



**Prescott**  
instruments

## Rheoline MDR Smart

### A Trusted Name in Material Testing

- Prescott Instruments is a U.K. company with **over 30 years' experience in material testing.**
- We manufacture all instruments **onsite in the U.K. under ISO 9001** and our in-house laboratory team perform all **instrument calibrations under ISO 17025.**
- Our **Moving Die Rheometer Smart** stands out as one of Prescott Instruments' **top-selling products** and consistently remains a **leading choice** for rubber testing professionals.
- Its **precision, reliability and durability** makes it an indispensable instrument for laboratory professionals worldwide.

### Built to Last

- **Durability:** The high-stiffness steel frame is **robust enough to withstand the demands** of a busy production environment with the **high precision performance** to match.
- **Reliability:** Expertly-crafted construction provides **stability and reliability** even when testing the hardest of materials.
- **Unique:** Our bespoke **high-end electronics** ensure the highest data sampling rates available.

### Repeatability and Connectivity

- With a **0.1m2 footprint**, the MDR Smart is compact enough to suit the smallest of laboratories without compromising on performance.
- **Simplicity of design** means you can replace components **easily and affordably.**
- Precision and accuracy guaranteed to support the **most critical applications.**
- The small frame is rigid enough to **provide stability and reliability** across a range of material hardness.
- State-of-the-art **digital motor technology** provides superior feedback control.
- The **16-bit PID controller** has been exclusively designed by Prescott Instruments to deliver **unparalleled temperature control** to the highest levels of precision and stability.



# Rheoline Moving Die Rheometer Smart

## Technical Specification

<b>Standards</b>	ISO No. 6502 / ASTM D5289
<b>Die Configuration</b>	Rotor-less, Sealed, 4.5 cm <sup>3</sup>
<b>Oscillation Frequency</b>	1.67 Hz
<b>Oscillation Amplitude</b>	0.5 ° (Std.), 1.0 °, 3.0 °
<b>Temperature Range</b>	Ambient to 250 °C
<b>Temperature Control</b>	3 term PID, control accuracy +/- 0.03 °C
<b>Units of Measurement</b>	Torque Inlb, dNm. Temp. Celcius, Fahrenheit Time Min/Sec, Min/Decimal
<b>Output Type</b>	Real time display of: - Elastic Torque - Viscous Torque - Tangent Delta - Cure Rate
<b>Torque Range</b>	0.001 to 250 dNm
<b>Electrical</b>	Single Phase 220/240V 50Hz   110V 60Hz   350 VA
<b>Pneumatics</b>	Filtered Air, Min: 0.41 Mpa   60 psi   4.14 Bar   4.2 kg/cm
<b>Weight</b>	56 kg
<b>Dimensions</b>	300 mm x 300 mm x 690 mm (W x D x H)
<b>Optional Extras</b>	Programmable Temperature Zones Pressure Module Auto-Test Module Rheoline Volumetric Sample Cutter

Test Points	
Minimum (ML)	Maximum (MH)
Initial	Final
Scorch (TS) Percentage	Cure
Minimum (True)	Maximum (True)
Time Gate	Cure Gate
Reversion	Cure Rate
Cure Rate Time	Cure Rate Value
Delta Cure	Delta Cure Time
Max. Percentage	

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