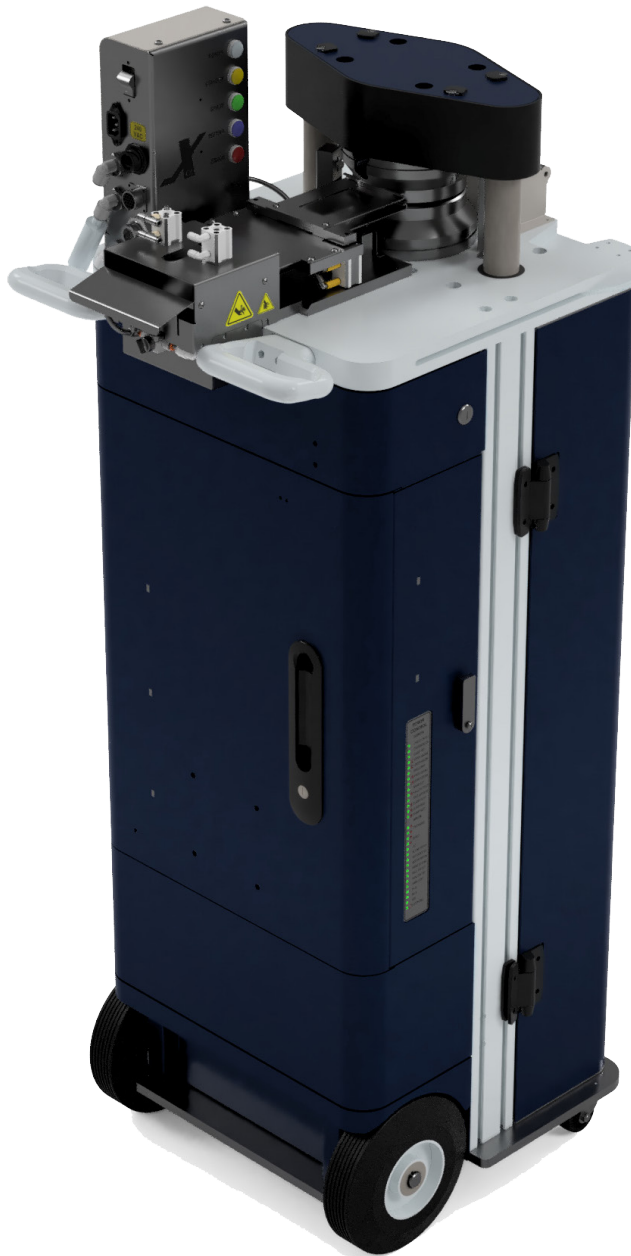


# MDR-X™

Moving Die Rheometer

- ▶ The new 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 any 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.

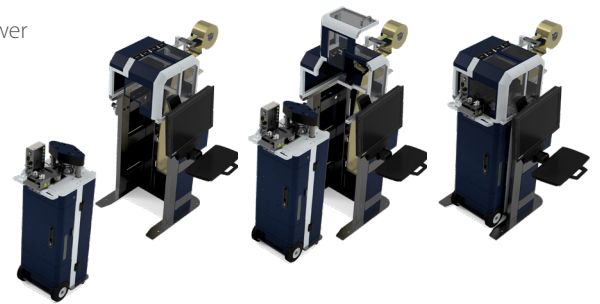
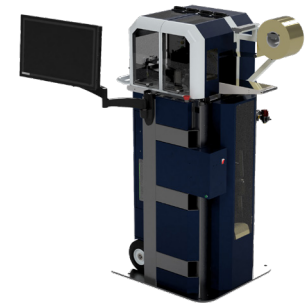


**ALPHA**TECHNOLOGIES

## Features



- Adaptable for lab and production floor use
- Auto module docking identification
- 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 measurement in addition to torque
- Operates using Enterprise software, a flexible LIMS system based on an open SQL database design



## Performance



- Unsurpassed test repeatability and reproducibility
- DYNAMIC SYMMETRY™ - A system that ensures parallel die closing, reducing variation
- SMART ALIGNMENT™ - A system that ensures excellent die cavity sealing for better repeatability
- SMART SEAL™ - An optional 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)

## Options



- Oscillation amplitudes of 0.2, 1.0, 3.0, and 7.17 degrees arc mechanically set
- Smart Seal™ die assembly
- Multiple film types available
- Multiple languages available
- RAPID CHANGE™ - An adjustable eccentric option that allows simple and fast oscillation angle changes without the need for re-calibration (0.5 degrees arc is standard)

## Specifications



|                    |  |                    |  |
|--------------------|--|--------------------|--|
| FREQUENCY:         | 100 cpm (1.67 Hz)  | TESTING STANDARDS: | Meets ASTM D5289, ISO6502, and DIN 53529   |
| TEMPERATURE RANGE: | Ambient to 446°F (230°C)   | ELECTRICAL:        | 100/110/115/120 VAC - 50/60 Hz, single phase<br>200/220/240/260 VAC +/-10%, 50Hz +/- 3amp single phase |
| STRAIN:            | 0.5 Standard (7%); 0.2, 1.0, 3.0 and 7.17 degrees (2.8%, 14%, 42% or 100%) available | AIR PRESSURE:      | 60 psi (414Kpa, 4.2 kg/cm2) minimum  |
|                    |  | DIMENSIONS:        | W: 19.7 in, D: 27.6 in, H: 57.4 in (W: 50 cm, D: 70 cm, H: 145.8 cm)                                   |

