



# QBlock Digestion System

*With Quad-Channel QBlock Heating Controller*



## Introduction

Questron Technologies' QBlock series of block digestion products is an example of our dedication in providing innovation through technology to the laboratory analyst. Our colour touch screen-based QBlock Commander provides the ability to individually control up to four QBlock digesters simultaneously – all using our simple and user-friendly controller software.

Hot block digestion technique has been approved by authorities such as the United States Environmental Protection Agency (US EPA) as a suitable means of performing EPA methods such as 200.2, 200.7, 3005, 3010, 3050A and 3050B, as well as mercury prep methodologies. Our QBlocks are designed and manufactured to the most rigorous specifications available to hot block technology today. At 240°C, our products have the highest continuous maximum temperature rating for block digesters.

Our QBlocks use Teflon®-coated graphite, precision-drilled with a matrix of holes to accept our 50ml and 100ml polypropylene, Teflon®, and glass digestion tubes. A generous coating of Teflon® on the complete graphite surface ensures a long lasting product that will provide years of contamination-free and repeatable digestions. This graphite block is then encapsulated in high efficiency insulation and enclosed in a Teflon®-coated exterior box that remains comfortable to the touch even when the graphite block provides an unparalleled 230°C heat, while maintaining a set-point of  $\pm 0.1^\circ\text{C}$  and a surface consistency of  $1.5^\circ\text{C}$ .

Our QBlock Commander provides unparalleled value and ease of operation in block digestion. The colour touch screen-based quad-channel QBlock heating controller is simple to program, and yet it is powerful enough to accommodate up to four different QBlocks of any digestion tube size independently. It is the same as having four separate controllers for your four digesters – only you will appreciate the economy of space occupied.

Powered from a single 208-240VAC@20Amp line, the controller provides four independent power lines for four QBlock digesters. In addition, the QBlock Commander provides four separate thermocouple inputs from the QBlocks as well as four additional thermocouple inputs that can be used to measure actual sample vessel temperatures. All these electronics modules are independently driven from the QBlock Commander software, which can be operated from the comfort and safety of the acid-free environment outside the fume hood.

Our QBlock Commander can store up to ten multi-step digestion programs for each QBlock digester. Included in the programs are the provisions to specify temperature ramp rates, multi-step temperature set-points, and sample soak times. Should the laboratory analyst so desire, the QBlock Commander can even be hooked up to a computer via a USB connection, enabling the capability to store or backup digestion programs and actual digestion data.

## QBlock Commander

- The only colour touch screen-based digestion controller with the ability to control 4 hot blocks simultaneously
- Provides true sample temperature monitoring through dual thermocouple probes concept
- Real-time graphic display of temperature profile and digestion recipe parameters
- 4-step heating control for complex applications, including multi-step temperature ramp and hold capability
- Overheat prevention safety feature
- Capability of external calibration of thermocouples
- PC hook-up capability for digestion data transfer
- Compatible with any third party hot block capable of 220VAC operation and thermocouple feedback



## Specifications

### QBlock Commander

Dimensions	30.60 x 23.50 x 15 cm 12.05 x 9.25 x 5.91 in
Weight	6.50 kg. (14.50 lbs.)
Temperature inputs	4 for QBlock 4 for sample
Power input	200-240VAC, 50/60Hz@20Amps
Power output	200-240VAC, 50/60Hz@4Amps
Data storage	10 digestion methods 10 batch runs

### QBlock Digester

Dimensions	29.30 x 33.50 x 13.20 cm 11.54 x 13.19 x 5.20 in
Weight	14 kg. (31 lbs.)

## QBlock Digesters

- Available in two configurations – **QBlock 4200** (50ml vials/42 positions), and **QBlock 3000** (100ml vials/30 positions)
- Complete flexibility – a variety of vials and liners can be used
- Capable of accepting microwave digestion Teflon® liners for pre- and post-digestion treatment of samples
- Only hot block in the market that reaches adequate temperatures for tri-acid treatment
- Thermally secured from 5 sides, thus conserving energy
- Non-contaminating heat-sustainable Teflon®-coated sample vial carrying tray
- Remotely placed electronics controls
- Adequate sample handling capacity allows individual control over diverse groups of samples in multiple hot blocks, resulting in increased lab efficiency
- Upgradable to automated reagent delivery and sample work-up



Your local distributor:

## Qestron Technologies Corp.

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