dry bath that can reach temperatures of up to 160°C

High-temperature dry bath is widely used in life sciences, molecular biology, clinical laboratory, chemical reaction and other fields of sample heating, thermostatic treatment and temperature sensitive reaction control.

High Temperature Dry Bath

Main Features

1. Dynamic info display: Digital LCD shows real-time temperature and remaining time, letting users monitor operation status easily.
2. Modular design: Quick-change sample modules suit centrifuge tubes, PCR tubes, and more; easy to clean and switch experiments.
3. Intelligent alarm: Self-diagnostics automatically alert for over-temperature, sensor failure, and module errors—protecting experimental safety.
4. Multi-layer safety: Dual temperature control system provides redundant protection against overheating, even if the main controller fails.

5. Temperature calibration: Fine-tune module temperature differences for improved precision and repeatability.

Core Advantages

1. Water-free heating: No cleaning, pollution, or bacteria—environmentally friendly and clean operation.
2. High-temp performance: Continuous operation at 100–120 °C+ for serum coagulation, protein denaturation, and more.
3. Accurate, fast control: PID closed-loop system keeps temperature stable (±0.5 °C), with rapid warming and sensitive response.
4. Easy operation: One-key start for preset temp/time; multiple modules for different scenarios—efficient, repeatable experiments.

Working Principle

High-purity aluminum alloy block conducts heat from resistor wire, transferring evenly to sample containers. PT100 or thermistor sensors monitor temperature for PID microprocessor control, maintaining stability. Metal conduction avoids water bath inertia and vapor contamination. Calibration system allows fine adjustments, and over-temp protection shuts off heating in case of anomalies.

Application Areas

1. Nucleic acid research: PCR prep, DNA denaturation, reverse transcription—high-temp reaction stages.
2. Serology/clinical testing: Serum coagulation, antibody heat treatment, sample activation—precise high-temp medical tests.
3. Protein/enzyme reactions: Enzyme assays, heat-sensitive protein denaturation, sample incubation needing constant high temperature.
4. Environmental/food testing: Food sample prep, fatty acid extraction, pollutant detection—reliable high-temp sample treatment.

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Model	**DB20-1**	**DB20-2**	**DB20-3**
Temperature range	ambient+5°C to 160°C		ambient+5°C to 130°C
Temperature resolution	0.1°C		
Temperature accuracy	≤0.5°C, at 40°C		
Temperature uniformity	≤0.5°C, at 40°C		

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Model	**DB20-1**	**DB20-2**	**DB20-3**
Temperature rise time	≤15 minutes, 25°C to 160°C		≤20 minutes, 25°C to 130°C
Timer	1 minute to 99 hours 59 minutes or continuous		
Power supply	230Vac, 50/60Hz		
Power	300W	500W	600W
External dimensions	260x220x100mm		360x220x100mm
Weight	5.0kg	5.5kg	8kg

Optional accessories

Order code	**Hole diameter**	**Number of holes**	**Descriptions**
mk01	6mm	48	hole depth 47mm
mk02	7mm	48	hole depth 47mm

Optional accessories

Order code	Hole diameter	Number of holes	Descriptions
mk03	10mm	24	hole depth 47mm
mk04	12mm	24	hole depth 47mm
mk05	13mm	24	hole depth 47mm
mk06	15mm	16	hole depth 47mm
mk07	16mm	16	hole depth 47mm
mk08	19mm	12	hole depth 47mm
mk09	20mm	12	hole depth 47mm
mk10	26mm	8	hole depth 47mm
mk11	28mm	4	hole depth 47mm
mk12	40mm	3	hole depth 47mm
mk13	0.2ml centrifuge tube	48	standard centrifuge tubes

Optional accessories

Order code	Hole diameter	Number of holes	Descriptions
mk14	0.5ml centrifuge tube	48	standard centrifuge tubes
mk15	1.5ml centrifuge tube	24	standard centrifuge tubes
mk16	2.0ml centrifuge tube	24	standard centrifuge tubes
mk17	0.2ml PCR tube	96	Cannot be used for DB20-1 model
mk18	0.2ml zymography plate	96	Cannot be used for DB20-1 model
Note	modules mk17 and mk18 are twice as large as other standard modules		