



## 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 **0.1m<sup>2</sup> 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

Standards	ISO No. 6502 / ASTM D5289	Test Points	
Die Configuration	Rotor-less, Sealed, 4.5 cm <sup>3</sup>	Minimum (ML)	Maximum (MH)
Oscillation Frequency	1.67 Hz	Initial	Final
Oscillation Amplitude	0.5 ° (Std.), 1.0 °, 3.0 °	Scorch (TS) Percentage	Cure
Temperature Range	Ambient to 250 °C	Minimum (True)	Maximum (True)
Temperature Control	3 term PID, control accuracy +/- 0.03 °C	Time Gate	Cure Gate
Units of Measurement	Torque Inlb, dNm. Temp. Celcius, Fahrenheit Time Min/Sec, Min/Decimal	Reversion	Cure Rate
Output Type	Real time display of: - Elastic Torque - Viscous Torque - Tangent Delta - Cure Rate	Cure Rate Time	Cure Rate Value
Torque Range	0.001 to 250 dNm	Delta Cure	Delta Cure Time
Electrical	Single Phase 220/240V 50Hz   110V 60Hz   350 VA	Max. Percentage	
Pneumatics	Filtered Air, Min: 0.41 Mpa   60 psi   4.14 Bar   4.2 kg/cm <sup>2</sup>		
Weight	56 kg		
Dimensions	300 mm x 300 mm x 690 mm (W x D x H)		
Optional Extras	Programmable Temperature Zones Pressure Module Auto-Test Module Rheoline Volumetric Sample Cutter		

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