

**AUTOMATED
CLEVELAND
OPEN CUP
FLASH POINT
TESTER
ACO-7**



Simplest & Easiest Operation

Model ACO-7 is the latest version of the automated Cleveland Open Cup(COC) flash point tester from Tanaka. When this seventh generation model was designed after 35 years of delivering the automated flash point testers to the petroleum industry, ease of operation and maintenance was sought.

SINGLE ACTION SETTING: The flash detector rings and the temperature sensor are permanently mounted on a swing-arm assembly, which allows an easy setting of the specimen

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 tester 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 VFD module.

AUTO FIRE POINT DETECTION: In addition to the flash point, fire point can be determined automatically. The fire point is detected when the double Ionization rings detects 5 sec of continuous burning.

AUTO FIRE CONTAINMENT: ACO-7 is equipped with a fire containment lid which activates automatically to help putting out fire when ACO-7 detects a fire point or specimen is burning up heavily.

DATA HANDLING: The unit is equipped to store up to 50 successive test results and export to an optional printer or to a LIMS through an RS232 port.

MODULAR DESIGN: The tester consists of a computer control unit and a test head unit, allowing remotely placing the test head unit up to 3 meters away. An optional Changeover unit can be purchased to attach the control unit to another type of flash point test head unit (APM-7 or ATG-7). The control unit is designed to control any type of the three different flash point test head unit, but one at a time.

SPECIFICATIONS:

CONFORMING STANDARDS:

ISO 2592, ASTM D92, IP 36, etc.

MEASURING RANGE:

Ambient to 400 °C

TEST MODE:

ASTM D92 Flash + Fire, Special (Fast Search),

User's Custom

DISPLAY:

Fluorescent display tube (VFD Module)

TEMPERATUR SENSOR:

PT-100 in stainless steel sheath

FLASH DETECTOR:

Ionization Ring

HEATER:

Nichrome Coil heater: 800W@100V or 800W@220V

IGNITION SOURCE:

Gas ignition with automatic lighting

COOLING DEVICE:

Forced air cooling by sirocco fan

BAROMETRIC CORRECTION:

By built-in barometric pressure sensor

DATA OUTPUT:

RS-232C 1 channel (for PC or Optional Printer)

SAFETY MECHANISM:

Fire containment lid which activates automatically to help putting out fire when ACO-7 detects a fire point

Automatically shuts off and the problem is reported by buzzer and display, in case:

- (a) EFP+30 °C or at 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, or
- (g) Control computer runs away (no display)

DIMENSION & WEIGHT:

Control unit: 230W x 455D x 110H (mm), 6.0kg

Test unit: 230W x 450D x 275H (mm), 14.0kg

INSTALLATION SITE:

Ambient temperature: 0 to 40 °C

RH: Less than 90%(no condensation)

UTILITY:

POWER SUPPLY:

AC100/120V or 220/240V 50/60Hz

(set at the factory) 1.0kW(max.)

GAS SUPPLY:

LP gas or natural gas (Max. pressure<9.8kPa)

ORDERING INFORMATION:

STANDARD ACCESSORIES:

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|---|------|
| 1. Test Cup Assembly | 1pc |
| 2. Power Connecting Cable, 0.6m | 1pc |
| 3. Signal Connecting Cable, 0.6m | 1pc |
| 4. AC Power Cord, 3.0m (<AC125V)
or 2.5m (>AC200V) | 1pc |
| 5. Thermal Insulation (Heating Plate) | 1pc |
| 6. Spare Thermofuse | 3pcs |
| 7. Insulation tube for Thermofuse, 0.1m | 1pc |
| 8. Gas Hose 9x16x1500mm | 1pc |
| 9. Gas Hose Band | 2pcs |
| 10. Instruction Manual | 1pc |

OPTIONAL ACCESSORIES:

Mercury Thermometer Holder for Calibration
Power Connecting Cable, 3m
Signal Connecting Cable, 3m
Built-in Clock Board (for time/date verification)
Printer, BS2-80TS (we recommend that optional Built-in
Clock Board be purchased with this Printer)
Changeover Unit, Model: CHG-7

SUGGESTED SPARES:

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|--|------|
| 1. Test Cup Assembly | 1pc |
| 2. Igniter Top (Ignition Filament) | 2pcs |
| 3. Thermofuse (pack of 5, w/ insulating tube) | 1pk |
| 4. Temperature Sensor | 1pc |
| 5. Inner Detector Ring | 1pc |
| 6. Outer Detector Ring | 1pc |
| 7. Insulating Collar for Flash Detector | 2pcs |
| 8. Nichrom Heater Coil 800W@100V or
800W@220V | 1pc |

Specifications subject to change without prior notice.

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