

MDR-X™

Production Floor Moving Die Rheometer

The X-Series™ instruments are Alpha Technologies' modular production floor solution for customers who are looking to bring testing closer to the production line. The MDR-X™ brings Alpha's superior testing solutions to the production floor with a mobile design that easily connects to an X-Dock™ station. The "X" in the MDR-X™ brand name stands for "cross-over" from lab environment to production floor. These test instruments are based on Alpha's flagship Premier™ technologies with the same outstanding reproducibility, repeatability, and test sensitivity.

Features

- Adaptable for lab and production floor use
- Auto module docking recognition and alignment
- Sealed design for production floor environments
- 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 standard to provide pressure measurements in addition to torque
- Operates using Enterprise software, a flexible LIMS software based on a SQL server database
- Five sample queuing

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
- Excellent repeatability, reproducibility, and test sensitivity

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 eccentrics of 0.2, 1.0, 3.0, and 7.17 degrees arc
- Wide assortment of films
- Multiple die selections
- Sample prep
- Multiple languages

Specifications

Frequency:	100 cpm (1.67 Hz)	Strain:	0.5 standard (7%); 0.2, 1.0, 3.0 and 7.17 degrees (2.8%, 14%, 42% or 100%) available
Temperature Range:	Ambient to 446°F (230°C)	Testing Standards:	Meets ASTM D5289, ISO6502, and DIN 53529
		Air Pressure:	60 pi (414Kpa, 4.2 kg/cm ²) minimum
Electrical:	100/110/115/120 VAC -50/60 Hz, single phase 220/220/240 VAC ± 10%, 50 Hz ± 3 amp single phase	Dimensions:	Width: 19.7 in (50 cm) Height: 57.4 in (145.8 cm) Depth: 27.6 in (70 cm)