

Easy, Safe and Accurate Flash Point
Determination

OptiFlash™ PENSKY-MARTENS



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HERZOG
by **PAC**

The New Benchmark in Flash Point Determination

- Innovative instrument design for improved ease of use and easy cleaning
 - Excellent analysis performance and robustness
- High safety standards with preventive fire detection and safety monitoring system
 - Complies with leading global standard methods

OPTIFLASH, THE NEW BENCHMARK IN FLASH POINT DETERMINATION

PAC's Herzog OptiFlash is the new benchmark in flash point analysis, fully designed to meet today's expectations on user convenience, quality and safety compliance. The Optiflash accurately detects flashpoint up to 400°C for petroleum products, biodiesels, solvents, chemicals, fluxed bitumen and food and beverages. The OptiFlash is fully compliant with leading global standards.

✓ SIGNIFICANTLY IMPROVED EASE OF OPERATION

✓ HIGH SAFETY STANDARDS

✓ EASY CLEANING

✓ PROVEN PERFORMANCE AND ROBUSTNESS



SIGNIFICANTLY IMPROVED EASE OF OPERATION

- Automatic lift-arm for hands-free cup cover installation
- No need for the user to handle Pt100, Flash Point Sensor, Ignitor and Shutter Drive
- Straightforward user interface:
 - Easy sample ID input with Alpha Numeric keypad
 - Option to enter user name, sample description or a note
 - Get Pass/Fail display by defining Min and Max values for the flash point result for the different products
 - Supports multiple languages

STEP 1.
Place the cup

STEP 2
• Enter Sample ID
• Select product with expected flash point

STEP 3
Press start

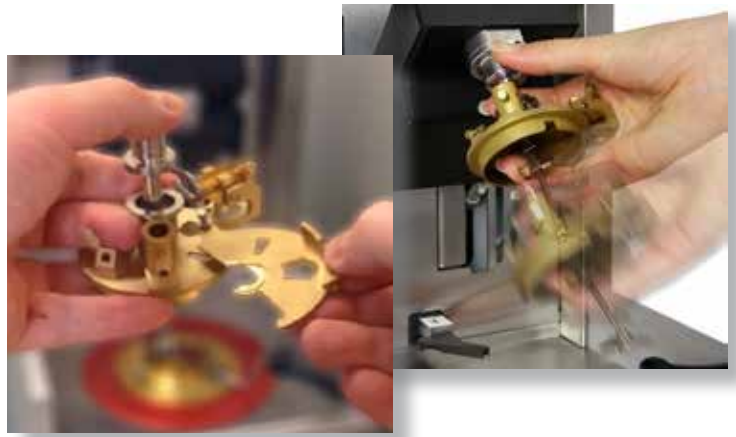


The cup cover automatically installs and the flashpoint analysis starts



EASY CLEANING

- Simple push button to disconnect cup cover from lift arm
- Allows external cleaning for the cup cover
- Remove the shutter without any tools
- Easy cleaning for high viscous samples with stand-by temperature to keep the sample hot and liquid at test end
- Large tilt angle of the cup cover allows easy cleaning for Pt100 and stirrer



Easy disconnection, for easy and external cleaning of the cup-cover

HIGH SAFETY STANDARDS

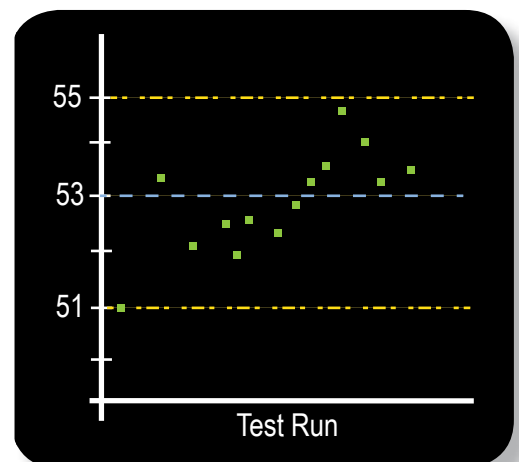
- Built in fire extinguisher:
 - Ultra fast optical fire detector
 - Fire detection in an extended range around the test cup
 - External inert gas (CO₂, N₂ ...) connection
- Detect "Flash" outside the cup
 - Test aborted with warning message
 - Closing the shutter stops the flame
 - No need to activate fire extinguisher
- Safety monitoring system:
 - Safety pre test interval to avoid fire caused by user error
 - Over heating protection
 - No sample drops from stirrer going into the heater block
- Safe bitumen analysis
 - Automatic pre heating of heating block
 - No need for the user to handle the hot test cup cover



Optical fire detecting system covers entire hot area

PROVEN PERFORMANCE AND ROBUSTNESS

- Robust hardware design for improved parts lifetime and low maintenance:
 - Hands-free operation minimizes risk to damage the igniter during installation and cup cover handling
 - Continuous monitoring the igniter performance allows preventive actions to avoid down-time
 - Optional metal sample thermometer is more rugged
- Built-in quality control (QC) functions contribute to improved precision:
 - Automatic QC procedure with QC chart on the instrument screen for trend monitoring
 - Calibration monitoring of the Pt100 and pressure sensor to remind the user if recalibration is necessary
 - Automatic diagnostic functions to help the maintenance team in case of an instrument failure



Quality control charts allow monitoring the instrument performance



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SPECIFICATIONS

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Standards	ASTM D93 Methods A,B&C, ISO 2719 A,B&C, EN ISO 2719 A,B&C, IP 34 A,B&C, JIS K 2265, GB/T261
Configuration	Automated Pensky Martens flash point analyzer OptiFlash Flash point measuring range 30°C to 400°C
Temperature Measurement	Intelligent Pt 100 probe with built in calibration, 10 calibration points Glass or metal Pt 100, temperature range -50°C to +450°C, resolution 0.1°C
Heating System	Heater band for uniform heating of the heater block, Test method or user-defined heat rate from 0.5 to 12 °C/min.
Sample Stirrer	Automatic stirrer, test method or user-defined RPM from 0 to 300 RPM
Ignition Source	Intelligent electric igniter with automatic power management over life time or automatic gas ignition with gas flame monitoring, test method or user-defined Test Interval from 0.5°C to 5°C
Barometric Pressure Sensor	Built in barometric pressure sensor for automatic barometric pressure correction for the flash point, pressure units mbar, hPa, kPa, mmHg or Torr.
Flash Detection System	Unique thermal flash point detection which can detect flash point for all sample types
User Interface	7" colored touch screen, alpha numeric data input, barcode reader
Result Documentation	500 results, 200 products, user defined result reports for printer and LIMS
Printer	Any printer with USB interface and PCL5 or higher. Automatic print out
LIMS interface	Ethernet or RS232, used defined data string, automatic LIMS transfer
Data Export	USB memory stick, import into Excel
QC-Functions	Automatic QC-sample handling and QC-chart
Safety Features	
Fire Extinguisher	2 built-in fire sensors for detection of fire or just flash outside of the cup, Fire extinguishing system with external inert gas, alarm relay to link OptiFlash to a lab alarm system
Safety pre test	By doing safety pre dip ins the unit can detect high volatile contamination in normally high flash point samples and avoid a risk of fire
Alarm Functions	Automatic detection of method or safety violations. User selects test termination or alarm message
Password Protection	Different access levels for operator, service or lab manager
Calibration and Diagnostics	User defined calibration intervals Automatic diagnostic functions
Operating Requirements	
Electrical	115VAC ±10% or 230VAC ±10% with automatic switching; 50-60Hz; 1100 W
Ambient Conditions	Operating temperature: 10°C to 35°C; Humidity: 80% rel. at 35°C
Storage temperature:	-15°C to +55°C
Dimensions	25 cm (9.85") wide, 51 cm (20.1") deep, 56 cm (22") tall
Weight	25kg, (55 lb)
Options & Accesories	
Options	Automatic lift arm, fire extinguishing system with ultra fast optical sensor
Accesories	Printer, barcode reader, metal temperature sensor

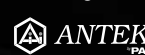
Continuing research and development may result in specifications or appearance changes at any time

PAC L.P.

PAC, a leading global provider of advanced analytical instruments for laboratories and online process applications. With a portfolio of over 200 instruments, PAC serves its customers with cutting edge technology and significant R&D resources to support its core technologies, including chromatography, elemental analysis, physical properties, fuels composition, and laboratory automation

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