

## Digester Microwave Digester



### Introduction:

BIOBASE microwave digestion system provides a fast, safe and automatic solution for samples, accelerates the speed of sample digestion reaction under high pressure conditions.

It is widely used in food, textile, plastic, geological, metallurgical, coal, biological medicine, petroleum chemical industry, environmental monitoring, sewage treatment, battery manufacturing, cosmetics, etc.

### Features:

- \* Microwave non-pulse continuous automatic frequency conversion control, 0 ~ 100% automatic output.
- \* Vertical bidirectional waveguide design, 3D output technology, and matching harmonic power frequency achieve a high degree of field uniformity.
- \* SUS316 stainless steel chamber.
- \* Self-locking buffer explosion-proof furnace door, when the reaction is abnormal, buffer structure to ensure the operator's personal safety and integrity of the door structure.
- \* 8"TFT-LED touch screen display the temperature and pressure curve in real time.
- \* 360° continuous rotation in the same direction, microwave uniformity, to ensure that the microwave environment of each sample is the same, improve the consistency of experimental results.
- \* Non-contact infrared temperature control system and non-contact pressure control system.
- \* Exhaust and cooling system: acid-resistant centrifugal fan, exhaust air volume is not less than 5m<sup>3</sup>/min; With air cooling function, continuous cooling for the reaction vessel, temperature and pressure real-time display.
- \* With fault self-test system, when the temperature or pressure control system fails, the instrument will automatically cut off the microwave emission, and alarm.
- \* The material is TFM for the inner vessel and PEEK aerospace composite material for the vessel explosion-proof outer casing.

### Technical Parameters:

Model	BMD-10H	BMD-12H	BMD-Z40
Chamber	52L, SS316	58L, SS316	72L, SS316
Microwave Source	Professional microwave source, industrial microwave power supply		
Microwave Frequency	2450 MHz		
Microwave Output Power	0~2000W	1400~2800W	
Display	8"TFT-LED touch screen		
Design Temp.	300°C		
Temp. Accuracy	±0.5°C		
Max. Pressure	10MPa	15MPa	
Pressure Accuracy	±0.01Mpa		
Temperature Sensor	Non-contact infrared temperature sensor		
Vessel Quantity Capacity	10 Vessels	12 Vessels	40 Vessels
Vessel Volume	70ml(Standard), 100ml(Optional)		
Vessel Material	Vessel made of TFM, explosion-proof outer vessel made of PEEK aerospace composite material		
Cooling Method	Forced air cooling		
Standard	Turntable bracket, PEEK explosion-proof outer*10, TFM inner vessel*10, infrared temperature sensor, graphite acid evaporator	Turntable bracket, PEEK explosion-proof outer*12, TFM inner vessel*12, infrared temperature sensor, graphite acid evaporator	Turntable bracket, PEEK explosion-proof outer*40, TFM inner vessel*40, infrared temperature sensor*2, graphite acid evaporator*2, transfer inner vessel bracket*2, spanner
Consumption	2600W		2800W
Power Supply	AC220±10%, 50/60Hz (Standard); AC110V,60Hz (Optional)		
External Size (W*D*H)	590*620*830mm		720*720*800mm
Package Size (W*D*H)	Main Body: 590*620*830mm Accessory: 820*300*130mm		Main Body: 800*800*950mm Accessory: 200*250*250mm; 200*250*250mm
Gross Weight	Main Body: 75kg Accessory: 25kg	Main Body: 75kg Accessory: 27kg	Main Body: 100kg Accessory: 20kg; 20kg

Note: Max recommended temperature for routine tests: 240 °C