



M6

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Intelligent
Microwave
Digestion System





What defines a lovable microwave digester?

Simplicity,
convenience,
and safety

Take on
all sample
types



Deliver
economic
value



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Guaranteed user friendliness

- Pre-loaded digestion methods
- Intuitive software interface
- Convenient switch between rotors
- Multiple safety features in the hardware

Guaranteed digestion performance

- Complete solutions to samples of diverse background
- Precise dual temperature/pressure control
- Max batch time (including cooling) NMT 60 min

Guaranteed Return on Investment

- Maximized sample throughput (160 per shift)
- Reduced average acid consumption
- Minimized consumables and extended vessel lifetime



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Oven body

5-year corrosion-free warranty

- 316L Stainless Steel oven body construct
- Seamless Laser Soldering
- 5-Layer Premium Teflon Coating

Microwave emitter

Proprietary microwave focusing

- Optimized dual-magnetron positioning
- Creative microwave guiding technology to streamline the energy density and distribution
- Delivers rapid, safe, and reproducible batch digestions for as many as 40 samples



Enhanced safety design

Buffered safety door concept

- Floating Safety Lock
- Automatic depressurize and re-close
- Secure microwave emission upon fully closed door



Microwave in action



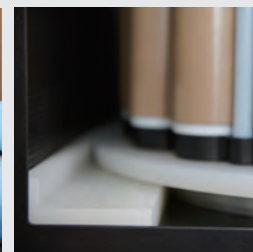
Microwave paused

Vertical rotor release and engagement

- Rotor can be vertically raised or lowered by the motion of mechanically interlocked safety door
- Rotor handling greatly facilitated



Rotor raised when safety door is opened to a $\geq 90^\circ$



Rotor lowered when safety door is opened to a $< 90^\circ$



Microwave Digestion System

Smart status indicator

- Automatically adjusts the illuminance as the digestion status changes (standby – in progress – complete – standby)



TwinAir technology - the art of cooling

- Rapid duo airway cooling
- Streamlined air passage
- Automatic airflow rate control
- Max 10 min to safe temperature



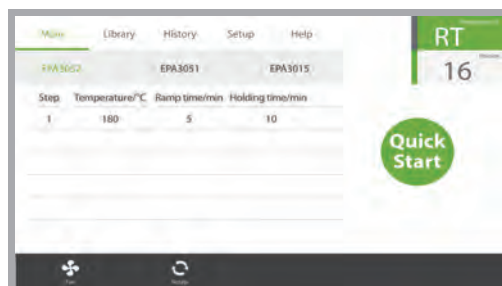
Automatic rotor identification

- Enabled by dual photoelectric sensors and high precision motor
- Vessels identified individually
- Intelligent method requisition based on rotor choices



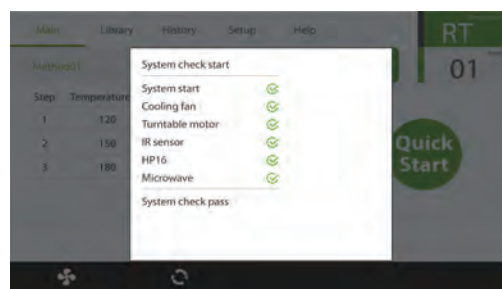
Hassel-free software interface

- Secured user access
- Simple method setup, edit, retrieval
- Fast track of three recent methods



Hardware initiation sequence

- Checking the general status of the hardware and readiness of key electronic components





Infrared temperature control

Rtemp enhanced IR Temperature Sensor

- Powerful and accurate temperature detection
- Instant temperature profiling of digestion process
- Operational convenience by contactless measurement

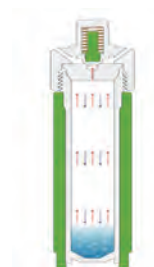


Rtemp enhanced IR sensor to provide real-time and full characterization of in-vessel temperature of the digestion process

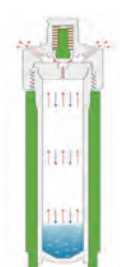
Precision of pressure control

Intelligent reaction vessel with Auto-Venting

- Patented self-regulating over-pressure management technology
- Ensures smooth reaction progress and safe vessel operation



Fully sealed



Venting in action

Easy vessel assembly

- Effortless vessel assembling without tools
- Batch and vessel numbers inscribed on inner vessels
- Hexagonal bottom design to enable easy vessel handling





Ultra High Performance rotor UHP10

- Unrivalled temperature and pressure tolerance in microwave digestion
- Tailored digestion solution ideal for the toughest sample types such as graphite, activated carbon, zircon, alumina, etc.
- Guaranteed performance durability and reliability



High performance rotor HP16

- Greater temperature and pressure tolerance for tough sample matrices
- Max 16 samples in a single batch
- Powered by Rtemp Mid-IR technology
- Contactless and real-time T/P control in full vessel set



High throughput rotor GT400

- Max 40 samples in a single batch
- Powered by Rtemp Mid-IR technology
- Contactless and real-time T/P control in full vessel set

| Rotor | UHP10 | HP16 | GT-400 |
|------------------------------|-----------------|-----------------|-----------------|
| No. of vessels | 10 | 16 | 40 |
| Vessel material | TFM | TFM | TFM |
| Protective sleeve material | Reinforced PEEK | Reinforced PEEK | Reinforced PEEK |
| Vessel volume | 100mL | 100mL | 60mL |
| Max withstanding temperature | 330°C | 330°C | 330°C |
| Max withstanding pressure | 150bar | 150bar | 120bar |

Specifications

| | |
|-------------------------|--|
| Touch screen | 7" High def colour LCD |
| Microwave oven | Industrial grade resonance oven |
| Oven body | 316L Stainless Steel |
| AC input | 220-240V/50Hz, 16A |
| Total power | 3200W |
| Microwave frequency | 2450MHz |
| Microwave emission mode | Unpulsed, ± 1 W |
| Microwave control mode | PID control |
| Ambient temperature | 5-40°C |
| Ambient humidity | 15%-80%RH |
| Dimension of mainframe | 665(H) \times 546(W) \times 590 (D) mm |
| Net weight | 70Kg |



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