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## Designed to test magnetically-sensitive fluids

The patent-pending design allows the testing of magneticallysensitive fluids, such as those containing hematite, by preventing contact between the sample fluid and the drive magnet.

Engineered for ultra-high pressure testing \& easy operation The M7800 HPHT Hematite Rheometer can apply pressure to the pressure chamber as high as 40,000 psi, giving the researcher a pressure environment range greater than any competing instrument, while providing easy operation and simple maintenance.

The Grace Instrument M7800 Ultra HPHT Hematite Rheometer is intended for use in rheological testing of magnetically-sensitive fluids such as those containing hematite.

Unlike the standard operation of a rheometer which operates via magnetic coupling, the M7800 is configured to keep the magnets completely separated from the tested fluid. This helps ensure that test results are free of magnetically-induced errors.

The M7800 is built with a thick-walled steel pressure cell, surrounded by a fail-safe steel containment vessel, to ensure operator safety.

## M7800DAQ control/data acquisition software (included)




M7800 cell tower \& M7500 control unit. Patent Pending


M7800 pressure cell Patent Pending

Measurement Range (B1, B5 bob):
Sample Size: Approx. 132 mL (depending on size of bob)
Speed: $\quad 0.01$ to 600 rpm continuous
Shear Rate: $\quad 0.0082$ to $1020 \mathrm{~S}^{-1}$
Temperature: Ambient ( $20^{\circ} \mathrm{F}$ w/chiller) to $600^{\circ} \mathrm{F}$
Pressure: Atm to $40,000 \mathrm{psi}$
Viscosity: $\quad 0.5$ to $5,000,000$ Centipoise
Torque: $\quad 7 \mu \mathrm{~N} . \mathrm{m}$ to $10 \mathrm{mN} . \mathrm{m}$
Shear Stress: 2 to 10,000 dyne $/ \mathrm{cm}^{2}$
Resolution: $0.3 \%$ of full scale range or better
Repeatability: $\pm 1 \%$ of torque span or better
Mechanical Specifications:
Dimensions / Footprint:
22 " tall $\times 12$ wide $\times 24$ " deep (tower)
20 " tall x 14 " wide $\times 25$ " deep (cab)
Electrical Supply:
Voltages: 120 VAC or 240 VAC

