SINEO

JUPITER SERIES

High Throughput Closed Microwave Digestion/Extraction Workstation

The worlds safest Microwave system

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Power & Strength

The JUPITER series microwave is the culmination of over 20 years of constant innovation in the microwave field. The Jupiter has 1800 watts of variable magnetron power and patented vessels rated at 2250 PSI with a maximum temperature of 300 degrees C. This makes the the Jupiter ideal for everything from routine to tough digestions.

Safety is our top priority

The Jupiter has the highest level of security measures of any microwave on the market. Attention to detail is ever present in the Jupiter design. For instance, our composite fiber outer vessel is vacuum sealed with epoxy to prevent delamination from acid exposure. The door on the Jupiter has a double lock and safety interlocks which prevent the microwave from starting if the door is not closed properly. The door is also designed to pop out to contain an explosion should the worst happen.

Durable by design

The outer vessel in the JUPITER is made of high strength composite fiber, which is more expensive to manufacture, but outperforms the widely used modified PEEK engineering plastics in areas such. as corrosion resistance, high temperature, impact, and pressure resistance. Furthermore PEEK is fusible at high temperature, fragile at high pressure and explosive by chemical corrosion).

Complete digestion in every vessel

Unlike other microwaves the Jupiter features a patented rotation system which only turns in one direction. This ensures the most even heating of the vessels and a longer service life for the microwave.

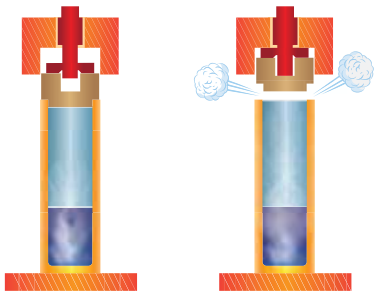
Built to Last!

The Jupiter is built to handle years of corrosive environments with its multilayer chemical resistant polymer coating inside and out. The Jupiter is manufactured to close tolerances with impeccable attention to detail.

To prevent delamination we make sure all edges of our outer vessels are vacuum sealed. This assures a longer service life and a safer vessel.

Set it and forget it, automatic controls keep an eye on your samples for you!

The safety bolt replaces the more common membrane technology to seal the vessel. The safety bolt pressure ring will snap instantly and completely vent if a vessel reaches its maximum pressure unlike membranes that can vent too slowly and cause vessel rupture. Furthermore, the safety bolt only needs to be replaced upon pressure release, not with every sample as is the case with membranes, significantly reducing the operational cost of the microwave.



The Jupiter uses state of the art pressure measuring technology with its piezoelectric crystal and a Platinum temperature sensor for precise measurement and control. Once the user sets the parameters of vessel temperature and pressure, the microwave will automatically maintain those parameters by adjusting magnetron power up and down based on its sensors.

The Jupiter series software features a friendly windows interface that is easily operated. The software will allow the user to control digestion temperature, pressure and changes of microwave power in real time. The software can save digestion methods for speedy starts.

Jupiter A Vs. Jupiter B

The A model comes standard with a 5 inch color screen, and PC software for control and real time reporting of internal vessel temperature and pressure.

The economic B model has a monochrome 5 inch screen, and can store up to 50 methods in its on-board computer.

Main Technical Parameters of JUPITER

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Power	220-240 VAC 50/60Hz 8A	
Microwave frequency	2450MHz	
Installed power	1800W	
Maximum output power	1300W, non-pulse continuous automatic variable frequency control	
Turntable design	Load 12 JP-100 closed digestion vessels at same time (standard configuration is 10 vessels)	
Pressure measurement and control system	Piezoelectric crystal pressure sensor, pressure control range 0-1500 psi - accuracy ± 1.45 PSI	
Temperature measurement and control system	High-precision platinum resistor temperature sensor, temperature range :0-300°C, accuracy ±1°C	
Outer vessel material	Explosion-proof outer vessel made of aerospace composite fiber	
Inner vessel material	Modified TFM material	
Software	JUPITER-A apply JSs software. 5 inch color screen display, USB connection, can save unlimited amount of digestion solution.	Simplified JUPITER-B apply JSb software. 5 inch screen display and up to 50 methods can be stored.
Chamber exhaust system	High-power anticorrosion axial fan, exhaust speed: 3.1 m^3/min	
Operating ambient temperature	32-104 °F	
Working environment humidity	15-80%RH	
Whole physical size	18× 24 × 25" (L × W × H)	
Net weight	93 Lbs	

JUPITER-A

JUPITER-B

Standard configuration: 10 JP-100 ultra-strength closed vessels with outer vessels and frames.
Optional configuration: 12 JP-100 ultra-strength closed vessels with outer vessels and frames.

JP-100 ultra strength frame closed reaction vessel

Maximum Pressure	2250psi
Maximum working pressure	600psi
Maximum sustained temperature	300°C
Maximum working temperature	250°C
Inner vessel volume	100ml
Outer vessel material	High strength composite fiber with vacuum sealed edges
Inner vessel material	TFM (Modified PTFE)
Maximum batch capacity	12 vessels

Application area

Food and drug (milk and dairy products, health food), cosmetics, agricultural and sideline products, aquatic products, biological tissues, various types of feed, energy and petrochemical, geology and mineral resources, environmental resources (air, water, soil), metas, alloys, ceramics, RoHS, medicine, domestic wastes.

Certificate No.1610/IN-IST-12

ISO9001: 2008 and UKAS certificate of quality system

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