

# M6

Intelligent  
Microwave  
Digestion System



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## What defines a lovable microwave digester?

Simplicity  
convenience  
and safety

Take on  
all sample  
types



Deliver  
economic  
value

### 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

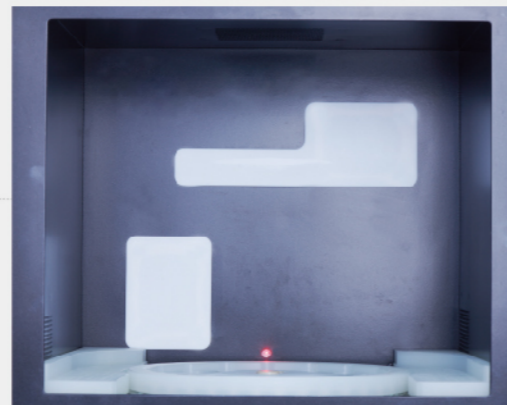


# M16

## 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

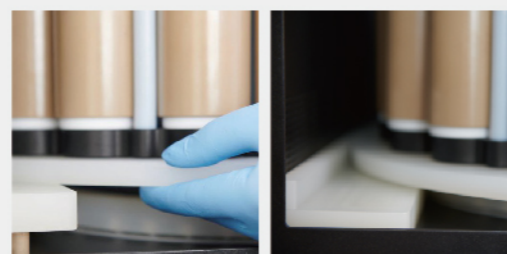


Microwave in action

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)



## The Art of Cooling TwinAir technology

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



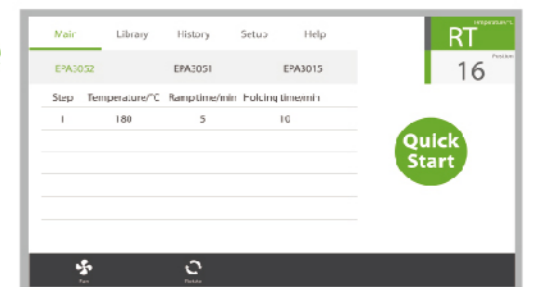
## Automatic rotor identification

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



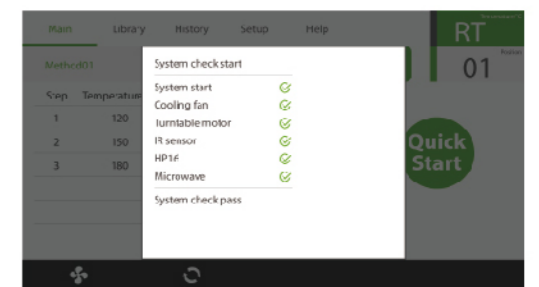
## Hassel-free software interface

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



## Startup examination sequence

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





## Infrared Temperature Control

### Rtemp Mid-IR Temperature Sensor

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

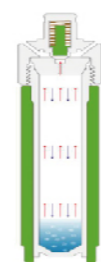


Rtemp Mid-IR sensor to provide real-time and full characterization of in-vessel temperature of the digestion process

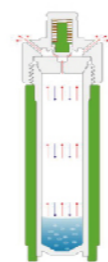
## Precision of Pressure Control

### 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

- 4 itemized parts can be hand assembled with no additional tools required
- Batch and vessel numbers inscribed on inner vessels
- Hexagonal bottom design to enable easy vessel handling



## 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



Rotor	HP16
No. of vessels	16
Vessel material	TFM
Protective sleeve material	Reinforced PEEK
Vessel volume	100mL
Max withstanding temperature	330°C
Max withstanding pressure	150bar

## 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	GT-400
No. of vessels	40
Vessel material	TFM
Protective sleeve material	Reinforced PEEK
Vessel volume	60mL
Max withstanding temperature	330°C
Max withstanding pressure	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, $\pm 1W$
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