

Automated Cleveland Open Cup Flash Point Tester

aco-8 Series

aco-8 / aco-8as

NEW

aco-8e / aco-8eas



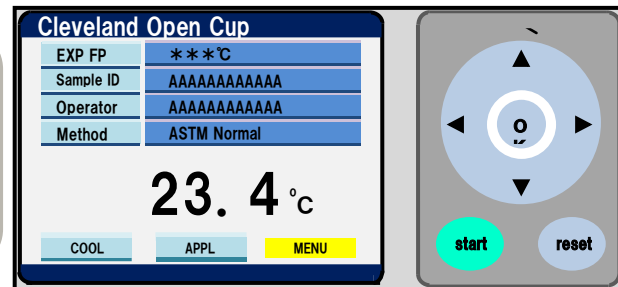
- Easy Operation with Minimal Key Strokes
- Robust and Compact Design
- Color Coordinated Display
- USB Keyboard (Option)

Single Action Setting

Flash detector rings and temperature sensor are permanently mounted on a swing-arm assembly, which allows easy setting of the sample cup.

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.

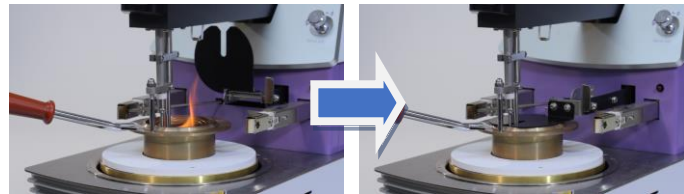


Auto Fire Point

In addition to flash point, fire point can also be tested. Fire point is detected when the detection rings detect fire for 5 seconds.

Auto Fire Containment

The fire containment lid activates automatically to help putting out fire when aco-8 detects a fire point or specimen is burning up heavily.



Data Handling

The unit is equipped 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.

USB Port

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



USB keyboard



USB memory

Electric Ignition Model

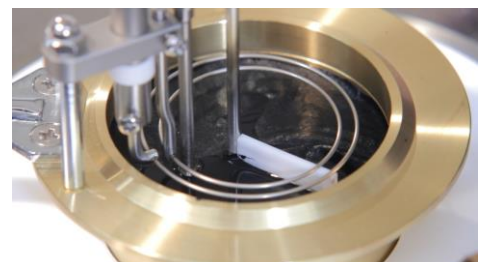
In addition to the existing gas ignition models (aco-8 / 8as), 2 new electric ignition models (aco-8e / 8eas) have been launched. An electric igniter coil replaces the gas flame which allows the user to remove combustible gas from the lab and operate in a safer environment.



aco-8e

Skimmer for Surface Skin (Asphalt Version)

For aco-8 asphalt version (aco-8as / 8eas), a unique skimmer has been added to automatically remove the surface skin that forms on the sample when bitumen or some other samples are tested. Surface skin removal has been known to improve the precision and the safety of the COC flash point testing of such samples.



Specifications

Product	Cleveland Open Cup Flash Point Tester			
Model	<i>aco-8</i>	<i>aco-8as</i>	NEW <i>aco-8e</i>	NEW <i>aco-8eas</i>
Test Methods	ASTM D92, ISO 2592, IP36 JIS K 2265-4, AASHTO T48		JIS K 2265-4	
Related Test Methods			ASTM D92, ISO 2592, IP36, AASHTO T48	
Measuring Range	Ambient to 400°C			
Test Mode	ISO CRM, ISO Normal, ISO SPE, ISO Fire, ISO Skim*, ISO Manual, ISO Skim+Man*, ASTM Normal, ASTM SPE, ASTM Fire, ASTM Skim* ASTM Manual, ASTM Skim+Man*, Custom *: aco-8as, aco-8eas only			
Heater	Nichrome coil heater: 100 V – 800 W / 220 V – 800 W			
Cooling Method	Forced air cooling by cooling fan			
Display	5.7 inch (117 x 88 mm) color LCD with LED back light			
Skimming Mechanism (aco-8as, aco-8eas only)	PTFE Paddle rotates to skim the surface film of specimen. Skimming start temperature and interval are programmable. When not in use, the paddle can be removed.			
Temperature Sensor	Platinum resistance thermometer sensor 100Ω @ 0°C (Pt100)			
Flash Detection	Double ionization rings			
Ignition Source	Gas ignition with automatic lighting		Electric ignition coil	
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 Flash Memory)			
Safety Functions	Automatically shuts off and the problem is reported by buzzer and display, in case: (a) EFP+30°C or 400°C is reached, (b) temperature sensor is found defective, (c) flash detector is found defective, (d) thermofuse is blown (also fire containment lid activates), (e) built-in battery is found drained out, (f) arm is not set in place, (g) control computer runs away (no display)			
Gas Supply	LP gas or natural gas (Max. pressure:10 kPa)			
Power Consumption	AC 100 V to 120 V, 1200 VA (max), 50/60 Hz AC 220 V to 240 V, 1100 VA (max), 50/60 Hz			
Electricity Consumption	160 Wh for 1 test (about 20 min), 60.48 gCO ₂ (@ 0.378 kgCO ₂ /kWh)			
Dimension (W x D x H)	230 x 470 x 400 (mm)			
Weight	17 kg			

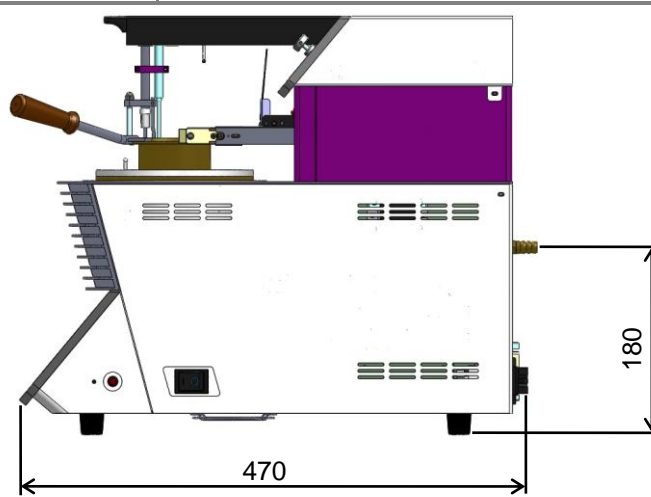
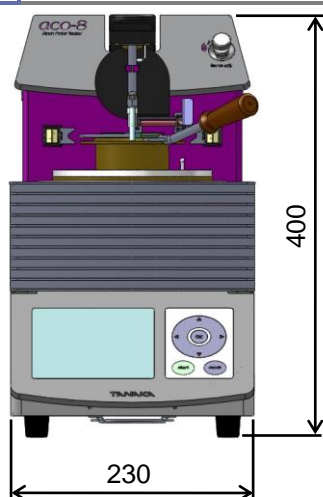
Note: Specifications and appearance are subject to change for product improvement without prior notice.

Standard Accessories

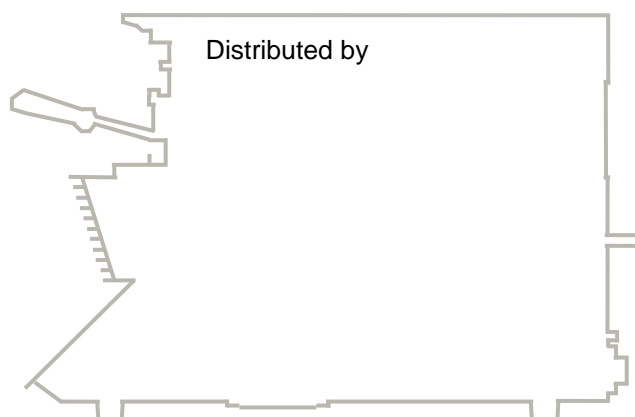
Code No.	Part Name	Qty	Remarks
1000949	Test Cup Assembly for aco (with Handle)	1	
1000711	Thermofuse	1	Pack of 5, with insulation tube
1000449	Gas Hose $\phi 9 \times \phi 16 \times 1.5$ m	1	aco-8, aco-8as only
1000361	Gas Hose Band	2	aco-8, aco-8as only
1001010	Heating Plate, Upper	1	
1005087	Electric Igniter	2	aco-8e, aco-8eas only
1000974	Skimmer Shaft, Paddle type (Standard)	3	aco-8as, aco-8eas only
1001507	AC Power Cord	1	3.0 m, For 100 to 120 V
1006151		1	2.5 m, For 220 to 240 V
	USB Stick	1	Instruction & Maintenance Manuals

Optional Accessories

Code No.	Part Name	Remarks
1006018	Printer NEX-C200R01 for 100 to 120V	Print out test data and instrument settings
1006019	Printer NEX-C200R05 for 220 to 240V	Print out test data and instrument settings
1000262	Mini USB Keyboard	For entering Sample/Operator ID
1001019	Mercury Thermometer Holder	For calibration



Weight : 17kg



TANAKA

Petroleum Testing & Beyond

Tanaka Scientific Limited

7-10-3, Ayase, Adachi-ku, Tokyo, 120-005 JAPAN

TEL: 03-3620-1711 FAX: 03-3620-1713

URL: www.tanaka-sci.com

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