



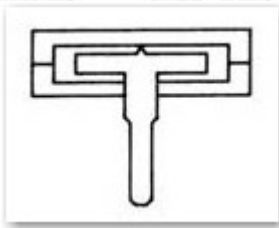
XDR Curemeters

by CCSi

The XDR® can easily be converted to a Mooney Viscometer by interchanging a few key components. The curemeter central shaft and bearing system is replaced by the Mooney Viscometer conversion module.

The Mooney Viscometer module consists of the central shaft, bearings, sample ejector, and auto dead weight calibration system. This module is completely preassembled for easy conversion. The same force transducer and connecting links are repositioned to measure the reaction torque sensed by the drive motor as a result of the changing viscosity of the test sample.

The Mooney Viscometer die and rotor are direct replacements for the corresponding elements of the curemeter. These few simple steps converts the XDR® from an Oscillating Disk Rheometer or a Moving Die Rheometer to a Mooney Viscometer. The XDR® Mooney viscosity / stress relaxation and Mooney scorch tests conform to ASTM D1646.



“... in the Mooney Viscometer configuration, the sample is sealed between the upper and lower die cavities, surrounding the rotating flat disk rotor. This provides precise measurements of viscosity, scorch, cure rate, and improves precision and accuracy.”

XDR® Mooney Viscometer: Features & Benefits

XDR® MOONEY VISCOMETER FEATURES:

- Enhances vulcanization, viscosity, and cure characteristics;
- Standard dies and rotor;
- Stress relaxation capabilities;
- Convertibility to an MDR or ODR reduces initial and future investments;
- Meets [ASTM D1646](#), ISO R289 and BSI 1673.

XDR® MOONEY VISCOMETER BENEFITS:

- Modular design allows conversion to an ODR or an MDR;
- Power rotor ejector eases sample insertion and removal;
- Modular design reduces maintenance cost & down time;
- Reduced test times with high watt heaters;
- Replicate historical test results;
- Enhanced scorch determination & stress relaxation capabilities.

XDR® Mooney Viscometer: Specifications

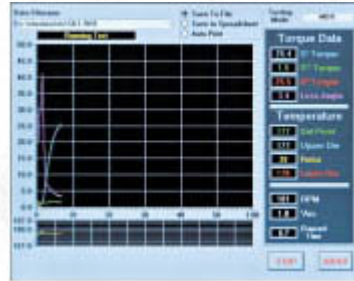
- Torque:
 - 0.1 to 200 Mooney Units
- Selectable Test Times:
 - 0.0 to 99 minutes
- Selectable Temperature Range:
 - Ambient to 225 C°
- Angular Displacement:
 - ± 0.5°, 1°, 3°, 6° (selectable)
- Weight:
 - 160 kg (352.8 lb.)
- Space Requirements:
 - Instrument: 610 x 610 x 1220 mm (24 x 24 x 48 in.)
 - Computer: 300 x 610 x 710 mm (varies) (12 x 24 x 27 in.)
 - Monitor: 410 x 410 x 410 mm (varies) (16 x 16 x 16 in.)



XDR® OPERATING SYSTEM FEATURES:


- Computerized data acquisition & analysis meets [ASTM E1579](#);
- Viscometer Module complies with [ASTM D1646](#), ISO R289, & BSI 1673;
- ODR Module complies with [ASTM D2084](#), ISO 3417, & BSI 1673;
- MDR Module is compatible with [ASTM D5289](#);
- Microsoft® Windows Operating System;
- Pentium® Processor & Intel® chipset;
- Computerized PID temperature management systems;
- Automatic system calibration;
- Computerized torque measurement system;
- Computerized calibration and verification (no mechanical adjustments necessary);
- Automatic mechanical deflection corrections;
- Superior ability to detect differences in compounds and raw polymers;
- Raw data stored for easy retrieval or transfer;

- Standard and User defined test parameters;
- Real time display of test data and parameters;
- Selectable presentation of data in printed, graphed or overlay formats;
- Real Time Plot & Digital display of:
 - S', S", and S* Data
 - Loss Angle Data
 - Temperature, All Dies
 - Temperature Set Point
- Digital display of:
 - Test Mode
 - Operation Mode
 - Test File Name
- Printed Data Output Options:
 - Single Test
 - Overlay Multiple Tests
 - Overlay Historic Tests
- Display Data Output Options:
 - Test In Progress
 - Historic Single Test
 - Overlay Historic Multiple Tests
 - Apply different parameters to historic results for an “if–then–else” analysis.



XDR® eXchangeable Die Rheometer: Module and System Pricing

XDR® Individual Modules	
MDR	Please Submit a RFQ
ODR (heated rotor standard option)	Please Submit a RFQ
Mooney Viscometer	Please Submit a RFQ
XDR® Module Combinations	
MDR & ODR Modules	Please Submit a RFQ
MDR & Mooney Modules	Please Submit a RFQ
ODR & Mooney Modules	Please Submit a RFQ
XDR® Complete	
Mooney, MDR & ODR Modules	Please Submit a RFQ
Lease Options Available	

 Please visit the [ODR](#) and [MDR](#) pages to learn more about the flexibility of the XDR®. Detailed technical aspects of the XDR® are examined at length in the article titled “[Innovations](#)”.

Copyright © 2006 CCSi, Inc. • All Rights Reserved • Published February, 2006

Corporate Consulting, Service & Instruments, Incorporated
 221 Beaver Street • Akron, Ohio 44304 USA
 Telephone: 800.742.8535 / 330.376.3600 • Facsimile: 800.229.9329 / 330.376.8500
 • WWW.CCSI-INC.COM • WWW.ORECOZONE.NET •