

The compact, economical TESC-5133 Low Temperature Viscometer integrates and automates the ASTM D5133 process of conditioning and testing low temperature viscosities of engine lubricants.

#### Common Applications

- Gear oils
- Automatic transmission fluids
- Torque and tractor fluids
- Industrial and automotive hydraulic oils
- Industrial lubricants
- Other fluids where low-temperature viscosity is critical

# TESC-5133

## Low Temperature Viscometer

For Low Temperature Viscosity of Engine Lubricants  
Automated ASTM D5133

### Product Features & Benefits

Fully integrated and automated thermal conditioning and testing ( $-42^{\circ}\text{C}$  to  $+90^{\circ}\text{C}$ )

- Provides an automated alternative to ASTM D5133 sample conditioning and testing
- Reduces result variability due to temperature fluctuation
- Provides superior precision
- Allows for unattended operation

Sample thermal conditioning completed without operator intervention

- Reduces instrument set-up time
- Windows® 10 software application records sample temperature and viscosity throughout the test, then computes the temperature (Gel Index Temperature) at which there is a rapid change in viscosity (Gel Index).

Cost effective, ultra-compact design

- Allows installation of multiple TESC Systems in a relatively small benchtop area for redundancy and greater testing versatility
- Conserves precious bench space

Easy-lift system

- Configured for use with the Brookfield® DV2T viscometer 1/2 RV
- Simplifies positioning of the viscometer head

Solid-state thermoelectric cooling

- Peltier cooling is environmentally friendly and does not require the use of hazardous bath fluids
- Enclosed sample chamber provides a uniform, controlled temperature environment during the entire test.



Automated  
ASTM D5133  
Technique



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

[sales@cannoninstrument.com](mailto:sales@cannoninstrument.com) | [cannoninstrument.com](http://cannoninstrument.com)

# TESC-5133 Low Temperature Viscometer

## Ordering Information

TESC-5133 Low Temperature Viscometer includes the thermoelectric viscometer, Brookfield® DV2T and support, temperature control software, CANNON 5133 spindle, magnetic spindle coupling, pre-loaded test programs on USB memory stick, USB to RS-485 cable, test cells (12 pack), 20 mL plastic syringes (5 each), CL260 viscosity reference standard (500 mL) and LTGI-1 verification standard (120 mL). Specify desired factory installed options when ordering. A Windows® 10 computer is required for proper operation. Use of a digital thermometer (sold separately) is suggested for verification and calibration of the cell temperature.

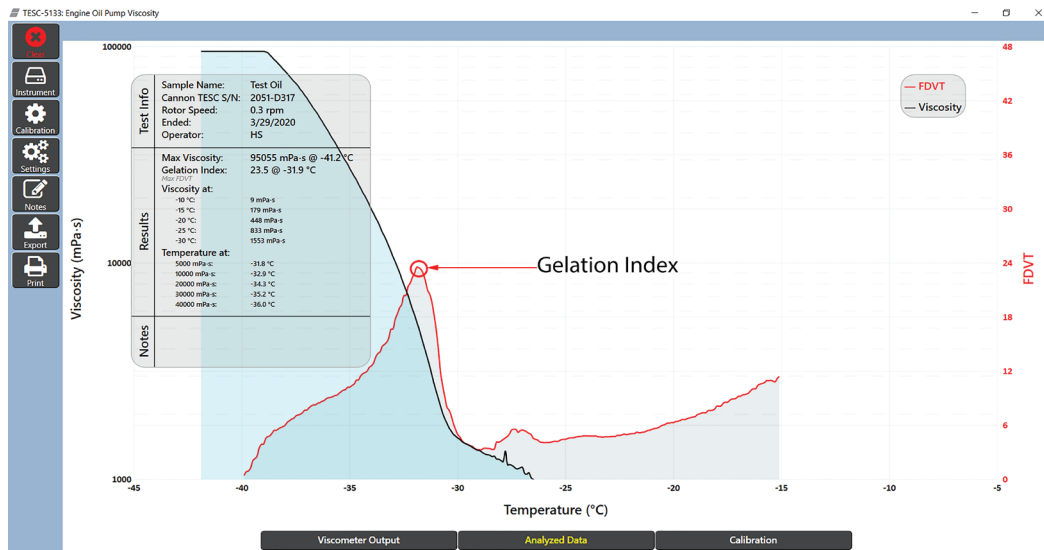
Description	Part #
100 VAC - 240 VAC, 50/60 Hz	9725-F82

## Accessories & Consumables

Description	Part #
Test cells (case of 72); 25 mm OD x 150 mm, rimless, disposable	9725-F83
Test cells (pkg of 12); 25 mm OD x 150 mm, rimless, disposable	9725-F84
CANNON #5133 spindle (replacement)	17.5118
Brookfield® magnetic spindle coupling (replacement)	17.5150
Plastic syringe, 20 mL	17.5133
CL260 Standard Oil	9727-N24.016
LTGI-1 Verification Standard	9727-G80.004
TESC Digital Thermometer Bundle (includes Dostmann P795 Dual Channel Digital Thermometer, TESC probe, and spacer)	17.5154

## Product Specifications

Dimensions (W x D x H)	16.5 cm x 51 cm x 76 cm (6.5 in x 20 in x 30 in)
Weight	19.5 kg (43 lb) including DV2T viscometer
Shipping dimension (W x D x H)	73.7 cm x 71.1 cm x 58.4 cm (29 in x 28 in x 23 in)
Shipping weight (with all items)	34 kg (75 lb)
Sample capacity	1
Temperature range & accuracy	-42 °C to +90 °C (± 0.1 °C)
Minimum sample volume	~20 mL
Operating conditions	15 °C to 30 °C, 10% to 75% relative humidity (non-condensing), Installation Category II, Pollution Degree 2
Electrical specifications	100 VAC - 240 VAC, 50/60 Hz; 300 watts power consumption
Compliance	CE Mark; EMC directive (2004/108/EC); Low voltage directive (2006/95/EC); ROHS
Data output	USB and RS-485



Graphical results of TESC-5133 sample tests with Gel Index circled

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](mailto:sales@cannoninstrument.com).



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