



MULTIFLASH

THE SINGLE SOLUTION FOR ALL FLASH POINT TESTS

One instrument that performs all primary flash point tests in exact conformity to test methods mandated in international fuel specifications, transport regulation and associated quality control procedures.



Pensky-Martens (A and B)
Abel
Tag
Cleveland
Small Scale Rapid Equilibrium

- UNIVERSAL OPERATION
- FULLY AUTOMATIC
- LOW COST
- STRICT CONFORMITY TO TEST METHODS
- FAST & RELIABLE PERFORMANCE
- IN-BUILT SAFETY



STANHOPE-SETA

TECHNICAL EXCELLENCE FROM STANHOPE-SETA

60 YEARS OF KNOWLEDGE

Multiflash has been created using Stanhope-Seta's 60 years experience of flash point testing and close working association with global laboratories & standardisation groups.

TEST METHODS

- Pensky-Martens (A and B Closed Cup)
- Abel (Closed Cup & equilibrium)
- Tag (Closed Cup & equilibrium)
- Cleveland (Open Cup)
- Small Scale Rapid Equilibrium (Setaflash)

UNIVERSAL OPERATION

- Unique '5 in 1' solution for flash point testing
- One instrument that performs all primary flash point tests
- Universal base & interchangeable test modules
- Gas or electric ignition

FULLY AUTOMATIC

- Automatic set up of test parameters
- Automatic heating control, ignition & flash detection
- Automatic test results & end of test audible warning
- Automatic barometric correction

UNRIVALLED EASE OF USE

- Minimum operator commands
- Integral self-diagnostics

LOW COST

- Modular design optimises instrument cost
- Instrument may be configured in accordance with needs
- Simple to extend instrument capability by adding a test module

STRICT CONFORMITY TO TEST METHODS

- Precise test results
- Tests in conformity to test methods
- Easy to calibrate & verify

FAST & RELIABLE PERFORMANCE

- Designed to provide long and reliable operation
- Integral draught screen & rapid cool down between tests
- Calibration & diagnostics mode

IN-BUILT SAFETY

- Instrument has 3 independent hardware safety systems
- Gas shut-off, fire sensors and overtemperature
- Suitable for unattended operation
- Integral software limits

EXTENDED SAFETY

- Advanced operational software

5 in 1



MAXIMISE LABORATORY EFFICIENCY with MULTIFLASH

MODULAR INSTRUMENT = REDUCED COST & INCREASED PROFITABILITY

- Less worksurface needed
- Familiar & easy for operators to use
- Reduced calibration requirement
- Reduced maintenance costs & spare parts

SIMPLIFIES FLASH POINT TESTING

- Fast & Easy to use, with no complicated set-up
- Automatic module recognition software
- Fully automatic Operation & Flash detection

SECURITY OF RESULT

- Operator & Sample ID are recorded
- Last 5 test results are automatically stored
- View results on instrument, printer or download to PC

TEST METHODS

Pensky-Martens (A and B Closed Cup)

ASTM D93; IP 34; IP 404; ASTM E502; BS 2000 Parts 34 and 404; ISO 2719; EN 22719; JIS K2265; NF M07-019; DIN 51758; FTMS 791b 1102; EPA 1010

Abel (Closed Cup and Equilibrium)

IP 170; ISO 13736; EN 13736; BS 2000 Part 170; IP 304 Parts 1 and 2; IP 491; IP 492; ISO 1516; ISO 1523; BS3900 Parts A8 and A9; BS 6664 Parts 1 and 2

Cleveland (Open Cup)

ASTM D92; IP 36; ISO 2592; EN 22592; BS 2000 Parts 36 and 403; DIN 51376; T60-118; JIS K2265; AASHTO T48

Tag (Closed Cup)

ASTM D56; D3941; D3934; E502; IP 304 parts 1 and 2; IP 491; IP 492; ISO 1516; ISO 1523; FTMS 791b 1101; JIS K2265

Small Scale Rapid Equilibrium (Setaflash) Closed Cup

ASTM D3278; ASTM3828; IP 523, 524, 303 Parts 1 and 2 (obs); ISO 3679; ISO 3680; BS 6664 Parts 3 and 4; BS 3900 Part A13; BS EN 456; ASTM E502; UN Class 3 Non-viscous Flammable Liquids; CHIPS Regulations; Classification of Dangerous Goods for Carriage: Viscous and nonviscous liquids; EPA 1020 A and B; IP/ ASTM Automatic Small Scale draft method



Pensky Martens



Abel



Cleveland O/C



Tag



Small Scale

SETA MULTIFLASH

The new Seta Multiflash range of 'fully automatic' flash point instruments is unique in covering the widest range of test methods. It is configured as a universal base unit and with the choice of modules to implement Pensky-Martens (A and B), Abel, Cleveland, Tag, Small Scale (Setaflash Rapid Equilibrium), and Equilibrium tests. Each module conforms to the requirements of the appropriate test methods and special emphasis has been put on using water baths where these are mandated in test methods, specifications, and regulations.

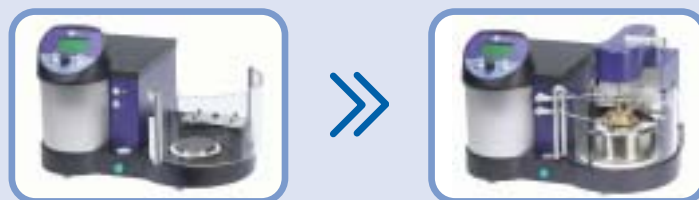
The ultra modern cabinet, electronics, mechanics and modules have been designed to be rugged, low cost, and simple to operate and maintain.

ONE BASE UNIT FOR ALL TESTS

The universal base unit houses the display, control and data acquisition functions; interchangeable test modules connect to the base unit to allow implementation of the required test method.

Changing the test module is straightforward and completed in just a few minutes.

The base unit recognises the module that is connected and instantaneously sets up standard test parameters and calibration data. Each module includes a DIPS pod (Dipping, Ignition, Pilot, Stirrer) containing the ignitor dipping/sweeping mechanism, the gas and electric ignitors and a stirrer (if required by the test method).



VERY EASY TO USE

Multiflash is exceptionally easy to use and all operations are performed using just 2 buttons and a unique multifunctional switch... the Seta Multifunctional and Rotational Test (SMART) control. The SMART control allows quick setting of calibration, test temperatures and parameters. All values are shown on a high visibility display.



RELIABLE AND LOW COST TESTING

Electric heating provides precise and reliable test temperatures for all modules. Platinum Resistance Thermometers are used exclusively throughout Multiflash to ensure accuracy, reliability, and robustness. Verification or re-calibration of all instrument parameters is simple but secure.

A unique coaxial ignitor provides a hot wire or gas ignition source which can be selected via the control panel. The ignitor is specifically designed for durability, to provide long life, and is a low cost service item.



RAPID AND PRECISE TEST RESULTS

At the end of the test the flash point is automatically detected, the result is automatically corrected for barometric pressure, results are stored for future use and may be printed or sent to an external computer.

Cooling down in readiness for the next test is automatic via the integral cooling fan. Some modules may also utilise external air for high efficiency boost cooling or a liquid coolant supply to enable sub ambient test temperatures, and to provide a fast cool down facility at the end of the test.

To aid consistent and accurate results an integral draught screen is provided with each module, and also acts as an additional operator safety feature.



INBUILT SAFETY

Additional safety features include three independent safety circuits which shut off the gas and heating if required. Extended safety features are built into the software to check the flammability of the sample before heating.

REMOTE END OF TEST ALERT

Use of the optional Setalert allows remote paging to the operator to signal the test has been completed.

SPECIFICATIONS

Seta Model:	34100-0/34000-0	34200-0/34000-0	34300-0/34000-0	34400-0/34000-0	34700-0/34000-0
Method:	Pensky-Martens	Abel	Cleveland	TAG	Small Scale
Cup Type:	Closed Cup	Closed Cup	Open Cup	Closed Cup	Closed Cup
Test Modes:	Procedure A Procedure B Search	Non Equilibrium Equilibrium Flash/No Flash	Non Equilibrium Search	Non Equilibrium Equilibrium Flash/No Flash	Flash/No Flash Non Equilibrium Search
Temperature Range: * Extended lower range available	Ambient to 400°C	*5 to 93°C	Ambient to 400°C	*5 to 93°C	-20 to 300°C
Barometric Correction:	Automatic	Automatic	Automatic	Automatic	Automatic
Ignitor:	Hotwire or Flame	Hotwire or Flame	Hotwire or Flame	Hotwire or Flame	Hotwire or Flame
Temperature Probes	Class A Prt	Class A Prt	Class A Prt	Class A Prt	Class A Prt
Flash Detector:	Thermocouple	Thermocouple	Ionising Ring	Thermocouple	Thermocouple
Fire Detector:	–	–	Ionising Ring	–	–
Stirrer:	105 & 250 rpm	30 rpm	–	–	–
Heating Bath Type:	Metal / Air	Liquid / Liquid	Metal	Liquid	Metal
Integral Bath Cooling:	Fan	Fan	Fan	Fan	Fan
External Cooling (Assisted) Options:	Forced air	External Cryostat or Water	Forced air	External Cryostat or Water	External Cryostat or Forced Air or Water
Post Test Cool-down Time (90°C to 50°C):	36 min (Fan) 6 min (Assisted)	45 min (Fan) 3 min (Assisted)	9 min (Fan) 6 min (Assisted)	40 min (Fan) 3 min (Assisted)	36 min (Fan) 2 min (Assisted)

PHYSICAL DATA

Voltage:	115V or 230V ± 15% (switchable), 50/60 Hz				
Power:	1kW				
Interface	RS232 for printer or computer				
Memory	Last 5 tests				
Gas:	Laboratory gas, 3kPa (0.44psi) max pressure				
Cooling Air:	Dry compressed air, 670kPa (100psi) max pressure				
Cooling Liquid:	Water (5°C and above), Water/Ethylene Glycol (below 5°C), 125kPa (18psi) max pressure				
Size (W x D x H):	47 x 42 x 34cm	47 x 42 x 44 cm	47 x 42 x 34cm	47 x 42 x 34cm	47 x 42 x 34cm
Weight:	20kg	20kg	20kg	20kg	20kg

SAFETY FEATURES

Over-Temperature Cut-out:	Yes	Yes	Yes	Yes	Yes
Coolant Flow Switched On (if fitted):	Automatic	Automatic	Automatic	Automatic	Automatic
Gas Shut Off:	Automatic	Automatic	Automatic	Automatic	Automatic
Fire Sensor:	Yes	Yes	Yes	Yes	Yes
Sample Snuffer:	–	–	Yes	–	–
Integral Cooling Fan:	Automatic	Automatic	Automatic	Automatic	Automatic
Integral Safety Shield:	Yes	Yes	Yes	Yes	Yes
Software limits:	Yes	Yes	Yes	Yes	Yes

Technical Specification sheets for each configuration are available

Distributed by



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