Herzog OptiFlash®
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

WWW.PACLP.COM
The new Small Scale Flash Point Analyzer completes PAC’s Herzog OptiFlash family. The OptiFlash accurately detects flashpoint from -30°C up to 300°C for petroleum products, biodiesels, solvents, chemicals, paint varnishes, fluxed bitumen and food and beverages. The OptiFlash is fully compliant with leading global standards.
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 (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
  - Over heating protection

PROVEN PERFORMANCE
- Fast flash/no flash test:
  - Test at 50°C in 4 minutes
  - Test at 100°C in 5 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

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
# PAC SPECIFICATIONS

## Standards

- ASTM D3828, ASTM D3278, ASTM D7236, ISO 3679, ISO 3680, IP523, IP524 and IP534

## Configuration

<table>
<thead>
<tr>
<th>Measuring Range for S.S. Low Temp.</th>
<th>Automated OptiFlash small scale flash point analyzer for flash points between -30 °C and +300 °C</th>
</tr>
</thead>
<tbody>
<tr>
<td>Flash Points 0 °C to 120 °C</td>
<td>With built in Peltier Cooler (No external cooler required)</td>
</tr>
<tr>
<td>Flash Points -20 °C to 0 °C</td>
<td>With built in Peltier Cooler and external cooler with 80W @ -20 °C</td>
</tr>
<tr>
<td>Flash Points below -20 °C</td>
<td>With built in Peltier Cooler and external cooler with 110W @ -40 °C</td>
</tr>
</tbody>
</table>

## Cooling System

- Built in 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
- Temperature 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 key pad, 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, 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
  - 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: 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

- Printer, barcode reader, metal temperature sensor

## 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

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Our solutions are from industry-leading brands: AC Analytical Controls, Advanced Sensors, Alcor, Antek, Herzog, ISL, Cambridge Viscosity, PSPI, and Petrospec. We are committed to delivering superior and local customer service worldwide with 16 office locations and a network of over 50 distributors. PAC operates as a unit of Roper Technologies, Inc., a diversified technology company and a constituent of S&P 500, Fortune 1000, and Russell 1000 indices.

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