

ASTM D6377, IP481

**TVP method
(True Vapor Pressure)**

**Unique cell/shaker
design for unrivaled
accuracy and speed**

**Heated system for high
viscous samples
(HVM)**

**ERAVAP MPC/FPC for
high volatile samples**

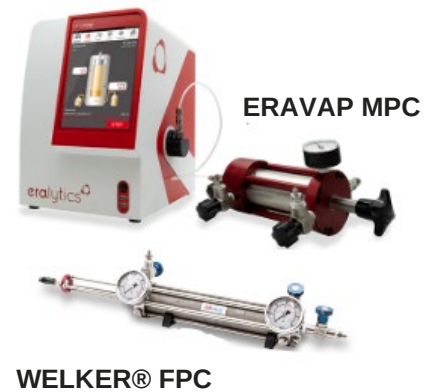
**2-in-1: Simultaneous
Measurement of Vapor
Pressure & Density**

ERAVAP is the leading solution for high precision vapor pressure testing of live and dead crude oils according to ASTM D6377, IP481 and GOST 52340. Its unique cell design allows high shaking speeds ensuring unrivaled accuracy and short measuring times. Additionally, special V/L ratio measurements, including the TVP (True Vapor Pressure) method are available.



PRESSURIZED SAMPLING SOLUTIONS

Measuring live crudes containing high amounts of volatiles requires the use of a pressurized sampling system, such as **eralytics** newly developed manual piston cylinder **ERAVAP MPC** (ASTM D8009) or standard FPC floating piston cylinders (ASTM D3700). If such crudes are measured from an open bottle, most volatiles will be lost, giving wrong VP results. For highly pressurized sampling **eralytics** special pressure regulator can be attached directly to **ERAVAP**.



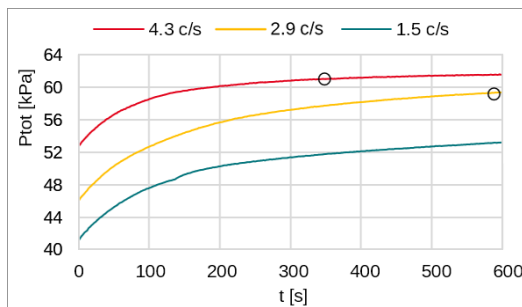
HVM - HIGH VISCOSITY MODULE

eralytics' high viscosity module also allows the measurement of highly viscous samples. By heating the inlet, the outlet, and all connecting tubes as well as the inlet assembly up to 70°C, this optional HVM module makes **ERAVAP** the perfect analyzer for challenging samples like fuel oil or heavy crudes.

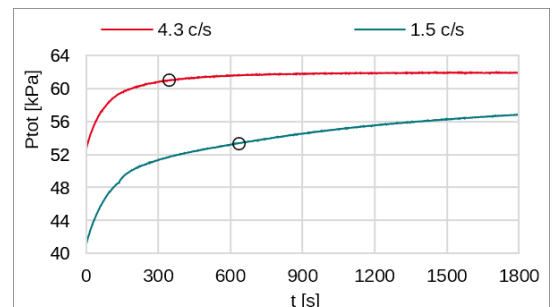


HIGH PERFORMANCE CELL SHAKING TECHNOLOGY

Crude oil properties like viscosity play an important role for vapor pressure measurements. As a higher viscosity significantly delays the formation of a pressure equilibrium, shaking of the measuring cell is mandatory for ASTM D6377. **ERAVAP** features a superior cell and shaker design, which allows for a shaking speed of 4.3 cycles per second (red curves), much higher compared to other vapor pressure testers on the market (green and yellow curves). This results not only in a faster measurement, but also significantly increases the accuracy and precision. Insufficient shaking or applying a static measuring time can lead to lower values with a bias of up to 10 kPa (1.5 psi).



Crude Oil measured with a V/L ratio of 4.00 and variable shaking speeds between 1.5 c/s to 4.3 c/s (600 s). The equilibrium points are marked.



Crude Oil measured with a V/L ratio of 4.00 and variable shaking speeds between 1.5 c/s to 4.3 c/s (1800 s). The equilibrium points are marked.

2-in-1: VAPOR PRESSURE AND DENSITY

ERAVAP is the only vapor pressure tester on the market which can be equipped with the optional density meter module DENS4052 (patent pending), fully compliant to ASTM D4052 & ISO 12185 ($r = 0.0001 \text{ g/cm}^3$). This allows for a simultaneous density and vapor pressure measurement of crude oil. Additionally, the density module can be combined with a pressurized filling system (FPC/MPC), making it uniquely convenient for the testing of volatile crude oils.

