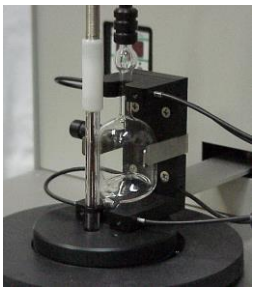
TANAKA

Automatic Petroleum Tester

COLD FILTER PLUGGING POINT TESTER

No Methanol

AFP-102



The model AFP-102 automatically executes the Cold Filter Plugging Point (CFPP) test method prescribed in IP309, ASTM D6371 and JIS K2288. After developing its predecessor models, this third generation model has been developed by applying Tanaka's latest technologies and the various know-hows. "Ease of operation" has been further improved on this model.

METHANOL FREE OPERATION

Use of Peltier cells for sample cooling/heating made this tester methanol free. No big chiller is needed; a small chiller with antifreeze suffices the cooling requirements.

DUAL COOLING MODES

Mode of cooling can be selected from linear cooling and conventional step-wise cooling.

SIMPLE AND EASY OPERATION

All the operation is made through a simple membrane keypad, which is standard on more than half of Tanaka's automatic petroleum testers. The operation is simple and intuitive.

RELIABLE MENISCUS DETECTION

Upper and lower meniscus detectors are mounted on a holder that slides back and forth to engage with the pipette. This new design allows not only easy operation but also reliable detection under the conditions when the pipette is frosted.

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Cold Filter Plugging Point Tester AFP-102

SPECIFICATIONS:

CONFORMING STANDARDS:
IP309, ASTM D6371, EN116 and JIS K2288

Type: 1 test head.

SPECIMEN VOLUME: 45ml

MEASURING RANGE: (typical)
RT to -60 °C (The lowest temperature varies with the chiller liquid temperature and ambient temperature.)

SEQUENCE CONTROL:
By a built-in micro processor

DISPLAY:
By a fluorescence display(VFD)
Temperatures displayed with 0.1 °C increments

TEMPERATURE SENSOR:
PT-100

CFPP DETECTION:
By means of a photo-electric detector consisting of an LED, photo transistor, and light guide (fiber optics). Upper and lower light guides are mounted on sliding type holder.

VACUUM REGULATOR:
Consists of a micro air pump, pressure switch, solenoid valve and a plastic bottle.

COOLING AND HEATING (needs optional chiller):
By Peltier cells. The hot side of the Peltier cells needs to be cooled by external chiller.

TEMPERATURE CONTROL:
By step(-34 °C, -51 °C and -67 °C) or linear. The linear cooling rate can be programmed.

SAFETY FEATURES:
a. Over cut: as hot side of TED reaches 60 °C , warning buzzer beeps and stops.
b. Self diagnostic: reported by an intermittent buzzer and a text message when any temperature sensor breaks down or the battery has drained out.
c. System trouble: reported by a buzzer when the built-in microprocessor runs off.

DATA OUTPUT:
RS-232C 1 channel (for PC or Optional Printer).
2nd set channel is optional.

POWER REQUIREMENTS:
100 or 120VAC, 5A
220 or 240VAC, 3A
Please specify AC voltage when ordering.

DIMENSIONS AND WEIGHT:
350mmWx550mmDx480mmH, 27kg

ORDERING INFORMATION:

STANDARD ACCESSORIES:

1. Temperature Sensor	1 pc
2. Pipette	1 pc
3. Vacuum Tubing (with Connector and Adapter)	1 pc
4. Filter Unit (with Holder and Filter)	1 pc
5. Filter	4 pcs
6. Lid	1 pc
7. Test Jar	1 pc
8. Spacers	1 pc
9. Insulator (Large and Small)	1 set
10. AC Power Cord, 3.0m (<AC125V) or 2.5m (>AC200V)	1 pc
11. Hose and Clamps for Chiller	1 set
12. Instruction Manual	1 copy

OPTIONAL ACCESSORIES:
Chiller for -51°C of Bath Control (ambient temp @20°C):
TANAKA TCU-40B (Made in Japan)
Chiller for -67°C of Bath Control (ambient temp @20°C):
Julabo FP50-MA (Made in Germany)
Built-in Clock Board
Printer: BS2-80TS
(with AC Adapter and Connecting Cable)

SUGGESTED SPARES:

1. Temperature Sensor	1 pc
2. Pipette	1 pc
3. Vacuum Adapter (with O-Ring P-6)	1 pc
4. Vacuum Tubing (with Connector)	1 pc
5. Filter Unit (without Holder and Filter)	1 pc
6. Filter Holder (with Filter)	1 pc
7. Filter	30 pcs
8. O-Ring P-5 (for Pipette)	10 pcs
9. O-Ring P-6 (for Adapter)	5 pcs
10. O-Ring S-14 (for Filter Holder)	5 pcs
11. Test Jar	3 pcs
12. Spacers	1 pc

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: overseas-group@tanaka-sci.com
Printed in Japan 1501(E)