

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.

One-Touch Button Initiates 10-Second and 10-Minute Gel Tests

The M3400 comes preprogrammed with 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, resulting in more repeatable test results. At the end of a gel test, the M3400 will beep to notify the user.

Specifications

Bob Size: B1, B2, and B3

Sample Size: 35-150 ml (Depending on size of bob, cup, and sleeve type.)

Speed: 600, 300, 200, 100, 60, 30, 6, 3, 0.1

Shear Rate: 0.17 to 1021 S^{-1} (With Standard R1B1 Geometries)

Operating Temperature: Ambient

Pressure Range: Atmospheric

Viscosity: 0.5 to 10,000,000 Centipoise

Shear Stress: 1.02 to 61,200 dyne/cm²

(Up to 3,500 dyne/cm² with standard R1B1 bob configuration. Up to 61,200 dyne/cm² with other optional bob options.)

Resolution: 1 dyne/cm² to 10 dyne/cm²

(Based on spring selection. Standard spring is 5 dyne/cm². 2 spring is 1 dyne/cm².)

Accuracy: $\pm 0.5\%$ of Torque Span

Dimensions: 16.5" H x 5" W x 8" D

Weight: 10 lbs.

Voltage: 100-240V AC

Wattage: 40 W

Frequency: 50-60 Hz

Available Springs: F0.2, F0.5, F1, F2, and/or F5

Bob Specifications:

ROTOR-BOB	R1 B1	R2 B1	R3 B1	R1 B2	R1 B3
BASIC DATA					
Rotor Radius, R_r , cm	1.8415	1.7588	2.5866	1.8415	1.8415
Bob Radius, R_b , 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_r / R_b	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					
$\eta = K\theta/\Omega$					



M3400 unit with optional heater cup



M3400 keypad and dial reading