

Petroleum and Viscosity Testing

Cannon CMRV-4500 Mini-Rotary Viscometer

- * **Thermoelectrically-cooled with enhanced temperature control and test precision**
- * **Optional Drive Line Rotor Kit provides ASTM D 6821 compatibility**
- * **Meets latest SAE J300 specifications for low-temperature pumpability**
- * **New high-performance rotors with carbon fibre shafts**
- * **Meets requirements of ASTM D 4684, ASTM D 3829, and ASTM D 6896**

The new CANNON CMRV-4500 Mini-Rotary Viscometer incorporates several improvements. It is designed to measure yield stress and viscosity of drive line lubricants and new and used automotive engine oils over a temperature range of -5°C to -40°C, meeting ASTM D 4684, D 3829, and the new D 6821 and D 6896 requirements. The CMRV-4500 determines pumping viscosity in accordance with the latest SAE J300 specifications. An optional Drive Line Rotor Kit is available for ASTM D 6821.

Instrument Description

The CANNON CMRV-4500 Mini-Rotary Viscometer stands about 5 inches taller than its immediate predecessor, raising the test cells to a more convenient working height. The unit is also slightly deeper and wider than previous models to allow space for additional insulation (for enhanced temperature control and stability) and an integrated drawer unit for convenient storage of CMRV accessories including rotors, weights, and cell caps. High-performance rotors are now manufactured with carbon fibre shafts to reduce heat transfer in and out of the test cells.

The thermoelectrically-cooled CMRV-4500 contains nine small rotary viscometers in test cells within a thermostated aluminium block. Each cell contains 10ml of sample. A built-in microprocessor controls temperature during a precisely controlled cooling cycle. At the conclusion of the cycle, an electronic timing mechanism coupled to a pulley wheel assembly measures rotor rotation as constant torque is applied.

Data from yield stress and viscosity tests is saved to a computerised database by the VISCPRO software for Windows 98/NT/XP. VISCPRO is pre-programmed to enable temperature cycles for each SAE-specified oil grade, including 0W, 5W, 10W, 15W, 20W and 25W (STM D 4684), as well as temperature calibration options at either -20°C or -25°C. VISPRO also has the temperature programs preconfigured for all the ASTM methods mentioned above.

CMRV-4500 Mini-Rotary Viscometer Specifications

Dimensions: 317mm wide x 260mm deep x 489mm high, including thermometer (12.5 x 10.25 x 19.25 inches)
Weight: 18.6kg (41lbs)
Shipping weight: 27kg (60lbs)
Electrical: CMRV-4500, 115volts, 50/60Hz, 1100watts
CMRV-4500F, 230volts, 50/60Hz, 400 watts
Operating Conditions: 10%-90% RH non-condensing. Installation category II; Pollution degree 2
Compliance: CE mark; EMC directive (89/336/EEC); Low voltage directive (73/23/EEC);
HI-POT (1900 VDC, 60 sec.)
Computer requirements: Computer not included.

Heat Exchanger Specifications

Dimensions: 470mm wide x 348mm deep x 340mm high (18.5 x 13.7 x 13.4 inches)
Weight: 31.8kg (70lbs)
Shipping weight: 36.3kg (80lbs)
Electrical: CMRV-4500, 115volts, 50/60Hz, CMRV-4500F, 230 volts, 50/60Hz

CMRV-4500 Order Information

Product no	Description
13660/20	CMRV-4500 Mini-Rotary Viscometer, 115V/60Hz
13660/21	CMRV-4500F Mini-rotary Viscometer, 230V/50Hz
13660/22	CMRV Gas Purge Option
13660/23	CMRV Cell Caps (Rotor Collar Set)
13660/24	CMRV Thermometer, -45°C to +30°C, +/-0.2°
13660/25	CMRV Thermometer, 0°C to +105°C, +/-1°
13660/26	CMRV Multi-Unit Interface Kit (domestic), 115V, 50/60Hz
13660/27	CMRV Multi-Unit Interface Kit (Foreign), 230V, 50/60Hz

