



VAPOR PRESSURE



MINIVAP VPXpert

Expert Vapor Pressure Testing

Designed for significantly improved precision, reliability and performance the MINIVAP VPXpert outperforms vapor pressure standards and is customers' first choice when testing gasoline, aviation fuels, crude oil and solvents. One measurement provides complete and highly precise results according to all important vapor pressure standards - in one instrument. User adjustable temperature and V/L ratio profiles allow for maximum versatility over a wide temperature range from 0 – 120°C. Results are available in 5 minutes.



BENEFITS

• Worldwide Standard Tester

MINIVAP testers are utilized in most major oil and pipeline companies as well as independent test and research laboratories worldwide. Applications include volatility compliance control of gasoline-oxygenate blends and aviation gasolines, crude oil testing in the laboratory, at the plant and directly in the field. The new MINIVAP VPXpert allows for volatility studies at elevated temperatures, the accurate assessment of T(V/L) and the vapor pressure determination of crude oil at very low V/L-ratios. **MINIVAP VPXpert is configured to guarantee highest precision for every method.**

• Excellence derived from expertise

MINIVAP is the world's first automatic mini-vapor pressure tester to eliminate operator bias and tiresome sample handling, thus revolutionizing vapor pressure testing. Since 1993 the Grabner method is US EPA reference for highest precision.

• Sampling Pro™ Valve Design

As gasoline producers are adding more and more Ethanol into fuels, the risk of cross contamination between tests of various sample types increases. MINIVAP VPXpert incorporates Sampling Pro™ technology, a high quality valve design, which minimizes the risk of cross contamination between different sample types.

• Ergonomic Design

The portable and rugged VPXpert houses a maintenance free piston drive and measuring cell. With a large, durable display and the ability to attach a 12V car adapter, the VPXpert has been specifically designed to withstand heavy duty environment and to enable safe outdoor operation. The analyzer incorporates a shaker for crude oil samples and enhanced dual-USB-connectivity. Thanks to an intuitive menu navigation and an advanced report generation the VPXpert is genuinely easy to operate.

CUSTOMERS ABOUT THE MINIVAP

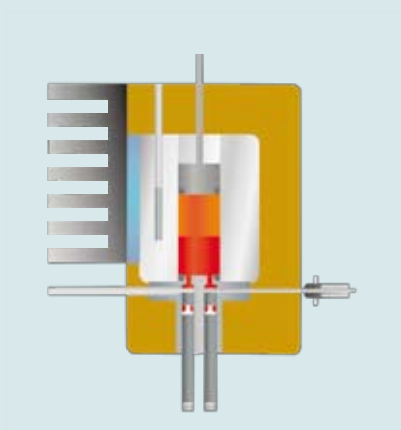
"Grab a Grabner, it's worth the value!"
Masroni Sabini, Lab Technologist,
Shell Eastern Petroleum (Pte) Ltd., SG

AVAILABLE METHODS

- ASTM D5191, D5188, D6377, D6378, EN 13016-1+2, IP 394, 409, 481, JIS K2258-2, SHT 0769, GOST 52340
- Excellent correlation to ASTM D323, D4953, D5190, D5482
- **ASTM D6378 (Grabner Gasoline Method)**
Developed by Grabner Instruments this method replaces ASTM D5191, D4953 and D323 and is listed as method in automotive fuel specifications ASTM D4814. Official correlation formulas are mentioned in ASTM D6378 and are pre-programmed in the MINIVAP VPXpert. With the Grabner method chilling, air saturation or the use of a vacuum pump is NOT required, and precision is significantly better, as possible operator bias is eliminated.
- **ASTM D6377 (Grabner Crude Oil Method)**
Crude Oil is collected in a pressurized floating piston cylinder (distributed by Grabner Instruments) to keep the volatiles inside the Crude Oil. After sample introduction the crude sample is shaken inside the MINIVAP VPXpert tester, which is needed for shorter measuring times and to get light ends out of the crude for pressure stabilization. No light end losses occur during the complete test and the precision is significantly better than the conventional ASTM D323 method.
- **ASTM D5188 (Grabner V/L-ratio Method)**
MINIVAP VPXpert accurately determines the V/L-ratio of non-viscous liquids including hydrocarbons like gasoline, solvents and other highly volatile compounds. **No additional equipment or upgrade is required!**

KEY FEATURES

- US EPA approved Grabner test method for highest accuracy
- No vacuum pump or sample preparation
- Integrated shaker - ready to use for Crude Oil and ASTM D5188 tests
- Highly precise results for RVPE, DVPE, ASVP, AVP, Ptot, Pabs, Pgas, T(V/L), TVP
- USB printer support
- USB and LIMS data transfer
- Sampling Pro™ Valve Design
- Smallest sample size (1 ml w/o rinsing)
- 5 minutes measuring time
- Maintenance free, heavy duty measurement cell
- Automatic piston lubrication
- True one button usability
- Enhanced report generation
- Portable and rugged design for field use
- Large, durable display
- User access control
- Audit trailing
- Barcode-Reader functionality



Principle of Operation

TECHNICAL DATA

Temperature Range	0 to 120°C (30 to 250°F), user programmable
Temperature Stability	+/- 0.01°C (0.18°F)
Temperature Profiles	Single temperature, stepped or ramped
Pressure Range	0 to 1000 kPa (0 to 145 psi)
Pressure Resolution	0.1 kPa (0.014 psi)
Precision (@ 37,8°C and 70 kPa)	Repeatability r = 0.3 kPa; Reproducibility R = 0.7 kPa
Sample Volume	1 mL (2.2 mL per rinsing cycle)
Vapor/Liquid Ratio	0.02/1 to 100/1, adjustable per selected method
Interfaces	2 x USB, RS 232, PS/2 for printer, PC, LIMS and external keyboard, barcode reader
Power Supply	90-264 V AC, 45-63Hz, 200W (Switching Power Supply) Field Use: DC/AC Converter 12V / 200W (option)
Dimensions (WxHxD)	253 x 368 x 277 mm (10 x 14.5 x 10.9 inch)
Weight	9kg (20 lb)

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