

# CAP 1000+™ & CAP 2000+™

Cone & Plate Viscometers!

**Keypad** for direct input of test parameters

**Cone Spindle** is easily removed for cleaning

**Easy-to-Use Control Handle** for accurate, automatic cone positioning

**Designed to handle repetitive testing** in production environments with easy setup and cleaning

**4-Line Display** allows simultaneous viewing of all test parameters

**Choice of instruments:**  
CAP1000+ (single speed)  
CAP2000+ (variable speed)

**Automatic cone/gap positioning**

**Small sample size**  
less than 1 mL

**Built-in Peltier Plate** for temperature control of sample:  
L Series: 5°C — 75°C  
H Series: 50°C — 235°C



## What's Included?

- Instrument
- Choice of Torque Range:
  - High Torque (ICI Specification): 181,000 dyne • cm
  - Low Torque: 7,970 dyne • cm
- Choice of One Cone Spindle
- Choice of Temperature Control: L or H

## Optional Accessories

- CAP Viscosity Standards
- Additional Cone Spindle
- Capcalc32 Software ▶
- Protective Keypad Covers

## CAP1000+

Single speed 750 or 900 rpm instrument, ideal for QC. Optional choice of alternative speed is available upon request. See examples below at 400 rpm and 100 rpm.

## CAP2000+

Variable speed 5-1000 rpm instrument ideal for R&D as well as more detailed QC testing. Automated PC control (using optional Capcalc32 software).

MODEL	VISCOSITY RANGE cP(mPa•s)		SPEEDS	
	Min.	Max.	RPM	Number of Increments
CAP 1000+	see chart on		900/750	2
CAP 2000+	reverse side		5-1K	995

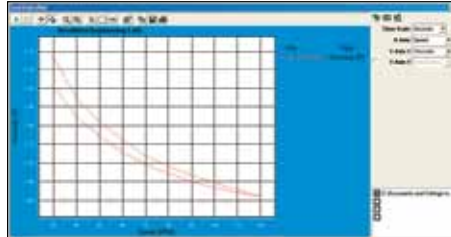
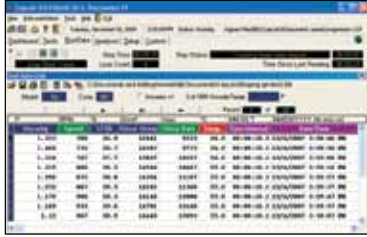
\* Dependant on cone selected.  
M = 1 million K = 1 thousand cP = Centipoise mPa•s = Millipascal•seconds

## Capcalc32 Software Optional

TURN YOUR CAP2000+ VISCOMETER INTO A MORE POWERFUL RHEOMETER

Capcalc32 allows control of the CAP2000+ Viscometer while providing automatic data capture and graphical display. Automate your CAP 2000+ Viscometer and generate flow curves quickly and easily.

- Controls test parameters with powerful scripting capabilities
- Looping functions for repetitive tasks
- Automates data collection to save time and reduces operator error
- Math modeling for yield stress calculations, plastic index
- Plot up to four data sets for comparisons



## Applications

### MEDIUM VISCOSITY

Adhesives (hot melt)	Coatings	Resins
Architectural Coatings	Industrial Coatings	Starches
Autocoats (Hi-performance)	Inks (screen printing)	Surface
Creams	Organisols	UV Coatings
Food Products	Paints	Varnish
Gels	Paper Coatings	
Gums	Plastisols	

### HIGH VISCOSITY

Adhesives	Epoxies	Roofing Compounds
Asphalt	Gels	Sealants
Compound	Inks (ballpoint, offset, lithographic)	Sheet Molding
Chocolate	Molasses	Tars
Composite Polymers	Pastes	Vinyl Esters

## Perfect for Paints & Coatings

Meets Industry Standards:  
ASTM D4287, ISO 2884, BS 3900  
High Shear Rate Cone & Plate  
(10,000 sec<sup>-1</sup>)

### CAP Cone Viscosity Ranges (Poise)

MODEL	Shear Rate (sec <sup>-1</sup> ): 13.3N Sample Volume: 67µL Cone Spindle: CAP-01	Shear Rate (sec <sup>-1</sup> ): 13.3N Sample Volume: 30µL Cone Spindle: CAP-02	Shear Rate (sec <sup>-1</sup> ): 13.3N Sample Volume: 24µL Cone Spindle: CAP-03	Shear Rate (sec <sup>-1</sup> ): 13.3N Sample Volume: 13.4µL Cone Spindle: CAP-04	Shear Rate (sec <sup>-1</sup> ): 3.3N Sample Volume: 67µL Cone Spindle: CAP-05	Shear Rate (sec <sup>-1</sup> ): 3.3N Sample Volume: 30µL Cone Spindle: CAP-06	Shear Rate (sec <sup>-1</sup> ): 2.0N Sample Volume: 170µL Cone Spindle: CAP-07	Shear Rate (sec <sup>-1</sup> ): 2.0N Sample Volume: 100µL Cone Spindle: CAP-08	Shear Rate (sec <sup>-1</sup> ): 2.0N Sample Volume: 100µL Cone Spindle: CAP-09	Shear Rate (sec <sup>-1</sup> ): 5.0N Sample Volume: 170µL Cone Spindle: CAP-10
<b>HIGH TORQUE</b>										
1000+ @750rpm	.25-2.5	.5-5	1-10	2-20	4-40	10-100	N/A	N/A	N/A	N/A
1000+ @900rpm	.2-2	.4-4	.8-8	1-16	3-33	8-83	N/A	N/A	N/A	N/A
1000+ @400rpm	.375-4.6	.75-9.3	1.5-18.7	3-37.5	6-75	15-187	.78-7.81*	3.13-31.3*	12.5-125*	1-10*
2000+ @5-1000rpm	.2-375	.4-750	.8-1.5K	1-3K	3-6K	8-15K	.78-625*	3.13-2.5K*	12.5-10K*	1-1K*
<b>LOW TORQUE</b> (for applications requiring low shear rates for low/medium viscosity fluids, an optional low torque 797-7,970 dyne•cm instrument can be ordered)										
1000+ @100rpm†	.2-.81	.2-1.6	.33-3.3	.65-6.5	1.3-13	3.3-33	.13-1.3	.54-5.4	2.2-22	.22-2.2
2000+ @5-1000rpm	.2-16	.2-32	.2-66	.2-130	.2-260	.2-660	.2-26	.2-108	.2-440	.2-44

µL = microLiter K = 1 thousand P = poise 1 Pa•s = 10 poise N = RPM e.g. Cone CAP-01 13.3 x 10 (rpm) = 133 sec<sup>-1</sup>

\*Maximum speed recommended with this spindle is 400 rpm. Viscosity range indicated is for operation at 400 rpm. †Special speed instrument.

Note: Viscosity ranges shown above are for illustration. The exact range will depend upon instrument configuration.

