

# StarFish™

The space saver

Multi-experiment work station to improve the productivity of your chemistry

260°C



# StarFish - the multi-experiment work station

Improve the productivity of your chemistry

## What are the Benefits?

- Space saving - uses less space than multiple heating and stirring set-ups.
- Increases productivity with multiple positions allowing you to heat, stir and reflux experiments in parallel.
- Cost effective - use your existing stirring hotplate and glassware. Eliminate the cost of multiple set-ups.
- Safer, cleaner working. Eliminate oil baths, reduce spills, mess and accidents.
- Flexible - use as many positions as you want.
- Easy to use and quick to assemble.
- Compact - store spare components in a draw and not on the bench.

### Gas/Vacuum Manifold

- Even distribution to up to five positions or vessels
- Quick-release connectors
- Leak-proof shut-off valves

### Central Support Rod

- Single or two piece options
- Screws into base plate
- Stainless steel

### Universal 3 or 5-Way Telescopic Clamps

- Adjusts to hold a wide variety of glassware
- Velcro or rubber straps

### Water Manifold

- Distributes water to up to five condensers simultaneously
- Quick-release connectors
- Leak-proof shut-off valves

### 500ml MonoBlock and Clamp

- Accepts 3 x 500ml flasks
- Universal 3-way telescopic clamp

### MonoBlocks or PolyBlock

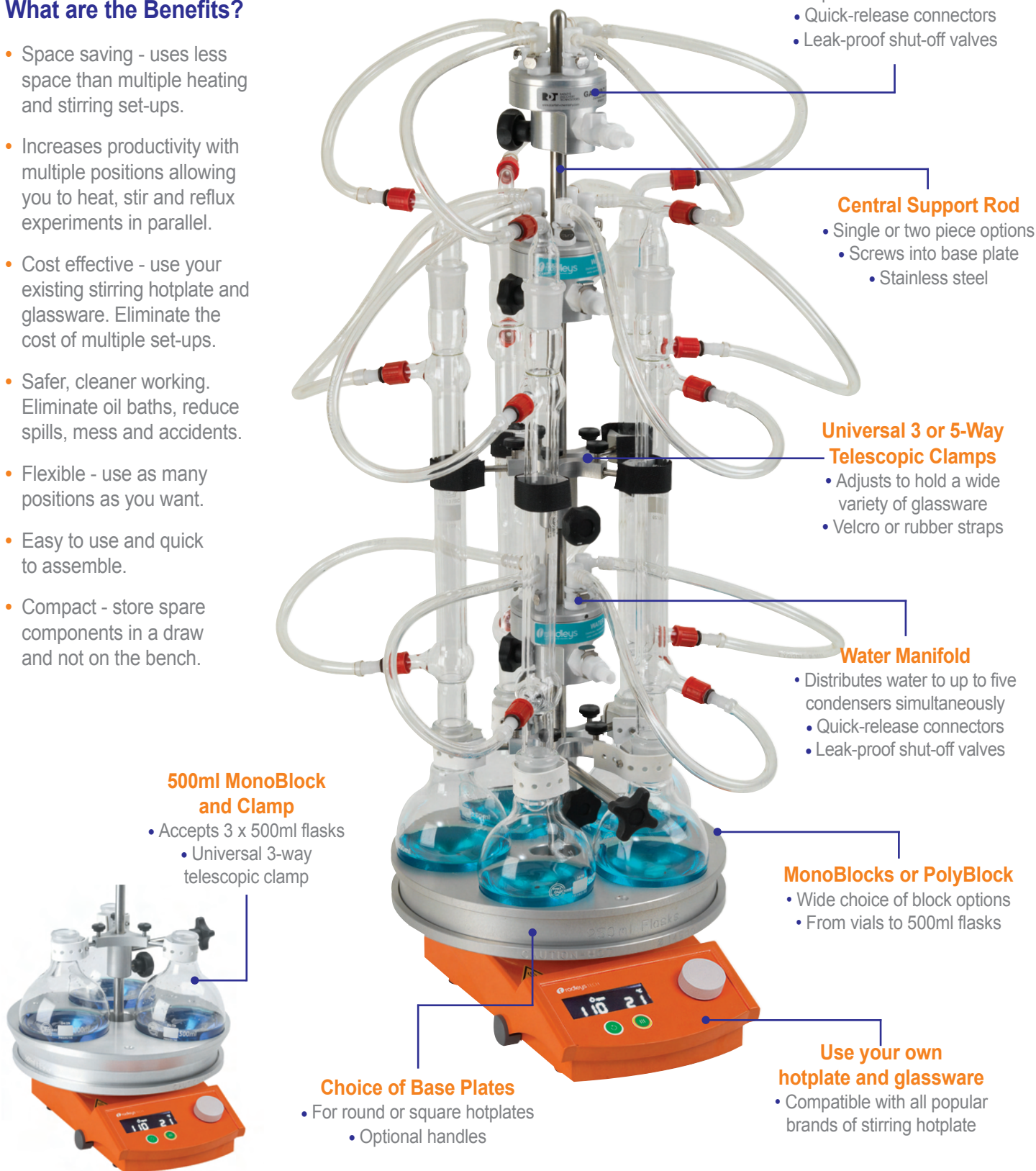
- Wide choice of block options
- From vials to 500ml flasks

### Choice of Base Plates

- For round or square hotplates
- Optional handles

### Use your own hotplate and glassware

- Compatible with all popular brands of stirring hotplate





# StarFish - for popular heating and stirring applications

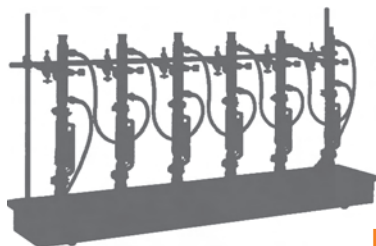
Synthesis, distillation, extraction

## StarFish Applications

Whether you want to heat and stir, or perform more complex experiments, StarFish really can make your life easier and improve productivity. StarFish has proven popular in the following laboratories:

- Teaching and university
- Chemistry and biochemistry
- Environmental analysis
- Food testing
- Analytical

StarFish replaces the need for large electromantles



From space-taker to space-saver

260°C



## Heating and Stirring

Starfish is ideal for heating and/or stirring all types of vials, test tubes, conical and round bottom flasks.



## Synthesis

Suitable for standard round bottom flasks from 5ml to 500ml, as well as 1 inch and 24mm boiling tubes. Hold condensers up to 70mm in diameter.



## Distillation

Configure for all common types of distillation including; binary and multi-component, vacuum, fractional and azeotropic methods.

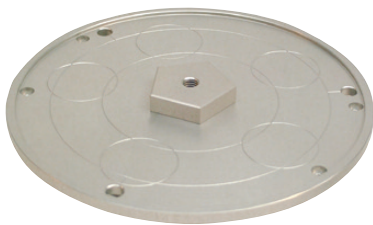


## Extraction

Replace large, inflexible extraction apparatus. Using standard round bottom flasks from 5ml to 500ml and glassware assemblies for soxhlet, liquid-liquid, reverse liquid-liquid and reflux extraction methods.

# StarFish - modular and versatile

Use your existing hotplate and glassware



Base plates feature locating circles so beakers and conical flasks can be placed directly on to the top plate

## Base Plates - for round or square hotplates

StarFish base plates fit securely on all popular brands of stirring hotplate with both round or square top plates and are designed to maximise thermal contact with the heated top plate.

## Lifting handles - insulated

Optional insulated handles can be screwed to the base plate, allowing the safe removal of the base plate from the hotplate whilst still hot.



## Support rods - stainless steel

Stainless steel 12mm  $\varnothing$  x 650mm long. Rods screw directly into base plate.

## Base plates, handles and rods



**RR95010**  
Base Plate for  
135mm diameter  
(for Radleys & IKA)



**RR95020**  
Base Plate for  
145mm diameter  
(for Heidolph)



**RR95030**  
Base Plate for  
150mm diameter  
(for Eylea)



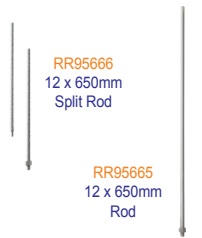
**RR95040**  
Base Plate for  
184mm x 184mm  
(for Cimarec)



**RR95050**  
Base Plate for  
160mm x 160mm  
(for Stuart SD)



**RR95100**  
Base Plate  
Handles (Pair)



**RR95666**  
12 x 650mm  
Split Rod

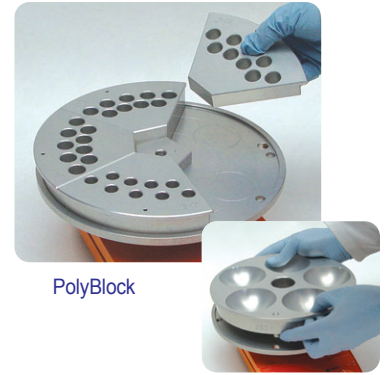
**RR95665**  
12 x 650mm  
Rod

# StarFish - for vials, test tubes and flasks

Mix'n'match the components you need, when you need them

## MonoBlocks and PolyBlocks

- Chemical resistant anodised aluminium for rapid heating of vials, tubes and flasks up to 260°C
- MonoBlocks are single blocks with multiple wells all of the same size.
- PolyBlocks are smaller segments that can be mixed to accommodate any combination of vessel (5 per StarFish).
- All blocks are stackable to maximize lab space, have a 3.5mm hole for a temperature probe and are individually labelled for easy identification.



PolyBlock

MonoBlock

## Reducing inserts for flasks

- Aluminium reducing inserts for flasks from 5ml to 150ml fit in 250ml wells in PolyBlocks and MonoBlocks.

Aluminium reducing inserts with PolyBlocks



## MonoBlocks for test tubes and vials



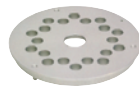
RR95170  
12mm Ø x 40  
14mm deep



RR95165  
15mm Ø x 40  
17mm deep



RR95160  
17mm Ø x 40  
17mm deep



RR95155  
21mm Ø x 20  
17mm deep



RR95150  
12mm Ø x 40  
25mm deep



RR95145  
16mm Ø x 40  
25mm deep



RR95140  
24mm Ø x 16  
27mm deep



RR95135  
25mm Ø x 16  
27mm deep

## PolyBlocks for test tubes and vials



RR95270  
12mm Ø x 9  
14mm deep



RR95265  
15mm Ø x 9  
17mm deep



RR95260  
17mm Ø x 7  
17mm deep



RR95255  
21mm Ø x 3  
17mm deep



RR95250  
12mm Ø x 9  
25mm deep



RR95245  
16mm Ø x 9  
25mm deep



RR95240  
24mm Ø x 3  
27mm deep



RR95235  
25mm Ø x 3  
27mm deep

## MonoBlocks, PolyBlocks and aluminium inserts for flasks



RR95130  
250ml x 5



RR95125  
500ml x 3



RR95230  
250ml x 1



RR95355  
5ml Insert



RR95350  
10ml Insert



RR95345  
25ml Insert



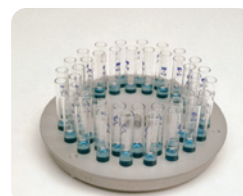
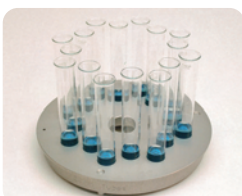
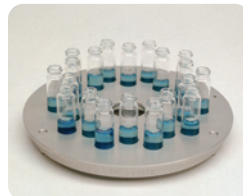
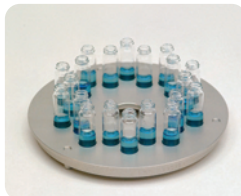
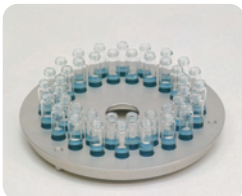
RR995340  
50ml Insert



RR95335  
100ml Insert



RR95330  
150ml Insert





# StarFish - manifolds and clamps

Manifolds provide quick, convenient and tidy water/gas connections



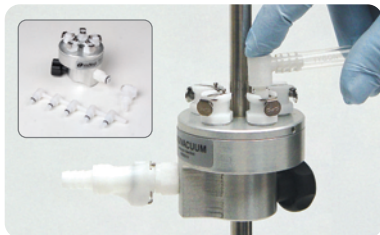
Gas Manifold



Water Manifold

## Distribution Manifolds for Gas/Vacuum and Water

- Make the connection of water or gas/vacuum to multiple vessels quick and easy
- Manifolds can be used independently of StarFish
- Screw-tightening allows location of manifolds in any position on a standard 12mm  $\varnothing$  support rod
- Quick-release gas/fluid connectors
- Leak-proof shut-off valves close when the couplings are parted



## Water manifold

Allows coolant from a single source to be evenly distributed to up to five condensers and then re-combined to one outlet pipe. Two manifolds are used in each set-up.

## Gas/vacuum manifold

Allows gas or vacuum from a single source to be evenly distributed to up to five positions or vessels. (Does not control or regulate gas/vacuum flow)

## Manifolds and clamps



RR95510  
Gas/Vacuum  
Manifold



RR95500  
Water  
Manifold



RR95410  
5-way Clamp with Silicone  
Strap and Long Handle



RR95400  
5-way Clamp  
with Velcro



RR95415  
3-way Clamp with Silicone  
Strap and Long Handle



RR95405  
3-way Clamp  
with Velcro



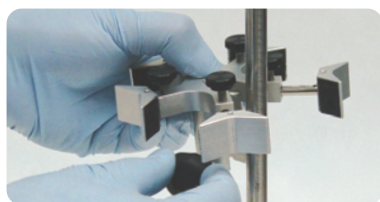
RR95444  
Viton Rubber  
Straps



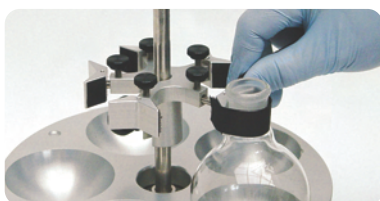
## Universal Clamps

3 and 5-way Universal Clamps are designed to safely support flasks, condensers and other glassware. They feature adjustable telescopic arms and flexible straps to hold glassware.

- Designed to be raised or lowered with glassware in-situ
- Choice of Velcro or rubber supporting straps
- Rubber straps grip glassware from 15 to 70mm in diameter - ideal for lifting vessels
- 5-way clamp features a slot which allows it to be located on to the support rod from the side
- Velcro straps are designed specifically not to grip glassware tightly, allowing condensers to slide through the strap, whilst still being safely restrained
- Optional Viton rubber straps offer superior chemical resistance



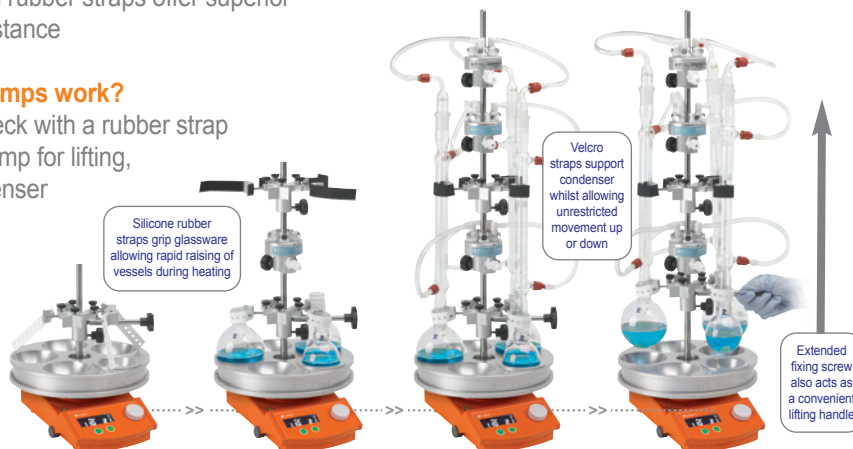
Side slot on 5-way clamp allows easy fitting



Velcro holds glassware securely

## How do the clamps work?

Grip the flask neck with a rubber strap on the lower clamp for lifting, whilst the condenser above slides through the Velcro strap on the upper clamp.



# StarFish - accepts standard glassware

Versatile design holds glassware of different sizes and shapes



## Accessory Glassware

- StarFish blocks are designed to accept standard laboratory glassware
- For your convenience we offer a range of standard glassware
- StarFish will also accommodate glassware from the Radleys' Carousel 12 Plus, 6 Plus and GreenHouse Plus

### Test tubes, flasks, condensers and soxhlets

RRR94260 Adapter 19/26	RR94115 5ml 10/19 socket	RR94105 10ml 10/19 socket	RR94095 25ml 19/26 socket	RR94085 50ml 19/26 socket	RR94075 100ml 19/26 socket	RR94065 150ml 19/26 socket	RR94055 250ml 19/26 socket	RR94250 250ml Azeotropic Reaction Flask 24/29 with 19/26 Sidearm	RR94040 500ml 24/29 socket
RR94265 Adapter 24/29	RR94110 5ml 14/23 socket	RR94100 10ml 14/23 socket	RR94090 25ml 24/29 socket	RR94080 50ml 24/29 socket	RR94070 100ml 24/29 socket	RR94060 150ml 24/29 socket	RR94050 250ml 24/29 socket		RR94145 500ml 24/29 socket + 19/26 sidearm
RR94270 Adapter 29/32			RR94165 25ml 14/23 socket + 14/23 sidearm	RR94160 50ml 14/23 socket + 14/23 sidearm	RR94155 100ml 24/29 socket + 19/26 sidearm		RR94150 250ml 24/29 socket + 19/26 sidearm		
RR94275 Adapter 34/35									

RR94030 Test Tube 12mm ø x 100mm without rim RR94025 with rim	RR94020 Test Tube 16mm ø x 100mm without rim RR94015 with rim	RR94010 Test Tube 24mm ø x 150mm without rim RR94005 with rim	RR94230 20ml Soxhlet 19/26 RR94235 40ml Soxhlet 24/29 RR94240 60ml Soxhlet 24/29 RR94245 100ml Soxhlet 24/29	RR94210 Allihn Condenser 250mm 19/26 RR94215 Allihn Condenser 250mm 24/29 RR94220 Allihn Condenser 250mm 29/32	RR94195 Coil Condenser 165mm 19/26 RR94200 Coil Condenser 165mm 24/29 RR94205 Coil Condenser 165mm 29/32	RR94180 Liebig Condenser 208mm 19/26 RR94185 Liebig Condenser 250mm 24/29 RR94190 Liebig Condenser 250mm 29/32

## PTFE Magnetic Stirring Bars

- A massive choice of stirring bars, suitable for the smallest vials through to the largest flask

### Magnetic stirring bars

RR98075 Cross Shape Stirring Bar 10mm	RR98091 Cross Shape Stirring Bar 16.5mm RE	RR95910 Cross Shape Stirring Bar 30mm	RR95905 Cylindrical Stirring Bar 8mm	RR98113 Cylindrical Stirring Bar 12mm RE	RR98070 Octagonal Stirring Bar 13mm	RR99607 Pivot Ring Stirring Bar 12x4.5mm	RR98071 Pivot Ring Stirring Bar 12x6mm	RR99613 Pivot Ring Stirring Bar 15mm	RR98096 Elliptical Stirring Bar 10mm RE	RR98097 Elliptical Stirring Bar 15mm RE	RR99064 Elliptical Stirring Bar 25mm RE	RR95920 Oval Stirring Bar 40mm	RR95921 Oval Stirring Bar 50mm

RR95915 Hub Stirring Bar 45mm	RR95916 Hub Stirring Bar 62mm	RR95917 Hub Stirring Bar 70mm	RR95925 Spinning Stirring Bar 31mm	RR95926 Spinning Stirring Bar 44mm	RR95927 Spinning Stirring Bar 57mm	RR98095 Stirring Bar Evaluation Kit	RR98094 PTFE Magnetic Stirring Bar Retriever (350mm)	RR98906 Black Lab Marker Pen	RR99061 Reaction Flask Support Ring

*"StarFish delivered a simple and versatile alternative to five individual heating mantle set-ups, improving the student experience and making better use of laboratory facilities and space."*

Alan Hague, University of Bradford



# StarFish ordering information

Cat No	Description	Pk Qty
<b>Base Plates, Handles &amp; Support Rods</b>		
RR95010	StarFish Base Plate 135mm (for Radleys & IKA)	1
RR95020	StarFish Base Plate 145mm (for Heidolph)	1
RR95030	StarFish Base Plate 150mm (for Eyela)	1
RR95040	StarFish Base Plate 184 x 184mm (for Cimatec)	1
RR95050	StarFish Base Plate 160 x 160mm (for Stuart - SD models)	1
RR95100	StarFish Base Plate Handles (Pair)	1
RR95665	650mm Rod	1
RR95666	650mm Split Rod	1
RR95980	Adjustable Spanner	1
<b>MonoBlocks</b>		
RR95125	MonoBlock for 3x 500ml Flasks	1
RR95130	MonoBlock for 5 x 250ml Flasks	1
RR95135	MonoBlock for 16 x 25mm Tubes	1
RR95140	MonoBlock for 16 x 24mm Tubes	1
RR95145	MonoBlock for 40 x 16mm Tubes	1
RR95150	MonoBlock for 40 x 12mm Tubes	1
RR95152	MonoBlock for 16 x 28mm Vials	1
RR95155	MonoBlock for 20 x 21mm Vials (4 dram)	1
RR95160	MonoBlock for 40 x 17mm Vials (2 dram)	1
RR95165	MonoBlock for 40 x 15mm Vials (1 dram)	1
RR95170	MonoBlock for 40 x 12mm Vials (2ml)	1
<b>PolyBlocks</b>		
RR95230	PolyBlock for 1 x 250ml Flask	1
RR95235	PolyBlock for 3 x 25mm Tubes	1
RR95240	PolyBlock for 3 x 24mm Tubes	1
RR95245	PolyBlock for 9 x 16mm Tubes	1
RR95250	PolyBlock for 9 x 12mm Tubes	1
RR95252	PolyBlock for 3 x 28mm Vials	1
RR95255	PolyBlock for 3 x 21mm Vials (4 dram)	1
RR95260	PolyBlock for 7 x 17mm Vials (2 dram)	1
RR95265	PolyBlock for 9 x 15mm Vials (1 dram)	1
RR95270	PolyBlock for 9 x 12mm Vials (2ml)	1
<b>Reducing Inserts</b>		
RR95330	150ml Flask Insert	1
RR95335	100ml Flask Insert	1
RR95340	50ml Flask Insert	1
RR95345	25ml Flask Insert	1
RR95350	10ml Flask Insert	1
RR95355	5ml Flask Insert	1
<b>Universal Clamp</b>		
RR95405	Telescopic 3-way Clamp with Velcro	1
RR95415	Telescopic 3-way Clamp with Silicone Strap and Long Handle	1
RR95400	Telescopic 5-way Clamp with Velcro	1
RR95410	Telescopic 5-way Clamp with Silicone Strap and Long Handle	1
<b>Universal Clamp Spares &amp; Accessories</b>		
RR95450	RR95400 to RR95410 Conversion Kit	1
RR95412	Clamp Long Handle	1
RR95430	Self Adhesive Velcro Pads	10
RR95432	Strap Securing Pins	10
RR95440	Velcro Loop Strips 200mm	5
RR95442	Silicone Strap 200mm	5
RR95444	Viton Strap 200mm	5
<b>Distribution Manifolds</b>		
RR95500	Water Manifold with connectors	1
RR95510	Gas/Vacuum Manifold with connectors	1
RR95535	Tubing for Manifold outlets 15m x 6.4mm	1
RR95540	Tubing for Manifold inlets 15m x 8mm	1
<b>Stirring Bars</b>		
RR98075	Cross Shape Stirring Bar 10mm	40
RR98091	Cross Shape Stirring Bar 16.5mm RE	20
RR95910	Cross Shape Stirring Bar 30mm	5
RR95905	Cylindrical Stirring Bar 8mm	40
RR98113	Cylindrical Stirring Bar 12mm RE	20
RR98070	Octagonal Stirring Bar 13mm	20
RR99607	Pivot Ring Stirring Bar 12x4.5mm	40
RR98071	Pivot Ring Stirring Bar 12x6mm	40
RR99613	Pivot Ring Stirring Bar 15mm	40
RR98096	Elliptical Stirring Bar 10mm RE	40
RR98097	Elliptical Stirring Bar 15mm RE	20
RR99064	Elliptical Stirring Bar 25mm RE	10
RR95920	Oval Stirring Bar 40mm	5
RR95921	Oval Stirring Bar 50mm	5
RR95915	Hub Stirring Bar 45mm	1
RR95916	Hub Stirring Bar 62mm	1
RR95917	Hub Stirring Bar 70mm	1
RR95925	Spinning Stirring Bar 31mm	1
RR95926	Spinning Stirring Bar 44mm	1
RR95927	Spinning Stirring Bar 57mm	1
RR98095	PTFE Magnetic Stirring Bar Evaluation Kit	30
RR71200	PTFE Magnetic Stirring Bar Evaluation Kit - for flasks	10
RR98094	PTFE Magnetic Stirring Bar Retriever 350mm	1
RR98114	Magnetic Stirring Bar Restrainer	1

Cat No	Description	Pk Qty
<b>Test Tubes</b>		
RR94005	24x150 T/Tube with Rim (Medium Wall)	100
RR94010	24x150 T/Tube without Rim (Medium Wall)	100
RR94015	16x100 T/Tube with Rim (Medium Wall)	100
RR94020	16x100 T/Tube without Rim (Medium Wall)	100
RR94025	12x100 T/Tube with Rim (Medium Wall)	100
RR94030	12x100 T/Tube without Rim (Medium Wall)	100
<b>Round Bottom Flasks</b>		
RR94040	500ml Round Bottom Flask 24/29 Socket	5
RR94050	250ml Round Bottom Flask 24/29 Socket	5
RR94055	250ml Round Bottom Flask 19/26 Socket	5
RR94060	150ml Round Bottom Flask 24/29 Socket	5
RR94065	150ml Round Bottom Flask 19/26 Socket	5
RR94070	100ml Round Bottom Flask 24/29 Socket	5
RR94075	100ml Round Bottom Flask 19/26 Socket	5
RR94080	50ml Round Bottom Flask 24/29 Socket	5
RR94085	50ml Round Bottom Flask 19/26 Socket	5
RR94090	25ml Round Bottom Flask 24/29 Socket	5
RR94095	25ml Round Bottom Flask 19/26 Socket	5
RR94100	10ml Round Bottom Flask 14/23 Socket	5
RR94105	10ml Round Bottom Flask 10/19 Socket	5
RR94110	5ml Round Bottom Flask 14/23 Socket	5
RR94115	5ml Round Bottom Flask 10/19 Socket	5
<b>Round Bottom Flasks with Sidearm</b>		
RR94145	500ml R/B Flask 24/29 with 19/26 Sidearm	1
RR94150	250ml R/B Flask 24/29 with 19/26 Sidearm	2
RR94155	100ml R/B Flask 24/29 with 19/26 Sidearm	2
RR94160	50ml R/B Flask 14/23 with 14/23 Sidearm	2
RR94165	25ml R/B Flask 14/23 with 14/23 Sidearm	2
<b>Azeotropic Flask</b>		
RR94250	250ml Azeotropic Reaction Flask 24/29 with 19/26 Sidearm	1
<b>Condensers</b>		
RR94180	Liebig Condenser 208mm 19/26	1
RR94185	Liebig Condenser 250mm 24/29	1
RR94190	Liebig Condenser 250mm 29/32	1
RR94195	Coil Condenser 165mm 19/26	1
RR94200	Coil Condenser 165mm 24/29	1
RR94205	Coil Condenser 165mm 29/32	1
RR94210	Allihn Condenser 250mm 19/26	1
RR94215	Allihn Condenser 250mm 24/29	1
RR94220	Allihn Condenser 250mm 29/32	1
<b>Soxhlet</b>		
RR94230	20ml Soxhlet 19/26 Cone 24/29 Socket	1
RR94235	40ml Soxhlet 24/29 Cone 29/32 Socket	1
RR94240	60ml Soxhlet 24/29 Cone 34/25 Socket	1
RR94245	100ml Soxhlet 24/29 Cone 40/38 Socket	1
<b>Right Angle Adapters</b>		
RR94260	Adapter B19 Cone to SQ13 Screwthread	5
RR94265	Adapter B24 Cone to SQ13 Screwthread	5
RR94270	Adapter B29 Cone to SQ13 Screwthread	5
RR94275	Adapter B34 Cone to SQ13 Screwthread	5
<b>Carousel Stirring Hotplates</b>		
RR91200	Carousel Standard Stirring Hotplate 230v UK Plug	1
RR91290	Carousel Standard Package 230v UK Plug	1
<i>Includes Standard Stirring Hotplate, Temperature Controller, Support Rod &amp; Sensor Clamp.</i>		
RR91203	Carousel Tech Stirring Hotplate 230v UK Plug	1
RR91206	Carousel Tech Stirring Hotplate + Pt1000 230v UK Plug	1
RR91291	Carousel Tech Package 230v UK Plug	1
<i>Includes Tech Stirring Hotplate, Pt1000 S/Steel Sensor, Support Rod &amp; Sensor Clamp.</i>		
RR91204	Carousel Advanced Stirring Hotplate 230v UK Plug	1
RR91205	Carousel Advanced Stirring Hotplate + Pt1000 230v UK Plug	1
<i>Stirring Hotplates are available in other voltages. Please add /EURO or /USA to the end of Cat No.</i>		
<b>Temperature Controllers &amp; Sensors</b>		
RR91210	Carousel Temperature Controller for Standard Stirring Hotplates	1
<i>Includes RRT71125 Temp Sensor Support Rod and RRT71120 Support Rod Hotplate Adapter</i>		
RR91226	Pt1000 S/S Sensor for Tech & Advanced Stirring Hotplates	1
RR91227	Pt1000 Glass Coated Sensor for Tech & Advanced Stirring Hotplates	1
RR91228	Temperature Sensor Holder	1
RR91229	Support Rod (13mm x 425mm)	1
RR71127	Support Rod (13mm x 500mm)	1
RR71125	Support Rod (13mm x 340mm)	1
RR71120	Support Rod Hotplate Adapter (extension plate)	1

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