

KN-9725 Automatic Pour and Cloud Point Tester

Overview

KN-9725 Automatic Pour and Cloud Point Tester developed for classic determination of cloud point (CP) and pour point (PP) of petroleum products according to ASTM D97, ASTM 2500, ASTM D5950, EN 23015, ISO 3015, ISO 3016, IP 15. KN-9725 determines CP and PP in one test cycle with high precision in compare with manual methods. Unique integrated cooling system provides cooling of samples up to -80°C in a short time without any external chiller.

Features

1. Fully automated control of testing process
2. Integrated cooling system for cooling bath up to -80°C without an external liquid chiller
3. Automatic lifting and rotating of the test tube
4. Determination of CP&PP in one test cycle
5. High precision of results with 0.1°C resolution
6. Optical measuring system
7. Pt-100 temperature probe
8. Built-in heater for the quick bath heating
9. Large color LCD display with touch screen
10. Internal memory (8Gb) to store tests results
11. Automatic diagnostic system
12. USB-port for external storage device or printer
13. LAN-port for network connection (LIMS support)
14. Connection to network printer
15. Remote firmware update
16. Compact design and high energy efficiency

Technical parameters

1. Temperature range: $-80\sim 51^{\circ}\text{C}$, $\pm 0.1^{\circ}\text{C}$
2. Sample volume: 45ml
3. Cooling mode: Integrated cooling system without external chiller
4. Interface: USB, LAN
5. Power consumption: 500W
6. Rated voltage: $220\text{V} \pm 10\%$, 50Hz
7. Dimension: 500*440*770mm
8. Weight: 35kg



KN-6371 Fully Automatic Cold Filter Plugging Point Tester (CFPP)

Overview

KN-6371 Fully Automatic Cold Filter Plugging Point Tester conforms to national standard **ASTM D6371 Standard Test Method for Cold Filter Plugging Point of Diesel and Heating Fuels**. It adopts modern advanced technology, mechanical, optical, electronic and computer technology, and can be done automatically test the cold filter plugging point of petroleum products, automatic cold filter plugging point analyzer using optical detection technology, imported compressor refrigeration system ensure the required refrigeration depth. Automatic cold filter plugging point tester reasonable structure, stable performance, simple operation, is the ideal detection equipment.

Features

1. High degree of automation equipment, automatic cooling, automatic sample aspiration, automatic detection, automatic save the results, the test process without human intervention;
2. The instrument configuration of two experimental units do parallel test can also detect single group;
3. Instrument automation control technology, human-friendly interface, photoelectric automatic detection;
4. Instrument with integrated design, to avoid damage due to vibration of the floe and the impact of the test data.
5. The instrument uses photoelectric liquid level sensor can accurately detect the position of the horizontal surface, the cold filter plugging point accurate judgment.
6. The instrument uses a built-in vacuum pump and electronic precision pressure balance system to ensure automatic balancing suction filtration pressure at the set value.
7. The instrument can automatically control the cooling medium and the temperature difference between the sample being tested, to ensure a controlled and uniform cooling rate stable.

Technical parameters

1. Temperature measuring range: $-45 \sim 50$ °C; resolution 0.1 °C
2. Pressure measuring range: 0 ~ 200.0KPa; resolution 1Pa
3. Test samples: 2-way
4. Temperature measurement element: PT100
5. Detection method: a photo detector
6. Refrigeration: Refrigeration Compressors
7. Control mode: single-chip control
8. Ambient temperature: $10 \sim 35$ °C



KN-97J Metal Bath Pour and Cloud Point Tester

Overview

KN-97J Metal Bath Pour and Cloud Point Tester is suitable to the standards of **ASTM D97 Standard Test Method for Pour Point of Petroleum Products** and **ASTM D2500 Standard Test Method for Cloud Point of Petroleum Products**, It is used to test the pour and cloud point of petroleum products.

Features

1. Digital display, PID temperature control
2. Dedicated cooling technology, it features fast cooling speed and high efficiency
3. Benchtop type with easy operation mode
4. Adopts metal bath cooling, no need liquid medium

Technical parameters

1. Rated voltage: AC220V $\pm$ 10%, 50Hz
2. Bath: Double test stations with different temperature setting
3. Temperature range: -70°C~ ambient
4. Temperature accuracy: $\pm$ 0.2°C
5. Cooling system: Danfos compound compressor cooling
6. Ambient temperature requirement: $\leq$ 30°C
7. Relative humidity requirement: $\leq$ 85%
8. Total power consumption: $\leq$ 1500W



KN-97Z Full Automatic Pour and Cloud Point Tester

Overview

KN-97Z Full Automatic Pour and Cloud Point Tester is suitable to the standards of **ASTM D97 Standard Test Method for Pour Point of Petroleum Products** and **ASTM D2500 Standard Test Method for Cloud Point of Petroleum Products**, It is used to test the pour and cloud point of petroleum products.

Features

1. 7 inch touch screen operation with good human-computer communication
2. German Danfoss compressor cooling with fast cooling speed and stable performance
3. Imported photoelectric sensor for detect the sample fluidity accurately, result is reliable
4. Imported high precision temperature controlling module equipped with high grade temperature sensor, it features accurate temperature measurement and small error
5. Rotational structure design makes the working operating floor simple and attractive
6. Two sample stations, be able to do two tests simultaneously
7. Main host adopts micro processor control. Automatic cooling, lifting test tubes, rotating, testing the fluidity, identifying results, recording, printing and stopping after the test

Technical parameters

1. Applicable standard: ASTM D97 & D2500
2. Temperature range: Ambient ~ -70°C
3. Temperature accuracy: $\pm 0.1^{\circ}\text{C}$
4. Cooling mode: Imported compound compressor
5. Detection mode: photoelectric sensor
6. Cooling rate: $17^{\circ}\text{C}/300\text{s}$
7. Test unit: 2



KN-97M Multiple Pour and Cloud Point Refrigerator

Overview

KN-97M Multiple Pour and Cloud Point Refrigerator conforms to the **ASTM D97 and ASTM D2500**. this cryostat is intended for use on any petroleum product. Suitable for black specimens, cylinder stock, and non-distillate fuel oil and for testing the fluidity of a residual fuel oil at a specified temperature is described. Three compartments have a temperature range of ambient to -34 °C and one has a low temperature compartment -34 to -51 °C. Refrigeration is accomplished by a two stage CFC free system.

Features

1. Floor Model
2. 4 liquid bath with different temperature
3. Light a resistant structure made in die-casted aluminum covered by special plastic material
4. Fitted with four wheels allowing movement
5. PVC cover with 16 wells (4 for each temperature) for accommodate 16 graduated jars
6. Equipped with 4 holes for thermometer accommodation
7. Equipped with 4 holes where liquid is poured and thermometer is placed
8. 16 small stand-by covers
9. Working temperatures: -18, -33, -51 and -69°C
10. Temperature is controlled by 4 digital thermo regulators (one for each temperature) fitted with a probe PT100 A
11. Automatic defrosting device low voltage
12. CFC free refrigerant gases are used

Applicable standard

ASTM D97, ASTM D2500, ASTM D5853, ASTM D6922

Technical parameters

Item	Bath 1	Bath 2	Bath 3	Bath 4
Temperature	Ambient~ -18°C	Ambient~ -33°C	Ambient~ -51°C	Ambient~ -69°C
Precision	±0.2°C			
Compressor	Triple Danfoss 380W			
Rated voltage	AC220V±10%, 50Hz			
Ambient Temperature	≤30°C			
Humidity	≤85%			
Power	Less than 2800W			
Dimension	1040*520*1100mm, L*W*H			



KN-2386Z Automatic Freezing Point Apparatus

Overview

KN-2386Z Automatic Freezing Point Apparatus conforms to **ASTM D2386 Standard Test Method for Freezing Point of Aviation Fuels**. This apparatus covers the determination of the temperature below which solid hydrocarbon crystals may form in aviation turbine fuels and aviation gasoline. The freezing point of an aviation fuel is the lowest temperature at which the fuel remains free of solid hydrocarbon crystals that can restrict the flow of fuel through filters if present in the fuel system of the aircraft. The temperature of the fuel in the aircraft tank normally falls during flight depending on aircraft speed, altitude, and flight duration. The freezing point of the fuel must always be lower than the minimum operational tank temperature.

Features

1. 7-inch color LCD touch screen, stylish and beautiful. All English control software is clear and intuitive.
2. Using Danfoss compressors, it has fast cooling speed and stable performance.
3. Using unique electromagnetic stirring technology, the stirring device is simple and beautiful, and the stirring frequency is adjustable.
4. Equipped with automatic lifting mechanism, stable and fast lifting.
5. Using imported photoelectric sensors instead of manually judging the freezing point, the test result is accurate.
6. A microprocessor program controls the host computer, the temperature is automatically lowered during the test, the test tube is automatically raised and lowered, the freezing point can be automatically identified, stored, and printed, and it will automatically stop after the test.

Technical parameters

1. Applicable standard: ASTM D2386
2. Temperature control range: room temperature~-70°C
3. Temperature control accuracy: $\pm 0.1^{\circ}\text{C}$
4. Refrigeration method: imported cascade compressor
5. Stirring method: electromagnetic stirring
6. Stirring frequency: 60 times/min
7. Detection method: photoelectric sensor
8. Storage records: 200 records
9. Printing method: micro printer
10. Main engine power: 1.5KW
11. Power supply: AC 220V $\pm$ 10% 50Hz



KN-1177Z Automatic Freezing Point for Engine Coolant

Overview

KN-1177Z Automatic Freezing Point for Engine Coolant conforms to **ASTM D1177 Standard Test Method for Freezing Point of Aqueous Engine Coolants**. This apparatus involves the determination of the time-temperature curve prior to freezing and the determination of the horizontal or flattened portion of the freezing curve. The freezing point is taken as the intersection of projections of the cooling curve and the freezing curve. If the solution super cools, the freezing point is the maximum temperature reached after super cooling.

Features

1. The apparatus adopts SPCC and surface electrostatic spray, so it has high corrosion resistance and easy to clean
2. The apparatus adopts the compound compression refrigerator, green refrigerants and fast refrigerating
3. The apparatus adopts butt-joint, no welding spot with a good exterior
4. Dewar bottle as the cooling bath, so as to keep the low temperature
5. The glass test tubes conform to ASTM standard
6. Unique damping technology with less noisy
7. Good quality motor, 0-80rpm adjustable
8. The apparatus equips guide crystal hole
9. Integrative structure, easy to move

Technical parameters

1. Standard: ASTM D1177
2. Temperature control: PID digital display temperature control
3. Temperature accuracy: $-45 \pm 0.1^{\circ}\text{C}$ (-70°C can be selected)
4. Cooling method: Compound compression refrigerator
5. Stirring method: Motor stir
6. Timing method: Digital display timer

