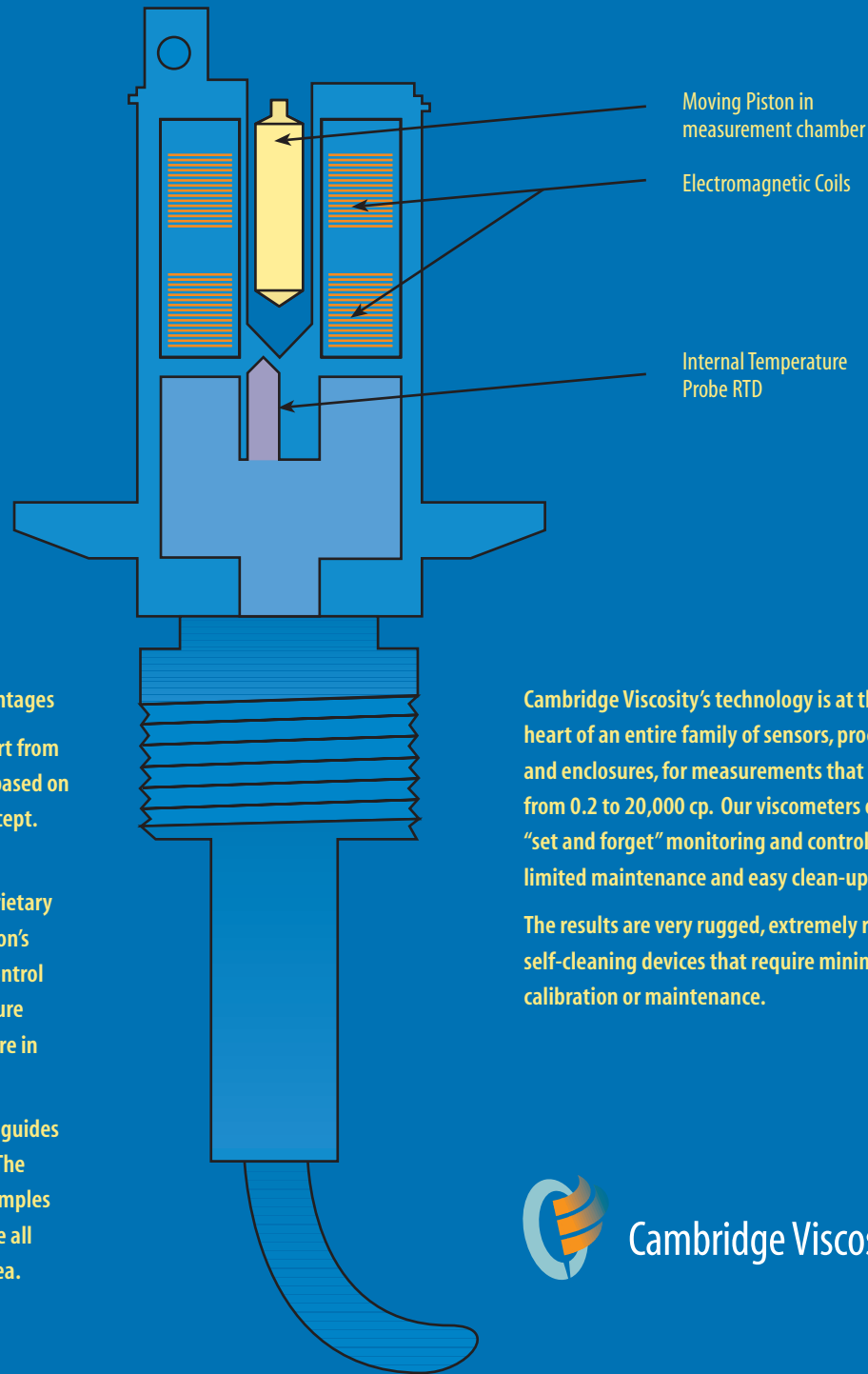


# Viscosity Measurement Technology



## Reliable Technology for Powerful Advantages

Our proprietary technology sets us apart from other viscometer manufacturers. It is based on a unique, reliable electromagnetic concept.

Two coils move a piston back and forth magnetically at a constant force. Proprietary and patented circuitry analyze the piston's two-way travel time to measure and control absolute viscosity. A built-in temperature detector monitors real time temperature in the measurement chamber.

A deflector, positioned over the piston, guides fluid into the measurement chamber. The constant motion of the piston keeps samples fresh, while mechanically scrubbing the all wetted 316 stainless steel sampling area.



Cambridge Viscosity's technology is at the heart of an entire family of sensors, processors and enclosures, for measurements that range from 0.2 to 20,000 cp. Our viscometers offer "set and forget" monitoring and control, with limited maintenance and easy clean-up.

The results are very rugged, extremely reliable self-cleaning devices that require minimal calibration or maintenance.

[www.cambridgeviscosity.com](http://www.cambridgeviscosity.com)



The Technology Leader in Viscosity<sup>SM</sup>

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The Technology Leader in Viscosity

Proven Accuracy, Reliability, Economy and Extraordinary Ease of Use.



# Cambridge Viscosity

The Technology Leader in Viscosity

Proven accuracy, reliability, repeatability, economy and

extraordinary ease of use. Thousands of trouble-free

Cambridge viscometers are at work in laboratory and process applications around the world, in the automotive

industry, petroleum, printing, biotechnology, and a host of

other environments. They are precisely measuring the

viscosity of fluids that include oil, inks, paints, coatings

and a wide range of pharmaceuticals and chemicals.

## Uniquely Precise Systems

Cambridge viscometers are highly accurate, reliable and self-cleaning. Our patented sensor technology uses only one moving part, a piston that is electromagnetically driven through fluid in a small measurement chamber. It is a proven, well-documented approach that powers a full array of very easy to maintain viscometers that meet or exceed specific industry and application requirements contained in ASTM, DIN, JIS and ISO standards.

## Consistency that Increases Quality and Lowers Costs

Cambridge viscometers produce consistent results that have a measurable positive impact on the bottom line. Self-cleaning Cambridge Viscosity sensors require less operator involvement than competing systems. Users can count on uniformly accurate and reliable viscosity management to assure consistent high quality and reduced handling costs, material usage, scrap and rework. Customers often report that the instruments pay for themselves within weeks of installation.



SPL 571 Miniature Viscometer

SPL 311 Quick Disconnect Viscometer

SPL 372 Flow-through Viscometer

SPL 321 Immersion Viscometer

VISCOpvt

VISCOlab 3000

VISCOpro1600

VISCObot

## Dependable Devices for Reliable Results

With more than two decades of practical experience, Cambridge Viscosity offers products that measure many types of fluids and serve a wide range of markets to achieve application-specific objectives.

Here are just a few examples:

- Automotive Paint – To improve film-build consistency
- Coatings/Inks – To maintain targeted coating solids
- Marine – To increase burn efficiency, reduce maintenance
- Engines – To track engine lubricant life and warranty specifications
- Compressors – To measure bearing surface lubricity
- Refinery/Petrochemical – For accurate in-line control
- Chemical Processing – To improve mixing and blending
- Printing – To improve color and coating quality
- Pharmaceuticals – To automate viscosity measurement in compounds and bio-fluids
- Laboratory/Food – To improve quality in an easy to clean instrument

If you want consistently accurate and repeatable measures of any type of fluid viscosity, with very little effort and very high reliability, you want Cambridge Viscosity.

## For Process and Laboratory Applications

Cambridge Viscosity offers a wide range of products calculated to meet the very specific needs of their users. You can choose the model that has been designed with your industry, application and environment in mind.

**Process Applications:** Our products include in-line and in-tank immersion sensors tailored to fit the requirements of different applications, temperatures, pressures and other fluid characteristics.

Models are available to fit any in-line application regardless of pipe size, flow rates or flange connections and any in-tank application regardless of vessel size or other space constraints. Multiple sensors can monitor or control process systems with our touch screen and electronics. Cambridge Viscosity electronics are capable of integration with customers' existing control systems and software.

**Laboratory Applications:** Cambridge laboratory instruments are well-known for their accuracy, repeatability and small sample size requirements. Most of them do not require any professional skills or technical knowledge to operate. They are designed and built for real-life laboratory applications, to be integrated with the laboratory's LIMS system.

## Systems from Cambridge Viscosity that do Their Jobs

Some examples:

**VISCOpro** - The new viscometer processor standard for real time information in process control electronics. It provides accurate viscosity control and trouble free operation in applications that include coating, printing, oil, combustion and reaction monitoring. Features include adaptable plant interconnectivity utilizing optional single and multiple channel interfaces. Field-adjustable calibration enhances the utility and cost effectiveness of VISCOpro models.

**VISCOlab** - The best-in-class VISCOlab instruments are very easy to use – they are not operator dependent. The sample is very small and the entire operation is automated.

Features include single or multiple ranges, water jackets for hot or cold ambient temperatures or heaters for precise temperature controls to 100c or higher. Calibration does not require factory return.

**VISCOpvt** - The premier instrument for oil and gas exploration, high-pressure research and supercritical fluids applications the world over. It is the industry standard for PVT viscosity measurement with practical and accurate simulation of "downhole" conditions.

**VISCObot** - The new standard in high throughput, fully automated viscosity measurement. It operates unattended and produces statistically confirmed results. Its features include internal temperature control,

verified self-cleaning and adjustable settings for high throughput screening or quality control operations. The VISCObot is a dependable "set and forget" system. It is an important tool for formulating specialty and fine chemical products as well as in the analysis of product samples, including lube oil.

## Cambridge Viscosity: The Leader in Technology

Founded in 1984 as Cambridge Applied Systems, Cambridge Viscosity is a recognized leader in viscosity management systems, with thousands of installations around the world. The company is known for its innovative hardware and software technology and for its ability to understand and meet the requirements of those who need accurate measurement to assure successful fluid management in a wide range of industries.

## We Would Like to Give You More Information

There is more you should know about viscosity measurement and the cost and operational advantages of products from Cambridge Viscosity. Check out our website at [www.cambridgeviscosity.com](http://www.cambridgeviscosity.com) or call us at 781-393-6500. We will be happy to help you.