CAP 1000+™ & CAP 2000+™

Cone & Plate Viscometers - appropriate for moderate to high shear tests

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:
CAP 1000+ (single speed)
CAP 2000+ (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 (p42)
Choice of Temperature Control: L or H

Optional Accessories

CAP Viscosity Standards (p53)
Additional Cone Spindle (p46)
Capcalc32 Software ▶
Protective Keypad Covers (p51)

CAP 1000+

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.

CAP 2000+

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

	VISCOSITY RANGE cP(mPa•s)		SPEEDS	
MODEL	Min.	Max.	RPM	Number of Increments
CAP 1000+	see next page		900/750	2
CAP 2000+	for each cone		5-1K	995

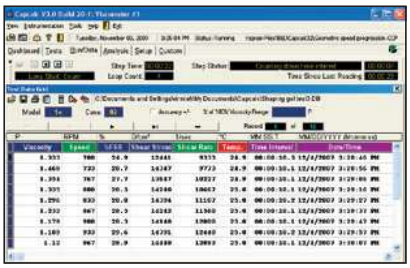
* Dependant on cone selected.
M = 1 million K = 1 thousand cP = Centipoise mPa•s = Millipascal•seconds

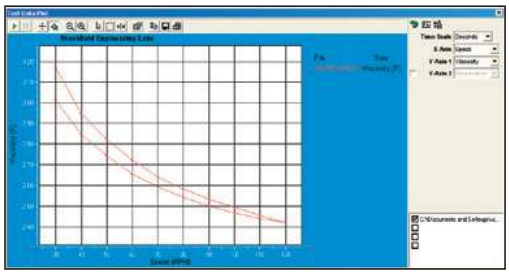
Capcalc32 Software Optional

TURN YOUR CAP 2000+ VISCOMETER INTO A MORE POWERFUL RHEOMETER

Capcalc32 allows control of the CAP 2000+ 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
- 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)
Architectural Coatings
Autocoats (Hi-performance)
Creams
Food Products
Gels
Gums
Coatings
Industrial Coatings
Inks (screen printing)
Organisols
Paints
Paper Coatings
Plastisols
Resins
Starches
Surface
UV Coatings
Varnish

HIGH VISCOSITY

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

Perfect for Paints & Coatings

Meets Industry Standards:
ASTM D4287, ISO 2884, BS 3900
High Shear Rate Cone & Plate
(10,000 sec^{-1})

CAP Cone Viscosity Ranges (Poise)

MODEL HIGH TORQUE	Shear Rate (sec^{-1}): 13.3N Sample Volume: 61µL Cone Spindle: CAP-01	Shear Rate (sec^{-1}): 13.3N Sample Volume: 39µL Cone Spindle: CAP-02	Shear Rate (sec^{-1}): 13.3N Sample Volume: 24µL Cone Spindle: CAP-03	Shear Rate (sec^{-1}): 3.3N Sample Volume: 134µL Cone Spindle: CAP-04	Shear Rate (sec^{-1}): 3.3N Sample Volume: 67µL Cone Spindle: CAP-05	Shear Rate (sec^{-1}): 3.3N Sample Volume: 30µL Cone Spindle: CAP-06	Shear Rate (sec^{-1}): 2.0N Sample Volume: 1700µL Cone Spindle: CAP-07	Shear Rate (sec^{-1}): 2.0N Sample Volume: 400µL Cone Spindle: CAP-08	Shear Rate (sec^{-1}): 2.0N Sample Volume: 100µL Cone Spindle: CAP-09	Shear Rate (sec^{-1}): 5.0N Sample Volume: 170µL Cone Spindle: CAP-10
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*
LOW TORQUE (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^{-1}
*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.