

KN-127 Petroleum Wax Drop Melting Point Tester

Overview

KN-127 Petroleum Wax Melting Point Tester conforms to **ASTM D127 Standard Test Method for Drop Melting Point of Petroleum Wax**, Including Petrolatum. Melting point is a wax property that is of interest to most wax consumers. It can be an indication of the performance properties of the wax. Drop melting point, Test Method D127, is often used to measure the melting characteristics of petrolatum and other high viscosity petroleum waxes.

Features

1. Digital display PID temperature controller, with accuracy of $\pm 1^{\circ}\text{C}$
2. The instrument adopts temperature-resistant high borosilicate glass cylinder, which can observe the sample transparently and has good heat preservation performance.
3. The instrument adopts the compressor refrigeration, which produces a large amount of refrigeration to maintain the temperature constant
4. This instrument is formed by steel plate, and the surface adopts electrostatic spraying process, which is durable and strong in corrosion resistance.

Technical parameters

1. Applicable standard: ASTM D127 ISO2707
2. Wax bath temperature range: $4^{\circ}\text{C} \pm 0.1^{\circ}\text{C}$
3. Transparent bath temperature range: $16 \sim 150^{\circ}\text{C}$ (ambient temperature $\leq 20^{\circ}\text{C}$)
4. Temperature control mode: Digital display temperature programming
5. Heating mode: SS electric tube heating
6. Cooling mode: Compressor
7. Test stations: 2
8. Heating power: 1500W
9. Cooling power: 500W
10. Total power: 2000W
11. Rated voltage : $\text{AC}220\text{V} \pm 10\%$, 50Hz



KN-217 Manual Cone Penetration for Petroleum Products

Overview

KN-217 Manual Cone Penetration for Petroleum Products conforms to **ASTM D217 Standard Test Methods for Cone Penetration of Lubricating Grease**. The apparatus is used for not only evaluating the consistency of lubricating greases over the full range of NLGI numbers from 000 to 6, but also evaluate the consistency of stiff greases having penetration numbers less than 85 and also testing waxes having a penetration of not greater than 250 unit (unit is 10⁻¹mm).

Features

1. Both the needle and cone penetration value can be directly read through the LCD screen, it's visual and accurate.
2. The apparatus is equipped with flexible and speedy move model or micro move model for cone adjustment, easy to adjust.
3. Reasonable structure with beautiful shape and easy operation.
4. Equipped with a manual grease worker

Technical parameters

1. Rated voltage: AC220V $\pm$ 10% 50Hz
2. Timer controller: 0~60 seconds automatic timing
3. Measuring accuracy: 0.01mm
4. Standard slider: 47.5 $\pm$ 0.05g
5. Standard cone: 2.5 $\pm$ 0.05g
6. Ambient requirements: Temperature: 10~40°C; Humidity $\leq$ 85%
7. Applicable Standard: ASTM D217, D5, D1403 & D1321



KN-217Z Automatic Cone Penetration for Grease

Overview

KN-217Z Automatic Cone Penetration for Grease conforms to **ASTM D217 Standard Test Methods for Cone Penetration of Lubricating Grease**. The apparatus is used for not only evaluating the consistency of lubricating greases over the full range of NLGI numbers from 000 to 6, but also evaluate the consistency of stiff greases having penetration numbers less than 85 and also testing waxes having a penetration of not greater than 250 unit (unit is 10⁻¹mm).

Features

1. Display adopts 7.0 inch 800*480 pixel TFT-LCD screen
2. The instrument operates with a capacitive touch screen, which has the advantages of no mechanical loss, dust and water discharge, anti-radio frequency interference, and long service life.
3. Historical data storage is stored in FLASH data storage, which can store 2010 historical data. The data can be saved for 10 years without loss and the stored data can not be changed
4. The printer can choose to use embeded thermal, stylus printer, printing quieter, fast and clear. The cone penetration detection adopts high-precision non-contact displacement detection technology to make the cone movement capture instantaneously, and completely avoids false detection and missed detection during the test.
5. With automatic lifting, automatic release, automatic measurement, automatic printing of test results, zero adjustment and other functions.
6. The internal mechanical parts are made of anti-corrosion, anti-rust and high-strength materials for longer service life.

Technical parameters

1. Measuring range: 0~62mm
2. Standard cone weight: 102.5±0.5g
3. Traction rod weight: 47.5±0.05g
4. Petroleum grease container: Diameter $\phi 100 \pm 0.6$ mm, Height ≥ 65 mm(ID)
5. Lube grease container: Diameter $\phi 76.2 \pm 0.6$ mm, Height ≥ 65 mm(ID)
6. Accuracy: 0.01mm
7. Release time: 55
8. Time control: Automatic
9. Repeatability ≤ 0.01 mm
10. Ambient temperature: 10~45℃
11. Ambient humidity $\leq 85\%$
12. Operation mode: Touch screen operation, easy to use
13. Power voltage: 220V±10%
14. Power frequency: 50Hz±10%
15. Consumption power: 100W
16. Dimension: 580mm*370mm*590mm (L*W*H)
17. Weight: 20kg



KN-1500 Colorimeter for Petroleum Products

Overview

KN-1500 Colorimeter for petroleum products conforms to the **ASTM D1500 Standard Test Method for ASTM Color of Petroleum Products (ASTM Color Scale)**. The apparatus covers the visual determination of the color of a wide variety of petroleum products, such as lubricating oils, heating oils, diesel fuel oils, and petroleum waxes. Experimenter pours different kinds of lubricating oil, kerosene, diesel and other petroleum product samples into colorimetric cylinder, then compare with normal glass color piece, determining the colourity by the corresponding color number.

Features

1. The standard color disk adopts 25 kinds of color number of standard color sheet glass.
2. The optical microscope adopts observation optical lens, be provided with focusing function.
3. The standard illuminant adopts inside-frosted bulb as luminous source.
4. Turning of the standard color disk adopts manual adjustment.
5. Easy operate with rational construction and attractive appearance.

Technical parameters

1. Rated voltage: AC220V $\pm$ 10% 50Hz
2. Standard illuminant: 100W Temperature: 2750K $\pm$ 50K
3. Standard color disk: No.1~25
4. Colorimetric cylinder: inner diameter 33*125 $\pm$ 5mm
5. Ambient requirement: Temperature: 10~40°C; Humidity $\leq$ 85%



KN-6304 Coulometric Karl-Fischer Titration Tester

Overview

KN-6304 Coulometric Karl-Fischer Titration Tester conforms to the **ASTM D4377**, **ASTM D6304** and **ASTM D4928**, which is used for testing water content of crude oil is important in the refining, purchase, sale, or transfer of crude oils. Our KN-6304 is used for determine water in the range from 0.02 to 2 % in crude oils. Mercaptan and sulfide (S- or H₂S) sulfur are known to interfere with this test method and determine water in the 0.005 to 0.02 mass % range, but the effects of the mercaptan and sulfide interference at these levels has not been determined. For the range 0.005 to 0.02 mass %, there is no precision or bias statement.

Features

KN-6304 Coulometric Karl-Fischer Titration tester is controlled by the SCM, which features system fault self-diagnosis, color liquid LCD touch screen and friendly human-computer interface. The tester can deduct blank current automatically with high-test result accuracy. Large current background compensation function, shorten the stand-by time greatly, particular reagent failure detection function, reminds user to change the invalid reagent, improve the use ratio of the reagent greatly. The built-in multiple water content formula meets different user's demand. Equipped with high efficient miniprinter, built-in large capacity storage, which can store 500 test records, convenient retrieval mode, user can read and print the test report expediently.

Technical parameters

1. Rated Voltage: AC220V±10% 50Hz
2. Measuring range: 3μg~150mg
3. Resolution Ratio: 0.1μg
4. Accuracy: Water content <10μg (error±2) No aqueous injection
Water content: 10μg~500g (error±3g)
5. Electrolytic speed: Maximum 2.0mg/min
6. Electrolytic current: Pulse current 400mA
7. Temperature requirement: 0~40℃, Humidity≤85%



KN-87 Petroleum Wax Melting Point Apparatus (Cooling Curve Method)

Overview

KN-87 Petroleum Wax Melting Point Apparatus (Cooling Curve Method) conforms to **ASTM D87 Standard Test Method for Melting Point of Petroleum Wax (Cooling Curve)**, it covers the determination of the melting point (cooling curve) of petroleum wax. It is unsuitable for waxes of the petrolatum group, microcrystalline waxes, or blends of such waxes with paraffin wax or scale wax.

Features

1. An integrated structure of water bath and air bath,
2. Equipped with an electronic timer in addition to the temperature control meter, which is easy to operate.

Technical parameters

1. Input power: AC 220V $\pm$ 10% 50Hz
2. Heating power: 93°C water bath 1KW
3. Temperature control range: room temperature ~ 100°C
4. Temperature control accuracy: $\leq \pm 1^\circ\text{C}$
5. Ambient temperature: room temperature around 25°C
6. Relative humidity: $\leq 85\%$



KN-4294 X-ray Fluorescence Sulfur Content Apparatus

Overview

KN-4294 X-ray Fluorescence Sulfur Content Apparatus has been the overwhelming choice in the petroleum industry for years. Continuous improvements in performance and usability allow us to offer a better instrument to suit your requirements. Our XRF sulfur analyzers comply with **ASTM D4294 Standard Test Method for Sulfur in Petroleum and Petroleum Products by Energy-Dispersive X-ray Fluorescence Spectrometry**, while offering the most cost effective alternative for sulfur in petroleum measurement.

Features

1. The analyzer got electromechanical integration design of computerization, large screen LCD display, man-machine dialogue operation, concise and beautiful;
2. High measurement range, fast detection speed and small quantity sample consumption.
3. We adopt Fluorescence intensity ratio analysis method, can calibrate temperature, atmospheric pressure and carbon hydrogen ratio(C/H).
4. Using disposable sample cup, can avoid cross contamination; also user may record the sample batch number, S%(m/m) date;
5. Highly accurate sample platform location, it's very easy to put or replace oil samples.
6. Big storage for at least 1000 test data, user may check the content detection results and calibrated curve anytime.
7. We equip thermal printer for the analyzer.
8. The analyzer is equipped with standard RS-232C interface, can be connected to each PC

Technical parameters

1. Measuring range: 7ppm~5%;
2. Accuracy: a, repeatability (r): $<0.02894(x+0.1691)$;
b, reproducibility (r): $<0.1215(x+0.05555)$;
3. sample volume: 2~3ml(sample height 3mm~4mm);
4. measuring period: 60,120,240,300,600 seconds, Arbitrary set;
5. Single sample auto test measured times: 2,3,5,10,50 Arbitrary set ,it can provide AVG and standard deviation at every end of measurement;
6. Calibrated curve: our analyzer can store 9 calibrated curves, five of linear line with one unknown; 4 of Binomial parabola
7. Working Condition:Temperature:5~35℃,humidity:≤85% (30℃)
8. Rated voltage:AC220V±20V,50Hz; Power: 30W



KN-4294A Portable EDXRF Sulfur Analyzer

Overview

KN-4294A Portable EDXRF Sulfur Analyzer is a complete solution to test and verify adherence to the International Maritime Organization (IMO) Low Sulfur Fuel Oil Standard Requirement in response to the significant reduction of the maximum permissible levels of sulfur in marine fuels from 3.5 % to 0.5 %, as being enforced from the beginning of 2020.

KN-4294A is a high performance, portable XRF analyzer that provides the energy industry with the perfect sulfur elemental analysis method for analyzing elemental content in oils such as lubricants, diesel fuels, jet fuels, kerosene, other distillates, volatile oils, residual oils, hydraulic oils, crude oils, unleaded petrol, alcoholic gasoline, biodiesel. Also, it can check the existence of elements content, wear elements, pollutants and sulfur content in other similar petroleum products. It can be used in any place, providing safe, high-quality sulfur content analyzing condition for liquid, solid or gas samples. In line with **ASTM D4294 Standard Test Method for Sulfur in Petroleum and Petroleum Products by Energy Dispersive X-ray Fluorescence Spectrometry, ISO8754 Petroleum Products – Determination of Sulfur Content – EDXRF up-to date version** and other testing standards

Purpose

1. It can be used to determine mass% of total sulfur in the crude petroleum, petroleum, heavy oil, diesel oil, gasoline, and naphtha.
2. It can be used to determine total sulfur content in the products of coal chemical industry.
3. It can be used to determine total sulfur or sulfide in other liquid or solid powder samples.

Instrument characteristics

1. With electrical, mechanical and microprocessor integration design, so it is compact and beautiful;
2. It can determine various products and in a wide measurement range. It is rapid for analysis and it only need little standard sample.
3. Adopts fluorescence intensity ratio analysis methods, it can make correction to temperature and pressure automatically .
4. 8-inch (1024*768)capacitive touch screen;

5. It can determine its working state and electric parameters by making repeatability test and spectrum scan using reference samples.
6. It takes disposable sample cell with Mylar film, so it can avoid cross contamination. Sample cell is made by a multifunction pressure shaping device, so it is rapid and convenient.
7. The sample holder is installed on a slide rail, It is convenient and it can avoid any contamination to detection system.
8. It can save large quantity of test data. You can browse test data and calibration curves at any time.
9. It uses a thermal printer, so it is easy to replace printing paper.
10. Its safe X-ray protection measures can keep people from injury of X-ray radiation.

Main technical specification and parameters

1. Measurement range: 0.0017% to 5%
2. Repeatability (r): $<0.4347 \times 0.6446$
3. Detection limit: 10ppm
4. Oil sample quantity: 5 ml~ 6ml
5. Measurement time: 60s or 120s or 180s ; Replication times can set 1 or 2 or 3 or 5 or 10
6. It will show average value and standard deviation at end of measurement.
7. Calibration curve numbers: it can save 10 calibration curves.
8. Working condition: a. Ambient temperature: 5~30℃; b. Relative humidity: $\leq 85\%$ (30℃)
9. Power supply: AC 220V $\pm$ 20V, 50 Hz/60Hz; Rated power: 50 W
10. Size and weight: 310mm $\times$ 230mm $\times$ 130mm; 6.5 kg



KN-721 Petroleum Wax Oil Content Analyzer

Overview

KN-721 Petroleum Wax Oil Content Analyzer conforms to **ASTM D721 Standard Test Method for Oil Content of Petroleum Waxes**. This analyzer covers the determination of oil in petroleum waxes having a congealing point of 30°C (86°F) or higher as determined in accordance with Test Method D 938, and containing not more than 15 % of oil

Features

1. Separated temperature control system, can guarantee the accuracy of the test temperature
2. Totally enclosed compressor refrigeration, Copper made cooling bath
3. Electronic heating bath, Stirring device on the top, Stainless steel heater
4. Standard glass tube, can meet ISO requirements
5. Evaporation device got transparent observation
6. Four air flow is divided into two road control, to ensure the accuracy of flow rate.
7. Micro-computerized Controller with PID, Digital display temperature (continuous display when testing), accuracy to 0.1°C, Pt100 RTD temperature probe
8. contacted control box is very convenient

Technical parameters

1. Standard: ASTM D721
2. Temperature control: PID digital temperature controller
3. Cooling method: Compressor
4. Temperature control: heating pipe
5. Working temperature: 0±0.5°C -34.5±0.5°C 90±0.5°C
6. Evaporation device: 4tubes 35±1°C
7. Power: AC220V±10%/50HZ

