

# Automated Distillation Tester

# ad-7

## Ergonomic, Robust and Versatile

ad-7 automatically performs distillation test of petroleum products as well as narrow boiling range samples. 10.4 inch LCD with touch panel has been adopted for easy and intuitive operation. Peltier system is employed for cooling/ heating of the condenser and receiver cylinder compartment. Robust design for continuous use.



## User-friendliness

- 10.4 inch(\*) Color LCD.\* 4 times larger than previous model.
- Intuitive operation by Touch Panel.
- Advanced data management software; *tdas* ( Tanaka Data Acquisition System ).

## Safety

- Fire Containment system: Heater shuts down when ultraviolet sensor detects a fire, and CO<sub>2</sub> gas flows into the heater compartment (if connected to CO<sub>2</sub> source).
- Flask Catcher reduces the risk of breaking vapor tube of flask.
- Overheat protection: Heater shuts down automatically at the upper end of the temperature scale.

## Versatility

- 200 test modes
- 5,000 test results
- RS-232C, USB port, Ethernet

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## Specifications

Standard	JIS K 2254, JIS K 0066, JIS K 5601-2-3, JIS K 2435-1/2/3 ASTM D86-12, ASTM D850, ASTM D1078, ISO 3405, ISO 918, IP123, IP195, GOST2177
Test ranges	Selectable from 0 °C to 300/450 °C (fuel oil) or 0 °C to 200/450 °C (ASTM D850, D1078 with optional accessories)
Program control	Sequence control by microcomputer
Display	TFT-LCD 10.4" color touch-screen with universal design GUI
Printer	Built-in, thermal type (Paper width:80 mm, Print width:72 mm)
Barometric correction	Automatic correction by barometric pressure sensor or manually input
Temperature unit	0.1 °C or 0.2 °F
Temperature sensor	Vapor: Pt100 Condenser: Pt100 Receiver room: Pt100
Heater	24 V 600 W low mass and low voltage heater, spiral type
Heater cooling system	Forced air cooling by propeller fan
Condenser	Brass made tube Note: Stainless tube for corrosive sample (special order)
Condenser temperature control	Electronic cooling & heating by Peltier coolers : 0 ~ 69.9 °C
Receiver temperature control	Electronic cooling & heating by Peltier coolers : 10 ~ 50 °C
IBP detection	Photoelectric detection by Infrared LED and phototransistor
Liquid level detection	Photoelectric detection by Infrared LED and phototransistor Distillation rate: 4.5 % /min at factory (Selectable from 2 to 9 % with 0.5 % increment) Control method : PID Control
Test mode	Up to 200 test modes can be recorded
Dry point detection	Manual detection by visual confirmation Note: Or automatic detection by dry point sensor (Option)
Safety features	(1) Overheat protection activates at the upper end of the temperature scale. (2) Self-diagnosis for sensor break, test condition and incorrect operations. (3) Automatic fire detection system Note: Heater shuts down, activates audible alarm and display notice. Note: CO <sub>2</sub> gas flows into the heater compartment if connected to CO <sub>2</sub> line.
Communication port	RS-232C x 1ch : for LIMS Ethernet x 1ch : for <i>idas</i> or LIMS USB x 1ch : for Flash Memory or firmware update
Data storage	Up to 5,000 test results can be stored.
Power source	AC 100V - 240 V 50 / 60 Hz 15 A
Size ( W x D x H )	430 x 520 x 710 mm (16.9 x 20.5 x 28 ")
Weight	55 kg (121.25 lb)

Specifications subject to change without prior notice.

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