

StarFish - the multi-experiment work station

Improve the productivity of your chemistry **Gas/Vacuum Manifold** • Even distribution to up to five positions or vessels What are the benefits? Quick-release connectors • Leak-proof shut-off valves · Space saving - uses less space than multiple heating and stirring set-ups. Increases productivity multiple positions allow you to heat, stir and reflux **Central Support Rod** experiments in parallel. • Single or two piece options · Screws into base plate · Cost effective - use your Stainless steel existing stirring hotplate and glassware. Eliminate the cost of multiple set-ups. · Safer, cleaner working. Eliminate oil baths, reduce **Universal 3 or 5-Way** spills, mess and accidents. **Telescopic Clamps** Flexible - use as many · Adjusts to hold a wide positions as you want. variety of glassware Velcro or rubber straps Easy to use and guick to assemble. • Compact - store spare components in a drawer and Water Manifold not on the bench. · 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 Use your own hotplate and glassware **Choice of Base Plates** · Compatible with all popular • For round or square hotplates brands of stirring hotplate Optional handles

StarFish - for popular heating and stirring applications

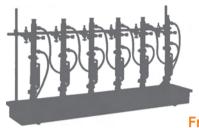
Synthesis, distillation, extraction

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



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 ø x 650mm long. Rods screw directly into base plate.





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







RR95165 15mm Ø x 40 17mm deep



17mm Ø x 40 17mm deep



21mm Ø x 20 17mm deep



12mm Ø x 40 25mm deep



16mm Ø x 40 25mm deep



24mm Ø x 16 27mm deep



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



16mm Ø x 9 25mm deep



RR95240 24mm Ø x 3 27mm deep



25mm Ø x 3 27mm deep

MonoBlocks, PolyBlocks and aluminium inserts for flasks



RR95130 250ml x 5



500ml x 3



250ml x 1



5ml Insert



RR95350 10ml Insert



RR95345 25ml Insert



RR95340 50ml Insert



100ml Insert



150ml Insert

















StarFish - manifolds and clamps

Manifolds provide quick, convenient and tidy water/gas connections





Water Manifold

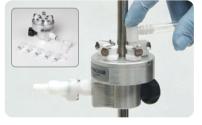


Distribution Manifolds for Gas/Vacuum and Water

- 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 ø support rod

StarFish Clamp

- · Quick-release gas/fluid connectors
- Leak-proof shut-off valves close when the couplings are parted



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 5-way Clamp with Silicone Viton Rubber Gas/Vacuum Water 5-way Clamp 3-way Clamp with Silicone 3-way Clamp Manifold Strap and Long Handle with Velcro Strap and Long Handle with Velcro Straps





Side slot on 5-way clamp allows easy fitting



Velcro holds glassware securely

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

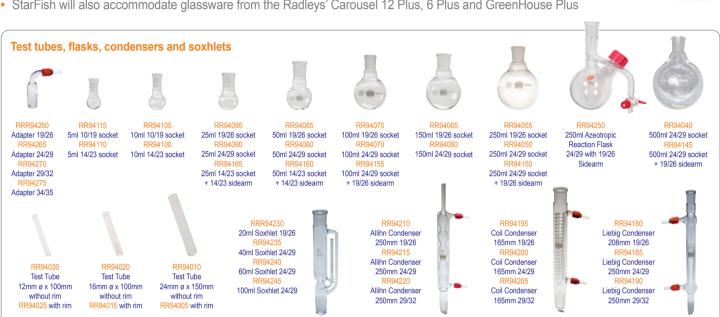


StarFish - accepts standard glassware

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



PTFE Magnetic Stirring Bars

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



"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 Installation

StarFish ordering information

Cat No	Description	Pk Qty
Base Plates RR95010 RR95020 RR95030 RR95040 RR95050 RR95100 RR95665 RR95666 RR95980	, Handles & Support Rods StarFish Base Plate 135mm (for Radleys & IKA) StarFish Base Plate 145mm (for Heidolph) StarFish Base Plate 150mm (for Eyela) StarFish Base Plate 184 x 184mm (for Cimarec) StarFish Base Plate 160 x 160mm (for Stuart - SD models) StarFish Base Plate Handles (Pair) 650mm Rod 650mm Split Rod Adjustable Spanner	1 1 1 1 1 1 1 1
MonoBlocks RR95125 RR95130 RR95135 RR95140 RR95145 RR95155 RR95152 RR95155 RR95160 RR95165 RR95170	MonoBlock for 3x 500ml Flasks MonoBlock for 5 x 250ml Flasks MonoBlock for 16 x 25mm Tubes MonoBlock for 16 x 24mm Tubes MonoBlock for 40 x 16mm Tubes MonoBlock for 40 x 12mm Tubes MonoBlock for 40 x 12mm Tubes MonoBlock for 16 x 28mm Vials MonoBlock for 20 x 21mm Vials (4 dram) MonoBlock for 40 x 17mm Vials (2 dram) MonoBlock for 40 x 15mm Vials (1 dram) MonoBlock for 40 x 15mm Vials (2ml)	1 1 1 1 1 1 1 1
PolyBlocks RR95230 RR95235 RR95240 RR95245 RR95250 RR95252 RR95255 RR95260 RR95265 RR95270	PolyBlock for 1 x 250ml Flask PolyBlock for 3 x 25mm Tubes PolyBlock for 3 x 24mm Tubes PolyBlock for 9 x 16mm Tubes PolyBlock for 9 x 27mm Tubes PolyBlock for 3 x 28mm Vials PolyBlock for 3 x 27mm Vials (4 dram) PolyBlock for 7 x 17mm Vials (2 dram) PolyBlock for 9 x 15mm Vials (1 dram) PolyBlock for 9 x 15mm Vials (1 dram) PolyBlock for 9 x 12mm Vials (2ml)	1 1 1 1 1 1 1 1
Reducing In RR95330 RR95335 RR95340 RR95345 RR95350 RR95355	150ml Flask Insert 100ml Flask Insert 50ml Flask Insert 25ml Flask Insert 10ml Flask Insert 5ml Flask Insert	1 1 1 1 1
Universal C RR95405 RR95415 RR95400 RR95410	lamp Telescopic 3-way Clamp with Velcro Telescopic 3-way Clamp with Silicone Strap and Long Handle Telescopic 5-way Clamp with Velcro Telescopic 5-way Clamp with Silicone Strap and Long Handle	1 1 1 1
Universal C RR95450 RR95412 RR95430 RR95432 RR95440 RR95442 RR95444	lamp Spares & Accessories RR95400 to RR95410 Conversion Kit Clamp Long Handle Self Adhesive Velcro Pads Strap Securing Pins Velcro Loop Strips 200mm Silicone Strap 200mm Viton Strap 200mm	1 10 10 5 5
Distribution RR95500 RR95510 RR95535 RR95540	Manifolds Water Manifold with connectors Gas/Vacuum Manifold with connectors Tubing for Manifold outlets 15m x 6.4mm Tubing for Manifold inlets 15m x 8mm	1 1 1
Stirring Bares RR98075 RR98091 RR98091 RR95910 RR95905 RR98070 RR99607 RR99607 RR996071 RR99613 RR98096 RR95921 RR95915 RR95916 RR95916 RR95917 RR99607 RR99604 RR95917 RR99604 RR95917 RR95916 RR95917 RR95916 RR95917 RR9591	Cross Shape Stirring Bar 10mm Cross Shape Stirring Bar 16.5mm RE Cross Shape Stirring Bar 30mm Cylindrical Stirring Bar 8mm Cylindrical Stirring Bar 12mm RE Octagonal Stirring Bar 13mm Pivot Ring Stirring Bar 12x4.5mm Pivot Ring Stirring Bar 12x6mm Pivot Ring Stirring Bar 12x6mm Pivot Ring Stirring Bar 15mm Elliptical Stirring Bar 15mm Elliptical Stirring Bar 15mm RE Elliptical Stirring Bar 15mm RE Elliptical Stirring Bar 25mm RE Oval Stirring Bar 40mm Oval Stirring Bar 45mm Hub Stirring Bar 62mm Hub Stirring Bar 62mm Hub Stirring Bar 70mm Spinring Stirring Bar 31mm Spinring Stirring Bar 44mm Spinring Stirring Bar 57mm PTFE Magnetic Stirring Bar Evaluation Kit PTFE Magnetic Stirring Bar Evaluation Kit - for flasks PTFE Magnetic Stirring Bar Restrainer	40 20 5 40 20 20 40 40 40 20 10 5 5 1 1 1 1 1 1 1 1 1 1 1

Cat No Description	Pk Qty
Test Tubes RR94005 24x150 T/Tube with Rim (Medium Wall) RR94010 24x150 T/Tube without Rim (Medium Wall) RR94015 16x100 T/Tube with Rim (Medium Wall) RR94020 16x100 T/Tube without Rim (Medium Wall) RR94025 12x100 T/Tube without Rim (Medium Wall) RR94030 12x100 T/Tube without Rim (Medium Wall)	100 100 100 100 100 100
Round Bottom Flasks RR94040 500ml Round Bottom Flask 24/29 Socket RR94050 250ml Round Bottom Flask 24/29 Socket RR94060 150ml Round Bottom Flask 19/26 Socket RR94060 150ml Round Bottom Flask 24/29 Socket RR94070 100ml Round Bottom Flask 19/26 Socket RR94075 100ml Round Bottom Flask 24/29 Socket RR94080 50ml Round Bottom Flask 24/29 Socket RR94080 50ml Round Bottom Flask 19/26 Socket RR94090 25ml Round Bottom Flask 19/26 Socket RR94095 25ml Round Bottom Flask 19/26 Socket RR94105 10ml Round Bottom Flask 19/26 Socket RR94110 5ml Round Bottom Flask 14/23 Socket RR94111 5ml Round Bottom Flask 10/19 Socket 5ml Round Bottom Flask 10/19 Socket 5ml Round Bottom Flask 10/19 Socket	5555555555555555
Round Bottom Flasks with Sidearm RR94145 500ml R/B Flask 24/29 with 19/26 Sidearm RR94150 250ml R/B Flask 24/29 with 19/26 Sidearm RR94155 100ml R/B Flask 24/29 with 19/26 Sidearm RR94160 50ml R/B Flask 14/23 with 14/23 Sidearm RR94165 25ml R/B Flask 14/23 with 14/23 Sidearm	1 2 2 2 2
Azeotropic Flask RR94250 250ml Azeotropic Reaction Flask 24/29 with 19/26 Sidearm	1
Condensers RR94180 Liebig Condenser 250mm 24/29 RR94185 Liebig Condenser 250mm 24/29 RR94190 Liebig Condenser 250mm 29/32 RR94195 Coil Condenser 165mm 19/26 RR94200 Coil Condenser 165mm 24/29 RR94205 Coil Condenser 165mm 29/32 RR94210 Allihn Condenser 250mm 19/26 RR94215 Allihn Condenser 250mm 24/29 RR94220 Allihn Condenser 250mm 29/32	1 1 1 1 1 1 1
Soxhlet RR94230 20ml Soxhlet 19/26 Cone 24/29 Socket RR94235 40ml Soxhlet 24/29 Cone 29/32 Socket RR94240 60ml Soxhlet 24/29 Cone 34/25 Socket RR94245 100ml Soxhlet 24/29 Cone 40/38 Socket	1 1 1
Right Angle Adapters RR94260 Adapter B19 Cone to SQ13 Screwthread RR94265 Adapter B24 Cone to SQ13 Screwthread RR94270 Adapter B29 Cone to SQ13 Screwthread RR94275 Adapter B34 Cone to SQ13 Screwthread	5 5 5 5
Stirring Hotplates RR91200 Carousel Standard Stirring Hotplate 230BV 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 sisteel sensor, Pt1000 Clamping System + Support Rod and RR91204 Carousel Advanced Stirring Hotplate 230v UK Plug RR91205 Carousel Advanced Stirring Hotplate + Pt1000 230v UK Plug	1 1 1 1 d Cable Guide. 1
Hotplates available in other voltages, please add /EURO, /SWISS or /USA to end of Cat.	. No.
Pt1000 Temperature Sensors and Accessories RR91226 Pt1000 S/S 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 5 litres) RR91229 Support Rod (13mm x 425mm) RR71127 Support Rod (13mm x 340mm) RR71125 Support Rod (13mm x 340mm) RR71120 Support Rod Hotblate Adapter (extension plate)	1 1 1 1 1
RR71120 Support Rod Hotplate Adapter (extension plate) RR91234 RS232 Interface Cable - 15 Pin to 9 Pin	1





Shire Hill, Saffron Walden, Essex, CB11 3AZ. United Kingdom. t: +44 1799 513320 f: +44 1799 513283 e: sales@radleys.co.uk