The HTHS Series II is a multicell capillary viscometer for simple viscosity testing of engine oils at high temperature and high shear. It meets all requirements and precision specifications of ASTM D5481 and SAE J300.

Common Applications

- Engine lubricants
- Used oils
- Research of oils at high temperature and high shear

HTHS Series II

High-Temperature, High-Shear Viscometer

For High Temperature, High Shear Viscosity of Engine Oils
ASTM D5481, SAE J300

Meets all ASTM D5481 and SAE J300 requirements and precision specifications

- Temperature range: 30 °C to 150 °C (±0.1 °C)
- Viscosity range: 2 mPa·s (cP) to 7 mPa·s (cP)*
- Test pressure: variable from 50 psi to 500 psi
- Variable test temperature and shear rate supports research applications

User-friendly, high speed testing

- Simple, one-button operation
- Multi-cell design permits sequential testing of up to 5 different samples
- Tests up to 20 samples per hour at 1.4 x $10^{6}s^{-1}$ at 150 °C
- Instrument digitally displays flow time, temperature and pressure
- Standalone viscosity calculation software analyzes data and displays results
- Sample flush cycle eliminates need for hazardous cleaning solvents

Robust, reliable performance

- Proven CANNON reliability and outstanding support
- Reduced operator role enhances repeatability and reproducibility

CANNON INSTRUMENT COMPANY

2139 High Tech Road | State College | PA | 16803
800-676-6232 | 814-353-8000 | Fax 814-353-8007

sales@cannoninstrument.com | **cannoninstrument.com**

HTHS Series II | High-Temp, High-Shear Viscometer

Ordering Information

HTHS Series II High-Temp, High-Shear Viscometer consists of the viscometer unit with 5 capillaries, a set of oil viscosity standards, a high precision digital thermometer with probe, and data analysis software. Optional computer for data analysis sold separately.

Description	Part #
100 VAC, 50/60 Hz	9728-C30
115 VAC, 50/60 Hz	9728-C35
230 VAC, 50/60 Hz	9728-C40

Accessories & Consumables

Description	Part #
High temp viscosity standard, HT22, 1.5 mPa·s (cP) at 150°C	9727-U45
High temp viscosity standard, HT39, 2.0 mPa·s (cP) at 150°C	9727-U50
High temp viscosity standard, HT75, 2.7 mPa·s (cP) at 150°C	9727-U55
High temp viscosity standard, HT150, 3.7 mPa·s (cP) at 150°C	9727-U60
High temp viscosity standard, HT240, 5.0 mPa·s (cP) at 150°C	9727-U65
High temp viscosity standard, HT390, 7.0 mPa·s (cP) at 150°C	9727-U70
High temp viscosity standard, HTNN-1, Non-Newtonian, 3.6 mPa·s (cP) at 150°C & $10^6 sec^{-1}$	9727-U92
High temp viscosity standard, HTNN-2, Non-Newtonian, 3.1 mPa·s (cP) at 150°C & $10^6 sec^{-1}$	9727-U94

Product Specifications

Dimensions (W x D x H)	52.1 cm x 38.7 cm x 68.6 cm (20.5 in x 15.25 in x 27 in)
Weight	40.5 kg (89 lb)
Shipping dimensions (W x D x H)	81.3 cm x 71.1 cm x 106.7 cm (32 in x 28 in x 42 in)
Shipping weight (with all items)	77.1 kg (170 lb)
Maximum throughput	Up to 20 samples per hour
Automated sample capacity	5
Viscosity range	2 mPa·s (cP) to 7 mPa·s (cP)*
Timing resolution	0.01 s
Temperature range & accuracy	30 °C to 150 °C ± 0.1 °C
Minimum sample volume	10 mL sample
Operating conditions	15 °C to 30 °C, 10% to 75% relative humidity (non-condensing), Installation Category II; Pollution Degree 2
Electrical specifications	100 VAC, 50/60 Hz; 115 VAC, 50/60 Hz; 230 VAC, 50/60 Hz. 500 watts power consumption.
Compliance	CE Mark; EMC directive (2004/108/EC); Low voltage directive (2006/95/EC); HI-POT (1900 VDC, 60 sec.); ROHS

*Viscosity range is extendable to 20 mPa·s (cP) with custom configuration

CANNON Instrument Company® provides a variety of physical property testing equipment and consumables (vials, bath fluids, and reference materials) for your testing needs. To learn more, contact sales@cannoninstrument.com.

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