Biometrics
Quality of life

LAVA*wave* Series

Microwave Digestion System

LAVA*wave* is microwave digestion equipment that for digest sample before elemental analysis by using ICP-MS, ICP and AAS. It is often used in routine laboratory, in research and development, education as well as overall analytical of your laboratory.

Key Features of LAVA*wave*

Vertical microwave design for distribution of microwave

Special magnetron design which carriers out high microwave leakage standards

A magnetron delivery of 1000W that can adjustable

Built-in contactless control monitoring system to save maintenance cost.

The volume of cavity is 42L which can match for 12 vessels

Contactless temperature and pressure measure of each vessels in real-time, no rupture disc and no consumable cost

IR sensor provide good sensitivity and accuracy

Simplicity in Sample Digestion

Key Features of LAVA*wave*

THINK SAFE

Emergency stop button for safety operation and auto shut-off system If power is overload

316L stainless steel with Teflon coating inner cavity avoids corrosion, prevents high temperature and ensure fast cooling

Imported Carbon Fiber Reinforced Plastics (CFRP) outer shell material with high strength ensures impact resistance

THINK SIMPLE

Large Touch Screen with user-friendly interface

Easy vessel assembles and easy cleaning

THINK ECONOMICAL

1000 W (adjustable) can be save electric cost

Small chamber size (42L), low power consumption

Simple Assembly Vessel

Sample digestion vessels are made of imported TFM material while outer protection vessels are made of PEEK and glass fiber which prevents high pressure and high temperature and also avoids acid, alkali as well as some organic acid.

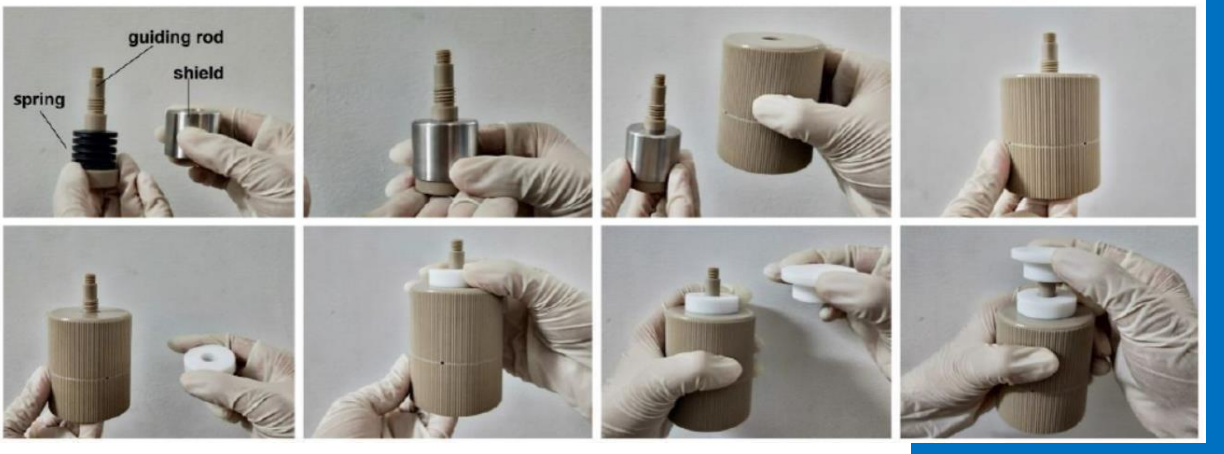
Inner vessel

Modified TFM (Tetrafluoromethane) vessels with highest density and thermally resistant features.

Outer vessel

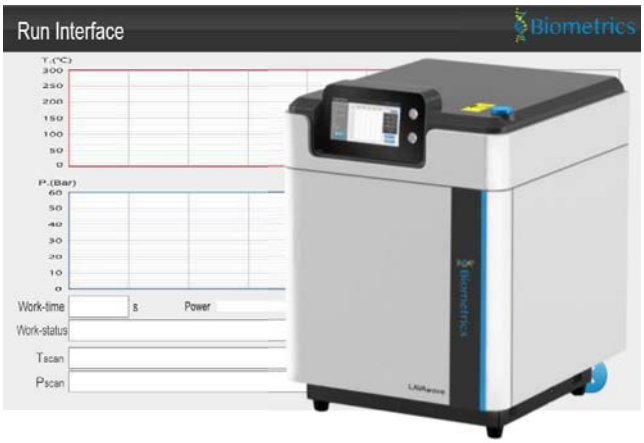
PEEK (Polyetheretherketone) and glass fiber outer vessels can be easily cooled down by water bath and provides high-strength omnidirectional protection

For releasing excess pressure



Three steps for Digestion of Samples

1. Load samples and reagent into the vessels



2. Insert the vessels, select the method and start running

3. After digestion, dilute the samples to the appropriate concentration

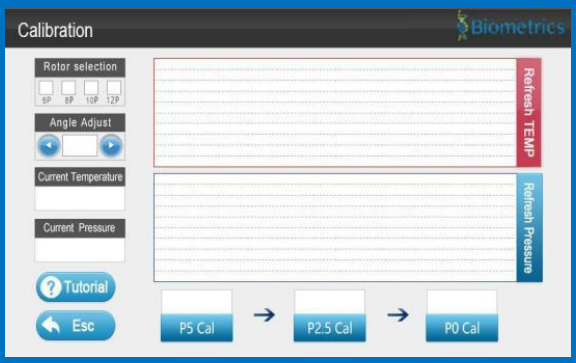
Working Control Touch Screen Software

Program Method

- The system can be created from 1 to 255 program methods. There are 10 preset program methods in the program method interface.
- User can set 10 steps in each program methods, and also can create, edit , save, and delete their own methods.
-To provide user setting all parameters: Temperature, pressure, power, and time.

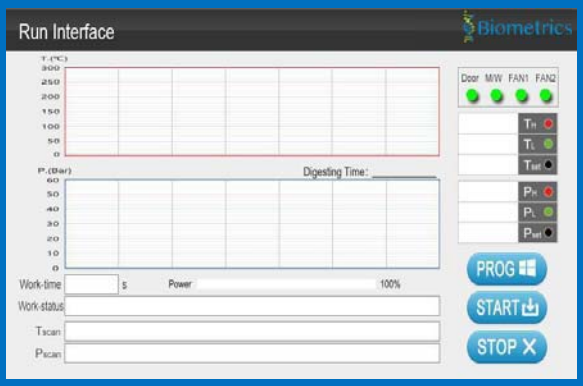
Calibration

Internal calibration for checking the performance of instrument before start working. The software, which supports the calibration is simply performed with three steps:
1) Angle Adjust
2) Pressure Calibration
3) Temperature and Pressure Verification



Run Interface

Real time monitoring and display view such as temperature, pressure, power and diagram of curves. during machine operation, along with numerical values of the actual temperature and pressure in all vessel. (Real-time data)



LAVA*wave* Series Specification

Model	LV-6	LV-8	LV-10	LV-12
Vessel	6	8	10	12
Temperature monitoring System	- All vessels temperature control - Contactless temperature monitoring (IR detection) - Max. Working Temp. : 250 °C - Temperature Range : 50-400 °C - Temperature control accuracy : ± 1 °C - Temperature control stability : ±1 °C - Temperature accuracy : ±0.1 °C*			
Pressure monitoring System	- All vessels pressure control - Contactless pressure optical monitoring sensor (Pressure detection) - Max. Working Pressure : 60 Bar - Pressure Measurement Range: 0-150 Bar - Pressure accuracy : ± 0.1 Bar* - Pressure stability : ± 1 Bar			
Vessel volume	100 mL			
Inner vessel material	TFM (Tetrafluoromethane)			
Outer vessel material	PEEK (Polyetheretherketone) + Glass Fiber			
Display	7 Inches Touch Screen			
Rotation	One Direction 360° continuous-proof coating			
Microwave chamber	316L stainless steel with 3 layers teflon coating			
Microwave power	0-1000W (adjustable)			
Microwave leakage	< 5 mw/cm^2			
Air exhaust	High power erosion-proof air blower			
Power	AC 220-240V, 10A, 50/60 Hz			
Dimension	490 mm x 560 mm x 630 mm (W x D x H)			
Wight	47 kg			

* These items in this specification are tested by the manufacturer's condition.

Heating block

- Coated with PFA which of high temperature and corrosion resistance, also extends device service life.
- Equipped with AI and PID smart temperature controlling system to realize automatic temperature adjustment, also improved the accuracy.
- Over-temperature protection and alarm system greatly improves experiment safety.

Model	HB-12
Sample quantity	12
Aperture hole depth	Φ45*65 mm
Temperature control range	Room Temperature~250℃
Temperature control accuracy	±0.5 ℃
Temperature setting resolution	0.1 ℃
Heating power	1600 W
Power	AC220 V

Product Information

P/N	Product Description
AI-MWD-T6	LAVA*wave* LV-6
AI-MWD-T8	LAVA*wave* LV-8
AI-MWD-T10	LAVA*wave* LV-10
AI-MWD-T12	LAVA*wave* LV-12
AI-MWDSPARE-1	Inner vessel
AI-MWDSPARE-2	Outer vessel
AI-HB-T12	HB-12

FOR MORE INFORMATION

www.biometrics-technologies.com

Your local distributor

Biometrics Technologies, Inc. (Headquarter)
1220 N. Market St. Suite 806,
Wilmington, DE 19801, USA.
Email: info@biometrics-technologies.com
Website: www.biometrics-technologies.com

Biometrics Technologies Co., Ltd (Taiwan)
15F-8, No. 99, Sec. 1, Xintai 5th Rd.,
Xizhi District, New Taipei City 221, Taiwan.
Email: sales@biometrics-technologies.com

Biometrics Technologies (Asia Pacific) Ltd. (International & Asia Pacific Support Center)
18, 7th Fl. Sricharoenchai Bldg., Tiwanon Rd.,
Mueang, Nonthaburi 11000 Thailand.
Email: info@biometrics-technologies.com