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PREMIER™ MDR

Moving Die Rheometer

ALPHATECHNOLOGIES

The MDR that's driving the next generation of testing – delivering data with the highest consistency and long-term stability of all moving die rheometers. The Premier™ MDR is built for optimum performance. The instrument features a streamlined design that includes an LED backlit logo for test status indication, a wraparound front cover and shield for ease of use, a touch screen user interface, and a built-in storage drawer.

Features

- Versatile LCD touch screen and user interface
- Smaller instrument footprint for a more effective use of bench space
- Biconical cruciform-less dies with optimized groove profiles to reduce slippage and improve performance with stiffer stocks
- Uniquely designed heater provides reduced temperature gradients and improved temperature recovery
- Improved forced air die cooling with independent control to the upper and lower dies provides rapid temperature changes for better non-isothermal control
- Pressure transducer to provide both torque and pressure measurements included as standard
- Operates using Enterprise software, a flexible LIMS software based on a SQL server database

Performance

- *Dynamic Symmetry™* – a system that ensures dies remain parallel to reduce variation
- *Smart Alignment™* – a system that ensures excellent die cavity sealing for better repeatability
- Unsurpassed test repeatability and reproducibility

Options

- *Smart Seal™* – An upper die assembly to eliminate the conventional elastomeric seal while maintaining a closed, pressurized cavity for improved long-term data stability and reduced need for torque calibrations (lower die long life seal – standard)
- *Rapid Change™* – An adjustable eccentric that allows simple and fast oscillation angle changes without the need for re-calibration (0.5 degrees arc is standard)
- Mechanical eccentric of 0.2, 1.0, 3.0 and 7.17 degrees arc
- Sample handling (5, 10, 36, 112)
- Sample prep
- Multiple die selections
- Wide assortment of films
- Multiple languages

PREMIER™ MDR

Specifications

Frequency:	100 cpm (1.67 Hz)	Testing Standards:	Meets ASTM D5289, ISO 6502, and DIN 53529
Temperature Range:	Ambient to 446°F (230°C)	Air Pressure:	60 pi (414Kpa, 4.2 kg/cm^2) minimum
Electrical:	100/110/120/130 VAC ± 10%, 60 ±3 Hz, 10 amp single phase. 200/220/240/260 VAC ± 10%, 50 Hz ±3 amp single phase.	Dimensions:	Width: 22 in (56 cm) Height: 48 in (122 cm) Depth: 26 in (66 cm)
LCD Screen:	6.1 in x 3.3 in (155 mm x 85 mm), Resolution 800 x 480	Weight:	Net 346 lbs (157 kg), gross 547 lbs (248 kg)
Strain:	0.5 standard (7%); 0.2, 1.0, 3.0 and 7.17 degrees (2.8%, 14%, 42%, 100%) available	Onboard:	ML, MH, MH-ML, Ts1, Ts2, T10, T50, T90, S″ at ML, S″ at MH, TD at ML, TD at MH, Max cure rate, time at max cure rate, pressure point PH-PL, and pressure time points