

Qantarus

Tools for Quantitative Biology



Product Catalogue 2008



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Q-Cycler

Standard Thermal Cycler

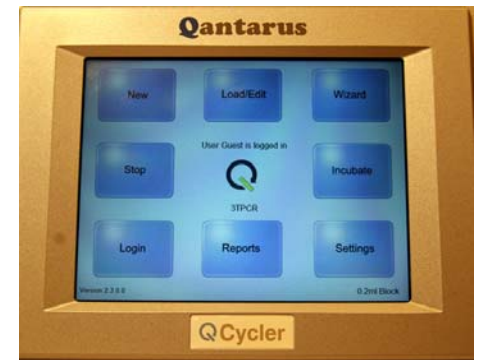
The Standard Q-Cycler is the entry level Q-Cycler and is available as a stand alone thermal cycler with integral 6.4 inch colour touch screen- the unit is available as a server or a satellite (no touch screen) which is controlled by a Q-Cycler server or PC. Up to three satellites can be controlled from a Q Cycler server in a simple *plug and play* USB network.

Both models offer excellent performance; eight peltiers allow for precise sample control using Quanta's proprietary quad engine drive technology.

The Q-Cycler has 6 independent temperature sensors to monitor and control every aspect of the sample environment, ensuring reproducible, accurate, results every run.

Features:-

- Modular 96 well Thermal Cycler System
- Choice of interchangeable thermal block
 - 96 well 0.2ml/ microplate
 - 48 well 0.5ml/ 48 well/0.2ml Combi
- Intuitive user interface for rapid programming and runs
- Ramp rate up to 3.5°C/s, uniformity better than $\pm 0.4^{\circ}\text{C}$
- Quad engine drive technology for superior performance
- Manual heated lid for tube/microplate
- >10,000 programs



Q-Cycler Standard	7013001	Non Gradient Standard Server Thermal Cycler with interchangeable 96 well block (ability to control up to 3 Satellites)
	7013004	Non Gradient Standard Satellite Thermal Cycler with interchangeable 96 well block

Q-Cycler Gradient Thermal Cycler

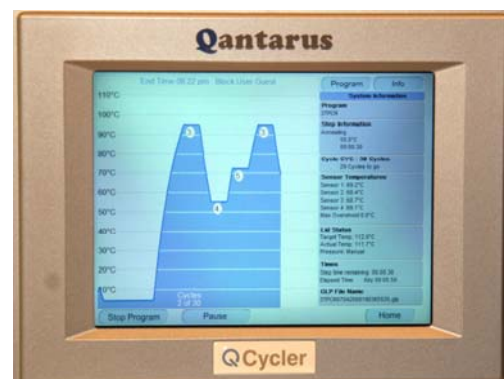
The Gradient Q-Cycler is the most popular choice. It offers excellent versatility and class leading thermal performance and is also available in server and satellite models

Eight peltiers allow for precise sample control using Quanta's proprietary quad engine drive technology. Twelve independent temperatures for gradient optimisation experiments, add to the versatility of this new high performance cycler.

The Gradient Q-Cycler has 6 independent sensors to monitor and control every aspect of the sample environment, ensuring a high degree of accuracy for every run.

Features:-

- Modular 96 well Gradient Thermal Cycler System
- Choice of interchangeable thermal block
 - Gradient 96 well 0.2ml/ microplate
 - Gradient 48 well 0.5ml/ 48 well/0.2ml Combi
 - Gradient 384 well microplate
 - 4 x Micro array/slide
- Intuitive user interface for rapid programming and runs
- Ramp rate up to 5°C/s, uniformity better than ±0.4°C
- Up to 30°C gradients
- Intelligent protocol generation wizard
- Gp files and individual user directories for up to 10,000 programs



Q-Cycler Gradient	7013002	Gradient Server Thermal Cycler with interchangeable block (ability to control up to 3 Satellites)
	7013005	Gradient Satellite Thermal Cycler with interchangeable block

Q-Cycler

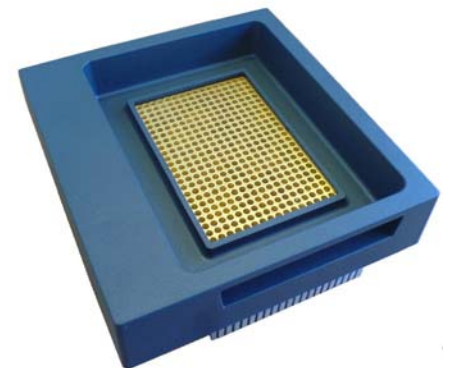
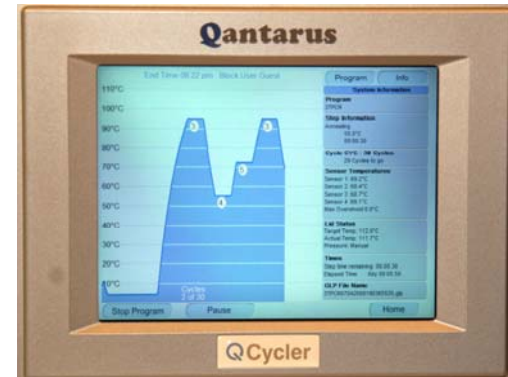
UltraGradient Thermal Cycler

The UltraGradient Q-Cycler is the top of the range. It offers uncompromising thermal performance and ultimate versatility in both server and satellite models

Gold plated solid silver thermal blocks are driven by eight peltiers using Quanta's proprietary quad engine drive technology to provide an amazing combination of speed and sample uniformity. The cycler is controlled by an integrated Pentium PC coupled to a large colour touch screen and has every feature the most demanding laboratory requires .

Features:-

- Modular UltraGradient Thermal Cycler System
- Choice of interchangeable thermal block
 - UltraGradient 96 well 0.2ml/ microplate
 - UltraGradient 384 well microplate
 - Gradient 48 well 0.5ml/ 48 well/0.2ml Combi
 - 4 x Micro array/slide
- Intuitive user interface for rapid programming and runs
- Ramp rate up to 5°C/s, uniformity better than $\pm 0.4^{\circ}\text{C}$
- Up to 30°C gradients
- Quad engine drive technology for max performance
- Glp files and individual user directories for up to 10,000 programs
- Intelligent protocol creation wizard
- Barcode reader compatible
- Inbuilt OQ Test



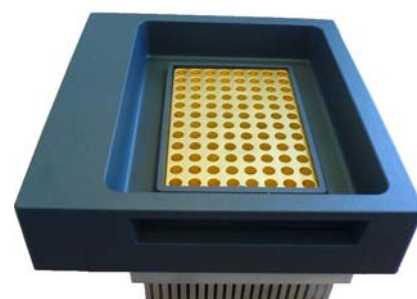
Q-Cycler Ultra-Gradient	7013003	UltraGradient Server Thermal Cycler with interchangeable block (ability to control up to 3 Satellites)
	7013006	UltraGradient Satellite Thermal Cycler with interchangeable block

QB-96 High Performance Satellite Thermal Cycler

The QB-96 satellite range provides the best value in high performance Thermal Cyclers. They employ the latest quad engine drive technology and can be controlled by Q Server, PC or PDA (with USB host capability)

Features:-

- Small, quiet, modular 96 well Gradient Thermal Cycler Satellite System
- PC Network of up to fifteen units all running independent protocols
- 8 types of interchangeable block including
 - UltraGradient 96 well 0.2ml/microplate
 - 48 well 0.5ml/96 well 0.2ml Combi
 - Gradient 96 well 0.2ml/ microplate
 - UltraGradient 384 well microplate
 - 4 x Microarray/slide
- Intuitive user interface for rapid programming and runs
- Ramp rate up to 5°C/s, uniformity better than ±0.4°C
- Up to 30°C gradients
- Four independent thermal engines for superior performance



QB-96 High Performance Satellite	7002004	Standard Satellite Thermal Cycler including block and PCQB Software (requires separate control from Q server, PDA or PC)
	7002005	Gradient Thermal Cycler including block and PCQB Software (requires separate control from Q server, PDA or PC)
	7002006	Ultra Gradient Thermal Cycler including block and PCQB Software (requires separate control from Q server, PDA or PC)

QB-24

Personal Satellite Thermal Cycler

The QB-24 is a modular Personal Thermal Cycler that is small and quiet.

The minimalist design and silent running hides a unit that is packed with power delivering maximum thermal performance.

Features

- Small, quiet, personal thermal cycler
- Satellite unit controlled by Q server, PC or PDA
- Inclusive of PC control software
- USB Network of up to 15 units all running independent protocols
- 24 x 0.2ml tubes in a 3 x 8 format suitable for tubes or tube strips
- Intuitive user interface for rapid programming and runs
- Intelligent wizard protocol generation software
- Ramp rate of up to 2.5°Cs
- Uniformity better than +/- 0.4°C
- Automatic heated lid

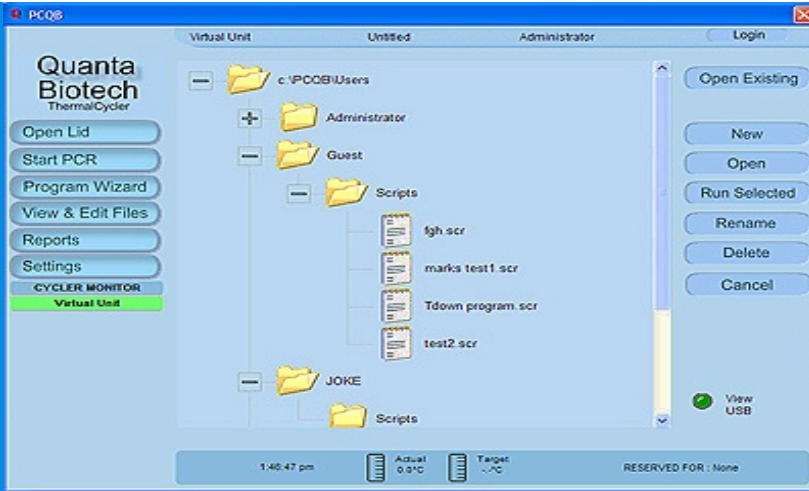


QB-24
Personal
Satellite

7003002

Satellite Personal Thermal Cycler including block for 24x0.2ml tubes and PCQB control Software (unit requires separate control, from Q Server, PDA or PC)

Thermal Cycler Accessories



PCQB software

Has the ability to control up to 15 of any combination of Q-Cycler, QB-96 or QB-24 satellites producing a mixed network system with the capability of concurrently executing up to 15 independent programs.

Network can be incrementally expanded from one to 15 units at any time through standard USB connection. New units are automatically detected and installed.

The software provides 'drag and drop' program creation and edit of program fields including hot start, touchdown, gradient, barcode entry, temperature and store steps. Our unique Wizard is capable of automatic program creation in seconds from key application data.

An encrypted GLP record of every run is taken. A USB memory stick can be used to aid rapid protocol and GLP report transfer to other PDAs, PCs, compatible Thermal Cyclers and Networks. There is the capacity for barcode entry used for sample tracking and GLP records.

The three level user management system within the program increases system security and file protection. Inbuilt OQ protocols for QC check of all instrument functions.

All applications can be upgraded by web download and USB transfer. In case of power fail, the QBPC software can perform a full recovery.

Application software for windows XP. Requires PC compatible computer with Pentium Microprocessor, at least 512mb RAM, and high resolution graphics display.

USB memory stick suitable for application upgrade, protocol and GLP report transfer to and from Q Cycler, QB-96 and QB-24 Servers.



PC software	7005001	For windows XP, to run up to 15 satellites from a PC. For Q Cycler, QB 96 and QB24
Memory stick	7005002	USB memory stick

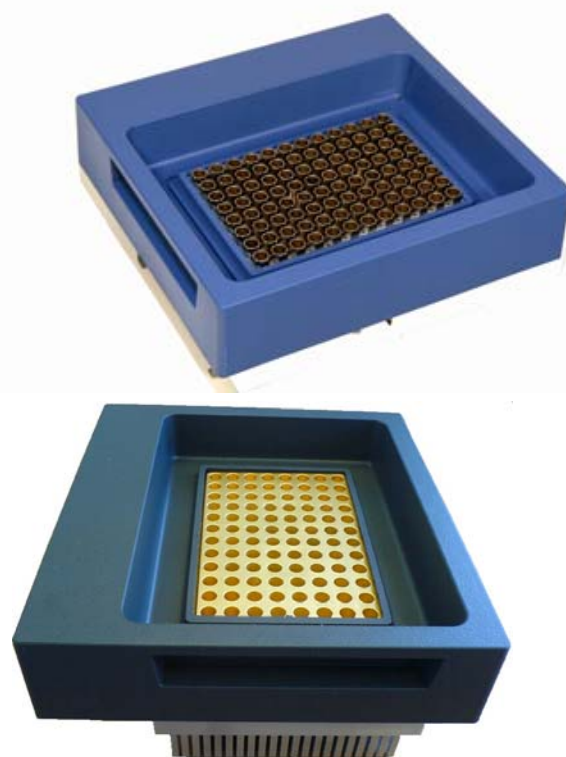
Thermal Cycler Blocks

Quanta Biotech's thermal blocks are run by quad engine drive technology. This consists of four independent thermal engines, each with its own control sensor; allowing for better uniformity. Gradient versions are capable of near linear gradients of up to 30°C, and performance is unaffected by different sample loading.

Our simple system allows you to change the blocks within your thermal cycler in seconds, with no tools required.

Each block is nickel coated aluminium or gold coated silver for easy decontamination, rapid consumable release and superior performance

All our thermal cycler blocks have an embedded intelligent heat sink temperature monitor to prevent system overheat.



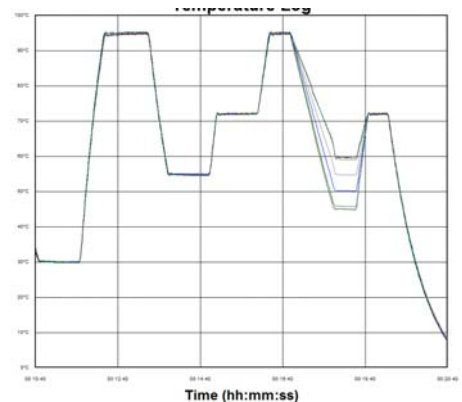
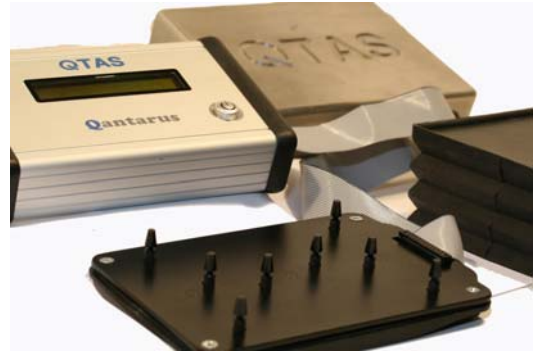
Standard	7004001	Standard Block for 96x0.2ml/96well plate for Q-Cycler & QB-96 thermal cyclers
	7004002	Standard Block 96x0.2/48x0.5ml for Q-Cycler & QB-96 thermal cyclers
	7004003	Block for 4 Slides/Microarrays
Gradient	7004004	Gradient Block for 96x0.2ml/96well plate for Q-Cycler & QB-96 thermal cyclers
	7004005	Gradient Block 96x0.2/48x0.5ml for Q-Cycler & QB-96 thermal cyclers
	7004006	Gradient Block for 384 well plate for Q-Cycler & QB-96 thermal cyclers
Ultra Gradient	7004007	UltraGradient Block for 96x0.2ml/96well plate for Q-Cycler & QB-96 thermal cyclers
	7004008	UltraGradient Block for 384 well plate for Q-Cycler & QB-96 thermal cyclers

QTAS Systems Cycler Validation Systems

Our Thermal Cycler Validation Systems consist of all the components required for a complete thermal cycler validation package including control module, temperature probes, 3kg weight, bellows and PC software.

Our Thermal Cycler Validation Systems offer an accuracy of +/-0.1°C with a sensor response time of 200ms. The TAS has a sampling rate of 0.1s to 1 hr, with a temperature range of 4-99°C and is compatible with 0.2ml, 0.5ml and 384well blocks.

A real time graphical display shows readings with adjustable scale for temperature and time. Additionally the “Temperature Sensitive” micro plate view can be used for easy dynamic interpretation of hot and cold spots. Full GLP encrypted records with date and time stamp. Data export in CSV format.



QTAS systems	7016001	TAS 8 thermal cycler validation system including 8 sensor fixed plate and PC software
	7016002	TAS 16 thermal cycler validation system including 16
	7016003	TAS 48 thermal cycler validation system including 48
	7016004	TAS 96 thermal cycler validation system including 96

TAS Probes

Validation Systems



Our sensors are compatible with 0.2ml, 0.5ml and 384 well thermal cycler blocks and are calibrated in our laboratory using a NIST traceable calibration standard traceable to ITS90: 12 month recalibration required. Up to 96 probes can be inserted into our most sophisticated control module (available separately). Our sensors are quick release precision and can be easily repositioned to inspect any combination of 96 or 384 block wells.

Sensors have a rapid response time of <200ms to ensure even the shortest temperature overshoot is recorded. Each sensor has its own unique identity eliminating any possibility of sensor mix up and the use of correct calibration parameters at every test.

Extra Long Temperature Probe

1 x 0.2ml/0.5ml Temperature probe on 0.75m lead for use with our TAS control modules, to accurately analyse the performance of thermal cyclers with blocks with non standard microplate well spacing.



Reference Probe

The reference probe will provide a temperature reading of 25 Celsius +/- 0.01°C in all well positions. It is used to check the correct operation of the TAS control module. It should be recalibrated annually.



Bare Thermistor Probe

Bare thermistor temperature probe for use with our TAS thermal cycler validation systems, to analyse thermal cycler performance accurately. Used to monitor varying fluid volumes in the reaction consumables in which the experiments are actually conducted.



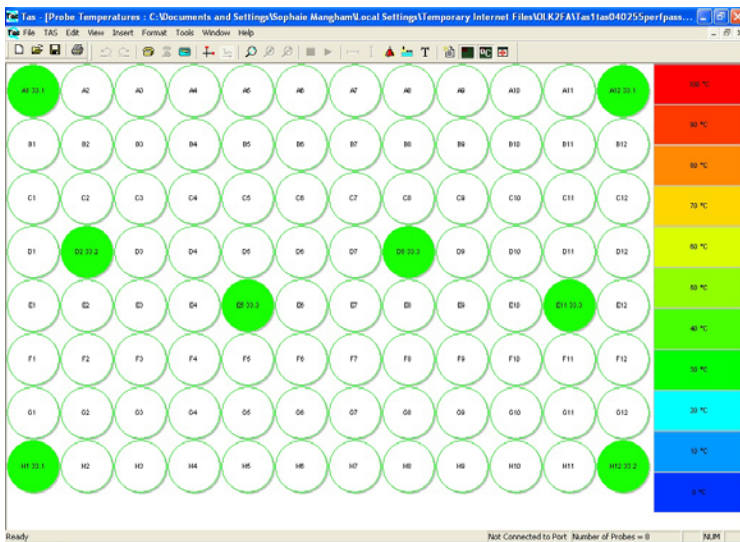
TAS
Probes

7009001	1 Temperature Probe
7009002	Set of 8 Temperature Probes
7009003	Set of 16 Temperature Probes
7009004	Set of 24 Temperature Probes
7009005	Set of 48 Temperature Probes
7009007	TAS extra long temperature probe on 0.75m lead
7009008	TAS Bare thermistor probe
7009009	Reference probe for QTAS 96 variable probe plate
7014005	QTas 96 variable probe plate (to interface interchangeable probes with QTAS systems)

Recalibration TAS probes

TAS temperature probes should be calibrated annually by returning them to Quanta Biotech's Calibration Laboratory. We use calibration standards traceable to NIST and the International Temperature Standard ITS90.

The reference probe will provide a temperature reading of 25 Celsius +/- 0.01C in all well positions. It is used to check the correct operation of the QTAS control module. It should be recalibrated annually.



TAS probe recalibration	7010001	1 Probe Recalibration
	7010002	Set of 8 Probes Recalibration
	7010003	Set of 16 Probes Recalibration
	7010004	Set of 24 Probes Recalibration
	7010005	Set of 48 Probes Recalibration
	7010006	Set of 96 Probes Recalibration
	7010007	Reference Probe Recalibration

Thermal Cycler Validation Service

Our Thermal Cycler validation services utilise sophisticated test equipment containing up to 96 rapid response precision temperature sensors (calibrated using temperature standards traceable to NIST and ITS90) to concurrently interrogate any combination of thermal cycler wells at acquisition rates of up to 100ms.

The result is that laboratories are no longer dependent on thermal cycler manufacturers for these procedures. Built in intelligence ensures that TAS always operates to meet, or exceed, the regulated standards for the most stringent thermal cycler validation requirements.

Custom tests and onsite validation can be arranged on request.

For further information and a quote for thermal cycler validation please contact us on calibrationlab@quantabiotech.com

Bronze Option

Thermal Cycler Performance Check of 6 well positions at three temperatures using Quanta Biotech's standard TAS probes.

Static uniformity and accuracy measured at 0, 15 and 30s after step timing initiation.

Silver Option

Thermal Cycler Performance Check of 16 well positions at three temperatures using Quanta Biotech's standard TAS probes.

Static uniformity and accuracy measured at 0, 15 and 30s after step timing initiation.

Dynamic uniformity measurement for heating and cooling phases (worst case)

Gold Option

Thermal Cycler Performance Check of 48 well positions at three temperatures using Quanta Biotech's standard TAS probes.

Static uniformity and accuracy measured at 0, 15 and 30s after step timing initiation.

Platinum Option

Thermal Cycler Performance Check of 16 well Positions at up to five temperatures at a user specified reaction volume using Quanta Biotech's bare thermistor TAS probes.

Static uniformity and accuracy measured at three user specified periods (per set temperature) after step timing initiation.

Q-Hyb 10 Hybridization incubation oven

The Q-Hyb 10 is a high quality versatile hybridization incubator. With its integral rotisserie it has the capacity to conduct up to 20 independent probe hybridizations, each with up to seven separate membranes.

The rotisserie and shaking platform can be interchanged in less than a minute allowing researchers to quickly adapt the incubator to the needs of their individual protocols; employing strategies utilising both accessories.

This capacity and flexibility enables the incubator to service multiple users and act as a core hybridization oven facility in even the most demanding research laboratory.

Features:

- Optional accessories for falcon tube, standard, large bottle and custom rotisseries
- Wide temperature range ambient + 5°C– 95°C
- Timer with audible alarm
- Optional interchangeable shaking tray for batch washing
- Optional four removable shelves for static incubations
- Index loading system for controlled experimental set up
- Easy clean stainless interior and door
- Large window to view experiments
- High precision PID control
- Bottle to bottle uniformity better than 0.1°C
- Stackable to minimise wastage of laboratory space



Q-Hyb 10 Incubator	7011001	Q-Hyb10 Base Incubator	220 Volt
	7011002	Q-Hyb10 Base Incubator	110 Volt

Q-Hyb 10 Accessories

Rotisseries

Standard Rotisserie Pack-10 bottle rotisserie, 2 large bottles & pack of large mesh

Extra Large Bottle Rotisserie- Rotisserie for extra large bottles

Falcon tube Rotisserie- Falcon tube rotisserie with capacity for up to 16 falcon tubes



Hybridisation Bottles

Extra Large Bottle- Extra large hybridization bottle. 300mm x 75mm

Large Bottle - Borosilicate glass bottle 300mm long x 35mm internal diameter

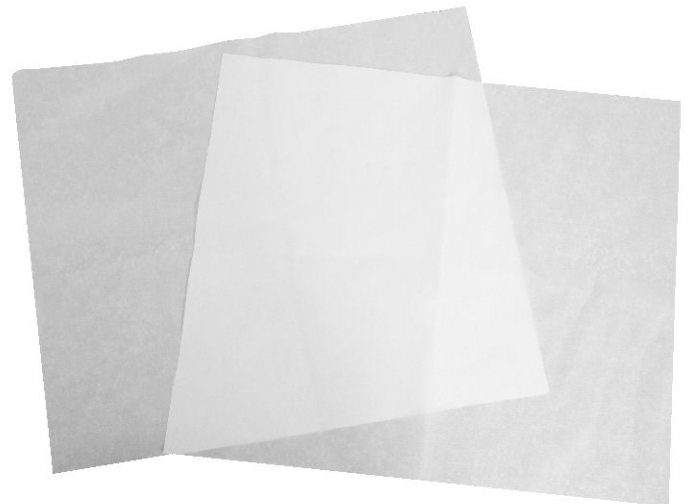
Small Bottle - Borosilicate glass bottle 150mm long x 35mm internal diameter



Hybridisation Mesh

Large Mesh - Pack of 10 nylon mesh 250 x 250mm

Small Mesh - Pack of 10 nylon mesh 130 x 130mm



Q-Hyb 10 Accessories continued



Shaking Tray

310 x 15 x 210mm

The Q-Hyb 10 shaking tray pack

Incubation shelf

Two stainless steel incubation shelves

The Q-Hyb 10 has 4 available shelving points



Bottle Handler - Safety sheath to insulate and protect

Rotisseries	7011003	Standard Bottle Rotisserie Pack
	7011004	Extra Large Bottle Rotisserie
	7011005	Falcon Tube Rotisserie
Shelving	7011006	Incubation Shelf Pack
	7011007	Shaking Tray
Hybridisation bottles	7011008	Extra Large Bottle
	7011009	Large Bottle
	7011010	Small Bottle
Mesh	7011011	Large Mesh
	7011012	Small Mesh
Accessories	7011013	Bottle Handler