

QLAB Pro

Ultimate Solution for all 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



Configurations

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

In case of Open Vessel configuration, external exhaust blowers take care of acid fumes generated.

Vessel Sets



eVHP Vessel Set

- Accurate temperature sensing ($\pm 0.1^{\circ}\text{C}$)
- Ease of loading carousel vessel by vessel inside the system 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



eVHP Vessel Station



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

System Status

Temp. & Power

Digestion Progress Bar

Recipe Details



Recipe Type: Temp Power

Step	Temp (°C)	Ramp min	Hold min
1	90	3	5
2	140	5	7
3	180	5	10
4	220	5	12

recipe 1.rco

Select Recipe Name

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	HNO3	H2O2	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

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

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

Parameters	eVHP	LVHT
Liner		
Type	TFM	TFM
Volume	110 ml	50 ml
Temperature		
Absolute max. temperature	300°C	300°C
Max. control temperature	230°C	200°C
Pressure		
Absolute max. pressure(bar/psi)	151 / 2200	43 / 625
Max. control pressure(bar/psi)	69 / 1000	20.7 / 300
Sample capacity	12	30



In-situ Temperature Sensor



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

