

## REFRIGERATION, INC.

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# Mini-Rotary Viscometer (MRV/TP1)

#### **Features**

- Capable of measuring over a broad temperature range of +  $80^{\circ}$ C to  $40^{\circ}$ C (176°F to  $40^{\circ}$ F).
- Single unit has testing capacity of up to 10 samples.
- Microprocessor temperature controllers store all MRV/TP1 testing profiles in memory.
- Unique design is fully self-contained no external refrigeration or heating apparatus needed.
- Advanced direct refrigeration technology eliminates the need for liquid cooling mediums such as methanol.
- Removable test cells allow for easy cleaning, sample agitation and advance sample preparation.
- New rotor design eliminates possible interference with water and ice.
- Internal hermetic refrigeration system provides direct, instant cooling.
- Power-saver feature allows testing profile to resume in the event of a brief power interruption.
- Internal gas system provides a continuous blanket of dry gas over samples to eliminate moisture buildup.
- Optional KingSpec MRV Software Package available.
- Rotor stator rack supplied for convenient cleaning, drying and storage.
- Safety features include high-pressure cutout and high temperature limits.
- Rotor stator sets included with instrument. Additional sets readily available.

#### **Industry Methods**

- Measures apparent viscosity and yield stress of oils according to ASTM D3829, D4684, D6821\*, and D6896.
- Determines Borderline Pumping Temperature of oils according to SAE *J300*, ILSAC GF-3, GF-4 and GF-5 specifications.
  - \* With available Drive Line equipment sold separately.

### **Instrument Specifications**

Cabinet Material	Stainless steel and durable thermoplastic
Temperature Range	$+80^{\circ}$ C to $-40^{\circ}$ C (176°F to $-40^{\circ}$ F)
Bath Design	Solid, direct refrigeration without liquids
Dimensions	15.5"W x 12.5"D x 13.5"H or 39 x 32 x 34 cm
Cooling Rate	5.0°C per minute maximum
Refrigerant	R-507
Compressor Size	1/3 Horsepower
Electrical	115 VAC, 15 Amp, 50/60 Hz
	also available 220 VAC, 7 Amp, 50/60 Hz
Temperature Control	$\pm 0.1$ °C across all test cells, digital readout
Heating Capacity	600 Watts
Testing Capacity	10 samples



Model MRV101