



# Microwave Digestion Systems

**B-SERIES**



# Microwave Digestion Systems

Microwave Digestion Systems are self-vent and reseal structured units with multi safety protection functions. The continuous rotating reduces impact on rotary motor which greatly extends the service life of rotor motor. TFM material for inner vessel and PEEK glass material for outer vessel prevents corrosion. Contact free temperature and pressure measurement avoids cross contamination.

## Features

- Reseals instantly when a sudden over pressurization occurs
- Adopts multi-fiber to monitor pressure in a contactless way
- All temperature and pressure data are displayed real time during the microwave run
- Large storage capacity- can edit and store 255 programs
- Uniform heat distribution by diffuser for sample digestion
- Alarm sensor for detection of abnormal pressure and temperature
- Real time pressure and temperature curve
- Automatic calibration and troubleshooting
- Vertical pressure release for safe operation
- High strength double security door
- Instrument fault monitoring alert
- Instrument abnormal sound monitoring
- Multiple safety protection functions including temperature and pressure control, explosion-proof security doors, lid-locking and real-time temperature

## Applications

Used to dissolve compounds such as heavy metals, inorganic compounds, filters and sediments in food, textile, plastic, geology, metallurgy, coal, bio-pharmaceutical, petrochemical, environmental monitoring, wastewater treatment, battery manufacturing, cosmetics and other fields.

## Specifications

Model No.	LMWD – B10	LMWD – B11
Sample Quantity	6 per batch	10 per batch
Chamber volume	60 mL	60 mL
Rotation mode	360° continuous rotation	720° continuous rotation
Microwave power	1000 W	2000 W
Microwave frequency	2450 MHz	2450 MHz
Working Temperature	250 °C	250 °C
Temperature limit	300 °C	300 °C
Pressure control range	0 ~ 5 MPa	0 ~ 6 MPa
Pressure control accuracy	0.1 MPa	± 0.01 MPa
Microwave leakage	< 5 mW / cm <sup>2</sup>	< 5 mW / cm <sup>2</sup>
Heating method	Closed vessel microwave digestion	Closed vessel microwave digestion
Display	7 inch touch screen	8 inch touch screen
Inner vessel material	TFM	TFM
Outer vessel material	PEEK + glass fiber	PEEK + glass fiber
Explosion proof frame	Polypropylene Glass Fiber	Polypropylene Glass Fiber
Temperature control	Full scanning	Full scanning
Temperature testing	Non-contact	IR
Pressure control	Full scanning	Full scanning
Pressure testing	Non-contact	Touch free
Power	AC 220 V / 60 Hz	AC 220 V / 60 Hz
Dimension	520 x 400 x 460 mm	640 x 630 x 890 mm
Weight	30 kg	80 kg

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Model No	LMWD-B12	LMWD-B13	LMWD-B14	LMWD-B15
Sample quantity	12 per batch	18 per batch	40 per batch	50 per batch
Chamber volume	100 ml	100 ml	50 ml	50 ml
Rotation mode	360° continuous rotation	360° continuous rotation	360° continuous rotation	360° continuous rotation
Microwave power	0 to 2000 W adjustable	0 to 3000 W adjustable	0 to 3000 W adjustable	0 to 3000 W adjustable
Microwave frequency	2450 MHz	2450 MHz	2450 MHz	2450 MHz
Pressure and control range	0 to 10 MPa	0 to 10 MPa	0 to 10 MPa	0 to 10 MPa
Maximum working pressure	6 MPa	6 MPa	6 MPa	6 MPa
Pressure control accuracy	0.01 MPa	0.01 MPa	0.01 MPa	0.01 MPa
Outer vessel pressure limit	20 MPa	20 MPa	20 MPa	20 MPa
Temperature control range	50 to 400 °C	50 to 400 °C	50 to 400 °C	50 to 400 °C
Maximum working temperature	250 °C	250 °C	250 °C	250 °C
Temperature control accuracy	± 0.3 °C	± 0.3 °C	± 0.3 °C	± 0.3 °C
Inner vessel temperature limit	300 °C	300 °C	300 °C	300 °C
Pressure testing	Contactless	Contactless	Contactless	Contactless

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Temperature testing	Contactless	Contactless	Contactless	Contactless
Microwave leak	< 5 mw/ cm <sup>2</sup>	< 5 mw/ cm <sup>2</sup>	< 5 mw/ cm <sup>2</sup>	< 5 mw/ cm <sup>2</sup>
Power	AC 220 V 16A , 50 Hz / 60 Hz	AC 220 V 16A , 50 Hz / 60 Hz	AC 220 V 16A , 50 Hz / 60 Hz	AC 220 V 16A , 50 Hz / 60 Hz
Dimension	640 x 630 x 590 mm	640 x 630 x 590 mm	640 x 630 x 590 mm	640 x 630 x 590 mm
Weight	70 kgs	75 kgs	78 kgs	88 kgs