SETAVAP

AUTOMATIC MINI VAPOUR PRESSURE TESTER
The most cost effective way to measure vapour pressure

- FULLY AUTOMATED
- VERY SIMPLE TO OPERATE
- RAPID TEST RESULTS
- CORRELATION WITH ASTM D323/D4953
- ASTM & EN COMPLIANT
- SMALL SAMPLE SIZE
- PORTABLE

STANHOPE-SETA
SETAVAP 2 – AUTOMATIC MINI VAPOUR PRESSURE TESTER

VAPOUR PRESSURE TESTING FOR...
• FUEL PERFORMANCE
• EMISSIONS
• ENGINE EFFICIENCY
• TRANSPORT & STORAGE SAFETY
• FUEL BLENDING & SPECIFICATIONS
• QUALITY CONTROL
• 'AT LINE' TESTING
• LOCAL QA CHECKS
...minimises downtime and makes results available round the clock

FAST AND ACCURATE 'MINI' MEASUREMENT OF VP HAS MANY BENEFITS:

...ALLOWS FUEL FORMULATORS TO
• Optimise product driveability for climatic conditions
• Conform to local/national emission regulations
• Blend optimise Bio fuels and other Oxygenated fuel components

...IN REFINERIES & TERMINALS
• Assists to optimise fuel blending
• Supports reduction of product give-away
• Minimises jetty/shipping costs and delayed loading operations
• Ensures EPA compliance

...IN DISTRIBUTION/RETAIL
• Rapid QA evaluation to confirm product is in compliance
• Beneficial in Fuel Quality Check Schemes

MINI VP MEASUREMENT (ASTM D5191, EN 13016-1)
• Standardisation bodies and fuel producers are now adopting these 'Mini' methods because of the many cost-saving advantages they offer.
• The Mini method ASTM D5191 is the REFEREE METHOD in US gasoline specification ASTM D4814 .......
• Mini method EN 13016-1 is the ONLY method specified in European Gasoline specification EN 228
• The Mini method is specified for VP measurement of oxygenated gasoline blends
• Also suitable for VP measurement of crude oils

REID VP MEASUREMENT (ASTM D323)
• Many international fuel specifications still adopt D323 as the recognised benchmark for Vapour Pressure, however new 'Mini' VP methods are now used as a faster and much more convenient alternative with proven correlation to D323.
• D323 is unsuitable for testing most oxygenated blends of gasoline which are increasingly being produced

...USERS INCLUDE
Major global refineries, oil and pipeline companies, independent laboratories and vehicle manufacturers.
ADVANTAGES OF USING SETAVAP 2 MINI VAPOUR PRESSURE TESTER

- Automatic & reliable results
- Greater measuring accuracy means less 'give away'
- Suitable for use by non-laboratory staff
- Simple on-screen 'press to test' operation
- Very small 3 ml sample size meaning less waste and disposal costs
- Suitable for limited space or remote 'at line' or jetty operational areas
- Low maintenance & automated calibration

PRINCIPLE OF OPERATION

Vapour pressure determinations are carried out at a vapour to liquid ratio of 4:1 using a 3 ml air-saturated sample which is injected through a septum into a vacuum chamber. The chamber is temperature controlled at 37.8°C (100°F) and its internal pressure is monitored by a low volumetric displacement transducer. The test result is displayed and the instrument automatically purges the sample and evacuates the chamber ready for the next test.

TECHNICAL ADVANTAGES OF A VACUUM INJECTION TEST

Setavap features the latest evacuated chamber technology which has a well proven track record for reliable operation and ease of service. The use of an evacuated chamber guarantees that the sample is tested under full vacuum as required by the test method. Alternative ‘expansion’ tests use mechanical pistons which cannot guarantee to create a perfect vacuum.

OTHER BENEFITS OF THE EVACUATED CHAMBER TEST ARE:

- Previous sample is completely evacuated to ensure no ‘carry-over’
- No chamber cleaning or flushing is needed for gasolines
- There are no moving pistons, so no specialist maintenance
- Crude oil testing is possible without needing to rock the instrument

SETAVAP 2 KEY FEATURES

- The most cost effective way to measure vapour pressure
- Very easy to operate
- Measures VP of gasoline in less than 5 minutes
- Conformity to ASTM D5191, EN13016-1, IP 481 and equivalent test methods
- Accepted correlation with ASTM D323 (RVP) and ASTM D4953
- Suitable for testing gasoline and gasoline oxygenated blends, crude oil, solvents and other hydrocarbons
- Portable unit ideal for field use
- Easy to maintain

SETAVAP TEST SEQUENCE....

1. Insert septum
2. Press 'start'
3. Inject sample
4. Instrument ready for next test
5. Sample drains automatically
6. Display shows test result
7. Print result
8. Repeat sequence as shown above