedures A, B, C  
ASTM D3941 - ASTM E502  
DIN EN 22719  
EN 22719  
IP 34  
ISO 2719

### Subject

Flash Point on petroleum products, gas oils, fuel oils, lubricants, biodiesel. Suitable for flash point detection on different substances, waste materials, solvents...

### Measuring Pensky Martens Principle

The sample is heated and stirred at specified rates, using one of three defined procedures (A, B, or C). An ignition source is directed into the test cup at regular intervals with simultaneous interruption of the stirring, until a flash is detected.



Dual flash point detection system:  
by ionisation ring,  
by thermal sensor.

### Measuring Parameters

- Temperatures: in °C
- Measuring range: +35°C ... +370°C
- Resolution: 0.01 °C
- Accuracy: ± 0.1 °C
- Repeatability / Reproducibility: as per standards methods or better

### Ignition system

Instrument equipped with flame ignition device made in brass, with 0.7 mm diameter orifice for analysis with gas also provided with electrical ignitor hot-wire that automatically passes through the center of large opening (A) of the proper cup cover.

### Pilot Flame

Secondary pilot flame gas propelled for re-enlight the test flame, alternatively electrical ignitor hot wire shall be used; a bead of 4 mm is provided to compare flame dimensions.

### Measuring Temperature Devices

- Sample temperature is measured with a platinum resistance PT100 Class A with SS sheath and high temperature resistant silicone cable
- Bath temperature is measured with a PT100 sensor

### Dual flash point detection system

- By ionisation ring
- By thermal sensor

### Barometric correction

- Barometric built-in sensor with automatic correction of results to a barometric pressure of 101.3 kPa automatically performed by the software at the end of analysis

### Heating

- Electrical heater with heating rates as per procedures A, B, C

### Cooling

- Built-in forced air fan at the end of the test

### Test Cup

- Made of brass with Ni-Cr treatment for more corrosion resistance and provided with a high temperature resistant handle
- With sample level mark

### Stirrer

- An electric motor drives a flexible transmission coil allowing the stirring of the product through a two-bladed metal propellers. Stirring speed as per selected procedures A, B, C

### Shutter

- Automatic mechanism opening the shutter for the dip-in of the ignition device

### Safety features

- Gas valve for closing the gas supply (max 30 mBar), at the end of the test
- Overheating protection with auto shut off during the test
- Auto fire detection by means of thermal fuse with acoustic alarm

### Software Features

- All analytical parameters recorded
- Customizable analysis parameters and methods
- Customizable results report
- Printable graphs and results

The software includes:

#### Analysis Menu

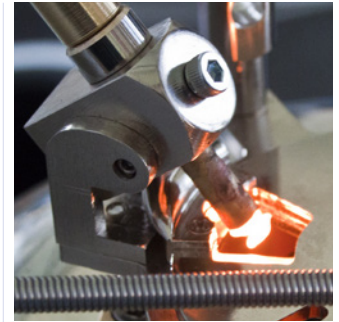
- Automatic execution of the analysis in accordance to the selected procedure (Standard method as per ASTM / IP / ISO / EN / DIN... norms of reference as well as costumized procedures)
- Automatic handling of samples with unknown flash point





Automatic Analysers: OilLab Range

## OilLab 600 Pensky Martens



Electric lighter  
with electrical ignitor.



Gas with flame exposure device.



### Test cup

Internal diameter: 50.8 mm.  
External diameter: 54 mm.  
Internal depth: 55.8 mm.  
Filling mark at 21.8 mm from upper side.

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- Display in real time of all the analysis parameters and status
- Fields for introduction of operator and product name
- Expected flash point temperature programmable
- Audible alarm and displayed messages at the end of the analysis and in case of errors and/or malfunctions
- Configuration menu with up to 20 preset samples and expected flash point
- Automatic barometric correction of results  
Diagnostic Menu
- Direct access to all analog, digital, inputs and outputs
- Selectable value displaying:  
°C / Volt  
Calibration Menu
- Automatic calibration of each temperature probe
- Up to 100 calibration points (standard with 5 and dynamic with up to 100 points)
- Programmable calibration frequency with selectable validity period and notice/lock-down at expiration date
- Last calibration date referred to each single probe displayed and relevant data printable
- Display of calibration diagram  
Data Utilities
- Archive viewer for files recall
- All analysis stored in Excel<sup>®</sup> compatible format
- LIMS compatible

### Integrated Touch Screen Panel PC

- TFT/LCD 8"
- Resolution 1024 x 768, 16.2 M colours
- 2 USB ports for connection to an external printer and/or external PC
- Storage capacity for more than 60'000 analysis

### Electrical Supply

- 220V ± 15% / 50 to 60 Hz
- 115V ± 15% / 60 Hz
- cord cable with schuko plug

### Ambient Temperature

- Max 35°C
- H.R. 80%

### Dimensions

- width 48 cm
- depth 30 cm,
- height 52 cm

### Weight

- 27 Kg

### Accessories

- LAB-600/05-23: heater collar
- LAB-600/06-21: gas valve
- LAB-600/07-01: electrical ignitor
- LAB-600/07-03: micro switch
- LAB-600/07-04: handle
- LAB-600/07-05: gas ignitor
- LAB-600/08-12: PT100 product
- LAB-600/08-13: detection / ionisation cable
- LAB-600/08-14: PT100 Bath
- LAB-600/09-04: gas reducer
- LAB-600/09-05: calibrated brass crucible
- LAB-600/09-06: calibrated brass crucible complete with movement
- LAB-600/09-07: cover cup movement only
- LAB-600/10-04: PCB fuses, box of 10
- LAB-600/10-05: main electronic board
- LAB-600/11-01: silicon tubing, 1 meter
- LAB-600/11-02: stirrer / flexible
- LAB-600/12-01: voltage transformer for ignitor
- LAB-600/20-01: support PT100 Teflon

### Calibration Tools

- OilLab 80: calibration decade box – PT100 simulator
- OilLab 81: set of connectors and cables for cold range