

STALWART

Microwave Digestion System SMD-50 Series



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, petroleum chemistry, environment monitoring, wastewater treatment, battery manufacturing fields and so on.

Features

- Create curve according to pressure and me 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, me 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.
- Mul parameters display: curves, pressure, ming, 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 Mul 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 me 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-me monitoring the change during digestion procedure.

Specification

| Item | SMD-50 | SMD-52 |
|-----------------------------|--|--|
| Pressure Control | Full Scanning | Full Scanning |
| Temperature Control | No | Full Scanning |
| Vessel Volume | 60ml | 60ml |
| Pressure Testing | Non-contact | Non-contact |
| Temperature Testing | No | Non-contact |
| Sample Quantity | 6 | 6 |
| Vessel Material | Inner Vessel: Imported TFM; Outer Vessel: Imported PEEK+ glass fiber | Inner Vessel: Imported TFM; Outer Vessel: Imported PEEK+ glass fiber |
| Maximum Working Pressure | 5 Mpa | 5 Mpa |
| Pressure Limit | 6 Mpa | 6 Mpa |
| Maximum Working Temperature | 250°C | 250°C |
| Temperature Limit | 300°C | 300°C |
| Outer Vessel Pressure Limit | 10 Mpa | 10 Mpa |
| Screen | 7 Inch Touch Screen | 7 Inch Touch Screen |
| Pressure Control Range | 0-5 MPa (0-50kg/cm ²) | 0-5 MPa (0-50kg/cm ²) |
| Pressure Control Accuracy | 0.1MPa(1kg/cm ²) | 0.1MPa(1kg/cm ²) |
| Microwave Power | 1000W, set from 0 to 1000W according to requirements | 1000W, set from 0 to 1000W according to requirements |
| Microwave Frequency | 2450MHz | 2450MHz |
| Exhaust System | High-power Blower, exhaust speed>5cbm/min | High-power Blower exhaust speed>5cbm/min |
| Rotation Mode | 360° continuous rotation | 360° continuous rotation |
| Microwave Leakage | <5mW/ cm ² | <5mW/ cm ² |
| Power | AC 220V, 10A, 50/60Hz | AC 220V, 10A, 50/60Hz |
| Size | 520mm×400mm×460mm | 520mm×400mm×460mm |
| Weight | 30kg | 30kg |