

Product Catalog



Material
Characterization
At Its Best!™

Viscometers

Rheometers

Texture Analyzers

Powder Flow Testers

Moisture

Gas

2021


AMETEK Brookfield Material Characterization at Its Best™

Go beyond viscosity with AMETEK Brookfield!

AMETEK Brookfield has been the world leader in viscosity measurement instruments for over 85 years. Our expanding portfolio includes viscosity, rheology, texture, powder, moisture, and toxic gas instruments for accurate material characterization measurements, making our instruments ideal for a variety of applications in many industries. We have Centers of Excellence located throughout the world and a network of qualified service and training representatives and dealers. It's no wonder research labs, QC departments, and production environments around the globe count on AMETEK Brookfield's instruments for repeatable and accurate measurements.



History of AMETEK Brookfield

1934 
• Brookfield Engineering was founded.
• First Dial Viscometer becomes lab standard used globally.

1978 
Release of TT100 line of products.

1980
DV1 was launched.

1986
DV2 was introduced.

1992
DV3 was launched.

1993
Introduction of Rheocalc software.

1994
Capcalc software was launched.

1995
Wingather software was launched.

1996 
Launch of PVS.

1997 
CAP2000 was launched.

1998
David Brookfield became CEO.

1999
• Office moved from Stoughton, MA to Middleboro, MA.
• Electronic Dial instrument introduced.

2001
Rheovision software was launched.

2002 
• Launch of CAP1000.
• Brookfield became ISO 9001 certified.

2003
AST was launched.

2008
TexturePro software and CT3 were launched.

2009
• PFT and Power Flow Pro software were launched.
• Celebrated **75th** anniversary.

2013
• RheoCalcT software and DV2T were launched.
• Lou DiCorpo received 60 Year Service Award.

AMETEK
2016
AMETEK acquired Brookfield.

2017
AMETEK acquired Arizona Instrument.

2018 
CTX and TT100 IECEX were launched.

2019 
DVNext and RSO were launched.

2020 
Launch of Computrac® Vapor Pro® XL Autosampler.

Applications

Food & Beverages



Corn Starch



Baking Soda



Brownie Mix



Almonds



Ground Cinnamon



Mayonnaise



Cooked Meat



Bread



Apple Juice



Chocolate



Butter



Coffee



Chips

Cheese Puffs



Applications

Pharmaceutical, Medical & Personal Care



Baby Formula



Facial Powder



Tablets



Lipstick



Shampoo



Petroleum Jelly



Hair Gel



Eye Liner



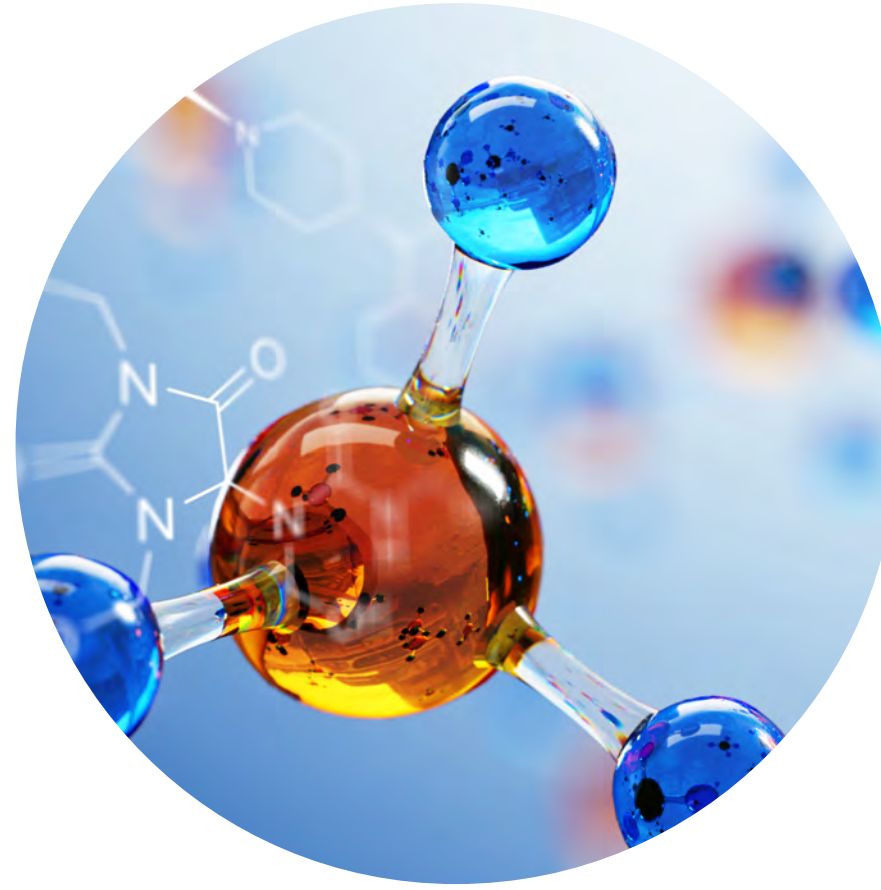
Cough Syrup



Soap

Applications

Plastics, Chemicals, Paints & Inks



Chemicals



Flooring Adhesives



Gypsum



Engine Oils



Paints



Auto Paints



Curing or
Gelling Materials



Bentonite Clay



Detergents

Applications

Energy, Oil, Gas, Environmental & Education



Landfills



Batteries



First Responders



Wastewater
Treatment



Oil Industries



Universities



Gases



Environmental
Agencies



Industrial Hygiene



Powerplants



Mining



Biomass

Repeatability and Accuracy

AMETEK Brookfield's instruments are the most accurate and repeatable on the market. For decades, customers have relied on consistent, precise measurements from our instruments in the most demanding environments. Measurements taken today with an AMETEK Brookfield instrument will typically match results years from now.



21 CFR, Part 11 and GAMP® Compliant

The DVNext Rheometer is AMETEK Brookfield's newest, easy-to-use, all-in-one tool for viscosity and yield stress measurements!



RSO brings viscoelasticity measurements within your reach!

Our RSO Oscillatory Rheometer is AMETEK Brookfield's newest, easy-to-use, stand-alone instrument for advanced viscoelastic measurements.

Viscometers

Torque measurement accuracy: 1% of full-scale range
Repeatability: 0.2% of full-scale range



DVNext Compliant

Our 21 CFR, Part 11 Compliant Viscometer

- 21 CFR, Part 11 Compliant
- Digital leveling
- LIMS connectivity
- Gel-timer functionality
- Hand-held scanner for bar code detection
- Accessory detection
- Magnetic coupling attachment

Recommended Software:

- RheocalcT



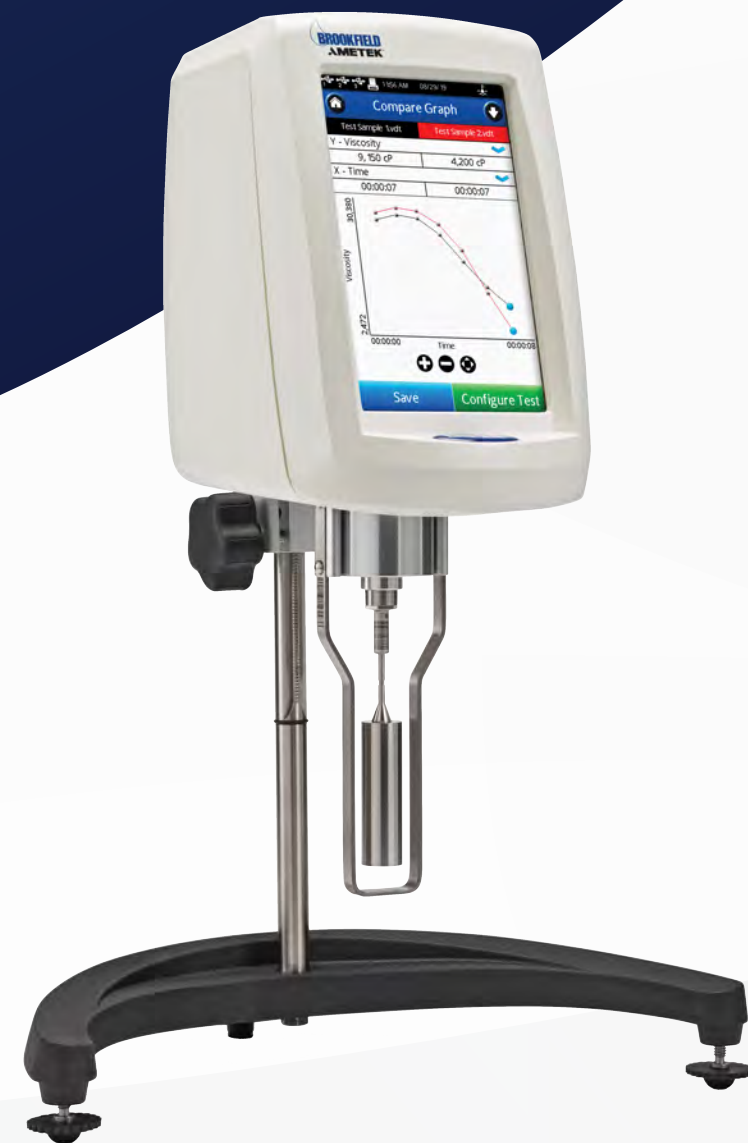
DVNext Cone/Plate

Our Latest Viscometer for Small Sample Sizes

- Small sample size
- Defined shear rate
- Electronic gap adjustment
- Touch screen display
- Auto-zero function
- Auto-range function

Recommended Software:

- RheocalcT



DVNext

Our Latest Full-Featured Viscometer

- Digital leveling
- Start-up wizard
- Gel-timer functionality
- Optional magnetic coupling attachment
- Optional bar code scanner

Recommended Software:

- RheocalcT



DV2T

Full-Featured Viscometer

- 5-inch touch screen
- Built-in temp probe
- Data/user security controls
- USB PC interface available

Recommended Software:

- RheocalcT
- PG Flash



DV2T Gel Timer

Full-Featured Viscometer with Gel Timer

- Continuous torque-sensing capability
- Displays gel time and continuous temperature readout
- Glass rod fits snugly into compression-fit coupling
- Control immersion depth of glass rod
- Test runs automatically using time-to-torque feature

Recommended Software:

- RheocalcT
- PG Flash



DV1

Our Workhorse QC Viscometer

- Optional temp probe
- Calculates viscosity
- Access to time measurement function
- Output connection to printer

Recommended Software:

- Wingather SQ



DVE

Our Budget QC Viscometer

- Low cost and easy to use
- Calculates viscosity
- Direct display in cp or maps, % torque, spindle, and speed
- 18 speeds for greater range capability



CAP2000+

Viscometer Specific for Paints and Coatings

- Broad shear rate range
- Peltier temp control
- Excellent for paints and coatings

Recommended Software:

- Capcalc

Accessories



Enhanced UL Adapter

Designed for Low Viscosity Materials

- Multiple test options
- Automated analysis
- Compact design



Helipath Stand

Accessory Specific for Gels and Creams

- Multiple test options
- Automated analysis
- Compact design
- Ideal for measuring non-flowing substances



Small Sample Adapter

Ideal for Small Samples

- For rheological material evaluation using limited sample volumes
- Sample chamber easily changed
- Optional disposable chamber
- Rapid sample temperature control



DIN Adapter

Ideal for Small Sample Volumes

- Complies with DIN 53019
- Can measure small sample volumes
- Cylindrical geometry provides defined shear rates
- Compatible with any standard AMETEK Brookfield viscometer/rheometer

Spindles, Cones, Cups & Chambers

- A range of spindles to meet a variety of needs: CAP spindles, Helipath T-bar spindles, KU-3 spindles, RST spindles
- Cones and cups are used with standard AMETEK Brookfield cone/plate series viscometers and rheometers



Vane Spindles

- 3-piece spindle set for versatile range capability
- Keeps particles in suspension during testing cycle
- Provides information on yield behavior at low rotational speeds
- Follows industry recommendations on length/diameter ratios for vane spindles
- Magnetic spindle coupling option

In-Line Process Viscometers



TT-100 Viscometer

In-Line Continuous Measurement Viscometer

- Continuous measurement
- Defined shear conditions
- Variety of display and control capabilities
- Available in IECEx version



FAST Viscometer

Rugged, No-Maintenance In-Line Viscometer

- Unique micro rotational sensor
- No moving parts, no maintenance
- Unaffected by external vibration
- Flexible vertical or horizontal installation
- True temperature readings to 200°C



VTE Electric Viscosel

In-Line Viscometer for Paints and Coatings

- Convenient and inexpensive
- Sensitive response ensures continuous conditioning of fluid
- In-line measurement eliminates time constraints
- Simple to change viscosity range

Rheometers

AMETEK Brookfield's rheometers allow for quick and easy viscosity and viscoelastic measurements in a wide range of applications.



RSO Rheometer

Our Latest Full-Featured Rheometer

- Air-bearing motor
- User-friendly touch screen
- Auto spindle recognition
- Automatic gap setting
- Rapid temperature control



RSX Rheometer

Next Generation Rheometer

- Rotational, controlled-stress rheometer mostly used in QC and R&D environments
- Controlled stress/rate operation to analyze comprehensive flow behavior
- Large 7-inch full color touch screen display
- Cone Plate (CPS), Coaxial Cylinder (CC), and Soft Solids Tester (SST) versions available

Recommended Software:

- Rheo3000



RST Cone Plate

Our Most Versatile Rheometer

- Controlled stress/rate operation
- Auto spindle recognition
- LCD touch screen

Recommended Software:

- Rheo3000



RST Soft Solids Tester

Characterizes Yield in Soft Solids

- Controlled stress/rate operation
- BU unit measurement options
- Measures viscoelastic characteristics such as yield stress, shear modulus and creep

Recommended Software:

- Rheo3000



RST Coaxial Cylinder

Designed for ISO Coaxial Measurements

- Controlled stress/rate operation
- Auto spindle recognition
- Rapid temperature control with peltier option
- LCD touch screen

Recommended Software:

- Rheo3000



PVS Rheometer

Ideal for High Temperatures and Pressures

- Highly portable with 1' x 1' x 2' footprint
- Measures samples from vacuum to high pressure up to 1000 psi
- Measures under temperature conditions: -40°C to +260°C

Recommended Software:

- Rheovision

Texture Analyzers

AMETEK Brookfield's easy-to-use texture analyzers measure compression and tension of materials in a wide variety of industries.



CTX Texture Analyzer

Our Latest Full-Featured Texture Analyzer

- Deflection compensation for the most accurate measurements
- Interchangeable load cells for optimal flexibility
- Easy-to-read display and easy-to-use, intuitive controls
- Extended boom for longer reach testing
- Three adjustable base tables for more versatile sample testing

Recommended Software:

- Texture Pro

Accessories



TA-DEC

- Dual extrusion cell
- Used for forward and back extrusion of fruit puree, pudding, yogurt, or similar products



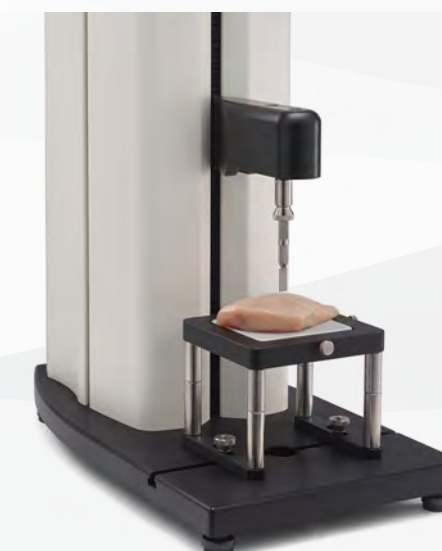
TA-STF

- Quantifies the spread force of a material
- Comes with 1 male cone probe, 5 sample cups, and 1 cup holder



TA-SBA-WB-1

- 1mm shear blades
- Used for cutting-shear test of meat, fish, sausage, and similar products



TA-52 MOHRS

- Used for cutting tests
- Perfect to test meat, poultry, fish, or similar products



TA-TPB

- Three-point bend fixture
- Used to determine the hardness of products such as hard tablets, granola bars, and energy bars



TA-CTP

- Compression top plate
- For applying uniform compression force on samples up to 4x6 inches

Powder Flow Tester

Powder Flow Testers deliver quick and easy analysis of powder flow behavior for a wide variety of industries and applications.



PFT

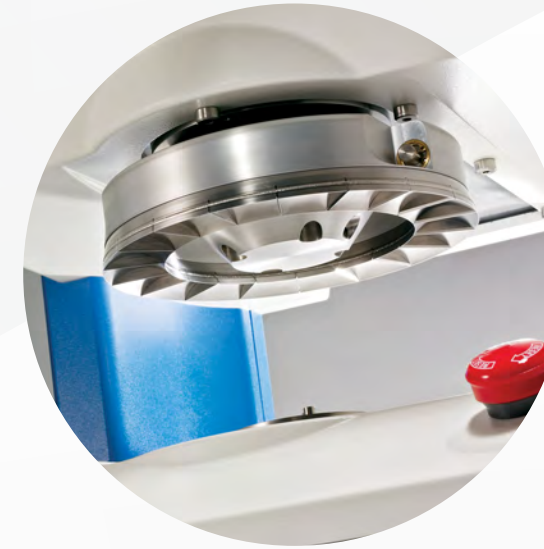
Powder Flow Analyzer

- Multiple test options
- Automated analysis
- Compact design

Recommended Software:

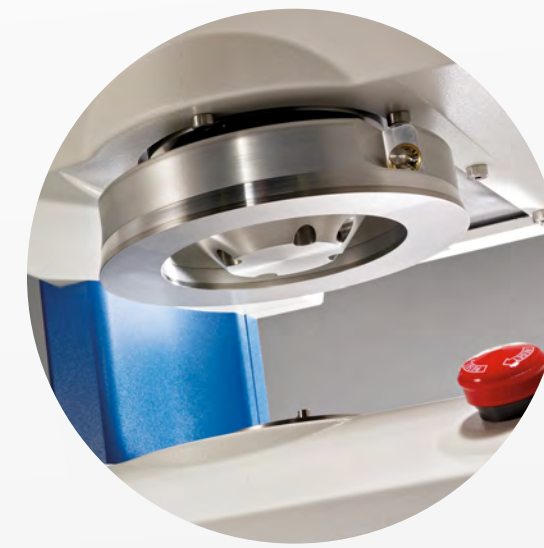
- Powder Flow Pro

Accessories



Vane Lid

- Used for flow function test



Friction Lid

- Wall friction lid
- Used for wall friction test and density test



Outer and Inner Catch Trays

- Reversible scraper tool
- Inner catch tray
- Outer catch tray
- Trough

Moisture Analyzers

World-class instruments for measuring moisture content from the pioneer in the field.



Computrac® Vapor Pro® XL

The Next Generation in Chemical-Free Moisture Analysis

- RH-sensor measures moisture content
- Heater allows for more control over range of testing temperatures
- Detects as few as 10 micrograms of water
- Determines moisture content as low as 10 ppm
- Touchscreen interface reduces operator error



Computrac® MAX® 5000XL

Moisture, Solids & Ash Analyzer

- Accurate readings for both ash and moisture content from a single sample
- Fast readings in half an hour or less
- One-button operation with no intermediate steps required
- Durable design for heavy duty use



Computrac® Vapor Pro XL® Autosampler

Multi-Sample Automated Chemical-Free Moisture Analyzer

- All the same features as the Computrac Vapor Pro XL
- Automatically measure up to 16 different samples



Computrac® MAX® 4000XL

Loss-on-Drying Moisture & Solids Analyzer

- Precise, repeatable results
- Durable design for heavy-duty use
- Rapid cooling system
- Allows for a wide range of applications, from food to plastic to paper
- World-class support from moisture analysis experts

Toxic Gas Analyzers

Detect mercury vapor in air at levels as low as 0.05 µg/m³.

Detect hydrogen sulfide gas in air at levels as low as 3 ppb.



Jerome® J505

Hand-Held Atomic Fluorescence Spectroscopy Mercury Vapor Analyzer

- Lightweight (6.5 lbs)
- Atomic fluorescence means no regenerations or downtime needed
- Exceeds EPA standards for industrial/residential remediation
- 18 hours of battery life per charge



Jerome® J405

Gold Film Mercury Vapor Analyzer

- Sensitive detection limits, ideal for industrial and residential cleanup
- Durable design for use in any environment
- 24 hours of battery life per charge
- Features onboard data logging for up to 20K measurements
- USB data transfer & SCADA interface capabilities
- Proven as the gold standard in mercury detection for over 35 years



Jerome® 451

Gold Film Fence-Line Mercury Monitoring System

- Set-and-forget mercury vapor monitoring
- Detachable hand-held mercury vapor analyzer pinpoints gas source
- Smart alarms provide warnings and email notifications
- Wireless measurement data transmission to PCs
- Durable design for any environment



Jerome® J605

Gold Film Hydrogen Sulfide Analyzer

- Detects hydrogen sulfide in the air at extremely low levels
- Durable design for use in any environment
- 18 hours of battery life per charge
- Onboard data logging for up to 20K measurements
- USB data transfer & SCADA interface capabilities
- Gold standard in hydrogen sulfide analysis for over 35 years



Jerome® 631-X

Gold Film Hydrogen Sulfide Analyzer

- Detects hydrogen sulfide in the air at extremely low levels
- Durable design for use in any environment
- 18 hours of battery life per charge
- Onboard data logging for up to 20K measurements
- USB data transfer & SCADA interface capabilities
- Gold standard in hydrogen sulfide analysis for over 35 years



Jerome® 651

Gold Film Fence-Line Hydrogen Sulfide Monitoring System

- Set-and-forget hydrogen sulfide monitoring
- Detachable hand-held hydrogen sulfide analyzer pinpoints gas source
- Smart alarms provide warnings and email notifications
- Wireless measurement data transmission to PCs
- Durable design for use in any environment

Software

AMETEK Brookfield's software is available to control our instruments and automate data collection.

RheocalcT - DV2T, DV3T, DVNext

- Wizard guides user through creation of common tests
- Yield testing
- Data averaged by step or whole test
- Math models: Bingham, Casson, Casson NCA/CMA, Power Law, IPC Paste, Herschel-Bulkley, Thix Index
- Includes features for 21 CFR compliance

Rheo3000 - RST

- Program by controlled stress/rate
- Automate viscosity vs. temperature testing
- Quality control limits for pass/fail tests
- Automated analysis of collected data
- Calculate yield and average viscosity
- Includes features for 21 CFR compliance

Rheovision - PVS

- Ability to control multiple PVS units
- Easy calibration and built-in linearity check
- Instantaneous flow curves
- Built-in math modeling
- User-friendly ramp wizard for quick API testing

Texture Pro - CTX

- Wizard guides user through creation of common tests
- Simplified user interface
- Filters for searching and managing existing data
- Easy export, import, and data deletion
- Compare data by loading up to 20 distinct data sets within the graph
- Includes features for 21 CFR compliance

TexturePro CT - CT3

- Data captured as graph and stored in database format
- Advanced data analysis includes calculations of springiness, chewiness, and hardness
- Evaluates the mean and standard deviation for up to 30 samples

PG Flash - DV2T & DV3T

- Creates repeatable custom tests
- Extends capabilities with multi-step programs
- Create a program on a PC and upload to the DV2T or DV3T

Wingather SQ - DV1

- Multiple test modes for enhanced data collection
- Automatic sample numbering
- Math models: Bingham, Casson, Casson NCA/CMA, Power Law, IPC Paste, Herschel-Bulkley, and Thix Index
- Data graphing of up to 20 data sets concurrently
- Plot data available: % torque, RPM, viscosity, shear rate, shear stress, temperature, and time
- Export data to spreadsheet format

Capcalc - CAP2000

- Automated data collection eliminates operator error
- Easy-to-read instantaneous viscosity flow curves
- Records up to 1000 data points per test
- Yield stress calculations: Bingham Plastic, Casson, Power Law, and Consistency Index

Powder Flow Pro - PFT

- Flow function, wall friction, time consolidated flow function, and bulk density tests
- Graphically plot normal and shear stress values
- Display up to 8 different flow function curves



Temperature Control

For elevated temperature testing of hot melts, asphalt, wax, and polymers.



Thermosel System

- Provides control of sample temperature for up to +300°C
- Programmable controller offers single set point or up to 10 programmable set points
- Compatible with standard AMETEK Brookfield Viscometers and DV3T Rheometers
- Disposable spindle/chambers option
- Ideal for asphalt or any other difficult-to-clean material

Water Baths

Water baths allow temperature control during viscosity measurements, ensuring accurate test results.



MX Series

- Economical
- Large character display
- Single speed pump
- Maximum temperature up to 135°C



SD Series

- Best value
- Programmable with PC control using RheocalcT
- 2-Speed pump
- Quick scroll to set temperature to standalone mode



AP Series

- Touch screen interface
- Standalone programmable
- Variable speed pump
- PC control using RheocalcT



TC-150

- Compact
- Built-in circulator pump
- Built-in tap water cooling coil
- For use with water-jacketed devices



TC-250

- Configured for measuring multiple samples directly in the bath
- Work area accommodates 600 mL and 1000 mL beakers
- Built-in tap water cooling coil
- Built-in circulator pump



TC-351

- Eliminates tap water requirements on non-refrigerated baths
- Increases lower range of most baths to -20°C



TC-550

- Stand-alone operation
- Easy control of set-point
- Configured to measure viscosity directly in the bath - accommodates 600 mL beaker
- Programmable controller version is designed to automate sample temperature control
- Built-in circulator pumps to external devices

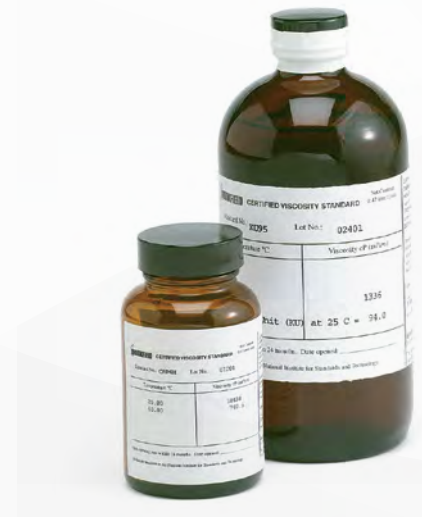


TC-650

- Compact—small footprint on your lab bench at only 8-1/4 inches wide
- For use with water-jacketed devices
- Provides stand-alone operation – no tap water required
- Easy control of set-point
- Programmable controller version is designed to automate sample temperature control

Viscosity Standards

- Accurate to +/- 1%
- NIST traceable
- Selection of 1-2 sufficient to verify calibration
- Hydrocarbon based mineral oil or polybutenes



CAP Oil Fluids

Used for Calibrating CAP Series Viscometers

- Appropriate for use at shear rates greater than 500 sec⁻¹
- Recommended for use with cone/plate viscometers at viscosities above 5,000 cP



High-Temperature Silicone Fluids

Used with the AMETEK Brookfield Thermosel Accessory

- High-temperature silicone fluids are newtonian fluids calibrated at 25°C, 93.3°C, and 149°C
- Excellent temperature stability
- Most economical



Special Order Silicone Fluids

Custom Viscosity or Temperature Ranges of Silicone Fluids

- Excellent temperature stability
- Special viscosity values and temperature calibrations available upon request



General Purpose Oil

Used for Calibrating Cone/Plate Viscometers/Rheometers and Krebs Spindle Geometry Instruments

- Appropriate for use at shear rates greater than 500 sec⁻¹
- Recommended for use with cone/plate viscometers at viscosities above 5,000 cP



Krebs Viscometer Oil Fluids

Used with the AMETEK Brookfield KU Series Viscometers

- Appropriate for use at shear rates greater than 500 sec⁻¹
- Recommended for use with cone/plate viscometers at viscosities above 5,000 cP



VisCal Kit

Used to Calibrate all AMETEK Brookfield Viscometer/Rheometers

- Perfect for first-time viscometer/rheometer buyers
- Everything needed to verify calibration in one conveniently packaged kit



General Purpose Silicone

Used to Verify AMETEK Brookfield Lab Viscometers/Rheometers' Calibration

- Excellent temperature stability
- Most economical



RST Oil Fluids

Used with the RST Series Rheometers

- Appropriate for use at shear rates greater than 500 sec⁻¹
- Recommended for use with cone/plate viscometers at viscosities above 5,000 cP

Calibration, Repair Service and Certification

AMETEK Brookfield recommends that you return your instrument to AMETEK Brookfield or an authorized dealer on an annual basis for Calibration and Certification Service. Please contact us for a Return Authorization Number or register on our website.

Loaner instruments are available should you need a temporary replacement while your instrument is being serviced. Contact AMETEK Brookfield or an authorized dealer for additional information.

24-hour and 48-hour rush service is available. Contact us for details.

Onsite Service Calibration and Certification

- Ideal for multiple instrument users
- Minimal production disruption
- Reduced downtime
- No shipping damage or costs
- Expert onsite advice on preventative maintenance

IQ, OQ, PQ for AMETEK Brookfield Products

We offer industry-specific documentation for installation and validation of your instruments.

Testing and Consulting

TEST AND RECOMMEND: Evaluations designed to choose the appropriate AMETEK Brookfield equipment for your application.

MATERIAL SAMPLE TESTING: Expert analysis testing to determine the material properties of your sample. A detailed report will be provided.

A Detailed Report Will Include:

- Sample preparation method
- Equipment recommendations
- Controlled shear rate and shear stress tests
- Temperature profiling
- Thixotropic testing
- Material structure recovery evaluation
- Data collection and reporting
- QC viscosity control limit values



Education and Training



AMETEK Brookfield University provides material characterization learning opportunities at your convenience and on topics that interest you. Take courses with instructors who are experts and possess combined decades of experience in viscosity, rheology, texture, powder flow, moisture, gas analysis, and more.

The AMETEK Brookfield University training platform offers:

- Online training courses in a number of subject matters
- Live training courses and webinars
- On-demand online training
- Global onsite training at locations near you

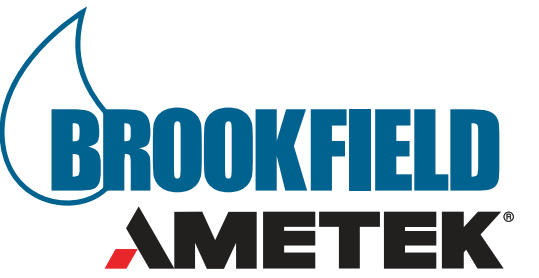


Technical Support

To request Technical Support for your AMETEK Brookfield products, please contact technical support in your region. Please provide your detailed contact information and specify your preferred method of contact (phone or e-mail). Also, provide a description of the issue you are having or questions you may have along with a unit serial number or model type (if applicable).

- Application Notes
- Articles and Technical Papers
- Help Me Choose an Instrument
- FAQ
- Product Change Notices

Contact Us



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