

Apparent Viscosity of Engine Oils

test method

Determines the measurement of the Yield Stress, Apparent Viscosity and Borderline Pumping Temperature (BPT) of engine oils. Borderline pumping temperature is a measure of the lowest temperature at which an engine oil can be continuously and adequately supplied to the oil pump inlet of an automotive engine. Provides a correlation between the temperature at which the viscosity of engine oils reaches a critical value and the borderline pumping failure temperature in engines at the test method specified shear stress.

mini-rotary viscometer

- Testing capacity of up to 10 samples.
- Microprocessor temperature controllers store all 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.
- 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.

ordering information

catalog no.	description
K38590	Mini-Rotary Viscometer, 220-240V 50Hz
K38596	Mini-Rotary Viscometer, 220-240V 60Hz

accessories

K38500-1	Stator Insertion/Removal Tool (SIRT)
K38500-2	Moisture Cover
K38500-3	Rotor/Stator Set (1 Set)
K38500-4	Rotor/Stator Set (Set of 5)
K38500-5	Carriage Wheel Assembly
K38500-6	Stainless Steel Thumb Nut
K38500-7	Air Filter Dryer with Desiccant
K38500-8	Rotor/Stator Holding Rack
K38500-9	MRV Weight Set – Standard
K38500-10	N105B Reference Oil (Pint)
K38500-11	MRV String Set (Qty 10)
K38500-12	MRV Driveline Rotor (for D6821)
K38500-13	MRV Weight Set – Driveline (for D6821)
K38500-14	Desiccant Media – 1 lb.



K38590 Mini-Rotary Viscometer

specifications

Conforms to the specifications of:

ASTM D4684; SAE J300; ILSAC GF3-GF4

In accordance with the specifications of:

ASTM D3829, D6821*, D6896

* With available Drive Line equipment sold separately

Cabinet Material: Stainless steel and durable thermoplastic

Temperature Range: +80°C to -40°C (176°F to -40°F)

Bath Design: Solid, direct cooling without liquids

Cooling Rate: Single Unit: 5.0°C per minute maximum

Refrigerant: R-507

Compressor Size: 1/3 Horsepower

Electrical Requirements

220V 50/60Hz, 7A

Temperature Control: +/- 0.1°C, digital readout

Heating Capacity: 600 Watts

Testing Capacity: 10 samples

Shipping Information

Shipping Weight: 143 lbs (64.86 kg)

Dimensions: 23 x 19 x 27 in (58.4 x 48.3 x 68.6 cm)

Dimensions WxDxH, in.(cm)

15.5x12.5x13.5 (39x32x34)

Net Weight: 105 lbs (47.6 kg)

Included Accessories

Rotor/Stator Holding Rack

Stator Removal Tool

Moisture Cover

Set of Weights & Strings

Air Filter Dryer and Desiccant