

Automated Abel Closed Cup Flash Point Tester

abl-8 Series

abl-8afc / abl-8lfc

Ergonomic

- Color coordinated display and switches for high visibility and intuitive operation
- Universal design

Versatile

- USB port for USB flash drive or keyboard
- Password protection
- Enhanced data storage

Robust

- Premium design and high quality finish suited for many years of reliable use

Safe

- Enhanced safety with fire containment system



Single Action Setting

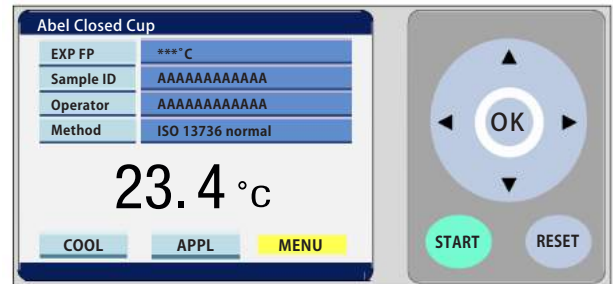
The cup cover is permanently mounted on a swing-arm assembly, which allows an easy handling of the test cup cover. Due to this design, the hot cup cover right after completion of a test can also be lifted with ease. The swing arm assembly can be raised to a vertical position, ensuring easier cleaning of the test cover.

2 Types of Baths

Heating / Cooling is done by energy efficient Peltier modules attached to a metal block bath. Air-cooled model abl-8afc and liquid-cooled model abl-8lfc are available for different temperature ranges (Model abl-8lfc requires an optional chiller).

Easy Operation

Select a test mode and enter the expected flash point; while the instrument executes the test, you are free to do other lab work. The instrument follows the exact procedures prescribed in the test method, and the completion of the test cycle is signaled by beeps. The test result is brightly shown on the color LCD module.



Data Handling

The unit is designed to store up to 200 test results and export to an optional printer or to a LIMS through an RS-232 port or USB memory stick.

Interchangeable Ignition Source

abl-8 series is equipped with both gas and electric igniter as the ignition source. It only takes a few minutes to switch from gas to electric or vice versa.



Gas Ignition



Electric Ignition

USB Port

A USB port allows connecting USB keyboard for easy entering of sample and operator ID. USB memory stick can be utilized to export data to a PC or to save/copy/upload test parameters.



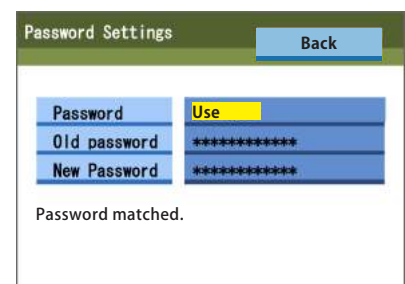
Connection of USB Keyboard



Connection of USB Stick

Password Protection

By setting password by the administrator, the device is protected against inadvertent change of parameters by operators.



Password Entry

Draft Protection Shield

A fire-resistant "FM4910" conforming cover insures the flame integrity. This material shall meet the numerical criterion of each index.

- (1) FPI (Fire Propagation Index) ≤ 6
- (2) SDI (Smoke Damage Index) ≤ 0.4

Specifications



Product	Automated Able Closed Cup Flash Point Tester	
Model	<i>abl-8afc</i>	<i>abl-8lfc</i>
Test Methods	ISO 13736, IP 170, ISO 1516, ISO 1523	
Measuring Range	+10 °C to +110 °C	-30 °C to +80 °C at cooling medium of 10 °C 0 °C ~ to 110 °C at cooling medium of 40 °C
Test Mode	(1) ISO 13736 normal (2) ISO 13736 SPE (search) (3) ISO 13736 Rapid	(4) ISO 1516 (5) ISO 1523 (6) User Custom
Bath	Metal Block Bath Air-cooled Type	Metal Block Bath Liquid-cooled Type (With an optional chiller)
Sample Heating / Cooling	By Peltier Device	
Display	5.7 inch (117 x 88 mm) color LCD with LED back light	
Stirring	30 rpm	
Temperature Sensor	PT-100 in stainless steel sheath	
Flash Detection	CRC Thermocouple	
Ignition Source	Gas ignition with automatic lighting or electric ignition (Interchangeable)	
Barometric Correction	Built-in barometric pressure sensor	
I/O Port	RS-232C = 1 channel (for PC or Optional Printer) USB = 1 channel (for USB keyboard or USB Memory stick)	
Safety Functions	Automatically shuts off and the problem is reported by buzzer and display in case: (a) EFP+10°C or 70°C (ISO13736) or 110°C (ISO1516, ISO1523) is reached (b) Temperature sensor is found defective (c) Flash detector is found defective (d) Electric igniter is blown (e) Thermofuse is blown (f) Built-in battery is found drained out (g) Arm is not set in place (h) Stirring motor is stopped (i) Control computer runs away (no display)	
Gas Supply	LP gas or natural gas (Max. pressure: 10 kPa)	
Power Consumption	AC 100 to 240 V, 300 VA (max), 50/60 Hz	
Electricity Consumption	30 Wh for 1 test (about 30 min), 11.34 gCO ₂ (@ 0.378 kgCO ₂ / kWh)	
Dimension (W × D × H)	230 x 470 x 385 (mm)	
Weight	16 kg	

Circulator Requirements for abl-8lfc (Please procure locally)

Type	Circulator with heating / cooling capacities. Open bath type.
Temperature range	-5 °C to + 40 °C or wider
Pump capacity	Pressure : 0.2 bar minimum Flow rate : 2L / min minimum
Cooling capacity	250 W@10 °C minimum
Heater capacity	500 W minimum
Bath volume	3 L minimum

Note: Specifications and appearance are subject to change for product improvement without prior notice.

Standard Accessories

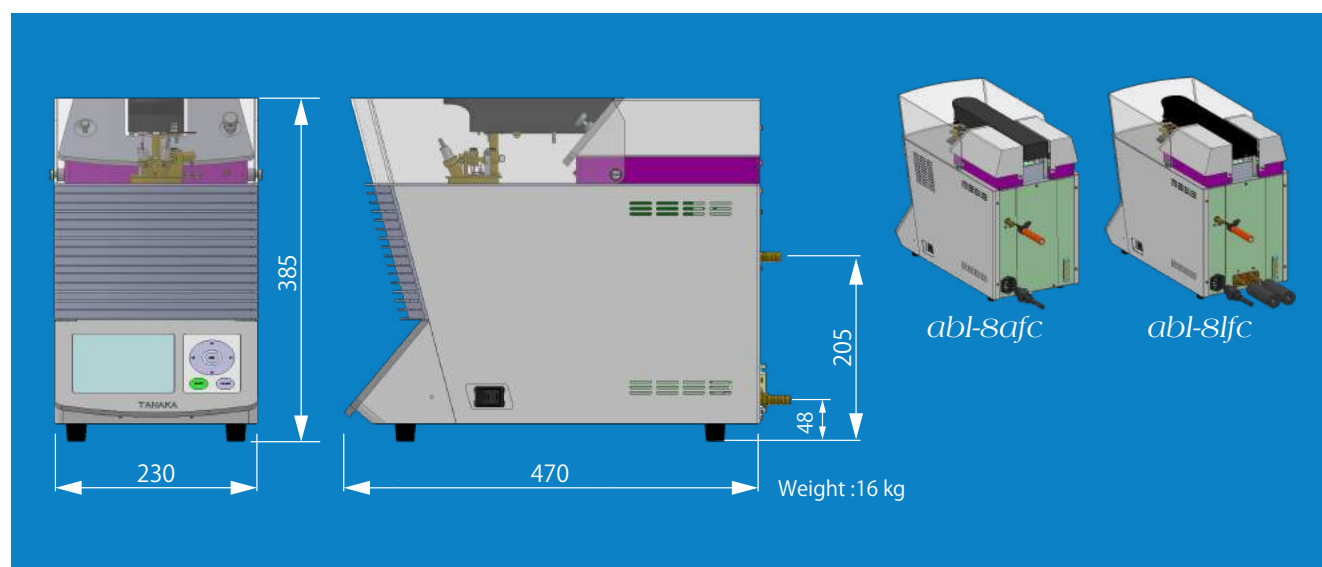
Code No.	Part Name	Qty	Code No.	Part Name	Qty
1000909	Test Cup	1	1000454	Insulated Tubing, 2 m <i>8lfc</i>	2
1000711	Thermofuse (Pack of 5, with insulation tube)	1	1000363	Hose Band, SNP-8 <i>8lfc</i>	4
1000449	Gas Hose $\phi 9.5 \times \phi 15$	1	1001401	Thermal Insulation Lid	1
1000361	Gas Hose Band	2	1006672	AC Power Cord, 2.0m for 100 to 120 V	1
1000900	Electric Igniter, EI-8	1	1006151	AC Power Cord, 2.5m for 220 to 240 V	1
1000907	Windscreen for abl-8, atg-8, asc-8	1		USB Stick (Instruction & Maintenance Manual)	1

Optional Accessories

Code No.	Part Name	Remarks
1006018	Printer NEX-C200R01 100V	Print out test data and instrument settings
1006019	Printer NEX-C200R05 200V	
1006696	Mini USB Keyboard	For entering Sample/Operator ID

Suggested Spares for 2 years

Code No.	Part Name	Qty	Remarks
1000909	Test Cup	1	Refer to Standard Accessories
1000711	Thermofuse	1	Pack of 5, with Insulation Tube
1000900	Electric Ignitor, EI-8	5	
1000902	Temperature Sensor	1	
1000903	Flash Detector	1	



Distributed by

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