

Automated Cleveland Open Cup Flash Point Tester**aco-8 Series***aco-8 / aco-8as***NEW** *aco-8e / aco-8eas***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

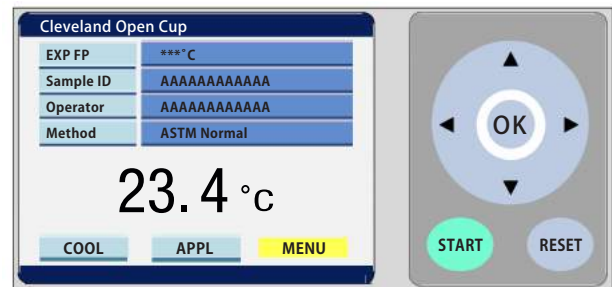


Single Action Setting

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.

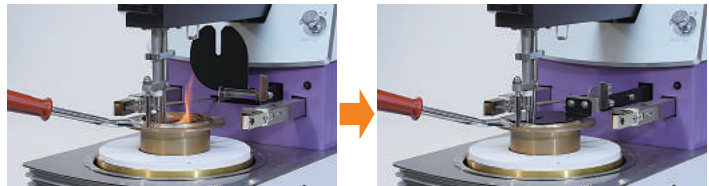


Auto Fire Point

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 stick.

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

Electric Ignition Model

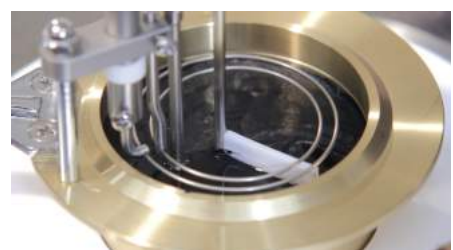
In addition to the existing gas ignition models (aco-8 / 8as), 2 new electric ignition models (aco-8e / 8eas) have been launched. An electric igniter coil replaces the gas flame which allows the user to remove combustible gas from the lab and operate in a safer environment.



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	Automated 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 Memory stick)			
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) Electric igniter is blown (e) Thermofuse is blown (also fire containment lid activates) (f) Built-in battery is found drained out (g) Arm is not set in place (h) 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 × D × H)	230 x 470 x 400 (mm)			
Weight	16 kg			

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

Standard Accessories

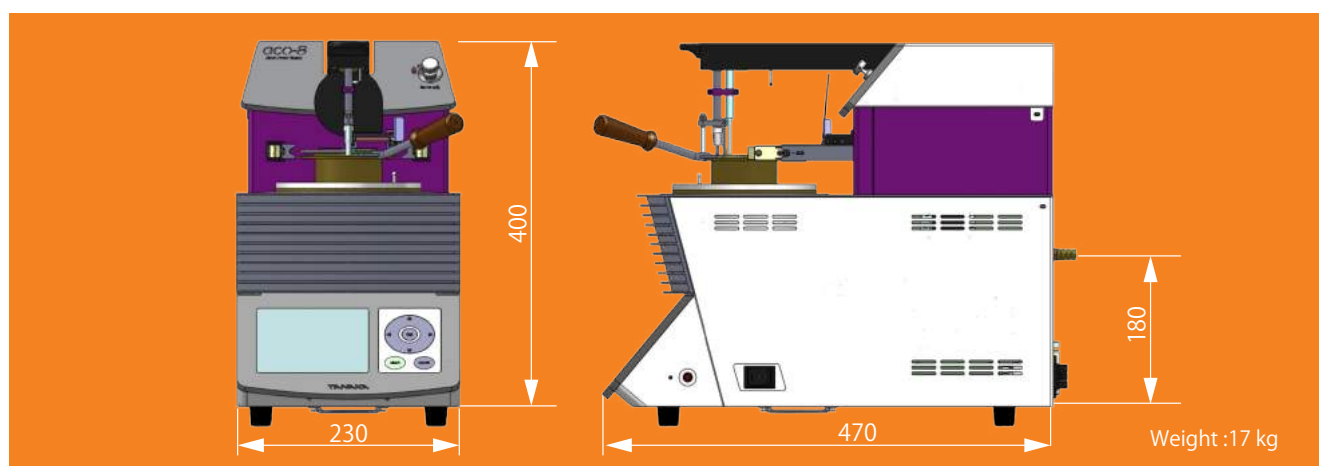
Code No.	Part Name	Qty	Code No.	Part Name	Qty
1000949	Test Cup Assembly for aco (with Handle)	1	1000973	Skimmer Paddle <i>aco-8as, aco-8eas</i>	4
1000711	Thermofuse (Pack of 5, with insulation tube)	1	1001027	Skimmer Shaft, Paddle type <i>aco-8as, aco-8eas</i>	1
1000449	Gas Hose $\phi 9.5 \times \phi 15$ <i>aco-8, aco-8as</i>	1	1001026	Skimmer Shaft, Wire type <i>aco-8as, aco-8eas</i>	1
1000361	Gas Hose Band <i>aco-8, aco-8as</i>	2	1006672	AC Power Cord, 2.0m for 100 to 120 V	1
1001010	Heating Plate, Upper	1	1006151	AC Power Cord, 2.5m for 220 to 240 V	1
1005087	Electric Igniter <i>aco-8e, aco-8eas</i>	2		USB Stick (Instruction & Maintenance Manual)	1

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	
1006696	Mini USB Keyboard	For entering Sample/Operator ID
1001019	Mercury Thermometer Holder	For calibration

Suggested Spares for 2 years

Code No.	Part Name	Qty	Remarks
1000949	Test Cup Assembly for aco	1	Refer to Standard Accessories
1000711	Thermofuse	1	Pack of 5, with Insulation Tube
1001020	Igniter Top for aco-8 <i>aco-8, aco-8as</i>	5	
1005087	Electric Igniter <i>aco-8e, aco-8eas</i>	5	
1001018	Temperature Sensor for aco-8	1	
1000960	Inner Detector Ring	1	
1000961	Outer Detector Ring	1	
1000387	Insulating Collar for aco-8	2	
1002340	PTFE Washer TT-0308-03	2	
1000973	Skimmer Paddle <i>aco-8as, aco-8eas</i>	5	



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