

# YOUR PARTNER IN THE LAB



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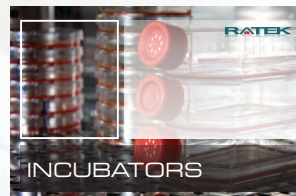
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# RATEK

## RATEK AT YOUR FINGERTIPS



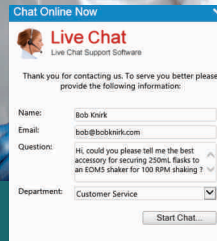
### Photo Galleries

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



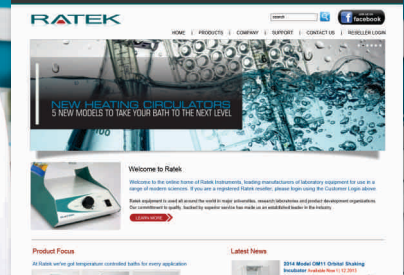
### Data Sheets

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](http://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 35,000 pieces of equipment sold in Australia. Our equipment has been refined over 35 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

# UM12

Digital Universal Mixer

## Many Mixers In One

Unique to Ratek, the UM12 is a versatile multi-place shaker that can achieve multiple mixing actions concurrently all on the one mixer. Flasks, bottles and tubes can be held at varying angles to achieve different mixing actions at repeatable digitally controlled speeds.



14 places, 40-400 RPM, digital

# 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

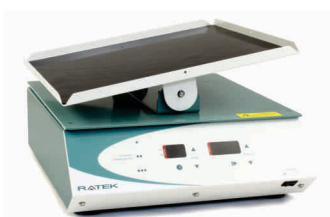
## RPM5

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	UM12	RM2	ERPM4	RPM5	OM7	OM8
Mixing action	Orbital 20mm orbit	Orbital 32mm orbit	Orbital 32mm orbit	3D Gyrotory (adjustable)	End to end, orbital (wrist action), wave	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	14 positions	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	40-400	20-200	5-50	4-57	40-400	40-400
Speed control type	Analogue	Analogue	Digital + Tacho	Analogue	Digital + Tacho	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	0-99 mins/hrs
LED speed/time display	-	-	Yes	-	Yes	Yes	-	Yes	Yes	Yes
User program presets	-	-	3	-	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	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	Silent Belt
Safety features	<ul style="list-style-type: none"> <li>• Motion interrupt stop</li> <li>• Slow start</li> </ul>	<ul style="list-style-type: none"> <li>• Motion interrupt stop</li> <li>• Slow start</li> </ul>	<ul style="list-style-type: none"> <li>• Motion interrupt stop</li> <li>• Slow start</li> <li>• Motor thermal protection</li> </ul>	-	<ul style="list-style-type: none"> <li>• Motion interrupt stop</li> <li>• Slow start</li> <li>• Motor thermal protection</li> </ul>	<ul style="list-style-type: none"> <li>• Motion interrupt stop</li> <li>• Slow start</li> <li>• Motor thermal protection</li> </ul>	<ul style="list-style-type: none"> <li>• Motion interrupt stop</li> <li>• Slow start</li> </ul>	<ul style="list-style-type: none"> <li>• Motion interrupt stop</li> <li>• Slow start</li> <li>• Motor thermal protection</li> </ul>	<ul style="list-style-type: none"> <li>• Motion interrupt stop</li> <li>• Slow start</li> <li>• Motor thermal protection</li> </ul>	<ul style="list-style-type: none"> <li>• Motion interrupt stop</li> <li>• Slow start</li> <li>• Motor thermal protection</li> </ul>
Power input	240V AC 40W	240V AC 40W	240V AC 100W	240V AC 5W	240V AC 100W	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	W350 x D460 x H705 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	30 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

## Rotary Mixer - Medium

### 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, or supplied with custom designed carriers to suit your application. The RM4 is just as at home rotating 80 x 50mL Falcon tubes as it is turning wine bottles or entire test tube racks. Safety guards are also available where required.

The RM4 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



# RM5

## Rotary/Roller Mixer - Heavy Duty

### High Capacity and Extremely Versatile

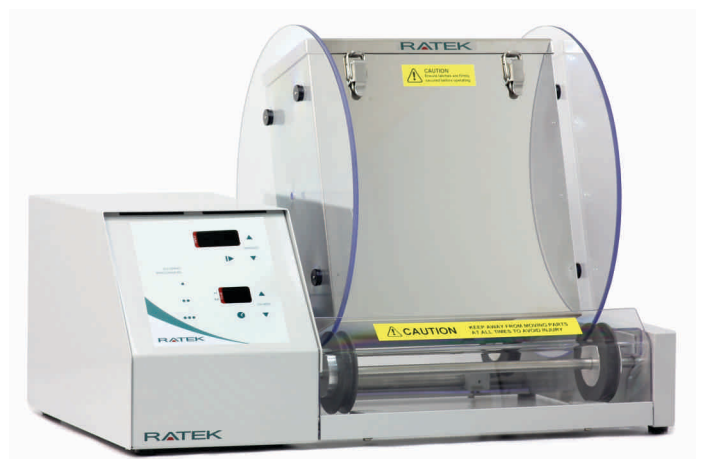
The RM5 is a versatile heavy duty roller mixer capable of turning large drums, barrels or a carrier carousel loaded with large quantities of smaller containers.

By altering the fixing points in the carousel, different mixing actions can be obtained, including end-over-end, rolling as well as tilt and roll. Carousels to secure virtually any tube, flask, bag or tube rack can be supplied. The long-life polyurethane rollers are mounted on heavy duty shafts with precision ball bearings and are driven by a heavy duty geared brushless induction motor controlled by Ratek's precision drive system. 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.

Ratek can design and manufacture a carousel wheel to suit your application and extend the RM5 to virtually any length as required. Ideal for mixing large quantities of laboratory flasks, paint cans, bottles, soil samples or test tubes, the RM5 is designed to work day-in day-out under heavy loads.

The RM5 comes with built-in Ratek reliability you can expect from Australia's leading laboratory mixer brand.

Up to 20 kg balanced load, 4 - 30 RPM, digital control



### GOT AN APPLICATION FOR THE RM4 OR RM5 ?

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.

# 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	RM5	RSM7DC
Mixing action	<ul style="list-style-type: none"> <li>Tilt &amp; roll</li> <li>Roll only (BTR5P-12V)</li> </ul>	<ul style="list-style-type: none"> <li>Tilt &amp; roll</li> <li>Roll only (BTR10P-12V)</li> </ul>	<ul style="list-style-type: none"> <li>End over end</li> <li>Rolling (custom)</li> </ul>	<ul style="list-style-type: none"> <li>End over end</li> <li>Rolling (custom)</li> </ul>	<ul style="list-style-type: none"> <li>End over end</li> <li>Centrifugal</li> <li>Rolling</li> </ul>
Capacity	4 positions, 300mm long, 1kg per pair of rollers	9 positions, 300mm long, 1kg per pair of rollers	4kgs evenly loaded  Fits 4 x UMC1 3 prong clamps  Fits 4 x UMC2/3/4 bottle clamps  Fits 1 x RM4CT clip tray (20 clips)  *Note: RM4 can be customised to suit	30kgs evenly loaded	<ul style="list-style-type: none"> <li>Supplied disc holds up to 20 clips from 1.5mL to 50mL tubes</li> <li>SD1-EP holds 40 x 1.5mL tubes</li> <li>SD2 disc holds up to 40 clips from 1.5mL to 50mL tubes</li> <li>SD3 rotor holds up to 108 x 15mL tubes</li> </ul>
Speed range	10-60 RPM	10-60 RPM	5-57 RPM	4-30 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/100W	12V slimline DC plug-pack
Overall dimensions	W215 x D500 x H120mm	W400 x D500 x H120mm	W455 x D400 x H335mm  • Can be lengthened as required	W600 x D400 x H335mm  • Can be lengthened as required	W300 x D255 x H415mm including disc
Nett weight	5 kg	6.5 kg	12 kg	20 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

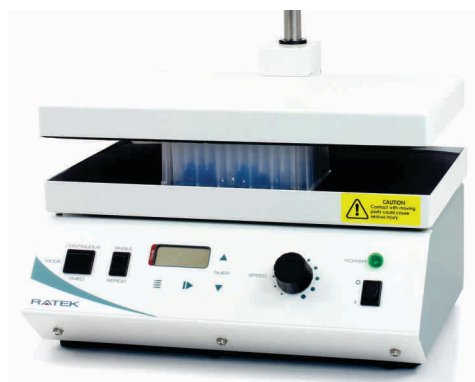
### MTV1

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"> <li>Countdown up to 99mins 59 seconds</li> <li>Pulse mode, up to 99 seconds on/off</li> </ul>	-	-	-
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](mailto: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.

### DBH10D

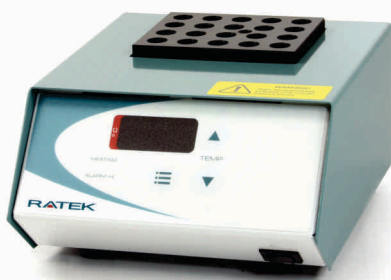
Digital Dry Block Heater - 1 Block

#### 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

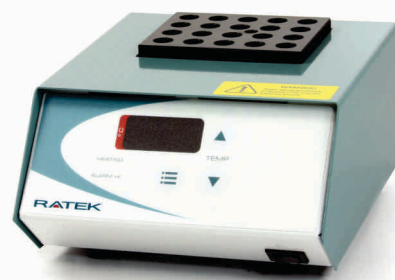
Precision Dry Block Heater - 1 Block

#### 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

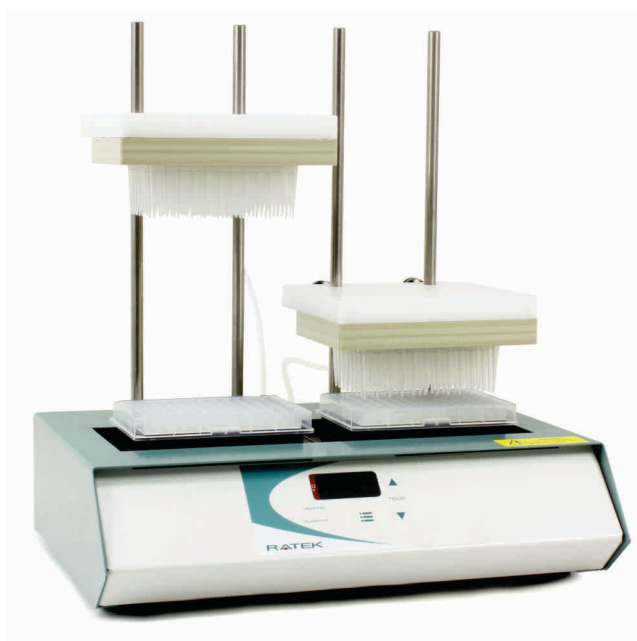
## Sample Concentration/Nitrogen Blow-Down Systems

### 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.







## 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.

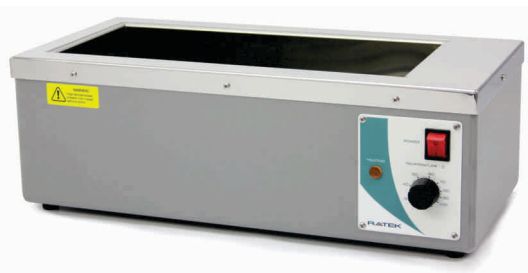
### WB4/7/14/20

Un-Circulated Analogue Waterbaths

#### Set and Forget

Ratek WB series analogue controlled baths are simple to use and suited to a variety of incubation and heating tasks where temperature controlled water is required. The electronic proportional control ensures stable temperature control from ambient +5° to 100°C. All baths are supplied with a perforated stainless steel safety mesh that covers the heating element and provides a platform for flasks, bottles and other containers.

The WB range can be utilised in a wide variety of biomedical, life science, and industrial applications as well as food and wine testing, and are available in 4, 7, 14 and 20 Litre capacities to suit different applications and different containers.



Available in 4, 7, 14 and 20 litre models, analogue control

### WB4/7/14/20D

Un-Circulated Digital Waterbaths

#### Digital Control with Simplicity

Ratek WBD series digital waterbaths are suited to a variety of incubation and heating tasks where precise temperature controlled water is required. The digital PID control ensures accurate and stable temperature control from ambient +5° to 99.9°C. The tank and all submerged parts are made from food grade polished stainless steel, which is then insulated to give maximum temperature stability. The outer case is manufactured from a chemical resistant plastic to provide durability and resistance to spills. For accurate temperature control and to minimise loss of water through evaporation, gabled lids made from stainless steel or polycarbonate are available and recommended for most applications.



Available in 4, 7, 14 and 20 litre models, digital control

# WB200/500/1100/1700D

Un-Circulated Digital Water Baths

## The Next Generation

The WBx000D range from Ratek is the latest generation of water baths from Australia's favourite laboratory equipment brand. Designed completely from the ground up with temperature uniformity, safety and reliability in mind, the new range is packed full of features.

All models feature precision digital PID control with LCD display combined with simple up and down temperature control buttons. A large concealed heater heats the entire base of the bath giving excellent spacial uniformity, whilst an independent safety monitor provides 3 levels of thermal protection. The tank is constructed from a single piece of food grade stainless steel with seamless corners making cleaning a breeze. All baths are supplied with a removable stainless steel guard that protects the user from the heated surface whilst giving a sturdy platform to work on. Ratek's most advanced water baths to date offer simplicity with performance and can be run day in day out.

Available in 2, 5, 11 and 17 litre models, digital control

## Smart Safety Monitor - 3 Levels of Safety

- Maintains safe element temperature
- Cutout prevents element thermal runaway
- Additional fail-safe thermal fuse



## Energy Efficient Design

- Large heated area for efficient heat transfer
- Fully insulated construction retains heat



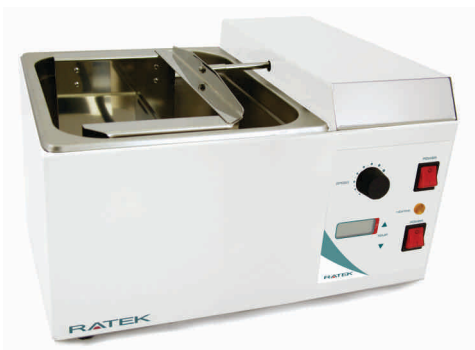
# SWB10D240

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 its 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. Ratek can also customise mesh platforms, racks and other accessories to suit your application. 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)
- Concentric Ring Lids** - Nested rings allow tall flasks to extend outside the bath whilst retaining heat
- 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

	WB200D	WB500D	WB1100D	WB1700D	WB4/D	WB7/D	WB14/D	WB20/D	SWB10D240	SWB20D
Gabled Polycarbonate Lid	WB200GPL	WB500GPL	WB1100GPL	WB1700GPL	PL4	PL7	PL14	PL20	-	PLS20
Gabled Stainless Lid	WB200GSL	WB500GSL	WB1100GSL	WB1700GSL	SL4	SL7	SL14	SL20	-	SLS20
Concentric Ring Lid	WB200RL	WB500RL	WB1100RL	WB1700RL	-	-	-	-	-	-
PPB10 Poly Balls (Qty to Fill)	300	600	1,400	2,000	400	1,000	1,500	2,000	1,000	2,000
Universal Rack	-	-	-	-	-	-	-	-	-	RR20
Tulip Clip Tray (Base Tray)	-	-	-	-	-	-	-	-	-	TCT20
Tulip Clips	-	-	-	-	-	-	-	-	-	TCxxx

## HEATED BATH SPECIFICATIONS

	WB200/500/1100/1700D	WB4/7/14/20/D	SWB10D240	SWB20D
Tank capacity	WB200D - 2 Litres WB500D - 5 Litres WB1100D - 11 Litres WB1700D - 17 Litres	WB4/D - 4 Litres WB7/D - 7 Litres WB14/D - 14 Litres WB20/D - 20 Litres	8 Litres	20 Litres
Usable tank dimensions (At narrowest point where tanks are tapered)	WB200D - L120 x W106 x H140mm WB500D - L270 x W120 x H140mm WB1100D - L300 x W270 x H140mm WB1700D - L470 x W270 x H140mm	WB4/D - L170 x W170 x H110mm WB7/D - L400 x W180 x H110mm WB14/D - L400 x W260 x H140mm WB20/D - L400 x W350 x H140mm	Cradle Dimensions L150 x W230 x H120mm	Cradle Dimensions L330 x W310 x H140mm
Temperature control type	Digital PID with LCD display	WB : Solid-state analogue WBxD : Digital PID with LCD display	Digital PID with LCD display	Digital PID with LCD display
Temperature control range	Ambient + 5°C to 99.9°C	WB : Ambient + 5°C to 100°C WBxD : Ambient + 5°C to 99.9°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	WB : +/- 0.5°C WBxD : +/- 0.2°C	+/- 0.2°C	+/- 0.2°C
Bath temperature uniformity	Within 0.2°C	Within 0.5°C	Within 0.2°C when shaking	Within 0.2°C when shaking
Safety features	<ul style="list-style-type: none"> <li>• Element temperature limiting</li> <li>• Independent element over-temp cutout</li> <li>• Fail-safe thermal fuse</li> <li>• Element guard/platform</li> </ul>	Manual reset safety thermostat	Manual reset safety thermostat	<ul style="list-style-type: none"> <li>• Manual reset safety thermostat</li> <li>• Motion interrupt cut-out</li> </ul>
Heating power	WB200D - 150 Watts WB500D - 375 Watts WB1100D - 825 Watts WB1700D - 1,275 Watts	WB4/D - 500 Watts WB7/D - 1,000 Watts WB14/D - 1,000 Watts WB20/D - 1,500 Watts	500 Watts	1,500 Watts
Construction	Stainless steel tank and element guard, powder coated stainless steel case	Stainless steel tank and upper, chemical resistant plastic case	Stainless steel tank, cradle and case	Stainless steel tank, cradle and upper, spill resistant plastic case
Overall dimensions	WB200D - L211 x W185 x H205mm WB500D - L375 x W185 x H205mm WB1100D - L403 x W335 x H205mm WB1700D - L581 x W335 x H205mm	WB4/D - L290 x W255 x H200mm WB7/D - L530 x W225 x H200mm WB14/D - L530 x W335 x H230mm WB20/D - L530 x W430 x H230mm	L409 x W330 x H250mm	L600 x W450 x H270mm
Nett weight	WB200D - 3 kg WB500D - 4 kg WB1100D - 5 kg WB1700D - 6 kg	WB4/D - 4 kg WB7/D - 6 kg WB14/D - 7 kg WB20/D - 10 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	L352 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.



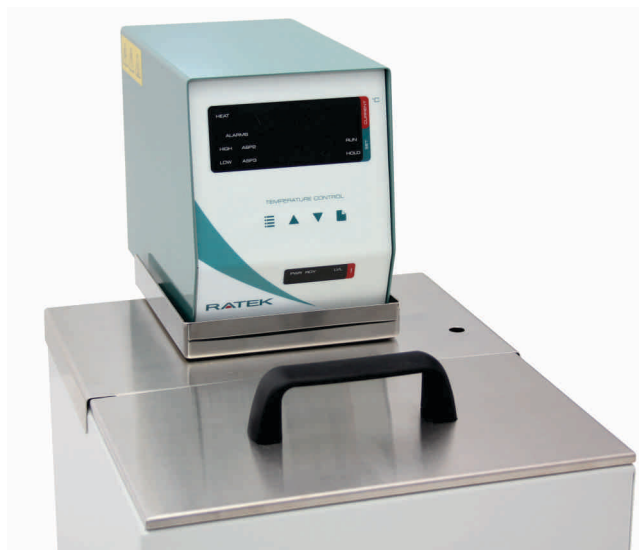
# CIRCULATED BATHS

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

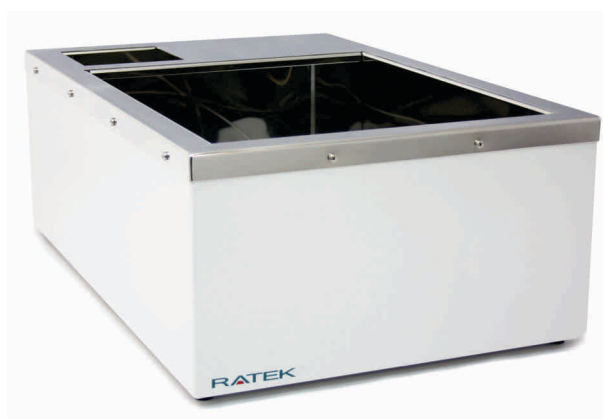
## Have It Your Way

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,  $-30^{\circ}$  to  $100^{\circ}\text{C}$

## 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,  $-30^{\circ}$  to  $100^{\circ}\text{C}$

## 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.



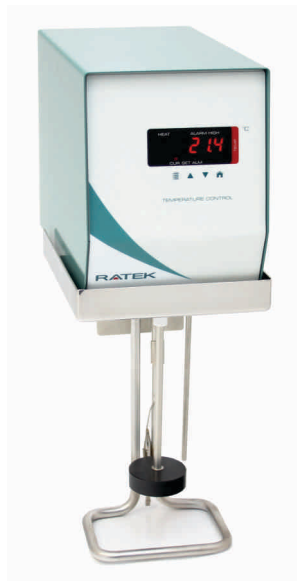
2,200W heating, programmable

## 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 stylized, blue, sans-serif font with a red triangle above the letter 'A'.

RATEK

## 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/C

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. The OM15C model adds a cooling fluid loop for sub-ambient cabinet temperatures.



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/C	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	5	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/OM15C	OM25
Mixing action	<ul style="list-style-type: none"> <li>Rolling (with H035C50)</li> <li>Rocking (with H035RP)</li> <li>Orbital (with H035OP) 20mm orbit</li> </ul>	Orbital 20mm orbit	Orbital 25mm orbit	Orbital 25mm orbit
Platform size	<ul style="list-style-type: none"> <li>300 x 300 mm H035RP</li> <li>268 x 268 mm H035OP</li> </ul>	400 x 400 mm	600 x 450 mm	700 x 530 mm
Speed range	<ul style="list-style-type: none"> <li>0-20 RPM H035C50</li> <li>4-100 RPM H035RP</li> <li>4-100 RPM H035OP</li> </ul>	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)	OM15: 28°C to 70°C. (min 7°C above ambient) OM15C: Ambient -10°C to 70°C. (with cooling)	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"> <li>Motion interrupt stop</li> <li>Slow start</li> <li>Over temperature alarm</li> <li>Over temperature cut-out</li> </ul>	<ul style="list-style-type: none"> <li>Motion interrupt stop</li> <li>Slow start</li> <li>Over temperature alarm</li> <li>Over temperature cut-out</li> </ul>	<ul style="list-style-type: none"> <li>Motion interrupt stop</li> <li>Slow start</li> <li>Over temperature alarm</li> <li>Over temperature cut-out</li> </ul>	<ul style="list-style-type: none"> <li>Motion interrupt stop</li> <li>Slow start</li> <li>Over temperature alarm</li> <li>Over temperature cut-out</li> </ul>
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 providing uniform temperatures across the surface. The black anodized aluminium surface is resistant to most spills whilst the solid state analogue temperature control provides repeatable and stable temperatures at up to 80°C.



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

## WT2500

Digital Warming Tray - Compact

### Accurate 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](mailto:sales@ratek.com.au)

The RATEK logo features 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 a thin white line connecting it to the "Technical sales" section above.

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	L352 x W300 x H200	IT2400	IT2400BC	IT2400FLB	TH8000	RC1
Heat/cool vessels whilst changing temperatures automatically over time	L352 x W300 x H200	IT2400	IT2400BC	IT2400FLB	TH8500	RC1
Cool containers directly, and optionally send cold water externally	L352 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.



**RATEK**

**Ratek Instruments Pty. Ltd.**

60 Wadhurst Dve. Boronia, Victoria, 3155, Australia

**Phone:** +613 9887 2161

**Fax:** +613 9887 2163

**Email:** [sales@ratek.com.au](mailto:sales@ratek.com.au)



FOR PRODUCT INFORMATION AND SERVICE

[www.ratek.com.au](http://www.ratek.com.au)