

## **Low-High Temperature Circulating Bath (-20~100°C, 8L)**

**BGD 846-2008**

### **Product Description**

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BGD Series Low-High Temperature Circulating Baths provide a comprehensive solution for both heating and cooling applications. These units offer an economical way to conduct constant temperature testing, widely utilized in material testing, quality control, and analysis.

These circulating baths are available as a vertical (type 845) and horizontal (type 846) model.

Key features:

- Water-proof operation panel with a high-lighted four-digit LED for precise 0.1°C temperature display.
- Stainless steel construction for the entire bath body, featuring insulation cotton for temperature insulation. Water bath and cooling tubes are made of corrosion-resistant SUS 304 stainless steel, ensuring long-term use without verdigris or rust.
- Independent control of heating, cooling, and circulation functions, with the capability to operate them separately or simultaneously.
- Three methods for setting temperature: gradual adjustment, quick adjustment, and direct value change using a cursor.
- High-efficiency compressor with PID control technology for stable temperature control ( $\pm 0.05^\circ\text{C}$ ).
- Single-point calibration function for temperature calibration.
- Immersion pressure and suction pump for multi-purpose applications.



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### **Technical Specification**

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#### External Circulation Functions:

1. Closed External Circulation Function: Equipped with a special pump for closed external circulation, suitable for applications like reaction stills and condenser pipes
2. Open External Circulation Function: Controlled by a liquid level controller, allowing constant temperature circulation in containers with larger openings for testing multiple samples

*\*Note: Standard M16x1 connection nets, adaptable to various joints for different pipe diameters of external containers*

#### Operation Modes:

- Three operation modes in case of accidental power loss: Mode I - Equipment won't work, and the setting value can be changed; Mode II - Equipment works automatically, and the setting values can be changed; Mode III - Equipment runs automatically, and the setting values can't be changed

#### Safety Features:

- Environmentally friendly, natural cooling methods compliant with safety grade III and DIN 12876
- Double safety protection: Liquid level reminder and automatic shutdown in case of low liquid level. Temperature alarms and automatic shutdown if the working temperature exceeds set values (using only non-combustible liquid). Alarming codes are displayed for easy issue identification. The alarm buzzer can be set on or off

#### Convenience and Optional Functions:

- Compact size with handles for easy movement. Suitable for placement on desks, in fume hoods, or directly on the ground
- Optional extended functions, including middle-grade PID control technology, 5 figures LED, 0.1°C display accuracy, high precision control up to  $\pm 0.03^\circ\text{C}$ , RS485 or RS232 interface for data transmission, a 3KW heater for faster temperature rise, control of external temperature with a moveable external temperature sensor PT 100, monitoring software for external temperature / lab temp (data recording and data export and graphics), and four wheels for easy portability

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### **Main Technical Parameters**

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<b>Parameters:</b>	
Model	Horizontal
Temperature Range (°C)	-20~100
Temperature Fluctuation (°C)	±0.05
Temperature Resolution (°C)	0.1
Capacity (L)	8
Open Size LxW (mm)	175x145
Overall Size LxWxD (mm)	415x410x426
Pump Flux (L/min)	12

**Ordering Information:** BGD 846-2008

### **Disclaimer**

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