

**NEW**  
Cooled Carousel  
6 Place Now Available

VERSION 2

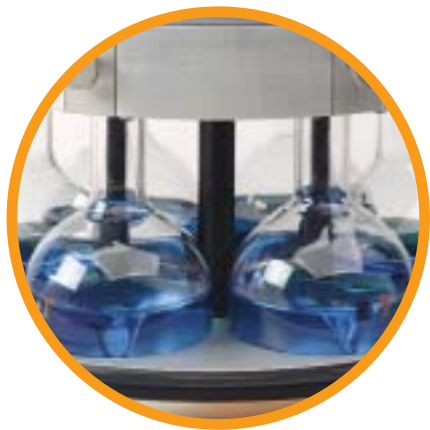


## Carousel 6 Place Reaction Station™

Cost effective personal  
synthesis station for  
parallel chemistry,  
process development  
and synthesis  
of building blocks

Accepts 6 x 100ml,  
170ml or 250ml reactors





Equal and powerful stirring  
in all six reaction flasks

## Technical Specifications

Diameter	290mm
Height (with Reflux)	230mm
Weight	7.6kg
Positions	6
Accepts	100ml RB Flask 170ml RB Flask 250ml RB Flask
Stirring Speed	0 to 1100rpm
Temp. Range	Ambient to +180°C
Temp. Accuracy	+/-0.5°C
Inert Gas	Yes
Reflux	Yes



Carousel 6 Place  
with six 100ml  
Reaction Flasks  
and Aluminium  
Inserts

# Carousel 6 Place Reaction Station™

The Carousel 6 Place utilises the same technology as the popular Carousel to simultaneously stir and heat up to six 100ml, 170ml or 250ml round bottomed flasks.

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



Replaces 6 conventional  
250ml round bottomed  
flask and condenser  
assemblies

## Introduction

- Simultaneously performs up to six heated and stirred reactions.
- Choose from six 100ml, 170ml or 250ml glass reaction flasks, or a combination of flask sizes in the same system. Reaction flasks have the following working volumes; 100ml flask - 60ml, 170ml flask - 100ml and 250ml flask - 100ml.
- The Carousel 6 Place fits on a standard Carousel or IKA hotplate stirrer, using existing and readily available technology.
- Utilises the single rotating magnetic field of the hotplate stirrer to stir all the positions evenly and powerfully.
- Heated directly by the stirrer's hotplate; provides an operating temperature range from ambient to +180°C, with temperature accuracy of +/-0.5°C.
- Water cooled aluminium reflux head provides efficient refluxing without traditional glass condensers. Quick-release valved couplings allow disconnection of cooling water without the loss of water.
- A stainless steel central inlet/outlet for vacuum and inert gas, combined with a radial gas distribution system and gas-tight PTFE caps, allows 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.
- Reliable maintenance free operation with no electrical or moving parts.
- Easy to operate and set-up, with minimal training time.
- Compact size with a small bench-top footprint.



Boils six 250ml flasks of water  
in less than 25 minutes...





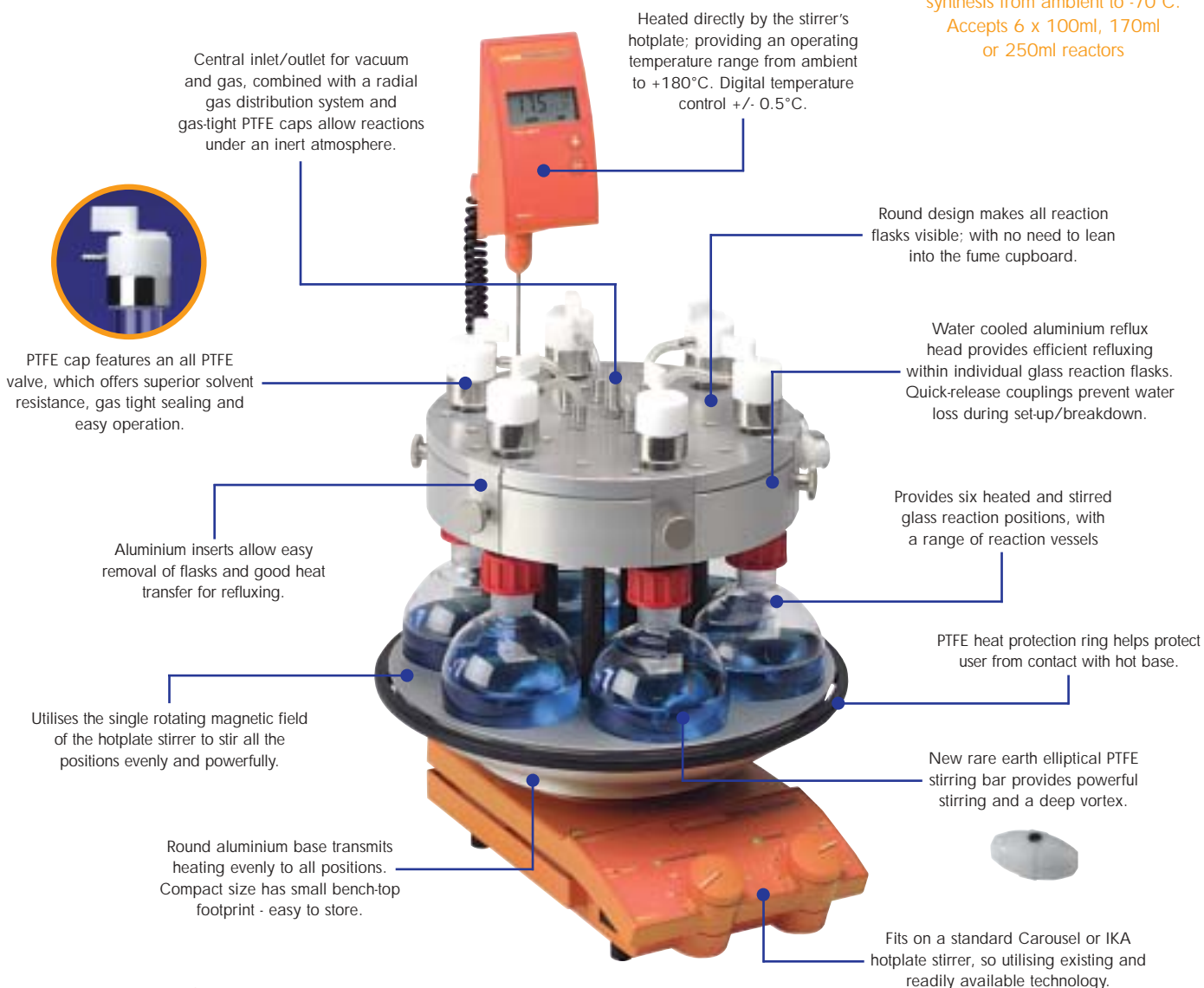
# Carousel 6 Place™ will increase the productivity of your chemistry

Choose from 100ml, 170ml or 250ml round bottom glass reaction flasks...



New Cooled Carousel 6 Place™  
Cost effective low temperature parallel synthesis from ambient to -70°C.

Accepts 6 x 100ml, 170ml or 250ml reactors



RR99047 - 250ml Flask with Sidearm & Dropping Funnel



RR99056 - 250ml Azeotropic Reaction Flask with Sidearm



RR99050 - 250ml Long Neck Reaction Flask



RR99040 - 250ml Reaction Flask



RR99054 - 100ml Reaction Flask



RR99052 - 170ml Reaction Flask



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



RR99040 250ml Reaction Flask, RR99042 Reflux Tube & Connecting Set

RR99050 Long Neck 250ml Reaction Flask



RR99056 - 250ml Azeotropic Reaction Flask with Sidearm with RR99048 - 50ml Liquid Additions Dropping Funnel

## Rapid Heating & Efficient Refluxing

- Circular, solid aluminium base transmits heat rapidly and evenly to all positions.
- Boils six flasks of water in less than 25 minutes.
- Carousel Fuzzy Logic Temperature Controller gives accurate temperature control of either the block or solution to  $\pm 0.5^\circ\text{C}$ .
- PTFE guard-ring helps protect user from accidental contact with hot aluminium base.
- Removable aluminium inserts in Reflux Head allow easy removal of flasks, yet maintain good heat transfer for refluxing.
- Built in spring clip retains flasks once aluminium insert is removed.
- Acetal quick-release valved couplings on Reflux Head allow disconnection of cooling water without loss of water.



## Versatile 250ml Reaction Flasks

- Heavy duty, borosilicate glass 250ml round bottomed reaction flasks have a Rodaviss B24/29 joint for connection to the RR99042 Reflux Tube. The detachable glass Reflux Tube features a threaded top, which when combined with any of the RDT threaded PTFE caps, give an excellent gas tight seal up to 1psi.
- **250ml Round Bottomed Reaction Flask with removable reflux tube - RR99040**  
Allowing for efficient refluxing during synthesis and (after removal of the reflux tube), for the flask to fit directly onto a standard rotary evaporator. Reaction flask comes with RR99042 Reflux tube and Rodaviss connecting set.
- **250ml Long Neck Round Bottomed Reaction Flasks - RR99050**  
A single piece design for ease of use. Features a threaded top.
- **250ml Round Bottomed Reaction Flask with B14/23 Sidearm & Septa port - RR99047**  
Designed for use with either the RR99048 Dropping Funnel or RR99049 Solid Additions Funnel. Supplied with small Rodaviss cap and septum for sealing sidearm.
- **250ml Round Bottomed Reaction Flask with B24/29 Sidearm & Septa port - RR99077**  
Designed for use with either the RR99078 Dropping Funnel or RR99079 Solid Additions Funnel. This larger sized sidearm is better suited to the addition of viscous liquids or solids. Supplied with small Rodaviss cap and septum for sealing sidearm.

## 250ml Azeotropic (Dean & Stark) Reaction Flasks

- **250ml Azeotropic Reaction Flask - RR99056**  
This 250ml Reaction Flask with B24/29 sidearm is based on the familiar Dean & Stark design. The all-in-one flasks fit directly into the Carousel 6 Place, allowing the chemist to react up to 6 x 250ml Azeotropic solutions in parallel.
- Vessels feature a replaceable PTFE stopcock for removal of the aqueous phase.
- The B24/29 sidearm will accept either the RR99078 Dropping Funnel or RR99079 B24/29 Solid Additions Funnel.





## Liquid & Solid Additions Funnels

- B14/23 (RR99048) or B24/29 (RR99078) 50ml Liquid Additions Dropping Funnel  
For the addition of larger volumes of reagent directly into the reaction flask. Features a Pressure Equalising Arm for ease of addition.
- B14/23 (RR99049) or B24/29 (RR99079) Solid Additions Funnel  
For addition of powders or solids directly into the reaction flask.



Carousel System featuring 250ml Reaction Flasks with Sidearm and 50ml Dropping Funnel

## 100ml & 170ml Reaction Flasks

- 170ml Parallel Sided Reaction Flask - RR99052  
Designed to maximise the internal volume, yet allows 6 flasks to fit in both the Carousel 6 Place and the Genevac EZ-2 Personal Evaporator. Flasks require RR99057 Aluminium Inserts for use with the Carousel 6 Place.
- 100ml Round Bottomed Reaction Flask - RR99054  
Designed especially to allow 6 flasks to fit in both the Carousel 6 Place and the Genevac EZ-2 and HT Evaporators. Flasks require RR99058 Aluminium Inserts for use with the Carousel 6 Place.

## Compatible with Rotary Evaporators

- Choice of three Rotary Evaporator Adapters - Two for connecting the 100ml or 250ml reaction flask to any Rotary Evaporator with a B29 cone, including IKA, Heidolph and Buchi and one for USA 24/40 Socket to B24 cone.



Rotary Evaporator Adapters

## Compatible with Genevac Evaporators

- All of the Carousel 6 Place reaction flasks are compatible with the full range of Genevac Centrifugal Evaporators, including the new EZ-2 Personal Centrifugal Evaporator.
- 250ml EZ-2/HT Evaporation Flask - RR99053  
For large quantity post synthesis evaporations, dedicated for use in the Genevac EZ-2, EZ-2 Plus and HT Evaporators. Up to 4 flasks can be used at any time. Flasks feature a GL32 thread. **IMPORTANT:** this flask is not designed for use with the Carousel 6 Place.
- For assistance in selecting the correct Genevac rack for your reaction tubes or flasks please visit the Genevac web site [www.genevac.com](http://www.genevac.com)

Genevac offer a range of racks to fit all RDT reaction tubes and flask



Genevac EZ-2 Plus Personal Evaporator



RR99047 250ml Reaction Flask with Sidearm, RR99048 50ml Dropping Funnel and RR99049 Solid Additions Funnel



RR99054 100ml Reaction Flask, Reflux Tube & Connecting Set & RR99058 Insert

RR99052 170ml Reaction Flask, Reflux Tube & Connecting Set & RR99057 Insert



100ml, 170ml and 250ml reaction flasks will fit directly onto a standard rotary evaporator



All caps feature a barbed side arm for easy removal of tubing



RR99062 - Replacement quick release coupling with shut off valve.



RR99062



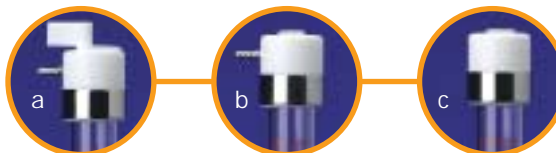
RR99063

RR98094

## RR98059 PTFE Reaction Caps - with PTFE Valve

This popular cap features an all PTFE valve, which offers superior solvent resistance, improved sealing and ease of operation. The cap also has a 'barbed' stainless steel inlet for easy removal of tubing. Other features of the RR98059 (a.) include:-

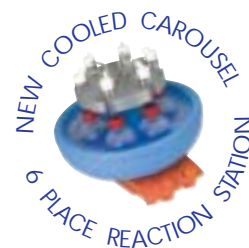
- PTFE valve allows individual reaction flasks to be isolated or removed during synthesis, whilst the others are still under inert conditions.
- Valve permits on/off control of the gas flow to individual flasks, allowing you to use as many flasks as you wish; simply leave the valve shut on the unused positions.
- Valve can be closed at the end of a reaction to allow the flasks removal whilst maintaining the inert atmosphere.



- Alternatively choose from two other compatible PTFE cap styles.
  - RR98068 - Cap with suba-seal and barbed sidearm.
  - RR98078 - Storage cap with suba-seal, but without sidearm.

- Suba-Seal Septum - RR98076

Located in the top of the PTFE cap the Silicone SubaSeals permit the addition of liquid reagents via syringe during synthesis, or for the monitoring of the reaction through the withdrawal of aliquots.



## Accessories

- Rare Earth 25mm Elliptical Stirring Bar - RR99064 Recommended stirring bar for optimum stirring of reaction flask contents. Provides a deep vortex.
- Cork Support Ring - RR99061 For bench-top support of individual flasks.
- Tubing - RR99067 (2m) For connection of reflux cooling head or inert gas hose barbs.
- Tubing - RR99066 (12 x 62mm) Replacement tubing for connecting gas distribution hose barbs to PTFE caps for vacuum or inert gas control.
- RR99062 - Replacement Quick Release Coupling with shut-off valve.
- RR99063 - Optional 90° Elbow Quick Release Barbed Coupling with shut-off valve.
- RR98094 - PTFE Magnetic Stirring Bar Retriever, 350mm.

Cork Support Rings - RR99061 for bench-top support of individual flasks.



# Carousel 6 Place Reaction™ 'Systems'

Save time and money by buying the popular Carousel 6 Place 'Systems', which include all the important components and accessories required for efficient operation.

Carousel 6 Place  
with 170ml Flasks  
and Aluminium  
Inserts



Cat No Description

## RR99031 System 9 - Carousel 6 Place Reaction Station

Comprises of the following

- RR99030 - 1 x Carousel 6 Place Reaction Station + Reflux
- RR98059 - 6 x Gas Tight Threaded PTFE Cap + PTFE Valve + S/S Inlet
- RR98072 - 1 x Carousel Stirring Hotplate 230 volt & UK Plug
- RR98073 - 1 x Carousel Temperature Controller
- RR98076 - 100 x Replacement Suba-Seals for Caps
- RR98094 - 1 x PTFE Magnetic Stirring Bar Retriever 350mm
- RR99040 - 6 x 250ml Reaction Flask + Reflux Tube + Rodaviss Connecting Set
- RR99043 - 10 x B24/29 Rodaviss Sealing Cap (for Reaction Flask top)
- RR99046 - 2 x Rotary Evaporator Adapters Ordinary B29 Socket to B24 Cone
- RR99061 - 6 x Reaction Flask Support Ring
- RR99064 - 10 x Rare Earth - 25mm Elliptical PTFE Stirring Bar
- RR99067 - 1 x Tubing for Inert Gas or Reflux Cooling, 2 metre



Shows reaction vessels included with this System. Main Reaction Station and other accessories not illustrated.

## RR99033 System 11 - Carousel 6 Place Reaction Station

Comprises of the following

- RR99030 - 1 x Carousel 6 Place Reaction Station + Reflux
- RR98059 - 6 x Gas Tight Threaded PTFE Cap + PTFE Valve + S/S Inlet
- RR98072 - 1 x Carousel Stirring Hotplate 230 volt & UK Plug
- RR98073 - 1 x Carousel Temperature Controller
- RR98076 - 100 x Replacement Suba-Seals for Caps
- RR98094 - 1 x PTFE Magnetic Stirring Bar Retriever 350mm
- RR99040 - 6 x 250ml Reaction Flask + Reflux Tube + Rodaviss Connecting Set
- RR99043 - 10 x B24/29 Rodaviss Sealing Cap (for Reaction Flask top)
- RR99046 - 2 x Rotary Evaporator Adapters Ordinary B29 Socket to B24 Cone
- RR99061 - 6 x Reaction Flask Support Ring
- RR99064 - 10 x Rare Earth - 25mm Elliptical PTFE Stirring Bar
- RR99067 - 1 x Tubing for Inert Gas or Reflux Cooling, 2 metre
- RR99077 - 6 x 250ml Reaction Flask with B24/29 Sidearm & Septa Port
- RR99078 - 3 x B24/29 Liquid Additions Dropping Funnel + Equalising Arm
- RR99078 - 3 x B24/29 Liquid Additions Dropping Funnel + Equalising Arm
- RR99079 - 3 x B24/29 Solid Additions Funnel
- RR99082 - 50 x Replacement PTFE/Silicone Septa 29mm for B24/29



Shows reaction vessels included with this System. Main Reaction Station and other accessories not illustrated.

Cat No Description

## RR99032 System 10 - Carousel 6 Place Reaction Station

Comprises of the following

- RR99030 - 1 x Carousel 6 Place Reaction Station + Reflux
- RR98059 - 6 x Gas Tight Threaded PTFE Cap + PTFE Valve + S/S Inlet
- RR98076 - 100 x Replacement Suba-Seals for Caps
- RR98094 - 1 x PTFE Magnetic Stirring Bar Retriever 350mm
- RR99040 - 6 x 250ml Reaction Flask + Reflux Tube + Rodaviss Connecting Set
- RR99043 - 10 x B24/29 Rodaviss Sealing Cap (for Reaction Flask top)
- RR99046 - 2 x Rotary Evaporator Adapters Ordinary B29 Socket to B24 Cone
- RR99061 - 6 x Reaction Flask Support Ring
- RR99064 - 10 x Rare Earth - 25mm Elliptical PTFE Stirring Bar
- RR99067 - 1 x Tubing for Inert Gas or Reflux Cooling, 2 metre

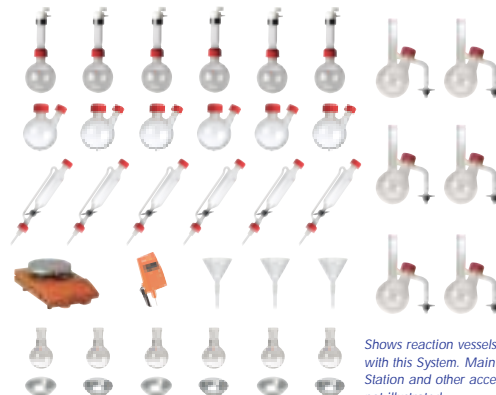


Shows reaction vessels included with this System. Main Reaction Station and other accessories not illustrated.

## RR99034 System 12 - Carousel 6 Place Reaction Station

Comprises of the following

- RR99030 - 1 x Carousel 6 Place Reaction Station + Reflux
- RR98059 - 6 x Gas Tight Threaded PTFE Cap + PTFE Valve + S/S Inlet
- RR98072 - 1 x Carousel Stirring Hotplate 230 volt & UK Plug
- RR98073 - 1 x Carousel Temperature Controller
- RR98076 - 100 x Replacement Suba-Seals for Caps
- RR98094 - 1 x PTFE Magnetic Stirring Bar Retriever 350mm
- RR99040 - 6 x 250ml Reaction Flask + Reflux Tube + Rodaviss Connecting Set
- RR99043 - 10 x B24/29 Rodaviss Sealing Cap (for Reaction Flask top)
- RR99046 - 2 x Rotary Evaporator Adapters Ordinary B29 Socket to B24 Cone
- RR99054 - 6 x 100ml Reaction Flask (Reflux Tube + Connecting Set not included)
- RR99056 - 3 x 250ml Azeotropic Flask with B24/29 Sidearm & Septa Port
- RR99056 - 3 x 250ml Azeotropic Flask with B24/29 Sidearm & Septa Port
- RR99058 - 6 x Aluminium Insert for 100ml Reaction Flask
- RR99061 - 6 x Reaction Flask Support Ring
- RR99064 - 10 x Rare Earth - 25mm Elliptical PTFE Stirring Bar
- RR99067 - 1 x Tubing for Inert Gas or Reflux Cooling, 2 metre
- RR99077 - 6 x 250ml Reaction Flask with B24/29 Sidearm & Septa Port
- RR99078 - 3 x B24/29 Liquid Additions Dropping Funnel + Equalising Arm
- RR99078 - 3 x B24/29 Liquid Additions Dropping Funnel + Equalising Arm
- RR99079 - 3 x B24/29 Solid Additions Funnel
- RR99082 - 50 x Replacement PTFE/Silicone Septa 29mm for B24/29



Shows reaction vessels included with this System. Main Reaction Station and other accessories not illustrated.





Personal synthesis stations for parallel solution phase chemistry and solid supported reagent based synthesis

Cost effective low temperature parallel synthesis from ambient to -70°C. Accepts 6 x 100ml, 170ml or 250ml reactors

Cat No	Description	Pk Qty
<b>Carousel 6 Place Reaction Station</b>		
RR99030	Carousel 6 Place Reaction Station + Reflux	1
<b>250ml Reaction Flask, Reflux Tubes &amp; Gas Tight Caps</b>		
RR99059	Gas Tight Threaded PTFE Cap + Inlet + Valve	6
RR99040	250ml Reaction Flask + Reflux Tube + Rodaviss Connecting Set	6
RR99041	250ml Reaction Flask	6
RR99042	Reflux Tube + Rodaviss Connecting Set	6
RR99043	B24/29 Rodaviss Sealing Cap (for Reaction Flask top)	10
RR99044	B24/29 Rodaviss Connecting Set (for connecting Flasks to Reflux Tube)	10
RR99050	Long Neck 250ml Reaction Flask	6
<b>250ml Azeotropic (Dean &amp; Stark) Reaction Flask with B24/29 Sidearm &amp; Septa Port</b>		
RR99056	250ml Azeotropic Reaction Flask with B24/29 Sidearm & Septa Port	3
RR99078	B24/29 Liquid Additions Dropping Funnel + Equalising Arm	3
RR99079	B24/29 Solid Additions Funnel	3
RR99082	Replacement PTFE/Silicone Septa 29mm for B24/29	50
RR99043	B24/29 Rodaviss Sealing Cap (for Sidearm or Reaction Flask top)	10
<b>250ml Reaction Flask with B14/23 Sidearm &amp; Septa Port</b>		
RR99047	250ml Reaction Flask with B14/23 Sidearm & Septa Port	6
RR99048	B14/23 Liquid Additions Dropping Funnel + Equalising Arm	3
RR99049	B14/23 Solid Additions Funnel	3
RR99080	Replacement PTFE/Silicone Septa 20mm for B14/23 Septa Port	50
RR99043	B24/29 Rodaviss Sealing Cap (for Reaction Flask top)	10
RR99068	B14/23 Rodaviss Sealing Cap (for Sidearm)	10
<b>250ml Reaction Flask with B24/29 Sidearm &amp; Septa Port</b>		
RR99077	250ml Reaction Flask with B24/29 Sidearm & Septa Port	6
RR99078	B24/29 Liquid Additions Dropping Funnel + Equalising Arm	3
RR99079	B24/29 Solid Additions Funnel	3
RR99082	Replacement PTFE/Silicone Septa 29mm for B24/29 Septa Port	50
RR99043	B24/29 Rodaviss Sealing Cap (for Sidearm or Reaction Flask top)	10
<b>170ml Reaction Flask</b>		
This 170ml parallel-sided flask is designed to maximise the internal volume, yet allows 6 flasks to fit in both the Carousel 6 Place and the Genevac EZ-2 Personal Evaporator. Flasks require aluminium inserts for use with the Carousel 6 Place.		
RR99052	170ml Reaction Flask (Reflux Tube + Rodaviss Connecting Set not included)	6
RR99042	Reflux Tube + Rodaviss Connecting Set	6
RR99043	B24/29 Rodaviss Sealing Cap (for Reaction Flask top)	10
RR99057	Aluminium Insert for 170ml Reaction Flask	6
<b>100ml Reaction Flasks</b>		
This 100ml round bottomed flask is designed especially to allow 6 flasks to fit in both the Carousel 6 Place and the Genevac EZ-2 and HT Evaporators. Flasks require aluminium inserts for use with the Carousel 6 Place.		
RR99054	100ml Reaction Flask (Reflux Tube + Rodaviss Connecting Set not included)	6
RR99042	Reflux Tube + Rodaviss Connecting Set	6
RR99043	B24/29 Rodaviss Sealing Cap (for Reaction Flask top)	10
RR99058	Aluminium Insert for 100ml Reaction Flask	6
<b>250ml EZ-2/HT Evaporation Flask</b>		
This large capacity 250ml parallel-sided evaporation flask is designed especially to allow 4 flasks to fit in the Genevac EZ-2 Personal Evaporator. With larger quantities fitting into the Genevac HT Evaporators. Features a GL32 threaded top.		
RR99053	250ml EZ-2/HT Evaporation Flask (cannot be used with Carousel 6 Place)	4
<b>Other Accessories</b>		
RR99045	Rotary Evaporator Adapters Rodaviss B29 Socket to B24 Cone	2
RR99046	Rotary Evaporator Adapters Ordinary B29 Socket to B24 Cone	2
RR99055	Rotary Evaporator Adapters USA 24/40 Socket to B24 Cone	2
RR99083	Splash Head Rodaviss B29 Socket to B24 Cone	1
RR99084	Splash Head Ordinary B29 Socket to B24 Cone	1
RR99085	Splash Head USA 24/40 Socket to B24 Cone	1
RR99061	Reaction Flask Support Ring	6
RR99062	Quick Release Barbed Coupling + Shut-off	2
RR99063	Elbow Quick Release Barbed Coupling + Shut-off	2
RR99064	Rare Earth - 25mm Elliptical PTFE Stirring Bar	10
RR99066	Replacement Tubing for RR99030, 62mm	12
RR99067	Tubing for Inert Gas or Reflux Cooling, 2 metres	1
RR98076	Replacement Suba-Seals for PTFE Caps	100
<b>Carousel Stirring Hotplate &amp; Temperature Controller</b>		
RR98072	Carousel Stirring Hotplate 230v & UK plug	1
RR98073	Carousel Temperature Controller	1

Radleys Discovery Technologies are specialists in parallel chemistry...

As a dynamic organisation Radleys Discovery Technologies are best able to react to the needs of this constantly developing market sector. Radleys Discovery Technologies specific areas of expertise is focused on apparatus and consumables for parallel synthesis, purification and work-up. The essential products that are the cornerstone of your parallel chemistry program.