

# Carousel 6 Plus™

## Synthesis Family

Simultaneously heats/cools,  
stirs and refluxes multiple  
samples under an inert  
atmosphere



*Parallel synthesis  
for solution or solid  
phase chemistry*



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025-86562535/021-34201003

# Carousel 6 Plus Reaction Station Synthesis Family

Parallel synthesis in round bottom flasks from 5ml to 250ml. Choose from magnetic stirring or mechanical overhead stirring; with a choice of options for heating and cooling from -78°C to +200°C.

Tornado with a Storm Work Station for controlled heating and cooling



Tornado with a Breeze Work Station for rapid heating and cooling



## Temperature control

- Heated via hotplate
- Pt1000 temperature sensor
- Up to 180°C

180°C

## Easy-On PTFE caps

- Chemical resistant
- Quick-thread for fast attachment
- Push-on connections to the stainless steel gas outlets

## Aluminium inserts

- Allow easy removal of flasks
- Excellent temperature transfer for refluxing

## Carousel Stirring Hotplate

- Single rotating magnetic field to stir all positions
- Even and powerful stirring
- Choice of three models



**Versatile and modular parallel synthesiser**



Heating



Cooling



Magnetic stirring



Mechanical stirring

**Central quick-release inlet/outlet**

- Vacuum radial gas distribution system
- Reactions under an inert atmosphere

**Aluminium reflux head**

- Efficient refluxing
- Water-cooled
- Easy quick-release couplings

**Reaction flasks**

- Up to six round bottom flasks
- 5ml to 250ml volume
- Wide range of glassware available



**Stirring bars**

- Wide range of PTFE stirring bars
- Powerful stirring
- Deep vortex



Cooled Carousel 6 Plus Reaction Station  
sub-ambient parallel synthesis to -78°C



Tornado  
Overhead Stirring System  
powerful, mechanical,  
parallel stirring





# Carousel 6 Plus Reaction Station

The patented Carousel 6 Plus simultaneously heats, stirs and refluxes multiple samples under an inert atmosphere.



The Carousel 6 Plus accepts round bottom flasks in 5ml, 10ml, 25ml, 50ml, 100ml, 170ml and 250ml sizes.

Heated directly by the stirring hotplate, providing an operating temperature range from ambient to 180°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.

180°C

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

Chemical-resistant Easy-On PTFE caps feature a quick-thread for fast attachment to the glass tubes and push-on connections to the stainless steel gas outlets.

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

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

Range of glass vessels includes 5ml, 10ml, 25ml, 50ml, 100ml, 170ml and 250ml round bottom flasks, as well as vessels with one or two sidearms.

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

PTFE heat protection ring protects user from contact with hot base.

Carousel stirring hotplate offers higher temperature, powerful stirring and digital control.

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

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

Aluminium inserts for 5ml, 10ml, 25ml, 50ml, 100ml and 170ml flasks

Vessel size (ml)	Reaction positions	Stirring speed (rpm)	Temp. range	Temp. accuracy	Inert gas	Reflux
5, 10, 25, 50, 100, 170, 250	Up to 6	30 to 700	Ambient to +180°C	+/-1°C with Pt1000	Yes	Yes



# Features and benefits

180°C



The Carousel 6 Plus includes many features to make your parallel synthesis easy.

## Features

- Powerful, even magnetic stirring - fits onto a Carousel Stirring Hotplate.
- Rapid and controlled heating to 180°C.
- Efficient, water-cooled reflux head.
- Perform reactions under an inert atmosphere.
- Quick to set up, easy to use and maintenance free.
- Wide range of vessel sizes from 5ml to 250ml.
- Additional flask formats: sidearms, baffles, wide neck and azeotropic.
- Easy-On PTFE caps feature a quick-thread for a gas-tight seal to flasks.
- Easy to clean contoured surface.
- Wide neck flasks are ideal for use with propellor or anchor stirrers in the Tornado system.

Full range of glassware shown on page 14



## Rapid heating and efficient refluxing

- Innovative well design for improved heat transfer and reduced temperature variation.
- Circular, solid aluminium base transmits heat rapidly and evenly to all positions.
- Boils six flasks of water in less than 25 minutes.
- PTFE heat protection 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 the side of reflux head allow disconnection of cooling water without loss of water.
- Acetal quick-release coupling on top of the reflux head facilitates supply of inert gas or vacuum.

Carousel 6 Plus locates onto your stirring hotplate without the need for tools



# Easy-On PTFE Caps

Chemical-resistant, gas-tight, PTFE caps with quick-thread.

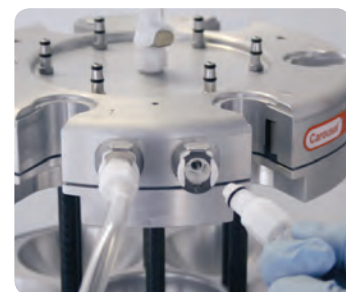
The PTFE caps are an essential component of the Carousel system. Manufactured from chemical-resistant PTFE, the caps are attached to the reflux neck using a 1/4 turn quick-thread and feature an Easy-On push connection to the radial gas system. The RR91070 caps feature a silicone septa and on/off valve for isolation and removal from the inert gas system. The RR91072 storage cap features the quick-thread and septa, but without a sidearm or valve. Caps feature a replaceable nitrile O-ring with a Viton option available.

- RR91070 Easy-On PTFE Cap
- RR91072 Easy-On PTFE Storage Cap
- RR98060 O-Ring for PTFE Caps - Nitrile 24mm
- RR98160 O-Ring for PTFE Caps - Viton 24mm

## Silicone and Viton septa

All reaction caps feature a replaceable septa that allows the addition of reagents or removal of samples using a syringe. Septa are silicone as standard with a Viton alternative available.

- RR98076 Silicone Septa for PTFE Caps
- RR98176 Viton Septa for PTFE Caps



# Round Bottom Reaction Flasks

Chemical-resistant borosilicate glass reactions flasks are available in a wide range of volumes and styles.



## Standard flasks

- Constructed from heavy duty borosilicate glass.
- Choice of sizes: 5ml, 10ml, 25ml, 50ml, 100ml, 170ml and 250ml.
- Precision-engineered round bottom design ensures an excellent fit with the Carousel's wells, maximising heat transfer.
- Flasks feature a B24/29 Rodaviss joint for connection to the detachable reflux tube.
- The 5ml and 10ml flasks feature a B14/23 Rodaviss joint.
- Reflux tubes feature a quick-thread, which when combined with PTFE Easy-On cap, give an excellent gas tight seal up to 1psi.
- Optional single piece 250ml long neck design.
- Compatible with magnetic stirring bars and the centrifugal stirrer paddles (Tornado).
- Flasks are not supplied with reflux tubes or PTFE caps which must be ordered separately.



## Standard flasks with sidearms

- Sidearm flasks have all the features of the standard flasks with the addition of either one or two sidearms.
- Flasks are available with B14/23 and B24/29 sidearm options and include Rodaviss caps and sealing septa.
- Sidearms are compatible with dropping funnels and solid addition funnels.



## Azeotropic flasks (Dean and Stark)

- Unique, single piece flasks fit directly into the Carousel 6 Plus, allowing chemists to perform up to six azeotropic processes in parallel.
- Choice of sizes: 100ml and 250ml.
- Special Tornado version with wider neck is designed to accept the centrifugal stirring paddle.
- Flasks feature a PTFE stopcock for removal of the aqueous phase.
- Feature B14/23 or B24/29 sidearms.
- Sidearms are compatible with dropping funnels and solid addition funnels.



## Wide neck flasks with quick coupling

- Wide neck flasks allow easier removal of viscous or solid samples and enable the use of the anchor and propellor style PTFE stirrer blade options (for use with Tornado).
- These unique vessels feature a 50mm ID flat flange which combines with a nitrile O-ring and our unique self-centering PTFE collar to offer a leak-tight seal between the glass flask and wide neck reflux tube.
- The two flanges are compressed together using a two-part threaded polymer coupling, which holds the components rigid and sealed.

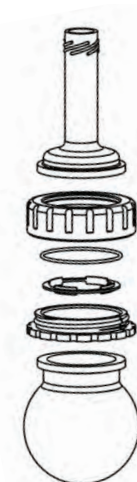


## Wide neck flasks with sidearms

- Wide neck sidearm flasks have all the features of the wide neck flasks with either one or two sidearms. Ideal for attaching dropping funnels or powder funnels.

## Wide neck flasks with baffles and sidearms

- Wide necked baffled flasks improve the turbulence within the flask by disrupting the creation of a central vortex. Baffled flasks are recommended for use with stirrer paddles for maximum effect.



# Flask Accessories



A range of accessories are available to complement our range of round bottom reaction flasks.

## Liquid and solid addition funnels

- Choice of 50ml liquid additions dropping funnels with B14/23 or B24/29 Rodaviss joints.
- The dropping funnels are ideal for the controlled addition of larger volumes of reagent directly into the reaction flask. Funnels feature a drip cone and pressure equalising arm for ease of addition.
- Choice of solid additions funnel with B14/23 or B24/29 Rodaviss joints; ideal for the addition of powders or solids into the reaction flask.



Carousel 6 Plus with 250ml flasks and liquid additions dropping funnel

## Compatible with rotary evaporators

- Choice of three rotary evaporator adapters for connecting flasks to leading brands such as Heidolph, Buchi and IKA. Choice of standard B29, Rodaviss B29 and US 24/40.



Flasks are compatible with standard rotary evaporators

## Compatible with Genevac centrifugal evaporators

- Carousel 6 flasks are compatible with the range of racks from Genevac.
- For assistance in selecting the correct Genevac rack for your reaction tubes or flasks please visit the Genevac website.
- Also available: 250ml EZ-2/HT straight-sided evaporation flask for large volume evaporations. This flask is designed to maximise the quantity and volume that can be held in a single run, with 4 x 250ml flasks per system. Flasks have a GL32 thread. **IMPORTANT:** This flask will not fit in the Carousel 6 Plus.



Flasks are compatible with Genevac racks.

## PTFE magnetic stirrer bars

- **RR98075** Small cross shaped stirring bar creates a vortex at slow speeds.
- **RR98091** The popular medium cross shaped rare earth stirring bar contains strong rare earth magnets; it creates a deep vortex and is ideal for stirring resins and viscous samples.
- **RR98070** and **RR98071** Octagonal stirring bars are general purpose stirring bars, available in both small and large sizes.
- **RR98096**, **RR98097** and **RR99064** Elliptical rare earth stirring bars facilitate powerful stirring with a good vortex even in viscous samples, available in three sizes.
- **RR98095** Stirring Bar Evaluation Kit contains 3 of each of our 10 most popular stirring bar styles allowing you to identify the best stirring bar for your application.
- **RR98094** PTFE stirring bar retriever allows you to retrieve stirring bars from flasks.
- **RR98114** PTFE stirring bar restrainer allows you to restrain stirring bar when dispensing liquids.



RR98075 RR98091 RR98070



RR98071 RR98096 RR98097



RR99064



RR98094

## Other accessories

- **RR99062** Replacement quick-release coupling with shut-off valve (reflux).
- **RR99063** 90° elbow quick-release barbed coupling with shut-off valve.
- **RR91066** Replacement quick-release coupling without shut-off valve (gas).
- **RR99061** Cork support ring for bench-top support of individual flasks.
- **RR99067** Tubing for connection to inert gas or reflux cooling, 2m.
- **RR98906** Black lab marker pen. Writes on glass, wet or dry.



RR99062

RR99063



RR98906



RR98095



RR99061



# Cooled Carousel 6 Plus Reaction Station

Offering cost effective, low temperature parallel synthesis down to  $-78^{\circ}\text{C}$ .

The Cooled Carousel 6 allows chemists to perform stirred, sub-ambient reactions, in a range of round bottom flasks from 5ml to 250ml with the option of an inert, moisture-free atmosphere.



HDPE lid reduces frost formation and reduces the risk of solvents spitting

Chemical-resistant Easy-On PTFE caps feature a quick-thread for fast attachment to the glass tubes and push-on connections to the stainless steel gas outlets.

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; no need to lean into the fume hood.

Robust HDPE cooling reservoir is compatible with a wide range of freezing mixtures including dry-ice/acetone for manually controlled cooling from ambient to  $-78^{\circ}\text{C}$ .

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

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. Easy to set up with minimal training time.

Fits on a standard Carousel Stirring Hotplate.

Carousel 6 Plus with 250ml flasks, liquid additions dropping funnel and equalising arms

Carousel Stirring Hotplate powerful stirring with digital control.

Compact size has a small benchtop footprint and is easy to store.

HDPE Cooled Carousel stand

Vessel size (ml)	Reaction positions	Stirring speed (rpm)	Temp. range	Temp. accuracy	Inert gas	Reflux
5, 10, 25, 50, 100, 170, 250	Up to 6	30 to 700	Ambient to $-78^{\circ}\text{C}$	n/a	Yes	Yes

# Features and benefits



The Cooled Carousel 6 Plus uses the same range of round bottom flasks, caps and accessories as the Carousel 6 Plus.

## Features

- Simultaneously performs up to six cooled and stirred reactions to  $-78^{\circ}\text{C}$ .
- Powerful, even stirring. Reservoir fits onto a Carousel Stirring Hotplate.
- Robust HDPE cooling reservoir is compatible with a wide range of cooling mixtures, including dry-ice/acetone for manually controlled cooling from ambient down to  $-78^{\circ}\text{C}$ .
- Insulated foam core maintains low temperatures for long periods whilst protecting the stirrer from freezing.
- Insulation also reduces condensation and ice formation on outer surfaces of reservoir.
- HDPE lid keeps your reaction cooler for longer, minimises ice formation on your flasks (maintaining visibility of the contents) and prevents spitting from the cooling mixture.
- Round design makes all reaction flasks visible and allows easy addition of reagents and solvents with no need to lean into the fume hood.



## Carousel Stirring Hotplates



Standard



Tech



Advanced

Choice of three models to suit your chemistry and budget, all offering improved safety, ease of use and faster heat-up times

- 800 watt heating power
- Speed range: 30 to 1400rpm
- Pt1000 temperature sensor
- Heating range: 20 to  $300^{\circ}\text{C}$
- Chemical-resistant Kera-Disk® top plate
- 3 year warranty

Includes  
3 year  
warranty

	Carousel Standard	Carousel Tech	Carousel Advanced
Speed range (rpm)	100 to 1400	100 to 1400	30 to 1400
Speed accuracy (%)	$\pm 2$	$\pm 2$	$\pm 1$
Display	-	Digital	Digital
Analogue/digital interface (RS232)	-	-	Yes
Heating power (W)	800 (600 for 115V)	800 (600 for 115V)	800 (600 for 115V)
Hotplate temperature ( $^{\circ}\text{C}$ )	20 to 300	20 to 300	20 to 300
Resolution of temperature setting (K)	$\pm 5$	$\pm 1$	$\pm 1$
External temperature sensor	Pt1000	Pt1000	Pt1000
Temperature accuracy with external temp. sensor (K)	$\pm 1$	$\pm 1$	$\pm 0.2$
Sensor breakage protection	With Pt1000	With Pt1000	With Pt1000
Temperature control	Micro controller	Micro controller	Micro controller
Temperature accuracy hotplate (K)	$\pm 5$	$\pm 5$	$\pm 5$
Safety circuit hotplate ( $^{\circ}\text{C}$ )	$25^{\circ}\text{C}$ over hotplate temperature	$25^{\circ}\text{C}$ over hotplate temperature	$10^{\circ}\text{C} - 25^{\circ}\text{C}$ over nominal temperature
Stirring capacity, max (water L)	20	20	20
Plate diameter (mm)	$\varnothing 135$	$\varnothing 135$	$\varnothing 135$
Top plate material	Kera-Disk (Silumin with ceramic coating)	Kera-Disk (Silumin with ceramic coating)	Kera-Disk (Silumin with ceramic coating)
Weight (kg)	2.9	2.6	2.6
Dimension l x w x h (mm)	173 x 277 x 94	173 x 277 x 94	173 x 277 x 94
Protection class	IP 32	IP 32	IP 32
Supply voltage	230V / 50Hz or 115V / 60Hz	230V / 50Hz or 115V / 60Hz	230V / 50Hz or 115V / 60Hz

# Tornado Plus Overhead Stirring System



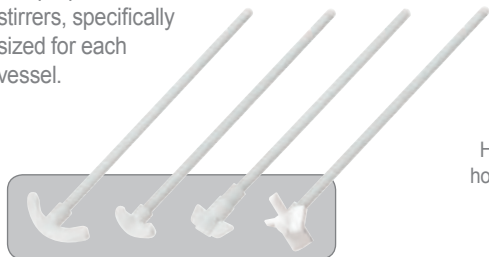
180°C



The Tornado integrates with the Carousel 6 Plus to offer powerful, overhead, mechanical stirring, ideal for both viscous samples and for the dispersion of delicate solids in solution.

## Choice of PTFE stirring paddles

Choose from centrifugal, anchor and propeller PTFE stirrers, specifically sized for each vessel.



Uses a single overhead stirrer to agitate up to six 250ml flasks. Compatible with all leading brands of overhead stirrer.

Attaches onto the Carousel 6 Plus without the use of tools.

Heated directly by the stirring hotplate, providing an operating temperature range from ambient to 180°C.

Easy to operate and set-up with minimal training time.



Tool-free PEEK pinch-grip mechanism and stirrer sealing system allows easy stirrer shaft insertion and operation under an inert atmosphere.

2-speed drive (1:1 and 2:1) allows lower rated stirrers to be used for higher viscosity liquids.

## Choice of flask sizes and styles; wide neck option

Wide neck flasks allow easier removal of viscous and solid samples and the use of larger stirrer blades. Baffles also improve stirring by disrupting the creation of a vortex.



Integral polycarbonate safety guard.

Accepts 50ml, 100ml and 250ml round bottom flasks (sidearms, wide necks and baffled options available).

Provides up to six heated and stirred reaction positions.

Fits on a standard Carousel Stirring Hotplate.

## Universal support stand aids stability

This heavy duty, stainless steel and aluminium stand provides the added support needed for stable operation of the Tornado. Tool-free design is easy to assemble.

Integrates with existing Carousel 6 Plus without increasing footprint.



Vessel size (ml)	Reaction positions	Stirring speed (rpm)	Stirring shafts	Max. viscosity (cps)	Temp. range
5, 10, 25, 50, 100, 170, 250	Up to 6	0 to 1000	Anchor, propeller and centrifugal	10,000	Ambient to +180°C



# Features and benefits



The Tornado Plus allows you to use a single overhead stirrer to simultaneously stir up to six round bottom flasks from 50ml to 250ml, increasing your productivity by up to 600%

## Features

- Mechanical overhead stirring with a choice of three PTFE stirrer paddle styles: centrifugal, anchor and propeller.
- Uses a single overhead stirrer to stir all positions simultaneously, saving space and money compared with multiple set-ups. Compatible with all leading brands of overhead stirrer.
- When combined with the Carousel 6 Plus, the Tornado offers rapid and controlled heating to 180°C with integral water-cooled reflux head.
- Accepts 50ml, 100ml, 170ml and 250ml round bottom flasks.
- Unique PEEK pinch-grip mechanism allows easy, tool-free stirrer shaft insertion and operation under an inert atmosphere.
- Wide neck flasks with quick coupling are ideal for use with propeller or anchor stirrer paddles.
- 2-speed drive allows overhead stirrers with less torque to be used for higher viscosities.
- Stir to 1000rpm in low viscosity solutions. Max. viscosity 10,000mPas at 500rpm.
- Integral polycarbonate safety guard prevents accidental contact with rotating parts.



Individual vessels can be removed easily

Tornado with 250ml wide neck flasks

## RS Overhead Stirrers

The powerful RS range can accomplish the most demanding mixing tasks whilst providing the highest safety and increased operating life.

### Features

- Powerful stirring from 40 to 2000rpm.
- Smooth start, which prevents splashing and spills.
- Lightweight; easy to set up and use.
- Designed for continuous 24 hour operation and high viscosity applications.
- High torque (up to 520Ncm) provides better mixing in less time, reducing process times.
- Sealed housing helps prevent internal corrosion from aggressive liquids and vapours and ensures years of maintenance-free operation.
- Sparkless motors reduce potential risks in volatile environments.



	RS27 Standard	RS37 Digital Plus	RS50 Control	RS100 Control Plus
Power input/output (W)	50/27	70/37	80/50	140/100
Gears	2	2	1	2
Speed range (rpm)	40 to 400 200 to 2,000	40 to 400 200 to 2,000	50 to 2,000	12 to 400 60 to 2,000
Speed indicator	Analogue	Digital	Digital	Digital
Speed control	Mechanical	Mechanical	Electronic	Electronic
Maximum torque (Ncm)	400	520	20 (40 overload mode)	200 (400 overload mode)
Power reserve under overload (%)	-	-	200	200
Torque indicator (Ncm)	-	-	Digital	Digital
Viscosity up to (mPa s)	60,000	100,00	10,000	100,000
Stirring cap. H <sub>2</sub> O up to (l)	25	40	40	100
RS232 interface	-	-	Yes	Yes
Shaft diameter up to (mm)	10	10	10	10
Weight (kg)	3.0	3.3	2.8	3.7
Dimension w x h x d (mm)	82 x 206 x 176	82 x 211 x 176	72 x 206 x 176	82 x 211 x 176



RS27 Standard Overhead Stirrer

RS37 Digital Plus Overhead Stirrer



RS50 Control Overhead Stirrer

RS100 Control Plus Overhead Stirrer

# Breeze Heating/Cooling Work Station



Combined with a circulator, the compact Breeze provides rapid heating/cooling and is ideal for applications requiring precise control by solution temperature.



Breeze, Carousel 6, Tornado and overhead stirrer

Designed as an add-on module for the Carousel 6 Plus and Tornado, Breeze creates a parallel process reactor that heats/cool and mechanically stirs six flasks (50ml to 250ml). Breeze can also be used for single reactions using Heat-On and a conventional overhead stirrer. Breeze is ideal for applications that require precise solution temperature control, such as crystallisation studies.

## Features

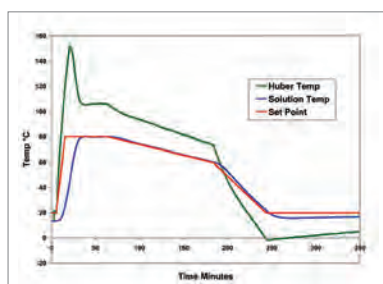
- Rapidly heat/cool multiple or individual flasks up to 5 litres.
- Thermafluid range of -85°C to +235°C providing a solution temperature of -30°C to +165°C.
- 135mm ø top plate integrates with the Carousel 6 Plus, Tornado, Heat-On and other reaction blocks.
- Breeze's small internal volume ensures a quick response to changes in thermafluid temperature.
- Internal design maximises heat transfer from the thermafluid to the top plate and minimises temperature variation across the surface.
- Mechanical stirring provided by Tornado or overhead stirrer.
- M16 hose connections; suitable for all popular brands of circulator.



Breeze with 250ml Heat-On, stand and overhead stirrer

## Removable stand and drip tray

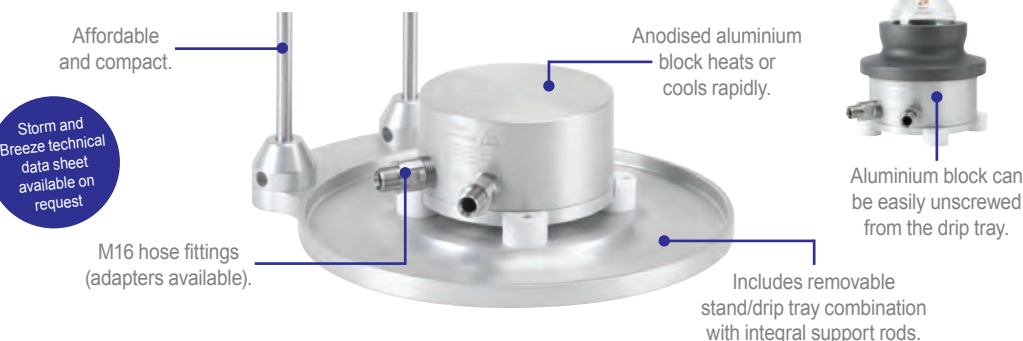
Breeze comes with a removable aluminium stand and stainless steel support rods that ensure the set-up is sturdy and safe. The stand also acts as a drip tray for any spills or condensation that may form when being used at sub-ambient temperatures.



Breeze stepped temperature profile using a Huber Ministat 230

## Technical Specifications

Description	Breeze
Solution temperature range	-30°C to +165°C
Thermafluid operating limits	-85°C to +235°C
Control by solution temperature	Yes
Typical applications	Variable temp. applications such as crystallisation
Hose fittings	M16 (16mm)
Dimensions (mm)	135 x 80mm
Insulated	No
Weight	Without stand 1.6kg (With stand 3.2kg)



## What is the difference between Breeze and Storm?

**Breeze:** Small benchtop footprint and no insulation results in a narrower operating range of -30°C to +165°C. Yet, because it is smaller, Breeze has a much faster response time to required changes in temperature. This makes Breeze more suitable for applications that require solution control such as crystallisation studies.

**Storm:** Features a sophisticated internal fluid path that combines with a high performance insulated case to maximise thermal transfer. These features create a temperature control module that has a wide operating range with excellent heat transfer, making Storm ideal for steady state reactions from -65°C to +200°C that require stable temperatures for extended periods with minimal variation across the heated surface.

Description	Heating power (kW)	Cooling power at 0°C (kW)	Storm		Breeze	
			Cooling to -30°C	Heating to 100°C	Cooling to -30°C	Heating to 100°C
Huber Ministat 230 (-33°C/+200°C)	2.0	0.35	n/a	34 mins	n/a	30 mins
Huber Unistat 705 (-75°C/+250°C)	1.5	0.65	44 mins	56 mins	60 mins	44mins
Huber Unistat 825 (-85°C/+250°C)	3.0	2.2	27 mins	27 mins	85 mins	n/a

# Storm Heating/Cooling Work Station



Combined with a suitable circulator, Storm can provide controlled steady state heating and cooling.

Storm was designed as an add-on module for the Carousel 6 Plus and Tornado combination, creating a powerful parallel process reactor that heats, cools and mechanically stirs up to six flasks (50ml to 250ml), making it the ideal process optimisation and development tool.

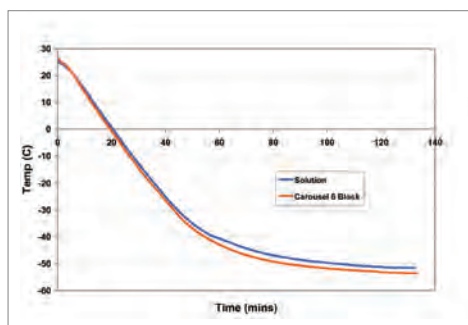
## Features

- Multiple or single stirred reactor with controlled heating/cooling from 5ml to 5 litres.
- Thermofluid range of -85°C to +235°C providing a solution temperature -65°C to +200°C.
- 135mm ø top plate integrates with the Carousel 6 Plus, Tornado, Heat-On and other reaction blocks.
- Ideal for temperature controlled, steady state reactions.
- Unique internal design maximises heat transfer from thermofluid, focusing the energy towards the top plate surface. This design also minimises temperature variation across the contoured top plate.
- The insulated outer case reduces heat loss and prevents contact with hot/cold thermofluid.
- Optional two-piece, removable, PTFE insulating plates provide increased energy efficiency for improved heating and cooling. It also helps reduce ice formation on exposed surfaces at sub-ambient temperatures.
- Mechanical stirring provided by Tornado or suitable overhead stirrer.
- M24 hose connections, suitable for all popular brands of circulator.

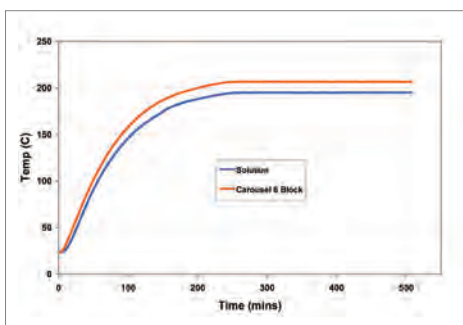


Storm with Carousel 6 Plus, Tornado, overhead stirrer and PTFE insulating plate

## Typical cooling and heating profiles for Storm



Storm/Carousel 6 cooling profile using a Huber Unistat 705



Storm/Carousel 6 heating profile using a Huber Unistat 705



Carousel 6 Plus locates on to the Storm without tools



## Technical Specifications

Description	Storm
Solution temperature range	-65°C to +200°C
Thermofluid operating limits	-85°C to +235°C
Control by solution temperature	No
Typical applications	Steady state temp. reactions such as parallel chemistry
Hose fittings	M24 (24mm)
Dimensions (mm)	367 x 143.5mm
Insulated	Yes
Weight	13kg



# Carousel 6 Plus Glassware and Accessories

Flexibility is key to your chemistry, so with the Carousel 6 Plus we offer a broad range of glassware and accessories.

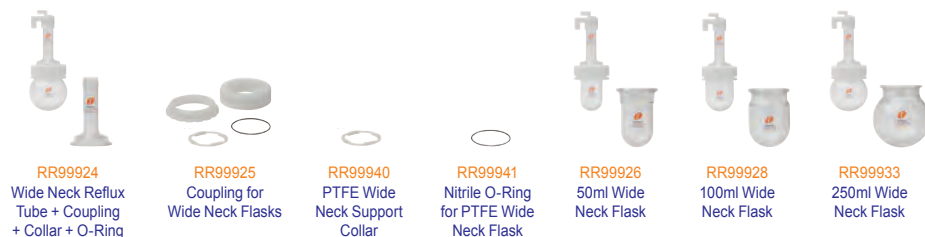
## Standard Flasks



## Standard Flask with Sidearms



## Wide Neck Flasks with Coupling



## Wide Neck Flasks with Sidearms



## Wide Neck Flasks with Baffles and Sidearms



Flasks are NOT supplied with reflux tubes or PTFE caps; these must be purchased separately.

## Azeotropic Glassware



## Easy-On PTFE Caps



## Sundry Glassware



**RR99049**  
B14/23 Solid Additions Funnel



**RR99079**  
B24/29 Solid Additions Funnel



**RR99048**  
B14/23 Liquid Additions Dropping Funnel + Pressure Equalising Arm



**RR99078**  
B24/29 Liquid Additions Dropping Funnel + Pressure Equalising Arm



**RR99053**  
250ml EZ-2/HT Evaporation Flask



**RR99045**  
Rotary Evaporator Adapter Rodaviss B29 Socket to B24 Cone



**RR99046**  
Rotary Evaporator Adapter Ordinary B29 Socket to B24 Cone



**RR99055**  
Rotary Evaporator Adapter USA 24/40 Socket to B24 Cone

## PTFE Stirring Paddles



**RR99240**  
Centrifugal PTFE Stirrer Paddle



**RR99244**  
Anchor PTFE Stir Paddle for 100ml Flasks



**RR99248**  
Anchor PTFE Stir Paddle for 250ml Flasks



**RR99251**  
Propellor PTFE Stirrer Paddle

## Aluminium Inserts



**RR99142**  
5ml Insert



**RR99141**  
10ml Insert



**RR99140**  
25ml Insert



**RR99060**  
50ml Insert



**RR99058**  
100ml Insert



**RR99057**  
170ml Insert

## Magnetic Stirring Bars



**RR98075**  
Cross Shape Stirring Bar 10mm



**RR98091**  
Cross Shape Stirring Bar 16.5mm RE



**RR98070**  
Octagonal Stirring Bar 13mm



**RR98071**  
Pivot Ring Stirring Bar 12x6mm



**RR98096**  
Elliptical Stirring Bar 10mm RE



**RR98097**  
Elliptical Stirring Bar 15mm RE



**RR99064**  
Elliptical Stirring Bar 25mm RE



**RR98095**  
Stirring Bar Evaluation Kit



**RR98094**  
PTFE Magnetic Stirring Bar Retriever (350mm)

## Accessories



**RR98906**  
Black Lab Marker Pen



**RR99061**  
Reaction Flask Support Ring



**RR98076**  
Silicone Septa for PTFE Caps



**RR98176**  
Viton Septa for PTFE Caps



**RR99062**  
Coupling + Shut-off Valve



**RR99063**  
90° Coupling + Shut-off Valve



**RR99051**  
B14/23 Rodaviss Sealing Cap



**RR99043**  
B24/29 Rodaviss Sealing Cap



**RR99955**  
B14/23 Rodaviss Connecting Set



**RR99044**  
B24/29 Rodaviss Connecting Set



**RR99080**  
Spare PTFE/Silicone Septa 20mm B14/23



**RR99082**  
Spare PTFE/Silicone Septa 29mm B24/29



**RR99068**  
B14/23 Rodaviss Connecting Cap



**RR99090**  
B24/29 Rodaviss Connecting Cap



**RR99905**  
Digital Thermometer (-250°C to +400°C)



**RR99908**  
Dry Ice Scoop



**RR98024**  
Protective Cold Temperature Gloves



**RR99910**  
Protective Face Shield



**RR99909**  
Cold Temperature Apron 1060mm long



**HB6945**  
M16 Female to M24 Male Adapter



**HB6431**  
M16 Female to M30 Male Adapter



**HB6195**  
M16 90 Degree Adapter



**HB6091**  
M16 Ball Valve



**RR96316**  
M16 Thread Protection Cap



**HB6724**  
M24 Female to M16 Male Adapter



**HB6723**  
M24 Female to M30 Male Adapter



**HB9256**  
M24 90 Degree Adapter



**HB9236**  
M24 Ball Valve



**RR96336**  
M24 Thread Protection Cap



**HB6454**  
M30 Female to M16 Male Adapter



**HB9268**  
M30 Female to M24 Male Adapter



**HB6461**  
M30 90 Degree Adapter



**HB6451**  
M30 Ball Valve



**RR96348**  
M30 Thread Protection Cap



Insulated Hose 100cm to 300cm with M16 Thread



Insulated Hose 100cm to 300cm with M24 Thread



**RR96220**  
PTFE Insulating Plate for Carousel 6 Plus

# Carousel 6 Plus Systems

These pre-configured Carousel 6 Plus systems are designed to make ordering quick and easy. The systems offered reflect the most popular configurations and include all the items you will need to get your Carousel 6 Plus up and running.

## Heated System - Basic

180°C

### System 34

- RR99943 Carousel 6 Plus System
- 1 x RR99916 Carousel 6 Plus Reaction Station
  - 1 x RR91070 Easy-On PTFE Cap, pk 6
  - 1 x RR98076 Silicone Septa for PTFE Caps, pk 100
  - 1 x RR98094 PTFE Magnetic Stirring Bar Retriever 350mm
  - 1 x RR99917 250ml Reaction Flask + Reflux Tube + Connecting Set, pk 6
  - 1 x RR99043 B24/29 Rodaviss Sealing Cap, pk 10
  - 1 x RR99046 Rotary Evaporator Adapters Ordinary B29 Socket to B24 Cone, pk 2
  - 1 x RR99061 Reaction Flask Support Ring, pk 6
  - 1 x RR99064 Elliptical Stirring Bar 25mm RE, pk 10
  - 1 x RR99067 Tubing for Inert Gas or Reflux Cooling 2 metres



## Heated System - Basic + Hotplate

180°C

### System 33

- RR99942 Carousel 6 Plus System
- 1 x RR99916 Carousel 6 Plus Reaction Station
  - 1 x RR91070 Easy-On PTFE Cap, pk 6
  - 1 x RR91206 Carousel Tech Stirring Hotplate + Pt1000 230v UK Plug
  - 1 x RR98076 Silicone Septa for PTFE Caps, pk 100
  - 1 x RR98094 PTFE Magnetic Stirring Bar Retriever 350mm
  - 1 x RR99917 250ml Reaction Flask + Reflux Tube + Connecting Set, pk 6
  - 1 x RR99043 B24/29 Rodaviss Sealing Cap, pk 10
  - 1 x RR99046 Rotary Evaporator Adapters Ordinary B29 Socket to B24 Cone, pk 2
  - 1 x RR99061 Reaction Flask Support Ring, pk 6
  - 1 x RR99064 Elliptical Stirring Bar 25mm RE, pk 10
  - 1 x RR99067 Tubing for Inert Gas or Reflux Cooling 2 metres



## Heated System - Additions

180°C

### System 35

- RR99944 Carousel 6 Plus System
- 1 x RR99916 Carousel 6 Plus Reaction Station
  - 1 x RR91070 Easy-On PTFE Cap, pk 6
  - 1 x RR91206 Carousel Tech Stirring Hotplate + Pt1000 230v UK Plug
  - 1 x RR98076 Silicone Septa for PTFE Caps, pk 100
  - 1 x RR98094 PTFE Magnetic Stirring Bar Retriever 350mm
  - 1 x RR99917 250ml Reaction Flask + Reflux Tube + Connecting Set, pk 6
  - 1 x RR99043 B24/29 Rodaviss Sealing Cap, pk 10
  - 1 x RR99046 Rotary Evaporator Adapters Ordinary B29 Socket to B24 Cone, pk 2
  - 1 x RR99061 Reaction Flask Support Ring, pk 6
  - 1 x RR99064 Elliptical Stirring Bar 25mm RE, pk 10
  - 1 x RR99067 Tubing for Inert Gas or Reflux Cooling 2 metres
  - 1 x RR99077 B24/29 250ml Reaction Flasks with Sidearm + Septa Port, pk 6
  - 1 x RR99078 B24/29 Liquid Additions Dropping Funnel with Pressure Equalising Arm, pk 3
  - 1 x RR99078 B24/29 Liquid Additions Dropping Funnel with Pressure Equalising Arm, pk 3
  - 1 x RR99079 B24/29 Solid Additions Funnel, pk 3
  - 1 x RR99082 PTFE/Silicone Septa 29mm for B24/29, pk 50



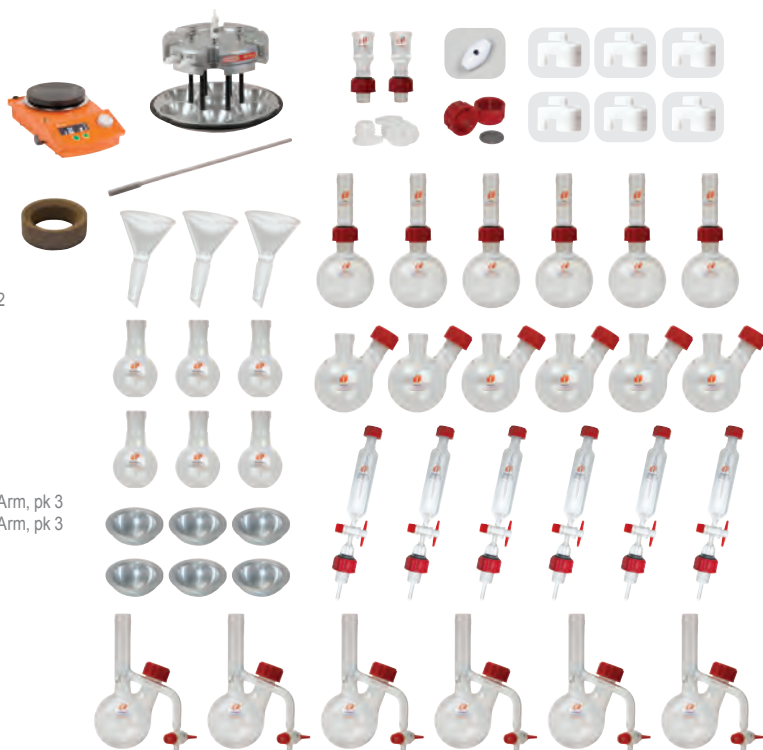


## Heated System - Comprehensive

180°C

### System 36

- RR99945 Carousel 6 Plus System
- 1 x RR99916 Carousel 6 Plus Reaction Station
  - 1 x RR91070 Easy-On PTFE Cap, pk 6
  - 1 x RR91206 Carousel Tech Stirring Hotplate + Pt1000 230v UK Plug
  - 1 x RR98076 Silicone Septa for PTFE Caps, pk 100
  - 1 x RR98094 PTFE Magnetic Stirring Bar Retriever 350mm
  - 1 x RR99917 250ml Reaction Flask + Reflux Tube + Connecting Set, pk 6
  - 1 x RR99043 B24/29 Rodaviss Sealing Cap, pk 10
  - 1 x RR99046 Rotary Evaporator Adapters Ordinary B29 Socket to B24 Cone, pk 2
  - 1 x RR99054 100ml Reaction Flask, pk 6
  - 1 x RR99920 250ml Azeotropic Reaction Flask, pk 3
  - 1 x RR99920 250ml Azeotropic Reaction Flask, pk 3
  - 1 x RR99058 Aluminium Insert for 100ml Reaction Flask, pk 6
  - 1 x RR99061 Reaction Flask Support Ring, pk 6
  - 1 x RR99064 Elliptical Stirring Bar 25mm RE, pk 10
  - 1 x RR99067 Tubing for Inert Gas or Reflux Cooling 2 metres
  - 1 x RR99077 B24/29 250ml Reaction Flasks with Sidearm + Septa Port, pk 6
  - 1 x RR99078 B24/29 Liquid Additions Dropping Funnel with Pressure Equalising Arm, pk 3
  - 1 x RR99078 B24/29 Liquid Additions Dropping Funnel with Pressure Equalising Arm, pk 3
  - 1 x RR99079 B24/29 Solid Additions Funnel, pk 3
  - 1 x RR99082 PTFE/Silicone Septa 29mm for B24/29, pk 50



## Cooled System - Upgrade

-78°C

### System 38

- RR99949 Cooled Carousel 6 Plus System
- 1 x RR99947 Cooled Carousel 6 Plus (Reservoir, Head, Stand + Cover)
  - 1 x RR98024 Protective Cold Temperature Gloves
  - 1 x RR98076 Silicone Septa for PTFE Caps, pk 100
  - 1 x RR99067 Tubing for Inert Gas or Reflux Cooling 2 metres
  - 1 x RR99905 Digital Thermometer (-250°C to +400°C) + 200mm Probe
  - 1 x RR99908 Dry Ice Scoop
  - 1 x RR99909 Cold Temp. Apron 1060mm Long Waterproof
  - 1 x RR99910 Protective Face Shield



This system does not include reaction flasks or stirring hotplate etc. and is intended for those users who already have a heated Carousel 6 Plus.

## Cooled System - Comprehensive

-78°C

### System 39

- RR99950 Cooled Carousel 6 Plus System
- 1 x RR99947 Cooled Carousel 6 Plus (Reservoir, Head, Stand + Cover)
  - 1 x RR98024 Protective Cold Temperature Gloves
  - 1 x RR91070 Easy-On PTFE Cap, pk 6
  - 1 x RR91203 Carousel Tech Stirring Hotplate 230v UK Plug
  - 1 x RR98076 Silicone Septa for PTFE Caps, pk 100
  - 1 x RR98094 PTFE Magnetic Stirring Bar Retriever 350mm
  - 1 x RR99917 250ml Reaction Flask + Reflux Tube + Connecting Set, pk 6
  - 1 x RR99043 B24/29 Rodaviss Sealing Cap, pk 10
  - 1 x RR99046 Rotary Evaporator Adapters Ordinary B29 Socket to B24 Cone, pk 2
  - 1 x RR99054 100ml Reaction Flask, pk 6
  - 1 x RR99061 Reaction Flask Support Ring, pk 6
  - 1 x RR99064 Elliptical Stirring Bar 25mm RE, pk 10
  - 1 x RR99067 Tubing for Inert Gas or Reflux Cooling 2 metres
  - 1 x RR99077 B24/29 250ml Reaction Flasks with Sidearm + Septa Port, pk 6
  - 1 x RR99078 B24/29 Liquid Additions Dropping Funnel with Pressure Equalising Arm, pk 3
  - 1 x RR99078 B24/29 Liquid Additions Dropping Funnel with Pressure Equalising Arm, pk 3
  - 1 x RR99079 B24/29 Solid Additions Funnel, pk 3
  - 1 x RR99905 Digital Thermometer (-250°C to +400°C) + 200mm Probe
  - 1 x RR99908 Dry Ice Scoop
  - 1 x RR99909 Cold Temp. Apron 1060mm Long Waterproof
  - 1 x RR99910 Protective Face Shield



# Carousel 6 Plus - Product Listing

## Carousel 6 Plus Reaction Station

### Carousel 6 Plus

RR99916 Carousel 6 Plus Reaction Station

### Carousel 6 Plus Systems

RR99942 Carousel 6 Plus System 33 - Heated System - Basic + Hotplate  
RR99943 Carousel 6 Plus System 34 - Heated System - Basic  
RR99944 Carousel 6 Plus System 35 - Heated System - Additions  
RR99945 Carousel 6 Plus System 36 - Heated System - Comprehensive

## Glassware

### Standard Flasks and Reflux Tubes

RR99151 5ml Reaction Flask with B14/23 Neck, pk 6  
RR99148 10ml Reaction Flask with B14/23 Neck, pk 6  
RR99923 B14/23 Reflux Tube + Connecting Set, pk 6  
RR99145 25ml Reaction Flask, pk 6  
RR99070 50ml Reaction Flask, pk 6  
RR99054 100ml Reaction Flask, pk 6  
RR99052 170ml Reaction Flask, pk 6  
RR99041 250ml Reaction Flask, pk 6  
RR99917 250ml Reaction Flask + Reflux Tube + Connecting Set, pk 6  
RR99918 B24/29 Reflux Tube + Connecting Set, pk 6  
RR99919 250ml Long Neck Reaction Flask, pk 6

### Standard Flasks with Sidearms

RR99071 50ml Reaction Flask with B14/23 Sidearm + Septa Port, pk 6  
RR99074 100ml Reaction Flask with B14/23 Sidearm + Septa Port, pk 6  
RR99077 250ml Reaction Flask with B24/29 Sidearm + Septa Port, pk 6  
RR99047 250ml Reaction Flask with B14/23 Sidearm + Septa Port, pk 6  
RR99087 250ml Reaction Flask with 2x B14/23 Sidearms + Septa Port, pk 6  
RR99088 250ml Reaction Flask with 2x B24/29 Sidearms + Septa Port, pk 6  
RR99089 250ml Reaction Flask with B14/23 + B24/29 Sidearm + Septa Port, pk 6

### Wide Neck Flasks with Coupling

RR99924 Wide Neck Reflux Tube + Coupling  
RR99925 Coupling for Wide Neck Flasks  
RR99940 PTFE Wide Neck Support Collar  
RR99941 Nitrile O-Ring for PTFE Wide Neck Support Collar  
RR99926 50ml Wide Neck Flask  
RR99928 100ml Wide Neck Flask  
RR99933 250ml Wide Neck Flask

### Wide Neck Flasks with Sidearms

RR99927 50ml Wide Neck Flask with B14/23 Sidearm + Septa Port  
RR99929 100ml Wide Neck Flask with B14/23 Sidearm + Septa Port  
RR99930 100ml Wide Neck Flask with 2x B14/23 Sidearms + Septa Port  
RR99934 250ml Wide Neck Flask with B24/29 Sidearm + Septa Port  
RR99935 250ml Wide Neck Flask with 2x B24/29 Sidearms + Septa Port

### Wide Neck Flasks with Baffles and Sidearms

RR99931 100ml Baffled Wide Neck Flask with B14/23 Sidearm + Septa Port  
RR99932 100ml Baffled Wide Neck Flask with B14/23 Sidearms + Septa Port  
RR99936 250ml Baffled Wide Neck Flask with B24/29 Sidearm + Septa Port  
RR99937 250ml Baffled Wide Neck Flask with B24/29 Sidearms + Septa Port

### Azeotropic Glassware

RR99922 100ml Azeotropic Reaction Flask, pk 3  
RR99920 250ml Azeotropic Reaction Flask, pk 3  
RR99939 100ml Tornado Azeotropic Reaction Flask, pk 3  
RR99938 250ml Tornado Azeotropic Reaction Flask, pk 3

### Liquid and Solid Addition Funnels

RR99049 B14/23 Solid Additions Funnel, pk 3  
RR99079 B24/29 Solid Additions Funnel, pk 3  
RR99048 B14/23 Liquid Additions Dropping Funnel + Pressure Equalising Arm, pk 3  
RR99078 B24/29 Liquid Additions Dropping Funnel + Pressure Equalising Arm, pk 3

### Evaporation Adapters, Splash Heads and Evaporation Flasks

RR99045 Rotary Evaporator Adapters Rodaviss B29 Socket to B24 Cone, pk 2  
RR99046 Rotary Evaporator Adapters Ordinary B29 Socket to B24 Cone, pk 2  
RR99055 Rotary Evaporator Adapters USA 24/40 Socket to B24 Cone, pk 2  
RR99083 Splash Head Rodaviss B29 Socket to B24 Cone  
RR99084 Splash Head Ordinary B29 Socket to B24 Cone  
RR99085 Splash Head USA 24/40 Socket to B24 Cone  
RR99053 250ml EZ-2/HT Evaporation Flask (Compatible with Genevac Evaporators), pk 4

*Flasks are NOT supplied with reflux tubes or PTFE caps; these must be purchased separately.*

## Carousel 6 Plus Accessories

### Aluminium Inserts

RR99142 Aluminium Insert for 5ml Reaction Flask, pk 6  
RR99141 Aluminium Insert for 10ml Reaction Flask, pk 6  
RR99140 Aluminium Insert for 25ml Reaction Flask, pk 6  
RR99060 Aluminium Insert for 50ml Reaction Flask, pk 6  
RR99058 Aluminium Insert for 100ml Reaction Flask, pk 6  
RR99057 Aluminium Insert for 170ml Reaction Flask, pk 6

### PTFE Magnetic Stirring Bars

RR98075 Cross Shape Stirring Bar 10mm, pk 40  
RR98091 Cross Shape Stirring Bar 16.5mm RE, pk 20  
RR98096 Elliptical Stirring Bar 10mm RE, pk 40  
RR98097 Elliptical Stirring Bar 15mm RE, pk 20  
RR99064 Elliptical Stirring Bar 25mm RE, pk 10  
RR98070 Octagonal Stirring Bar 13mm, pk 20  
RR98071 Pivot Ring Stirring Bar 12 x 6mm, pk 40  
RR98095 PTFE Magnetic Stirring Bar Evaluation Kit, pk 30  
RR98094 PTFE Magnetic Stirring Bar Retriever 350mm  
RR98114 Magnetic Stirring Bar Restrainer

### PTFE Caps and Accessories

RR91070 Easy-On PTFE Cap, pk 6  
RR91072 Easy-On PTFE Storage Cap, pk 6  
RR98076 Silicone Septa for PTFE Caps, pk 100  
RR98176 Viton Septa for PTFE Caps, pk 100  
RR98060 O-Rings for Caps - Nitrile 24mm, pk 100  
RR98160 O-Rings for Caps - Viton 24mm, pk 100

### Replacement O-Rings and Quick Release Couplings

RR91060 Nitrile O-Rings 4mm Gas Outlet - Bottom, pk 50  
RR91061 Nitrile O-Rings 3mm Gas Outlet - Top, pk 50  
RR91062 Viton O-Rings 4mm Gas Outlet - Bottom, pk 50  
RR91063 Viton O-Rings 3mm Gas Outlet - Top, pk 50  
RR91065 Quick Release Male Body Coupling No Shut-off  
RR91066 Quick Release Female Barbed Coupling No Shut-off  
RR99095 Quick Release Female Barbed + Shut-off, pk 2  
RR99062 Quick Release Male Barbed Coupling + Shut-off, pk 2  
RR99063 90° Elbow Quick Release Male Barbed Coupling + Shut-off, pk 2  
RR99065 Quick Release Female Body Coupling + Shut-off, pk 2

### Rodaviss Caps and Connecting Sets

RR99051 B14/23 Rodaviss Sealing Cap, pk 10  
RR99043 B24/29 Rodaviss Sealing Cap, pk 10  
RR99955 B14/23 Rodaviss Connecting Set, pk 10  
RR99044 B24/29 Rodaviss Connecting Set, pk 10  
RR99080 PTFE/Silicone Septa 20mm - B14/23, pk 50  
RR99081 PTFE/Silicone Septa 24.5mm - B19/26, pk 50  
RR99082 PTFE/Silicone Septa 29mm - B24/29, pk 50  
RR99068 B14/23 Rodaviss Connecting Cap, pk 10  
RR99090 B24/29 Rodaviss Connecting Cap, pk 10

### Other Accessories

RR98906 Black Lab Marker, pk 10  
RR99061 Reaction Flask Support Ring, pk 6  
RR99067 Tubing for Inert Gas or Reflux Cooling 2 metres



## Cooled Carousel 6 Plus Reaction Station

### Cooled Carousel 6 Plus

RR99947 Cooled Carousel 6 Plus (Reservoir, Head, Stand + Cover)

### Cooled Carousel 6 Plus Systems

RR99949 Cooled Carousel 6 Plus System 38 - Cooled System - Upgrade  
RR99950 Cooled Carousel 6 Plus System 39 - Cooled System - Comprehensive

### Cooled Carousel 6 Plus Components

RR99501 Cooled Carousel 6 Plus Cooling Reservoir  
RR99948 Cooled Carousel 6 Plus Head  
RR99503 Cooled Carousel 6 Plus Stand  
RR99515 Cooled Carousel 6 Plus Cover (with gas connectors)

### Cooled Carousel 6 Plus Accessories

RR99905 Digital Thermometer (-250°C to +400°C) + 200mm Probe  
RR99906 Digital Thermometer (-250°C to +400°C)  
RR99907 200mm Temperature Probe  
RR99908 Dry Ice Scoop  
RR99909 Cold Temperature Apron 1060mm long, Waterproof  
RR99910 Protective Face Shield  
RR98024 Protective Cold Temperature Gloves  
RR71505 Cooling Protection Kit  
1 x RR99909 Cold Temperature Apron 1060mm long, Waterproof  
1 x RR99910 Protective Face Shield  
1 x RR98024 Protective Cold Temperature Gloves

## Tornado Plus Overhead Stirring System

### Tornado Plus

RR99951 Tornado Plus Overhead Stirring System  
RR99230 Universal Support Stand  
RR71127 Temp Sensor Support Rod (13mm x 500mm)  
RR71120 Support Rod Hotplate Adapter (Extension Plate)

### PTFE Stirring Paddles

RR99240 Centrifugal PTFE Stirrer Paddle, pk 6  
RR99241 Centrifugal PTFE Stirrer Paddle, pk 1  
RR99244 Anchor PTFE Stirrer Paddle for 100ml Flasks, pk 6  
RR99245 Anchor PTFE Stirrer Paddle for 100ml Flasks, pk 1  
RR99248 Anchor PTFE Stirrer Paddle for 250ml Flasks, pk 6  
RR99249 Anchor PTFE Stirrer Paddle for 250ml Flasks, pk 1  
RR99251 Propellor PTFE Stirrer Paddle, pk 6  
RR99252 Propellor PTFE Stirrer Paddle, pk 1

### RS Overhead Stirrers

Please note that other overhead stirrer options are available on request, please contact Radleys for further information.

RR91302 RS27 Standard Overhead Stirrer 230V UK Plug  
RR91306 RS37 Digital Plus Overhead Stirrer 230V UK Plug  
RR91308 RS50 Control Overhead Stirrer 230V UK Plug  
RR91312 RS100 Control Plus Overhead Stirrer 230V UK Plug  
RR91428 Remote Control for RS50 Control  
RR91430 RS232 Interface Cable Stirrer-PC

### Spare Parts

RR99952 Quick-Thread Stirrer Guide Assembly  
RR99953 Replacement Tubing for RR99952 110mm (Stirrer Guide to Gas Manifold)

Please contact Radleys for details of replacement parts for Tornado System.

## Storm and Breeze Heating/Cooling Work Stations

### Storm and Breeze Work Stations

RR96200 Storm Work Station + Carousel 6 PTFE Insulating Plates (M24 hose connections)  
RR96210 Breeze Work Station + Integral Stand (M16 hose connections)  
RR96220 PTFE Insulating Plates for Carousel 6 Plus

### Insulated Hoses

HB6084 Insulated Hose - 100cm long, with M16 thread  
HB6085 Insulated Hose - 150cm long, with M16 thread  
HB6136 Insulated Hose - 200cm long, with M16 thread  
HB6255 Insulated Hose - 300cm long, with M16 thread  
  
HB6784 Insulated Hose - 100cm long, with M24 thread  
HB6785 Insulated Hose - 150cm long, with M24 thread  
HB6786 Insulated Hose - 200cm long, with M24 thread  
HB6787 Insulated Hose - 300cm long, with M24 thread

### M16 Hose Adapters and Valves

HB6945 M16 Female to M24 Male Adapter  
HB6431 M16 Female to M30 Male Adapter  
HB6195 M16 90 Degree Adapter  
HB6091 M16 Ball Valve  
RR96316 M16 Thread Protection Cap, pk 10

### M24 Hose Adapters and Valves

HB6724 M24 Female to M16 Male Adapter  
HB6723 M24 Female to M30 Male Adapter  
HB9256 M24 90 Degree Adapter  
HB9236 M24 Ball Valve  
RR96336 M24 Thread Protection Cap, pk 10

### M30 Hose Adapters and Valves

HB6454 M30 Female to M16 Male Adapter  
HB9268 M30 Female to M24 Male Adapter  
HB6461 M30 90 Degree Adapter  
HB6451 M30 Ball Valve  
RR96348 M30 Thread Protection Cap, pk 10

### Thermofluids

HB6164 Silicone Oil -40°C to +165°C - 10 litres  
HB6162 Silicone Oil -20°C to +235°C - 10 litres  
HB6479 DWTherm -90°C to +200°C - 10 litres

## Stirring Hotplates

### Stirring Hotplates

RR91200 Carousel Standard Stirring Hotplate 230V UK Plug  
RR91203 Carousel Tech Stirring Hotplate 230V UK Plug  
RR91206 Carousel Tech Stirring Hotplate + Pt1000 230V UK Plug  
RR91291 Carousel Tech Package 230V UK Plug  
*Includes Tech Stirring Hotplate, Pt1000 S/steel Sensor, Pt1000 Clamping System + Support Rod and Cable Guide.*  
RR91204 Carousel Advanced Stirring Hotplate 230V UK Plug  
RR91205 Carousel Advanced Stirring Hotplate + Pt1000 230V UK Plug

Hotplates available in other voltages, please add /EURO, /SWISS or /USA to end of Cat. No.

### Pt1000 Temperature Sensors and Accessories

RR91226 Pt1000 Stainless Steel Temperature Sensor  
RR91227 Pt1000 Glass Coated Temperature Sensor  
RR91228 Temperature Sensor Holder  
RR91235 Pt1000 Clamping System + Support Rod and Cable Guide  
RR91236 Pt1000 Clamping System + Support Rod and Cable Guide (Baths from 3 to 5L)  
RR91229 Support Rod (13mm x 425mm)  
RR71127 Support Rod (13mm x 500mm)  
RR71125 Support Rod (13mm x 340mm)  
RR71120 Support Rod Hotplate Adapter (Extension Plate)  
RR91234 RS232 Interface Cable - 15 Pin to 9 Pin



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## AVA Software and Data Hub

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