

YOUR PARTNER IN THE LAB



04 SHAKERS & ROCKERS



08 ROTARY MIXERS



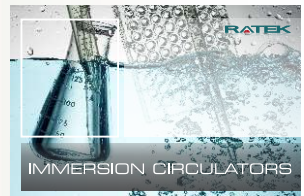
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RATEK

RATEK AT YOUR FINGERTIPS



Photo Galleries

A picture says 1,000 words. You'll find product images showing accessories, close-ups of control panels plus different model configurations.



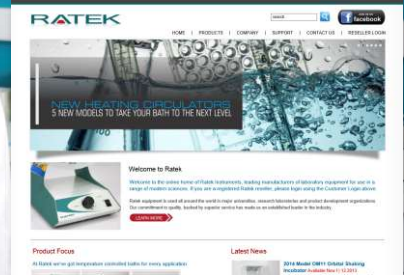
Data Sheets

PDF data sheets are available for all models of equipment, including technical specifications, weights & dimensions.



Live Support

Chat online with our customer service team for sales and technical support when you need it.



Reseller Portal

Our reseller portal gives access to pricing, real-time stock availabilities plus a suite of accounts tools to make dealing with Ratek even easier. Available exclusively to Ratek resellers.

www.ratek.com.au



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WHY CHOOSE RATEK ?

Absolute product reliability and long product lifespan

Ratek is an established and trusted name in all major Australian laboratories, with more than 50,000 pieces of equipment sold in Australia. Our equipment has been refined over 42 years to provide years of trouble-free operation.

True local support, unlike imported brands

Uptime is critical, and we deliver unparalleled warranty and after-sales service with technical representation and distributors in all states of Australia. All spare parts are held in stock in Melbourne for fast turnaround.

Support Australian jobs and buy locally made

Ratek is a proudly 100% Australian family owned and run business which has been in operation since 1979. We continue to design and **manufacture** in Australia using our skilled Australian workforce.

In stock for immediate delivery

Almost all standard models are stocked in Melbourne, so whether you need it next month, next week or you needed it yesterday, we can help.

Quality certified

Ratek is proudly ISO9001 certified.



Quality
ISO 9001
SAI GLOBAL



RATEK

SHAKERS & ROCKERS

A range of smooth and super-quiet mixers with varied mixing actions, Ratek's reliable and easy to operate range of machines are essential tools for everyday laboratory applications that require repeatable results. With a full range of accessories available and the ability to customise our products to suit the application, Ratek have a model to meet every need.

OM1

Analogue Orbital Shaker - Compact

Compact Yet Powerful

Bench space is always at a premium in the lab, and you don't want to be stuck waiting for your shared lab shaker to become available. This is where the OM1 fits the bill perfectly.

A super-quiet compact benchtop personal orbital mixer that allows you the freedom to shake smaller samples right at your station, with repeatable results every time.

The non-slip rubber mat allows gentle mixing of flasks from 25mL up to 5 litres, or for vigorous mixing the TCT1 tulip clip tray and RR1 universal rack are available.



210 x 180mm platform, 20 - 200 RPM, analogue control

EOM5

Analogue Orbital Shaker - Medium

Everyday Workhorse

When you need to mix a variety of samples quietly and reliably day-in day-out, the EOM5 fits the bill. With a super-quiet Ratek silent belt drive, long life brushless motor and slow acceleration, the EOM5 provides hassle free mixing of flasks, bottles and tubes.

A wide range of accessories is available including the RR5 universal rack, TCT5 tulip clip tray and AT5 adhesive mat tray. The platform can also be extended with the DTT5 dual-tier attachment to virtually double the mixing capacity.



350 x 350mm platform, 20 - 200 RPM, analogue control

OM6

Digital Orbital Shaker - Medium

Super-Quiet Operation

The OM6 sits between the compact and large Ratek orbital shaker ranges and delivers the best of both of these worlds. The platform is large enough to accommodate up to 16 x 250mL flasks or 8kgs, yet small enough to be part of your daily workstation.

With a super-quiet drive system incorporating slow acceleration to reduce spillage, the OM6 delivers smooth, precise and repeatable speed control via its large user-friendly digital control panel. The brilliant red LED tachometer, timer and user program display ensures you know exactly what your samples are doing, visible from anywhere in the lab.

A wide range of accessories is available including universal racks, tulip clip trays, adhesive mat trays and dual-tier trays plus customised trays can be made on request.



350 x 350mm platform, 40 - 400 RPM, digital control

GM1

3D Gyrotory Mixer - Compact

Extremely Versatile

The GM1 has a unique gyrotory type action sometimes referred to as the "Belly Dancer" action. The platform tilts in the horizontal plane through 360° to provide a gentle swirling action, ideal for gentle mixing in a variety of different types of vessels. The mixing action can quickly be adjusted by tilting the platform to the desired angle. The ability to adjust the tilt angle combined with a smooth precision speed control allows you to achieve the perfect mixing action for your application.



300 x 180mm, 0-60 RPM

RM2

Digital Reciprocating Shaker - Medium

Precision Control

The RM2 couples a reciprocating (side to side) action with precision speed control and digital tachometer. It is ideal for creating a gentle washing action, but is equally suited to vigorous end to end shaking at higher speeds. The RM2 is perfectly suited for mixing Mojonnier flasks and the dedicated MR5 Mojonnier rack is available for this application. A full range of accessories can be fitted to the 350 x 350 mm platform which is driven by Ratek's silent belt drive system.



350 x 350mm, 200 RPM, digital

ERPM4

Analogue Rocking Mixer - Medium

Proven Reliability

The ERPM4 is ideal for tasks including blot washing, gel staining/destaining as well as hybridisation applications. The smooth speed control allows fine adjustment ranging from gentle rocking through to aggressive agitation.

Every lab needs the peace of mind of equipment that put simply, just works. This is why the Ratek ERPM4 features our silent belt drive system in conjunction with a super-quiet brushless motor to deliver years of reliable mixing.

When combined with the DTT5 dual-tier tray, the capacity of the mixer can be virtually doubled without affecting the benchtop footprint. A full range of accessories is available.

The platform tilt angle can also be adjusted to tailor the mixing action to your application.



350 x 350mm platform, 5 - 50 RPM, analogue control

RPM5

Digital Rocking Mixer - Medium

Precision Digital Rocking

The RPM5 is Ratek's most advanced rocking platform mixer and incorporates full precision digital control with our silent-belt drive system and a host of safety features.

With a super-quiet drive system incorporating slow acceleration to reduce spillage, the RPM5 delivers smooth, precise and repeatable speed control via its large user-friendly digital control panel. The brilliant red LED display is visible from anywhere in the lab allowing the tachometer, timer and user programs to be monitored easily.



350 x 350mm, 57 RPM, digital

OM7

Digital Orbital Shaker - Large

For Higher Volumes

For those applications where a greater quantity of vessels is required, the OM7 is the orbital shaker for the job. The 500mm square non-slip platform is large enough to accommodate up to 16 x 500mL flasks. The OM7 makes efficient use of its bench-space and delivers solid and near-silent shaking throughout the digitally controlled speed range. A full range of accessories is available including universal rack, tulip clip tray and stainless steel clips.



500 x 500mm, 400 RPM, digital

OM8

Digital Orbital Shaker - Extra Large

When Size Matters

The OM8 sits at the top of the range of Ratek's orbital shakers and offers a massive 700 x 530mm platform which can accommodate up to 28 x 500mL flasks. The drive system features an adjustable counterweight to ensure smooth and stable running over extended periods, plus slow acceleration and an unbalanced load safety stop.

The large user-friendly digital control panel features a brilliant red high visibility LED speed and timer display making monitoring samples easy.



700 x 530mm, 400 RPM, digital

SHAKER & ROCKER ACCESSORIES

Ratek offer a full suite of standard accessories to suit our range of platform shakers and shaking incubators including universal racks, tulip clip trays and adhesive mat trays. We can also customise our accessories to suit those hard to mix containers, contact our sales team to discuss your requirements.

Please refer to page 27 for a full list of available accessories.



SHAKER & ROCKER SPECIFICATIONS

| | OM1 | EOM5 | OM6 | GM1 | RM2 | ERPM4 | RPM5 | OM7 | OM8 | |
|------------------------|---|---|---|-----------------------------|---|---|---|---|---|---|
| Mixing action | Orbital 20mm orbit | Orbital 32mm orbit | Orbital 32mm orbit | 3D Gyrotory (adjustable) | Reciprocating (side to side) | Rocking (adjustable) min 7° to max 15° | Rocking (adjustable) min 7° to max 15° | Orbital 25mm orbit | Orbital 25mm orbit | |
| Platform size | 210 x 180 mm | 350 x 350 mm | 350 x 350 mm | 300 x 180 mm | 350 x 350 mm | 350 x 350 mm | 350 x 350 mm | 500 x 500 mm | 700 x 530 mm | |
| Speed range RPM | 20-200 | 20-200 | 40-400 | 0-60 | 20-200 | 5-50 | 4-57 | 40-400 | 40-400 | |
| Speed control type | Analogue | Analogue | Digital+Tacho | Analogue | Digital+Tacho | Analogue | Digital+Tacho | Digital+Tacho | Digital+Tacho | |
| Timer | - | - | 0-99 mins/hrs | - | 0-99 mins/hrs | - | 0-99 mins/hrs | 0-99 mins/hrs | 0-99 mins/hrs | |
| LED speed/time display | - | - | Yes | - | Yes | - | Yes | Yes | Yes | |
| User program presets | - | - | 3 | - | 3 | - | 3 | 3 | 3 | |
| Motor | Long life super-quiet brushless AC | Long life super- quiet brushless AC | Long life super- quiet brushless AC | Swiss made DC motor | Long life super- quiet brushless AC | Long life super- quiet brushless AC | Long life super- quiet brushless AC | Long life super- quiet brushless AC | Long life super- quiet brushless AC | |
| Transmission type | Silent Belt | Silent Belt | Silent Belt | Gearbox | Silent Belt | Silent Belt | Silent Belt | Silent Belt | Silent Belt | |
| Safety features | <ul style="list-style-type: none"> • Motion interrupt stop • Slow start | <ul style="list-style-type: none"> • Motion interrupt stop • Slow start | <ul style="list-style-type: none"> • Motion interrupt stop • Slow start • Motor thermal protection | - | <ul style="list-style-type: none"> • Motion interrupt stop • Slow start • Motor thermal protection | <ul style="list-style-type: none"> • Motion interrupt stop • Slow start | <ul style="list-style-type: none"> • Motion interrupt stop • Slow start • Motor thermal protection | <ul style="list-style-type: none"> • Motion interrupt stop • Slow start • Motor thermal protection | <ul style="list-style-type: none"> • Motion interrupt stop • Slow start • Motor thermal protection | <ul style="list-style-type: none"> • Motion interrupt stop • Slow start • Motor thermal protection |
| Power input | 240V AC 40W | 240V AC 40W | 240V AC 100W | 240V AC 5W | 240V AC 100W | 240V AC 40W | 240V AC 40W | 240V AC 100W | 240V AC 170W | |
| Overall dimensions | W205 x D290 x H125 mm | W370 x D400 x H175 mm | W370 x D400 x H175 mm | W300 x D190 x H220 mm | W370 x D400 x H175 mm | W370 x D400 x H200 mm | W370 x D400 x H200 mm | W505 x D570 x H180 mm | W760 x D650 x H235 mm | |
| Nett weight | 4.5 kg | 10.2 kg | 10.2 kg | 3 kg | 10.2 kg | 10.1 kg | 10.1 kg | 20 kg | 33 kg | |

ROTARY MIXERS

Ratek offers a range of flexible rotary mixers with solutions available to rotate almost any container. From test tubes to wine bottles, we have a machine perfect for the job. Models are available that deliver gentle rolling of tubes and bottles, as well as tumblers designed to create a vigorous end-to-end mixing action within the vessel.

BTR5-12V

Tube Roller - Compact

Versatile Tube and Bottle Rolling

Perfectly suited to mixing of blood samples, viscous samples and liquid-solid suspensions, the Ratek BTR range produce a gentle rocking and rolling motion that creates an end-to-end wave inside the vessel whilst the container rolls around it. Where only rolling is required, the BTR5P-12V with parallel rollers is available.

The BTR5-12V features 5 sturdy aluminium rollers which can take 1 kg of load per pair of rollers at up to 60 RPM. Perfect for mixing vials, small bottles and test tubes of various sizes. Models with fewer rollers can be made upon request to suit larger bottles and containers.



5 rollers 300mm long, 10 - 60 RPM, analogue control

BTR10-12V

Tube Roller - Large

High Capacity Roller

The BTR10-12V can accommodate up to 54 x 5mL blood tubes at one time on it's 10 sturdy aluminium rollers, and can also be supplied with rollers removed to accommodate multiple large culture and sample bottles.

The Ratek BTR range is driven by a Swiss made motor that gives long and quiet service life and unparalleled reliability. Precise speed adjustment is delivered by the solid state speed control, whilst the BTR10-12V and BTR5-12V are both powered by a safe low-voltage power supply making them suitable for use inside fume cupboards and incubators. Where only rolling is required, the BTR10P-12V with parallel rollers is available.



10 rollers 300mm long, 10 - 60 RPM, analogue control

RM4 & RM42P

Rotary Mixers - Medium & Large

The All-Round Rotary Mixer

The RM4 Rotary Mixer is very much an all-rounder, with near endless potential for different applications. Perfect for mixing larger laboratory bottles and flasks right through to wine and food products, the RM4 has made a home in a wide range of industries. Thorough mixing is achieved with the end over end mixing action which can be altered by mounting the vessels in different orientations. The RM4 can be supplied with optional fittings to accommodate a range of flasks, bottles, blood bags and test tubes.

The RM42P offers double the capacity of the RM4, and safety guards with motion cut-out are available for all RM4 variants.

The RM4 family features precision digital speed control which is complemented by the Ratek silent-belt drive system and long life brushless motor, as well as large highly visible digital LED timer and tachometer displays.

Capacity as required, 5 - 57 RPM, digital control



RM42P + 2 x RM4CT



RM4 + RM4CT



RM4 + 4 x UMC2

RM4C

Rotary Mixer - Universal Clamp

Perfect For Tube Racks & Specialised Vessels

The RM4C is a versatile end over end mixer capable of securing entire loaded racks of test tubes without the need to unload the tubes. The sliding foam covered clamp plates can be adjusted to suit tubes and containers up to 200mm tall, with a usable area of W220 x D260 x H200mm.

The inbuilt electronic timer can be set for 0-99 minutes or 0-99 hours, memory buttons allow for up to 3 speed / time patterns to be stored via the large user-friendly control panel. The universal nature of the clamp system make the unit perfect for laboratories where the unit can be used for many different applications. The RM4SE safety enclosure with lift-up clear acrylic door is available for applications requiring increased user safety.

The RM4C comes with built-in Ratek reliability you can expect from Australia's leading laboratory mixer brand.

GOT AN APPLICATION FOR THE RM4 OR RM4C ?

If you have an application that may suit one of our rotary mixers, feel free to contact our sales department to discuss the possibilities, including customised units made for the job.

Up to 4 kg balanced load, 5 - 57 RPM, digital control



RM4C



RM4C + RM4SE

RSM7DC

Rotary Suspension/Culture Tube Mixer

One Mixer, Many Applications

With a wide range of accessories available, as well as a tilt-adjustable drive, the RSM7DC can be used to achieve a wide range of mixing actions all on the one machine.

Supplied standard with a clip disc to accommodate up to 20 tubes in any combination of your choosing, the RSM7DC will produce a gentle end-over-end mixing action inside the vessel, whilst allowing the angle of the disc to be reduced to lessen the mixing severity. Attach the dual-row SD1-EP disc to mix up to 40 x 1.5/2mL blood tubes at once, or add an SD2 dual-layer disc to double the capacity of the standard clip disc.

The RSM7DC is also ideal for rotating culture tubes when supplied with the SD3 drum rotor which allows up to 108 tubes to be gently rolled along the length of the tube. Mixing discs can be customised as required to achieve the perfect mixing action.



CHOOSE YOUR CLIPS

When ordering, please nominate your required clip sizes. Choose up to 20 clips in any combination of sizes to suit 1.5mL through to 50mL centrifuge tubes, or 7 mm to 50 mm tubes.

Up to 20 x 50mL tubes, or 108 culture tubes (with SD3)

ROTARY MIXER SPECIFICATIONS

| | BTR5-12V | BTR10-12V | RM4/RM42P | RM4C | RSM7DC |
|----------------------------|--|---|---|--|--|
| Mixing action | <ul style="list-style-type: none"> Tilt & roll Roll only (BTR5P-12V) | <ul style="list-style-type: none"> Tilt & roll Roll only (BTR10P-12V) | <ul style="list-style-type: none"> End over end Rolling (custom) | <ul style="list-style-type: none"> End over end | <ul style="list-style-type: none"> End over end Centrifugal Rolling |
| Capacity | 4 positions, 300mm long, 1kg per pair of rollers | 9 positions, 300mm long, 1kg per pair of rollers | 4kgs evenly loaded UMC1/2/3/4 clamp capacity RM4 x 4 RM42P x 8 RM4CT (20 clips each) clip tray capacity RM4 x 1 RM42P x 2 *Note: RM4/RM42P can be customised to suit | 4kgs evenly loaded Useable area W220 x D260 x H200mm | <ul style="list-style-type: none"> Supplied disc holds up to 20 clips from 1.5mL to 50mL tubes SD1-EP holds 40 x 1.5mL tubes SD2 disc holds up to 40 clips from 1.5mL to 50mL tubes SD3 rotor holds up to 108 x 15mL tubes |
| Speed range | 10-60 RPM | 10-60 RPM | 5-57 RPM | 5-57 RPM | 10-60 RPM |
| Speed control type | Solid state analogue | Solid state analogue | Precision Digital + Tacho | Precision Digital + Tacho | Solid state analogue |
| Timer | - | - | 0-99 mins or 0-99 hrs | 0-99 mins or 0-99 hrs | - |
| LED speed and time display | - | - | Yes | Yes | - |
| Program presets | - | - | 3 x user configurable presets | 3 x user configurable presets | - |
| Motor and drive type | Swiss made DC motor with integrated gearbox | Swiss made DC motor with integrated gearbox | Long life super-quiet brushless AC with replaceable belt drive | Long life super-quiet brushless AC with replaceable belt drive | Swiss made DC motor with integrated gearbox |
| Safety features | - | - | Motion interrupt cut out | Motion interrupt cut out | Slip mounted disc |
| Power input | 12V slimline DC plug-pack | 12V slimline DC plug-pack | 240V AC/130W | 240V AC/130W | 12V slimline DC plug-pack |
| Overall dimensions | W215 x D500 x H120mm | W400 x D500 x H120mm | RM4 W455 x D400 x H335mm RM42P W740 x D400 x H335mm | W455 x D400 x H335mm | W300 x D255 x H415mm including disc |
| Nett weight | 5 kg | 6.5 kg | RM4 12 kg RM42P 16 kg | 12 kg | 5 kg |



VORTEXING MIXERS

Every lab workstation needs the right tools for the job, and Ratek's range of vortexing mixers are exactly that. Including single tube mixers for small volume cell suspension or dissolution work, universal vortexers and plate shakers for unattended shaking over longer periods as well as magnetic stirrers for more vigorous mixing, we have a machine to make your job easier and increase throughput.

VM1

Vortex Mixer - Personal

Keeps Going and Going

The VM1 has been refined over 30 years and is Ratek's most popular mixer. The drive system is quiet yet powerful and has built-in Ratek ultra-reliability. Vortex mixers often live a tough life in the lab, but the VM1 can handle anything you can throw at it for years to come, with many units that are more than 20 years old still used on a daily basis in many labs. The VM1 features continuous and "push to mix" operating modes, with a smooth and repeatable speed control. The silicon mixing cup is suitable for mixing most common tubes from 1.5mL up to 50mL making it an essential part of every workstation.



Manual/Auto modes, up to 2,700 RPM, analogue control

MTV1

Multi-Tube Vortex Mixer - High Capacity

Vortex Any Container

The MTV1 features a unique clamping system which secures virtually any container from both top and bottom. Designed to accommodate large bottles, sealed containers or entire tube racks, it makes loading and unloading a breeze without the need for individual clamps or fixing bars. Capable of maintaining up to 3,000 RPM thanks to its powerful yet quiet drive system, it also features a digital programmable countdown timer with pulse feature to allow full control over mixing and rest periods.

With the top clamp removed, the MTV1 can also become a large manual vortex mixer by holding individual tubes on the platform.



320 x 200mm platform, up to 3,000 RPM, digital timer

MPS 1

Microplate Vortexer - Medium

Effortless 4 Plate Shaking

A compact personal plate vortexer that will hold up to 4 x 96 standard or deep-well plates and deliver a smooth repeatable speed control. Loading of plates is as simple as dropping them on the non-slip mat under the retaining spring, and you're ready to shake.



4 plates, 1,200 RPM

MS8

Magnetic Stirrer - Compact

Compact Yet Powerful

Featuring a powerful Swiss made motor, the MS8 is capable of stirring containers up to 2 litres at 2,400 RPM with ease, and fits the bill where many solid-state brands fall down. Smooth speed control is provided via the easy to use front panel knob, and operation is extremely quiet.



162 x 120 mm, 2,400 RPM

MS10

Magnetic Stirrer - Large

For Large Containers

Designed to accommodate flasks and bottles up to 20 litres, the MS10 is perfect for those larger applications requiring powerful stirring including mixing of viscous liquids. The MS10 features a 310mm platform with non-slip mat, quiet operation and smooth speed control up to 1,900 RPM.



300 x 310 mm, 1,900 RPM

VORTEXING MIXER SPECIFICATIONS

| | VM1 | MTV1 | MPS1 | MS8 | MS10 |
|----------------------|------------------------------------|---|---|--|--|
| Mixing action | Vortex, 4mm orbit | Vortex, 4mm orbit | Vortex, 3mm orbit | Vortex using PTFE coated stirring bar (not supplied) | Vortex using PTFE coated stirring bar (not supplied) |
| Capacity | Up to 28mm tubes/vials | 320 x 200mm, 1 kg load | 4 x 96 well plates | Flasks & bottles up to 2L | Flasks & bottles up to 20L |
| Speed range | 200 - 2,700 RPM | 200 - 3,000 RPM | 100 - 1,200 RPM | 250 - 2,400 RPM | 300 - 1,900 RPM |
| Speed control type | Solid state analogue | Solid state analogue | Solid state analogue | Solid state analogue | Solid state analogue |
| Timer | - | Digital with LCD display <ul style="list-style-type: none"> Countdown up to 99mins 59 seconds Pulse mode, up to 99 seconds on/off | - | - | - |
| Motor and drive type | Long life super-quiet brushless AC | High torque pancake DC | Long life super-quiet brushless AC with silent belt drive | Swiss made DC motor with direct drive | High torque pancake DC |
| Power input | 240V AC 20W | 240V AC 40W | 240V AC 60W | 12V slimline DC plug-pack 5W | 12V slimline DC plug-pack 30W |
| Overall dimensions | W125 x D160 x H135mm | W325 x D300 x H440 mm | W280 x D255 x H110 mm | W165 x D120 x H85 mm | W300 X D350 X H90 mm |
| Nett weight | 2 kg | 17 kg | 3.9 kg | 1.5 kg | 5 kg |

Unsure what equipment you need ?

Do you know what your application requires, but don't know how to achieve it ?

Contact our technical sales team for help

We can help point you in the right direction, and suggest some possible solutions to give the results you need.
Email: sales@ratek.com.au

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.

DBH 1000D

Precision Dry Block Heater - 1 Block

Compact with Precision Control

The DBH1000D 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 200.0°C.

A simple to operate splash-proof keypad allows the user to set the desired temperature whilst the current temperature remains visible.

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

The block orientation takes maximum advantage of your valuable benchspace, and requires only 130mm of width across the bench.

Featuring an audible over-temperature alarm and cut-out, the DBH1000D provides protection for samples and excellent block temperature uniformity for consistent reproducible results.

Ratek's most advanced block heaters to date offer simplicity with accuracy and can be run day in day out for any number of general lab applications.



1 block, 200.0°C, 0.1° indication

DBH2000D

Precision Dry Block Heater - 2 Block

Ideal For Single 96 Well Plates

Ratek's most popular block heater, the dual block capacity of the DBH2000D make it ideal where more than one tube type is commonly used at the same workstation.

Despite occupying a small benchtop footprint, the DBH2000D 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 200°C with 0.1° indication, the DBH2000D is a good all purpose block heater where multiple tube types are in use.

2 block, 200°C, 0.1° indication



DBH4000D

Precision Dry Block Heater - 4 Block

Truly Flexible

Ratek's largest standard block heater. The 4 block capacity of the DBH4000D 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 DBH4000D 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 DBH4000D is also large enough to be transformed into a small oil bath at temperatures up to 200°C. The DBH4000D features 4 individual heaters to provide even and dedicated heating for each block position giving excellent temperature uniformity.

Using the EMS4000 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 DBH4000D makes it a truly flexible unit

4 block, 200°C, 0.1° indication



DRY BLOCK HEATER SPECIFICATIONS

| | DBH1000D | DBH2000D | DBH4000D |
|------------------------------|---|---|--|
| Block positions | 1 x SB/EB/FB/VB block | 2 x SB/EB/FB/VB blocks OR 1 x MBx 96 well plate block | 4 x SB/EB/FB/VB blocks OR 1 x MBx 96 well plate block + 2 x SB/EB/FB/VB blocks OR 2 x MBx 96 well plate blocks |
| Control type | Advanced Digital PID | | |
| Temperature control range °C | Ambient +5°C to 200°C, indicated in 0.1°C increments | | |
| Control stability | +/- 0.2°C | | |
| Safety features | <ul style="list-style-type: none"> • User configurable over-temperature process alarm • Independent manual reset element over-temperature safety cutout (internal) • Over-current fail-safe fuse | | |
| Power input | 240V AC/170W | 240V AC/335W | 240V AC/665W |
| Overall dimensions (mm) | W130 x D315 x H125 | W205 x D315 x H125 | W353 x D315 x H125 |
| Nett weight | 3.2 kg (without block) | 4.4 kg (without block) | 5.7 kg (without block) |

Intelligent Design Allows Gas Manifolds To Be Used With or Without a Block Heater



Evaporation manifolds available for all block heater models

Sample Concentration/Nitrogen Blow-Down Systems

Evaporation systems are available for all Ratek block heaters to allow a controlled gas flow into tubes and vials to accelerate evaporation. 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 when used with an MBx plate block.

Need Help Selecting a Model ?

For assistance in selecting the right block heater and manifold combination, please don't hesitate to contact Ratek.

EVAPORATION MANIFOLDS

Manifolds To Suit All Standard Blocks

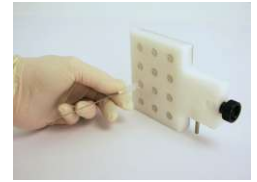
Ratek evaporation manifolds (EM4/6/9/12/20/96) are mounted to retort posts on a removable stand and gas tap assembly (EMS1000/2000/4000). The manifold position can be adjusted for height and clearance or easily changed to suit a different block configuration.

Individual manifolds or the entire evaporation system can be easily removed when not required simply by lifting the block heater away from the rear stand. This intelligent design allows the evaporation system to be used independently of the block heater when temperature control is not required. Individual valves are provided on the rear of the evaporation stand allowing independent control of gas flow to each manifold.



EVAPORATION ORDER CODES

| Heater Model | # of Manifold Positions | Matching Stand and Gas Tap Model # | Capacity |
|---|-------------------------|------------------------------------|--|
| DBH1000D | 1 | EMS1000 | Single block manifolds only |
| DBH2000D | 2 | EMS2000 | 2 x single block manifolds or 1 x 96 well manifold |
| DBH4000D | 4 | EMS4000 | 4 x single block manifolds or 1 x 96 well manifold + 2 x single block manifolds or 2 x 96 well manifolds |
| Manifold Model (All manifolds supplied with a full set of needles. EM96 has fixed non-replaceable needles) | # Of Needle Outlets | Applicable Standard Block Models | |
| EM4 | 4 | | FB50 |
| EM6 | 6 | | - |
| EM9 | 9 | | - |
| EM12 | 12 | | SB15, SB16, SB17, FB15 |
| EM20 | 20 | | SB10.5, SB12, SB13, SB14, EB20, SB2.0, VB20 |
| EM96 (*EMS2000 or EMS4000 required) | 96 | | MB1, MB2, MB3, MB4 |
| Spare Needles | Length | Description | Applicable manifold models |
| EMSN1 | 85mm | Stainless steel | EM4, EM6, EM9, EM12, EM20 |
| EMSN2 | N/A | Blanking needle | EM4, EM6, EM9, EM12, EM20 |



Tell Us What You Need

Not sure about the best way to heat, shake or stir your samples? Get in contact with our friendly sales team and we can help you through the options.

Shake

With all mixing and shaking actions covered, we're sure to be able to mix it. Just let us know the desired mixing action and number of containers you need to mix at once.

Stir

For applications requiring stirring, we have small single and multi-place options, plus a heavy duty single place option.

Heat

Tell us about the containers you need to heat, what temperature, how many and how accurately you need to control the temperature. It might be a job for a warming tray, a waterbath, a block heater or an incubator.



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.



WATER BATHS & TANKS

Ratek are specialists in temperature controlled water baths, and today's range is the result of 35 years experience in designing and supplying baths for a wide range of uses. Whether your application requires a static or circulated bath, basic or precision temperature control, or automated temperature profiling, we can supply a product to meet your requirements.

WB700D

7 litre Un-Circulated Digital Waterbath

Save Valuable Benchspace

The Ratek WB700D is the perfect companion for every lab benchtop, with a small footprint which uses only 180mm of bench width.

Perfect for small numbers of flasks and bottles or an entire rack of test tubes, the WB700D is suited to a variety of incubation and heating tasks where accurately controlled water temperature is required up to 100.0°C.

Each bath is supplied with a perforated stainless steel safety mesh and integrated drain tap designed to extend over the edge of the bench for emptying, providing maximum user safety.



7 litres, Usable Area W133 x D283 x H145mm

WB1200D

12 litre Un-Circulated Digital Waterbath

Digital Control with Simplicity

The 12 litre capacity of the WB1200D is perfect for accommodating multiple bottles, beakers or bags. The usable area of 218 x 278mm is big enough to accommodate up to 5 litre Schott bottles whilst still only requiring 270mm of bench width.

The digital PID control ensures accurate and stable temperature control from ambient +5° to 100.0°C. The tank and all submerged parts are made from stainless steel, which is then insulated to give maximum temperature stability.

A low water level and over-temperature deviation alarm is fitted to all baths in the WBx000D range, including the WB1200D.



12 litres, Usable Area W218 x D278 x H145mm

WB2400D

24 litre Un-Circulated Digital Waterbath

Our Most Popular Waterbath

The WB2400D offers the perfect balance of capacity versus bench space and is our most popular waterbath size to date.

Capable of holding virtually all commonly used lab containers, including bags, bottles and flasks, the usable area of 273 x 473mm is designed to fit perfectly on a standard 600mm deep laboratory bench, with the drain tap conveniently extending over the edge of the bench for easy draining and cleaning.



24 litres, Usable Area W273 x D473 x H145mm

WB5000D

50 litre Un-Circulated Digital Waterbath

When Size Matters

Ratek's biggest standard waterbath to date is perfect for larger batch work and higher sample throughput.

The WB5000D has a huge easily accessible working area of 602 x 483mm, yet will still comfortably fit on a standard 600mm deep laboratory bench. The high powered heating element ensures rapid heat up and excellent temperature uniformity despite the bath's large size. Like all models in the range, lift off polycarbonate and stainless steel lids are available.



50 litres, Usable Area W602 x D483 x H135mm

SWB10D240

Digital Shaking Waterbath - Compact

Perfect For Small Volumes

Small enough to be part of your everyday workstation, the SWB10D240 is the perfect machine when working with small numbers of tubes or smaller flasks, with all the accuracy and stability of it's larger sibling in the SWB20D.

The bath is heated from beneath the cradle using a heating plate to deliver uniform temperatures, whilst the tank is constructed from high-grade stainless steel with rounded corners to aid cleaning. The unit features precision digital temperature control accurate to 0.1° C with a large digital LCD display, plus boil dry protection and independent temperature and shaking controls which allow it to be used as a shaker, a heated bath, or both.



230 x 150 x 120 mm shaking cradle, max 70°, 110 RPM

SWB20D

Digital Shaking Waterbath - Large

A Real Workhorse

The Ratek SWB20D shaking waterbath provides a large shaking platform to agitate samples whilst precision controlled temperature is applied. The digital PID control ensures accurate and stable temperature control from ambient +5° to 99.9°C, whilst the platform speed is controlled by Ratek's smooth, repeatable and near-silent belt system driven by a long life brushless motor.

The large LCD indicates current temperature or set temperature whilst button controls allow the temperature to be adjusted. For higher speeds the RR20 universal rack or TCT20 tulip clip tray are available to securely hold vessels below the water level.



330 x 310 x 140 mm shaking cradle, max 99.9°, 200 RPM

HEATED BATH ACCESSORIES

Ratek offer a large suite of standard accessories to suit our range of water baths including lids, floating polypropylene balls and universal racks. Talk to our sales team to discuss your requirements.

- Gabled Polycarbonate Lid** - Pitched to ensure water run-off does not fall onto vessels (max 60°C)
- Gabled Stainless Lid** - Cold surface for more condensate collection and less water loss (max 100°C)
- Polypropylene Balls** - Form a movable blanket that reduces evaporation and reduces heat loss
- Universal Rack** - Allows virtually any vessel to be retained and submerged during shaking
- Tulip Clip Tray** - Provides a range of threaded inserts to accommodate clips of various sizes
- Tulip Clips** - Stainless spring clips to securely retain flasks and bottles during shaking



| | WB700D | WB1200D | WB2400D | WB5000D | SWB10D240 | SWB20D |
|--------------------------------|----------|-----------|-----------|-----------|-----------|--------|
| Gabled Polycarbonate Lid | WB700GPL | WB1200GPL | WB2400GPL | WB5000GPL | - | PLS20 |
| Gabled Stainless Lid | WB700GSL | WB1200GSL | WB2400GSL | WB5000GSL | - | SLS20 |
| PPB10 Poly Balls (Qty to Fill) | 1000 | 2000 | 4,000 | 8,000 | 1,500 | 4,000 |
| Universal Rack | - | - | - | - | - | RR20 |
| Tulip Clip Tray (Base Tray) | - | - | - | - | - | TCT20 |
| Tulip Clips | - | - | - | - | - | TCxxx |

HEATED BATH SPECIFICATIONS

| | WB700/1200/2400/5000D | SWB10D240 | SWB20D |
|--|--|---|--|
| Tank capacity | WB700D - 7 Litres WB1200D - 12 Litres WB2400D - 24 Litres WB5000D - 50 Litres | 8 Litres | 20 Litres |
| Usable tank dimensions (At narrowest point where tanks are tapered) | WB700D - W133 x D283 x H145mm WB1200D - W218 x D278 x H145mm WB2400D - W273 x D473 x H145mm WB5000D - W602 x D483 x H135mm | Cradle Dimensions L150 x W230 x H120mm | Cradle Dimensions L330 x W310 x H140mm |
| Temperature control type | Digital microprocessor PID with dual-line LED display | Digital PID with LCD display | Digital PID with LCD display |
| Temperature control range | Ambient + 5°C to 100.0°C | Ambient + 5°C to 70°C | Ambient + 5°C to 99.9°C |
| Speed control | - | Analogue 20-110 RPM | Analogue 20-200 RPM |
| Temperature control stability | +/- 0.2°C | +/- 0.2°C | +/- 0.2°C |
| Bath temperature uniformity | Within 0.5°C | Within 0.2°C when shaking | Within 0.2°C when shaking |
| Safety features | Automatic low water level sensor with audible and visual alarm, independent element over-temp cutout, user-configurable process over-temp cutout with audible and visual alarm, over-current fuse, element guard/platform. | Manual reset safety thermostat | Manual reset safety thermostat, motion interrupt cut-out |
| Heating power | WB700D - 438 Watts WB1200D - 688 Watts WB2400D - 1,500 Watts WB5000D - 2,300 Watts | 500 Watts | 1,500 Watts |
| Construction | Stainless steel tank and element guard, powder coated steel case | Stainless steel tank, cradle and case | Stainless steel tank, cradle and upper, spill resistant plastic case |
| Overall dimensions | WB700D - W180 x D400 x H257mm WB1200D - W270 x D400 x H257mm WB2400D - W335 x D620 x H257mm WB5000D - W659 x D620 x H257mm | L409 x W330 x H250mm | L600 x W450 x H270mm |
| Nett weight | WB700D - 4 kg WB1200D - 5 kg WB2400D - 7 kg WB5000D - 15 kg | 10 kg | 18 kg |

IT700/1100/2400

Insulated Water Baths for TH Range

Maximum Performance Baths

The ITx000 range from Ratek is designed to deliver optimum performance for immersion heater circulators.

The insulated construction ensures heat loss is kept to a minimum, reducing the heating power required as well as ensuring stable temperature control. The rounded corners of the seamless tank ensure excellent water flow around the bath perimeter. This provides excellent temperature uniformity whilst also making for easy cleaning.

All sizes are constructed with powder coated stainless steel cases to form a highly corrosion resistant barrier which will stand up to almost any spill. All tanks are made from food grade stainless steel.

Three sizes are available, 7 litre, 11 litre and 24 litre, all with options for a removable bridge plate, external re-circulation ports, drain taps and stainless steel lids.



Available in 7, 11 and 24 litre capacities

INSULATED WATER BATH SPECIFICATIONS

| | IT700 | IT1100 | IT2400 |
|-----------------------------------|---|-----------------------|-----------------------|
| Usable tank capacity | 7 litres | 11 litres | 24 litres |
| Tank depth | 200 mm | 200 mm | 200 mm |
| Dimensions at tank opening | 300 x 154 mm | 300 x 239 mm | 500 x 300 mm |
| Dimensions at tank base | 245 x 105 mm | 245 x 190 mm | 440 x 240 mm |
| Overall dimensions | L330 x W185 x H235 mm | L330 x W270 x H235 mm | L532 x W330 x H235 mm |
| Usable opening with bridge fitted | L135 x W154 x H200 mm | L135 x W239 x H200 mm | L340 x W300 x H200 mm |
| Construction | Insulated food grade seamless stainless bath, powder-coated stainless steel case. | | |



Made in Melbourne

All Ratek equipment is manufactured in Melbourne using skilled local staff.

All under one roof

From sheet-metal to parts and electronics, we do it all in our ISO9001 quality controlled workshop.

RATEK

CIRCULATED BATHS

Circulated Baths For Every Application

Configure Your Own Bath

Ratek's modular insulated tank system allows you to build an off-the-shelf system tailored to suit your application, and it's simple. Just choose a bath, add a matching bridge plate plus lid, and then your choice of immersion heater circulator.

- Bath** IT700 (7 litres), IT1100 (11 litres), IT2400 (24 litres)
 (*Tip - Choose the most suitable usable area, not bath capacity)
- Bridge** ITx00B = Standard bridge
 ITx00BP = Bridge with 2 ports for external circulation
 ITx00BC = Bridge with immersion cooler mount
 ITx00BPC = Bridge with 2 ports & immersion cooler mount
- Lid** ITx00FLB = Flat stainless lid to suit bath with bridge
 ITx00GLB = Gabled stainless lid to suit bath with bridge
 (GLB, BC & BPC accessories only available for IT2400)



SUGGESTED CONFIGURATIONS

| Application, I want to... | Usable Opening (mm) | ORDER CODES | | | | |
|--|---------------------|-------------|----------|-----------|------------|---------|
| | | Bath | Bridge | Lid | Circulator | Chiller |
| Heat small tubes or bottles directly in the bath | L135 x W154 x H200 | IT700 | IT700B | IT700FLB | TH7000 | - |
| Heat flasks or sample bottles directly in the bath | L135 x W239 x H200 | IT1100 | IT1100B | IT1100FLB | TH7100 | - |
| Heat large bottles or flasks directly in the bath | L352 x W300 x H200 | IT2400 | IT2400B | IT2400FLB | TH8200 | - |
| Send temperature controlled warm water around an external loop | L135 x W154 x H200 | IT700 | IT700BP | IT700FLB | TH8000 | - |
| Cool containers to below ambient temperatures | L352 x W300 x H200 | IT2400 | IT2400BC | IT2400FLB | TH8000 | RC1 |
| Heat containers whilst changing temperatures automatically over time | L352 x W300 x H200 | IT2400 | IT2400B | IT2400FLB | TH8500 | - |

CUSTOM BATHS

Custom Baths - Made to Order

Have It Your Way

Ratek can custom-make an un-heated bath to suit your specific requirements, with dimensions to suit your existing racks and containers. This allows you to choose the size, shape and heating power to suit your application, plus a range of accessories like immersion circulator mounting bridges, lids, racks and drain taps.

Baths can be fabricated with stainless steel tanks and a variety of exterior finishes including polished stainless, powder-coated stainless or chemical resistant plastic. Lids can be supplied either flat or gabled in either stainless steel or clear polycarbonate.

We can quickly price any custom tank using our rapid quoting tool. We simply need to know internal tank dimensions and whether you require a bridge plate, drain taps, ports or a lid.

Un-heated baths, made to exact requirements



INFORMATION FOR QUOTING CUSTOM BATHS

To help us match the best possible solution, please try to supply as much information as possible about the application, including :

- The usable working dimensions required (L x W x D)
- The minimum and maximum temperatures being used
- Whether a lid is required
- Whether drain ports are required and the desired location

IMMERSION CIRCULATORS

With a model to suit every application, the THx000 range of immersion circulators from Ratek delivers precise temperature control with the simplicity and legendary Ratek reliability you've come to expect from Australia's leading brand. All models feature accurate digital PID control plus a host of safety features, as well as the ease of use synonymous with Ratek products.

TH8000

Precision Immersion Circulator

Advanced Control and Performance

The TH8000 immersion heater circulator provides precision temperature control via its large user-friendly dual-line interface. It features excellent stability of $\pm 0.02^{\circ}\text{C}$ in a Ratek insulated tank and features a powerful adjustable 17 L/min pump with dual outlets for external pump-out where required whilst the high flow rate ensures uniform temperatures in even the largest of baths, tanks or closed-loop systems.



1,000W heating, -30° to 100°C

TH8200

High-Powered Immersion Circulator

High Powered Heating

The TH8200 immersion heater circulator provides all features of the TH8000 but with a high-powered 2.2kWatt heating element for working with larger volume baths, or delivering more rapid heat-up and recovery. Full of safety features including high and low temperature alarms, low level audible alarm and cut-out, plus over-temperature failsafe, the TH8200 also features a preset mode for operating at frequently used temperatures, as well as Ratek's high-flow pump.



2,200W heating, -30° to 100°C

TH8500

Programmable Immersion Circulator

Advanced Temperature Profiling

The TH8500 offers advanced ramp/soak functionality to allow automated temperature change at controlled rates. Up to 9 programs with a total of 288 segments can be programmed to allow complete control over your temperature profile. With excellent temperature stability of $\pm 0.02^{\circ}\text{C}$ in a Ratek insulated bath, the TH8500 is ideal for demanding applications that require precision control at multiple temperatures.



2,200W heating, programmable

TH7000

Digital Immersion Heater Circulator

Accurate and User Friendly

The TH7000 offers a host of features that make it ideal for many temperature control applications where a pump out facility is not required. The simple to use full digital PID control system produces accurate and stable temperatures, whilst the high-flow non-splash circulating impeller ensures good temperature uniformity even in larger baths. The TH7000 is Ratek's entry level immersion circulator, yet is capable of satisfying many applications where stable temperatures are critical.



1,000W heating, 0° to 100°, splash-free circulator

TH7100

Digital Immersion Heater Circulator with Pump

Excellent Spatial Uniformity

The TH7100 is the first in the THx000 range to offer Ratek's high-flow dual-outlet adjustable pump, which ensures excellent temperature uniformity within even the largest of baths. The simple to use full digital PID control system produces accurate and stable temperatures in a very attractively priced package. The TH7100 is capable of satisfying many applications where stable temperatures are critical and offers the convenience of external pump-out and re-circulation.



1,000W heating, 0° to 100°, high-flow pump

IMMERSION CIRCULATOR SPECIFICATIONS

| | TH7000 | TH7100 | TH7300 | TH8000 | TH8200 | TH8500 | TH8600 |
|---------------------------------|----------------------|----------------------------|----------------------------|----------------------------|----------------------------|----------------------------|---------------------------------|
| Temperature control type | Digital PID | Digital PID | Digital PID | Advanced Digital PID | Advanced Digital PID | Advanced Digital PID | Advanced Digital PID |
| Digital display type | Single-line LED | Single-line LED | Single-line LED | Dual-line LED | Dual-line LED | Dual-line LED | Dual-line LED |
| Temperature control range | 0°C to 100.0°C | 0°C to 100.0°C | -30°C to 150.0°C | -30°C to 100.0°C | -30°C to 100.0°C | -30°C to 100.0°C | -30°C to 100.0°C |
| Set-point 2 preset mode | - | - | - | Yes | Yes | - | - |
| Ramp/Soak programming | - | - | - | - | - | Yes | Yes |
| Process automation output | - | - | - | - | - | - | 3 x relay outputs, suit PSM1000 |
| Control stability | +/- 0.1°C | +/- 0.1°C | +/- 0.1°C | +/- 0.02°C | +/- 0.02°C | +/- 0.02°C | +/- 0.02°C |
| Heating power | 1,000 Watts | 1,000 Watts | 1,000 Watts | 1,000 Watts | 2,200 Watts | 2,200 Watts | 2,200 Watts |
| Minimum tank depth | 200 mm | 200 mm | 200 mm | 200 mm | 200 mm | 200 mm | 200 mm |
| Circulator type | Non-splash Impeller | Max 17 lpm Adjustable Pump | Max 17 lpm Adjustable Pump | Max 17 lpm Adjustable Pump | Max 17 lpm Adjustable Pump | Max 17 lpm Adjustable Pump | Max 17 lpm Adjustable Pump |
| External pump-out/recirculation | - | Yes | Yes | Yes | Yes | Yes | Yes |
| Configurable over-temp alarm | Visual | Visual | Visual | Audible & Visual | Audible & Visual | Audible & Visual | - |
| Configurable under-temp alarm | - | - | - | Visual | Visual | Visual | - |
| Low-level alarm | - | - | - | Audible & Visual | Audible & Visual | Audible & Visual | Audible & Visual |
| Low-level cutout | - | - | - | Yes | Yes | Yes | Yes |
| Control over-temp cutout | - | - | - | Yes | Yes | Yes | - |
| Boil-dry protection | User Resettable | User Resettable | User Resettable | User Resettable | User Resettable | User Resettable | User Resettable |
| Element guard | - | Yes | Yes | Yes | Yes | Yes | Yes |
| Overall dimensions | W125 x D190 x H360mm | W125 x D190 x H360mm | W125 x D190 x H360mm | W125 x D190 x H360mm | W125 x D190 x H360mm | W125 x D190 x H360mm | W125 x D190 x H360mm |
| Nett weight | 3.6kg | 4.46kg | 4.46kg | 4.9kg | 4.9kg | 4.9kg | 4.9kg |

The RATEK logo is displayed in a bold, blue, sans-serif font. The letter 'A' is stylized with a red triangle pointing upwards from its center.

INCUBATORS

Our series of benchtop incubators, hybridisation ovens and slide warmers offer excellent value for money, quality and reliability. With a range of sizes and accessories available, they can accommodate a large variety of flasks, tubes and other vessels, and offer years of quiet maintenance-free operation. All orbital shaking incubators feature independent speed and temperature controls that allow them to serve as multi-purpose machines.

OM11

Digital Shaking Incubator - Medium

Ratek's Most Popular Shaking Incubator

Why is the OM11 one of the most popular benchtop shaking incubators on the market? Quite simply, it just works and keeps working, and is backed by our industry leading warranty.

The ever-popular OM11 offers a long list of features which make it the preferred benchtop shaking incubator for many laboratories.

The large rear-hinged enclosure provides full visibility from all 4 sides, and the lift-up door makes loading and unloading the platform a breeze. Designed to make the best use of benchtop space, the 400 x 400mm platform is big enough to accommodate up to 5 x 2L flasks or 20 x 250mL flasks, with plenty of vertical clearance to make working with larger vessels simple. The cover is also completely removable without tools for easy cleaning. The non-slip platform can optionally be fitted with a drop-in universal rack, tulip clip tray or adhesive mat tray which makes the OM11 extremely versatile.

When coupled with Ratek's silent-belt long life brushless motor drive with counterweight, full digital control with user configurable presets and highly visible large LED display, it's easy to see why so many laboratories rely on the OM11 every day.



400 x 400mm platform, up to 70°C, digital control

H035

Hybridisation Oven/Mixing Incubator - Medium

Four Machines in One

The H035 is an extremely versatile compact incubator/oven that can be transformed from a hybridisation oven, to rocking incubator, to shaking incubator, to static incubator in a matter of seconds. The heated cabinet features base mounted drive rollers that accommodate a range of drop-in accessories.

When used with the H035C50 carousel the oven will hold up to 18 hybridisation bottles or 40 x 15mL tubes and delivers precision rolling up to 20 RPM. The drop-in mixing platforms allow shaking or rocking up to 100 RPM and can be interchanged without tools of any sort. Shelves are available which allow the H035 to operate as a traditional static incubator.

The sealed cabinet gives excellent spacial temperature uniformity controlled by Ratek's precision digital PID system with highly visible large red LED displays.

W330 x D325 x H350mm cabinet, up to 99.9°C, digital



OM15

Digital Shaking Incubator - Large

Precise Control and Built to Last

When reliability is important and uptime critical, the Ratek OM15's proven track record is unparalleled. The OM15 is a heavy duty orbital shaker within a temperature controlled cabinet which features a large viewing panel for full visibility of your containers at all times. Fan assisted heating coupled with digital control ensures accurate temperature control within the cabinet. The OM15 is suited to filling space under or on top of benchtops with it's forward opening door.



600 x 450mm platform, 40 - 400 RPM, up to 70°C

OM25

Digital Shaking Incubator with Cooling - Extra Large

A Set and Forget Workhorse

The OM25 is our largest orbital shaking incubator and is designed to work hard day-in day-out. The massive 700 x 530mm platform can accommodate up to 12 x 2 litre flasks whilst the heating system features a cooling coil for work at temperatures below ambient using a chilled re-circulating water supply. The RC4 chiller is ideal for this purpose. Temperature control is via precision digital PID, whilst the large bright red LED displays make it simple to monitor speed, time and temperature from across the lab.



700 x 530mm platform, up to 70°C, cooling ready

SHAKER & ROCKER/SHAKING INCUBATOR ACCESSORIES

| | EOM5 | ERPM4 | OM1 | OM6 | OM7 | OM8 | OM11 | OM15 | OM25 | RM2 | RPM5 |
|-----------------------------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|
| Universal Rack | RR5 | RR5 | RR1 | RR5 | RR7 | RR25 | RR10 | RR15 | RR25 | RR5 | RR5 |
| Tulip Clip Tray (Base Tray) | TCT5 | TCT5 | TCT1 | TCT5 | TCT7 | TCT25 | TCT10 | TCT15 | TCT25 | TCT5 | TCT5 |
| Tulip Clips | TCxxx | TCxxx | TCxxx | TCxxx | TCxxx | TCxxx | TCxxx | TCxxx | TCxxx | TCxxx | TCxxx |
| Adhesive Mat Tray | AT5 | AT5 | AT1 | AT5 | AT7 | AT25 | AT10 | AT15 | AT25 | AT5 | AT5 |
| Dual Tier Tray | DTT5 | DTT5 | - | DTT5 | DTT7 | - | DTT10 | - | - | DTT5 | DTT5 |
| Mojonnier Flask Rack | MR5 | MR5 | - | MR5 | - | - | - | - | - | MR5 | MR5 |

TULIP CLIP TRAY CAPACITIES

| | TCT1 | TCT5 | TCT7 | TCT10 | TCT15 | TCT25 |
|-----------------------|------|------|------|-------|-------|-------|
| 250 mL Conical Flask | 6 | 16 | 25 | 20 | 20 | 28 |
| 500 mL Conical Flask | 4 | 9 | 16 | 12 | 20 | 28 |
| 1 Litre Conical Flask | 1 | 5 | 9 | 5 | 12 | 15 |
| 2 Litre Conical Flask | 1 | 4 | 8 | 4 | 6 | 12 |
| 5 Litre Conical Flask | 1 | 1 | 4 | - | 4 | 5 |

* Greater capacities are possible when using a tray layout dedicated to a single flask size or for flasks smaller than 250mL. Contact Ratek for more information.

INCUBATOR SPECIFICATIONS

| | H035 | OM11 | OM15 | OM25 |
|----------------------------|---|---|---|---|
| Mixing action | <ul style="list-style-type: none"> Rolling (with H035C50) Rocking (with H035RP) Orbital (with H035OP) 20mm orbit | Orbital 20mm orbit | Orbital 25mm orbit | Orbital 25mm orbit |
| Platform size | <ul style="list-style-type: none"> 300 x 300 mm H035RP 268 x 268 mm H035OP | 400 x 400 mm | 600 x 450 mm | 700 x 530 mm |
| Speed range | <ul style="list-style-type: none"> 0-20 RPM H035C50 4-100 RPM H035RP 4-100 RPM H035OP | 40-400 RPM | 40-400 RPM | 40-400 RPM |
| Speed control type | Digital + Tacho | Digital + Tacho | Digital + Tacho | Digital + Tacho |
| Temperature control range | 28°C to 99.9°C. (min 7°C above ambient) | 28°C to 70°C. (min 7°C above ambient) | 28°C to 70°C. (min 7°C above ambient) | 28°C to 70°C. (min 7°C above ambient) Ambient -10°C to 70°C. (with cooling) |
| Temperature control type | Digital PID with active LED | Digital PID with active LED | Digital PID with active LED | Digital PID with active LED |
| Timer | 0-99 mins/hrs | 0-99 mins/hrs | 0-99 mins/hrs | 0-99 mins/hrs |
| LED speed and time display | Yes | Yes | Yes | Yes |
| User program presets | 3 | 3 | 3 | 3 |
| Motor and drive type | Long life super-quiet brushless AC | Long life super-quiet brushless AC | Long life super-quiet brushless AC | Long life super-quiet brushless AC |
| Transmission type | Silent belt | Silent belt | Silent belt | Silent belt |
| Safety features | <ul style="list-style-type: none"> Motion interrupt stop Slow start Over temperature alarm Over temperature cut-out | <ul style="list-style-type: none"> Motion interrupt stop Slow start Over temperature alarm Over temperature cut-out | <ul style="list-style-type: none"> Motion interrupt stop Slow start Over temperature alarm Over temperature cut-out | <ul style="list-style-type: none"> Motion interrupt stop Slow start Over temperature alarm Over temperature cut-out |
| Power input | 240V AC/500W | 240V AC/540W | 240V AC/900W | 240V AC/900W |
| Overall dimensions | W400 x D520 x H540mm | W470 x D625 x H490mm | W750 x D650 x H652 mm | W850 x D720 x H680 mm |
| Nett weight | 34 kg | 34 kg | 45 kg | 50 kg |

WT 1

Analogue Warming Tray - Medium

Simple Operation

The WT1 is ideal for keeping samples warm during preparation or small scale incubations. The large 400 x 200mm plate is perfectly flat to give even heat transfer and is heated via a concealed bonded element. The black anodized aluminium surface is resistant to most spills whilst the solid state analogue temperature control provides stable temperatures at up to 80°C.



450 x 200mm platform, up to 80°C, analogue control

WT2500

Digital Warming Tray - Compact

Repeatable Digital Temperature Control

The WT2500 is ideal where temperature accuracy is important, with its precision digital PID controller and LCD display ensuring stable temperature control. The compact form factor takes up only a small amount of bench space, making it an ideal part of every workstation. Large enough to accommodate microscope slides, petri dishes, bottles, beakers and flasks at up to 99.9°C, it can be used for a wide range of temperature controlled applications.



250 x 200mm platform, up to 99.9°C, digital control

WARMING TRAY SPECIFICATIONS

| | WT1 | WT2500 |
|---------------------------|--|--|
| Warm plate dimensions | 450 x 250 mm | 250 x 200 mm |
| Temperature control type | Solid-state analogue | Digital PID with LCD display |
| Temperature control range | Ambient + 5°C to 80°C (min 30°C) | Ambient + 5°C to 99.9°C |
| Safety features | Over temperature cut-out | Over temperature cut-out |
| Construction | Powder-coated steel case, anodized aluminium heating plate | Powder-coated steel case, anodized aluminium heating plate |
| Power input | 240V AC 280W | 240V AC 200W |
| Overall dimensions | L530 x W250 x H50 mm | L350 x W200 x H50 mm |
| Nett weight | 3.0 kg | 2.0 kg |

Technical sales

We can match the best product against your requirements.

TENDERS & PACKAGES

Contact our sales team for package pricing

If you're fitting out a new lab with equipment, contact us today to discuss institutional and package pricing options.
Email: sales@ratek.com.au

The RATEK logo, featuring the word "RATEK" in a bold, teal, sans-serif font. The letter "A" is stylized with a red triangle pointing upwards. The logo is positioned at the bottom left of the page, with two teal circular icons connected by a thin line above it.

Ratek offers a range of refrigerated chillers to assist in the cooling of liquids to sub-ambient temperatures, ideal for cooling condenser coils and reactor vessels, or to simply replace a traditional ice-bucket. Both immersion coil and re-circulating models are available to suit different applications. When combined with a Ratek immersion circulator, precision sub-ambient (or sub-zero) temperature control can be achieved.

RC 1

Immersion Coil Cooler

Add Cooling to Any Bath

It makes sense to utilise equipment for more than one job where possible, which is why the RC1 immersion coil cooler can be moved from bath to bath as required to deliver on-demand cooling. The coil can be dropped in and secured to any waterbath to provide cooling that can work in conjunction with a temperature controlled bath or thermoregulator for precise water temperatures below ambient. With 580 Watts of cooling power the RC1 can be used in both large and small tanks. All Ratek waterbaths can be made to size to accommodate the dip-coil without losing usable working area in the bath.



580 Watts cooling, -10° to +30°C operating range

RC4

Re-circulating Cooler with Tank

Circulate Externally

For external circulation including industrial applications, the RC4 delivers a pressurised refrigerated water supply through a closed loop system. The RC4 is ideal for cooling condenser systems, water jacketed devices and heat exchangers, including those found in Ratek OM15C and OM25 incubator shakers.

The RC4 includes a 12 litre reservoir with lid that can accommodate a Ratek thermoregulator to provide a precision temperature controlled water supply which can be maintained between -10°C and +30°C (4°C to 30°C factory default).



580 Watts cooling, -10° to +30°C, 7 lpm pump

CHILLER SPECIFICATIONS

| | RC1 | RC4 |
|------------------|--|--|
| Cooling capacity | ¼ hp air cooled, R134a refrigerant, average 580 Watts cooling | ¼ hp air cooled, R134a refrigerant, average 580 Watts cooling |
| Thermostat | No | Adjustable low-temp safety cut-off (factory default is +4°C). For temperature control, the TH8000 is required. |
| Construction | 304 stainless steel coil, chemical resistant plastic case | 304 stainless steel tank, chemical resistant plastic case |
| Operating range | -10°C to +30°C (using suitable additives) | -10°C to +30°C (using suitable additives) |
| Pump flow rate | - | 7 litres per minute at zero head |
| Dimensions | L170 x W72 mm coil, 1 metre arm, L460 x W320 x H340 mm overall | L275 x W200 x D200mm reservoir, L480 x W340 x H510mm overall |
| Power input | 240V AC/410W | 240V AC/450W |
| Nett weight | 25 kg | 27 kg |

REFRIGERATED BATHS

For Working Directly In A Cold Bath

Flexible Cooling/Heating Options

Ratek's modular refrigerated baths allow you to configure a setup to meet your needs perfectly. With a range of immersion circulators to choose from, plus options for external re-circulation, you can configure a system to offer the features you need. Cooling can be added to the ITxxx range of standard insulated baths, or incorporated into custom sized baths to match the working area you require. Simply choose a bath, an immersion circulator and add the RC1 cooler. Adding external re-circulation ports also allows for a dual-purpose chilled bath.



SUGGESTED CONFIGURATIONS

ORDER CODES

| Application, I want to... | Usable Opening (mm) | Bath | Bridge | Lid | Circulator | Chiller |
|--|---------------------|--------|-----------|-----------|------------|---------|
| Cool containers to below ambient temperatures | L340 x W300 x H200 | IT2400 | IT2400BC | IT2400FLB | TH8000 | RC1 |
| Heat/cool vessels whilst changing temperatures automatically over time | L340 x W300 x H200 | IT2400 | IT2400BC | IT2400FLB | TH8500 | RC1 |
| Cool containers directly, and optionally send cold water externally | L340 x W300 x H200 | IT2400 | IT2400BPC | IT2400FLB | TH8000 | RC1 |

REFRIGERATED CIRCULATION

Send Cold Temperature Controlled Water Around An External Loop

Precision Controlled External Circulation

For applications where a constant water temperature is required to be circulated around an external system, such as a heat exchanger or condenser coil, the RC4 in combination with a Ratek immersion circulator is the ideal solution. With a wide range of immersion circulators available with different control and alarm features, the system can be supplied with basic digital temperature control right through to advancing temperature ramping and profiling for delivering automated temperature changes over time.



SUGGESTED CONFIGURATION

ORDER CODES

| Application, I want to... | Temperature Range | Circulator | Chiller |
|--|-------------------|------------|---------|
| Send sub-ambient temperature water around an external loop | -10°C to +30°C | TH8000 | RC4 |
| Send sub or above ambient water around an external loop, whilst automatically changing temperature | -10°C to +30°C | TH8500 | RC4 |

PRODUCT WARRANTY

3 YEAR
PARTS WARRANTY

12 MONTHS
LABOUR WARRANTY

Peace of mind with local support

When you buy Ratek equipment, you can relax in the knowledge that we are here to help. Our warranty covers free replacement parts for 3 years from the date of purchase as well as free repair work for 12 months.

Pre-sales technical advice

Contact us to discuss your requirements, we can help to match the right product to your application. We can also put you in touch with your nearest Ratek reseller who can provide pricing and discuss your needs in person.

HOW
WE CAN
HELP

Morning teas

We can arrange for morning teas to be held at your premises at a time convenient to you, simply contact us to discuss.

Demonstration models

We can supply demonstration models in most cases to allow you to evaluate our products for yourself, and test their suitability for your application.



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