Chemistry - Innovations for Parallel Chemistry

Carousel Work-Up Station Working volume 1-20ml

Work-Up

Carousel Reaction Station Working volume 1-20ml

Scale-Up

Carousel 6 Reaction Station Working volume 1-150ml

Cooled Reactions

Scale Down

GreenHouse Plus Working volume 1-6ml

Cooled Carousel 6 Reaction Station Working volume 1-150ml

Powerful Stirring

Tornado IS6 Working volume 20-150ml

RDT offer on-site demonstrations of all products via a worldwide network of Product Specialists and International Distributors. RDT are represented in the UK, exclusively by sister company Radleys.

The RDT product range allows full integration between parallel synthesis, work-up and evaporation systems - helping to reduce post synthesis bottle-necks...

Radleys products are only available for France and Germany

Chemistry - Innovations for Parallel Chemistry

Cooled Reactions

Cooled Carousel
Reaction Station
Working volume 1-20ml

Process Optimisation

Metz Syn10
Reaction Station
Working volume 1-20ml

GreenHouse Classic
Working volume 0.5-3ml

Load Resins

Titan 24 and 96 Well
Resin Loaders

Work-Up

Stacker Parallel
Purification System
Working volume 3ml or 6ml

Evaporation

GreenHouse Blowdown Evaporator
Working volume 0.5-6ml

Radleys products are only available for France and Germany

Chemistry - Innovations for Parallel Chemistry

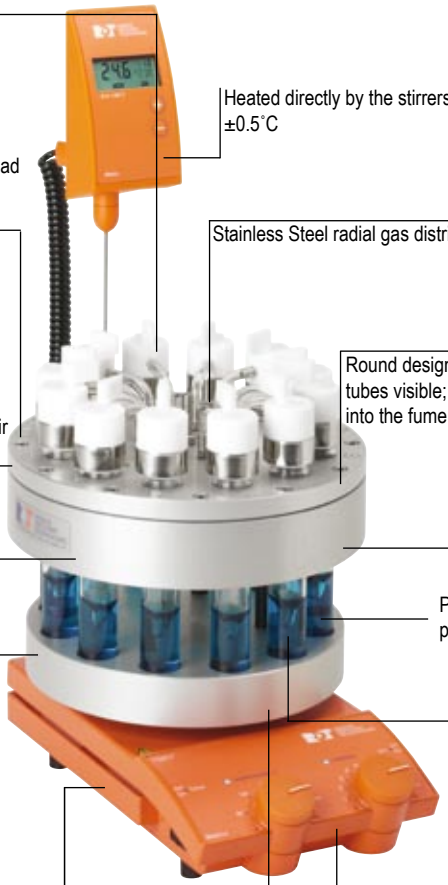
Carousel 12 Reaction Station™

Central inlet/outlet for vacuum and gas, combined with a radial gas distribution system and gas-tight PTFE caps allow reactions under an inert atmosphere

Heated directly by the stirrers hotplate; Digital temperature control ±0.5˚C

Water cooled aluminium reflux head provides efficient refluxing within individual glass reaction tubes

Stainless Steel radial gas distribution barbs for improved chemical resistance



Round design makes all reaction tubes visible; with no need to lean into the fume cupboard

Utilises the single rotating magnetifield of the hotplate stirrer to stir all the positions evenly and powerfully

Quick release water coupling with cut-off valve for ease of connection or removal of cooling water supply to reflux head

Easy to operate and set-up with minimal training time. No electrical or moving parts ensures maintenance free operation

Provides twelve heated and stirred glass reaction positions, with a reaction volume of 5 to 20ml

Low profile base reduces heat-up time

Optional Reduced Volume Glass Reaction Tubes with a working volume of 1ml to 10ml are available for use with the Carousel 12. Reduced volume tubes require the use of an aluminium inserts

Rare earth cross shaped stirring bars for more vigorous stirring and a deeper vortex, without jamming

Fits on a standard Carousel or IKA hotplate stirrer, so utilising existing and readily available technology. Compact size has small bench-top footprint - easy to store

Low profile base increases maximum recommended operating temperature from 160˚C to 180˚C (220˚C for short periods)

Carousel 12 Reaction Station™

Cost effective personal synthesis stations for parallel solution phase chemistry and solid supported reagent based synthesis

Innovative Stirring and Temperature Control - The patented Carousel provides heating, stirring and refluxing with inert gas control of twelve reaction tubes simultaneously.

Efficient Refluxing - The integrated water cooled reflux head ensures even and extremely efficient refluxing, minimising solvent evaporation during synthesis for even the most volatile solvents such as ether. Cooling water is introduced through quick connect couplings with shut-off valve.

Radial Gas Distribution/Inlet System - The radial gas distribution/inlet system is built into the centre of the reflux head to create an inert atmosphere for air sensitive/moisture sensitive chemistry. The single central inlet/outlet is designed for a tidy installation and easy purging.

Simple and convenient, the Carousel Work-Up Station will reduce post synthesis bottle-necks...

Use the Work-Up Station for parallel or sequential work-up of 12 samples, using filtration, phase separation, liquid/liquid extraction or SPE.

Radleys products are only available for France and Germany

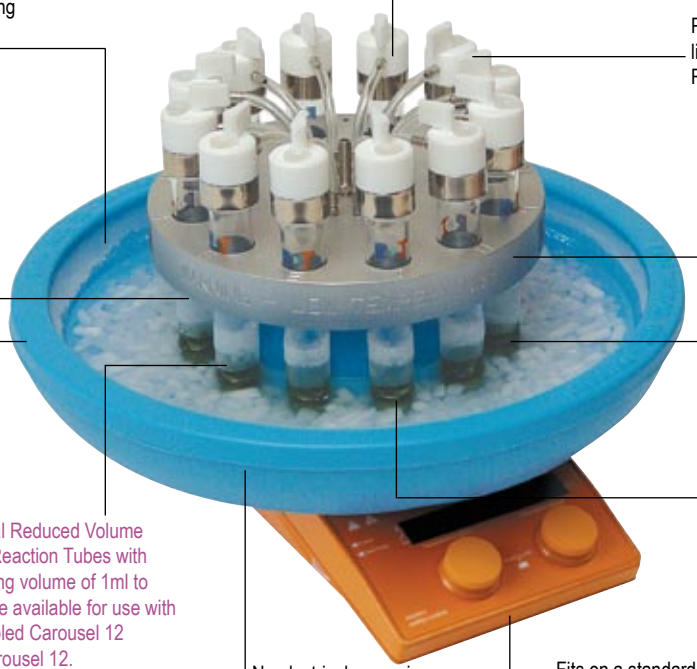
Chemistry - Innovations for Parallel Chemistry

Cooled Carousel 12 Reaction Station™

Central inlet/outlet for vacuum and gas, combined with a radial gas distribution system and gas-tight PTFE caps, allows reactions under an inert atmosphere.

Robust HDPE cooling reservoir is compatible with a wide range of freezing mixtures including dry-ice/acetone for manually controlled cooling from ambient to -70˚C.

PTFE caps feature Suba-Seal septa allowing addition of liquid reagents during synthesis under inert conditions. Robust HDPE cooling reservoir



Round design makes all reaction tubes visible; with no need to lean into the fume cupboard.

Utilises single rotating magnetic field of the stirrer to stir all the positions evenly and powerfully.

Insulated foam core maintains low temperatures for long periods, whilst protecting the stirrer from freezing. Also reduces condensation and ice formation on outer surfaces.

Provides twelve cooled and stirred glass reaction positions, with a reaction volume of 3 to 25ml.

Optional Reduced Volume Glass Reaction Tubes with a working volume of 1ml to 10ml are available for use with the Cooled Carousel 12 and Carousel 12.

Formation on outer surfaces. Rare earth cross shaped stirring bars for more vigorous stirring and a deeper vortex, without jamming

No electrical or moving parts ensures maintenance free operation. Easy to operate and set-up, with minimal training time.

Fits on a standard Carousel or IKA stirrer, so utilising existing and readily available technology.

IMPORTANT NOTE

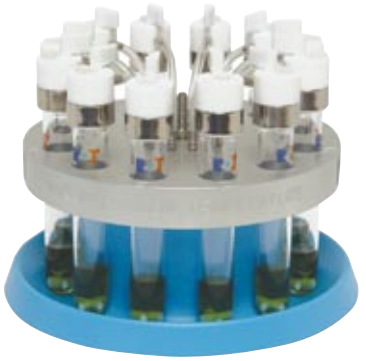
The Cooled Carousel cannot be heated and is not suitable for heated reactions.

Cooled Carousel 12 Reaction Station™

Cost effective low temperature parallel synthesis from ambient down to -70˚C

The Cooled Carousel 12 is quite simply a natural development of the Carousel concept; extending the operating range down to -70˚C. The Cooled Carousel brings all the benefits in productivity of multiple parallel synthesis at a fraction of the cost of any other comparable system.

- Simultaneously performs up to twelve cooled and stirred reactions.
- Individual glass reaction tubes have a volume of 3 to 25ml per tube.
- Fits on a standard IKA or Carousel stirrer.
- Robust HDPE Stand provides a convenient support for the cooling head, allowing the reaction tubes to warm-up to ambient, post synthesis.



HDPE Cooled Carousel Stand

Cooled Carousel Cover

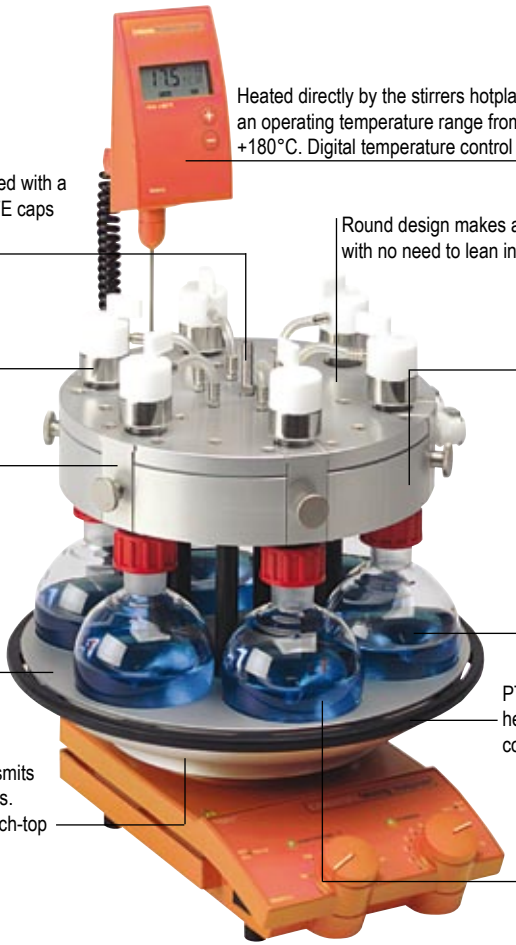
Benefits...

- Reduces the amount of condensation on tubes and frost formation.
- Prolongs duration and maintains temperature of cooling mixture
- Reduces the risk of solvents spitting and of spilling very reactive/pyrophoric reagents into cooling mixture.

Radleys products are only available for France and Germany

Chemistry - Innovations for Parallel Chemistry

Carousel 6 Reaction Station™



Heated directly by the stirrers hotplate; providing an operating temperature range from ambient to +180°C. Digital temperature control +/- 0.5˚C.

Central inlet/outlet for vacuum and gas, combined with a radial gas distribution system and gas-tight PTFE caps allow reactions under an inert atmosphere.

Round design makes all reaction flasks visible, with no need to lean into the fume cupboard.

PTFE cap features an all PTFE valve, which offers superior solvent resistance, gas tight sealing and easy operation.

Water cooled aluminium reflux head provides efficient re-fluxing within individual glass reaction flasks. Quick-release couplings prevent water loss during set-up/breakdown.

Aluminium inserts allow easy removal of flasks and good heat transfer for refluxing.

Provides six heated and stirred glass reaction positions. Expanded range of glass vessels in-cludes 5ml, 10ml, 25ml, 50ml, 100ml, 170ml & 250ml round bottom flasks, as well as vessels with one or two sidearms.

Utilises the single rotating magnetic field of the hotplate stirrer to stir all the positions evenly and powerfully.

PTFE heat protection ring helps protect user from contact with hot base.

Round aluminium base transmits heating evenly to all positions. Compact size has small bench-top footprint - easy to store.

New rare earth elliptical PTFE stirring bar provides powerful stirring and a deep vortex.

Aluminium Inserts for 5ml, 10ml, 25ml, 50ml, 100ml and 170ml Flasks

5ml Reaction Flask
Reflux Tube & PTFE Cap

10ml Reaction Flask
Reflux Tube & PTFE Cap

25ml Reaction Flask
Reflux Tube & PTFE Cap

50ml Reaction Flask
Reflux Tube & PTFE Cap

50ml Flask with Sidearm
Reflux Tube & PTFE Cap

100ml Reaction Flask
Reflux Tube & PTFE Cap

Carousel 6 Reaction Station™

Carousel 6 with Aluminium
Inserts and 100ml Reaction Flasks

Carousel 6 will increase the productivity of your chemistry. Choose from 5ml, 10ml, 25ml, 50ml, 100ml, 170ml or 250ml round bottom reaction flasks...

The Carousel 6 utilises the same technology as the popular Carousel to simultaneously stir and heat up to six round bottomed flasks.

The Carousel 6 is designed to be used by individual chemists in their own fume cupboard. The affordability of the Carousel 6 brings all the benefits in productivity of multiple parallel synthesis to the chemist at a fraction of the cost of any other comparable system.

- Wide choice of reaction flask options including 250ml Azeotropic (Dean & Stark)
- Simultaneously performs up to six heated and stirred reactions
- Fits on a standard IKA or Carousel stirrer

The Tornado IS6 facilitates powerful, controlled mechanical stirring of up to six round bottomed flasks with the Carousel 6

Offering unrivalled stirring for both viscous samples and for the dispersion of delicate solids in solution...

Radleys products are only available for France and Germany

interchim.com - **Please contact your local distributor**

Chemistry - Innovations for Parallel Chemistry

Cooled Carousel 6 Reaction Station™

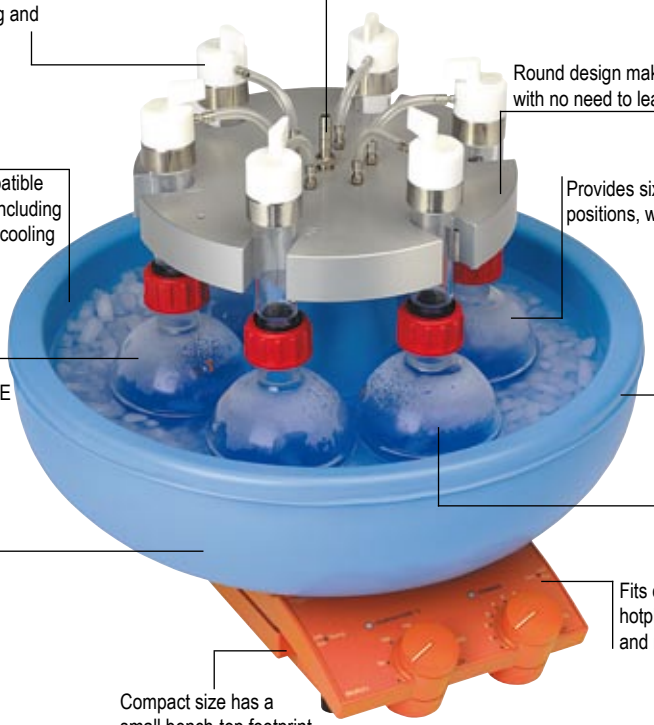
Central inlet/outlet for vacuum and gas, combined with a radial gas distribution system and gas-tight PTFE caps allow reactions under an inert atmosphere.

PTFE cap features an all PTFE valve which offers superior solvent resistance, gas tight sealing and easy operation.

Round design makes all reaction flasks visible; with no need to lean into the fume cupboard.

Robust HPDE cooling reservoir is compatible with a wide range of freezing mixtures including dry-ice/acetone for manually controlled cooling from ambient to -70˚C.

Provides six cooled and stirred glass reaction positions, with a range of reaction vessels.



Insulated foam core maintains low temperatures for long periods, whilst protecting the stirrer from freezing. Also reduces condensation and ice formation on outer surfaces.

Rare earth elliptical PTFE stirring bar provides powerful stirring and a deep vortex.

Utilises the single rotating magnetic field of the hotplate stirrer to stir all the positions evenly and powerfully.

No electrical or moving parts ensures maintenance free operation. Easo to set-up with minimal training time.

Fits on a standard Carousel or IKA hotplate stirrer, so utilising existing and readily available technology.

Compact size has a small bench-top footprint and is easy to store.

100ml Flask with Sidearm Reflux Tube & PTFE Cap

170ml Reaction Flask Reflux Tube & PTFE Cap

250ml Long Neck Reaction Flask & PTFE Cap

250ml Reaction Flask Reflux Tube & PTFE Cap

250ml Azeotropic Reaction Flask with Dropping Funnel

250ml Reaction Flask with Dropping Funnel

250ml Flask with 2 Sidearms with Dropping Funnel

Cooled Carousel 6 Reaction Station™

The Cooled Carousel 6 will simultaneously stir and cool up to six 5ml, 10ml, 25ml, 50ml, 100ml, 170ml or 250ml round bottomed flasks.

The Cooled Carousel 6 is designed to be used by individual chemists in their own fume cupboard to perform chilled reactions down to -70˚C.

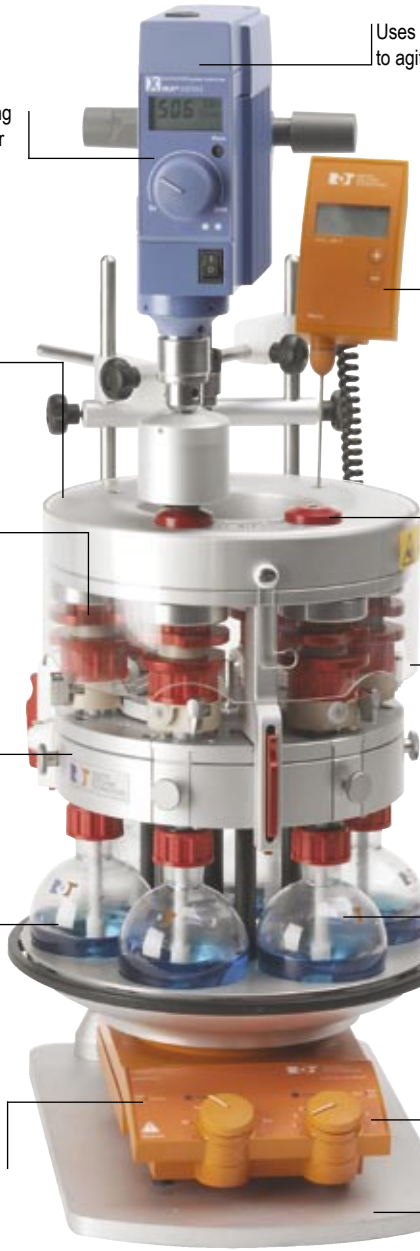
- Robust HDPE cooling reservoir is compatible with a wide range of freezing mixtures including dry ice/acetone for manually controlled cooling from ambient to -70˚C.
- Insulated foam core maintains low temperatures for long periods, whilst protecting the stirrer from freezing. Also reduces condensation and ice formation on outer surfaces.
- A stainless steel central inlet/outlet for vacuum and inert gas, combined with a radial gas distribution system and gas-tight PTFE caps, allow reactions under an inert atmosphere.
- Round design makes all reaction flasks visible and allows easy addition of reagents and solvents, with no need to lean into the fume cupboard.

Cooled Carousel Cover
Reduces frost formation, maintains temperature of cooling mixture and reduces the risk of solvents spitting.

Radleys products are only available for France and Germany

Chemistry - Innovations for Parallel Chemistry

Tornado™ IS6 Overhead Stirring System



Uses a single overhead stirrer to agitate up to six 250ml flasks

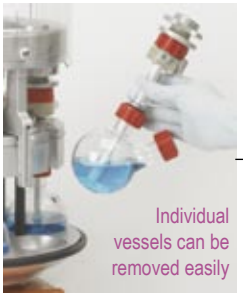
Compatible with all leading brands of overhead stirrer

Heated directly by the stirrers hotplate; Digital temperature control ±0.5˚C

Easy to operate and set-up with minimal training time

Tool-free 'Pinch-Grip' mechanism and sealed stirrer sealing system allows easy stirrer shaft insertion and operation under an inert atmosphere in a low viscosity solutions

Tool-free 'Pinch-Grip' mechanism
2-speed drive (1:1 and 2:1) means lower rated mechanical stirrers can be used for high viscosity liquids. Speeds of up to 1,000rpm are achievable in a low viscosity solutions



Individual vessels can be removed easily

Integral polycarbonate safety guard shown below.

Accommodates 100ml and 250ml round bottomed flasks (with and without sidearms) plus new baffled flasks

Provides up to six heated (max +180˚C) and stirred reaction positions

Fits on a standard Carousel or IKA stirring hotplate, utilising powerful 600 Watt heating

Integrates with existing Carousel 6 without increasing footprint

Support stand gives added stability

Tornado™ IS6 Overhead Stirring System

Increase your stirring productivity by up to 600%

The Tornado IS6 facilitates powerful, controlled mechanical stirring of up to six round bottomed flasks with the Carousel 6 Reaction Station; offering unrivalled stirring for both viscous samples and for the dispersion of delicate solids in solution...

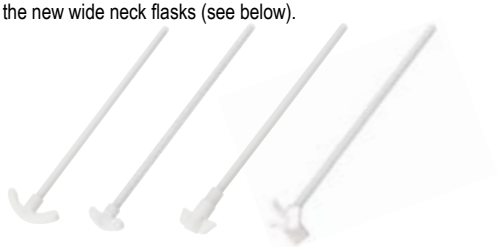
- Easy to set up and use.
- Integrates with Carousel 6 to provide up to six heated (max +180°C) and stirred reaction positions
- Uses a single overhead stirrer to agitate up to six 250ml flasks
- Compatible with all leading brands of mechanical overhead stirrer
- Evenly distributes high torque to all 6 positions, with 2-speed drive (1:1 and 2:1) means that overhead stirrers with less power/torque can be used for high viscosity liquids.
- Speeds of up to 1,000rpm are achievable in a low viscosity solutions
- Maximum viscosity 10,000cps at 500rpm

Fits onto the Carousel 6 without the need for tools...

Radleys products are only available for France and Germany

Choice of Stirring Shafts...

A range of PTFE stirrer shafts have been designed specifically for the Tornado. The centrifugal stirrer shafts will fit into any one of the RDT 100ml and 250ml flasks. The anchor and propeller stirrer shafts have been specifically designed to fit in the new wide neck flasks (see below).



Expanded range of glass vessels...

In addition to accepting the full range of Carousel 6 Place glassware from 100ml to 250ml, the Tornado also has new range of dedicated vessels with baffles and wide necks. These wide neck vessels facilitate better mixing, easier removal of viscous samples and the accommodation a variety of larger stirrer blades. Baffles are popular with many chemists because the improve stirring by disrupting the creation of a vortex. Just some of these vessel options are shown below.

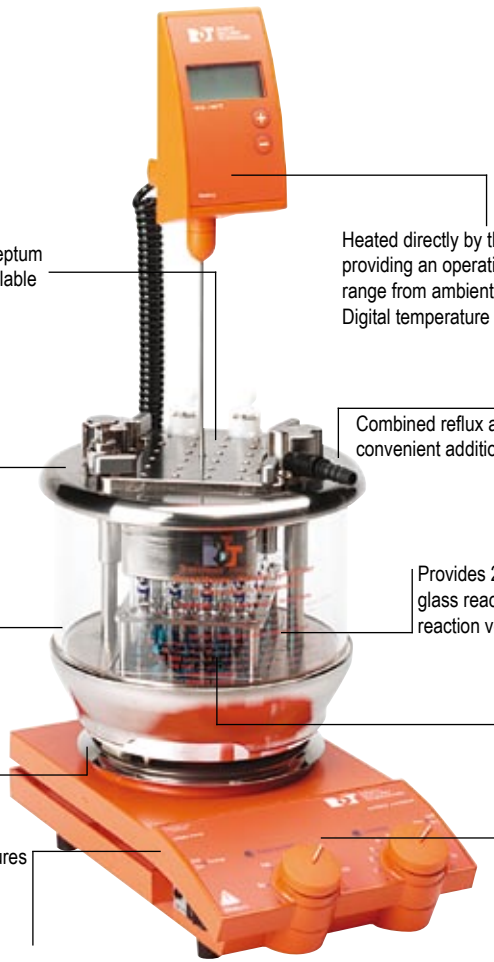
100ml vessels with two sidearms, baffles, dropping funnel and stirrer seal

100ml with sidearm | 100ml with sidearm & baffles | 250ml with sidearm

Chemistry - Innovations for Parallel Chemistry

GreenHouse Plus Parallel Synthesiser™

See page for evaporation system.



Heated directly by the stirrer hotplate; providing an operating temperature range from ambient to +150˚C. Digital temperature control +/- 0.5˚C.

A choice of septum mats are available

Combined reflux and additions head allowing for convenient additions or withdrawals whilst under reflux

Water cooled aluminium reflux head with nickel condensing fingers provides efficient refluxing within individual glass reaction tubes.

Cylindrical glass gas enclosure provides visibility of all 24 reaction tubes, with no need to lean into the fume cupboard.

Provides 24 heated and stirred glass reaction positions, with a reaction volume of 0.5 to 3ml.

"V-Mag" technology uses a vertically positioned stirring bar to maximise the uniformity of the stirring within each reaction tube.

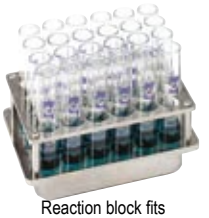
Utilises single rotating magnetic field of the hotplate stirrer to stir all 24 positions.

No electrical or moving parts ensures maintenance free operation. Easy to operate and set-up, with minimal training time.

Fits on a standard Carousel or IKA hotplate stirrer, so utilising existing and readily available technology.

Combined Reflux and Additions head with nickel condensing fingers

GreenHouse Plus allows additions & withdrawals through sealing mats



Reaction block fits directly into Genevac vacuum centrifuges

GreenHouse Plus Parallel Synthesiser™

The GreenHouse Plus offers all the features of the original GreenHouse Classic but with increased volume and a single combined reflux and additions head...

The GreenHouse Plus provides 24 heated and stirred glass reaction positions able to accommodate reaction volumes from 0.5ml to 7ml. A new combined reflux and additions head allows for convenient additions or withdrawals whilst maintaining an inert atmosphere and efficiency.

The patented GreenHouse Plus brings all the benefits in productivity of parallel synthesis at a fraction of the cost of automated systems. Holding 24 glass reaction tubes in a removable reaction block with the same footprint as a standard micro titer plate the GreenHouse Plus facilitates rapid transfer of samples by multi-channel pipettor or robotic systems.

Stirs & Cools...
The GreenHouse features an optional cooling reservoir for chilled reactions to -70˚C using dry ice and acetone

GreenHouse Classic

The patented GreenHouse Plus brings all the benefits in productivity of parallel synthesis at a fraction.
The patented Classic allows chemists to perform 24 reactions in parallel, with a reaction volume of 0.5 to 3ml per tube.

Features include :
- Ideal for smaller volumes
- Has separate reflux and additions heads...

Radleys products are only available for France and Germany

Chemistry - Innovations for Parallel Chemistry

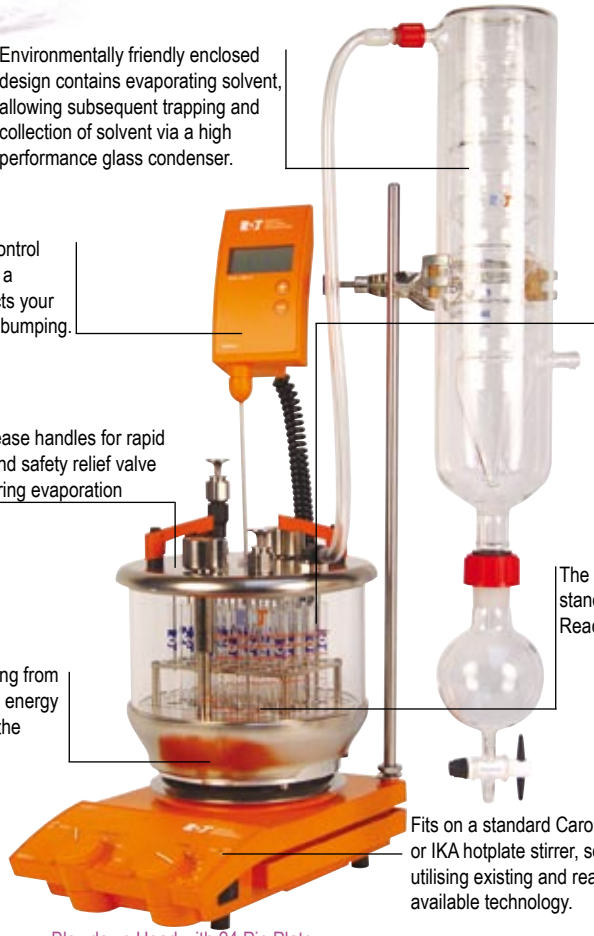
GreenHouse Blowdown Evaporator™

Environmentally friendly enclosed design contains evaporating solvent, allowing subsequent trapping and collection of solvent via a high performance glass condenser.

This precise heat control and the absence of a vacuum also protects your sample and avoids bumping.

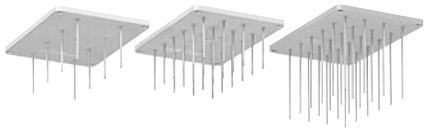
Removable head features quick-release handles for rapid changing of blowdown pins plates and safety relief valve on inlet to prevent over-pressure during evaporation

Digitally controlled heating from the hotplate gently adds energy to the sample to speed the evaporation process.



Fits on a standard Carousel or IKA hotplate stirrer, so utilising existing and readily available technology.

Select the appropriate Blowdown Pin Plate. Interchangeable plates with either 8 or 24 hollow pins deliver an equal flow of gas to each tube, vial or well.



The GreenHouse Blowdown can be used with standard 8 or 24 well Micro Titer Plates, GreenHouse Reaction Tubes or choose from 6 different vial racks.

Blowdown Head with 24 Pin Plate, Standard GreenHouse Base and GreenHouse Reaction Block

Blowdown Head, Standard GreenHouse Base, Base Adapter and 24 Position Vial Rack

GreenHouse with Blowdown Head, low profile Stand Alone Base and 24 Position Vial Rack

Blowdown Head, Standard GreenHouse Base, Base Adapter and 8 Position Vial Rack

Blowdown Head, low profile Stand Alone Base and 8 Position Vial Rack

Blowdown Head, Standard GreenHouse Base, Base Adapter and 24 Position MTP

GreenHouse with Blowdown Head, low profile Stand Alone Base and 24 Position MTP

GreenHouse Blowdown Evaporator™

Personal parallel evaporation of chemistry samples and HPLC fractions...

This unique evaporation system allows you to either upgrade your existing GreenHouse parallel synthesiser to perform parallel evaporation, or to be used as a separate stand alone bench-top personal evaporator.

By inserting the Adaptor into the GreenHouse Base the system is quickly adapted to accept vial racks or standard micro titer plates.

High performance personal evaporation at an affordable price...

Compatible with :

- GreenHouse Reaction Block
- 8 or 24 position Vials Racks
- 8 or 24 well Micro Titer Plates

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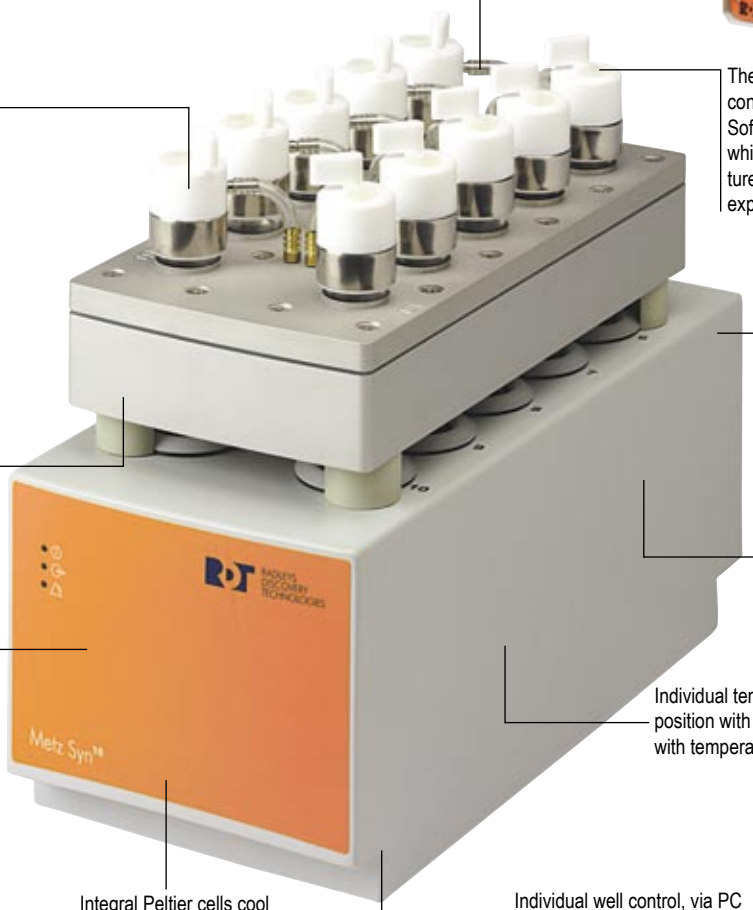
Chemistry - Innovations for Parallel Chemistry

Metz Syn[10] Reaction Station™

A central inlet/outlet manifold for vacuum and inert gas, combined with gas-tight PTFE caps, allows reactions under an inert atmosphere.

PTFE caps feature an all PTFE valve, which offers superior solvent resistance, gas tight sealing and easy operation. The cap also has a 'barbed' stainless steel inlet for easier removal of tubing.

Thermocouple Module and probes, allow control by solution temperature (Advanced Software Only). Individual users can select which cells are controlled solution temperature or well temperature irrespective of other experiments already running.



Maximum temperature differential between any two positions is 180˚C.

Optional, removable water cooled reflux head ensures even and efficient refluxing, minimising solvent evaporation during synthesis for even the most volatile solvents e.g. ether.

Individual stirring control of each position from 250 - 1200rpm, with a magnetic stirrer for each position. Provides excellent magnetic coupling for stirring even viscous samples.

Adjustable stirring rates for individual wells. Also features stirring soft start to ensure stirrer bar coupling.

Individual temperature control of each position with a range of -30˚C to +150˚C, with temperature stability -/+ 0.5˚C.

Integral Peltier cells cool and heat individual wells.

Individual well control, via PC Control Software of heating, cooling and stirring.

Metz Syn[10] Reaction Station™

Simultaneously carry out 10 reactions at the same time - but each with a different temperature, from -30˚C to +150˚C

Features include...

- Individual well control via PC Computer Interface of heating, cooling and stirring.
- Individual temperature control of each position with a range of -30˚C to +150˚C, with temperature stability -/+ 0.5˚C.
- Controlled heating and cooling ramp rates from 0.1 to 5.0˚C per minutes. With the option of crash heating/cooling at much faster rates.
- Individual stirring control of each position from 250rpm to 1200rpm, with a magnetic stirrer for each position.
- Optional, removable water cooled Reflux Head ensures even and efficient refluxing.
- A central inlet/outlet for vacuum and inert gas, combined with gas-tight PTFE caps, allows reactions under inert atmosphere.
- Log reaction parameters at selected frequency from once every 5 seconds to 1 hour.
- Change-on-the-fly function for pausing, stopping and modifying profiles in progress.
- Using multi-user function, up to 10 users can enter the Metz Syn10 software, create, run, modify and collate their profile and data irrespective and independent of other users.
- Record solution temperature of each individual well with Thermocouple Module and probes.
- Using the Thermocouple Module and probes, users can control by solution temperature. for truly versatile parallel synthesis has just got better...

Extend the working volume of your Metz Syn10 down to 1ml... Optional Reduced Volume Glass Reaction Tubes (RR66628) with a working volume of 1ml to 10ml are available for use with the Metz Syn10. These tubes require the use of an Aluminium Reduced Volume Insert (RR66627).

The unique software for truly versatile parallel synthesis has just got better..

Software Features...

- Change-on-the-fly function for pausing, stopping & modifying profiles in progress
- Multi-user function up to 10 users can use the software, and collate their profile & data irrespective of other users
- Variable data sampling at selected frequency from once every 5 secs to 1 hour
- Control by solution temperature

Radleys products are only available for France and Germany

Chemistry - Innovations for Parallel Chemistry

Metz Syn[10] - Reaction Station

The Metz Syn10 allows you to do chemistry at a level more advanced than ever before. Quickly discover the optimal conditions for your chemistry...

Metz Syn10 Software Options...

Standard Software

- Individual programming and profiling of each cell via dedicated PC Control Software.
- Controlled heating/cooling ramps from 0.1 to 5.0˚C per minute.
- Crash function for rapid temperature changes.
- Individual stirring profiling from 250 to 1200rpm.
- Automatic detection & recapture of magnetic stirrer bars in the event of uncoupling.
- Soft start stirrer start-up to prevent sample damage and maintain coupling.
- Select and observe key reaction parameters in real time graphical display.
- Record solution temperatures with Metz Syn10 Thermocouple Module.
- Variable data sampling - Monitor and log reaction parameters at selected frequency from once every 5 seconds to 1 hour.
- Change-on-the-fly function for pausing, stopping and modifying profiles in progress.

Advanced Software

Advanced software offers all the features of the "Standard" software plus "Multi-user" and "Control by Solution Temperature", providing the chemist with maximum flexibility from their Metz Syn10.

Software Upgrade Options for existing Metz Syn10 Users

A variety of upgrade options are available to existing Metz Syn10 users to allow them to take advantage of these many new features.

Metz Syn[10] Software
The unique software for truly versatile parallel synthesis has just got better

Metz Syn^{10} - for faster process development and reaction optimisation

Metz Syn10 Software Features in Detail...

- **Variable Data Sampling** - Log reaction parameters at selected frequency from once every 5 seconds to 1 hour. Offers the chemist the versatility of high frequency data collection for monitoring small fluctuations accurately or low frequency collection to eliminate the creation of large data files for longer duration experiments.
- **Change-on-the-fly** - function for pausing, stopping and modifying profiles in progress. Once the profile is started further changes can be made to any owner's cell for the remainder of their profile; truly user friendly software.
- **Multi-user function** - up to 10 users can enter the Metz Syn10 software, create, run, modify and collate their profile and data irrespective and independent of other users (Advanced Software Only), creating a reaction station truly capable of multiple independent reactions.
- **Control by Solution Temperature** - Using the Thermocouple Module and probes, users can control by solution temperature (Advanced Software Only). Individual users can select which cells are controlled solution temperature or well temperature irrespective of other experiments already running.

PFA probe inserted through a port in the RR98055 PTFE Probe Cap

Flexible wire Probe inserted via a glass pocket in the RR98051 Reaction Tube

Innovative PTFE magnetic stirring bars

Gas Tight PTFE Caps with PTFE Valve

Radleys products are only available for France and Germany

Heat-On™

Heat-On Multi-well Block Holder
(with optional safety lifting handles)

Heat-On Multi-well Block Holder
with 50ml and 100ml flask inserts

Multi-well flask inserts are available for
10ml, 25ml, 50ml, 100ml & 150ml flasks

Multi-well Block
Holder can
accept one
or two inserts as
required.

Replaces messy oil baths, heating mantles, avoid spills and make your chemistry safer, cleaner and faster...

It is accepted that oil baths and heating mantles are no longer the preferred choice of chemists to heat round bottom flasks.
The risk of oil fires and injury from hot oil spills, plus the mess and disposal costs associated with the use of oil, mean that oil baths no longer represent safe working practice in labs. Heating mantles are expensive, difficult to clean, do not respond well to spills and often create hot spots when heating.
Therefore safety aware scientists are increasingly turning to Heat-On as the safe, cost efficient and high performance alternative to heating standard round bottom flasks.

Heat-On accepts 10ml, 50ml,100ml, 150ml, 500ml, 1 litre, 2 litre, 3 litre and 5 litre round bottom flasks...

Popular 250ml Heat-On block with hotplate and temp. controller

Heat-On offers benefits that make a real difference...

- All Heat-On blocks are manufactured from solid aluminium providing excellent, even heat transfer to the entire block, preventing hot spots.
- Heat-On's weight-saving design reduces the mass of the block to be heated, making the heat-up times significantly faster. This weight-saving design also offers faster post synthesis cool down times.
- Heat-On blocks feature a proprietary well design, that eliminates cracking of flasks, whilst allowing the Heat-On blocks to have deeper wells, maximising the heated surface area to in-turn improve heat-up times and minimise the differential between the block and solution temperature.
- Heat-On blocks have two probe holes for insertion of temperature probe/s.
- Removable lifting handles ensure safe and rapid removal of the blocks from the heat source.
- Blocks can be used up to 200˚C and 260˚C for short periods.

Heat-On heats hotter, faster...

- Heat-up tests have shown Heat-On can boil a 250ml flask of water in under 11 minutes, faster than an oil bath and faster than competitive blocks.
- Whilst another controlled test showed that a 2000ml Heat-On block and flask, containing 1000ml flask of water boiled 66% faster than the competition.
- Heat-On is also more efficient - using 30% less energy than a competitive block, when boiling water over a 7 hour period.

Heat-On™

Fluoropolymer coating gives superb chemical resistance...
Heat-On blocks have an innovative fluoropolymer coating that offers outstanding chemical resistance to most solvents, acids and alkalis. The coating also extends the product life, is easy-to-clean and reduces heat-up time. Heat-On blocks are also available as standard with a lower cost anodised finish if preferred.

Multi-well block holder and inserts...
This unique Multi-well block holder is designed to hold either one or two inserts for flasks or tubes*. The inserts are available for 10ml, 25ml, 50ml, 100ml and 150ml flasks as well as multi-tube inserts for 16mm, 20mm and 24mm tubes or vials. Flask inserts also feature cut-away sides for use with two or three neck flasks and accept the optional safety lifting handles. *Only accepts one 150ml insert.


250ml Heat-On block

Heat-On is an easy to use, efficient, heating and stirring work station designed to accept standard round bottom flasks from 10ml to 5 litres...

Unique well design prevents cracking of glassware...
Heat-On blocks feature a proprietary well design, that eliminates cracking of flasks, whilst allowing the Heat-On blocks to have deeper wells, maximising the heated surface area to in-turn improve heat-up times.


500ml Heat-On block

Cleaner...
Heat-On saves money by removing the need for oil and its costly disposal, and by making the cleaning of oil-free glassware much easier.

Removable safety lifting handles...
Optional safety lifting handles have a simple and secure quick release mechanism that allows the user to quickly attach the handles and remove the block from the heat source, even whilst it remains hot. We offer this as an option rather than compromising the overall design by having them permanently attached.

Heat-On fits on to all leading brands of stirring hotplate...
Heat-On blocks are suitable for use with all hotplates up to 145mm in diameter including Heidolph, IKA and the Radleys Stirring Hotplate. An optional aluminium adapter for 135mm Hotplates (required for IKA and the Radleys Stirring Hotplate) comes free when you buy any Heat-On System (see page 3).


1 Litre Heat-On block

Heat-On blocks for large flasks from 250ml to 5 litres...
Each Heat-On block (250ml, 500ml, 1 litre, 2 litre, 3 litre & 5 litre) is a stand-alone product that can be placed directly onto your stirring hotplate - these blocks do not use reducing inserts to accept smaller flasks, thereby maximising heat transfer from a single piece design. All single well blocks feature two probe holes and accept the optional safety lifting handles.


1 Litre Heat-On block with hotplate and temp. controller


2 Litre Heat-On block with hotplate and temp. controller


5 Litre Heat-On block

Radleys products are only available for France and Germany

Heat-On™

Heat-On blocks with Fluoropolymer Coating

P/N	Description
Heat-On Blocks for Multi-well Holder with Fluoropolymer Coating	
RR61005	Heat-On Multi-Well Holder (Polymer coated)
RR61010	Heat-On 10ml Insert (Polymer coated)
RR61015	Heat-On 25ml Insert (Polymer coated)
RR61020	Heat-On 50ml Insert (Polymer coated)
RR61025	Heat-On 100ml Insert (Polymer coated)
RR61030	Heat-On 150ml Insert (Polymer coated)
RR61065	Heat-On Inserts for 8 x 16mm Tubes (Polymer coated)
RR61070	Heat-On Inserts for 4 x 20mm Tubes (Polymer coated)
RR61075	Heat-On Inserts for 4 x 24mm Tubes (Polymer coated)
Heat-On Blocks with Fluoropolymer Coating	
RR61040	Heat-On 250ml Block (Polymer coated)
RR61045	Heat-On 500ml Block (Polymer coated)
RR61050	Heat-On 1 Litre Block (Polymer coated)
RR61055	Heat-On 2 Litre Block (Polymer coated)
RR61060	Heat-On 3 Litre Block (Polymer coated)
RR61063	Heat-On 5 Litre Block (Polymer coated)
Heat-On Florentine (pear-shaped) Blocks with Fluoropolymer Coating	
RR61032	Heat-On 200ml Florentine Block (Polymer Coated)
RR61042	Heat-On 300ml Florentine Block (Polymer Coated)
Heat-On Multi-well System with Fluoropolymer Coating	
RR61000	Heat-On Multi-Well System (Polymer coated) 1 x RR61005 Heat-On Multi-well Holder (Polymer coated) 2 x RR61015 Heat-On 25ml Insert (Polymer coated) 2 x RR61020 Heat-On 50ml Insert (Polymer coated) 2 x RR61025 Heat-On 100ml Insert (Polymer coated) 1 x RR61085 Heat-On Adapter Plate for 135mm Hotplates
Heat-On Multi-well Basic System with Fluoropolymer Coating	
RR61001	Heat-On Multi-Well Basic System (Polymer coated) 1 x RR61005 Heat-On Multi-well Holder (Polymer coated) 1 x RR61015 Heat-On 25ml Insert (Polymer coated) 1 x RR61020 Heat-On 50ml Insert (Polymer coated) 1 x RR61025 Heat-On 100ml Insert (Polymer coated) 1 x RR61085 Heat-On Adapter Plate for 135mm Hotplates
Heat-On Accessories	
RR61080	Heat-On Safety Lifting Handles (Pair)
RR61085	Heat-On Adapter Plate for 135mm Hotplates

A full range of stirring bars and round bottom flasks are available on request. Prices are in Pounds Sterling or Euros and exclude VAT and delivery. For pricing in other currencies please contact your local distributor

Heat-On blocks with Anodised Finish

P/N	Description
Heat-On Blocks for Multi-well Holder with Anodised Finish	
RR62005	Heat-On Multi-Well Holder
RR62010	Heat-On 10ml Insert
RR62015	Heat-On 25ml Insert
RR62020	Heat-On 50ml Insert
RR62025	Heat-On 100ml Insert
RR62030	Heat-On 150ml Insert
RR62065	Heat-On Inserts for 8 x 16mm Tubes
RR62070	Heat-On Inserts for 4 x 20mm Tubes
RR62075	Heat-On Inserts for 4 x 24mm Tubes
Heat-On Blocks with Anodised Finish	
RR62040	Heat-On 250ml Block
RR62045	Heat-On 500ml Block
RR62050	Heat-On 1 Litre Block
RR62055	Heat-On 2 Litre Block
RR62060	Heat-On 3 Litre Block
RR62063	Heat-On 5 Litre Block
Heat-On Florentine (pear-shaped) Blocks with Anodised Finish	
RR62032	Heat-On 200ml Florentine Block
RR62042	Heat-On 300ml Florentine Block
Heat-On Multi-well System with Anodised Finish	
RR62000	Heat-On Multi-Well System 1 x RR62005 Heat-On Multi-well Holder 2 x RR62015 Heat-On 25ml Insert 2 x RR62020 Heat-On 50ml Insert 2 x RR62025 Heat-On 100ml Insert 1 x RR61085 Heat-On Adapter Plate for 135mm Hotplates
Heat-On Multi-well Basic System with Anodised Finish	
RR62001	Heat-On Multi-Well Basic System 1 x RR62005 Heat-On Multi-well Holder 1 x RR62015 Heat-On 25ml Insert 1 x RR62020 Heat-On 50ml Insert 1 x RR62025 Heat-On 100ml Insert 1 x RR61085 Heat-On Adapter Plate for 135mm Hotplates
Hotplates & Temperature Controller	
RR98072	Carousel Stirring Hotplate 230v UK Plug
RR98072/EURO	Carousel Stirring Hotplate 230v Euro Plug
RR98072/JAP	Carousel Stirring Hotplate 110v Japanese Plug
RR98072/SWISS	Carousel Stirring Hotplate 240v Swiss Plug
RR98072/USA	Carousel Stirring Hotplate 115v US Plug
RR98073	Carousel Temperature Controller

StarFish™

Advantages

StarFish offers many advantages over standard experimental set-ups...

Money saving...
Cheaper than using multiple stirrers, hotplates, heating mantles or oil baths. Also allows you to use your existing stirring hotplate and glassware.

Compact
Uses less space than multiple heating and stirring set-ups.

True versatility
Accommodates a wider range of vessel types and accessory glassware than any other system. Use it for one application today and a different one tomorrow.

Simple set-up...
Unique clamp and distribution manifolds mean less tubing and clamping and easier set-up.

More flexible...
Use as many or as few positions as you want.

Easy to use...
Simple design means it is easy to use and quick to assemble or disassemble. Requires minimal training to operate.

Increased Productivity...
Multiple positions allow you to heat and stir experiments in parallel for improved productivity.

Safer, cleaner working...
Eliminates the need for oil baths, reducing spills and accidents.

StarFish is a modular, general purpose heating and stirring work station designed to fit on all leading brands of stirring hotplate which accepts a wide range of standard glassware, including; vials, test tubes, beakers and round-bottomed flasks.

Whether you just want to heat and stir, or perform more complex experiments, StarFish really can make your life easier and improve the productivity of your lab.

Key StarFish features...

- Fits on all leading brands of stirring hotplate.
- Powerful stirring and rapid heating of all positions equally.
- Accepts a wide range of standard glassware, including vials, test tubes, beakers and round-bottomed flasks.
- Perfect for both simple heating or stirring; and for more complex experiments.
- Universal 5-way Telescopic Clamp will hold a wide variety of glassware such as condensers, extractors etc.
- Water Distribution Manifolds distribute cooling water to up to five condensers simultaneously.
- Gas/Vacuum Distribution Manifolds allow gas or a vacuum from a single source to be evenly distributed to up to five positions or vessels.
- Set-up vessels individually or in parallel.

A typical Starfish set-up for a single soxhlet extraction

StarFish™

StarFish applications...

Stirring...

StarFish will easily and powerfully stir the contents of vials, tubes, beakers, conical flasks and round bottomed flasks, making it ideal for almost any stirring application including: microbiology, tissue culture, biochemistry, analytical chemistry...

Heating...

All StarFish base plates and blocks are made from anodised aluminium, providing excellent heat transfer. Precision machining also ensures an excellent contact between the blocks and the base plate. In tests StarFish boiled five 250ml vessels with 150ml of water in each in less than 20 minutes.

Synthesis...

StarFish can be used for all types of chemical synthesis and will accommodate standard round bottomed flasks from 5ml to 250ml, aswell as both 1 inch and 24mm boiling tubes. Use the versatile 5-way Telescopic Clamp to hold glascondensers of any size and the Water and Gas/Vacuum Distribution Manifolds to distribute cooling water or gas to a maximum of five vessels, without the fuss of glass manifolds, stopcocks and excessive tubing.

Extraction...

StarFish can be used to replace large, inflexible extraction apparatus. Accommodating any standard round bottomed flasks from 5ml to 250ml, StarFish can easily accept complete glassware assemblies for soxhlet, liquid-liquid, reverse liquid-liquid and reflux extraction methods.

Concentration...

Use StarFish to rapidly concentrate or evaporate samples. Use standard round bottomed flasks, tubes or vials.

Distillation...

StarFish can easily be configured for all common types distillation including; binary and multi-component, vacuum, fractional and azeotropic methods.

Digestion...

StarFish offers powerful, rapid heating making it ideal for many digestion methods, either individually or in parallel.

A typical StarFish set-up for parellel synthesis

Select only the components you really need

PolyBlocks
PolyBlocks can be mixed'n'matched to accommodate any combination of vessels (5 per StarFish)

Custom blocks
If you don't see the block with the well sizes your want then please visit our website to download the "StarFish Custom Block Ordering Guide".

Gas/Vacuum Distribution Manifold
(two required for most applications)

Water Distribution Manifold
(two required for most applications)

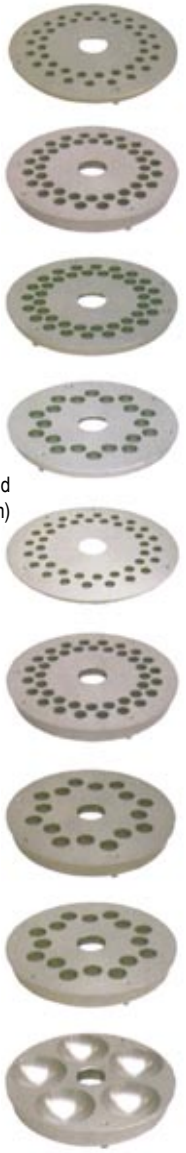
Support Rod
(650mm x 12mm)

Split Support Rod
(650mm x 12mm)

Universal 5-way Telescopic Clamp
(two required for most applications)

Base Plate
(handies are optional)

Choose your preferred stirring Hotplate



MonoBlocks
MonoBlocks are single blocks with multiple wells all of the same size

Inserts
Aluminium inserts for flasks from 5ml to 150ml fit in PolyBlocks and MonoBlocks

Radleys products are only available for France and Germany

interchim.com - **Please contact your local distributor**

Making use of existing lab resources

StarFish fits on all leading brands of stirring hotplate

With a choice of base plates, StarFish will fit on most stirring hotplates including; RDT, IKA, Heidolph, Eyela, Stuart and Barnstead making it the most versatile work station available.

RDT Carousel
Stirring Hotplate

IKA
RCT Basic

Heidolph
MR 3001 K

Barnstead
Cimarec 2

Eyela
CCX-1000

Stuart
SD 162

Description	RCT Basic	Stirring Hotplate	MR 3001 K	Cimarec 2	CCX-1000	SD162
Maximum Temp	300˚C	300˚C	300˚C	540˚C	170˚C	350˚C
Heating Power	600 W	600 W	600 W	1200 W	500 W	750 W
Max Recommended Block Temp.	195˚C	195˚C	260˚C	309˚C	161˚C	257˚C
Time to boil 5 x 150ml water (250ml round bottom flasks)	27min	27min	27min	18min	86min*	23min
Max Stirring Speed	1100rpm	1100rpm	1250rpm	1200rpm	1200rpm	1300rpm
RDT Cat No.	**3378700**	**RR98072**	**RR95820**	**SP13120-33**	**n/a**	**SD162**
StarFish Base Plate	**RR95010**	**RR95010**	**RR95020**	**RR95040**	**RR95030**	**RR95050**
Base Plate Recess (Nominal)	135mm ID	135mm ID	145mm ID	184 x 184mm	150mm ID	160 x 160mm
Base Plate Recess (Actual)	136mm +/-0.1	136mm +/-0.1	146.5mm +/-0.1	189mm +/-0.1	151.5mm +/-0.1	154.5mm +/-0.1

*Test performed with 5 x 100ml of water only. Also fits on IKA RET basic and basic C, plus IKA RET control-visc and control-visc C Also fits on Heidolph MR 3000, MR 3001, MR 3002 & MR 3004 series.

Important Note

Information is correct at time of publication. No responsibility can be taken for inaccuracy of stirring hotplate data. All trade names are the property of their respective owners. No endorsement for the suitability of any stirring hotplate for use with the StarFish is given or implied by any of the respective stirring hotplate manufacturers.

A truly modular and versatile system

StarFish is both flexible and modular. Simply select the components or accessories that you want, as and when you need them...

Base Plates with optional handles

The range of StarFish base plates have been designed for use on the most popular brands of stirring hotplate shown opposite. Stirring hotplates from other manufacturers can be used as long as the base plate fits securely on to the top plate, thereby maintaining good thermal contact with the heated surface. The base plate's design allows it to be easily lifted on and off the stirring hotplate as required. Each plate is labelled with dimensions for quick identification.
Optional insulated handles can be fitted to facilitate the removal of the base plate; these are particularly useful for removing the StarFish from your stirring hotplate whilst still hot.

Choose from MonoBlocks and PolyBlocks

StarFish is available with a choice of two block formats: MonoBlocks, which are single blocks with multiple wells all of the same size and are ideal for experiments using the same vessel. PolyBlocks, which are smaller segments (5 per StarFish) which can be mixed'n'matched to accommodate any combination of vessel; allowing the use of different vessel types and sizes at the same time. All blocks are stackable maximising lab space, have a 3.5mm hole for temperature probes and are individually labelled for quick identification. See overleaf for a full listing.

Custom blocks are also available

If you don't see the block with the well sizes you want then please visit www.starfish-chemistry.com to download the 'StarFish Custom Block Ordering Guide'.

Support Rods

There are a choice of two support rods, both 650mm x 12mm in diameter; the one piece rod and the two piece split rod. The spilt rod has threaded join half way along its body, which allows for shorter assemblies and easier storage.

Save money, by using your own glassware... StarFish will accept all brands of standard glassware; including vials, test tubes, beakers and round bottomed flasks.

Radleys products are only available for France and Germany

Quick Selection Guide

Vessels	RDT Vessels	PolyBlocks	MonoBlocks	Stirring Bars
2ml Vial (12mm Ø x 35mm) RR94330		12mm Ø x 9 RR95270	12mm Ø x 40 RR95170	Cylindrical Stirring Bar 8mm RR95905
1 Dram (15mm Ø x 45mm) RR94320	**Custom blocks** If you don't see the block with the well sizes you want then please visit our website to download the 'StarFish Custom Block Ordering Guide'.	15mm Ø x 9 RR95265	15mm Ø x 40 RR95165	Pivot Ring Stirring Bar 12mm RR99607
2 Dram (17mm Ø x 60mm) RR94310		17mm Ø x 7 RR95260	17mm Ø x 40 RR95160	Pivot Ring Stirring Bar 15mm RR99613
4 Dram (21mm Ø x 70mm) RR94300		21mm Ø x 3 RR95255	21mm Ø x 20 RR95155	Pivot Ring Stirring Bar 15mm RR99613
Test Tube (16mm Ø x 100mm) RR94030 - withour rim RR94015 - with rim	Green house Classic Reaction Tube (12mm Ø x 100mm) RR99603	12mm Ø x 9 RR95250	12mm Ø x 40 RR95150	Pivot Ring Stirring Bar 12mm RR99607
Test Tube (16mm Ø x 100mm) RR94030 - withour rim RR94015 - with rim	GreenHouse Plus Reaction Tube (16mm Ø x 100mm) RR99612	16mm Ø x 9 RR95245	16mm Ø x 40 RR95145	Pivot Ring Stirring Bar 15mm RR99613
Test Tube (24mm Ø x 150mm) RR94010 - withour rim RR94005 - with rim	Carousel Reaction Tube (24mm Ø x 150mm) RR98061	24mm Ø x 3 RR95240	24mm Ø x 16 RR95140	Rare Earth Medium Cross Shaped RR98091 (7mm x 16,5mm)
Test Tube (25mm/1inch Ø)		25mm Ø x 3 RR95235	25mm Ø x 16 RR95135	Rare Earth Medium Cross Shaped RR98091 (7mm x 16.5mm)

Vessels	RDT Vessels	PolyBlocks	MonoBlocks		Stirring Bars
 5ml Round Bottom Flask RR94115 - 10/19 socket RR94110 - 14/23 socket	5ml RDT Reaction Flask RR99151	 250ml x 1 RR95230	 250ml x 5 RR95130	 5ml Aluminium Insert RR95355	 Small Cross Shaped RR98075 (4,9mm x 10mm)
 10ml Round Bottom Flask RR94105 - 10/19 socket RR94100 - 14/23 socket	10ml RDT Reaction Flask RR99148	 250ml x 1 RR95230	 250ml x 5 RR95130	 10ml Aluminium Insert RR95350	 Small Cross Shaped RR98075 (4,9mm x 10mm)
 25ml Round Bottom Flask RR94095 - 19/26 socket RR94090 - 24/29 socket RR94165 - 14/23 socket with 14/23 sidearm	25ml RDT Reaction Flask RR99145	 250ml x 1 RR95230	 250ml x 5 RR95130	 25ml Aluminium Insert RR95345	 Rare Earth Medium Cross Shaped RR98091 (7mm x 16.5mm)
 50ml Round Bottom Flask RR94085 - 19/26 socket RR94080 - 24/29 socket RR94160 - 14/23 socket with 14/23 sidearm	 50ml RDT Reaction Flask RR99070 RR99071 with B14/23 sidearm	 250ml x 1 RR95230	 250ml x 5 RR95130	 50ml Aluminium Insert RR95340	 Rare Earth Medium Cross Shaped RR98091 (7mm x 16.5mm)
 100ml Round Bottom Flask RR94075 - 19/26 socket RR94070 - 24/29 socket RR94155 - 24/29 socket with 19/26 sidearm	 100ml RDT Reaction Flask RR99054 RR99074 with B14/23 sidearm	 250ml x 1 RR95230	 250ml x 5 RR95130	 100ml Aluminium Insert RR95335	 Rare Earth elliptical RR99064 (25,1mm x 15,5mm)
 150ml Round Bottom Flask RR94065 - 19/26 socket RR94060 - 24/29 socket		 250ml x 1 RR95230	 250ml x 5 RR95130	 150ml Aluminium Insert RR95330	 Rare Earth Elliptical RR99064 (25.1mm x 15,5mm)
 250ml Round Bottom Flask RR94055 - 19/26 socket RR94050 - 24/29 socket RR94150 - 24/29 socket with 19/26 sidearm	 250ml RDT Reaction Flask RR99040 Long neck and sidearm versions are available	 250ml x 1 RR95230	 250ml x 5 RR95130		 Rare Earth Elliptical RR99064 (25,1mm x 15.5mm)

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Chemistry - Scale-up

Lara™ - Controlled - Lab Reactor

The Concept

The concept behind Lara was to develop a flexible, affordable, easy-to-use CLR system. Lara incorporates many unique features that simplify the user's interaction saving time and money and making process automation of this type much more accessible.

Mechanical features include; a vessel clamping mechanism which automatically centralises the reaction vessel; fixed overhead stirring that ensures perfect stirrer alignment; a semi-automated oil drain down for fast exchange of reaction vessels; and the ability to connect a whole variety of different sensors and devices.

The easy-to-learn Lara control software has been written to allow users to integrate their existing laboratory hardware and to write, import and save experimental recipes, create new control loops and perform chemistry unattended.

Setting new standards in flexibility and simplicity in process automation...

Applications

- Process scale-up
- Process optimisation
- Method development
- Large scale synthesis
- Synthesis of building blocks
- Crystallisation studies
- Calorimetry studies
- Reaction process monitoring

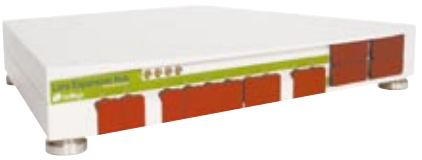
The Benefits

- Enhanced productivity
- Process reproducibility
- Extremely easy to operate
- Time-saving user features
- Fits into a standard fume cupboard
- Affordable

Lara™ - Controlled - Lab Reactor

Expansion Hub is flexible, expandable, upgradeable

To expand the capabilities of your Lara system simply integrate your existing third party equipment or add a dedicated Lara Expansion Module as and when you need it...



The Lara Expansion Hub offers unlimited system expansion and development opportunities through the control of existing or future third party laboratory equipment such as pumps, balances, thermoregulators, temperature probes etc. The Expansion Hub simply connects to the Lara core system providing a complete integrated, yet expandable solution.

The Expansion Hub offers the following connectivity :

- RS232 devices (e.g. thermoregulators, balances and pumps).
- Analogue devices (e.g. temperature probes, pH probes, turbidity meters).
- Digital inputs (e.g. switches).
- Digital outputs (e.g. relays).

Coflux™ Reaction Monitoring Module

Realtime Calorimetry - Coflux represents an exciting new form of reaction process monitoring offering high levels of performance and flexibility at an affordable price. The system provides quick, efficient and calibration free real-time information and is suitable for hazard assessment, process monitoring, scale up, process optimisation and more.

Features of the Coflux Reaction Monitoring Module include:

- Instant safety data.
- Realtime information on power and enthalpy.
- No baseline calibrations required.
- Precise temperature control and stability.
- Detection of reaction end point.
- Safer control of exotherms and endotherms.
- Optimised reagent additions.
- Early indication of reaction issues.
- Rapid return on investment.
- Detection and tracking of crystallisations.

Radleys products are only available for France and Germany

Lara™ - Controlled - Lab Reactor

Self aligning integral stirrer drive

- The integral hinged design permits full access to the reactor lid and ports, ensuring the quick and easy removal of the lid and stirrer guide.
- Correct stirrer alignment is assured every time, with no requirement to align the stirrer motor between procedures, saving valuable time in setting up new experiments.
- Low profile drive mechanism reduces the overall height of the unit to ensure that Lara will easily fit into a standard fume cupboard.
- Maintains constant speed regardless of load.

Quick-release vessel clamp

- All Lara reaction vessels are securely held by a single point clamp and self adjusting sealing mechanism. No tools are required to exchange vessels.
- Vessel remains supported even when clamp is unlocked.
- Reaction vessels or lids can be exchanged in minutes to allow a fast turn around between experiments.
- The automatic centralisation of the glassware ensures perfect alignment of the stirrer drive every time.
- The detachable clamping mechanism can be autoclaved or cleaned.

Lara™ - Controlled - Lab Reactor

Self gripping stirrer guide

- Unique design allows stirrer shafts to be gripped or released in seconds without the need for tools.
- The leak-free seal mechanism allows the system to be readily operated under vacuum or inert atmospheres.
- Enclosed design prevents any contamination of stirrer drive mechanism.
- All wetted parts and bearings are chemically resistant and user replaceable.
- Compatible with both PTFE and glass stirrer designs.
- Custom stirrer designs available.

Versatile scaffolding

- Designed with a compact footprint to save valuable fume cupboard space.
- In-built scaffolding provides a convenient platform to allow the attachment of glassware and third party devices.
- Removable base allows frame to be mounted efficiently on to existing fume cupboard scaffolding.
- Ergonomic cable clips ensure a safe and tidy working environment.

Lara™ - Controlled - Lab Reactor

Easily interchangeable glass vessels

- A wide range of easily interchangeable jacketed glass reaction vessels from 100ml to 5 litre available - with split jacket, vacuum jacket, conical or dished design.
- Unique vessel clamping mechanism and quick-release sidearms and allows you to swap vessels in minutes.
- Easy to remove V4 zero dead space drain valve ensures that all the vessel contents are stirred and temperature control led at all times.
- Custom vessel and lid designs available.
- Full range of ancillary glassware available including: condensers, distillation heads, dropping funnels, vacuum taps, gas bubblers etc.

100 ml

250 ml


500 ml

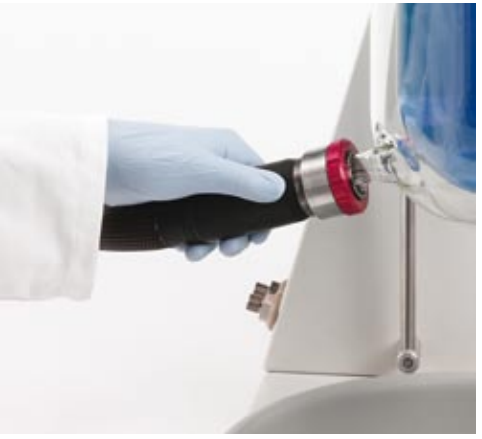

1 litre


5 litre


Custom 1 litre split jacketed vessel

Quick connect sidearm couplings

- Unique quick release coupling allows rapid exchange of vessels without the use of tools.
- Operate over the entire dynamic temperature range of the Lara system (-80 to +200˚C).
- Unrestricted internal design maximises flow and efficiency of thermofluid at the reaction vessel.
- Optional manifold adapters allow compatibility with split-jacketed vessels.
- All wetted parts are chemically resistant and user replaceable.



Lara™ - Controlled - Lab Reactor

Semi-automated thermofluid drain down

- The pressure free thermofluid drain down, provides a quick and safe method of removing the thermofluid from the vessel jacket when changing vessels.
- Removes the time consuming requirement to drain thermoregulator on vessel exchange.
- Engineered to minimise the hazards and inconvenience associated with spilt thermofluid.
- Does not require an additional pump or vacuum line to drain the jacket.

Accepts a wide range of sensors

- Integral electronics allow the direct connection and configuration of up to three sensors and one output (effector).
- System configurations are readily interchangeable or upgradeable as user requirements evolve.
- Additional sensor and output (effector) ports are available via the Lara Expansion Hub allowing unlimited device connectivity.

Radleys products are only available for France and Germany