

### Durable, Reliable, and Affordable

The M3400 is a 9-speed Couette coaxial cylinder rotational viscometer and incorporates years of customer feedback into its design. The M3400 features a steel framework and robust electronics and is engineered to meet the various fluid rheology measuring needs of our customers, from on-site oilfield personnel doing single-speed tests in harsh environments to laboratory researchers doing advanced rheology tests. The innovative design and rugged construction of the M3400 Viscometer makes it versatile and portable--at home, in the field or in the laboratory.

### Hassle-Free Speed Change

Currently, industry standard viscometers shift through different rotational speeds with a control knob that requires some finesse to operate. The M3400 takes all of that hassle away with a control pad, allowing any speed at any time. In addition, the M3400 Manual Viscometer meets all standards and is API 10 and API 13 compliant.

### Automatic pre-programmed 10-min and 10-sec gel strength tests

The M3400 comes pre-programmed with the popular test sequences: 10-second gel strength and 10-minute gel strength. With the touch of a button, the manual shifting of speeds in these processes are eliminated. This results in more repeatable test results.



M3400 unit with optional heater cup

### Specifications

Bob size:	(B1, B2, B3 bob)
Sample Size:	35-150 ml (depending on size of bob, cup, sleeve)
Speed:	600, 300, 200, 100, 60, 30, 6, 3, 0.1
Shear Rate:	0.17 to 1021 S <sup>-1</sup> with standard R1B1 geometries
Temperature:	Ambient
Pressure:	Atmospheric pressure
Viscosity:	0.5 to 10,000,000 Centipoise
Shear Stress:	1.02 to 61,200 dyne/cm <sup>2</sup> or 1 to 300 degree
Resolution:	1 dyne/cm <sup>2</sup> to 10 dyne/cm <sup>2</sup> based on spring selection
Accuracy:	±1% of torque span or better
Dimensions:	16.5" H x 5" W x 8" D
Weight:	10 lbs
Voltage:	Universal 100 VAC to 240 VAC,
Frequency:	50/60 Hz
Avail. Spring:	F0.2, F0.5, F1, F2, F5

### Bob Specifications:

ROTOR-BOB	R1 B1	R2 B1	R3 B1	R1 B2	R1 B3
<b>BASIC DATA</b>					
Rotor Radius, R <sub>r</sub> , cm	1.8415	1.7588	2.5866	1.8415	1.8415
Bob Radius, R <sub>b</sub> , cm	1.7245	1.7245	1.7245	1.2276	0.8622
Bob Height, L, cm	3.800	3.800	3.800	3.800	3.800
Shear Gap, in Annulus, cm	0.1170	0.0343	0.8261	0.6139	0.9793
Radii Ratio, R <sub>r</sub> / R <sub>b</sub>	0.9365	0.9805	0.667	0.666	0.468
Maximum Use Temperature, °C	93	93	93	93	93
Minimum Use Temperature, °C	0	0	0	0	0
Overall Instrument Constant, K	300.0	94.18	1355	2672	7620
Standard F1 Torsion Spring					
$\eta = Kf\theta/N$					



M3400 keypad and dial reading