Cambridge Viscosity | PAC

ViscoLab PVT+

高圧粘度分析装置

- 最も広い操作範囲と最小限のサンプル量要件で機器の収量を最大化
- 最高レベルの精度と信頼性により、重要な意思決定が可能
- コンパクトサイズであり、簡便でユーザーフレンドリーなシステム操作を保証
- 柔軟なPVT＋の構成は、比類のない圧力および温度機能を提供

WWW.CAMBRIDGEVISCOSITY.COM

ViscoLab PVT+

迅速で信頼性のある粘度計測

石油、ガス、ポリマー、および超臨界流体の場合、ViscoLab PVT +は最高レベルの精度、速度、および信頼性を提供します。 高圧プロセスでは、貴重なサンプルを正しく分析、それが重要であるのと同じくらい挑戦的です。

数百万ドルのプロセスラインにおいて、「十分に近い」は決して良いではありません。そして「すぐに」は決して十分に速いではありません。 粘度が重要な要素なので流体の品質と市場性において、測定は毎回正確で信頼できるものでなければなりません。

高圧用例において至適基準粘度測定

The Cambridge Viscosity's ViscoLab PVT+ (Pressure-Volume-Temperature) is the global laboratory standard for determining viscosity at high temperatures and pressures. The ViscoLab PVT+ high-pressure viscometer is designed for viscosity and temperature testing in reservoir fluid analysis, phase behavior, supercritical fluids, and other research and development applications.
Safe and cost-effective to own and operate, the ViscoLab PVT+ requires only 6 ml of sample. Our technology provides statistical certainty that ensures sample conditions are stable, accurate, and repeatable for liquid samples as well as gas and gas condensates.

With its extraordinary capabilities, the ViscoLab PVT+ is the ideal choice for the most critical and challenging applications.

応用範囲

- Viscosity measurement from 0.02 to 20,000 centipoise
- Temperatures up to 315˚C and pressures up to 30,000 psi (2068 bar) (higher upon request)

基準法

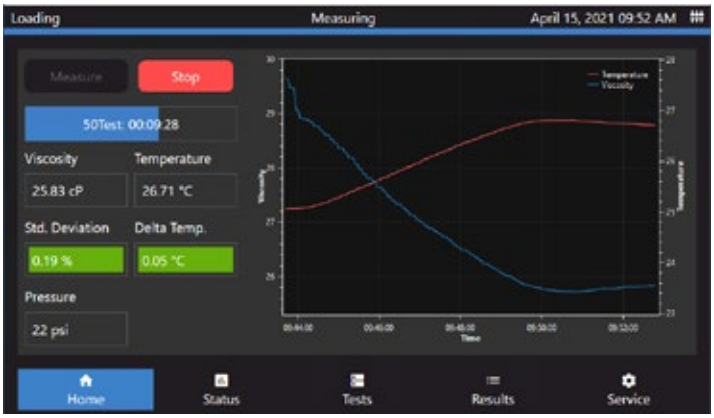
- Complies to: ASTM D7483
- Correlates to: ASTM D445

業界

- 石油探査
- 潤滑油開発
- 大学
- 研究開発
- 化学製造
- 特殊ガス

STREAMLINE REPORTING

Our intuitive HMI integrates time-stamped viscosity, pressure, temperature, density, and shear rate data into a graphical format for easy analysis and storage. All data can be exported. An accessory kit is included with each system to facilitate sample loading, system cleaning, and calibration verification.



WIDEST OPERATIONAL RANGE IN THE MARKET

The ViscoLab PVT+ features extensive instrument capabilities that enable measurement under challenging downhole conditions. It has the widest operational range in the market:

- Widest pressure range up to 30,000 psi (2068 bar) (higher pressures upon request)
- Widest temperature range up to 315°C (600°F)
- Widest analysis range: 0.02 to 20,000 centipoise (cP)

SUPERIOR SENSOR

Cambridge Viscosity sensors feature an innovative electromagnetic principal that drives an oscillating piston within a precise measurement chamber. Tracking the piston location and travel time gives a direct measure of the test sample viscosity. The constant piston motion generates a continuous data stream which statistically validates the accuracy of the results and presents it in graphical form. There is no need for frequent calibration or maintenance.

SMALL SAMPLE SIZE

Only 6 ml are required in the ViscoLab PVT+ to enable highly accurate measurements for hard to obtain samples whether in reservoir fluid analysis, polymer research, or lube oil/bearing analysis.

HIGHLY ACCURATE AND RELIABLE

- Accurate and reliable measurements on single samples
- Pressure and temperature independently verified
- Analyses liquids and gases
- Optional expansion chamber and adapter for measuring flowing samples

FAST, CONVENIENT, AND LOW COST OF OWNERSHIP

- Small footprint saves laboratory space
- Temperature stability and test completion in 45 minutes or less
- Mercury-free, RoHs compliant and low power consumption

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SPECIFICATIONS

Overall viscosity	0.02 To 20,000 centipoise (cP)
Piston range	50:1 Dynamic range
Viscosity accuracy	± 1.0%
Repeatability	± 0.8% of reading
Temperature sensor	PT100
Wetted materials	17-4PH SS or Inconell 718 and C276 Hastelloy
Maximum particle size	25 - 360 Microns
Maximum temperature	315°C (600°F)
Maximum pressure	30,000 psi (2068 bar) (Higher upon request)
Power	100 - 240 VAC/50 - 60Hz

PRINCIPLE OF OPERATION

The System At A Glance

Designed for ease of use and accuracy, the complete ViscoLab PVT+ system includes an advanced sensor mounted on a sample conditioning platform with valves, tubing, and pressure transducer. Temperature is controlled from our intuitive interface via an oil bath.

How It Works

The ViscoLab PVT+ combines our next generation electronics with an advanced Cambridge Viscosity SPL-440 sensor. The system employs an integrated recirculating bath that controls temperatures with minimal warm-up time. Sample flow is controlled with a simple three-valve plumbing configuration.

ABOUT CAMBRIDGE VISCOSITY

With more than 10,000 installations worldwide, Cambridge Viscosity is the proven leader in viscosity management technology. With over 25 years of experience, Cambridge Viscosity understands and meets the needs of laboratory researchers and process engineers in a wide range of industries whose jobs depend on the quality, accuracy, and reliability of viscosity measurement equipment. With their patented sensor technology, Cambridge Viscosity has become the gold standard in small sample viscosity measurement.

Contact us for more details.
Visit our website to find the representative closest to you.

ABOUT PAC

PAC develops advanced instrumentation for lab and process applications based on strong **Analytical Expertise** that ensures **Optimal Performance** for our clients. Our analyzers help our clients meet complex industry challenges by providing a low cost of ownership, safe operation, high performance with fast, accurate, and actionable results, high uptime through reliable instrumentation, and compliance with standard methods.

Our solutions are from industry-leading brands: AC Analytical Controls, Advanced Sensors, Alcor, Antek, Herzog, ISL, Cambridge Viscosity, and PetroSpec. We are committed to delivering superior and local customer service worldwide with 16 office locations and a network of over 50 distributors. PAC operates as a unit of Roper Technologies, Inc., a diversified technology company and a constituent of S&P 500, Fortune 1000, and Russell 1000 indices.

HEADQUARTERS

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