

Dry block heaters » QB series

QB Dry block heating systems

for test tubes, microtubes and microplates ambient +5°C to 200°C

Dry block heating systems combining superb temperature control and uniformity with high quality design and great versatility. A premium product range at an affordable price.

- **Accurate, reproducible, rapid and safe heating of your samples** – due to advanced temperature control combined with high quality, precision-engineered blocks providing excellent thermal contact
- **Versatile range of interchangeable heating blocks to fit any sample tube or plate** – from our standard range of blocks, or custom-made blocks to suit your application
- **Full range of models and options for basic through to more sophisticated applications**



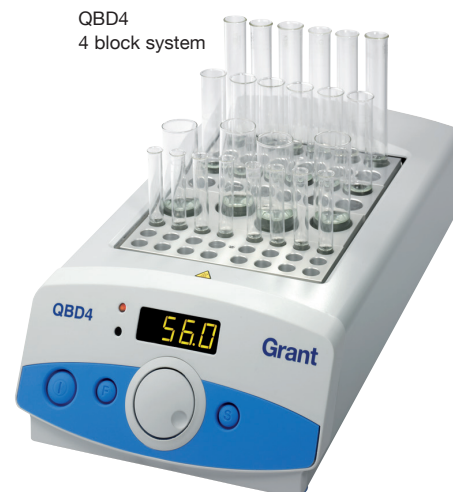
QBD2
2 block system



QBD1
1 block system



QBD4
4 block system



Applications:

- General use - incubating samples at set temperatures, heating block for boiling of solutions in tubes
- Life-science – cell digestion, DNA/RNA extraction, post sequencing PCR clean-up - dry down step, boiling in vitro DNA/RNA/protein samples, incubating invitro reactions/digestions, extraction of DNA for real-time PCR analysis, denaturing nucleic acid and protein samples
- Industrial - digestion of environmental samples for chemical oxygen demand analysis, soil digests, maintaining temperatures
- Biopharm - conductivity testing
- Clinical - acylcarnitines derivatisation, MRSA and PBP2 latex testing, heating flush/media used in egg recovery, fertility to keep test tubes at correct temperature during egg collection

Showcase – mid range/general purpose example

Model QBD2* stability and uniformity $\pm 0.1^\circ\text{C}$, range ambient $+5$ to 130°C

A versatile general purpose system with two removable/interchangeable blocks and a comprehensive specification to suit most dry block heating applications in the laboratory.

- **Stability and uniformity $\pm 0.1^\circ\text{C}$**
- **Digital temperature control for optimum precision**
- **Heating range ambient $+5^\circ\text{C}$ to 130°C , with rapid heat-up time**
- **Range of convenient features including alarms, single and dual point calibration, programmed start/stop, 'offset' for known sample temperature variation and choice of external or internal probes**
- **External probe available for accurate temperature control in a tube**



Microplate or microtube blocks for 0.2 ml tubes, strips and 96-well microplates used in molecular biology and biotechnology applications

Wide range of interchangeable blocks (order blocks separately) – extraction tool supplied as standard for easy and safe removal of blocks.

Custom blocks – for virtually any tube or vessel

High power heater for fast heat-up – from 25°C to 100°C in only 20 minutes

Over temperature cut-out protects your samples and your workplace



Optional safety cover – protects samples from contamination and users from accidental contact with hot blocks

Convenient timer facility, with audible buzzer, for reaction timing and function timing, e.g. delayed heater switch-on/turn-off

Simple to use rotary dial plus two keys for fast, accurate set-up








Compact footprint and sloping fascia optimise benchspace and ensure clear visibility during set-up and in use

High quality, robust construction in streamlined coolwall aluminium and chemical-resistant plastic – durable in demanding environments

* see summary table on page 7.3-7.4 for accessories and for other models in the range

Dry block heaters» QB series » Models and specifications

Dry block heating systems with interchangeable blocks – models

Temperature range  ambient + 5 to 130°C  ambient + 5 to 200°C  ambient + 5 to 100°C ● = standard	Precision digital			High performance digital
	QBD1	QBD2	QBD4	QBH2
	1 block system	2 block system	4 block system	2 block system
				
	h: 100mm d: 230mm w: 200mm weight: 2kg	h: 100mm d: 280mm w: 200mm weight: 2.5kg	h: 100mm d: 380mm w: 200mm weight: 4kg	h: 100mm d: 280mm w: 200mm weight: 2.5kg
Temperature range	°C ambient +5 to 130			°C ambient +5 to 200
Temperature setting range	°C 15 to 130			°C 15 to 200
Setting resolution	°C 0.1			°C 0.1
Stability	@ 37°C, ± °C 0.1			@ 37°C, ± °C 0.1
Uniformity	within the block @ 37°C, ± °C 0.1			within the block @ 37°C, ± °C 0.1
	across similar blocks @ 37°C, ± °C 0.2			across similar blocks @ 37°C, ± °C 0.2
Temperature display, LED	●			●
Display resolution	°C 0.1			°C 0.1
Heat up time 25° to 100°C	mins 20			mins 15
Three programmable temperature/time segments plus end-of-program segments	-			●
Reaction timer, with audible buzzer	1 to 999 mins			1 to 999 mins
Function timer for delay of heater start-up/switch-off	up to 72 hours			up to 72 hours
Off-set adjustment	●			●
Two-point calibration of internal and external probes	●			●
High/low temperature alarms, settable to within 0.5°C of set temperature	●			●
Fault indication display	●			●
Power	W 150	W 300	W 600	W 300
Supply voltage	V 120 or 230			V 120 or 230
Safety	over temperature cut-out thermal fuse			over temperature cut-out thermal fuse
Extraction tool for easy and safe block removal	●			●

Dry block heaters » QB series » Options and accessories

Options and accessories		QBD1	QBD2	QBD4	QBH2
- = not available • = available					
Interchangeable blocks*					
No. of blocks	140 x 50 x 63mm	1	2	4	2
QB-0 	Plain block without holes	•	•	•	•
QB-10 	for 24 x ø 10mm test tubes, 50mm hole depth	•	•	•	•
QB-12 	for 24 x ø 12mm test tubes, 50mm hole depth	•	•	•	•
QB-13 	for 12 x ø 13mm test tubes, 50mm hole depth	•	•	•	•
QB-16 	for 12 x ø 16mm test tubes, 50mm hole depth	•	•	•	•
QB-17H 	for 10 x Falcon tubes tall 17mm ø test tubes, 75mm hole depth	•	•	•	•
QB-18 	for 12 x ø 18mm test tubes, 50mm hole depth	•	•	•	•
QB-24 	for 5 x ø 24mm test tubes and universal bottles, 50mm hole depth	•	•	•	•
QB-50 	for 4 x 50ml centrifuge test tubes, glass universals, 50mm hole depth ø 29mm	•	•	•	•
QB-H 	for 56 x 0.2ml microtube, 14mm hole depth, ø 6.5mm	•	•	•	•
QB-E0 	for 24 x 0.5ml microtube, 30mm hole depth, ø 8mm	•	•	•	•
QB-E1 	for 24 x 1.5ml microtube, 35mm hole depth, ø 10.8mm	•	•	•	•
QB-E2 	for 24 x 2.0ml microtube, 35mm hole depth, ø 11mm	•	•	•	•
QB-E5 	for 12 x 5.0ml microtube, 53.5mm hole depth, ø 16.7mm	•	•	•	•
QB-DN 	Dolphin nose tube 24 x ø 11.13mm to ø 6.1mm	•	•	•	•
External Pt1000 temperature probe					
QBEP 	Standard probe. For in-sample or in-block temperature control; encased in stainless steel sheath, ø 3 mm x 30 mm long, with 350 mm of cable	•	•	•	•
QBEP-WM 	Short-form probe. For in-sample or in-block temperature control; encased in stainless steel sheath, ø 3 mm x 14 mm long, with 350 mm of cable	•	•	•	•
Microplate blocks for molecular biology and biotechnology applications					
Double-size blocks 140 x 100 x 75 mm supplied with additional extraction tool					
QDP-H 	96 holes in microplate configuration for 0.2 ml microplates, strips or individual tubes Uniformity ± 0.3°C within tubes across the block; 6.2 mm ø holes, 14 mm hole depth	-	•	-	•
QDP-FL 	Universal block for standard 96-well plates (u-well, v-well, flat bottom, high temperature) Uniformity ± 0.5°C between wells; supplied with hinged, double layer lid to create an insulated incubation chamber	-	•	-	•
Safety covers (not required with QDP-FL Microtiter blocks)					
	Made from tough clear acrylic for maximum visibility whilst preventing accidental touching of a hot block or contamination of samples from splashes Clearance height 85 mm	QBL1	QBL2	QBL4	QBL2

* Custom blocks available - please enquire