

miniAV[®]-HT

High Temperature Kinematic Viscometer

For Kinematic Viscosity of Asphalt Binders, Cements and Cutbacks
AASHTO T201, ASTM D2170, ASTM D445/D446, ISO 3104/3105, IP 71

miniAV[®]-HT is a fully automated, single-sample, benchtop viscometer for determining the kinematic viscosity of asphalts at 60 °C and 135 °C. The Ubbelohde-style tube covers a 100-fold viscosity range at values between 0.5 mm²/s [cSt] and 10,000 mm²/s [cSt].

Common Applications

- Asphalt binders
- Asphalt cements
- Asphalt cutbacks

Product Features & Benefits

Meets AASHTO T201, ASTM D2170 and ASTM D445 precision requirements

- Developed specifically for asphalt kinematic viscosity testing at 60 °C and 135 °C
- Instrument temperature range: 40 °C to 150 °C
- Viscosity range: 0.5 mm²/s [cSt] to 10,000 mm²/s [cSt]* in 100-fold increments (easily covering the range of 5 separate manual glass viscometers)
- A well tested CANNON viscometer platform offers reliability and dependable support
- Includes adjustable sample preheater and heated waste lines

Simple, automated benchtop testing

- Automation provides an alternative to labor-intensive manual testing and reduces operator to operator variability
- VISCPRO[®] PC software enables one PC to manage and control up to four instruments
- User-configurable reports may be viewed, printed, saved and exported
- Up to 12 determinations/hour

Compact, convenient design

- Modular bath for easy maintenance access
- System fits in roughly the same benchtop area as an analytical balance

Reduced maintenance and consumable costs

- Ubbelohde-style tube reduces solvent usage and disposal costs by 50%
- Operators physically replace tubes in minutes, eliminating the need for related service calls
- Single-point temperature calibration allows calibration at a single relevant test temperature and avoids the need for tube recalibration at other temperatures
- Instrument includes standard dual-solvent input

*Some upper viscosity measurements may be limited by test temperature and sample type.

†Installation outside the domestic U.S. may incur additional charges.



Professional installation[†], VISCPRO[®] data storage and management software, viscometer tube, standards, and a high precision digital thermometer are included

CANNON
INSTRUMENT COMPANY

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miniAV[®]-HT High Temperature Kinematic Viscometer

Ordering Information

miniAV[®]-HT High Temperature Kinematic Viscometer comes with an external power supply, temperature control unit and waste receiver assembly. One viscometer tube, one set of oil viscosity standards, a case of glass vials, a high precision digital thermometer with probe, VISCPRO[®] data storage/management software, a one year warranty and professional installation/training (within the domestic U.S.) are also included. Specify desired factory installed viscometer tubes when ordering. Computer sold separately.

Description	Part #
100 VAC, 50/60 Hz	9725-B45
115 VAC, 50/60 Hz	9725-B50
230 VAC, 50/60 Hz	9725-B55

Accessories & Consumables

Description	Part #
20 mL vials (glass); case of 40	81.3023
Spare parts kit (1 year supply)	81.2900
20 cSt silicone bath fluid, 1 L	9726-L43.016
S60 viscosity oil standard, 500 mL	9727-C40.016
S200 viscosity oil standard, 500 mL	9727-C45.016
S600 viscosity oil standard, 500 mL	9727-C50.016
S2000 viscosity oil standard, 500 mL	9727-C55.016
S8000 viscosity oil standard, 500 mL	9727-C60.016
S30000 viscosity oil standard, 500 mL	9727-C65.016

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.

Product Specifications

Dimensions (W x D x H)	Unit: 25.4 cm x 30.5 cm x 59.8 cm [10.0 in x 12.0 in x 23.5 in] Power Supply: 33.0 cm x 39.6 cm x 17.2 cm [13.0 in x 15.6 in x 6.8 in] Waste Receiver: 33.0 cm x 39.6 cm x 17.2 cm [13.0 in x 15.6 in x 6.8 in]
Weight	Unit: 12.5 kg (27.5 lb) Power Supply: 11.0 kg (24.0 lb) Waste Receiver: 6.0 kg (13.0 lb)
Shipping dimensions (W x D x H)	74.0 cm x 64.0 cm x 92.0 cm [29.0 in x 25.0 in x 36.0 in]
Shipping weight (with all items)	64.0 kg (140.0 lb)
Max. throughput	12 tests per hour
Automated sample capacity	1
Viscosity range	0.5 mm ² /s [cSt] to 10,000 mm ² /s [cSt] in 100-fold increments [depending on viscometer tube selection]
Timing resolution	0.01 s [timing accuracy to ± 0.001 s]
Temperature range & accuracy	40 °C to 100 °C ± 0.01 °C* 100 °C to 150 °C ± 0.02 °C* *Alternate bath medium may be required for temperatures below 60 °C or above 135 °C
Minimum sample/solvent volume	5 mL sample*/15 mL solvent per test
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; 1,200 watts power consumption
Compliance	CE Mark; EMC directive (2004/108/EC); Low voltage directive (2006/95/EC); HI-POT (1900 VDC, 60 sec.); ROHS
Data output	RS-232 via DB-9 connector

Viscometer Tubes

Std Tubes	Part #	Std Tubes	Part #
KV Range in mm ² /s [cSt]			
0.5-50	12.0581	10-1,000	12.0294
1-100	12.0287	15-1,500	12.0302
2-200	12.0288	20-2,000	12.0295
3-300	12.0289	30-3,000	12.0296
4-400	12.0290	40-4,000	12.0297
5-500	12.0291	50-5,000	12.0298
6-600	12.0292	60-6,000	12.0303
7-700	12.0578	-	-
8-800	12.0293	100-10,000	12.0299



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