

Viscosity: Cone and Plate Viscometer

The viscosity of coatings, such as paint, show typical changes when applied with brush, roller or spray gun etc. under high shear rates.

For this reason, it is essential that the flow behaviour of such non-newtonian products is tested under stringent conditions, in order to achieve optimal formulation and process monitoring.

Standardised test methods recommend a shear rate of $10,000 \text{ s}^{-1}$ (BS) or $12,000 \text{ s}^{-1}$ (aSTM) as satisfactory test figures.

This new Cone and Plate Viscometer is specially designed for this purpose. A highly accurate wear resistant cone rotating at high speed on a temperature controlled plate simulates the expected “real world” application shear.

The combination of the instrument’s 2 standard speeds and the choice of 5 viscosity ranges allow precise testing of a wide range of products in compliance with national test methodologies.



Features

- 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 runtimes 5–59s, with manual or automatic start
- Rapid temperature control with adjustable pre-heating time 0–59s
- 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
- Standard package: Viscometer base unit with built-in temperature control system, PC/printer cable

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

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Performance

- Dual speed (standard): 750rpm = 10,000 s⁻¹
900 rpm = 12,000 s⁻¹
- Viscosity: 5 cone/measuring ranges:
0-5, 0-10, 0-20, 5-50, 10-100 P
Resolution: 0.01 P, accuracy <± 2%, repeatability: <± 0.5%
- Built-in temperature control: 5° to 65°C
Resolution: ± 0.1°, accuracy: ± 0.2 °C
- 90-240V AC – 50/60 Hz



Ordering information

Product ref	Description
CP1	Cone and Plate base unit (cone not included)
490/1/CK	Cone 0-10 poise (490/754/D1) with 5 certified oils (490/166/D1)
490/2/CK	Cone 0-20 poise (490/754/D2) with 5 certified oils (490/166/D2)
490/3/CK	Cone 5-50 poise (490/754/D3) with 5 certified oils (490/166/D3)
490/4/CK	Cone 10-100 poise (490/754/D4) with 5 certified oils (490/166/D4)
490/5/CK	Cone 0-5 poise (490/754/D5) with 5 certified oils (490/166/D5)
	Optional accessories
490/715/S	Vapour trap
490/P	Printer, battery operated

Note: Individual cones and calibration oils available on request

Owing to continuous development, we reserve the right to introduce improvements and modify specifications without prior notice.



Cone kit, with 5 certified calibration oils

