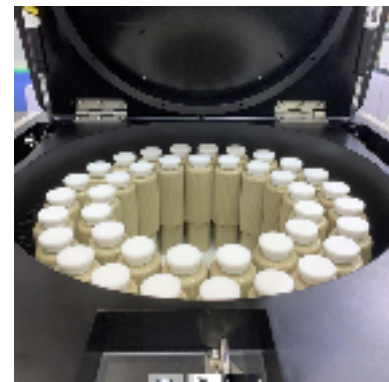




# Overview

Our Latest microwave digestion system (The Alchemist 4000) is the culmination of over 20 years of continuous refinement.

- Powerful 3000 Watt output
- Advanced Safety Systems
- Easy Access to Vessels
- Top Load Design for Superior safety
- Tool-less Finger Tight Vessel



## Features

- The powerful Alchemist 4000 has 3000 watts of fully adjustable power output (0-3000 watts) to tackle the toughest digestions.
  - Our advanced Safety features ensure the safest possible working environment for you and your samples. The Alchemist 4000 will automatically adjust power output when heat or pressure parameter limits are achieved.
  - The ergonomic top-loader design makes our system easier to use, simply remove one vessel at a time without the hassle of lifting a heavy carousel.
  - Our patented finger tight vessels require no tools, and eliminate contamination worries with wireless real-time temperature and pressure monitoring.
- | Steps | Pressure (Bar) |
|-------|----------------|
| 1     | 5              |
| 2     | 10             |
| 3     | 20             |
| 4     | 0              |
| 5     | 0              |
| 6     | 0              |
| 7     | 0              |
| 8     | 0              |
| 9     | 0              |
| 10    | 0              |

## Program Method

- General digestion method
- Pure milk
- Skimmed milk powder
- Herb
- Medicine : Capsule
- Meat
- Soil
- Water

Program No.

1

Load

7

8

9

4

5

6

1

2

3

0

<

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✓

Save

Apply

| Steps | Pressure (Bar) | Temperature (°C) | Power (W) | Heat-time (s) | Hold-time (s) |
|-------|----------------|------------------|-----------|---------------|---------------|
| 1     | 5              | 100              | 1000      | 300           | 60            |
| 2     | 10             | 150              | 1000      | 240           | 60            |
| 3     | 20             | 180              | 1000      | 240           | 600           |
| 4     | 0              | 0                | 0         | 0             | 0             |
| 5     | 0              | 0                | 0         | 0             | 0             |
| 6     | 0              | 0                | 0         | 0             | 0             |
| 7     | 0              | 0                | 0         | 0             | 0             |
| 8     | 0              | 0                | 0         | 0             | 0             |
| 9     | 0              | 0                | 0         | 0             | 0             |
| 10    | 0              | 0                | 0         | 0             | 0             |

# Alchemist 4000

## Microwave Preparation System

### Safety Features

Our patented finger tight vessels are designed to be the safest and easiest to use on the market.

Each vessel is temperature and pressure are continuously monitored to keep sample temperature and pressure within the pre-set ranges input by the user.

The high-tensile steel door features double interlocks which ensure operator safety.

Audible Anomaly Detection System will notify the user with alarm in case of vessel rupture.



Easy Tool-less Vessels

### System Details

The on-board computer can store and edit up to 255 user pre-set methods for fast and easy operation.

Each preset method has parameters for time temperature, pressure and microwave power (0-3000 watts).

Our 360 degree carousel ensures even heating and also an extended motor life since there is no continuous stopping and starting.

The 7" (17.78 cm) color touch-screen displays real-time temperature and pressure reading of each vessel, along with working time and tendency curves.

TFM coated 3/16 stainless steel construction ensures years of corrosion resistance.

| Model                         | Alchemist 4000                                                                           |
|-------------------------------|------------------------------------------------------------------------------------------|
| Vessel Quantity               | 1-40 vessels                                                                             |
| Vessel Volume                 | 50ml                                                                                     |
| Temperature Monitoring system | Contact-less Infrared Sensor<br>Real time temperature reading & control of each vessel.  |
| Temperature controlling range | 50-400° Celcius                                                                          |
| Display Accuracy              | within 0.1° Celcius                                                                      |
| Pressure Monitoring system    | Contact-less pressure monitoring<br>Real time pressure reading & control of each vessel. |
| Pressure control Range        | 0-10MPa                                                                                  |
| Pressure monitoring accuracy  | 0.01MPa                                                                                  |
| Display Accuracy              | 0.01MPa                                                                                  |
| Inner sample cup material     | Modified PTFE (TFM)                                                                      |
| Outer Vessel material         | Fiberglass - Peak composite                                                              |
| Display                       | 7 Inch Color touchscreen                                                                 |
| Rotation                      | 360° continuous rotation for longer motor life                                           |
| Microwave Chassis             | 316 Stainless Steel with triple TFM coatings                                             |
| Microwave power output        | 0-3000 Watts of fully adjustable power                                                   |
| Microwave leakage             | <5mw/cm <sup>2</sup>                                                                     |
| Exhaust system                | High powered corrosion resistant blower                                                  |
| Power requirements            | 220V 60 Hertz                                                                            |
| Dimensions                    | 25x25x24 inches                                                                          |
| Weight                        | 172 Lbs                                                                                  |