



Cone & Plate

The Cone and Plate Viscometer is a standard test for dynamic viscosity measurements. As non-Newtonian fluids exhibit different viscosities relative to the shear rate applied, the Cone and Plate Viscometer tightly controls it to 10,000S-1 (B.S./ ISO requirements) or to 12,000S-1 (ASTM).

Datasheet > DV2500

Description

The Sheen Cone and Plate Viscometer is a standard test for dynamic viscosity measurements. It is faster and more accurate by use of new high precision microprocessor controls.

As non-Newtonian fluids exhibit different viscosities relative to the shear rate applied, the Cone and Plate Viscometer tightly controls it to 10,000S-1 (B.S./ ISO requirements) or to 12,000S-1 (ASTM).

These are generally accepted to be representative of paint application via a roller or brush and so reflect 'real world' application.

Temperature controlled

As most viscosity measurements are highly temperature sensitive the samples are placed on a temperature-controlled plate which can be set from 5°C to 65°C.

Features

The Sheen CP1 is designed with the following criteria in mind.

- Easy to use
- High accuracy
- Sturdy design
- Color display
- Future proof, updatable design
- Specific or Variable viscosity information
- Free technical support about the Cone and Plate
- Certification (calibration)
-

Key features (Old cp1)

* Interchangeable cones, simple to install with quick release chuck for easy cleaning

- Reading in P, cP, Pa.s, or mPa.s
- Pre-selected or adjustable run-times 5–59 seconds, with manual or automatic start
- Rapid temperature control with adjustable pre-heating time 0–59 seconds
- Adjustable limit/tolerances setting with warning
- Calibration by user: viscosity (for any cone used with certified oils), and temperature
- Memory for 100 readings, with 3-digit adjustable sample identification, RS232 PC/printer data output
- Easy menu-guided/soft-key operation: cone range, parameter setting, reading, set point and plate temperature, speed, viscosity, sample identification, calibration, date
- Selectable modes: fully functional or simplified routine, security protected.

Note: Suitable cone kit for your application (including 5 certified calibration oils) to be ordered as a separated accessory.

Standards

ASTM D4287, BS 3900-A7, ISO 2884

Scope of supply

- Sheen Cone and Plate Viscometer CP1
- Handle
- 24 V adapter + Power Cable
- Manual
- Calibration certificate

Technical Data

Mains	100-240 V / 50-60Hz
Operating temperature	15 – 35°C / 59 – 95°F
Nett Weight	19.5 kg
Dimensions	85 x 340 x 410 mm
Speed (h x w x d)	750 & 900 rpm
Spindle	Supplied separately
Standards	ISO 2884-1, ASTM D4287, BS 3900-A7**

	Viscosity	Temperature
Units	P, cP, mPas, Pas	°C, °F
Measurement Range	0-5 P 5 - 65 °C / 41 - 149 °F	
	0-10 P	
	0-20 P	
	5-50 P	
	10-100P	
Resolution	0.000 P*	0.00 °C*
	0.0 cP*	0.00 °F*
	0.0 mPas*	
	0.000 Pas*	

Accuracy	± 2% of full range	0.1 °C
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Repeatability	< ± 0.5%	0.01 °C
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*Maximum available resolution. Lower resolution can be selected in the menu.

** As available at launch of the unit Nov. 2022

Ordering Information

DV2500	Sheen Cone and plate (CP1)*
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*The Cone and Plate base unit comes without cone kit. Cone kits to be ordered separately.

Cones optional supplied items

SH1589	Cone 0-5 Poise
SH1464	Cone 0-10 Poise
SH1520	Cone 0-20 Poise
SH1568	Cone 0-50 Poise
SH1579	Cone 0-100 Poise

Cones with certified oil set

SH1429	Cone 0-5 poise	(SH490/754/ D5)	with 5 certified oils (SH490/166)
SH1432	Cone 0-10 poise	(SH490/754/ D1)	with 5 certified oils (SH490/166)
SH1428	Cone 0-20 poise	(SH490/754/ D2)	with 5 certified oils (SH490/166)
SH1427	Cone 5-50 poise	(SH490/754/ D3)	with 5 certified oils (SH490/166)
SH1434	Cone 10-100 poise	(SH490/754/ D4)	with 5 certified oils (SH490/166)

Care and maintenance

- Though robust in design, this instrument is precision-machined.
- Never drop it or knock it over.
- Always clean the instrument after use.
- Clean the instrument using a soft dry cloth. Never clean the instrument
- by any mechanical means such as a wire brush or abrasive paper.
- This may cause, just like the use of aggressive cleaning agents, permanent damage.
- Do not use compressed air to clean the instrument.

Customer Service

When requesting service always include Model No. and Serial No. from device tag. Customer service is provided on request by:

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