AUTOMATED DISTILLATION TESTER

New!

AD-6

**ASTM D86, D850, D1078
ISO 3405, IP123, JIS K2254**

Photo with optional printer

CE

Model AD-6 **automatically performs** distillation test of petroleum products as well as narrow boiling range samples. Tanaka's **6th** generation model in the series has been developed as an eco-friendly automated distillation tester using a Peltier system which does cooling/heating of the condenser as well as cooling of the cylinder compartment.

AUTOMATIC MEASUREMNT

Test parameter for each sample type is programmed prior to tests.   Typical sets of test parameters are programmed prior to tests and recalled before each test run.   After setting the sample, just press the START key; the distillation proceeds automatically. The vapor temperature and the actual distillation curve are displayed on a real time bases. Finally, if an optional built in printer is set, the test results are printed out, and if a PC is connected, the test results are transmitted to the PC(ADManager[R]) or LIMS.

FULLY SELF-CONTAINED DESIGN

All the necessary electronics and mechanics are contained in one casing for ease of use and higher reliability. Smallest footprint (as of 2002) fits on a lab bench easily.

ADVANCED FIRE CONTAINMENTS SYSTEM

Mechanical shutter with N_2 gas injection (standard, N_2 gas supply required) or CO_2 injection system (optional) helps controlling fire, should the sample catches fire.

Note: Although AD-6 is equipped with a fire containment system, it is essential that the AD-6 be attended and other means of putting out fire be available at all time during a test.

SPECIFICATIONS:

CONFORMING STANDARDS:

ISO 3405, ASTM D86, IP123 for distillation test of petroleum products. (groups 0,1,2,3,4)

ASTM D850 for distillation test of industrial aromatic hydrocarbons (with an optional accessories)

ASTM D1078 for distillation test of volatile organic liquids (with an optional accessories)

TEMPERATURE RANGE:

Selectable from RT to 300°C/400°C (fuel oil) or RT to 200°C/400°C (ASTM D850, D1078)

TEMPERATURE MEASUREMENT:

Pt 100 Probe

MENISCUS DETECTION:

By photoelectric devices with pulse motor

DISTILLATION RATE:

Selectable form 2.0 to 9.0ml/min with 0.5 increment

DISPLAY:

Monochrome LCD (120mm x 90mm) Distillation curve and other test parameters, status, and trouble message displayed

CONDENSER TUBE:

Brass tube(std) or stainless steel tube(opt)

Controlled at 0 to 70°C by Peltier elements

RECEIVER ROOM:

Controlled at 0 to 70°C by Peltier elements

SAFETY FEATURES:

Heater shuts down at the upper end of the scale ($200/300/400^{o}$C). Upon detecting fire by thermofuse, warning buzzer beeps, heater shuts down, and fire containment system activates.

The fire containment system consists of a mechanical shutter and N_2 gas injector.

ERROR MESSAGES:

In case of detecting an error or equipment abnormality, the corresponding error message is displayed and the buzzer beeps.

COMPUTER OUTPUT:

RS-232C, 1 channel

UTILITY REQUIREMENTS:

100, 120, 220 or 240VAC, 1.5kW 50/60Hz,

External N_2 gas supply (for fire containment system)

DIMENSION & WEIGHT:

400mmW x 520mmD x 710mmH, 55kg

ORDERING INFORMATION:

STANDARD ACCESSORIES:

1. Distillation Flask, 125ml		1 pc
2. Graduated Cylinder Assy, 100ml		1 pc
3. Flask Support Board, 38mm ID		1 pc
4. Flask Support Board, 50mm ID		1 pc
5. Temperature Sensor for Fuel Oils		1 pc
6. Temperature Sensor Centering Device		1 pc
7. Silicon Stopper for Flask (vapor tube)		1 pc
9. Spare Thermofuse		3 pcs
10. AC Power Cord		1 pc
11. Instruction Manual		1 copy

OPTIONAL ACCESSORIES:

1. Built-in Thermal Printer and Printing Paper
2. Temperature Sensor for ASTM D850, D1078
3. Flask for ASTM D850, D1078, 200ml
4. Silicone Stopper No.6 for Temperature Sensor for 200ml Flask
5. Flask Support Board for D850, 25mm ID
6. Flask Support Board for D1078, 32mm ID
7. Flask for 10% Distillation Residue, 250ml
8. Cylinder for 10% Distillation Residue, 200ml
9. Dry Point Sensor with Silicone Stopper
10. Barometric Pressure Sensor
11. Stainless Steel Condenser Tube for corrosive samples (Factory Option)
12. ADManager[R] Kit(communication software for Windows98/Me/2000, converters and cables)
13. Automatic Fire Extinguisher System (CO_2 Gas Bomb)

Specifications are subject to change without prior notice.

TANAKA SCIENTIFIC LIMITED