



solid partners  
proven solutions



# Herzog OptiFlash<sup>®</sup> Small Scale

Accurate Flash Point Determination for Low Volume Samples

- 🌐 Innovative instrument design for improved ease of use and easy cleaning
- 🌐 Excellent analysis performance and robustness
- 🌐 High safety standards with preventive fire detection & safety monitoring system
- 🌐 Complies with ASTM D3828, ASTM D3278, ASTM D7236, ISO 3679, ISO 3680, IP523, IP524 and IP534 methods

# Herzog OptiFlash®

## Small Scale

The OptiFlash Small Scale accurately detects flashpoint in petroleum products, biodiesels, solvents, chemicals, paint varnishes, fluxed bitumen, food and beverages. There are three models available: regular, low temperature and high temperature. The OptiFlash Small Scale is fully compliant with leading global standards.

SIGNIFICANTLY IMPROVED  
EASE OF OPERATION

EASY TO CLEAN

HIGH SAFETY  
STANDARDS WITH  
BUILT-IN FIRE  
DETECTION/  
EXTINGUISHER



### AVAILABLE MODELS

#### Low temperature:

- Flash Point 0°C to 135°C
- Built-in Peltier cooler

#### High Temperature:

- Flash Point 30°C to 300°C

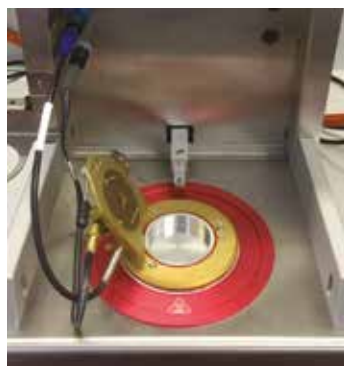
#### Ultra-Low Temperature:

- Flash Point -30°C to 135°C
- Built-in Peltier cooler
- Built in cooling coil
- External cooler required for flash points below 0°C

## EASE OF OPERATION



Easily inject  
samples with  
a syringe



The fixed cup cover  
prevents any damage to  
the igniter



Easy cleaning for high  
viscous samples

# KEY ADVANTAGES

## HIGH SAFETY STANDARDS



- Built in fire extinguisher:
  - Ultra fast optical fire detector
  - Fire detection in extended range around test cup
  - External inert gas (CO<sub>2</sub>, N<sub>2</sub>...) 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
  - Over heating protection

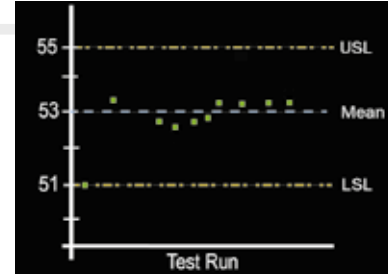


*Optical fire detecting system covers entire hot area*

## PROVEN PERFORMANCE



- Fast flash/no flash test:
  - Test at 50°C in 3 minutes
  - Test at 100°C in 4 minutes
  - Test at 0°C in 5 minutes
- Built-in quality control (QC) functions:
  - Automatic QC procedure with QC chart on the instrument screen for trend monitoring
  - Calibration monitoring of the Pt100 and pressure sensor remind user if recalibration is necessary
  - Automatic diagnostic help maintenance team in case of instrument failure



*Quality control charts allow monitoring the instrument performance*

## IMPROVED EASE OF OPERATION



- 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

## VERY LOW VOLUME SAMPLES



- 2 or 4 ml samples
- Sample injection with syringe
- Flash point is determined with one sample injection



## SPECIFICATIONS

Standards	
ASTM D3828, ASTM D3278, ASTM D7236, ISO 3679, ISO 3680, IP523, IP524 and IP534	
Configuration	
High Temp. Model	For flash points between +30°C and +300°C
Low Temp. Model	For flash points between 0°C and +135°C, with built in Peltier cooler
Ultra-Low Temp. Model	For flash points between -30°C and +135°C, with built in Peltier cooler and built in cooling coil for external cooler. For flash points below 0°C an additional external cooler is required.
External Coolers:	
Flash Points -20°C to 0°C	With built in Peltier cooler and external cooler with 80W @ -20°C
Flash Points below -20°C	With built in Peltier cooler and external cooler with 110W @ -40°C
Built in Cooling System	Peltier cooling system for fast pre-cooling and cooling at test end
Heating System	Separate heater element allow for fast heating mode. Test method or user-defined heat rate from 0.2 to 6 °C/min.
Temperature Measurement	Intelligent Pt 100 probe with built-in calibration, 10 calibration points. Temp. range -50°C to +450°C, resolution 0.1°C
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, virtual alpha numeric keypad, barcode reader
Result Documentation	Database for 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, user 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	Safety pre-dips can detect high volatile contamination in normally high flash point samples and avoid 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	115V or 230VAC ±10% switchable; 50-60Hz ; 500 W
Ambient Conditions	Temperature: Humidity: 80% rel. at 35°C
Storage temperature	-15°C to +55°C
Dimensions & Weight	25 cm (9.85") wide, 51 cm (20.1") deep, 56 cm (22") tall, 25kg (55 lb)
Options & Accessories	
Accessories	Printer, barcode reader, metal temperature sensor

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

### ABOUT PAC

PAC develops advanced instrumentation for lab and process applications based on strong **Analytical Expertise** that ensures **Optimal Performance** for our clients. Our analyzers help our clients meet complex industry challenges by providing a low cost of ownership, safe operation, high performance with fast, accurate, and actionable results, high uptime through reliable instrumentation, and compliance with standard methods.

### HEADQUARTERS

PAC LP | 8824 Fallbrook Drive | Houston, Texas 77064 | USA  
T: +1 800.444.8378 | F: +1 281.580.0719



Visit our website to find the  
PAC representative closest to you.