



# LABSYS

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LABSYS

## OIL TESTING INSTRUMENTS

### NOACK EVAPORATION LOSS

**ASTM D5800, CEC L-40-A-93, DIN 51581, IP 421  
JPI-5S-41-04, NB/SH/T 0059**

Determination of the evaporation loss of lubricating oils (particularly engine oils).

Procedure A uses the Noack evaporative tester equipment.

Procedure B uses the automated non-Woods metal Noack evaporative apparatus.



### FLASH POINT

#### PENSKY MARTENS CLOSE CUP

#### PENSKY MARTENS CLOSE CUP (AUTOMATIC)

**ASTM D93, procedures A, B, C - ASTM , D3941 - ASTM E502, DIN EN 22719, IP 34, ISO 2719**

Flash Point on petroleum products, gas oils, fuel oils, lubricants, biodiesel. Suitable for flash point detection on different substances, waste materials, solvents...



#### PENSKY MARTENS CLOSE CUP(SEMI-AUTOMATIC)

**ASTM D93, procedures A, B, C - ASTM , D3941 - ASTM E502, DIN EN 22719, IP 34, ISO 2719**

Flash Point on petroleum products, gas oils, fuel oils, lubricants, biodiesel. Suitable for flash point detection on different substances, waste materials, solvents...



## PENSKY MARTENS CLOSE CUP(MANUAL)

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Flash Point on petroleum products, gas oils, fuel oils, lubricants, biodiesel. Suitable for flash point detection on different substances, waste materials, solvents...



## CLEVELAND OPEN CUP

### CLEVELAND OPEN CUP(AUTOMATIC)

**ASTM D92,DIN 51376,EN 22592 (obs.),IP 36,ISO 2592**

Flash and Fire Point on petroleum products, gas oils, fuel oils, lubricants. Suitable for flash and fire point detection on different substances and waste materials, having a flash point over 79°C.



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## CLOUD AND POUR POINT

### CLOUD AND POUR POINT (AUTOMATIC)

**Cloud Point: ASTM D5771, DIN 51597, EN 23015, EN 590, IP 444  
Correlated: ASTM D2500 - ASTM D5772 - ASTM D5773 IP 219 - IP 445 - IP 446 ISO 3015, JIS K2269, Pour Point: ASTM D97 - ASTM D5853 - ASTM D5950 - ASTM D6074 - ASTM D6158 IP 15 - IP 441 ISO 3016, EN ISO 22995**

Pour Point of petroleum products, crude oils, motor and engine oils, additives, lubricating oils. The sample is cooled down according to the methods while the clouds appearance is observed on the silver bottom of the test jar by means of an optical sensor. The measurement is done by reflection on the silver bottom of the test jar via a fast light detector. The signal from light detector is traded by the LabLink software. The dynamic measurement is performed regardless of the sample's colour.



### CLOUD AND POUR POINT (MANUAL)

**ASTM D97 - ASTM D2500 - STM D5853 - ASTM D6922, DIN 51428 - DIN 51597, IP 15 - IP 219 - IP 309, ISO 3015 - ISO 3016**

This test method 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. Available working temperature: from +60°C up to -69°C.



## FOAMING TESTER

### FOAMING TESTER (AUTOMATIC)

**ASTM D892, ASTM D6082, DIN 51566, IP 146, ISO 6247**

Foaming characteristics of lubricating oils: this test method covers the determination of the foaming characteristics of lubricating oils at 24°C and 93.5°C. Means of empirically rating the foaming tendency and the stability of the foam are described.



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## CENTRIFUGE

**ASTM D91 - ASTM D96 (obs.) - ASTM D483 - ASTM D893 -  
ASTM D1093 - ASTM D1290 - ASTM D1796 - ASTM D1966 -  
ASTM D2273 - ASTM D2709 - ASTM D2711 - ASTM D4007  
IP 75 (obs.) - IP 359, DIN 51793**

- Touch screen easy to read Rotor and adapters list on memory
- Timer count up/down, from 0 or at "set RPM/RCF"
- Microprocessor controlled
- Max. speed 3.000 RPM / 2.425 RCF
- Heating program from room +5°C up to +80°C, selectable scale °C / °F.



## DISTILLATION

### DISTILLATION (SEMI-AUTOMATIC)

**ASTM D86 - ASTM D216 (obs.) - ASTM D447 (obs.)  
 - ASTM D850 - ASTM D1078 - ASTM E133, DIN 51751  
 IP 123 - IP 195, ISO 3405**

This test method covers the atmospheric distillation of petroleum products using a laboratory batch distillation unit to determine quantitatively the boiling range characteristics of such products as natural gasolines, light and middle distillates, automotive spark-ignition engine fuels, aviation gasolines, aviation turbine fuels, 1-D and 2-D regular and low sulphur diesel fuels, special petroleum spirits, naphthas, white spirits, kerosines, and Grades 1 and 2 burner fuels. The test method is designed for the analysis of distillate fuels; it is not applicable to products containing appreciable quantities of residual material.



### DISTILLATION (MANUAL)

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 - ASTM D850 - ASTM D1078 - ASTM E133, DIN 51751  
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## TOTAL SEDIMENT TESTER

**ASTM D4870, IP 375 - IP 390 (proc.A), ISO 10307**

### Determination of Total Sediment in Residual Fuels

This test method covers the determination of total sediment up to 0.40 % m/m for distillate fuel oils containing residual components and to 0.50 % m/m in residual fuel oils having a maximum viscosity of 55 cSt (mm<sup>2</sup>/s) at 100°C.



## OXIDATION STABILITY

### OXIDATION STABILITY (AUTOMATIC)

#### ASTM D525, ASTM D873, ASTM D942, IP 40, EN ISO 7536

- ASTM D525 - IP 40 - EN ISO 7536 - Oxidation Stability of Gasoline (Induction Period Method). This test method covers the determination of the stability of gasoline in finished form only, under accelerated oxidation conditions.
- ASTM D873 - Standard Test Method for Oxidation Stability of Aviation Fuels (Potential Residue Method). This test method covers the determination of the tendency of aviation reciprocating, turbine, and jet engine fuels to form gum and deposits under accelerated aging conditions.
- ASTM D942 - Oxidation Stability of Lubricating Greases by the Oxygen Pressure Vessel Method. This test method determines resistance of lubricating greases to oxidation when stored statically in an oxygen atmosphere in a sealed system at an elevated temperature under conditions of test.



### OXIDATION STABILITY (MANUAL)

#### ASTM D525 - ASTM D873, DIN 51780 - DIN 51799 IP 40 - IP 138, ISO 7536

- ASTM D525 - IP 40 - DIN 51780 - ISO 7536 - Oxidation Stability of Gasoline (Induction Period Method). This test method covers the determination of the stability of gasoline in finished form only, under accelerated oxidation conditions.
- ASTM D873 - IP 138 - DIN 51799 - Oxidation Stability of Aviation Fuels (Potential Residue Method). This test method covers the determination of the tendency of aviation reciprocating, turbine, and jet engine fuels to form gum and deposits under accelerated ageing conditions.



## ANILINE POINT

#### ASTM D611-E, IP 2-E Correlated to ASTM D611-A, B, C, D, IP 2-A, B, C, D

Aniline Point and Mixed Aniline Point of Petroleum Products and Hydrocarbon Solvents.

Test method E describes a procedure using an automatic apparatus suitable for the range covered by test methods A and B.



## AIR RELEASE

### ASTM D3427, IP 313, ISO 9120

Standard Test Method for Air Release Properties of Hydrocarbon Based Oils. This test methods cover the ability of turbine, hydraulic and lubricating oils to separate entrained air.

Compact bench instrument is fully independent, equipped in standard with density measurement system, heater, temperature control system, pressure regulation and microprocessor-based control system and other devices to assure perfect performance in all range of application.

Design of the instrument is very easy to use and allows even inexperienced operator to perform routine tests.



## RPVOT

### ASTM D942, ASTM D2272, ASTM D4742

### ASTM D7098, IP 229

Standard Test Method for Oxidation Stability of Lubricating Greases , Steam Turbine Oils, Gasoline Automotive Engine Oils, Lubricants



## RVP

### ASTM D323, ASTM D4953, IP 69, ISO 3007

The test method covers the determination of vapour pressure of gasoline, volatile crude oil, by means of three procedures: A, B and C.

The OilLab 715 grant the determination in conformity with the procedure B (horizontal bath) on petroleum products having Reid Vapour Pressures below 180 kPa (26 psi).



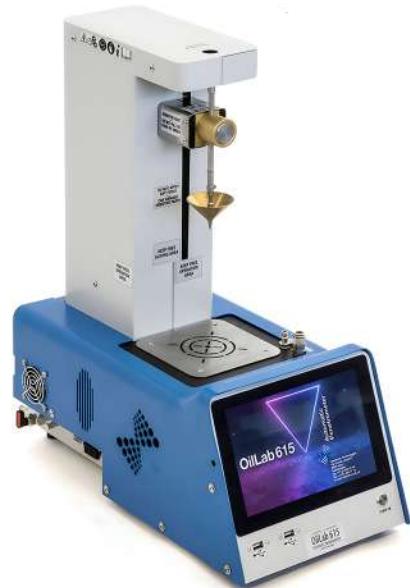
# GREASE TESTING INSTRUMENTS

## PENETRATION

### PENETRATION (AUTOMATIC)

**ASTM D5, ASTM D217, ASTM D937, ASTM D1321,  
ASTM D1403, ASTM D1831, ASTM D2884, DIN 51579  
DIN 51580, DIN 51804, DIN 52010, IP 49, IP 50,  
IP 179, IP 310, IP 376, ISO 2137**

For determination of the penetration of semi-solid and solid bituminous materials. Cover four procedures for measuring the consistency of lubricating greases by the penetration of a cone of specified dimensions, mass and finish. Covers measuring with a penetrometer the penetration of petrolatum as an empirical measure of consistency. Covers the empirical estimation of the consistency of waxes derived from petroleum by measurement of the extent of penetration of a standard needle. This test method is applicable to waxes having a penetration of not greater than 250. Covers determination of the changes in the consistency, as measurably cone penetration, of lubricating greases when worked in the roll stability test apparatus. Covers determination of the yield stress of heterogeneous propellants, both of the gel and emulsion types, containing from 0 to 70% solid additives.



### PENETRATION (MANUAL)

**ASTM D5, D217, D937, D1321, D1403, D1831, D2884**

- Metallic base with inset spirit level and adjustable feet
- Stainless steel column supporting a calibrated dial with 360 divisions corresponding to 1/10 of mm and release button with manual halting function
- Micrometric regulation
- 47.5 gr plunger in stainless steel
- Check light



## GREASE WORKER

### GREASE WORKER(AUTOMATIC)

ASTM D217 - ASTM D1403

Cover four procedures for measuring the consistency of lubricating greases by the penetration of a cone of specified dimensions, mass and finish.



### GREASE WORKER(MANUAL)

Slave Unit ASTM D217 - D1403

- For manipulating fats manually



## DROPPING POINT

### Manual Apparatus for Dropping Point of Lubricating Grease, ASTM D2265 – D4950

- Metal structure painted with anti-epoxy varnish with frontal stainless-steel opening for easily check the 6 test positions.
- Insulated 6 places aluminium furnace block for heat up to +400°C.
- 6 vertical apertures for the introduction of the sample tubes with spherical end for easily cleaning.
- Temperature controlled by a digital thermoregulator PID with overtemperature alarm and probe PT100 A class with 0.1°C resolution and 0.5°C precision.



## BITUMEN TESTING INSTRUMENTS

### SAYBOLT VISCOMETER

**ASTM D88 - ASTM D7496 - ASTM E102,IP 55,FTM  
791-0304,JIS K 2207**

Digital Saybolt Viscometer ASTM D88, ASTM E 102 - 4 places Water bath made in stainless steel 18/8, insulated double wall, front opened jacket, Digital thermoregulator PID with over temperature alarm and PT100 A probe, Lid with stainless steel heater, Atmospheric drain with drain cock, Cooling coil with relevant joints for the connection to an external cooling source, Calibrated brass oil cup (1 cup for each test place included) suitable for stainless steel flowing orifice Universal and Furol, polished and calibrated



### DUCTILOMETER

**ASTM D113,ASTM D6084,AASHTO T51,EN 13398,IP 32 (obs.)**

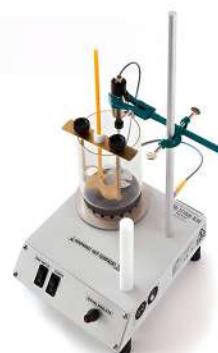
The ductility of a bituminous material is measured by the distance to which it will elongate before breaking when two ends of a briquet specimen of the material are pulled apart at a specified speed and at a specified temperature. Unless otherwise specified, the test shall be made at a temperature of  $77 \pm 0.9^{\circ}\text{F}$  ( $25 \pm 0.5^{\circ}\text{C}$ ) and with a speed of 5 cm/min  $\pm 5.0\%$ . At other temperatures the speed should be specified.



### RING AND BALL APPARATUS

**ASTM D36, IP 58-B**

This test method covers the determination of the softening point of bitumen in the range from 30 to  $157^{\circ}\text{C}$  (86 to  $315^{\circ}\text{F}$ ) using the ring and ball apparatus immersed in distilled water (30 to  $80^{\circ}\text{C}$ ), USP glycerine (above 80 to  $157^{\circ}\text{C}$ ), or ethylene glycol (30 to  $110^{\circ}\text{C}$ ).



## AUTOMATIC KARL FISHER COULOMETRIC TITRATOR

2.1028.0110

### Feature Overview

The Eco Coulometer with integrated magnetic stirrer and touch-sensitive display is ideal for water content determination in the 10 µg to 200 mg absolute water range. Predefined methods enable a smooth and easy instrument start-up. In addition to GLP-compliant printouts on paper or as PDFs, the Eco Coulometer also offers the option of being able to connect balances or send determination data to a PC via PC / LIMS reports. Indicator electrode and generator electrode without diaphragm are included in the scope of delivery. Coulometry is the ideal method for water content determination in the trace range in liquids, solids and gases. In addition, coulometry is an absolute method making titer determination unnecessary.

When it comes to methods for water determination, Karl Fischer titration is the gold standard. Whether your matrix is chemicals, petrochemicals, plastics, or others – coulometric Karl Fischer titration is described by dozens of national and international norms and standards such as EN, ISO, ASTM, DIN, and others.

There are three main reasons, why this is so:

- Karl Fischer titration is a direct method and specific for water (low risk of matrix interferences)
- It is highly sensitive (detection limits in the micrograms range)
- It is fast (generally, less than 3 minutes per sample)



## AUTOMATIC TBN TITRATOR

2.1008.3010

### FEATURE OVERVIEW

The compact Eco Titrator with integrated magnetic stirrer and touch-sensitive User Interface is ideal for routine analysis. It provides GLP-compliant results with minimum space requirements at all times. The Eco Titrator Oil offers you the complete package for the determination of the acid or base number in petrochemical products. Included in the package are titrators and a 20 mL cylinder unit as well as a Solvotrode EasyClean, a robust, combined pH electrode specially developed for nonaqueous acid-base titration.

### A SIMPLE AND RELIABLE ROUTINE

You can save up to 120 titration methods on your Eco Titrator. Simply select the required method, enter the sample size, and press the start button – that's it. The Eco Titrator performs the analysis fully automatically.

- Touch sensitive user interface
- Routine and expert user mode to protect your methods and prevent user errors
- Button to directly control the speed of the stirrer



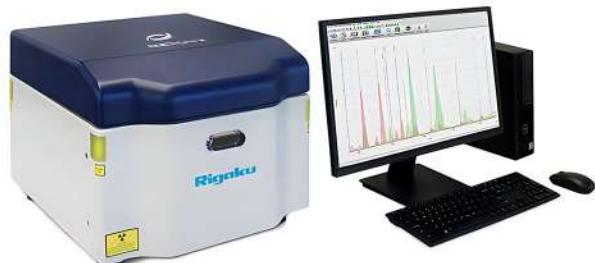


# Rigaku

## NEX CG II EDXRF ANALYZER

### Features

- Non-destructive elemental analysis for sodium (Na) to uranium (U)
- Quick elemental analyses of solids, liquids, powders, coatings, and thin films
- Indirect excitation for exceptionally low detection limits
- High-power 50 kV 50 W X-ray tube
- Large-area high-throughput silicon drift detector (SDD)
- Analysis in air, helium, or vacuum
- Powerful and easy to use QuantEZ® software with multilingual user interface
- Advanced RPF-SQX Fundamentals Parameters software featuring Scattering FP
- Rigaku Profile Fitting (RPF) advanced algorithm for peak deconvolution
- Various automatic sample changers accommodating up to 52 mm samples
- Low cost of ownership



## NEX QC+ EDXRF ANALYZER



### Features

- Analyze  $^{23}Na$  to  $^{92}U$  non-destructively
- Solids, liquids, alloys, powders and thin films
- 50 kV X-ray tube for wide elemental coverage
- SDD detector for superior resolution and sensitivity
- Modern smartphone style "icon driven" user interface
- Multiple automated tube filters for enhanced sensitivity
- Convenient built in thermal printer
- Low cost with unmatched performance-to-price ratio

LABSYS

# LABORATORY EQUIPMENT

## HOTPLATES

Ceramic-Coated Plate, up to 380°C,  $\pm 0.3^\circ\text{C}$ , with Certi. & Traceability with Digital Feedback Control, Accurate Temp. Control, 180×180mm- or 260×260mm-Plate, 80 ~ 1,500



## OVENS

3-Side Heating Zone : The Best Temp. Uniformity & Accuracy by High Performance Heating Mechanism,Digital Fuzzy Control System Implementing Superior Temperature Accuracy,Suitable for Drying, Baking, Conditioning, Curing, Pre-Heating and Aging,RS232C Interface for Monitoring and Controlling with PC,Ambient +5°C to 230°C Range with Fluctuation of  $\pm 0.5^\circ\text{C}$  at 100°C

## DIGITAL OVERHEAD STIRRER

direct driven motor ensures high-speed at all recommended viscosities,digital feedback controller ,steady and constant stirring speed,motor overload and overheat protection for highest safety and long lifetime



# LABORATORY EQUIPMENT

## ANALYTICAL BALANCE

Analytical balances have a weighing capacity ranging from 62g to 320g and a minimum readability from 0.01mg to 0.1mg. We provide a comprehensive product lineup of analytical balances, including the advanced UniBloc AP Series, boasting quick response and high stability; the multi-functional AU Series, capable of speedy measurements and direct data readout; and the basic model AT-R Series, offering highly stable performance with improved operability.



## MUFFLE FURNACE



Digital Muffle Furnaces are well-built with digital PID control system, patented jog-shuttle control system and digital LCD with back-light function. The 4-side heating mechanism ensure the short heat-up time and high temperature uniformity, and the maximum temperatures are 1,000°C for FPX model and 1,200°C for FHX model.

## DIGITAL PRECISE REFRIGERATED/HEATING BATH CIRCULATOR

CE certified, these Digital Precise Refrigerated/Heating Bath Circulators possesses advanced refrigeration systems that ensures temperature performance as well as an innovative powerful circulation pump that ensures temperature uniformity.



LABSYS

## RESTEK



Restek are the leading developer and manufacturer of chromatography columns, sample preparation and collection products, reference standards and instrument accessories.

- Chromatography consumables
- Standards
- Leak Detectors
- Labwares
- Columns
- Vials
- Air sampling



## GLASS EXPANSION



**GLASS EXPANSION**  
Quality By Design

Glass Expansion is the leading ICP consumables manufacturing company. We have been manufacturing sample introduction components for ICP emission and mass spectrometers. Cost effective and reliable results can be assured with excellent precision with our products

- ICP consumables
- Spray Chamber
- Tubings
- Torch
- Nebulizer
- MS Cones



## LABORATORY GLASSWARES

- Bottles
- Flasks
- Burettes
- Cylinders
- Vials
- Pippettes
- Funnels



## XRF SAMPLE CUPS

- XRF and EDRF Sample Cups



# LABORATORY FURNITURE

## FUME CONTAINMENT

Labsys is there to guarantee the highest level of fume containment that is well able to eradicate all different types of gaseous contaminants so that the users do not breathe in hazardous air.

### Features

- Aerodynamic design to promote airflow
- Optional bypass facility to reduce load on extraction system
- Wide sash opening for easy handling
- Smooth and light sash operation
- Easy access to services, for maintenance
- Available in different sizes
- Distinctive styling
- Under bench acid/base cabinets (optional)
- HEPA filter and activated carbon filters (optional)



## SUCTION ARMS



The flexible arm system of suction arms use friction joints and ball bearing for necessary grip and easy movement. Suction Arms can be fixed on wall/ceiling/worktop with adjustable arms and suction cup.

# LABORATORY FURNITURE

## SINKS & DRIPCUPS

- Lab Sinks and Drip cups shall be selected to match the worktop and application.
- The varieties of sinks that Labsys offers are – Stainless steel sink, Polypropylene sink, Epoxy sink and Ceramic sink.



## WORK BENCHES

Modern workbenches are no exception to the extensive selection of elegant lab furniture that Labsys offers. We offer a variety of work benches, including Wall benches, Island benches, and Peninsular benches. Each has a particular importance and is suitable for a range of tasks.



# ABOUT US



**LABSYS**

## “LABSYS”...

Labsys stands for Laboratory Systems. We at Labsys aims at providing complete Laboratory solutions to our clients and thrives on customer satisfaction. Located in Ajman Free Zone, the core of the organization is strong customer base and a team with highly qualified and experienced professionals.

We represent many of the leading brands in the industry and have a vision to be the best solution provider in Petroleum/ Petrochemical/ pharmaceutical/ Analytical/ Bio industries. Within its short span of introduction Labsys have gained good confidence in the market and have started to gain more trust from its clients.

Customer satisfaction at the highest degree is the only principal with which the organization moves forward. Providing quality instruments and precise solutions are the sole aim of the organization.

# GET IN TOUCH



LABSYS F.Z.E

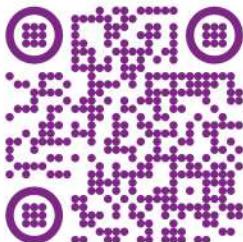
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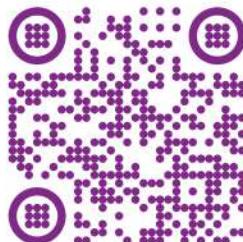
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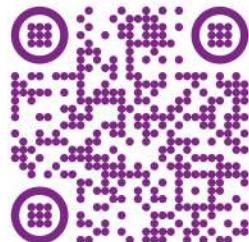
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