



TECHNICAL SPECIFICATIONS

The NµLine Cone & Plate Viscometer is based upon the proven historical concept and long-established design of Research Equipment London's (REL) Analogue Viscometer which was used as the original instrument for the BS3900 standard.

The NµLine® Cone & Plate Viscometer is a **self-calibrating, highly adaptable 'At-Line' instrument** designed to be a **cost-effective and robust** option between delicate laboratory instruments and the lower-end 'Go-No-Go' type viscosity measurement devices currently on the market.

Readings can be taken at variable shear rates, with **multiple speeds and at temperatures** between 10°C to 230°C.

Operation is simple, with easy-to-use navigation throughout the measurement process. The instrument is **easily cleaned**, and samples may be tested in **60 to 120 seconds**, depending upon the material.

NµLine®'s stand-alone, 'At-Line' capabilities are enhanced by **new intuitive Windows-based software**, compatible with Windows 7, 8, 10, and 11, which takes on board many of the additional rheological features that customers have requested; while still maintaining the historical foundations of the original ICI Cone & Plate instruments, on which the NµLine® Cone & Plate technology is based.

The **rugged design** ensures that it meets the high demands of modern manufacturing environments with both **reliability and performance standards**. With many new features, NµLine® is designed to meet the diagnostic needs of the latest production standards.

With **process applications** in the paint, varnish, inks, resins, food, bitumen, oil, adhesives and pharmaceutical industries, to name but a few, the NµLine® Cone & Plate Viscometer has been designed for these and a range of other manufacturing sectors.



FEATURES AND BENEFITS

- Variable speed settings: 5 RPM in integer increments up to 900RPM.
- Low-speed mode with speeds of 5-90 RPM in 0.1 RPM increments.
- Low-temperature Model REL0100: 10°C to 100°C variable temperature range with sub-ambient capabilities.
- High-temperature Model REL0230: ambient to 230°C variable temperature range (no cooling).
- Instrument range, plate temperatures, and viscosity reading with selectable units all software displayable.
- The PC Interface software allows the user to analyse and record results and run shear rate or time sweeps.
- The viscometer is pre-calibrated, certificated, and ready to use straight out of the box.
- Free cone of choice with all new machines, with easy self-calibrating routines for quick and easy set-up.
- NµLine can be calibrated to operate with multiple cone sizes in the same machine.
- Sample Size typically 0.2ml.
- High-quality, value for money product manufactured to BS EN ISO2884-1:2006.
- Designed to withstand use in rugged manufacturing environments.

SPEEDS	Variable 5 to 900 rpm in integer steps or 5 to 90 RPM in 0.1 RPM steps (software selectable mode). Digital speed control typically better than 0.02 RPM
CONE TYPES	2 Poise, 5 Poise, 10 Poise, 20 Poise, 40 Poise, and 100 Poise Cone
TEMPERATURE RANGES	10°C to 100°C and ambient to 230°C with variable temperatures, both ranges are available with variable temperatures having a resolution of 0.1°C and control typically +/- 0.1°C
SELECTABLE UNITS:	°C or °F, rpm or sec ⁻¹ , Poise or Pa.s.
FEATURES:	Piezo Push-to-Read button unaffected by contaminants, standard push button as an option Integrated stick mouse for software control Precise beryllium-copper spring-based torque measurement Simple automated cone calibration using NIST standard oils Automated temperature calibration (additional equipment required)
ACCURACY & REPEATABILITY:	Less than 1% of span using standard calibration oils
POWER:	85-240VAC 50/60 Hz single phase universal power, 150 watts
WARM UP:	10 minutes from cold typical at 230°C
DIGITAL DISPLAY:	4.3 inch colour VGA display
PC INTERFACE:	USB connection to external PC with free measurement software The instrument firmware is also upgradable via USB It is available in several languages and it can be customised by request
DIMENSIONS:	H = 510mm, W = 302mm, D = 302mm . Weight: Low-temperature = 13.5kg, High Temperature = 13kg

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