



MINIVAP VP VISION

Next Generation Vapor Pressure Testing

MINIVAP VP Vision is a highly versatile portable vapor pressure tester that features best-in-class precision and a pressure range of 0-2000 kPa. It is the first analyzer that demonstrates excellence in engineering by earning certificates for robustness and durability. Based on Grabner's cutting-edge Cockpit™ technology, the instrument offers unmatched networking capabilities and enables worldwide access to analyzers.

BENEFITS

- **Engineered for excellence**

MINIVAP VP Vision measures gasoline, jet fuel, crude oil, LPG and solvents covering an extended pressure range of 0-2000 kPa. The analyzer provides a wide pressure range, without compromising precision. Long-term testing has demonstrated an unmatched repeatability of less than 0.2 kPa. The newly developed Grabner 2D-Correction™ (273 points) and exact piston positioning guarantee that accurate and precise results are received over the full measuring range. MINIVAP VP Vision incorporates Grabner's Sampling Pro™ valve design, which during ruggedness tests proved to be the best-in-class piston based design for minimizing cross contamination between various sample types.

- **Simplicity and Flexibility**

The MINIVAP VP Vision uniquely combines ease of use with flexibility. A modern, app-like user interface makes it easy to select, start and follow measurements directly on the industry-proven 10" touch screen. With just a few clicks, measuring templates can be created and customized methods can be added. In addition, Grabner's Cockpit™ PC software offers lab managers the utmost in flexibility. The software combines measurement results from multiple locations.

- **Access. Anywhere. Anytime.**

With the Cockpit™ PC software multiple instruments are automatically recognized and devices all around the world can be configured, monitored, diagnosed, serviced and upgraded from one central lab. The software can be

accessed through a secure VPN network, allowing for true mobile access to instruments from any place at any time. A unique call home function facilitates easy uplink to our well trained support team.

- **Durability and Robustness**

The MINIVAP VP Vision is the first vapor pressure tester certified to work in cold, hot and damp heat climate. It has demonstrated an ability to withstand vibrations and heavy shocks coming from any direction. This instrument is ideal for use in mobile laboratories, in military applications or in harsh environments.

- **Most versatile, most complete**

MINIVAP VP Vision comes fully configured to run all major VP methods for fuels and LPG. Every analyzer incorporates a shaker to provide rapid equilibrium for crude oil tests.



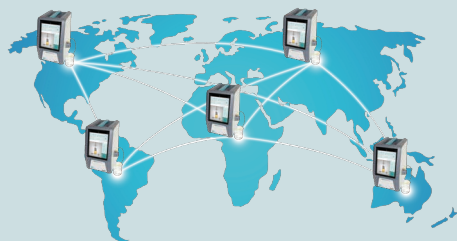
AVAILABLE METHODS

- **Standard Methods**
ASTM D5191, D5188, D6377, D6378, D6897; EN 13016-1+2, IP 394, 409, 481, JIS K2258-2, SHT 0769, 0794, SNT 2932, GOST 52340
- **Excellent correlation to**
ASTM D323, D1267, D2879, D4953, D5482
- **Fuel Specifications**
ASTM D910/1655/1835/4814/6227; EN 228
- **D5188 & 5191 Fast Mode™ Method**
Runs D5188 and D5191 in combination.
- **TVP Method**
Determines TVP at a V/L = 0/1.
- **Direct / Indirect VOC Methods**
For low volatile samples. Results correlate well to D2879 Isoteniscope method.
- **Customizeable Methods**

KEY FEATURES

- Highest precision and accuracy
- US EPA and CARB approved Grabner test method for highest accuracy
- Pressure range from 0-2000 kPa
- Unique 2-D Correction™
- Complete calibration history and backup
- Cockpit™ software for remote multi-instrument and multi-location management
- Modern, app-like user interface
- Customizeable user templates
- Results download: csv, PDF w/ graphics
- Portable, shock- and vibration-resistant design, certified for use in cold, dry and damp heat environment
- Best-in-class Sampling Pro™ valve design
- Integrated shaker for Crude Oil

TECHNICAL DATA



ACCESS. ANYWHERE. ANYTIME.

Temperature Range	Measured: 0 to 120°C (32 to 248°F), user programmable Extrapolated: -100 to 300°C (-148 to 572°F)
Temperature Stability	+/- 0.01°C (0.018°F)
Temperature Profiles	Single temperature, multipoint, curve, extrapolation
Pressure Range	MINIVAP VP Vision: 0 to 2000 kPa (0 to 290 psi)
Pressure Resolution	0.01 kPa (0.0014 psi)
Precision	Repeatability $r \leq 0.2$ kPa (pure substance @ 37.8°C) Reproducibility $R \leq 0.5$ kPa (pure substance @ 37.8°C)
Vapor/Liquid Ratio	0.02/1 to 100/1, depending on method
Measurement Time	~ 5 min., depending on method
Sample Introduction	Automatic with built-in piston (no vacuum pump required)
Sample Volume	1 mL (2.2 mL per rinsing cycle)
Results Database	> 100,000 detailed results w/ graphics stored within the instrument
Results Download	csv, PDF
Instrument OS	Microsoft® Windows®
Instrument Electronics	Intel® Industry PC, 10" industrial touchscreen, 24 bit ADC
Instrument Languages	en/de/fr/es/pt/it/ru/ar/zh/ja; customizeable
PC Software	Grabner Cockpit™ with automatic instrument recognition for multi-location results and user management, remote device configuration, update, diagnostics, support and calibration checks
Interfaces	2x USB, 2x LAN (1x DVI-I, 1x RS 232) for direct connection to LIMS, PC, printer, LIMS, keyboard, mouse or barcode reader
Power Supply	100-264 V AC, 45-63Hz, 80W (Switching Power Supply) Field Use: DC/AC Converter 12V (option)
Environmental, Shock, Vibration Certificates	EN 60068-2-1, EN 60068-2-78, EN 60068-2-14; EN 60068-2-6, EN 60068-2-27 (IEC 60721-3-2, Class 2M2)
Dimensions (WxHxD)	293 x 390 x 280 mm (10.5 x 15.4 x 11 inch)
Weight	10.5 kg (28 lb)



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