

# Mini-Rotary Viscometer

## CANNON® CMRV-5000

- Self-Contained Air-Cooled Unit—  
Thermoelectric Temperature Control
- Measures Yield Stress and Viscosity for  
Drive Line Lubricants and Engine Oils
- Meets Latest SAE J300 Specifications for  
Low-Temperature Pumpability
- High-Performance Rotors with Carbon  
Fibre Shafts in **Five Removable Cells**  
for Easy Cleaning
- Meets Requirements of ASTM D 4684,  
ASTM D 3829, ASTM D 6821\*, and  
ASTM D 6896

\* Requires optional drive line rotor kit.



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# CANNON® CMRV-5000 Mini-Rotary Viscometer

ASTM D 4684, ASTM D 3829, ASTM D 6821, ASTM D 6896, SAE J300

The CANNON CMRV-5000 Mini-Rotary Viscometer 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, D 6821 and D 6896 requirements. The CMRV instrument determines pumping viscosity in accordance with the latest SAE J300 specifications.

### Innovative Design

The CANNON CMRV-5000 provides a new level of benchtop performance in a sleek, self-contained, thermoelectrically maintained system. No accessory refrigeration units or heat exchangers are required for this innovative redesign of the reliable CANNON Mini-Rotary Viscometer series.

### Reliable Operation

Like its predecessor units, the CMRV-5000 provides reliable and accurate temperature control, meeting all requirements of the relevant methods. High-performance rotors are manufactured with carbon fibre shafts, minimizing heat transfer in and out of the test cells. The CMRV-5000 contains five viscometric cells machined to tight tolerances to fit the thermostated aluminum block. The cells are removable to facilitate sample handling and cleaning of cells and rotors.

A Plexiglas cover includes a molded inlet port for tubing from the dry gas purge regulator, which assists in maintaining a frost-free environment around the cells during the cooling phase of the test. A built-in microprocessor controls temperature throughout the precisely controlled cooling cycle. At the conclusion of the cycle, the viscosity and yield stress are determined using an electronic timing mechanism coupled to a pulley wheel assembly that measures rotor rotation as constant torque is applied.

### Powerful Software

Data from yield stress and viscosity tests is saved to a computerized 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 (ASTM D 4684), as well as temperature calibration options at either -20 or -25°C. VISCPRO also has the temperature programs preconfigured for all the ASTM methods mentioned above. The Profile Designer feature permits custom configuration of unique cooling profiles (temperature over time). Up to four CMRV-5000 units can be controlled by a single PC using the optional multi-unit interface kit.



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### CMRV-5000 Mini-Rotary Viscometer Specifications

Dimensions:	284 mm wide × 396 mm deep × 617 mm high (11.2 × 15.6 × 24.3")
Weight:	23 kg (50 lbs)
Shipping Weight:	32 kg (70 lbs)
Operational Temperature:	80°C to -40°C
Operating Conditions:	15°C-30°C, 10%-90% RH non-condensing; Installation category II, Pollution degree 2
Compliance:	EMC directive (89/336/EEC); Low voltage directive (73/23/EEC) HI-POT (1900 VDC, 60 sec.)
Computer Requirements:	Computer not included. Please contact CANNON for specifications.
Electrical:	CMRV-5000: 115V AC ± 10%, 50/60 Hz CMRV-5000F: 230V AC ± 10%, 50/60 Hz

### Order Information

Catalog #	Item Description
9728-R26	CMRV-5000 Mini-Rotary Viscometer, 115V, 50/60 Hz
9728-R27	CMRV-5000F Mini-Rotary Viscometer, 230V, 50/60 Hz
P52.4506	Replacement Rotor Assembly for CMRV-4500/5000
P52.4536	DL Carbon Rotor
P52.5019	Replacement Removable Cell Assembly (CMRV-4500)
P52.5058	Air Filter (CMRV-5000)
P52.5060	Drive Line Rotor Kit (CMRV-5000)



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