

# STALWART

## Microwave Digestion System SMD-60



## Introduction

SMD-60 is a new developed microwave digestion system with all vessels temperature and pressure control. With IR temperature measurement method, our digestion system can realize real-time temperature monitoring of each individual sample. With special mechanic design, the consumable free microwave digestion system is of safety and friendly operation and durability.

## Features

- Create curve according to pressure and time and display on the touch-screen
- Set corresponding protection pressure in accordance with different conditions of experiment.
- Users can set 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 10 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 trouble shooting function

### **High quality large touch-screen**

- 7 inch large touch screen for easy operation.
- High Resolution, clear display, easy readout.
- Multiple parameters display: curves, pressure, time, 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 bowl 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 sample and reagent waste
- Special molding for vessel ensures uniformity Multiple 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 pausing the instrument when there is abnormal sound.
- Special protection for over-pressure or instant pressure raise.

### **Door can be opened if there is 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.

## Specification

Model	SMD-60
Pressure Control	10 vessels
Temperature Control	10 vessels
Vessel Volume	60ml
Pressure Measurement	Contactless
Temperature Measurement	Contactless
Vessel Material	Inner vessel : imported TFM Outer vessel: imported PEEK+glass fiber
Display	External 7" inches touch screen
Pressure control range	0-10MPA
Maximum working pressure	6MPA
Pressure control accuracy	±0.01MPA
Outer vessel pressure limit	15MPA
Temperature control Range	50~300°C
Maximum working pressure	250°C
Temperature control accuracy	±0.5°C
Inner vessel temperature limit	300°C
Microwave power	0-1500w
Microwave Frequency	2450MHz
Rotation Mode	360 continuous rotation
Microwave leak	<5mw/cm <sup>2</sup>
Power	AC 220V, 10A, 50/60HZ
Dimension	520mm*560mm*460mm
Weight	43kg