

QLAB  
*Pro*

*The Ultimate Solution  
for all your Sample Digestion Needs*



## Rugged Design with Enhanced Safety Features



- Ideal for digestion, extraction, evaporation, and synthesis
- Built-in temperature and pressure monitoring of each digestion vessel
- User-independent safety features ensuring safe digestions
- Controlled release of over pressure to avoid cross-contamination
- Rotating antenna and 360° carousel rotation ensuring uniform microwave distribution
- Corrosion-proof PTFE-coated reinforced cavity for corrosion resistance
- Microwave power output in small increments for precise temperature control
- 150 CFM exhaust for fume removal and vessel cooling
- Spring-loaded door latches for enhanced safety

## Configurations

- Closed Vessel Time-To-Temperature
- Open Vessel Time-To-Temperature
- Closed Vessel Time-To-Power
- Open Vessel Time-To-Power

External exhaust blowers in case of Open vessel configuration takes care of excessive acid fumes generated during operations

## Vessel Sets



eVHP Vessel Set



eVHP Vessel Station

- Accurate temperature sensing ( $\pm 0.1^\circ\text{C}$  sensitivity)
- Ease of loading carousel vessel by vessel inside the system's cavity
- Convenient manual release of residual pressure after digestion
- Compact Vessel Handling Station prepares vessel correctly every time
- Option of sensor vessels for in-situ temperature and pressure measurements
- Automatic protection against unusual heating of vessels
- Optimally designed carousel ensures uniform heating of all samples



LVHT Vessel Set

- Vessel for high throughput and moderate temperature requirements
- Possibility to digest 30 samples in single run
- Temperature monitoring for each vessel
- Vessels are individually pressure controlled and equipped with our unique resealing over-pressure guard (OPGuard™) vessel protection system
- Temperature control for as low as 8 ml possible
- Ideal solution for labs running large number of samples in every batch

## Touchscreen Interface



- User-friendly control panel, operated through touchscreen
- Easy navigation for method creation and storage
- Audible alarm and visual alerts during digestion runs
- Preloaded with EPA and other standard methods
- Capable of identifying a vessel in case of over pressure release
- Data export capability for tracking, tracing, and documentation



Recipe Type: ☒ Temp ☐ Power

Date of Creation: 2014-04-09  
Name of Creator: R Smith

Sample Type: sludge  
Sample Amount: 200 mg  
Number of Vessels: 11  
Maximum Working Limit  
Temp.(°C): 230 Power(W): 1200

Reagents:

| Name | HN03      | H202     | HCl      | HF       | H2O      |
|------|-----------|----------|----------|----------|----------|
| ml   | <u>10</u> | <u>0</u> | <u>2</u> | <u>0</u> | <u>5</u> |

Note: *make sure sample is flushed all the wa*

**Easy to create and store  
1000+ multi-step digestion recipes**

### OPGuard™



All vessels are individually pressure controlled using our unique resealing over-pressure guard (OPGuard™) vessel protection system. This system releases pressure vertically in a controlled manner to achieve safe pressure conditions.

Released fumes are removed quickly to avoid condensation on cavity and vessels. If release is minor and drop in temperature is minimal, the digestion method can be continued. In an instance where pressure release is major, complete safety is achieved by automatically cutting off magnetron power, activating audible alarm, and displaying visual warnings.

## System Specifications

|                                            |                                                    |                                |                                |
|--------------------------------------------|----------------------------------------------------|--------------------------------|--------------------------------|
| <b>Microwave power output</b>              | Up to 1200 Watts                                   | <b>Display</b>                 |                                |
| <b>Magnetron frequency</b>                 | 2450 MHz                                           | <b>Type</b>                    | Glass Touchscreen              |
| <b>Temperature sensing</b>                 | Non-contact IR based                               | <b>Size</b>                    | 18.8 x 11.2 cm (7.4 X 4.4 in.) |
| <b>Utilities</b>                           | 208 VAC, 60 Hz, 15 Amps<br>220 VAC, 50 Hz, 15 Amps | <b>Processor speed</b>         | 1.2 GHz                        |
| <b>Exhaust</b>                             | 150 CFM                                            | <b>Resolution</b>              | 1024 x 600 pixels              |
| <b>Weight</b>                              | 75 kg. (165 lbs.)                                  | <b>Data input method</b>       | Direct via touchscreen         |
| <b>Dimensions (width x depth x height)</b> |                                                    | <b>On-board method storage</b> | 1000 +                         |
| External                                   | 58 x 61 x 64 cm (23 x 24 x 25.5 in.)               | <b>On-board data storage</b>   | 10 GB                          |
| Cavity                                     | 39 x 34 x 30.5 cm (15 x 13.5 x 12 in.)             | <b>Computer connectivity</b>   | USB-B Port                     |
|                                            |                                                    | <b>Noise Level</b>             | < 56 dB                        |

| Parameters                      | eVHP     | LVHT     |
|---------------------------------|----------|----------|
| <b>Liner</b>                    |          |          |
| Type                            | TFM      | TFM      |
| Volume                          | 110 ml   | 50 ml    |
| <b>Temperature</b>              |          |          |
| Absolute max. temperature       | 300°C    | 300°C    |
| Max. control temperature        | 230°C    | 200°C    |
| <b>Pressure</b>                 |          |          |
| Absolute max. pressure(bar/psi) | 151/2200 | 24/350   |
| Max. control pressure(bar/psi)  | 69/1000  | 20.7/300 |
| <b>Sample capacity</b>          | 12       | 30       |



**In-situ Temperature Sensor Vessel**



**Pressure Sensor Vessel**

### Pre & Post digestion Treatment

- Option of QBlock digestion system for pre- and post-digestion treatment of samples in microwave digestion vessel liner itself
- Prevent contamination from use of multiple vials
- Partly digest organic-rich samples in QBlock at low temperatures to increase sample handling capacity of microwave digestion vessels
- Concentrate samples before microwave digestion treatment
- Give boric acid treatment for excess HF acid
- Evaporate excess or unwanted acids at the end of digestion



**Questron Technologies Corp.**

6660 Kennedy Road, Unit 14A Mississauga, ON L5T 2M9 Canada

Tel: 905.362.1225 — Fax: 905.362.1229 — [info@QTechCorp.com](mailto:info@QTechCorp.com) — [www.QTechCorp.com](http://www.QTechCorp.com)



Toll Free: 1.844.363.1223