

Temperature Control Baths

For Accurate Viscosity Test Results

All controllers are swivel-mounted so that user can adjust position for optimum viewing angle



A water bath system involves selecting the right controller and bath model to meet specific laboratory needs. Our water baths offer various features tailored to different applications

Bath Controllers - Three Options

AP Series



- Color touch-screen interface
- Standalone programmable or PC control with RheocalcT or DV360 software
- Variable-speed pump
- Multiple languages (English, French, German, Spanish, Chinese available)
- Built-in help menu
- Maximum temperature up to 200°C

SD Series



- Best value
- Programmable with PC control using RheocalcT or DV360 software
- Quick scroll to set temperature in standalone mode
- 2-speed pump
- Maximum temperature up to 170°C

MX Series



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

Benefits of Using Water Baths

A water bath is used to incubate samples in water at a constant temperature over a period of time. It consists of a container filled with heated water and is used to maintain a stable environment for various controlled procedures.

Key benefits include:

Uniform Heating: Ensures that every sample in the bath is subjected to the same temperature conditions, which is crucial for consistency and accuracy.

Temperature Control: Allows precise control of temperature for applications that require specific conditions.

Versatility: Can be used for a wide range of applications, including warming reagents, melting substances, and incubating cell cultures.

Safety: Ensures controlled and consistent heating, reducing the risk of accidents and providing reliable operation for laboratory procedures.

Reduced Evaporation: Minimizes evaporation of samples, which is critical for maintaining the concentration of solutions.

Stability: Maintains a stable temperature environment, essential for applications requiring prolonged exposure to heat.

Bath Models

- All baths can be used with Brookfield water jacketed devices; Wells-Brookfield Cone/Plate Viscometer, RSX-CC and RSX-CPS Rheometers and Small Sample Adapter, Ultra-Low Adapter and DIN Adapter accessories
- PC control capable with RheocalcT or DV360 software with DV2T, DV3T, DVNext
- Select based on temperature range, cooling requirements, reservoir capacity, flow speeds
- Available with MX, SD or AP Controller

Circulating Water Bath Refrigerated

- 7-liter reservoir capacity
- Accommodates one 600mL beaker
- Provides stand-alone operation with no tap water required and easy control of set-point
- Automated sample temperature control available with SD and AP Controllers



TC-550

- Most popular choice with widest temperature control capability
- Configured to measure viscosity directly in the bath or circulate to external water-jacketed devices



TC-650

- Compact- small “footprint” on your lab bench or can be placed underneath lab bench
- Specifically designed for circulating to external water-jacketed devices

Circulating Water Bath Non-Refrigerated

- Built in tap water cooling coil for temperature control at 25°C provided tap water is 15°C or lower
- Built in circulator pump for use with external water-jacketed devices



TC-150

- Compact- smallest “footprint” available
- 6-liter reservoir capacity
- Removable deck lid accommodates one 600mL beaker to measure viscosity directly in the bath



TC-250

- Largest work area available for conditioning multiple samples directly in the bath
- 10-liter reservoir capacity
- Accommodates 600mL and 1000mL beakers (cover is removable for a large sample container requirements)



To provide increased cooling capability

For use in tandem with TC-150 + TC-250



TC-351

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

Temperature Baths Features

Model	Temperature Range Low	Temperature Range High	Controller	Cooling	Temperature Stability‡	Digital Type/Resolution (Set / Read)	Reservoir Capacity	Pump Speed	Maximum Flow Rate	Internal Work Area DxWxH (inches)	Overall Dimensions DxWxH (inches)	Weight (Gross)
TC-650AP	-20°C	+200°C	AP	Refrigerated	0.01°C	0.01 / 0.001	7.0 liters	Variable	16 LPM	6.18 x 5.59 x 5.0	21.3 x 8.7 x 24.3	90 lbs
TC-650SD	-20°C	+170°C	SD	Refrigerated	0.04°C	0.1 / 0.1	7.0 liters	2-speed	11 LPM	6.18 x 5.59 x 5.0	21.3 x 8.7 x 24.3	90 lbs
TC-650MX	-20°C	+135°C	MX	Refrigerated	0.07°C	0.1 / 0.1	7.0 liters	1-speed	12 LPM	6.18 x 5.59 x 5.0	21.3 x 8.7 x 25.4	84 lbs
TC-550AP	-20°C	+200°C	AP	Refrigerated	0.01°C	0.01 / 0.001	7.0 liters	Variable	16 LPM	6.18 x 5.59 x 5.0	23.2 x 16.2 x 16.2	90 lbs
TC-550SD	-20°C	+170°C	SD	Refrigerated	0.04°C	0.1 / 0.1	7.0 liters	2-speed	11 LPM	6.18 x 5.59 x 5.0	23.2 x 16.2 x 16.2	90 lbs
TC-550MX	-20°C	+135°C	MX	Refrigerated	0.07°C	0.1 / 0.1	7.0 liters	1-speed	12 LPM	6.18 x 5.59 x 5.0	23.2 x 16.2 x 17.3	84 lbs
TC-250AP*	ambient +10°C†	+150°C	AP	Tap Water	0.01°C	0.01 / 0.001	10.0 liters	Variable	16 LPM	5.0 x 11.0 x 6.0	13.9 x 13.5 x 14.9	45 lbs
TC-250SD*	ambient +10°C†	+150°C	SD	Tap Water	0.04°C	0.1 / 0.1	10.0 liters	2-speed	11 LPM	5.0 x 11.0 x 6.0	13.9 x 13.5 x 14.9	45 lbs
TC-250MX*	ambient +10°C†	+135°C	MX	Tap Water	0.07°C	0.1 / 0.1	10.0 liters	1-speed	12 LPM	5.0 x 11.0 x 6.0	13.9 x 13.5 x 16.0	39 lbs
TC-150AP*	ambient +10°C†	+150°C	AP	Tap Water	0.01°C	0.01 / 0.001	6.0 liters	Variable	16 LPM	4.5 x 4.0 x 6.0	13.4 x 8.1 x 14.9	26 lbs
TC-150SD*	ambient +10°C†	+150°C	SD	Tap Water	0.04°C	0.1 / 0.1	6.0 liters	2-speed	11 LPM	4.5 x 4.0 x 6.0	13.4 x 8.1 x 14.9	26 lbs
TC-150MX*	ambient +10°C†	+135°C	MX	Tap Water	0.07°C	0.1 / 0.1	6.0 liters	1-speed	12 LPM	4.5 x 4.0 x 6.0	13.4 x 8.1 x 16.0	20 lbs
TC-351	-20°C	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	14.0 x 14.0 x 14.0	72 lbs

* For use at lower temperatures, use the built-in tap water cooling, or use model TC-351 Cooler for control to -20°C

† Low temperature limit 10°C above ambient unless external cooling is used

‡ Temperature stability may vary depending on bath volume, surface area, insulation and type of fluid

N/A - Not Applicable
FOR OPERATING TEMPERATURES HIGHER THAN 80°C,
PLEASE CONTACT SALES

Water Bath Accessories

Algicide 8 oz.

TC-Fluid 1A

Keeps circulator baths clean, odor free and resists black algae

50/50 Premix

Ethylene Glycol 1 gal.

TC-Fluid 2: -20°C to +100°C

Ethylene glycol 1:1 solution, ready to use

Bath Cleaner 8 oz.

TC-Fluid 6A

Removes rust and mineral deposits

Concentrated liquid

High Temperature Fluid 1 gal.

TC-Fluid 3: +50°C to +150°C

TC-Fluid 4: +100°C to +200°C

PVS-152: +25°C to +200°C

These heat transfer fluids provide superior thermal stability

Low Temperature Fluid 1 gal.

TC-Fluid 5: -50°C to +58°C

Excellent low temperature performance

Little or no evaporation

18" Lab Stand Rod

VS-CRA-18S

Designed for increasing viscometer height when measuring in a TC-150, TC-250 or TC-550 Bath

Additional benches for elevating the position of beakers, metal lids for anchoring beakers, hoses, and deck lid covers are available.



LAUDA Loop 100

Peltier Technology Reimagined

The LAUDA LOOP 100 is a thermo-electric circulation thermostat. This innovative product is the culmination of advanced research and development and revolutionizing Peltier technology to deliver precise and reliable temperature control for viscosity measurements. This smart and versatile solution is designed to meet the demands of modern laboratories and industrial environments. With its compact size, lightweight design, and environmentally friendly operation, it offers unparalleled performance and sustainability.

When purchasing, an Accessory Kit is strongly recommended and includes power cords, cables, tubes, clamps, and fluid (water/glycol mixture).

Features :

- **Versatile Application:**
 - Ideal for use across the entire value chain – from goods-inwards inspection and quality assurance to research and sample preparation
- **Safe and Reliable Operation:**
 - Integrated button lock, auto-start feature, and temperature limit warning signal ensure safe usage
- **Quiet and Low-Vibration Performance:**
 - Operates so quietly and with minimal vibration that it is barely noticeable, making it suitable for any environment
- **Flexible use:**
 - Suitable for use on any water jacketed DV instrument : Cone/Plate, Enhanced UL Adapter, Small Sample Adapter, or DIN Adapter

Benefits :

- **Compact and Lightweight:**
 - Space-saving design meets modern demands for flexibility and versatility
 - Portable
 - Dimensions: 175 mm W x 301 mm D x 266 mm H
- **Eco-Friendly:**
 - Refrigerant-free temperature control with advanced Peltier technology
- **Energy Efficiency:**
 - Power-regulated ventilator fan ensures exceptional energy efficiency, especially in partial-load operation
- **User-Friendly Interface:**
 - Simple 3-button controls with an OLED display for easy operation
 - Seamless integration with DV360 software
- **Versatile Functionality:**
 - Heating and cooling capabilities within the same components
 - Operates at a voltage range of 100 – 240 V, 50/60 Hz
 - Equipped with an RS 232-interface as standard
- **Temperature Range and Stability:**
 - Working temperature range from 4°C to 80°C
 - Maintains temperature stability of ± 0.1 C



Technical Attributes

Working temperature min.	4°C
Working temperature max.	80°C
Temperature stability	± 0.1 K
Heater power	0.2 kW
Cooling output at 20°C	0.12 kW
Power consumption	0.24 kW
Pump pressure max.	0.8 bar
Pump flow max. (pressure)	2.6 L/min
Filling volume max.	0.26 L
Dimensions(WxDxH) in mm	175x301x266

