

# SetaVap4 80600-2

## Automatic Vapour Pressure Testing of Fuel

Vapour Pressure: ASTM D5191; D5188; D6377; D6378; D6897;  
 D8009 (sampling – optional accessories);  
 EN 13016-1 & 3; IP 394; IP 619

**Correlates with:** ASTM D323; D2533 (withdrawn); D4953; D5482

Density (optional): ASTM D4052; IP 365; ISO 12185

- Rapid automated vapour pressure testing
- Movable piston for single and triple expansion test methods
- Peltier cells for heating and cooling
- Integrated shaker for crude oil measurements - variable frequency available
- Large LCD touchscreen display
- Best software on the market
- Simple test procedure
- Internal result storage
- Compact, rugged design ideal for portable field or laboratory use
- DVPE, RVP, EPA and CARB calculations
- Export to USB & LIMS
- ECO power settings to save energy
- Built in Statistical Quality Control
- Optional sample temperature probe
- Optional SETA Digital Density with DensAI Technology (80607-2)



**Optional  
 Density  
 Sensor**

Gasoline • Solvents • Crude Oil • LPG

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## Automatic Vapour Pressure Testing of Fuel

ASTM D5191; D5188; D6377; D6378; D6897; D8009; D4052; EN 13016-1 & 3; IP 394; IP 619

### Vapour Pressure Tester

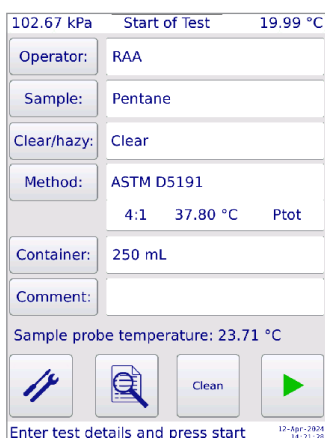
The SetaVap4 is a benchtop, fully automated vapour pressure analyser which provides fast, reliable and precise analysis of a wide range of volatile liquids, including gasoline, some solvents and crude oil.

The instrument incorporates an evacuated test chamber with a moveable piston that can expand the chamber volume during a test. Peltier cells provide temperature control, heating and cooling the test chamber as necessary. A shaker agitates the sample when required, to facilitate testing of crude oil samples in accordance with ASTM D6377.

The optional, fully ASTM D4052 compliant Seta Digital Density accessory can be integrated within the instrument for accurate and precise density measurement.



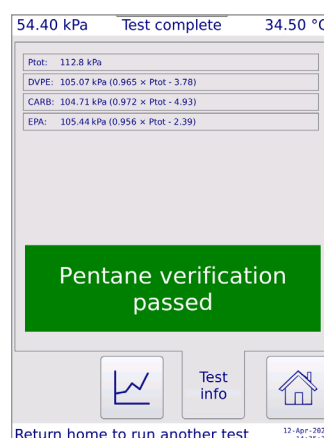
### Operator Interface



> Enter operator and sample details, press



> Test progress displays



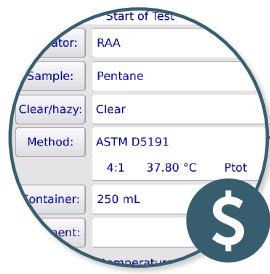
> Final result displays

For more information please visit: [www.stanhope-seta.co.uk](http://www.stanhope-seta.co.uk)

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## Automatic Vapour Pressure Testing of Fuel

ASTM D5191; D5188; D6377; D6378; D6897; D8009; D4052; EN 13016-1 & 3; IP 394; IP 619

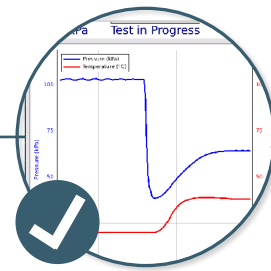


### Cost Saving

- Small sample size, minimal waste
- Smallest footprint in class requiring minimal lab space or can be used as a portable unit in the field
- Low operator time due to simplicity of set up and automation, reducing labour costs
- Unique maintenance mode instantly gives all relevant instrument information to assist with service support, minimising down time
- Easy to maintain, service and calibrate in the field, eliminating time and costs associated with sending the instrument to a service centre

### Ease Of Use

- Features simple user interface with touch screen and real time display of test progress
- The fully automated test means minimal operator knowledge is required with no extensive training
- Largest internal results memory with integrated SQC software in accordance with ASTM D6299
- Results can be stored directly to a USB, exported using the QR code or LIMS
- Translation module available for any language

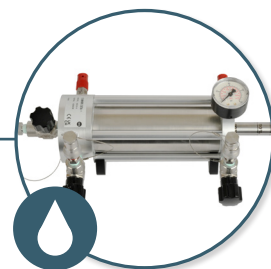


### Precision and Accuracy

- Fully automatic test sequence and consistent sample handling ensures test repeatability and reproducibility
- Possible missed steps or operator bias are eliminated for precise results
- Minimum dead volume design eliminates sample carry over for precise results

### Crude Oil Testing

- Help prevent costly damage to pipelines or vessels during transportation process
- Manual Piston Cylinder enables sample to remain a liquid and be attached to the SetaVap4 without loss of volatile light ends
- Fully complies with ASTM D6377 and ASTM D8009
- Test the sample for multiple V/L ratios and multiple temperatures
- Inlet connection kit allows quick and easy test set up



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Technical Specifications	
Regulatory	
Test methods	ASTM D5191; D5188; D6377; D6378; D6897; D8009; D4052; EN 13016-1; EN 13016-3; IP 394; IP 619 Custom test methods available
Correlation	ASTM D323; D2533; D4953; D5482; EPA & CARB
Fuel specifications	ASTM D910; D1655; D4814; D5798; D6227; EN 228; CEN/TS 15293
Operation	
Pressure range	0-1000 kPa
Pressure resolution	User specified, 0.001 kPa
Pressure accuracy	better than 0.1 kPa
Units of pressure	kPa, psi
Temperature range	0 to 120 °C (no external cooling required) Test the sample for multiple temperatures (ASTM D6377)
Temperature resolution	User specified, 0.01 °C
Temperature stability	0.01 °C
Units of temperature	°C, °F
Temperature accuracy	better than 0.05 °C
Vapour to liquid ratio	0.02:1 to 20:1 Test the sample for multiple V/L ratios (ASTM D6377)
Sample volume	Variable
Measurement time	Approximately 5 to 10 minutes for D5191
Lubrication	Automatic
Sample introduction	Automated via built in piston through short transfer tube or floating piston cylinder (optional accessory)
Data Management	
Statistical Quality Control	ASTM D6299 SQC software built in
Display	Real time on screen test progress & results. Samples can be marked as hazy
Results storage	500,000 results stored in internal memory
Results download	CSV, PDF
Interface	
User interface	9.7" LCD touchscreen (can be used with gloves), USB, keyboard, mouse & barcode reader
Data input/output	LIMS compatible, Ethernet RJ45, USB Type A x2, Serial port RS232C, downloadable to USB memory stick, export to QR Code
Printer options	RS232, Ethernet
Calibration	
Temperature	up to 10 point temperature calibration
Pressure	0 kPa (full vacuum) and atmospheric pressure
Power requirements	
Voltage	100/240 Vac, 50/60 Hz, Auto-sensing universal power supply
Power	300 W
Environmental	
Operating temperature	5 to 40 °C
Relative humidity	Up to 80% non condensing
Physical	
Size (HxWxD)	390 x 240 x 300 mm
Weight	9.5 kg

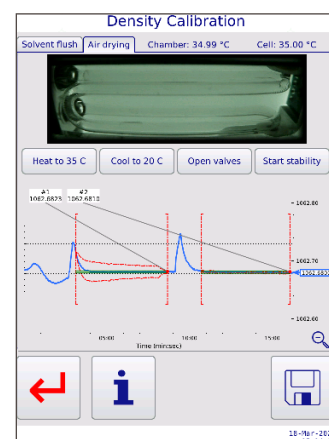
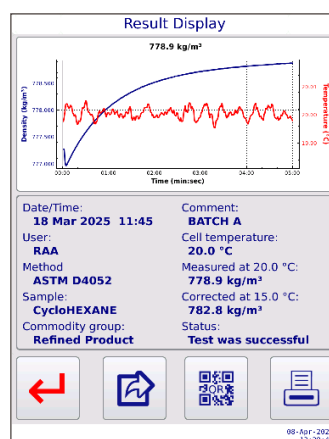
# SetaVap4 Vapour Pressure with Digital Density 80607-2

ASTM D4052; IP 365; ISO 12185

- Accurate and precise density measurement
- Fully compliant to ASTM D4052
- Automatic Bubble Detection using our DensAI technology
- Density measurement via glass oscillating U-tube
- User friendly density calibration screen

The SetaVap4 Vapour Pressure with Digital Density combines density and vapour pressure testing in a single unit. The optional, fully ASTM D4052 compliant Seta Digital Density accessory can be integrated within the instrument for accurate and precise density measurement. The density option is factory fit only.

The density sensor uses a temperature and humidity controlled oscillating U-tube, allowing for consistent performance across all laboratory testing conditions. The combination of our DensAI technology and a built-in HD camera allows for seamless automatic bubble detection.



Technical Specifications	
Regulatory	
Test methods	ASTM D4052, IP 365, ISO 12185
Operation	
Unit of density	kg/m <sup>3</sup>
Density range	0 kg/m <sup>3</sup> - 1200 kg/m <sup>3</sup>
Density resolution	0.01 kg/m <sup>3</sup>
Units of temperature	°C, °F
Temperature range	10 °C to 40 °C (50 °F to 104 °F)
Temperature stability	0.02 °C (0.04 °F)
Measurement type	Glass Oscillating U-tube
Bubble detection method	Automatic Bubble Detection using DensAI
Use	Transparent light and middle distillates
Physical	
Size (HxWxD)	80 x 120 x 120 mm
Weight	0.6 kg additional to the Vap4 80600-2