

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 with multiple positions allowing 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 spills, mess and accidents. **Universal 3 or 5-Way 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 quick to assemble. · Compact - store spare components in a draw Water Manifold and 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

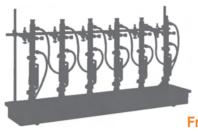
Synthesis, distillation, extraction

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







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



12mm Ø x 9 14mm deep



15mm Ø x 9 17mm deep



17mm Ø x 7 17mm deep



21mm Ø x 3 17mm deep



12mm Ø x 9 25mm deep



16mm Ø x 9 25mm deep



24mm Ø v 3 27mm deep



25mm Ø x 3 27mm deep

MonoBlocks, PolyBlocks and aluminium inserts for flasks



250ml x 5



500ml x 3



250ml x 1



5ml Insert



10ml Insert



25ml Insert



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 guick 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



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 RR95500 Strap and Long Handle RR95410 Strap and Long Handle RR95415 S-way Clamp with Silicone Strap and Long Handle RR95415 S-way Clamp with Silicone Strap and Long Handle RR95415 S-way Clamp with Silicone Strap and Long Handle RR95415 S-way Clamp with Velcro RR95415 S-way Clamp with Silicone Strap and Long Handle RR95415 S-way Clamp with Velcro RR95415 S-way Clamp with Velcro Strap and Long Handle



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

RR94105

10ml 10/19 socket

10ml 14/23 socket

RR94010

Test Tube

24mm ø x 150mm

without rim

RR94005 with rim

Test tubes, flasks, condensers and soxhlets

RR94115

5ml 10/19 socket

5ml 14/23 socket

Adapter 19/26

Adapter 24/29

Adapter 29/32

Adapter 34/35

RR94030

Test Tube

12mm ø x 100mm

RR94025 with rim

StarFish will also accommodate glassware from the Radleys' Carousel 12 Plus, 6 Plus and GreenHouse Plus



165mm 19/26

Coil Condenser

165mm 24/29

Coil Condenser

PTFE Magnetic Stirring Bars

RR94020

Test Tube

16mm ø x 100mm

without rim

RR94015 with rim

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

25ml 19/26 socket

25ml 24/29 socket

25ml 14/23 socket

+ 14/23 sidearm

40ml Soxhlet 24/29

60ml Soxhlet 24/29

100ml Soxhlet 24/29



250mm 19/26

Allihn Condenser

250mm 24/29

Allihn Condense

"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



208mm 19/26

Liebig Condenser

250mm 24/29

Liebia Condenser

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
MonoBlocks RR95125 RR95130 RR95135 RR95140 RR95145 RR95150 RR95155 RR95165 RR95165 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 17mm 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 (1 dram) MonoBlock for 40 x 12mm Vials (2 ml)	1 1 1 1 1 1 1 1 1
PolyBlocks RR95230 RR95235 RR95240 RR95245 RR95250 RR95255 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 12mm Tubes PolyBlock for 3 x 22mm Vials PolyBlock for 3 x 22mm 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 (2 dram) PolyBlock for 9 x 12mm Vials (2ml)	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
Universal Ci RR95450 RR95412 RR95430 RR95432 RR95440 RR95444 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 Bars RR98075 RR98075 RR959010 RR95910 RR95910 RR981113 RR98070 RR98071 RR980961 RR98096 RR98097 RR99064 RR95920 RR95921 RR95921 RR95916 RR95917 RR95926 RR95927 RR95927 RR95927 RR98094 RR98094 RR98094 RR980114	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 12mm 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 RE Elliptical Stirring Bar 15mm RE Elliptical Stirring Bar 25mm RE Oval Stirring Bar 40mm Oval Stirring Bar 45mm Hub Stirring Bar 45mm Hub Stirring Bar 62mm Hub Stirring Bar 70mm Spinring Stirring Bar 31mm Spinring Stirring Bar 44mm Spinring Stirring Bar 44mm Spinring Stirring Bar 57mm PTFE Magnetic Stirring Bar Evaluation Kit PTFE Magnetic Stirring Bar Retriever 350mm Magnetic Stirring Bar Retriever 350mm Magnetic Stirring Bar Restrainer	40 20 5 40 20 20 40 40 40 20 11 5 5 1 1 1 1 1 1

Cat No	Description	Pk Qty
Test Tubes RR94005 RR94010 RR94015 RR94020 RR94025 RR94030	24x150 T/Tube with Rim (Medium Wall) 24x150 T/Tube without Rim (Medium Wall) 16x100 T/Tube with Rim (Medium Wall) 16x100 T/Tube without Rim (Medium Wall) 12x100 T/Tube with Rim (Medium Wall) 12x100 T/Tube without Rim (Medium Wall)	100 100 100 100 100 100
Round Bottle RR94040 RR94050 RR94055 RR94065 RR94065 RR94075 RR94075 RR94080 RR94080 RR94090 RR94090 RR94100 RR94105 RR94110 RR94115	om Flasks 500ml Round Bottom Flask 24/29 Socket 250ml Round Bottom Flask 24/29 Socket 250ml Round Bottom Flask 19/26 Socket 150ml Round Bottom Flask 19/26 Socket 150ml Round Bottom Flask 19/26 Socket 150ml Round Bottom Flask 19/26 Socket 100ml Round Bottom Flask 19/26 Socket 100ml Round Bottom Flask 19/26 Socket 50ml Round Bottom Flask 19/26 Socket 50ml Round Bottom Flask 19/26 Socket 25ml Round Bottom Flask 19/26 Socket 25ml Round Bottom Flask 19/26 Socket 10ml Round Bottom Flask 19/26 Socket 10ml Round Bottom Flask 19/26 Socket 10ml Round Bottom Flask 10/19 Socket 5ml Round Bottom Flask 10/19 Socket	5555555555555555
RR94145 RR94150 RR94155 RR94160 RR94165	om Flasks with Sidearm 500ml R/B Flask 24/29 with 19/26 Sidearm 250ml R/B Flask 24/29 with 19/26 Sidearm 100ml R/B Flask 24/29 with 19/26 Sidearm 50ml R/B Flask 14/23 with 14/23 Sidearm 25ml R/B Flask 14/23 with 14/23 Sidearm	1 2 2 2 2
Azeotropic I RR94250	Flask 250ml Azeotropic Reaction Flask 24/29 with 19/26 Sidearm	1
Condensers RR94180 RR94185 RR94190 RR94195 RR94200 RR94205 RR94210 RR94215 RR94220	Liebig Condenser 208mm 19/26 Liebig Condenser 250mm 24/29 Liebig Condenser 250mm 29/32 Coil Condenser 165mm 19/26 Coil Condenser 165mm 24/29 Coil Condenser 165mm 29/32 Allihn Condenser 250mm 19/26 Allihn Condenser 250mm 24/29 Allihn Condenser 250mm 29/32	1 1 1 1 1 1 1
Soxhlet RR94230 RR94235 RR94240 RR94245	20ml Soxhlet 19/26 Cone 24/29 Socket 40ml Soxhlet 24/29 Cone 29/32 Socket 60ml Soxhlet 24/29 Cone 34/25 Socket 100ml Soxhlet 24/29 Cone 40/38 Socket	1 1 1
Right Angle RR94260 RR94265 RR94270 RR94275	Adapters Adapter B19 Cone to SQ13 Screwthread Adapter B24 Cone to SQ13 Screwthread Adapter B29 Cone to SQ13 Screwthread Adapter B34 Cone to SQ13 Screwthread	5 5 5 5
RR91200 RR91290 Includes Stand RR91203 RR91206 RR91291 Includes Tech RR91204 RR91205	irring Hotplates Carousel Standard Stirring Hotplate 230v UK Plug Carousel Standard Package 230v UK Plug Carousel Standard Package 230v UK Plug Carousel Tech Stirring Hotplate 230v UK Plug Carousel Tech Stirring Hotplate 230v UK Plug Carousel Tech Stirring Hotplate + Pt1000 230v UK Plug Carousel Tech Package 230v UK Plug Stirring Hotplate, Pt1000 S/Steel Sensor, Support Rod & Sensor Clamp. Carousel Advanced Stirring Hotplate 230v UK Plug Carousel Advanced Stirring Hotplate + Pt1000 230v UK Plug tes are available in other voltages. Please add /EURO or /USA to the end of Cat	1 1 1 1 1 1
	e Controllers & Sensors	NO.
RR91210	Carousel Temperature Controller for Standard Stirring Hotplates 125 Temp Sensor Support Rod and RR71120 Support Rod Hotplate Adapter Pt1000 S/S Sensor for Tech & Advanced Stirring Hotplates Pt1000 Glass Coated Sensor for Tech & Advanced Stirring Hotplates Temperature Sensor Holder Support Rod (13mm x 425mm) Support Rod (13mm x 500mm) Support Rod (13mm x 340mm) Support Rod (13mm x 340mm) Support Rod Hotplate Adapter (extension plate)	1 s 1 1 1 1 1

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