

## Certificate of Calibration

CANNON-FENSKE ROUTINE VISCOMETER			
Size 75		Serial Number U576	
Temperature	Constant	Expanded Uncertainty* (k=2)	Kinematic Viscosity Range
°C	mm <sup>2</sup> /s <sup>2</sup> , (cSt/s)	%	mm <sup>2</sup> /s, (cSt)
40	0.008212	0.156	1.6 - 8
100	0.008175		

\* In alignment with the Calibration and Measurement Capabilities of National Metrology Institutes, the expressed uncertainty is relative to the viscosity of water, and therefore the uncertainty of the viscosity of water (ISO/TR 3666 (1998), 0.17%) is not taken into account.

### CALIBRATION DATA AT 40°C

Viscosity Standard	Kinematic Viscosity mm <sup>2</sup> /s, (cSt)	Efflux Time Seconds	Constant mm <sup>2</sup> /s <sup>2</sup> , (cSt/s)
12	2.427	295.73	0.008206
13	3.868	470.72	0.008217

Average = 0.008212

### ADDITIONAL INFORMATION

Ambient Temperature (approximate) 22 °C      C<sub>0</sub> = 0.008223      B = 73 x 10<sup>-6</sup>/°C

Charge (approximate) 6.8 ml      Driving fluid head (approximate) 9.8 cm      Working diameter of lower reservoir 3.0 cm

Kinematic viscosities of the standards used in calibrating were established in Master Viscometers as described in Ind. Eng. Chem. Anal. Ed. 16,708(1944), ASTM D 2162, and the Journal of Research of the National Bureau of Standards, Vol. 52, No. 3, March 1954, Research Paper 2479.

Kinematic viscosities are traceable to the viscosity of water, ISO 3666, at 20°C (ITS-90). Temperature measurements are traceable to NIST fixed-point calibration of SPRTs.


The gravitational constant, g, is 980.1 cm/sec<sup>2</sup> at the Cannon Instrument Company. The gravitational constant varies up to 0.1% in the United States. To make this small correction in the viscometer constant, multiply the above viscometer constant by the factor [g (at your laboratory) / 980.1].

Calibrated by DLH on 3/11/2013

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under supervision of \_\_\_\_\_

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