



Microwave Pressure Digestion System

PRODUCT INTRODUCTION

Microwave digestion as a high efficient method of sample pretreatment has advantages of fast even heating, less reagent, lower blank value, energy saving and high efficiency. It keeps sample integrity for volatile element analysis testing. It is widely used in food, textile, Geology metallurgy, coal biological medicine, Petrochemicals, environmental wastewater treatment, battery manufacturing fields, etc.

FEATURES

- [Create curve according to pressure and time and display on the touch-screen
- [Test and real time monitor the pressure by Non-contact way.
- [Set corresponding protection pressure in accordance with different conditions of experiment.
- [Users can see parameters in various functions according to their own requirements.
- [Suitable for high pressure digestion, multi-vessel closed digestion and closed organic synthesis.
- [Can edit and store 255 digestion programs; each program can set up 30 digestion steps can set relative parameters {pressure, time and microwave power} according to user's requirements.
- [360° rotation mode of digestion platform to solve heat uniformity problem.
- [High frequency resonant regulation mode, Users can set microwave power between 0-1000W according to their requirements.
- [Automatic calibration for different parameters and basic troubleshooting function.



INSTRUMENT PARAMETER TABLE :

Model	MWD- 3500	MWD-3510	MWD-3520
Pressure Control	Main tank	Full Scanning	
Temperature Control	No		Full Scanning
Vessel Volume	60ml		
Pressure Testing	Non-contact		
Temperature Testing	No		Non-contact
Sample Quantity	7	6	
Vessel Material	Inner Vessel: Imported TFM: Outer Vessel: Imported PEEK+ glass fiber		
Maximum Working Pressure	5MPa		
Pressure Limit	6MPa		
Maximum Working Temperature	250°C		
Temperature Limit	300°C		
Outer Vessel pressure limit	10MPa		
Screen	7 inch Touch Screen		
Pressure Control range	0-5MPa(0-50kg/cm ²)		
Pressure Control Accuracy	0.1MPa(1kg/cm ²)		
Microwave Power	1000 W, set from 0 to 1000W according to requirements		
Microwave Frequency	2450MHz		
Exhaust system	High-power Blower, exhaust speed>5m ² /min		
Rotation Mode	360° continuous rotation		
Microwave leakage	<5mw/cm ²		
Power	AC 220V, 10A, 50/60Hz		
Size	520mm*400*460mm		
Weight	30kg		

HIGH QUALITY PARTS :

High quality large touch-screen

- 7 inch large touch screen for easy operation
- High Resolution, clear display, easy readout
- Multi parameters display: curves, pressure, timing, Power, digestion procedure and operation procedure
- Menu Operation design ensures clear operation and humanity.
- Stable and good quality display.

High Quality digestion vessel

- Inner and outer digestion vessel design ensures safety for easy pressure testing
- Imported TFM material for inner digestion vessel
- Imported PEEK and glass fiber for outer digestion vessel
- Special processing technique ensures no using of sealing blow or explosion-proof membrane which reduces large consumable cost
- Special vessel structure design makes continuous working and automatic return to closed condition in case of digestion vessel over-pressure which ensures no samples and reagent waste.
- Special mould for vessel ensures uniformity

Multi safety protection measures

- High precise pressure testing system to test inner vessel pressure and display it



- High precise controlling system makes instruments stop heating if inner vessel pressure is higher than limit to avoid any injury or hurt
- Sound monitoring sensor ensures the alarm and pause the instrument when there is abnormal sound
- Special protection for over-pressure or instant pressure raise
Door can be opened if there are any abnormal circumstances, and at the same time the instrument will stop the running microwave
- Self checking and prompting function, ensure the instrument will pause and prompt relevant fault during the digestion process.
- Reaction data of the closed digestion vessel will be transferred to CPU for analysis and do real-time monitoring the change during digestion procedure.

MULTI-FUNCTION SOFTWARE :

Instrument Main Interface

Clear display, Easy operation, can realize all functions by easy touching

Instrument Working Interface

Parameters set by user display in the working interface; Display of furnace door and microwave opening and closing condition; real-time set up pressure and timing curves automatically to ensure accurate measurement results; Can start and stop operation at any time.

Parameter Setting Interface

Clear display for all zones, users can set up parameters according to their requirements: pressure, temperature, time parameter edit, protection steps etc. Users can set up 10 complete steps for each program, each step with one "temperature raise" phrase and one "constant temperature" phrase to meet digestion controlling requirements for complicated samples.

Program Interface

8 common digestion methods presetting which are convenient for beginners to enter digestion procedure.

FAQ Interface

Users who are not familiar with microwave digestion can easily find answers and solutions in this interface when they have any question.

Instrument Calibration Interface

Instrument calibrations functions can calibrate all parameters after the instrument running a very long time, ensure the instrument in a good condition during all the time.



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