

DRY BLOCK HEATERS

Ratek's extensive range of high quality dry block heaters are engineered to give accurate temperature control and heat uniformity, which equals reproducible results every time. Coupled with simple operation and a versatile range of interchangeable blocks and evaporation systems, we can quickly tailor a system to meet your needs.

DBH10D

Digital Dry Block Heater - 1 Block

Part of Every Workstation

The compact design of the DBH10D makes it the ideal companion for every workstation. It is ideally suited where a single type of tube is more commonly used, or where multiple drop-in block inserts can be utilised for different tubes.

The heater can be extended with a nitrogen evaporation system for sample concentration, with gas manifolds available for all standard block configurations.

With a temperature range up to 150°C with 1° indication, the DBH10D is a good all purpose block heater where temperature accuracy is less critical.



1 block, 150°C, 1° indication

DBH10DP

Precision Dry Block Heater - 1 Block

Compact with Precision Control

The DBH10D is ideally suited to applications where temperature accuracy is important to the task. It's bright and easily visible digital LED display indicates in 0.1° increments up to a maximum of 99.9°C.

Compatible with all single position block inserts, it can be used with virtually any test tube, vial or sample container with the appropriate block.

Featuring an audible over-temperature alarm and cut-out, the DBH10DP provides protection for samples and excellent block temperature uniformity for consistent reproducible results.



1 block, 99.9°C, 0.1° indication

DBH20D

Digital Dry Block Heater - 2 Block

Ideal For Single 96 Well Plates

Ratek's most popular block heater, the dual block capacity of the DBH20D make it ideal where more than one tube type is commonly used at the same workstation.

Despite occupying a small benchtop footprint, the DBH20D can accommodate up to 40 x 1.5mL Eppendorf tubes, or a single 96 well plate using an MB block insert. Using 2 different block inserts, 2 types of tubes can be used concurrently on the same unit.

The heater can be extended with a nitrogen evaporation system for sample concentration, with gas manifolds available for all standard block configurations.

With a temperature range up to 150°C with 1° indication, the DBH20D is a good all purpose block heater where temperature accuracy is less critical.



2 block, 150°C, 1° indication

DBH20DP

Precision Dry Block Heater - 2 Block

Precision Control

The DBH20DP is ideally suited to applications where temperature accuracy is important to the task. It's bright and easily visible digital LED display indicates in 0.1° increments up to a maximum of 99.9°C.

With capacity for 2 standard block inserts, 2 different tube sizes can be accommodated on the one unit.

The DBH20DP can also be used with any MB block inserts for working with single 96 well plates.



2 block, 99.9°C, 0.1° indication

DBH30D

Digital Dry Block Heater - 3 Block

Flexible Block Options

With capacity for 3 standard blocks, or an MB block in addition to a standard block, the DBH30D is suited to workstations that use a variety of different tubes, vials and plates.

The DBH30D features fast heatup, excellent temperature uniformity and an over-temperature alarm with audible siren. With a temperature range up to 150°C with 1° indication, the DBH30D is a flexible all purpose block heater where temperature accuracy is less critical.



3 block, 150°C, 1° indication

DBH30DP

Precision Dry Block Heater - 3 Block

Precision with Flexibility

The DBH30DP is ideal for applications that require a larger number of tubes to be heated concurrently at precise temperatures.

It features a large easily visible digital LED display which indicates in 0.1° increments up to a maximum of 99.9°C. It's 3 block capacity means up to 60 x 1.5mL tubes can be accommodated on the one unit. The DBH30DP can also be used with any MB block inserts for working with single 96 well plates.



3 block, 99.9°C, 0.1° indication

DBH40D

Digital Dry Block Heater - 4 Block

Truly Flexible

Ratek's largest standard block heater, the 4 block capacity of the DBH40D make it ideal where a wide range of tube sizes is commonly used at the same workstation, or where a large number of a single tube type require heating concurrently.

The DBH40D can accommodate up to 80 x 1.5mL Eppendorf tubes, or 2 x 96 well plates using MB block inserts. Alternately a combination of 96 well plate and tube blocks can be used on the same machine. Using a custom made block with large wells, the DBH40D is also large enough to be transformed into a small oil bath at temperatures up to 150°C.

Using the EMS4 and 2 x EM96 evaporation manifolds, nitrogen evaporation for sample concentration can be applied to 2 x 96 well plates at the one time.

The large capacity of the DBH40D makes it a truly flexible unit.



4 block, 150°C, 1° indication

DBH40DP

Precision Dry Block Heater - 4 Block

High Capacity Precision

The DBH40DP features a large 4 position working area, allowing for up to 80 x 1.5mL tubes to be heated at the same time.

It features a large easily visible digital LED display which indicates in 0.1° increments up to a maximum of 99.9°C.

The DBH40DP can also be used with any MB block inserts for working with 2 x 96 well plates at once, with the EM96 evaporation manifold available.



4 block, 99.9°C, 0.1° indication

DBH10

Analogue Dry Block Heater - 1 Block

Simplicity with Stability

The DBH10 analogue block heater offers excellent temperature stability combined with the ease of use of a simple analogue dial control.

The desired temperature can be set quickly and easily, and is ideal for applications where temperature accuracy is less critical.

It will accommodate any standard block from our extensive range, including popular 20 x 1.5mL and 12 x 15mL centrifuge tube blocks.



1 block, 110°C, analogue control

DBH30

Analogue Dry Block Heater - 3 Block

Set And Forget

The DBH30 analogue block heater combines the flexibility of a 3 block capacity with the simplicity of an analogue dial control.

Large enough to accommodate a 96 well plate block plus a standard block insert, it is the ideal workstation companion for a variety of everyday tasks.

The DBH30 can be used at up to 110°C and offers excellent block temperature uniformity.



3 block, 110°C, analogue control

EVAPORATION

Sample Concentration/Nitrogen Blow-Down Systems

Available To Suit Every Block Size

Evaporation systems can be fitted to any Ratek block heaters to allow a controlled gas flow into tubes and vials. Gas manifolds with stainless steel removable needles to suit all standard size blocks are available, with blanking needles available for use when not all outlets are required. The EM96 fixed needle manifold is also available to suit 96 well plates.

Retort stands attached to the heater are used to hold the manifolds, these stands allow height and clearance adjustment and manifolds can be easily removed when not required. A simple quick-set clamping screw holds the manifold in place whilst individual valves are provided on the rear of the heater allowing independent control of gas flow to each manifold.

Evaporation systems can be retrofitted in our workshop to all existing DBH/D series block heaters or supplied fitted and ready to use with new block heaters.



Available for all DBH10/20/30/40/D heater models

EVAPORATION ORDER CODES

	DBH10	DBH10D/DP	DBH20D/DP	DBH30	DBH30D/DP	DBH40D/DP
Gas block & stand	EMS1	EMS1	EMS2	EMS3	EMS3	EMS4
Manifold series	EM + No. of Holes + S eg Manifold to suit 20 hole block = EM20S	EM + No. of Holes + S eg Manifold to suit 12 hole block = EM12S	EM + No. of Holes eg Manifold to suit 9 hole block = EM9	EM + No. of Holes eg Manifold to suit 6 hole block = EM6	EM + No. of Holes eg Manifold to suit 4 hole block = EM4	EM + No. of Holes eg Manifold to suit 96 well plate = EM96
Max no. of manifolds	1 x standard	1 x standard	2 x standard or 1 x EM96	3 x standard or 1 x EM96 + 1 x standard	3 x standard or 1 x EM96 + 1 x standard	4 x standard or 2 x EM96 or 1 x EM96 + 2 x standard

DRY BLOCK HEATER SPECIFICATIONS

	DBH10	DBH10D/DP	DBH20D/DP	DBH30	DBH30D/DP	DBH40D/DP
Block positions	1 x standard	1 x standard	2 x standard or 1 x MBx	3 x standard or 1 x MBx + 1 x standard	3 x standard or 1 x MBx + 1 x standard	4 x standard or 2 x MBx or 1 x MBx + 2 x standard
Control type	Solid-state analogue	Custom digital PID	Custom digital PID	Solid-state analogue	Custom digital PID	Custom digital PID
Max temp °C	110°C	DBH10D - 150° (1° increments) DBH10DP - 99.9° (0.1° increments)	DBH20D - 150° (1° increments) DBH20DP - 99.9° (0.1° increments)	110°C	DBH30D - 150° (1° increments) DBH30DP - 99.9° (0.1° increments)	DBH40D - 150° (1° increments) DBH40DP - 99.9° (0.1° increments)
Control stability	+/- 0.5°C	+/- 0.2°C	+/- 0.2°C	+/- 0.5°C	+/- 0.2°C	+/- 0.2°C
Safety features	• Over temp cutout	• Over temp alarm • Over temp cutout	• Over temp alarm • Over temp cutout	• Over-temp cutout	• Over temp alarm • Over temp cutout	• Over temp alarm • Over temp cutout
Power input	240V AC/165W	240V AC/165W	240V AC/165W	240V AC/330W	240V AC/330W	240V AC/330W
Overall dimensions	W165 x D200 x H100mm	W165 x D200 x H100mm	W216 x D265 x H100 mm	W283 x D265 x H100 mm	W283 x D265 x H100 mm	W362 x D265 x H100 mm
Nett weight	1.6 kg (without block)	2.5 kg (without block)	3.5 kg (without block)	3.7 kg (without block)	4.5 kg (without block)	4.9 kg (without block)

SB/EB/FB/VB BLOCKS

Drop-in Dry Block Heater Blocks - Tubes & Vials

A Block For Every Application

A wide range of standard dry block inserts are available to suit Ratek block heaters as well as many other brands. All blocks are precision machined from black anodized aluminium which is resistant to corrosion, spills and staining.

The smooth anodized surface ensures excellent heat transfer to all containers, and when used in Ratek heaters gives excellent temperature uniformity throughout the block.



L95 x W75 x H50mm, black anodized aluminium

MB1/2/3 BLOCKS

Drop-in Dry Block Heater Blocks - 96 Well Plates

A Perfect Fit

A range of blocks to suit 96 well plates is available, with 3 hole profiles accommodated. Each block occupies 2 standard block positions, so can be used in 2 block heaters or above, and in conjunction with other single position blocks. A thermometer reference hole is provided in addition to the plate locating holes.

Nitrogen blow-down systems are available to suit all Ratek blocks, including the MB range.



L150 x W95 x H50mm, black anodized aluminium

POPULAR DRY BLOCK SIZES

Block Series	Number of Holes	Hole Size/Type	Codes
10.5 mm through to 14 mm diameter holes	20	Code is diameter, 45mm deep	SB10.5, SB12, SB13, SB14
15 mm through to 17 mm diameter holes	12	Code is diameter, 45mm deep	SB15, SB16, SB17
Block to suit 1.5mL Eppendorf centrifuge tubes	20	Matched to tube profile	EB20
Block to suit 2 mL Eppendorf centrifuge tubes	20	Matched to tube profile	SB2.0
Block to suit 15mL Falcon tubes	12	Matched to tube profile, 45mm deep	FB15
Block to suit 50mL Falcon tubes	4	Matched to tube profile, 45mm deep	FB50
Block to suit 2 mL vials	20	12.3 mm dia, 24 mm deep, flat bottom	VB20
96 well plates (occupies 2 standard block positions)	96	Flat (MB1), Conical (MB2), Round (MB3)	MB1, MB2, MB3
* Allow a minimum of 0.3 mm on top of your tube diameter for the hole size			A complete listing of standard blocks is available on our web site

CUSTOM BLOCKS

Dry Block Heater Blocks - Made to Order

Match The Block to Your Container

For optimum heat transfer in virtually any container, Ratek can manufacture blocks to exact specifications in almost any size. Our computerised machining centre delivers a precise fit in a wide range of available material sizes and finishes. Custom blocks can be quoted quickly once your requirements have been determined. Contact us today to discuss a custom machined block to suit your application, or send a sample container for us to measure up accurately for you.

