

AUTOMATED

ANILINE

POINT

TESTER

Model

AAP-5



AAP-5 automates the aniline point test of petroleum products. As found in other Tanaka petroleum testers, ease of use and high reliability have been further sought when designing this latest version of the automated aniline point tester. Model AAP-5 is capable of covering a wide range of samples including transparent samples as well as dark/opaque samples.

DARK/OPAQUE SAMPLES: The use of special infrared detector gives the instrument it's ability to see through dark/opaque samples such as residual fuels with up to 8.0 on the ASTM Color Scale.

USER-FRIENDLY MEASURING CELL: The measuring cell can be easily removed and placed on an analytical balance for weighing viscous samples that are solid at ambient temperature. Water jacketed measuring cells are also available as an option for sub-ambient temperature.

EASY OPERATION: Just sample the specimen and aniline, enter the expected aniline point, and press the START key; all the rest of the test procedures such as heating, cooling and aniline point detection are performed automatically. The operator has an option to report the result after either single determination or multiple determinations.

EASIER AND SAFER ANILINE HANDLING: For years, handling of the toxic aniline has been considered a hazardous operation. A bottle top dispenser can be connected to the measuring cell for directly delivering aniline without a manual pipetting operation. Upon completing a test, discharge the aniline mixture from the bottom of the measuring cell, pour a cleaning agent, turn on the stirrer, and discharge the cleaning agent. The measuring cell can be cleaned without disassembling it, which makes the cleaning easier and safer.

DATA HANDLING: The unit is equipped to store up to 20 successive test results and export to an optional printer or to a LIMS through an RS232 port.

COMPACT DESIGN: Like the popular Tanaka flash point testers, AAP-5 consists of a test head unit and a separate control unit. The test head unit is small enough to be remotely operated inside of a fume hood.

SPECIFICATIONS:

CONFORMING STANDARDS:

ISO 2977, ASTM D611, etc.

SAMPLES: Transparent or opaque/dark
(<8.0 on ASTM color scale)

MEASURING RANGE:

Ambient to 170°C (338°F)

For sub-ambient, use the optional water jacketed measuring cell and a cryostat.

TEMPERATURE SENSOR:

PT-100 in stainless steel sheath

ANILINE POINT DETECTOR:

Photo-electric cell, with special detection circuitry

MEASURING CELL:

Modified U-Tube type. Vacuum jacketed glass cell with TFE stopcock at the bottom for drainage.

DISPLAY:

Vacuum fluorescent display(VFD)

HEATER:

Immersion heater in stainless steel sheath: 20W

SEQUENCE CONTROL:

By an on-board microcomputer

TEST MODE:

Single or repeated determinations (2 kinds, average is reported to nearest 0.05°C)

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:

- EAP+ 10°C or at 170°C is reached,
- Temperature sensor is found defective,
- Light projector or receiver is found defective
- Control computer runs away (no display)

DIMENSION & WEIGHT:

Control unit: 230W x 455D x 105H (mm), 7.0kg

Test unit: 230W x 350D x 580H (mm), 8.0kg

INSTALLATION SITE:

Ambient temperature: 0 to 40°C

RH: Less than 90%(no condensation)

POWER SUPPLY:

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

(set at the factory) 0.1kW(max.)

ORDERING INFORMATION:

STANDARD ACCESSORIES:

- | | |
|---|-----|
| 1. Power Connecting Cable, 0.6m | 1pc |
| 2. Signal Connecting Cable, 0.6m | 1pc |
| 3. AC Power Cord, 3.0m ($<125\text{V}$)
or 2.5m ($>200\text{V}$) | 1pc |
| 4. Measuring Cell Stand | 1pc |
| 5. Hexagonal Wrench | 1pc |
| 6. Spare Glass Tube Fuse (3A) | 1pc |
| 7. Instruction Manual | 1pc |

OPTIONAL ACCESSORIES:

Water Jacketed Measuring Cell, Lower
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)

SUGGESTED SPARES FOR 2 YEARS:

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|--|------|
| 1. Flexible Shaft | 2pcs |
| 2. Measuring Cell, Upper, 2-Inlet Type | 1pc |
| 3. Measuring Cell, Lower | 1pc |
| 4. Temperature Sensor | 1pc |
| 5. Heater Assembly | 1pc |
| 6. Glass Tube Fuse 3A | 1pc |



TFE tubing connected to measuring cell for direct connection to bottle-top dispenser for a safer aniline handling. TFE tubing and fitting not provided with AAP-5.

Specifications subject to change without prior notice.

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