

Viscosity Baths

ASTM D445 & D446 Automatic Kinematic Viscosity

The Tamson TV2000/AKV automates ASTM D445, D446 viscosity measurements in the range of 0.3 to 10,000 cSt, eliminating operator bias. An infrared optoelectronic detection system adjusts both the intensity and the amplification factors automatically to compensate for differences in sample color.

The constant temperature bath has a temperature range of ambient to 130°C and a setting accuracy, stability and uniformity of +/-0.01K or better. Hosting a microprocessor controlled interface, the TV2000/AKV system has an alpha-numeric LCD display and a RS 232C bi-directional communication interface.

Viscosity Baths

The Tamson TV-Series viscosity and calibration baths are specifically designed for tests that not only require ultra-precise temperature control, but also where processes need to be followed visually such as viscosity per ASTM D445. Available in models of varying size and capacity, all of the baths can operate from ambient +5° up to +230°C (0.01°C). Cooling options for performing sub-ambient testing are available.

Copper Corrosion

Tamson Instruments offers the TC16 bath which complies with the ASTM D130 method for detection of corrosiveness to copper of aviation gasoline, aviation turbine fuel, automotive gasoline, natural gasoline or any hydrocarbons having a Reid vapor pressure up to 18 psi. The bath has six test stations, each with a lid and hook for suspending a copper corrosion test vessel or test tube. The temperature range is from ambient +5° to 250°C.

The insulation of the bath and electronic design result in a very stable working temperature of ±0.02°. The set point can be set in steps of 0.1° in the range of 0° to 250°C. The accuracy on the display is 0.1°C and the controller has an internal accuracy of 0.01°C.



TV2000 AKV



TV4000



TC16

Refractometers

ASTM D1218-02 And 5006 Compliant Refractometer

Petrolab Company now offers the 300+ series Refractometers that have a wide reflective index range and Peltier temperature control. A shallow easy to use prism dish houses a new, single sapphire prism optical system protected by a sample pressure that may also be used to instigate a measurement without the need to press the read button. A large sampling area on the prism surface allows measurement of not only homogeneous fluids like edible and mineral oils but also difficult to read samples such as fruit pulps and industrial resins.

Features:

- Water Resistant Housing
- Peltier Temperature Control
- Over 700 Stored Readings
- Temperature Range of 10°C / Below Ambient to 70°C



Bellingham & Stanley
RFM 330 Series



2001 N Indianwood Ave
Broken Arrow, OK 74012
TEL: (918) 459-7170
FAX: (918) 459-7178

petrolab.sales@ametek.com

www.petrolab.com

Laboratory Inspection is essential to most companies. We offer a complete line of analyzers for laboratory conformance inspection of flavors, fragrances, food, petrochemicals and chemicals, biofuels, plastics, adhesives, paints and varnishes according to ASTM, ISO, EN, IP, DIN, GOST, JIS, BS and SH testing procedures. Our testers are used in governmental agencies and accredited laboratories worldwide.

Petrolab Company

PETROLAB COMPANY is an established and well-regarded source of quality laboratory instrumentation and strongly positioned to assist you in the development of your testing laboratory. This brochure merely introduces the laboratory instrumentation we offer. More detailed information is available from our web site, www.petrolab.com, or by contacting our Broken Arrow, OK headquarters directly at 918-459-7170 or petrolab.sales@ametek.com.

LABORATORY INSPECTION

A COMPLETE LINE OF TESTING INSTRUMENTATION

Vapor Pressure - Flashpoint - Distillation - Octane/Cetane Prediction



Vapor Pressure

To ensure compliance with ADR, hazardous goods and transport regulations or for completing Material Safety Data Sheets, the absolute vapor pressure of chemicals has to be tested. The Triple Expansion Method is a static method, designed to measure the absolute vapor pressure of liquids. It can be used for measuring single or multi-compound solvents showing either high or low volatility.

Vapor Pressure - VPXpert

MINIVAP VPXpert is a 3rd generation tester for the automatic determination of vapor pressure for all standards. The unit is the US EPA reference method for the determination of vapor pressure and is designed for significantly improved precision, reliability and performance.

Made by experts for expert testing, the ergonomically designed analyzer offers unmatched versatility. The instrument incorporates features for V/L ratio determination for most applications and volatility studies over an unprecedented temperature range (0°-120°C). The innovative Sampling Pro™ technology minimizes the risk of cross contamination between different sample types.

Models Available:

- MINIVAP VPXPRT (0° - 120°C)
- MINIVAP VPX-CRUDE-PACKAGE (Includes Floating Piston Cylinder)
- MINIVAP VPXPRT-L (0° - 120°C) Extrapolated (-99° - 300°C)
- MINIVAP VPS (20° - 60°C)
- MINIVAP VPSH (0° - 100°C)
- MINIVOL LVR (20° - 80°C)
- MINIVAP LPG (5° - 70°C)

Distillation

ASTM D7344 Small Scale Distillation Testing – Grabner Instruments' Automatic MINIDIS ADXpert completely automates the atmospheric distillation process from sample introduction through disposal. Expensive and fragile glassware is eliminated having been replaced by an inexpensive, disposable metal cups. The MINIDIS ADXpert provides complete D86-like distillation results, including residual measurement via a built-in balance, in 15 minutes. Only 15ml of sample is needed for both flushing and distillation. The flushing and cleaning processes are also automated.

- Performs According to ASTM D7344 (small scale distillation testing)
- True Atmospheric Distillation
- Excellent Correlation to ASTM D86, ASTM D850 and ISO 3405
- New Method for Biodiesel Detection
- Test Temperature up to 400°C



MINIDIS ADXPRT

EPA Approved for over 20 Years!



MINIVAP VPXPRT



MINIVAP VPXPRT
Crude Package

Flashpoint

Flashpoint determination is one of the most crucial tests performed in the inspection testing industry. Formulations need to be characterized for flammability and combustibility limits, while production and shipping need to ensure proper documentation and safe handling of these products in the real world. Very small percentage changes in additives or base alcohols can drastically reduce the samples flashpoint creating dangerous conditions in environments.

ASTM D6450 and D7094 - US DOT Recognized Mini-Flashpoint

The Grabner Miniflash measures flashpoint for most any sample and its unique design reduces waste by requiring only 1mL of sample per test and performs flashpoint determinations completely automatically. The sample chamber is continuously closed so no open flame is used and hazardous smoke and vapors are practically eliminated. Miniflash has been approved by ASTM under D6450 and D7094 and is also recognized by the US DOT. The Miniflash is available either as a single place or with an 8 position sample changer. Low, moderate and high temperature versions of the Miniflash testers are available to cover test ranges from -25° to 400°C.

Models Available:

- Miniflash FLP-Touch Screen (0° - 200°C)
- Miniflash FLPH-Touch Screen (0 to 400°C with external cooling)
- FLP (0° - 200°C)
- FLPH (10° - 400°C)
- FLPL (-25° - 100°C)
- FLA (0° - 200°C) w/ sample changer
- FLAH (10° - 400°C) w/ sample changer



MINIFLASH TOUCH

Water & Sediment by Centrifuge

Petrolab Company offers two models of laboratory centrifuges for the testing of oils and fuels. These centrifuges are commonly used to measure: water and sediment in crude oil, fuel oil and middle distillate fuel; the precipitation number of lubricating oils and insolubles in used lubricating oils. These centrifuges were designed with the following ASTM methods in mind: D91, D96, D893, D1796, D2709 and D4007.



Benchmark 2000 Lab Model Centrifuge

- 4-Position Petroleum Laboratory Centrifuge
- Speed Control and Run Timer with Display
- Temperature Control with Display
- Auto Braking
- Lid with Safety Interlock



Melton Lab Model Centrifuge

- 4-Position Centrifuge for Testing Oils and Fats
- Individually Heated Cups
- Built-in Tachometer
- Hand Brake
- Designed for Class 1, Group D, Division 2

Octane / Cetane Analysis

Gasoline, Diesel and Biofuel Blends

The MINISCAN IRXpert is the first completely portable multi-fuel analyzer for Gasoline, Diesel and Biofuel Blends, which combines the advantages of mid-FTIR and near-FTIR spectroscopy for utmost measurement accuracy. More than 70 fuel parameters are accurately determined by scanning the complete spectrum with superior resolution. Based on Grabner Instruments profound knowledge in fuel analysis, the MINISCAN IRXpert is designed as an intelligent, self-learning analyzer.

The MINISCAN IRXpert is a completely temperature regulated, robust and user friendly spectrometer for the automatic measurement of concentration of the most important components of gasoline and diesel. Advanced chemometrics, a worldwide database of calibration samples and information derived from the mid-IR and the NIR spectrum provide highly reliable results for concentration measurement and key properties such as Octane and Cetane Numbers, Distillation Properties and Vapor Pressure. An integrated temperature controlled density meter allows for exact determination and stability of fuel density.

Dedicated models for Gasoline or Diesel analysis are available. The professional model includes both, Gasoline and Diesel analysis. Dedicated models can easily be upgraded to a professional model.

Models Available:

- IRXPRT-Gas (measures gasoline)
- IRXPRT-Diesel (measures diesel)
- IRXPRT-Pro (measures gasoline & diesel)



IRXPERT-PRO

Calorimeter Systems

C2000 - Automated Isoperibol / Dynamic Calorimeter

Determine heat of combustion and calorific values safely and easily with the C2000 Calorimeter, a highly automated system for testing liquid and solid fuels. The instrument performs tests per the standard Isoperibol Measurement Procedure (static Jacket). When quicker results are required, the C2000 can be operated in its dynamic mode which reduces test time by 66%.

- Isoperibol Operation for Standardized Test Methods
- 7 Minute Evaluation Test Time
- Working Temperature is 25° or 30°C (adjustable)



Model C2000

C200 - Manual Isoperibol / Dynamic Calorimeter

This manual calorimeter is perfect for a teaching and learning environment, results are provided within minutes. The low cost combustion calorimeter determines calorific values of liquid and solid samples and performs 4 different test procedures: isoperibol, dynamic, manual and time-controlled results.



Model C200