

**AUTOMATED
PENSKY-MARTENS
CLOSED CUP
FLASH POINT
TESTER
APM-7**



Simplest & Easiest Operation

Model APM-7 is the latest version of the automated Pensky-Martens Closed Cup (PMCC) 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.

While data processing functions such as data storage and statistical analysis can be added to the automated flash point testers, these functions were excluded from the standard specification, since it was found that very few users would use these functions and the addition of such extra functions could make the operation of the regular flash point determination complicated. (*1)

*1: To operate the data storage/statistical functions with ease, more number of keys as well as more information displayed on the screens are necessary. These features make the set up of a simple flash point test complicated. Should the user require a data storage function, an optional software is available.

SINGLE ACTION SETTING: The cup cover and the stirrer are permanently mounted on a swing-arm assembly, which allows an easy handling of the test cup cover. It makes free from handling the hot cup cover after completing a test.

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 VFD module.

INTERCHANGEABLE IGNITION SOURCE: APM-7 is equipped with both gas and electric igniter as the ignition source. Only a few minutes does it take to switch from gas to electric or vice versa.

DRAFT PROTECTION SHIELD COVER: A tinted acrylic cover not only insures the flame integrity but reduces the glare from the electric igniter coil.

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 (ATG-7 or ACO-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 2719, ASTM D93, IP 34, etc.

MEASURING RANGE:

Ambient to 370 °C

TEST MODES:

ASTM D93 (ISO 2719, IP 34) A+B, Special (Fast Search),
Simulated TAG, User's Custom

DISPLAY:

Fluorescent display tube (VFD Module)

TEMPERATUR SENSOR:

PT-100 in stainless steel sheath

FLASH DETECTOR:

CRC Thermocouple

HEATER:

Band type heater: 400W@100V or 400W@220V

IGNITION SOURCES:

Gas ignition with automatic lighting or electric ignition,
interchangeable

COOLING DEVICE:

Forced air cooling by sirocco fan

BAROMETRIC CORRECTION:

By entering the barometric pressure reading through the
control panel, or by optional barometric pressure sensor

DATA OUTPUT:

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

SAFETY MECHANISM:

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

- (a) EFP+20 °C or 370 °C is reached,
- (b) temperature sensor is found defective,
- (c) flash detector is found defective,
- (d) thermofuse is blown,
- (e) electric Igniter is blown,
- (f) stirring motor is stopped,
- (g) built-in battery is found drained out,
- (h) test cover is not set in place,
- (i) flash detector detects continuous burning, or
- (j) control computer runs away (no display)

DIMENSIONS & WEIGHT:

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

Test unit: 230W x 480D x 275H, (mm) 18.0kg

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) 0.7kW(max.)

GAS SUPPLY (When Gas Ignition is used):

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

ORDERING INFORMATION:**STANDARD ACCESSORIES:**

- | | |
|---|------|
| 1. Test Cup Assembly | 1pc |
| 2. Power Connecting Cable, 0.6m | 1pc |
| 3. Signal Connecting Cable, 0.6m | 1pc |
| 4. AC Power Cord, 2.5m (<AC125V)
or 3.0m (>AC200V) | 1pc |
| 5. Spare Thermofuse | 3pcs |
| 6. Spare Electric Igniter | 1pc |
| 7. Insulation tube for Thermofuse, 0.1m | 1pc |
| 8. Gas Hose 9x16x1500mm | 1pc |
| 9. Gas Hose Band | 2pcs |
| 10. Wind Screen | 1pc |
| 11. Instruction Manual | 1pc |

OPTIONAL ACCESSORIES:

Power Connecting Cable, 3m

Signal Connecting Cable, 3m

Barometric Pressure Sensor

°C/°F Display and Data Storage Software

Built-in Clock Board (for time/date verification)

Printer, BS-80TSL (we recommend that optional Built-in
Clock Board be purchased with this Printer)

Changeover Unit, Model: CHG-7

SUGGESTED SPARES FOR 2 YEARS:

- | | |
|---|------|
| 1. Test Cup Assembly | 1pc |
| 2. Electric igniter | 2pcs |
| 3. Thermofuse (pack of 5, w/ insulating tube) | 1pk |
| 4. Temperature Sensor | 1pc |
| 5. Flash Detector | 1pc |

Specifications subject to change without prior notice.

TANAKA SCIENTIFIC LIMITED

7-10-3, Ayase, Adachi-ku, Tokyo 120-0005 Japan

Tel: +81-3-3620-1711 Fax: +81-3-3620-1713

URL: <http://www.tanaka-sci.com>

e-mail: sales@tanaka-sci.com Printed in Japan 0404(E)