

# Cambridge Viscosity

## The Technology Leader in Viscosity

Proven accuracy, reliability, repeatability, 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.

### An ASTM method for conformance in both lab and production

#### 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 D7483-08, 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 our instruments pay for themselves within weeks of installation.

#### New ASTM Standard D 7483-08

Now our technology is developed with an ASTM method that can be used in both the laboratory and production facilities.

This test method covers the measurement of dynamic viscosity and derivation of kinematic viscosity of liquids, such as new and in-service lubricating oils, by means of an oscillating piston viscometer. This test method is applicable to Newtonian and non-Newtonian liquids.

The range of dynamic viscosity covered by this test method is from 0.2 mPa-s to 20 000 mPa-s (which is approximately the kinematic viscosity range of 0.2 mm<sup>2</sup>/s to 22 000 mm<sup>2</sup>/s for new oils) in the temperature range between -40 to 190°C.



Cambridge Viscosity®

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

# Patented Viscosity Technology

## Reliable Technology for Powerful Advantages

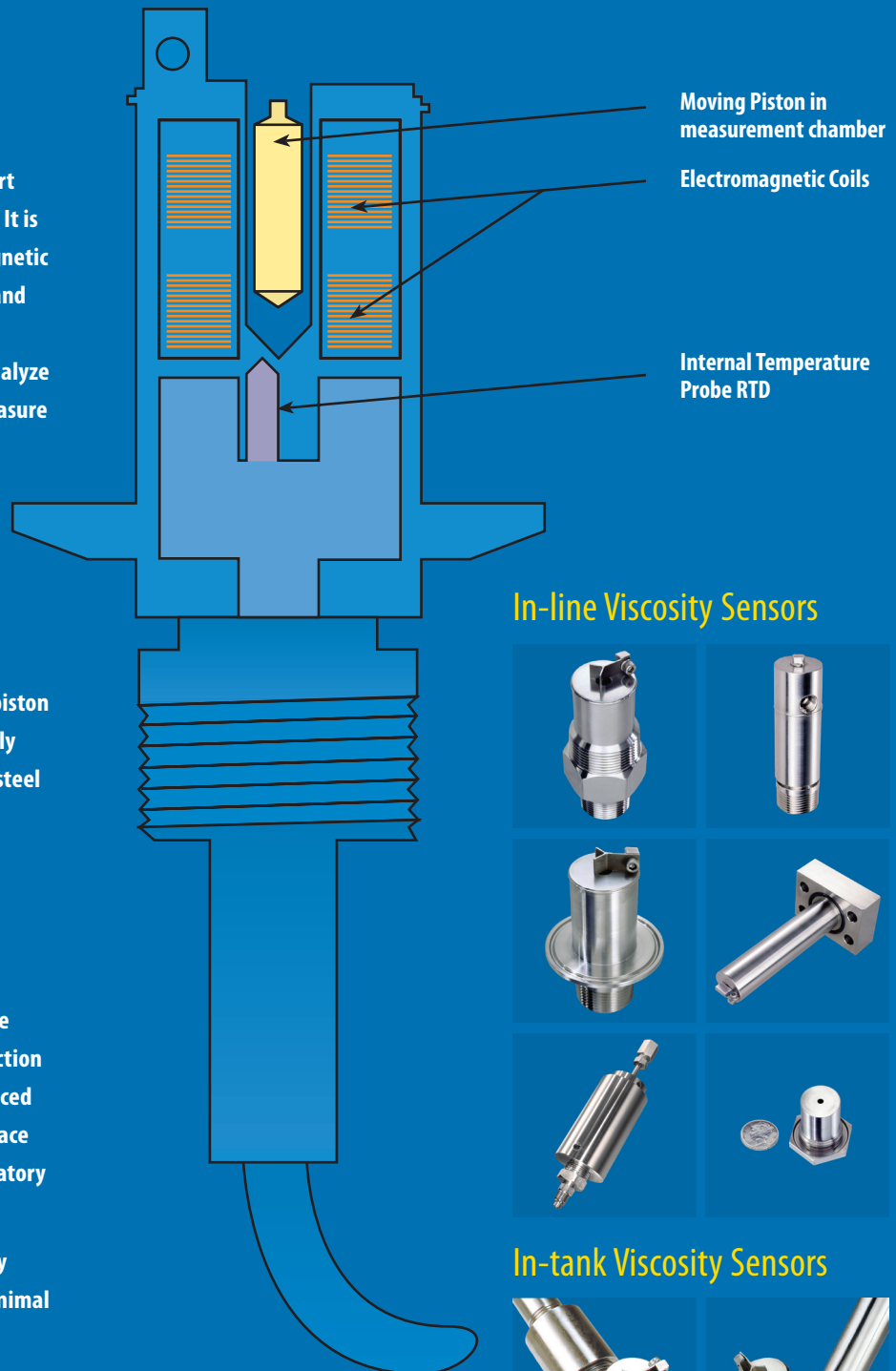
Our proprietary technology sets us apart from other viscometer manufacturers. It is based on a unique, reliable electromagnetic concept. Two coils move a piston back and forth magnetically at a constant force. Proprietary and patented circuitries analyze the piston's two-way travel time to measure and 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 precise monitoring and control in harsh production facilities. Automatic calibration, advanced PID control and an intuitive user interface ensure maximum productivity in laboratory and production environments.

Our systems are very rugged, extremely reliable and self-cleaning requiring minimal maintenance.



Moving Piston in measurement chamber

Electromagnetic Coils

Internal Temperature Probe RTD

## In-line Viscosity Sensors



## In-tank Viscosity Sensors

