



APPLICATIONS:

Cold Behavior

DIESEL FUELS

GAS OILS

ADVANTAGES:

- **Automates cold filter plugging point analyses with microprocessor precision**
- **Allows standardized or customized testing**
- **Operates in stand-alone and multi-analyzer network configurations**
- **Provides thorough documentation of all test parameters and results**
- **Sends data to any connected serial device, including printers or network**

Automatic Cold Filter Plugging Point Analyzer

HCP 842 CFPP+

Cold Filter Plugging Point (CFPP) test methods describe procedures for low temperature operability determinations in diesel fuels and gas oils. They provide an accurate means of judging gas oil behavior at **temperatures lower than possible with the cloud point test method.**

Walter Herzog GmbH contributed significantly to this test method's standardization by **developing the first automatic CFPP analyzer** in 1970, long before any standard test protocol was established. The Herzog HCP 842 Automated CFPP+ Analyzer represents **over three decades** of improvements and enhancements to that first device.

METHODS:

- EN 116
- IP 309
- ASTM D 6371
- SIS 155 122
- AFNOR 549

HCP 842 CFPP+

EN 116 filterability testing couldn't be easier... or more accurate!

In standardized testing, sample cooling ramps in defined steps from a -34°C base temperature to bath temperatures of -51°C and -67° (as required by EN 116), ultimately cooling to the final user-defined low temperature. As a result, **switching speed is completely independent of the user's external cooling system's chilling capacity and lowest bath temperature**, thus permitting use of a variety of independent cooling systems. Once CFPP temperature is determined, the HCP 842 activates an audible "end of test" signal and resets the bath temperature to the starting value for a new test.

For customized performance, HCP 842 accommodates up to **four user-programmed test procedures, which can deviate from standard procedures while still maintaining overall test methodology**. Vacuum level, suction interval, sieve and pipette size as well as other test parameters are easily modified. Sample cooling is also user-defined and can be decreased in steps (those defined by EN 116 or your own), at a constant rate, or using delta temperature.

...EVEN MORE FLEXIBILITY, PLUS PROTECTION

- Install as a stand-alone unit, or network multiple Herzog analyzers, assigning one unit as the network's control station
- Establish password protection, preventing inadvertent program modifications

AUTOMATED CONVENIENCES

- Results, test parameters, and error logs output directly to a printer or computer system
- Built-in calibration, self-test, and diagnostics ensure proper, dependable operation
- Programmable pipette cleaning initiates with the push of a button

DEPENDABLE OPERATION AND SUPPORT

- Quality construction and reliable operation backed by a limited parts and service warranty
- Expert sales and service from PAC's worldwide network of factory trained authorized representatives
- Intensive customer training at our site or yours

FOR ADDITIONAL INFORMATION:

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SPECIFICATIONS

Ordering Information	Model HCP 842 Cold Filter Plugging Point Analyzer
Standard Test Methods	EN 116 IP 309 ASTM D 6371 SIS 155 122 AFNOR 549
Performance	Measuring Range -80 to +50°C (-112 to 122°F) Sample Cooling EN 116 or user-defined; temperature steps, constant rate, or delta temperature Initial Test Temperature EN 116 or user-defined Test Frequency EN 116 or user-defined Vacuum Constant or dynamic Suction Time EN 116 or user-defined
Test Programs	4 total; unit ships with EN 116 CFPP preprogrammed; other programs may be defined by user
Documentation	Local display; parallel and RS-232 serial output ports standard; printer available as accessory (see below)
Utility Requirements	Electrical 115/230 VAC, 50/60 Hz, 350 watts External Cooling Unit User-supplied. Cold behavior instruments require a circulating, low temperature bath capable of operating at a minimum of 20°C below the lowest measuring range. A single bath may be capable of connection to multiple Herzog instruments
Dimensions	240mm (W) x 420mm (D) x 590mm (H) (9.5 x 16.5 x 23.2 inches)
Weight	24.5 kg (54 pounds)
Accessory	Printer

Due to continuing product development, specifications subject to change at any time without notice. All Herzog products are  compliant.

Sample Report

A typical report includes sample ID, date and time, CFPP temperature, test program number, and test start temperature.

You can also report all test temperatures, time between suction cycles, suction time, highest sample temperature after the suction cycle, time required to reach the highest sample temperature, and time required for the sample to run out of the pipette.

HERZOG HCP 842		Unit Number 1			
Sample No.	HRU.2.NR.666..	Date	18.01.01 15:10		
CFPP	-18.0°C				
Program	4				
Test Start Temp.	+20.0°C				
Temp/°C	Time/s	STime/s	HTemp/°C	Time2/s	DTTime/s
+1.0	803	5.2	+4.9	15.7	4.7
+0.0	134	5.6	+3.1	16.3	5.0
-1.0	109	5.8	+1.7	16.2	5.2
-2.0	95	6.0	+0.6	17.3	5.4
-3.0	89	6.3	-0.5	16.1	5.6
-4.0	88	6.4	-1.4	17.0	5.8
-5.0	88	6.8	-2.4	17.8	5.9
-6.0	82	7.1	-3.5	18.2	6.2
-7.0	94	7.5	-4.5	18.4	6.5
-8.0	100	7.7	-5.4	19.2	6.8
-9.0	104	8.2	-6.3	19.7	7.1
-10.0	117	8.7	-7.3	20.7	7.3
-11.0	127	9.3	-8.4	21.3	7.5
-12.0	131	9.8	-9.4	22.0	7.8
-13.0	139	10.3	-10.8	23.2	8.4
-14.0	153	11.6	-12.0	27.1	9.9
-15.0	172	13.5	-12.5	29.4	9.8
-16.0	199	17.7	-13.0	35.2	10.7
-17.0	233	37.1	-13.7	53.7	9.9
-18.0	292	60.0	-18.0	0.0	0.0
Total test time: 58min 47s					

YOUR LOCAL REPRESENTATIVE: