



**Biuged**

# BGD 801 Series Precise Oven

**MORE ACCURATE, MORE EFFICIENT!**

Working Room Temp. Uniformity  $\leq 2^{\circ}\text{C}$



**BIUGED INSTRUMENTS**

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## Precise Oven

**BGD 801 Series Precise Ovens** are developed and manufactured by our company specifically for laboratories requiring stringent temperature control. Conventional ovens available on the market commonly suffer from a prominent industry issue: concentrated hot spots and hidden cold zones. Temperature differences between varying positions inside the working chamber (such as the top and bottom layers) can exceed 15°C at maximum. This results in inconsistent drying within the same batch of samples, with some areas over-dried and others insufficiently dried, leading to distorted test data and unstable batch quality of finished products.

Ovens of this series adopt high-precision PID temperature controllers to precisely regulate the heating power of electric heating tubes, maintaining an accurate, uniform (temperature variation  $\leq 2^{\circ}\text{C}$ ) and stable high-temperature environment across the entire working chamber. This enables even and rapid moisture evaporation from test specimens to achieve efficient material drying. In addition, featuring outstanding advantages including superior temperature control accuracy, minimal temperature overshoot and slight temperature fluctuation, the equipment is widely applicable to high-precision testing and relevant application scenarios.

### Features:

- ◆ **3D Circulation Air Duct System:** Adopting an innovative diversion-type air duct paired with industrial-grade centrifugal wind wheels to force hot air into three-dimensional circulating airflow, the system eliminates dead air zones at corner areas. Hot air flows evenly across every shelf, guaranteeing a temperature difference of  $\leq 2^{\circ}\text{C}$  between any two measuring points (actual test data at 100°C), which is far superior to the  $\pm 2.5\%$  full-scale temperature tolerance specified in Chinese National Standard GB/T 30435.
- ◆ **Superior thermal insulation technology** with thickened high-quality ceramic fiber insulation featuring ultra-low thermal conductivity, combined with a sealed cabinet design, enables rapid temperature recovery after door opening to secure uninterrupted processing.
- ◆ **4.3-inch Touch Screen:** Real-time display of parameters including temperature and time.
- ◆ **Programmable Function:** Up to 8 programs can be preset, with each program containing a maximum of 8 segments (temperature & time).
- ◆ **Inner chamber made of 304 stainless steel** with mirror polishing finish.
- ◆ **The shelves feature anti-tilt design** to prevent falling off when half pulled out, and their heights are adjustable as required.
- ◆ **A temperature test port** is located on the upper part of the chamber.
- ◆ **Reservation & Timing Function**
- ◆ **Supports temperature unit switching** between  $^{\circ}\text{C}$  and  $^{\circ}\text{F}$
- ◆ **Over-temperature protection:** the power supply to heating tubes is automatically cut off once the internal chamber temperature exceeds the rated maximum limit of the equipment.
- ◆ **Comes with standard USB port;** RS485 interface is available as an option.
- ◆ **An independent over-limit temperature alarm system** is available as an optional accessory, which triggers audible and visual alerts once temperature exceeds the set value.



## Precise Oven



Operation Menu



| Ordering Information →<br>Technical Item ↓ | BGD 801/1                      | BGD 801/2       | BGD 801/3       |
|--------------------------------------------|--------------------------------|-----------------|-----------------|
| Interior Volume                            | 30L                            | 50L             | 90L             |
| Temperature Range                          | Ambient Temperature+10°C~300°C |                 |                 |
| Temperature Resolution                     | 0.1°C                          |                 |                 |
| Temperature Uniformity                     | ≤2.0°C                         |                 |                 |
| Temperature Fluctuation                    | ±0.5°C                         |                 |                 |
| Standard Quantity of Shelves               | 2                              |                 |                 |
| Maximum Number of Shelves                  | 6                              | 9               | 11              |
| Shelf Load Capacity                        | 20kg                           |                 |                 |
| Net Weight                                 | 43kg                           | 51kg            | 75kg            |
| Settable working time                      | (1-5999)mins                   |                 |                 |
| Interior Dimension ( W × H × D,mm )        | 320 × 320 × 290                | 400 × 400 × 360 | 450 × 450 × 440 |
| Overall Dimension ( W × H × D,mm )         | 620 × 560 × 550                | 690 × 640 × 600 | 750 × 700 × 680 |
| Rated Power                                | 900W                           | 1100W           | 1400W           |
| Electrical Supply                          | AC220V,50Hz                    |                 |                 |