

# NEW RS Portable Rheometer

...portable and so much more!

*The Brookfield RS Portable is a dynamic, rotational rheometer capable of viscosity, yield stress and creep measurements in the laboratory, on the production floor or in the field.*

*With dual power feature, the instrument comes with rechargeable battery for portable use as well as standard power cord to plug directly into wall outlets.*

*Moderately priced, the RS Portable offers the best value for flexibility in today's market.*



#### Displays:

- Viscosity
- Temperature (with optional PT100 probe)
- Torque
- Shear Rate

#### RHEO3000 Software

(optional) allows for data collection, analysis and storage

#### Dual Modes of Operation:

- Controlled Stress (when used with a PC)
- Controlled Rate

#### Quick Connect Coupling

for rapid spindle attachment



Cone/Plate accessory provides extended range capability for shear rate and viscosity

## BROOKFIELD VISCOMETERS

NOW CELEBRATING 75 YEARS!

T: 800.628.8139 or 508.946.6200 F: 508.946.6262 [www.brookfieldengineering.com](http://www.brookfieldengineering.com)

## What's Included?

Instrument  
Carrying Case  
Laboratory Stand  
Battery Charger

## Optional Accessories

Choice of Spindle Geometries:

- Coaxial Cylinder
- Vane
- Disposable Chambers
- Cone\*
- Plate\*

Rheo3000 Software

Viscosity Standard Fluids for Calibration  
FTK Water Jacket for Temperature Control  
Circulating Temperature Bath  
PT-E Temperature Sensor

\*Requires purchase of Cone/Plate Adapter accessory

## Applications

Chemicals	Oils
Coatings	Paints
Dairy Products	Polymer Solutions
Inks	Slurries
Juices	

## SPECIFICATIONS

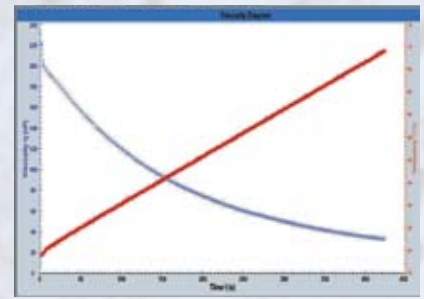
<b>Viscosity Range:*</b>	10 <sup>3</sup> to 3x10 <sup>3</sup> Pa•s (main) 10 <sup>3</sup> to 1.2 x10 <sup>3</sup> Pa•s (battery)
<b>Speed Range:</b>	0.7 to 800 min
<b>Maximum Torque:</b>	50 mNm (main) 20 mNm (battery)
<b>Torque Resolution</b>	0.01 mNm
<b>Shear Stress Range:*</b>	0.7 to 3.4 x 10 <sup>4</sup> Pa (main) 0.7 to 1.3 x 10 <sup>4</sup> Pa (battery)
<b>Shear Rate Range:*</b>	0.9 to 4 x 10 <sup>3</sup> sec <sup>-1</sup>
<b>Temperature Range:</b>	-20°C to +180°C
<b>Instrument Accuracy:</b>	3-5% of measured value
<b>Angle Range:</b>	0.8 mrad

\*Depends on measurement system

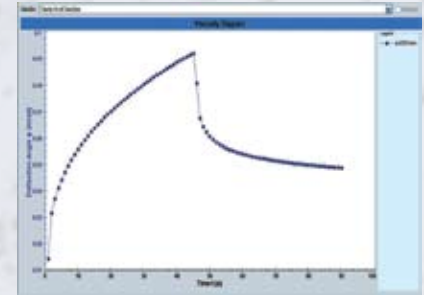
## RHEO3000 Software

Controlled Shear Rate provides important information on flow behavior showing how viscosity changes with spindle speed and time. Data analysis using RHEO3000 software allows for plotting of flow curves, quality control min/max limits, math models, data averaging and many more analysis functions.

Controlled Shear Stress allows the operator to make direct yield stress measurements and determine creep properties and the presence of elastic behavior. Of special note is the encoder which provides detailed measurement data on relaxation and recovery behavior after the stress is removed.



Flow Curve



Creep Recovery Curve

## R/S Spindle Ranges

SPINDLE	VISCOSITY RANGE (Pa•s)	SHEAR RATE sec <sup>-1</sup>	MAX. SHEAR STRESS Pa	SAMPLE VOLUME
<b>COAXIAL</b>				
CC3-DG	0.002-27	3.04-3475	83	21mL
CC3-DGL*	0.001-19	3.53-4031	67	16mL
CC3-48*	0.002-57	3.60-4114	206	70mL
CC3-45*	0.006-216	090-1032	195	100mL
CC3-40	0.005-191	1.50-1718	287	45mL
CC3-25	0.033-1261	0.90-1033	1140	17mL
CC3-14	0.189-7193	0.90-1033	6500	3mL
CC3-8	1.017-38730	0.90-1033	35000	0.5mL

### CONE (requires purchase of cone/plate accessory)

RC3-25-1	0.076-2910	4-4800	12223	0.08mL
RC3-25-2	0.153-5820	2-2400	12223	0.3mL
RC3-50-1	0.010-364	4-4800	1528	0.7mL
RC3-50-2	0.019-728	2-2400	1528	1.5mL

### PLATE

RP3-25	0.373-17786	1-1047	16297	0.5mL
RP3-50	0.023-1113	2-2094	2040	2mL

1 Pa•s = 1,000 cP      \*Special configuration required - contact Brookfield for details.  
Note: Viscosity values based on minimum speed of 0.7 RPM and maximum speed of 800 RPM.



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