Temperature Control

You need to control sample temperature during viscosity measurements

Temperature control during viscosity measurement helps ensure accurate test results. The addition of a Brookfield circulating water bath is a smart investment. The Brookfield TC Series Circulating Water Baths are uniquely configured for use with your Brookfield Viscometer or Rheometer.

**PROGRAMMABLE CONTROLLERS**

- offer the highest level of performance, flexibility, and control for the most demanding applications.
- Full graphic display with help menus
- Intuitive, one-touch control
- Time and temperature programming with data logging
- RS-232 Interface – Use with Rheocalc™ (p43) or Rheovision™ (p44) Software
- Built-in service reminder
- Five speed pump control

**DIGITAL CONTROLLERS**

- have easy-to-use controls. Just dial in your set-point and push a button, you’re done!
- LED readout displays set point and fluid temperature
- 3 adjustable temperature pre-sets
- Unique rotary control allows rapid set-point adjustments
- Two speed pump

## Temperature Baths

<table>
<thead>
<tr>
<th>Model</th>
<th>Temperature Range (°C)</th>
<th>Temperature Control</th>
<th>Cooling</th>
<th>Temperature Stability</th>
<th>Digital Readout Picture?</th>
<th>Reservoir Capacity (liters)</th>
<th>Internal Working Volume (inches)³</th>
<th>Overall Dimensions (inches)²</th>
<th>Weight (lbs)</th>
</tr>
</thead>
<tbody>
<tr>
<td>TC-602P</td>
<td>-20°C to +200°C</td>
<td>Programmable</td>
<td>Refrigerated</td>
<td>0.01°C</td>
<td>LCD/25</td>
<td>6.0</td>
<td>5 1/4 x 5 1/4 x 5 1/2</td>
<td>13 3/4 x 8 3/4 x 22 1/2</td>
<td>68 lbs</td>
</tr>
<tr>
<td>TC-502P</td>
<td>-10°C to +200°C</td>
<td>Programmable</td>
<td>Refrigerated</td>
<td>0.01°C</td>
<td>LCD/5</td>
<td>6.0</td>
<td>5 1/4 x 5 1/4 x 5 1/2</td>
<td>13 3/4 x 8 3/4 x 22 1/2</td>
<td>64 lbs</td>
</tr>
<tr>
<td>TC-102D*</td>
<td>-20°C to +200°C</td>
<td>Programmable</td>
<td>Tap Water ²</td>
<td>0.01°C</td>
<td>LCD/25</td>
<td>10.0</td>
<td>5 1/4 x 8 1/2 x 7 3/4</td>
<td>15 x 14 1/4 x 13 3/4</td>
<td>37 lbs</td>
</tr>
<tr>
<td>TC-102P*</td>
<td>-20°C to +200°C</td>
<td>Programmable</td>
<td>Tap Water ²</td>
<td>0.01°C</td>
<td>LCD/5</td>
<td>10.0</td>
<td>5 1/4 x 8 1/2 x 7 3/4</td>
<td>15 x 14 1/4 x 13 3/4</td>
<td>37 lbs</td>
</tr>
<tr>
<td>TC-351</td>
<td>-20°C to +200°C</td>
<td>Programmable</td>
<td>Tap Water ²</td>
<td>0.01°C</td>
<td>LCD/5</td>
<td>6.0</td>
<td>5 1/4 x 5 1/4 x 5 1/2</td>
<td>14 1/2 x 7 1/2 x 13 1/4</td>
<td>27 lbs</td>
</tr>
</tbody>
</table>

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

**Note:** 1. Specify voltage and frequency when ordering.

* Tap water connection required.

† Temperature stability may vary depending on bath volume, surface area, insulation and type of fluid.
**TC-502**

Circulating Water Bath

Refrigerated

**Features & Benefits**

- Provides stand-alone operation – No tap water required
- 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 to pump to external devices

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**TC-602**

Circulating Water Bath

Compact — Refrigerated

**Features & Benefits**

- Compact — small “footprint” on your lab bench, only 8 1/4 inches wide
- Specifically designed for use with water-jacketed devices
  - Wells-Brookfield Cone/Plate
  - Small Sample Adapter Accessory
  - Ultra-Low Adapter Accessory
  - R/S-CC Rheometer
  - R/S-CPS Rheometer
- Provides stand-alone operation – no tap water is required
- Easy control of set-point
- Programmable Controller version is designed to automate sample temperature control
**TC-102**
*Circulating Water Bath
Non-Refrigerated*

**Features & Benefits**
- Compact – small “footprint”
- Built-in circulator pump
- Built-in tap water cooling coil
- Perfect choice for use with Brookfield water-jacketed devices
  - Wells-Brookfield Cone/Plate
  - Small Sample Adapter Accessory
  - Ultra-Low Adapter Accessory
  - V/S-CC Rheometer
  - V/S-CPS Rheometer

**Water Bath Accessories**

- **High Temperature Fluid** 1 gal.
  - DC510 50°C to 150°C
  - DC550 100°C to 200°C
  - Heat transfer fluids provide superior thermal stability

- **Low Temperature Fluid** 1 gal.
  - Dynalene -50°C to +58°C
  - Excellent low temperature performance
  - Little or no evaporation
  - For continuous low temperature applications

- **Algaecide** 8 oz.
  - Keeps circulator baths clean, odor free and resists black algae
  - Economical
  - 10-15 drops per gallon

- **Ethylene Glycol** 1 gal.
  - -20°C to +100°C
  - Laboratory grade bath fluid
  - Normally mixed with water at 50:50 ratio

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**TC-202**
*Circulating Water Bath
Non-Refrigerated*

**Features & Benefits**
- Configured for measuring multiple samples directly in the bath
- Work area accommodates 600 mL and 1000 mL beakers (cover is removable for large sample container requirements)
- Built-in tap water cooling coil
- Built-in circulator pump

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**TC-351 Cooler** Not Shown

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