



AWD-001 Multi-function Low-temperature Tester

ASTM D97 ASTM D2500 ASTM D6371

AWD-001 Multi-function Low-temperature Tester is designed and manufactured in accordance with the following equivalent ASTM methods:

- Pour point: ASTM D97
- Cloud point: ASTM D2500
- Solidifying point Cold-filter plugging point: ASTM D6371 (equivalent principle)

It is suitable for determining the pour point, cloud point, solidifying point and cold-filter plugging point of petroleum and petroleum products under these ASTM standards.

Performance Characteristics

AWD-001 Multi-function Low-temperature Tester is composed of the test assembly, a refrigeration unit, an electrically-controlled vacuum-filtration module, a stirring mechanism, and a digital temperature-control system.

Test assembly

- Consists of test cups, filter assembly, calibrated pipette, low-temperature bath, and digital temperature regulator.

Refrigeration unit

- Hermetic cascade compressor set built with compressor, condenser, cascade condenser, capillary tube, and evaporator.
- Designed with our proven refrigeration technology: low energy consumption and long service life.
- Electrically-controlled vacuum-filtration module (for cold-filter plugging point)
- Integrates U-tube manometer, constant-level water vessel, suction pump, vent valve, and all required air lines in a single compact unit.
- Electrically controls suction and venting, eliminating the complicated manual setup specified in SH/T 0248 and giving reliable, repeatable results.

Digital temperature-control system

- Employs a microprocessor-based PID controller to maintain bath temperature.
- Displays both set-point and actual temperature in real time, allowing easy adjustment and offset correction.

Technical Parameters

- Power Input: < 2 200 W
- Supply: AC 220 V $\pm 10\%$, 50 Hz
- Temperature Range: Ambient To $-69\text{ }^{\circ}\text{C}$
- Temperature Stability: $\pm 0.5\text{ }^{\circ}\text{C}$
- Cool-Down Time: $\leq 100\text{ Min}$
- Bath Working Volume: 200 mm \times 90 mm \times 20 mm
(Two Independent Chambers)
- Bath Medium: Anhydrous Ethanol
- Cold-Filter Plugging Point Filtration Module:
 - – Power Input: 0.1 KW
 - – Differential-Pressure Range: 0 – 240 Mm H₂O
 - – Suction / Vent Control: Push-Button Electric Actuation

