#### **M3500 Viscometer**

Our digital, low shear, automatic controlled, PC software included... **M3500A** Viscometer is less expensive and will outlast the 6-Speed Fann<sup>®</sup> 35 Viscometer with little to no maintenance! The M3500A does NOT require periodic calibration which will save you even more time and money!



Because of the new horizontal drilling technology, low shear rate measurements of drilling fluids becomes more important to evaluate the quality of the drilling fluid. M3500a complies with all existing API standards and provides the extreme low shear rate (down to 0.01Rpm) of which the oil industry has been waiting for. The new automatic data acquisition and operation features can substantially improve work efficiency and eliminate human errors. In addition, its heavy metal structure is designed for years of field and lab use!

# **Key Features**

- One-touch absolute automated testing operation
- Single Board Computer controlled stand-alone operation
- Precision shear rate control with extremely wide speed range from **0.01 Rpm to 600 Rpm** continuously
- Automatic temperature control and display capability
- Over temperature protection by thermostat
- Friendly LCD display and keypad user interface
- Automatically will save the last test results and test setups
- Complies with all API standards and maintains the same rotor and bob sizes as Fann® 35 and Chan 35
- Universal power supply 120-240VAC
- Gel Strength, n' & k' measurement
- Multi rotor and bob combinations for a wide measurement range
- Response time is hundred times faster than Brooksfield VII viscometers

(The following features are only included in a M3500a viscometer.)

- Data acquisition and communication software Gracedaq and our new 3-D rheology software M3500Frac.
- Microsoft Access® database engine
- Customized test reporting capability
- Graphic representation of test results
- Real time graphing and data collecting
- Graph printing capability
- Unlimited chart overlapping

- 9 different types of charting, includes shear stress vs. shear rate, viscosity vs. shear rate, viscosity vs. temperature, etc.
- Automatically measure **n'** & **k'** with our new M3500Frac software.
- Online training, maintenance course and online frequently asked questions on technical support.

# **Model 3500A Viscometer Specifications**

Dimensions: 5" x 8" x 16" Weight: 20 lbs Pressure Range: Atmospheric pressure Temperature Range 0°F~212 °F (-17°C~100°C) Speed Range: 0.01~600 rpm continuous 0.0027~3254 sec<sup>-1</sup> Shear Rate Range: Shear Stress Range:  $1\sim37,000 \text{ dyn/cm}^2$ 0.5~5,000,000 Centipoise Viscosity Range: Torque: 0~1 oz-in or 0~5 oz-in Accuracy: ±0.5% of full scale range Viscometer Voltage: 115V or 230V Heater Cup Voltage: 120VAC version and 230VAC version Frequency: 50 Hz or 60 Hz

# Part number list:

Description	P/N
M3500a-1 (1 oz full scale, working w/ Gracedaq version)	VISC3500001
M3500a-5 (5 oz full scale, working w/ Gracedaq version)	VISC3500002
Thermocup (120VAC)	HEAT3500AS1
Thermocup (2200VAC)	HEAT3500AS2
6 Month Limited Warrantee	WARR3500001
36 Month Limited Warrantee	WARR3500002
Small Sample Adapter	MACH3500016
Small Sample Adapter 303 SS	MACH3500021
Sample Cup (ST. Steel)	CUPP3500001
R1 Sleeve	MACH3500056
R1 Sleeve 303 Stainless Steel	MACH3500055
R1 Sleeve 303 SS Closed End	MACH3500060
Bob 1	MACH3500058
Bob 2	MACH3500061
Bob Shaft Bearing Bottom	BEAR3500002
Bob Shaft Bearing Top	BEAR3500005
Bob Shaft	MACH3500066
Shaft Pin	PINS3500001
Rotor (Plated Brass)	MACH3500050
Dust Shield	MACH3500057
Comport Cable	CABL3500001
Gracedaq	SOFT3500001
Carrying Case	CASE3500001
SBC Battery	BTRY3500001

One M3500a unit consists of: one viscometer, one temperature probe, one stainless steel cup (350ml), one cup clip, one set of R1 and B1, one copy of instruction menual, PC user interface software - Gracedaq, and M3500Frac, calibration sheet and one serial cable. (Thermal cup not included.)

• For quantities of 10-25 prices are 10% to 20% off. Please request a quote for large quantities.

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