

# NEW DV3T™ Rheometer

the all-in-one tool for measuring viscosity and yield stress

### 7-inch Full Color

#### Touch Screen Display

- New User Interface
- Enhanced Controls
- Real Time Graphing
- Supports Multiple Languages

#### Displayed Info:

- Viscosity (cP or mPa•s)
- Temperature (°C or °F)
- Shear Rate/Stress
- % Torque
- Speed/Spindle
- Step Program Status
- Math Model Calculations

#### Built-in math models

for data analysis in stand-alone mode. E.g. Casson, Bingham, Power Law, Thix Index

#### Enhanced Security

- Customizable User Access
- Date and Time Stamp File
- Password Access
- Portable Log-in Settings

#### Built-In Options

- Math Modeling
- Temperature Control
- Yield Tests
- Programmable QC Limits/Alarms

**Analyze characteristics** such as yield stress, flow curves (mixing, pumping, spraying), leveling and recovery

**USB PC Interface** provides optional computer control and automatic data collection capability

#### Convenient Bubble Level



#### Integrated Temperature Control

with connection to Brookfield TC series Baths and AP controller or Brookfield Thermosel System.

#### Stand-alone programming

or download custom test programs with PG Flash Software.

#### Built-in RTD Temperature Probe

**Accuracy: ±1.0% of range**

- Displayed with test data

**Repeatability: ±0.2%**

## What's Included?

#### Instrument

6 spindles (RV/HA/HB) (p45)  
or 4 spindles (LV) (p45)

PG Flash Software ▶

RTD Temperature Probe

Spindle Guard Leg\*

Lab Stand (Model G) (p50)

Convenience Pack  
(USB Flash Drive, Stylus, Cleaning Cloth)

Carrying Case

\*Not applicable to HA or HB torque models

## Optional Accessories

RheocalcT Software ▶

Label Printer (p51)

Vane Spindles (p43 & 48)

Ball Bearing Suspension (p50)

Viscosity Standards (p52)

RV/HA/HB-1 Spindle (p45)

EZ-Lock Spindle Coupling System (p50)

Quick Action Lab Stand (p50)

Temperature Bath (p33-35)

Small Sample Adapter (p38)

UL Adapter (p40)

Thermosel (p36)

Helipath Stand with T-bar Spindles (p42)

Spiral Adapter (p44)

DIN Adapter (p44)

Quick Connect/Extension Links (p49)

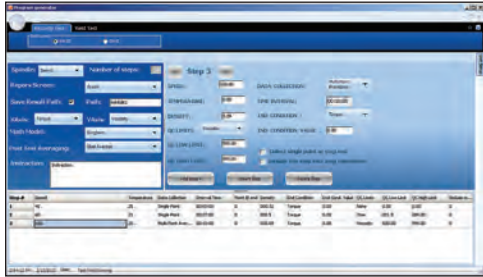
MODEL	VISCOSITY RANGE cP(mPa•s)		SPEEDS (2600 available)	
	Min.	Max.	RPM	Number of Increments
DV3TLV	1†	6M	.01-250	2.6K
DV3TRV	100††	40M	.01-250	2.6K
DV3THA	200††	80M	.01-250	2.6K
DV3THB	800††	320M	.01-250	2.6K
DV3T5xHB	4K	1.6B	.01-250	2.6K

† 1 cP achieved with UL Adapter accessory. 15 cP on LV with standard spindles.  
†† Minimum viscosity is achieved with optional RV/HA/HB-1 spindle.  
B = 1 billion M = 1 million K = 1 thousand cP = Centipoise  
mPa•s = Millipascal•seconds

## PG Flash Software Included

PROGRAM GENERATOR SOFTWARE FOR CUSTOMIZING TEST CRITERIA FOR ROUTINE PRODUCT QC

This exclusive Brookfield software allows you to create repeatable custom tests on your PC! Once the program (up to 25 steps) is created, it can be downloaded to a supplied USB flash drive and then uploaded to any DV3T Viscometer.



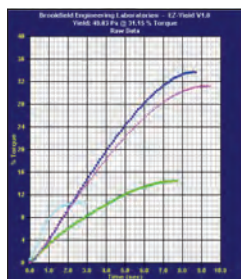
*PG Flash allows users to create repeatable custom tests with all of the built-in options on the DV3T plus the addition of multiple program lines (up to 25 steps). Create the program on the PC and download to a USB Flash Drive. Upload the program from the USB Flash Drive to the DV3T.*

## RheocalcT Software Optional

GET TOTAL CONTROL OF YOUR INSTRUMENT AND TEST PARAMETERS

Automatically control and collect data with RheocalcT and a dedicated computer. RheocalcT can analyze data, generate multiple plot overlays, print tabular data, run math models and perform other time-saving routines. Up to five comparison data sets can be plotted and saved. Other features include:

- Wizards to guide you through the creation of common tests
- Yield Testing, alone, or in conjunction with other viscosity measurements
- Secure 21CFR features including multiple logins, access levels, digital signatures, and data storage in a password-protected database
- Looping functions for repetitive tasks
- Averaging of collected data by step or whole test
- Math models: Bingham, Casson, Casson NCA/CMA, Power Law, IPC Paste, Herschel-Bulkley, Thix Index



TORQUE RANGE	SHEAR STRESS RANGE	
	Pa	dyne/cm <sup>2</sup>
LV	Contact Brookfield	
RV	.5-100	5-1K
HA	1-200	10-2K
HB	4-800	40-8K
5xHB	20-4K	200-40K

*Yield tests can be performed with the use of optional vane spindles.*



## DV3TCP

The DV3T is available in a Wells/Brookfield Cone & Plate Version. Must be ordered when instrument is first purchased. (p16)



## DV3T with Optional Vane Spindles

DV3T Rheometers have a built-in yield stress measurement capability that determines the stress required to initiate flow of slow moving or paste materials. Vane spindles can be immersed into a material without destroying the underlying structures that contribute to yield. The DV3T offers test parameters that create a specific yield test protocol that can be utilized for QC testing or research.

## DV3T Extra

Includes our ball bearing suspension system, EZ-Lock Spindle Coupling System and FREE RheocalcT software.

# Thermosel<sup>®</sup>

for Elevated Temperature Testing



**Compatible** with standard Brookfield Viscometers and DV3T Rheometers  
 Note: requires optional cable DVP-141

**Provides control** of sample temperature up to +300°C

**EZ-Lock Option**  
 Thermosel is now available with special EZ-Lock spindle coupling for use on standard Brookfield Viscometers/Rheometers already equipped with the EZ-Lock feature

**Temperature Ramping**  
 between set points is possible if used with RheocalcT (DV3T & DV2T) Software  
 Note: Requires optional cable HT-106

**Thermo Container**  
 (Heating Chamber)



**Computer Controlled** when used with DV2T or DV3T and RheocalcT Software (HT-106 cable required)

**Programmable Temperature Controller** offers single set point or up to 10 programmable set points.

**Direct Temperature Control Possible** with DV2T/DV3T Rheometer (p20)

## What's Included?

- Choice of one SC4 Spindle  
Specify when ordering
- Alignment Bracket
- Thermo Container with safety guard and insulating cap
- 1 Removable Sample Chamber (p47)
- 5 Disposable Sample Chambers (p47)  
Order additional chambers in quantities of 100, HT-2DB-100
- 18" Lab Stand Rod (p35)
- Extracting Tools
- Temperature Controller with an RTD probe

## Applications

- |           |          |
|-----------|----------|
| Hot Melts | Asphalt  |
| Wax       | Polymers |

The difficulty with viscosity measurements of hot melts and liquids at elevated temperatures has been in maintaining accurate temperature control that is consistent from sample to sample so that meaningful data could be obtained.

The Brookfield Thermosel solves this problem by providing a stable, precisely controlled sample environment. This, together with the inherent accuracy of the Brookfield Viscometers, is fundamental to the Thermosel System, which produces viscosity measurements that are not only accurate but entirely reproducible.

### Several factors contribute to the stable environment:

- Non-fluctuating temperature control
- Small sample volume and insulated sample chamber which reduces temperature gradients within the sample
- The rotating spindle, which acts as a built-in stirring device
- The test procedure is quite straightforward. Once familiar with the system, unskilled operators can easily produce accurate, reproducible data.



**研士強國際集團 YENSTRON GROUP**  
**益瀚國際科技股份有限公司**  
 台中總公司: 407227台中市西屯區工業區一路2巷7號1F  
 TEL: (04)2359-3199 FAX: (04)2359-8507  
<http://www.yenstron.com.tw>