

Microwave Digestion System



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WMD-600/800/1000/1200 Series

Description

WMD600 series is a new series of microwave digestion system which launched in 2019. It is newly designed and fully upgraded with higher performance and safer protection system. The smart design and perfect performance make it warmly welcomed by users worldwide.

Features

Robust Industrial Chamber

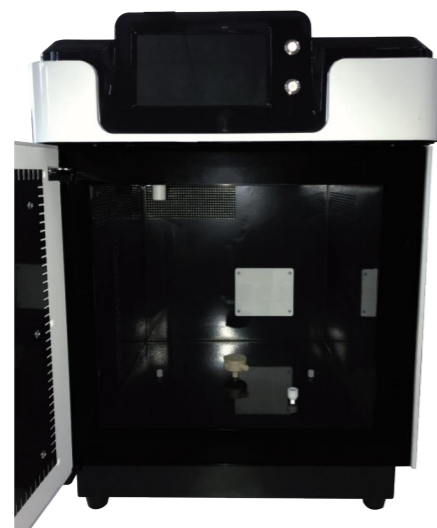
- 316L industrial stainless steel, higher durability and safety.
- Multi-layer PFA coatings, acid and alkali proof, longer service life.

Higher Safety Protection

- System auto stops running to trigger safety protection scheme if following situations happen.
- *System error *Abnormal sound *No digestion vessel loaded *Door unclosed *Over-temperature or over-pressure.

Real-time Monitoring of T&P

- Real-time pressure and temperature of sample solution in each vessel can be monitored.
- Real-time T&P graph and power running status can be shown on display screen clearly.



Large Data Storage

- 8 kinds of digestion methods preinstalled.
- Up to 255 groups of digestion method can be created and stored; each method can set up 10 steps.

Contactless Pressure & IR Sensor

- 2 sets of pressure sensors
- 1 set of IR sensor with special waveband, much more accurate and safer.
- 360 degrees scan monitoring, every digestion vessel can be monitored.

Multi Options

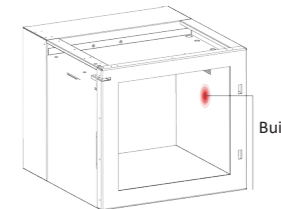
- Vessel quantity is optional.
- 6/8/10/12 positions of sample rotors are available to meet various requests.

Features

- The whole machine is designed with a 316L stainless steel structure PFA to coating avoid impact, explosion, and corrosion.
- Explosion-proof sensors are installed on the furnace chamber's to ensure safety
- The emergency stop button located outside can quickly and effectively cut off the power supply to prevent accidents.
- The machine is equipped with a dual independent chain sensing device that cuts off power when the door is open and stops microwave output when the door is not completely closed.
- The digestion tank has a self-recovering double-pressure relief structure to prevent sample loss due to overpressure.



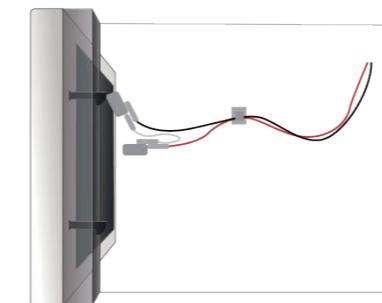
316L Industrial Stainless Steel Chamber



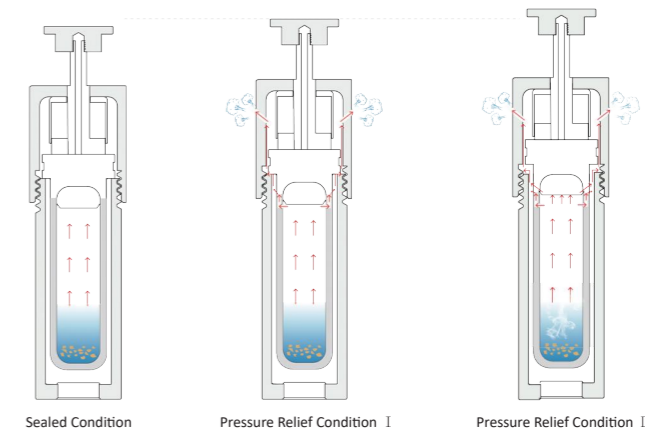
Perspective View Of Instrument Structure



Emergency Stop



Dual Independent Interlocking Sensing Devices



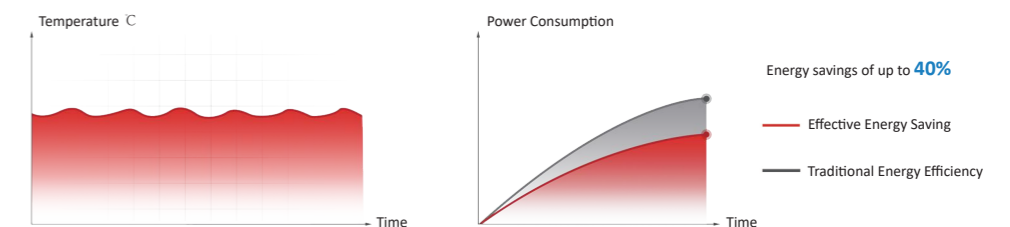
Sealed Condition

Pressure Relief Condition I

Pressure Relief Condition II

Dual-linked sensor technology automatically disables microwave output when the door is opened. The composite door is designed to withstand pressure shocks in the furnace cavity during unexpected events. It has a microporous metal mesh layer inside to prevent any microwave leakage, and the outer layer is made of multi-layer explosion-proof and impact-resistant materials.

Non-pulse microwave automatically adjusts the microwave power output based on temperature and pressure signals to ensure more accurate temperature control during continuous microwave.

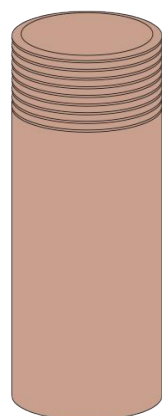


WMD-600/800/1000/1200 Series

Saving Cost Of Use

Durable accessories same consumables such as sealing bowls, bursting disk, etc.

Digestion Vessels



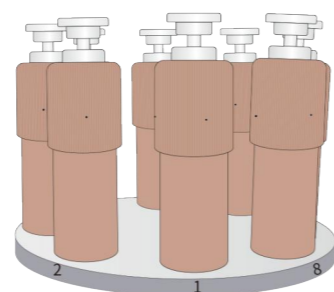
The instrument features a double-ended screw design that ensures good airtightness. The inner vessel is made of imported TFM material. The outer tank is made of PEEK mixed fiberglass material, with great toughness and rigidity. This guarantees the product's safety and reliability during repeated use at high temperatures and pressures over the long term.

The outer vessel is designed based on the 3D directional explosion-proof theory with vertical blasting. In case of explosion, the pressure will release vertically to ensure safety.

The vessel has successfully passed both the pressure resistance test and the simulated intensify test (set 230 °C and keep for 45 mins for over 100 times). Despite these extreme conditions, the tank showed no deformation or breakage and is currently functioning well.

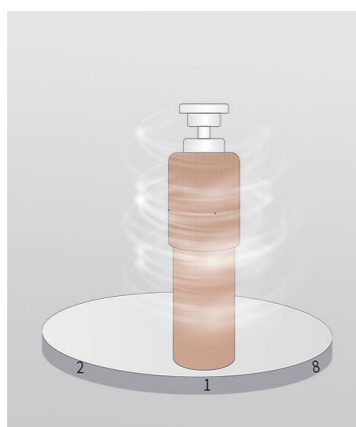
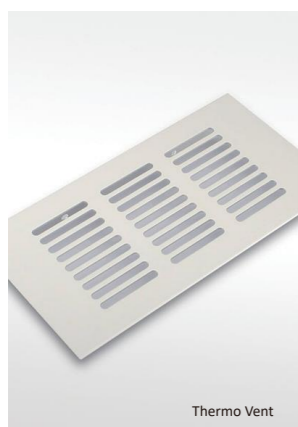
Batch Processing Volume

Up to 12 vessels with optional 6, 8, 10 or 12 vessels for easy batch processing.



Heating Uniformity

The turntable rotates at a speed of 2 second-run and completes one rotation in two seconds to ensure uniform sample digestion.



Programming

The touch screen displays real-time temperature, pressure, and other parameters, providing a clear overview of the digestion process. meanwhile, it can edit save digestion methods, and use the methods at any time.



No Tool Assistance Required

Three easy steps to assemble and open vessels without any tool.



Technical Specification

Model	WMD600	WMD800	WMD1000	WMD1200D
Vessel Quantity	6	8	10	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 Touch Screen			
Rotation	360°Continuous Rotating			
Microwave Tank	316L Stainless Steel tank With Corrosion-Proof Coating			
Microwave Power	0-1000W(Adjustable)			
Microwave Leakage	<5mw/cm2			
Air Exhaust	High Power Corrosion-Proof Air Blower			
Power	AC220V±10%, 10A, 50/60Hz			
Dimension	490*560*630mm(L*W*H)			
Weight	47kg			