Viscosity Measurement in Used Oil

High Speed Viscometer-Model HSV 802



"A fast, cost-effective instrument for the measurement of kinematic viscosity of used oils and other fluids."

Benefits

- Capable Measures kinematic viscosity at two temperatures.
- High Throughput Measures 48 samples
 per hour at two temperatures, or 96
 samples per hour at
 one temperature.
- Accurate with Built-in Diagnostics — Specialized electronics check each sample for accuracy.
- Wide Range Viscometer Tubes – Curve fitting and specialized software allow one size to be used for almost any lubricating fluid.

The HSV 802:

The Spectro Incorporated High Speed Viscometer (HSV) was designed by people in the used oil analysis business for people in the used oil analysis business. It provides the oil analysis laboratory with a cost effective, fast and accurate semi-automatic viscosity measurement. By combining established principles of viscosity measurement, the HSV provides automatic measurements at 40°C and 100°C to yield the true viscosity index; a valuable tool for the determination of lubricant condition.

The HSV is ideal for used oil analysis laboratories needing to test a wide range of lubricant viscosities. Each HSV contains 4 pairs of capillary tubes. Each pair makes a low temperature and a high temperature measurement. There is no need to change capillary tubes, and typically 48 samples can be analyzed per hour at two temperatures. The through-put can be doubled to 96 samples per hour for applications where measurements at only one temperature are necessary. The HSV requires only a small amount of sample, less than 1 milliliter of fluid per capillary tube. Simply order your viscometer in one of three standard factory configurations: 1) 4 capillary tubes at 40°C and 4 capillary tubes at 100°C; 2) 8 capillary tubes at 40°C; or 3) 8 capillary tubes at 100°C.





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Features

- Digital temperature control for each bath
- Viscosity measurement at two temperatures and calculation of viscosity index
- Requires less than 1 ml per measurement
- Workplace friendly, solvent vapors do not escape
- ► Large access panels for routine cleaning and maintenance.

Innovation, Quality and Support

The HSV is accurate and utilizes built-in diagnostics to monitor all measurement functions. Two measurements are made at each temperature as the sample flows through each capillary tube. The measurements must closely agree, otherwise the sample is rejected. Incorrect results due to particles, dirty capillary tubes, bubbles, water and dissolved gases are thus not reported. Typical problems such as cleaning and plugged capillary tubes are also detected.

The High Speed Viscometer, Model HSV 802 provides the used oil analysis laboratory with accurate trouble-free operation and the throughput required for an efficient and quality conscious laboratory.

High Speed Viscometer Specifications

Viscosity Tubes per Unit:		
Temperature #1, 40°C	4 (Or 8 tubes at one single temperature)	
Temperature #2, 100°C	4	
Sample Throughput:		
2 temperature Operation	40-50 per hour	
1 Temperature Operation	80-100 per hour	
Sample Size (per temperature):	0.8 ml	
Usable Viscosity Range:	<u>40°C</u>	<u>100°C</u>
Low	14 cSt	3 cSt
High	1500 cSt	80cSt
Vacuum Requirement Min:	22" Hg @ 3.5 CFM	
Solvent System Requirement:		
Toluene	4 liters per 100 samples	
Supply	20 psi regulated	
Cleaning Cycle:		
Each sample	Software controlled automatic	
Manual, as required	Chromic acid glassware cleaning solution	
Viscosity Bath Fluid:		
Type	Synthetic, PAO	
Quantity	10 liters per bath	
Power Requirement:	120/240 VAC, 50/60 Hertz (Specify)	
Dimensions, approximate:	25" x 17" x 25"	
	(63cm x 43cm x 63cm)	
Shipping Weight, approximate: 100 lbs (4		

Your local representative for sales and service is:



160 Ayer Road • Littleton, MA 01460 USA Tel: (978) 486-0123 • Fax: (978) 486-0030

E-mail: sales@spectroinc.com • World Wide Web: www.spectroinc.com