

# MICROWAVE DIGESTER



# MICROWAVE DIGESTER

A well-known method for preparing solid materials into solutions fit for examination by ICP-AES, ICP-MS, atomic absorption spectroscopy, or polarography is microwave digestion.

## **MWD11-06** MICROWAVE DIGESTER

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	MWD11-06	
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
7500505005	Heating Blocks	12	Ф 39x65mm	Room Temperature - 250°C

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# **MWD12-08** MICROWAVE DIGESTER

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	MWD12-08	
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	

Accessory Code	Name	Sample quantity	Aperture and Hole depth	Temperature Control Range
7500506005	Heating Blocks	12	Ф 39x65mm	Room Temperature - 250°C

# **MWD13-10** MICROWAVE DIGESTER

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	MWD13-10		
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		

Accessory Code	Name	Sample quantity	Aperture and Hole depth	Temperature Control Range
7500507005	Heating Blocks	12	Ф 39x65mm	Room Temperature - 250°C

# **MWD14-06** MICROWAVE DIGESTER

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	MWD14-06			
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			

Accessory Code	Name	Sample quantity	Aperture and Hole depth	Temperature Control Range
7500508005	Heating Blocks	12	Ф 39x65mm	Room Temperature -250°C

# **MWD15-08** MICROWAVE DIGESTER

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	MWD15-08			
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
7500509005	Heating Blocks	12	Ф 39x65mm	Room Temperature -250°C

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# **MWD16-10** MICROWAVE DIGESTER

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	MWD16-10			
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			

Accessory Code	Name	Sample quantity	Aperture and Hole depth	Temperature Control Range
7500510005	Heating Blocks	12	Ф 39x65mm	Room Temperature -250°C

# **MWD17-12** MICROWAVE DIGESTER

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	MWD17-12
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
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
7500511005	Heating Blocks	12	Ф 39x65mm	Room Temperature -250°C

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# **MWD18-12** MICROWAVE DIGESTER

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	MWD18-12	
Vessel Quantity	12	
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	

Accessory Code	Name	Sample quantity	Aperture and Hole depth	Temperature Control Range
7500512005	Heating Blocks	20	Φ 41x150mm	Room Temperature -250°C

# **MWD19-18** MICROWAVE DIGESTER

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	MWD19-18	
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	

Accessory Code	Name	Sample quantity	Aperture and Hole depth	Temperature Control Range
7500513005	Heating Blocks	20	Φ 41x150mm	Room Temperature -250°C

# MWD20-40 MICROWAVE DIGESTER

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	MWD20-40
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

Accessory Code	Name	Sample quantity	Aperture and Hole depth	Temperature Control Range
7500514005	Heating Blocks	20	Ф 32x118mm	Room Temperature -250°C

# **MWD21-12** MICROWAVE DIGESTER

Video monitoring function.

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

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



#### **SPECIFICATIONS**

Model	MWD21-12
Vessel Quantity	12
Vessel Volume	100mL
Vessel Pressure Capacity	80Mpa
Cavity	48L Resonant Cavity
Microwave Cavity Material	SS316 with 10 layers Telflon
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)

## **MWD22-12** MICROWAVE DIGESTER

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

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



#### **SPECIFICATIONS**

Model	MWD22-12
Vessel Quantity	12
Vessel Volume	100mL
Vessel Pressure Capacity	75Mpa
Cavity	48L Resonant Cavity
Microwave Cavity Material	SS316 with 8 layers Telflon
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

## **MWD23-06** MICROWAVE DIGESTER

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	MWD23-06
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

## MWD24-30 MICROWAVE DIGESTER

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	MWD24-30	
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

## **MWD25-12** MICROWAVE DIGESTER

The temperature in the furnace is continuousJy 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 overvolttage, 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	MWD25-12
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

## **MWD26-40** MICROWAVE DIGESTER

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	MWD26-40
Vessel Quantity	40pcs
Vessel Volume	55mL
Vessel material	TFM
Temperature Range	0-300 °C
Temperature Control Accuracy	±1 ℃
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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