

MICROWAVE DIGESTION SYSTEMS



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The Microwave digestion is a method that is used to heat reagents and samples in a closed vessel by utilizing the penetrating and reaction ability of microwaves, which elevates the reaction temperature and pressure leading to fastening the reaction rate and shortening the time of sample preparation. It detects and analyzes the volatilized elements along with maintaining the integrity of the sample. It is widely used in various analytical procedures such as atomic absorption spectroscopy, atomic fluorescence spectroscopy, atomic emission spectroscopy, and plasma mass spectrometry, etc.

LTMDG8-1 MICROWAVE DIGESTION SYSTEM

Compatible with 6 position rotor which meets different digestion demands.

Equip with 316L stainless explosion-proof cavity, coated with multilayer anticorrosive and heat resisting coatings, which greatly prolongs its service life and ensure the safety of operation.



SPECIFICATIONS

| | |
|-------------------------------|---|
| Model | LTMDG8-1 |
| Vessel Quantity | 6 |
| Temperature Monitoring System | Contactless IR sensor All vessels scanning monitoring |
| Pressure Monitoring System | Contactless pressure sensors. All vessels scanning monitoring |
| Working Pressure Range | 0-6MPa |
| Working Temperature Range | 50-400 °C Accuracy: ±0.1 °C |
| Vessel Volume | 100mL |
| Display | Smart 7 inch color touch screen |
| Rotation | 360° continuous rotation |
| Microwave Power | 0 ? 1000 W (Adjustable) |
| Microwave Frequency | 2450MHz |
| Cavity Volume | 35L |
| Microwave Leakage | <5mw/cm2 |
| Power | AC 220V ± 10%,10A, 50/60Hz |
| Dimension (LxWxH) | 490x560x533 mm |
| Weight | 40 kg |

OPTIONAL ACCESSORIES

| Accessory Code | Name | Sample quantity | Aperture and Hole depth | Temperature Control Range |
|----------------|----------------|-----------------|-------------------------|---------------------------|
| 7800808008 | Heating Blocks | 12 | Φ 39x65mm | Room Temperature - 250°C |

LTMDG8-2 MICROWAVE DIGESTION SYSTEM

Compatible with 8 position rotor which meets different digestion demands.

Equip with 316L stainless explosion-proof cavity, coated with multilayer anticorrosive and heat resisting coatings, which greatly prolongs its service life and ensure the safety of operation.



SPECIFICATIONS

| | |
|----------------------------|---|
| Model | LTMDG8-2 |
| Vessel Quantity | 8 |
| Pressure Monitoring System | Contactless pressure sensors. All vessels scanning monitoring |
| Working Pressure Range | 0-6MPa |
| Working Temperature Range | 50-400 °C Accuracy: ±0.1°C |
| Vessel Volume | 100mL |
| Display | Smart 7 inch color touch screen |
| Rotation | 360° continuous rotation |
| Microwave Power | 0 ? 1000 W (Adjustable) |
| Microwave Frequency | 2450MHz |
| Cavity Volume | 35L |
| Microwave Leakage | <5mw/cm2 |
| Power | AC 220V ± 10%,10A, 50/60Hz |
| Dimension (LxWxH) | 490x560x533 mm |
| Weight | 40 kg |

OPTIONAL ACCESSORIES

| Accessory Code | Name | Sample quantity | Aperture and Hole depth | Temperature Control Range |
|----------------|----------------|-----------------|-------------------------|---------------------------|
| 7800809008 | Heating Blocks | 12 | Φ 39x65mm | Room Temperature - 250°C |

LTMDG8-3 MICROWAVE DIGESTION SYSTEM

Compatible with 10 position rotor which meets different digestion demands.

Equip with 316L stainless explosion-proof cavity, coated with multilayer anticorrosive and heat resisting coatings, which greatly prolongs its service life and ensure the safety of operation.



SPECIFICATIONS

| | |
|----------------------------|---|
| Model | LTMDG8-3 |
| Vessel Quantity | 10 |
| Pressure Monitoring System | Contactless pressure sensors. All vessels scanning monitoring |
| Working Pressure Range | 0-6MPa |
| Working Temperature Range | 50-400 °C Accuracy: ±0.1 °C |
| Vessel Volume | 100mL |
| Display | Smart 7 inch color touch screen |
| Rotation | 360° continuous rotation |
| Microwave Power | 0 ? 1000 W (Adjustable) |
| Microwave Frequency | 2450MHz |
| Cavity Volume | 35L |
| Microwave Leakage | <5mw/cm2 |
| Power | AC 220V ± 10%,10A, 50/60Hz |
| Dimension (LxWxH) | 490x560x533 mm |
| Weight | 40 kg |

OPTIONAL ACCESSORIES

| Accessory Code | Name | Sample quantity | Aperture and Hole depth | Temperature Control Range |
|----------------|----------------|-----------------|-------------------------|---------------------------|
| 7800810008 | Heating Blocks | 12 | Φ 39x65mm | Room Temperature - 250°C |

LTMDG8-4 MICROWAVE DIGESTION SYSTEM

Vessel quantity of 6.

Vertical design for even distribution of microwave.

316L industrial stainless steel cavity with multilayer teflon coating avoids acid corrosion, also improves cooling efficiency.

Pre-installed general standard methods, users can also create, save, modify and delete the method.



SPECIFICATIONS

| | |
|-------------------------------|---|
| Model | LTMDG8-4 |
| Vessel Quantity | 6 |
| Temperature Monitoring System | Temperature Monitoring: Contactless IR Sensor Scan monitoring for each vessel Temperature Controlling Range: 50-400 °C Temperature Accuracy: ±0.1 °C Display Accuracy: ±0.1 °C |
| Pressure Monitoring System | Pressure monitoring: Contactless Sensor Scan monitoring for each vessel Pressure Controlling Range: 0-15MPa Pressure Accuracy: ±0.01MPa Display Accuracy: ±0.01Mpa |
| Vessel Volume | 100mL |
| Sample Vessel Material | Imported TFM |
| Protection Vessel Material | Peek+Glass Fiber |
| Display | 7 inch color touch screen |
| Rotation | 360° continuous rotation |
| Microwave Power | 0 ? 1000 W (Adjustable) |
| Microwave Tank | 316L Stainless Steel tank With Corrosion Proof Coating |
| Microwave Leakage | <5mw/cm2 |
| Air Exhaust | High Power Corrosion-Proof Air Blower |
| Power | AC 220V ± 10%, 10A, 50/60Hz |
| Dimension (LxWxH) | 490x560x630 mm |
| Weight | 47 kg |

OPTIONAL ACCESSORIES

| Accessory Code | Name | Sample quantity | Aperture and Hole depth | Temperature Control Range |
|----------------|----------------|-----------------|-------------------------|---------------------------|
| 7800811008 | Heating Blocks | 12 | Φ 39x65mm | Room Temperature -250°C |

LTMDG8-5 MICROWAVE DIGESTION SYSTEM

Vessel quantity of 8.

Vertical design for even distribution of microwave.

316L industrial stainless steel cavity with multilayer teflon coating avoids acid corrosion, also improves cooling efficiency.

Pre-installed general standard methods, users can also create, save, modify and delete the method.



SPECIFICATIONS

| | |
|-------------------------------|---|
| Model | LTMDG8-5 |
| Vessel Quantity | 8 |
| Temperature Monitoring System | Temperature Monitoring: Contactless IR Sensor Scan monitoring for each vessel Temperature Controlling Range: 50-400 °C Temperature Accuracy: ±0.1 °C Display Accuracy: ±0.1 °C |
| Pressure Monitoring System | Pressure monitoring: Contactless Sensor Scan monitoring for each vessel Pressure Controlling Range: 0-15MPa Pressure Accuracy: ±0.01MPa Display Accuracy: ±0.01Mpa |
| Vessel Volume | 100mL |
| Sample Vessel Material | Imported TFM |
| Protection Vessel Material | Peek+Glass Fiber |
| Display | 7 inch color touch screen |
| Rotation | 360° continuous rotation |
| Microwave Power | 0 ? 1000 W (Adjustable) |
| Microwave Tank | 316L Stainless Steel tank With Corrosion Proof Coating |
| Microwave Leakage | <5mw/cm2 |
| Air Exhaust | High Power Corrosion-Proof Air Blower |
| Power | AC 220V ± 10%, 10A, 50/60Hz |
| Dimension (LxWxH) | 490x560x630 mm |
| Weight | 47 kg |

OPTIONAL ACCESSORIES

| Accessory Code | Name | Sample quantity | Aperture and Hole depth | Temperature Control Range |
|----------------|----------------|-----------------|-------------------------|---------------------------|
| 7800812008 | Heating Blocks | 12 | Φ 39x65mm | Room Temperature -250°C |

LTMDG8-6 MICROWAVE DIGESTION SYSTEM

Vessel quantity of 10.

Vertical design for even distribution of microwave.

316L industrial stainless steel cavity with multilayer teflon coating avoids acid corrosion, also improves cooling efficiency.

Pre-installed general standard methods, users can also create, save, modify and delete the method.



SPECIFICATIONS

| | |
|-------------------------------|---|
| Model | LTMDG8-6 |
| Vessel Quantity | 10 |
| Temperature Monitoring System | Temperature Monitoring: Contactless IR Sensor Scan monitoring for each vessel Temperature Controlling Range: 50-400 °C Temperature Accuracy: ±0.1 °C Display Accuracy: ±0.1 °C |
| Pressure Monitoring System | Pressure monitoring: Contactless Sensor Scan monitoring for each vessel Pressure Controlling Range: 0-15MPa Pressure Accuracy: ±0.01MPa Display Accuracy: ±0.01Mpa |
| Vessel Volume | 100mL |
| Sample Vessel Material | Imported TFM |
| Protection Vessel Material | Peek+Glass Fiber |
| Display | 7 inch color touch screen |
| Rotation | 360° continuous rotation |
| Microwave Power | 0 ? 1000 W (Adjustable) |
| Microwave Tank | 316L Stainless Steel tank With Corrosion Proof Coating |
| Microwave Leakage | <5mw/cm2 |
| Air Exhaust | High Power Corrosion-Proof Air Blower |
| Power | AC 220V ± 10%, 10A, 50/60Hz |
| Dimension (LxWxH) | 490x560x630 mm |
| Weight | 47 kg |

OPTIONAL ACCESSORIES

| Accessory Code | Name | Sample quantity | Aperture and Hole depth | Temperature Control Range |
|----------------|----------------|-----------------|-------------------------|---------------------------|
| 7800813008 | Heating Blocks | 12 | Φ 39x65mm | Room Temperature -250°C |

LTMDG8 MICROWAVE DIGESTION SYSTEM

Vessel quantity of 12.

Vertical design for even distribution of microwave.

316L industrial stainless steel cavity with multilayer teflon coating avoids acid corrosion, also improves cooling efficiency.

Pre-installed general standard methods, users can also create, save, modify and delete the method.



SPECIFICATIONS

| Model | LTMDG8-7 | LTMDG8-8 |
|--------------------------------|--|---|
| Vessel Quantity | 12 | |
| Temperature Monitoring System | Temperature Monitoring: Contactless IR Sensor Scan monitoring for each vessel Temperature Controlling Range: 50-400 °C Temperature Accuracy: ±0.1 °C Display Accuracy: ±0.1 °C | Contactless IR sensor |
| Pressure Monitoring System | Pressure monitoring: Contactless Sensor Scan monitoring for each vessel Pressure Controlling Range: 0-15MPa Pressure Accuracy:±0.01MPa Display Accuracy: ±0.01Mpa | - |
| Vessel Volume | 100mL | |
| Sample Vessel Material | Imported TFM | - |
| Protection Vessel Material | Peek+Glass Fiber | - |
| Display | 7 inch color touch screen | - |
| Rotation | 360° continuous rotation | - |
| Microwave Power | 0 ? 1000 W (Adjustable) | 0-2000W Adjustable/ 0-3000W Adjustable |
| Microwave Tank | 316L Stainless Steel tank With Corrosion Proof Coating | - |
| Microwave Leakage | <5mw/cm2 | - |
| Air Exhaust | High Power Corrosion-Proof Air Blower | - |
| Power | AC 220V ± 10%,10A, 50/60Hz | - |
| Dimension (LxWxH) | 490x560x630 mm | - |
| Weight | 47 kg | - |
| Vessel material | - | Inner.Imported TFM Outer.Imported PEEK+Glass Fiber |
| Temperature Control | - | Scanning control of each vessel |
| Temperature Control Range | - | 50-400 °C |
| Maximum Working Temperature | - | 250 °C |
| Temperature Control Accuracy | - | ±0.3 °C |
| Inner Vessel Temperature Limit | - | 300 °C |
| Pressure Testing | - | Contactless pressure sensor |
| Pressure Control range | - | 0-10MPa |
| Pressure Control Accuracy | - | 0.01MPa |
| Maximum Working Pressure | - | 6 MPa |

| | | |
|---------------------|---|--------------------------|
| Microwave Frequency | - | 2450Hz |
| Rotation Mode | - | 360° Continuous Rotation |
| Microwave Leak | - | <5mw/cm2 |

OPTIONAL ACCESSORIES

| Accessory Code | Name | Sample quantity | Aperture and Hole depth | Temperature Control Range | For Models |
|----------------|----------------|-----------------|-------------------------|---------------------------|------------|
| 7800814008 | Heating Blocks | 12 | Φ 39x65mm | Room Temperature -250°C | LTMDG8-7 |
| 7800815008 | Heating Blocks | 20 | Φ 41x150mm | Room Temperature -250°C | LTMDG8-8 |



LTMDG8-7



LTMDG8-8

LTMDG8-9 MICROWAVE DIGESTION SYSTEM

Automatic vent and self-resealing structure release pressure and instantly reseal when a sudden over-pressure situation occurs.

Contact-less Temperature and Pressure Monitoring System.

With Vessel Quantity of 18, it can edit and store 255 types of programs according to user's requirements.



SPECIFICATIONS

| Model | LTMDG8-9 |
|--------------------------------|--|
| Vessel Quantity | 18 |
| Vessel Volume | 100mL |
| Vessel material | Inner.Imported TFM Outer.Imported PEEK+Glass Fiber |
| Temperature Monitoring System | Contactless IR sensor |
| Temperature Control | Scanning control of each vessel |
| Temperature Control Range | 50-400 °C |
| Maximum Working Temperature | 250 °C |
| Temperature Control Accuracy | ±0.3 °C |
| Inner Vessel Temperature Limit | 300 °C |
| Pressure Testing | Contactless pressure sensor |
| Pressure Control range | 0-10MPa |
| Pressure Control Accuracy | 0.01MPa |

| | |
|--------------------------|--|
| Maximum Working Pressure | 6 MPa |
| Microwave Frequency | 2450Hz |
| Rotation Mode | 360° Continuous Rotation |
| Microwave Leak | <5mw/cm2 |
| Microwave Power | 0-2000W Adjustable/ 0-3000W Adjustable |

OPTIONAL ACCESSORIES

| Accessory Code | Name | Sample quantity | Aperture and Hole depth | Temperature Control Range |
|----------------|----------------|-----------------|-------------------------|---------------------------|
| 7800816008 | Heating Blocks | 20 | Φ 41x150mm | Room Temperature -250°C |

LTMDG8-10 MICROWAVE DIGESTION SYSTEM

Special Designed Sample Digestion Vessel.

Contact-less Temperature and Pressure Monitoring System.

With vessel quantity of 40, It can edit and store 255 types of programs according to user' s requirements.



SPECIFICATIONS

| | |
|--------------------------------|--|
| Model | LTMDG8-10 |
| Vessel Quantity | 40 |
| Vessel Volume | 50mL |
| Vessel material | Inner.Imported TFM Outer.Imported PEEK Glass Fiber |
| Temperature Monitoring System | Contactless IR sensor |
| Temperature Control | Scanning control of each vessel |
| Temperature Control Range | 50-400 °C |
| Maximum Working Temperature | 250 °C |
| Temperature Control Accuracy | ±0.3 °C |
| Inner Vessel Temperature Limit | 300 °C |
| Pressure Testing | Contactless pressure sensor |
| Pressure Control range | 0-10MPa |
| Pressure Control Accuracy | 0.01MPa |
| Maximum Working Pressure | 6 MPa |
| Microwave Frequency | 2450Hz |
| Rotation Mode | 360° Continuous Rotation |
| Microwave Leak | <5mw/cm2 |
| Microwave Power | 0-3000W Adjustable |

OPTIONAL ACCESSORIES

| Accessory Code | Name | Sample quantity | Aperture and Hole depth | Temperature Control Range |
|----------------|----------------|-----------------|-------------------------|---------------------------|
| 7800817008 | Heating Blocks | 20 | Φ 32x118mm | Room Temperature -250°C |

LTMDG8-11 MICROWAVE DIGESTION SYSTEM

Video monitoring function.

More than ten safety protection measures to ensure experiment safety, including temperature control system, pressure control system, explosion-proof security doors, thicken cavity with multi-layer TEFLON coating.

High-power exhaust system, program with suspend or start at any time.



SPECIFICATIONS

| | |
|------------------------------|--|
| Model | LTMDG8-11 |
| Vessel Quantity | 12 |
| Vessel Volume | 100mL |
| Vessel Pressure Capacity | 80Mpa |
| Cavity | 48L Resonant Cavity |
| Microwave Cavity Material | SS316 with 10 layers Teflon |
| Teflon Coating | 10 layers |
| Digestion Method | 50 preinstalled methods, programmable 100 methods. |
| Maximum Working Temperature | 305 °C |
| Temperature Control Accuracy | ±0.1 °C |
| Pressure Accuracy | ±0.01MPa |
| Temperature Sensor | Optical Fiber Sensor |
| Cooling Method | Forced air cooling |
| Interface | USB,RS232 |
| Maximum Output Power | 1600W |
| Power Supply | AC220V ± 10%, 50Hz |
| External Size(WxDxH) | 600x685x660 mm |
| Weight | 105 kg |
| Accessory | 2.5 kg (820x300x130 mm) ; 5.5 kg (540x480x170 mm) ; 12.5 kg; 2.5 kg (480x550x300 mm) |

LTMDG8-12 MICROWAVE DIGESTION SYSTEM

More than ten safety protection measures to ensure experiment safety, including temperature control system, pressure control system, explosion-proof security doors, thicken cavity with multi-layer TEFLON coating.

High-power exhaust system, program with suspend or start at any time.



SPECIFICATIONS

| | |
|------------------------------|---|
| Model | LTMDG8-12 |
| Vessel Quantity | 12 |
| Vessel Volume | 100mL |
| Vessel Pressure Capacity | 75Mpa |
| Cavity | 48L Resonant Cavity |
| Microwave Cavity Material | SS316 with 8 layers Teflon |
| Teflon Coating | 8 layers |
| Digestion Method | 20 preinstalled methods, programmable 50 methods. |
| Maximum Working Temperature | 305 °C |
| Temperature Control Accuracy | ±0.1 °C |
| Pressure Accuracy | ±0.01MPa |
| Temperature Sensor | Optical Fiber Sensor |
| Cooling Method | Forced air cooling |
| Maximum Output Power | 1600W |
| Power Supply | AC220V ± 10%, 50Hz |
| External Size(WxDxH) | 600x685x660 mm |
| Weight | 105 kg |

LTMDG8-13 MICROWAVE DIGESTION SYSTEM

All-steel industrial grade chamber, anti-corrosion and durable use.

Aerospace composite fiber outer vessel , anti-explosion and anti-corrosion.

Multi-functional safety bolt design, instead of safety membrane and other consumables.

Precise pressure controlled by piezoelectric crystal without cross-contamination problem.



SPECIFICATIONS

| | |
|------------------------------|--|
| Model | LTMDG8-13 |
| Vessel Quantity | 6 |
| Vessel Volume | 100mL |
| Vessel material | Aerospace composite fiber for outer Vessel, Modified TFM material for inner Vessel |
| Temperature Range | 0-300 °C |
| Temperature Control Accuracy | ±1 °C |
| Temperature Sensor | High-precision platinum resistor temperature sensor |
| Pressure Control range | 0-10MPa |
| Pressure Control Accuracy | ±0.01MPa |
| Pressure Sensor | Piezoelectric crystal pressure sensor |
| Chamber Exhaust System | High-power anti-corrosion axial fan, exhaust speed: 3.1m3/min |
| Digestion Method | Internal software, up to 20 methods can be stored |
| Display | LCD display |
| Maximum Output Power | 1000W |
| Power Supply | AC220V ± 10%, 50Hz |
| External Size(WxDxH) | 450x515x510 mm |
| Package Size(WxDxH) | Main Body:710x670x700 mm, Accessory: 490x420x310 mm |
| Gross Weight | Main Body: 63.5kg, Accessory: 9kg |

LTMDG8-14 MICROWAVE DIGESTION SYSTEM

Anti-corrosion design: TEFLON coating on the surface, acid/alkali proof.

Heating uniform and fast: Adopt graphite block (antioxidant), heating faster and energy transfer faster, temperature between holes more uniform.

Safety protection: adopt unique air duct insulation tech, keep the temperature ultralow, protect operator



SPECIFICATIONS

| | |
|---------------------------|--|
| Model | LTMDG8-14 |
| Temperature Range | RT +5 ± 450 °C |
| Temperature Accuracy | ±1 °C (450 °C) |
| Heating Method | Infrared heating and high-purity graphite conduction |
| Heating Insulation Method | Unique air duct insulation technology |
| Digestion Tube Capacity | 300ml |
| Max.Capacity | 20pcs/batch |
| Power Supply | AC220V±10%,50Hz |
| Power Consumption | 3600W |
| External Size(WxDxH) | 515x458x730 mm |

| | |
|---------------------|----------------|
| Package Size(WxDxH) | 890x600x630 mm |
| Gross Weight | 57kg |

LTMDG8-15 MICROWAVE DIGESTION SYSTEM

The temperature in the furnace is continuously adjustable, the temperature is constant, and the instrument is easy to operate.

The surface of the whole machine is sprayed with Teflon, which is resistant to strong acid and alkali corrosion, and protects the safety of experimenters and equipment.

Heating element detection technology, automatic alarm prompt for abnormal situation.

The whole machine has multiple protections such as overvoltage, overcurrent and overheating.

The heat conduction efficiency is high and all parts of the sample are heated evenly, which prevents the loss of heat to the greatest extent.



SPECIFICATIONS

| | |
|-----------------------------|---|
| Model | LTMDG8-15 |
| Vessel Quantity | 12pcs |
| Accuracy | ±1 °C |
| Maximum Working Temperature | 240 °C |
| Hole Diameter | 39.5 mm |
| Hole Depth | 107 mm |
| Power | 1500W |
| Power Supply | Standard: 220V 50Hz, optional: 110V 60Hz (external transformer) |
| Packing Size | 535x420x345 mm |
| Gross Weight | 26.2kg |

LTMDG8-16 MICROWAVE DIGESTION SYSTEM

Comprehensive safety guarantee, combined with anti-corrosion capability

Dual magnetron inverter control system ensures consistent sample digestion

Two LCD screen, displaying real-time operation and experiment status

Full-vessel precise temperature control and monitoring, ensuring safety and digestion performance.

Smart software operation



SPECIFICATIONS

| | |
|------------------------------|---|
| Model | LTMDG8-16 |
| Vessel Quantity | 40pcs |
| Vessel Volume | 55mL |
| Vessel material | TFM |
| Temperature Range | 0-300 °C |
| Temperature Control Accuracy | ±1 °C |
| Pressure Control range | 0-15MPa |
| Pressure Control Accuracy | ±0.01MPa |
| Display | LCD |
| Working Conditions | 0-40 °C, 15-80% RH |
| Microwave Cavity | Grade 316L stainless steel microwave resonant cavity |
| Furnace Exhaust System | Automatically adjusted air volume; cooling to room temperature in less than 15 minutes |
| Software System | Android operating system (8G memory),built- in video SOP,application method library, electronic door lock, etc. |
| Power | 3800W |
| Power Supply | Standard: 220V 50Hz, optional: 110V 60Hz (external transformer) |
| Package Size(WxDxH) | Main unit: 740x740x820 mm Accessory: 750x480x640 mm Accessory: 500x510x580 mm |
| Gross Weight | 85kg 35kg 22kg |



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