



Cambridge Viscosity

# VISCObot™

Robotic Viscometer



# VISCObot

The world's most advanced automated viscosity analysis tool.

VISCObot is the solution to the growing viscosity measurement demands faced by QC, R&D, and testing service laboratories.

It is a fully unattended, self-regulating laboratory system that has been designed to seamlessly integrate into a company's operating practices. It adjusts to actual test fluid conditions and overall lab constraints, can measure viscosity from virtually any sample vial, and can deliver results to any information management system. Sample viscosity is monitored continuously, ensuring accurate results while keeping the system maintenance free.

A programmable auto-sampler handles trays of up to 200 samples and proprietary VISCObot software controls all operations through a PC. The automated test methodology maximizes the efficiency and effectiveness of laboratory personnel at all levels and insures test-to-test and operator-to-operator consistency.

Throughput can be adjusted for high speed screening or high accuracy quality control measurements.



## **The Cambridge Sensor: Reliable, Robust, Low Maintenance**

VISCObot utilizes Cambridge Viscosity's patented electromagnetic sensor technology. Its reliability, repeatability and ease of operation have been proven in thousands of laboratory and process applications around the world.

A fluid manifold positioned over a piston minimizes contamination as fluid flows through the measurement cell. The constant motion of the piston keeps samples fresh, while mechanically scrubbing the sampling area. All wetted parts are compatible with a wide range of solvents.

The result is a self-cleaning sensor that prevents the buildup of particles or coatings without the need for aggressive solvents. It is very accurate, it holds its calibration, and it requires very little maintenance.

## **The Unique Ability to Measure Under Flow Conditions**

VISCObot's unique ability to measure under flow conditions means that it continuously collects and makes use of data. It is thus able to take advantage of statistical trending to be sure of what it is measuring – to know when it is measuring sample and not solvent. Sampling and solvent usage are minimized. Reporting errors and cross contamination of results are eliminated. Because it can determine the viscosity of the solvent, there is a quality control measurement between every sample. No other viscosity measurement system has statistical trending capabilities.

### Reliable Robotics Make Handling Easy

VISCObot's robotic features are a great advantage for users in testing laboratories and many other types of installations. Because it can be easily programmed to work with any customer sample vials, sample-handling steps are eliminated. Measurements are consistently reliable and highly trained technicians are freed to perform more complicated tasks in the laboratory.

The advantages of VISCObot's automation are immediately obvious to anyone who has ever worked with conventional manually operated systems.

### Intuitive Software Saves Valuable Time and Effort

VISCObot's proprietary software is one of its many unique advantages. It has been written to eliminate requirements for operator involvement and to maximize throughput and cost effectiveness. There is no need for time consuming programming. As far as the user is concerned, VISCObot runs samples, not programs.

The software is highly intuitive: only three mouse clicks are needed to initiate the unattended measurement of up to 200 samples. Software controls the test methodology, and data is automatically sent to the laboratory's data management system.

If desired, VISCObot can also be run in manual mode when immediate results are required.

### High Throughput, Low Costs, Small Samples, Consistent Accuracy

Equipped with operating features based on more than 20 years of laboratory viscosity testing experience, VISCObot is a very practical tool that offers many real world advantages. These are just a few of them:

- Provides unattended operation with high throughput with speeds up to 2 minutes per measurement (including sampling, measuring and cleaning).
- Frees up valuable lab technician hours and saves money on every step of viscosity tests.
- Requires a sample size of only 6 mL per measurement.
- Uses a flexible and reliable sampler that accepts trays of up to 200 samples with no operator involvement.
- Produces results that are systematically repeatable and statistically verifiable – very valuable for meeting continuous improvement objectives or other quality enhancement programs.
- Capable of precise temperature regulation up to 100°C.

### Specifications

Viscosity	0.5 to 200 centipoise (cP) @ Temperature
Throughput	up to 30 samples per hour
Accuracy	±1.0% Full Scale
Temperature Sensor	4 wire RTD
Sample Size	< 6 ml Per Test
Solvent Use	< 15 ml Per Test
Wetted Parts	316L/430SS, Teflon, PEEK
Temperature	User selectable, ambient up to 100°C
Reference ability	NIST traceable calibration fluids
Power Consumption	90-240 VAC, Universal power supply



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



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

With more than 8,000 installations worldwide, Cambridge Viscosity is the proven leader in viscosity management technology. Founded in 1984 as Cambridge Applied Systems, the company offers a full range of real time in-line, in-vessel, pilot plant and lab viscometers. Users of its products include Fortune 500 companies and their equivalents throughout North America, Asia, Europe and South America.