

# SYSTRONICS (INDIA) LTD

## SYS-6T MICROWAVE DIGESTION SYSTEM



| TANK | CAPACITY/ PER CAN | MICROWAVE POWER | FLOOR AREA        |
|------|-------------------|-----------------|-------------------|
| 6pcs | 100ml/per can     | 0~1000W         | 0.4m <sup>2</sup> |

### Technical parameters:

1. Using a large furnace cavity design with completely independent intellectual property rights, 1~6 100ml ultra-high pressure digestion tanks can be placed at the same time;
2. Temperature and pressure dual measurement and control, precise control, active prevention of over-temperature and over-pressure, maximum working pressure: 6MPa, maximum withstand temperature: 300°C, maximum working temperature: 250°C
3. High-precision anti-interference pressure sensor adopts double explosion-proof control mode to directly measure the actual reaction pressure in the digestion tank, the pressure measurement range is 0~10MPa, and the pressure measurement accuracy is 0.01MPa;
4. Insert high-sensitivity platinum resistance temperature sensor, directly measure the actual reaction temperature in the digestion tank, the temperature range is 0~300°C, and the temperature measurement accuracy is  $\pm 0.1^{\circ}\text{C}$ ;
5. It can measure and control the pressure and temperature in any reaction tank, and the 7-inch high-definition camera display accurately shows the chemical reaction process.
6. A variety of materials and different capacities can be selected. It can be equipped with per fluorination digestion tank of FT double-layer digestion tank : PTFE digestion tank is made of PTFE (polutetrafluoroethylene) and the sheath is made of high-strength explosion-proof aerospace composite. The fiber material is made by one-time die-casting, high temperature resistance, high pressure and strong acid corrosion resistance, easy disassembly and assembly, fast cooling, double venting protection and digestion tank for venting holes and

sealed bowls, up to 6 ultra-high pressure digestion tanks can be placed at the same time. The furnace cavity is ventilated with acid resistance, large air volume centrifugal fan, and the exhaust air volume is 5m<sup>3</sup>/min.

7. Patented technology Specially designed self-locking ground moving safety door to resist accidental explosion and microwave leakage.

#### **Technical parameters:**

1. The pressure-resistant jacket material is a hydrophobic high-strength pressure-resistant composite fiber material, which is explosion-proof and supports washing and easy to clean.
- 2, The inner tank adopts imported modified polytetrafluoroethylene (TFM), high-strength frame type closed ultra-high pressure reaction tank: the highest withstand temperature  $\geq 300^{\circ}\text{C}$ .
- 3, Explosion-proof membrane automatic pressure relief and PEEK compression module pressure relief safety design to ensure the safe operation of the instrument.
- 4, The whole tank pressure monitoring system, the threshold value can be adjusted.

| <b>Model</b>                   | <b>SYS-6T Intelligent microwave digestion instrument</b> |
|--------------------------------|----------------------------------------------------------|
| Tank                           | 6pcs                                                     |
| Power                          | AC220V/50Hz/10A                                          |
| Microwave frequency            | 2450 (MHz)                                               |
| Microwave output power         | 1000 (W)                                                 |
| Microwave cavity               | 45 (L)                                                   |
| Protective spraying            | PFA                                                      |
| Control heating method         | PID                                                      |
| Temperature ramp               | 1~50°C/min                                               |
| Cooling time                   | ≤25min                                                   |
| Microwave leakage              | ≤0.3mW/cm <sup>2</sup>                                   |
| Temperature control range      | 0~300°C                                                  |
| Temperature control accuracy   | 0.1°C                                                    |
| Pressure control range         | 0~10Mpa                                                  |
| pressure accuracy              | 0.01Mpa                                                  |
| Outer tank material            | PEEK                                                     |
| Inner can material             | TFM1700                                                  |
| Highest temperature resistance | 300°C                                                    |
| Operating temperature          | 250°C                                                    |
| Highest pressure               | 15Mpa                                                    |

Tank Technical parameters :

1. The pressure-resistant jacket material is a hydrophobic high-strength pressure-resistant composite fiber material, which is explosion-proof and supports washing and easy to clean.
2. the inner tank adopts imported modified polytetrafluoroethylene (TFM), high-strength frame type closed ultra-high pressure reaction tank: the highest withstand temperature a300 °C.
3. explosion-proof membrane automatic pressure relief and PEEK compression module pressure relief safety design to ensure the safe operation of the instrument.
4. the whole tank pressure monitoring system, the threshold value can be adjusted.
5. using high-strength engineering plastics for one injection molding, independent ultra-high pressure digestion tank holder.

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