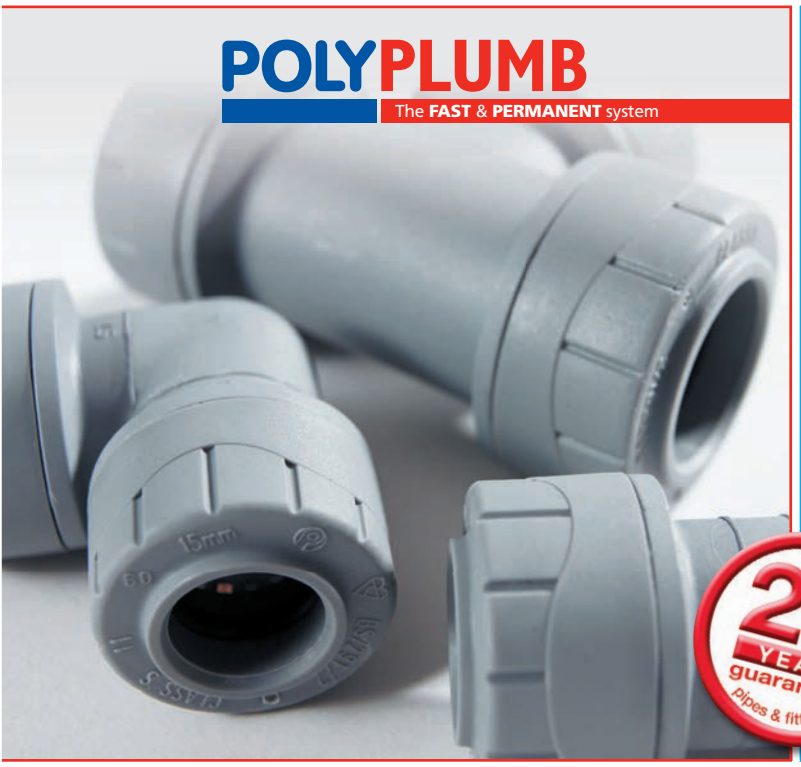
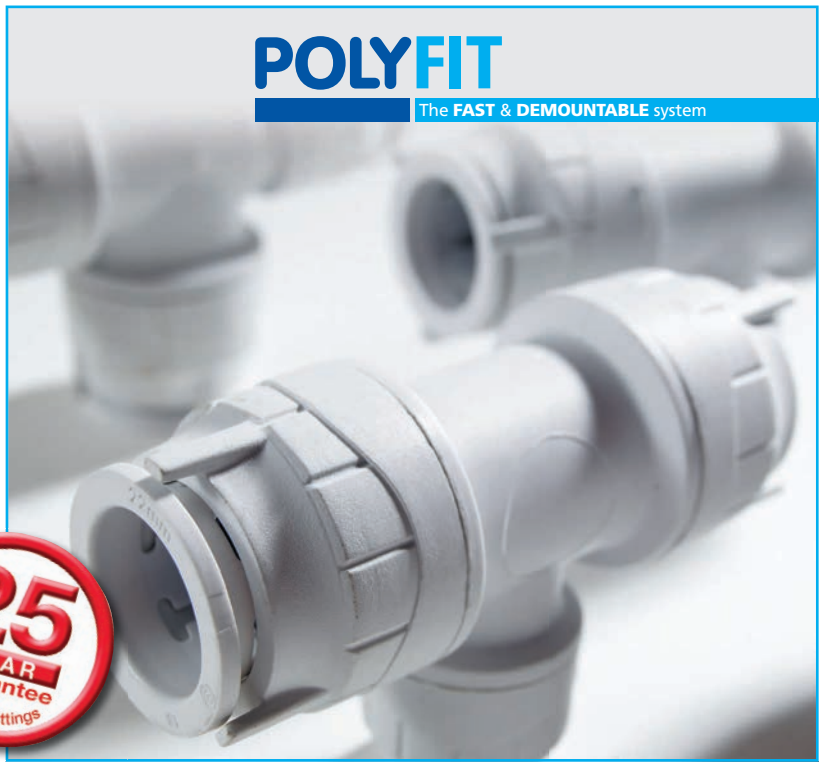
PPHS2-IPG | MAY 2015





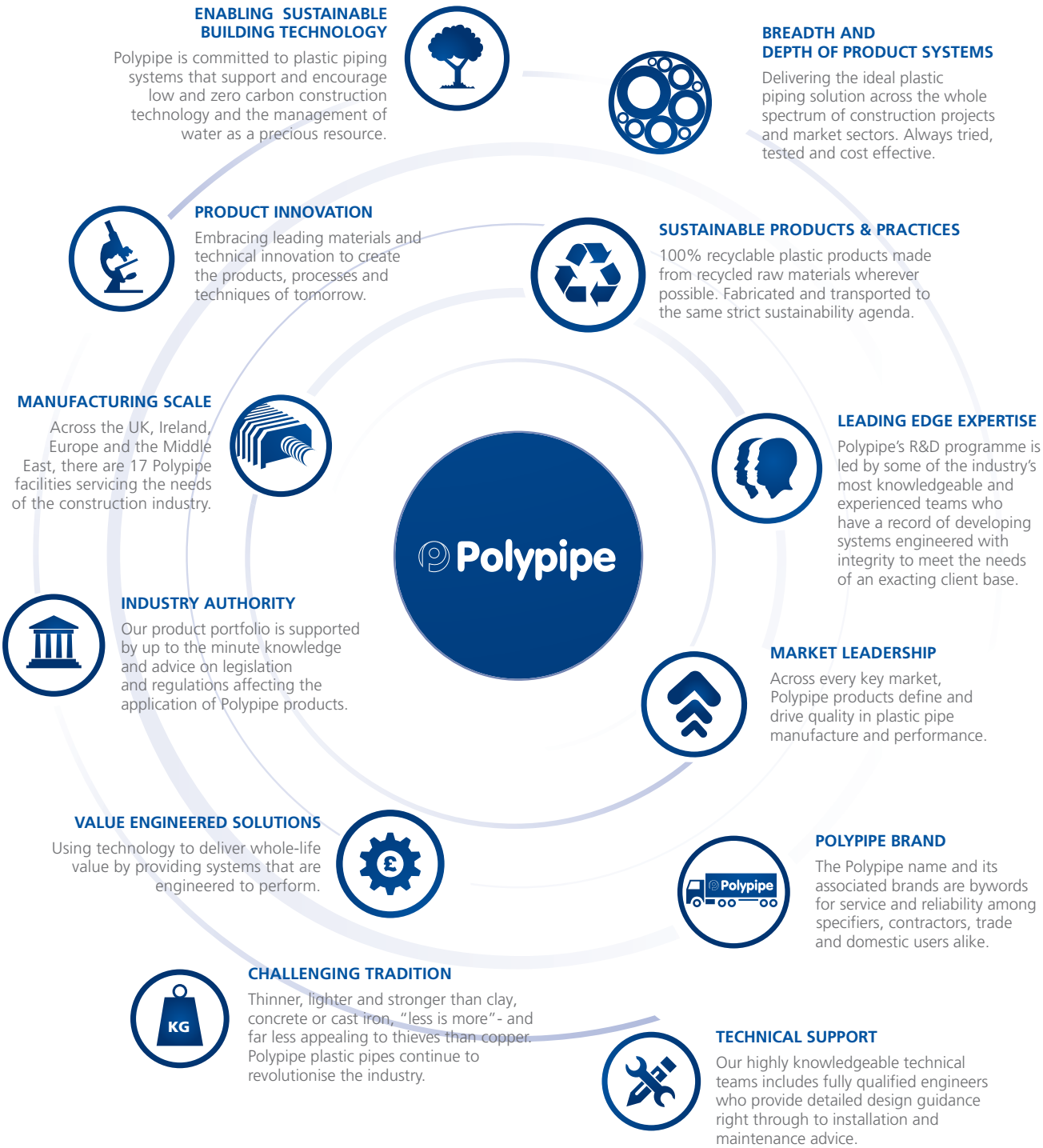
Plumbing Systems

Product Range & Technical Installation Guide

Polypipe

Polypipe

We design, develop and manufacture the widest range of plastic piping products, with over 20,000 product lines available. Our primary focus is on developing and supporting pragmatic product systems through specific knowledge and understanding of the residential, commercial, civils and infrastructure market sectors. We ensure that customers can trust our unrivalled expertise to provide value engineered, fit for purpose piping solutions for the growing diversity and complexity of construction and building technology challenges they face.



ENABLING SUSTAINABLE BUILDING TECHNOLOGY

Polypipe is committed to plastic piping systems that support and encourage low and zero carbon construction technology and the management of water as a precious resource.

BREADTH AND DEPTH OF PRODUCT SYSTEMS

Delivering the ideal plastic piping solution across the whole spectrum of construction projects and market sectors. Always tried, tested and cost effective.

PRODUCT INNOVATION

Embracing leading materials and technical innovation to create the products, processes and techniques of tomorrow.

SUSTAINABLE PRODUCTS & PRACTICES

100% recyclable plastic products made from recycled raw materials wherever possible. Fabricated and transported to the same strict sustainability agenda.

MANUFACTURING SCALE

Across the UK, Ireland, Europe and the Middle East, there are 17 Polypipe facilities servicing the needs of the construction industry.

LEADING EDGE EXPERTISE

Polypipe's R&D programme is led by some of the industry's most knowledgeable and experienced teams who have a record of developing systems engineered with integrity to meet the needs of an exacting client base.

INDUSTRY AUTHORITY

Our product portfolio is supported by up to the minute knowledge and advice on legislation and regulations affecting the application of Polypipe products.

MARKET LEADERSHIP

Across every key market, Polypipe products define and drive quality in plastic pipe manufacture and performance.

VALUE ENGINEERED SOLUTIONS

Using technology to deliver whole-life value by providing systems that are engineered to perform.

POLYPIPE BRAND

The Polypipe name and its associated brands are bywords for service and reliability among specifiers, contractors, trade and domestic users alike.

CHALLENGING TRADITION

Thinner, lighter and stronger than clay, concrete or cast iron, "less is more"- and far less appealing to thieves than copper. Polypipe plastic pipes continue to revolutionise the industry.

TECHNICAL SUPPORT

Our highly knowledgeable technical teams includes fully qualified engineers who provide detailed design guidance right through to installation and maintenance advice.

Plumbing & Heating Systems Contents

Contents

Design, Application and Installation Information

In this Product Guide any references to generic terms such as "the products", "our plumbing systems", or similar terms, are intended to refer to Polyplumb and Polyfit systems.

Application Driven Product Solutions

Polypipe has developed distinct plumbing systems, each designed to meet its own set of application criteria. Polypipe enables you to choose the system most appropriate for your project, match it with the correct Polypipe pipe, and install the system with confidence.

Use the overview below as a quick guide to our products and consult the individual product sections within this product guide for more detailed information.

EVERY JOB IS COVERED!

FM00318

POLYPLUMB

The **FAST** and **PERMANENT** system

PUSH FIT

The system offers a number of benefits, including:

- Time efficient, no nonsense one step joint process
- High performance stainless steel grab ring ensures superb joint integrity
- Demountable only by dis-assembling, reducing potential for tampering
- The original Polypipe pushfit plumbing system used and relied on by customers throughout the world

POLYFIT

The **FAST** and **DEMOUNTABLE** system

PUSH FIT

The system offers a number of benefits, including:

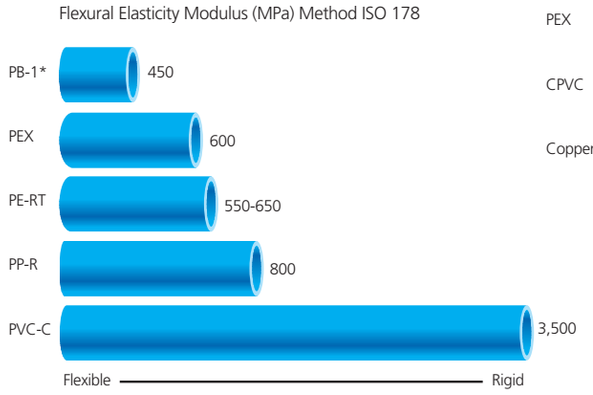
- One step operation, for quick and easy installation
- Flexible polybutylene pipe, for even the most difficult locations
- Fittings lock tight, preventing accidental release
- Fully demountable and re-usable when required

Polybutene Pipe: Flexible & Sustainable

At the heart of our systems is our commitment to Polybutene pipe. Unlike a number of other plumbing manufacturers, we choose Polybutene to create the most flexible and efficient pipes and plumbing systems available. Polybutene pipe is ideal for both domestic hot and cold water plumbing and heating systems, offering exceptional durability and long-term performance, which has seen it become the preferred material choice for today's building projects.

The most important characteristic of Polybutene is its natural flexibility, allowing you to bend, curve and manipulate the pipe into even the tightest of spaces. Polybutene is the most malleable plastic used in the manufacture of piping systems.

The table below shows the modulus of elasticity or rigidity of Polybutene compared with a range of piping systems:



*PB-1 is the chemical name for Polybutene

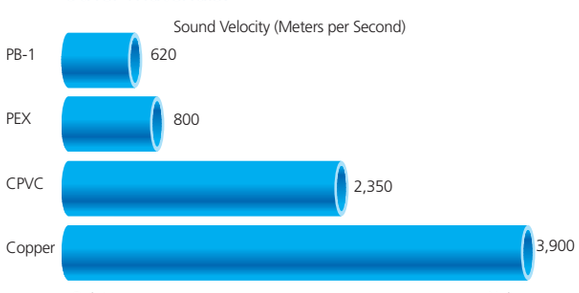
Within the manufacturing cycle Polybutene doesn't require chemical or radiation cross linking, which reduces the number of production processes, leading to faster and more efficient manufacturing.

Polybutene pipe has good resistance to freezing temperatures, maintaining long-term durability in heating and water applications. This, combined with the pipe's elasticity, means that if water is subjected to freezing temperatures, the result will be a reduced possibility of burst pipes.

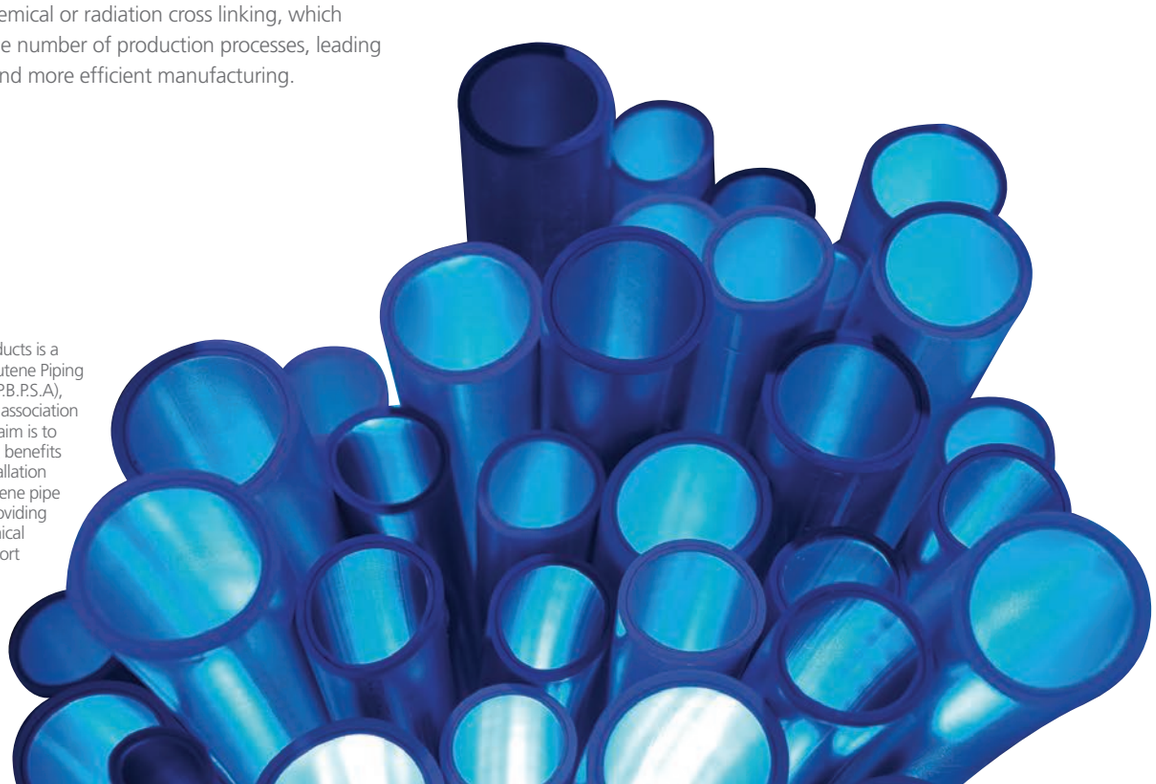
Polybutene pipe has low thermal conductivity. Its co-efficient of thermal expansion is 1.3 x 10-4m/m°C. It accommodates expansion by its natural flexibility.

Our plumbing systems give better performance than rigid pipe systems in terms of low noise transmission and low water hammer effect.

The table below highlights the sound velocity of Polybutene pipe compared with other materials:



Polypipe Building Products is a member of the Polybutene Piping Systems Association (P.B.P.S.A), which is a recognised association of companies whose aim is to promote the features, benefits and best practice installation techniques of Polybutene pipe systems, as well as providing a wide range of technical information and support



Pipe selection

Cut length or "Plumb straight"

Although "Plumb Straight" coiled pipe is designed to effectively straighten when un-coiled, where the visual appearance of pipe is important, i.e. short visible sections of 22mm pipe in cylinder cupboards, pipe cut from straight lengths may be preferred.
NOTE: Polybutene pipe must not be used for long permanently exposed runs of pipe where appearance is important. Both straight and coiled pipes are flexible.

Standard or Barrier

As barrier pipes contain an EVOH barrier layer to reduce oxygen ingress into the system through the pipe wall it is our opinion that these pipes must be used on central heating systems. When tested to DIN 4726 and DIN 4727 barrier pipes give an oxygen permeability less than the value of 0·1g (m3d) specified in DIN 4726. The use of corrosion inhibitor in central heating systems is acceptable provided that the inhibitor is specifically designed for plastic piping systems and guidance on their suitability should be sought from the inhibitor manufacturer prior to adding to the system.

Both barrier and standard pipes can be used in hot and cold water supplies.

PIPE LENGTH	PIPE SIZE							
	10mm		15mm		22mm		28mm	
	white	grey	white	grey	white	grey	white	grey
2m			●		●			
3m			●	●	●	●	●	●
6m			●	●	●	●	●	●
25m	●		●	●	●	●	●	●
50m	●	●	●	●	●	●	●	●
100m	●	●	●	●				
120m			●					
150m			●	●				

Pipe in pipe is available in grey only in the following variants:

• 10mm x 50m • 15mm x 25 and 50m • 22mm x 25m

Plain conduit pipe is available for 15mm and 22mm pipes in 25m and 50m lengths in black, red and blue

Polypipe Pipe options

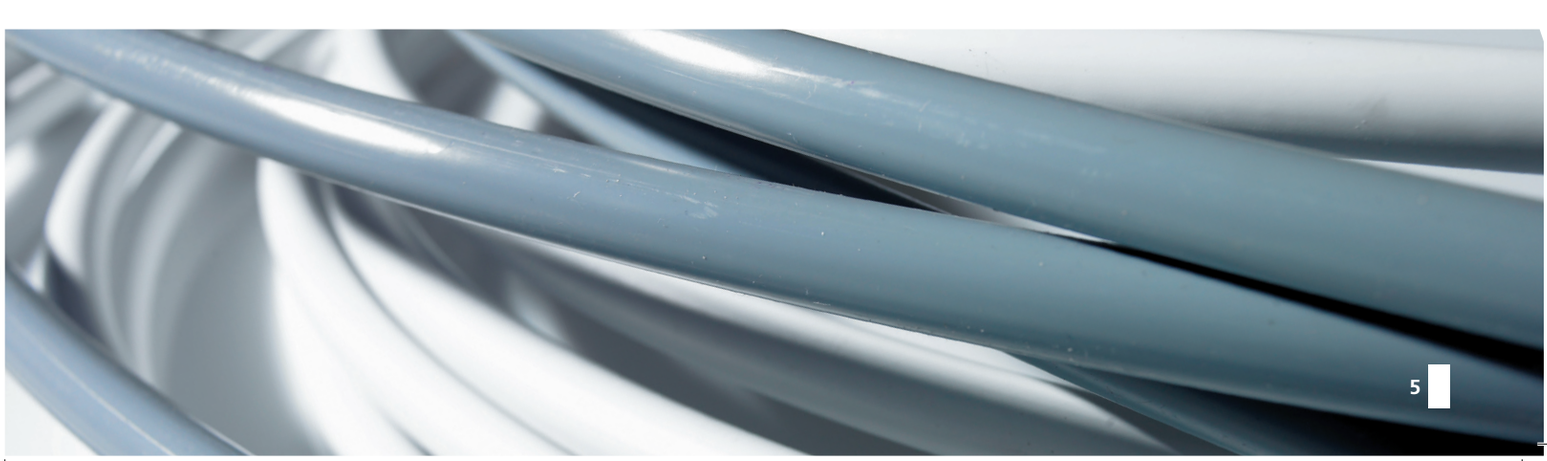
Polypipe offers a range of pipe options and sizes to complement each of our fitting systems and to suit every project:

Grey Polyplumb Polybutene pipe, available in standard 'monolayer' and barrier versions.

White Polyfit Polybutene pipe, available in barrier versions only.

Polyplumb pipe in pipe systems consist of a Polybutene barrier pipe encased within a black, red or blue conduit pipe. The conduit provides protection for the Polybutene pipe during the installation process, as well as allowing easy withdrawal for future alteration or maintenance.

The conduit pipe coils allow 15mm and 22mm Polyplumb pipe to be laid in a concrete floor with concrete walls. When conduit pipe is used in conjunction with conduit boxes, it provides a cost effective and practical solution, as an alternative to other ducting systems.



POLYPLUMB

The **FAST** and **PERMANENT** system

Polyplumb is an integrated flexible plumbing system, incorporating Polybutene pipes and a complimentary range of push-fit fittings. It can be used in hot and cold water supply, and radiator and floor heating installations. The system offers a high degree of reliability, achieved through a product design that has been tried and tested over the past 30 years.

The system offers a number of benefits, including:

- Time efficient, no nonsense one step joint process
- High performance stainless steel grab ring ensures superb joint integrity
- Demountable only by dis-assembling, reducing potential for tampering
- The original Polypipe pushfit plumbing system used and relied on by customers throughout the world

Jointing

There are five vital stages to successfully jointing the Polyplumb system.

Step 1a: Cutting Polyplumb pipes

Firstly check that the pipe is not scored or scratched in any way and if it is so cut back to a point where there is no damage present.

Always use one of the approved pipe cutters (code PB781 or PB778).

A slight rotation of the pipe when cutting will help make cutting easier. Never use a hacksaw and always cut on a depth insertion mark. These "K" shaped marks are equally spaced along the pipe and indicate the depth required for full insertion in to a Polyplumb socket fitting.

Insertion depth markers on fittings

Each fitting now has an insertion depth marker on the fitting body to aid with installation. The only way of being certain that a joint has been completed successfully is by using the insertion depth marks on the pipe for cutting and insertion purposes.

Step 2: Use of pipe stiffener

Pipe stiffeners are an integral part of the joint when using Polyplumb pipe with either Polyplumb fittings or compression fittings and need to be fully inserted in to the pipe end.

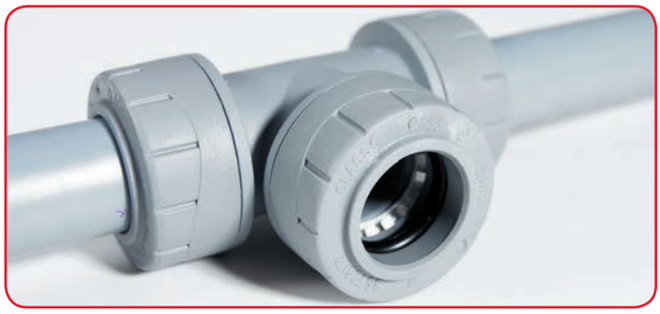
Step 3: Visual check of fitting and fitting components

Although every single socket is visually checked during the manufacturing process to ensure that all components are present and in the correct order, a further visual check must be carried out as tampering by others can take place on site or during distribution.

CAUTION - Do not insert fingers into the Polyplumb fittings, as the grab ring is sharp and designed to grip.

Step 4: Insert pipe fully into fitting

The pipe should be inserted into the fitting to full socket depth such that the insertion depth mark aligns with the outer end of the cap nut on the fitting.



Step 5: Grab ring check

A quick tug on the pipe will confirm that the pipe is inserted past the grab ring and that a grab ring was present in the fitting. It does not however ensure that the pipe is fully inserted as this can only be confirmed by using the depth insertion mark.

IMPORTANT NOTE: Avoidance of re-jointing

On no account should a pipe be removed from a jointed Polyplumb fitting by removing the cap-nut and withdrawing the pipe end complete with all the socket components from the fitting to be rejointed without removing and replacing the grab-ring into the fitting and re-making the joint in accordance with the normal Polyplumb jointing procedure.

If the pipe end complete with all the socket components is subsequently re-jointed into the body of a fitting, there is a risk that the outer edge of the grab-ring could catch on the outer end or the inside surface of the socket of the fitting which forces the grab-ring into an angled position on the pipe. Forcing the grab-ring into an angled position on the pipe in this way, seriously damages the grab-ring teeth and will reduce the pull-out performance of the joint when subjected to pressure, such that premature failure will almost certainly occur with the potential for serious injury.

WARNING

All jointing instructions must be followed at all times with particular attention being paid to correct insertion depths. If a pipe is not inserted fully into a fitting through both the O ring seal and the grab ring then the incorrect assembly will come apart. The pipe will then have an open end which will result in water discharging un-intentionally. As our products can be used on hot water and heating systems there is the potential for serious injury should this situation occur with hot water.

Cutting copper pipe for insertion in a Polyplumb fitting

Wherever possible, use a rotational pipe cutter when cutting copper pipe. Ensure that all cut ends have a rounded lead in, with burrs removed. **Never use a hacksaw.** You will need to mark the insertion depth on the pipe as below.

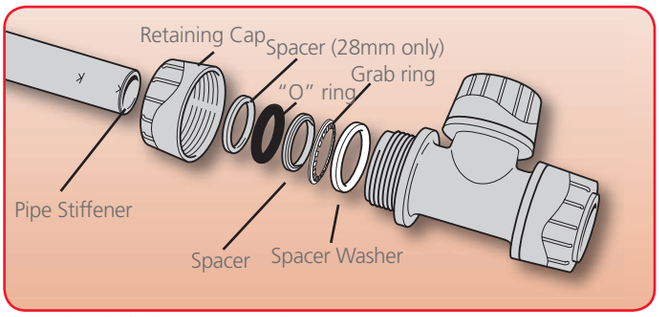
Insertion Depth				
Pipe diameter (mm)	10	15	22	28
Insertion depth (mm)	22	27	30	35

Dismantling a Polyplumb joint

Polyplumb fittings must not be dismantled for any reason prior to jointing.

Step 1: Procedure for using the component pack of spares Dismantling the joint

If it is necessary to remove a jointed pipe from a fitting, the cap-nut should be unscrewed and the pipe with all the socket components present on the pipe end should be pulled out of the socket of the fitting. The pipe end complete with all the socket components should be cut off and discarded. A complete component pack of socket spares should be fitted to the socket as described below and pipe jointing should be carried out as described left.



Polyplumb fittings general arrangement

Step 2: Replacement components

The component pack (Code: PB95XX) is supplied as a cap-nut with all the socket components present in the correct order and retained by a retaining cap.

Step 3: Preparing components

Completely remove the retaining cap, ensuring that the socket components remain within the cap-nut.

Step 4: Replacing the components

Without removing any of the socket components from the cap-nut, introduce the cap-nut and socket components to the socket of the fitting and tighten up the cap-nut by hand ensuring that the components enter the socket without snagging.

Step 5: Checking the fitting

Carry out a visual check to ensure that all socket components are present in the correct order as shown in the diagram and that the rubber 'O'ring is lubricated. If in doubt, the 'O'ring should be re-lubricated using Polyplumb silicone lubricant.

Reduced component fittings

Changes have been made to 15mm Polyplumb couplers, elbows and tees and 22mm Polyplumb elbows and tees, which need to be considered when using Polyplumb spares kits with these fittings, as follows:

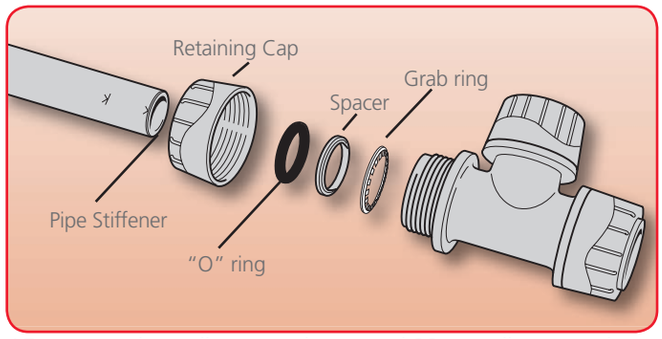
Step 1: Original Polyplumb fittings

If the bottom white washer is present in the fitting below the grab-ring, then the spares kit can be used as supplied without making any changes.

Step 2: New Polyplumb fittings

If there is no bottom white washer present below the grab-ring with one of the five listed fittings then this is one of the fittings which has been modified.

Before the spares kit is used, the carrier moulding should be carefully removed from the cap-nut and the bottom white washer should be removed and discarded without changing the order of any of the other components. After this has been done, the spares kit should be offered up to the socket of the fitting, inserting the components into the socket in the order they are within the kit and then screwing down the cap-nut onto the outside of the socket.



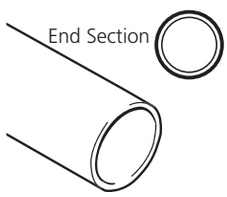
15mm couplers, elbows and tees and 22mm elbows and tees

System testing

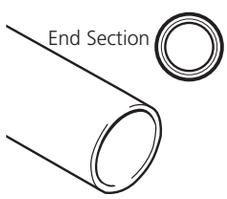
Prior to completing installation it is necessary to fully test the installed system. Please refer to the section on page 40 of this Product Guide for system testing guidance.

Polyplumb Standard & Barrier Pipe

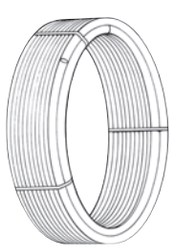
Standard Polybutene Pipe Cut Length	Pack Qty	Code No
15mm x 3 metre Cut Length	10	PB315
15mm x 6 metre Cut Length	10	PB615
22mm x 3 metre Cut Length	10	PB322
22mm x 6 metre Cut Length	10	PB622
28mm x 3 metre Cut Length	10	PB328
28mm x 6 metre Cut Length	10	PB628



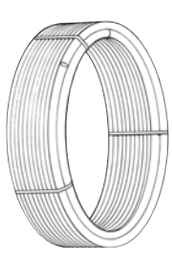
Barrier Polybutene Pipe Cut Length	Pack Qty	Code No
15mm x 3 metre Cut Length	10	PB315B
15mm x 6 metre Cut Length	10	PB615B
22mm x 3 metre Cut Length	10	PB322B
22mm x 6 metre Cut Length	10	PB622B
28mm x 3 metre Cut Length	10	PB328B
28mm x 6 metre Cut Length	10	PB628B



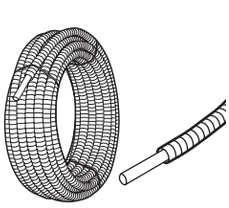
Standard Polybutene Pipe Coils - *Featuring "Plumb Straight" coiling technology*	Pack Qty	Code No
10mm x 50 metre Coil	1	PB5010
10mm x 100 metre Coil	1	PB10010
15mm x 25 metre Coil	1	PB2515
15mm x 50 metre Coil	1	PB5015
15mm x 100 metre Coil	1	PB10015
22mm x 25 metre Coil	1	PB2522
22mm x 50 metre Coil	1	PB5022



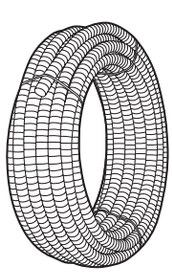
Barrier Polybutene Pipe Coils - *Featuring "Plumb Straight" coiling technology*	Pack Qty	Code No
10mm x 50 metre Coil	1	PB5010B
10mm x 100 metre Coil	1	PB10010B
15mm x 25 metre Coil	1	PB2515B
15mm x 50 metre Coil	1	PB5015B
15mm x 100 metre Coil	1	PB10015B
15mm x 150 metre Coil	1	PB15015B
22mm x 25 metre Coil	1	PB2522B
22mm x 50 metre Coil	1	PB5022B
28mm x 25 metre Coil	1	PB2528B
28mm x 50 metre Coil	1	PB5028B



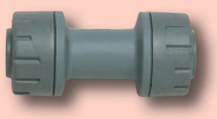
Barrier Pipe-in-Pipe	Pack Qty	Code No
10mm x 50 metre Coil	1	PIP5010B
15mm x 25 metre Coil	1	PIP2515B
15mm x 50 metre Coil	1	PIP5015B
22mm x 25 metre Coil	1	PIP2522B



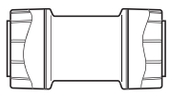
Conduit Pipe Coils - *Polypropylene*	Pack Qty	Code No
15mm x 25 metre Conduit Pipe Coil (Black)	1	CPC1525
15mm x 50 metre Conduit Pipe Coil (Black)	1	CPC1550
22mm x 25 metre Conduit Pipe Coil (Black)	1	CPC2225
22mm x 50 metre Conduit Pipe Coil (Black)	1	CPC2250
15mm x 25 metre Conduit Pipe Coil (Red)	1	CPC1525R
15mm x 50 metre Conduit Pipe Coil (Red)	1	CPC1550R
22mm x 25 metre Conduit Pipe Coil (Red)	1	CPC2225R
22mm x 50 metre Conduit Pipe Coil (Red)	1	CPC2250R
15mm x 25 metre Conduit Pipe Coil (Blue)	1	CPC1525BU
15mm x 50 metre Conduit Pipe Coil (Blue)	1	CPC1550BU
22mm x 25 metre Conduit Pipe Coil (Blue)	1	CPC2225BU
22mm x 50 metre Conduit Pipe Coil (Blue)	1	CPC2250BU



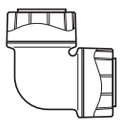
Polyplumb Fittings

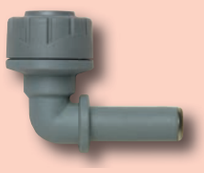


Straight Coupler	Pack Qty	Code No
10mm Straight Coupler	10	PB010
15mm Straight Coupler	10	PB015
22mm Straight Coupler	10	PB022
28mm Straight Coupler	5	PB028

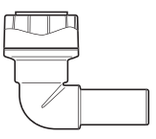


Elbow	Pack Qty	Code No
10mm Elbow	10	PB110
15mm Elbow	10	PB115
22mm Elbow	10	PB122
28mm Elbow	5	PB128



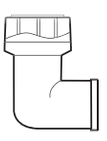


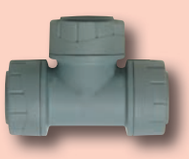
Spigot Elbow	Pack Qty	Code No
10mm Spigot Elbow	10	PB1010
10mm x 15mm Spigot Elbow	10	PB101510
15mm Spigot Elbow	10	PB1015
22mm Spigot Elbow (not suitable for use with compression fittings)	10	PB1022



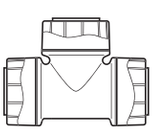
Female Elbow *(Brass)*	Pack Qty	Code No
15mm x 1/2"	5	PB3015
22mm x 1/2"	5	PB302212
22mm x 3/4"	5	PB3022

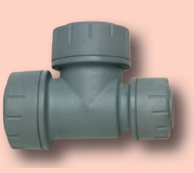
Use PTFE tape to seal threads



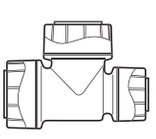


Equal Tee	Pack Qty	Code No
10mm Equal Tee	10	PB210
15mm Equal Tee	10	PB215
22mm Equal Tee	10	PB222
28mm Equal Tee	5	PB228

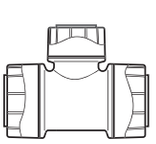




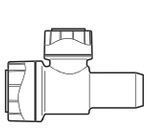
End Reduced Tee	Pack Qty	Code No
15mm x 10mm x 15mm End Reduced Tee	5	PB1415
22mm x 15mm x 22mm End Reduced Tee	5	PB1422
28mm x 22mm x 28mm End Reduced Tee	5	PB1428



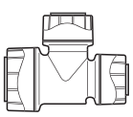
Branch Reduced Tee	Pack Qty	Code No
15mm x 15mm x 10mm Branch Reduced Tee	5	PB1115
22mm x 22mm x 10mm Branch Reduced Tee	5	PB112210
22mm x 22mm x 15mm Branch Reduced Tee	5	PB1122
28mm x 28mm x 22mm Branch Reduced Tee	5	PB1128

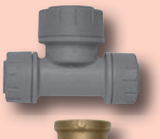


Branch Reduced Spigot Tee	Pack Qty	Code No
15mm x 15mm x 10mm Branch Reduced Spigot Tee	5	PB1215
22mm x 22mm x 15mm Branch Reduced Spigot Tee (not suitable for use with compression fittings)	5	PB1222

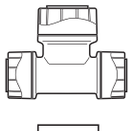


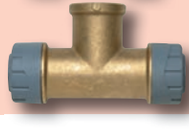
Branch and one End Reduced Tee	Pack Qty	Code No
15mm x 10mm x 10mm Branch & 1 End Reduced Tee	5	PB1515
22mm x 15mm x 15mm Branch & 1 End Reduced Tee	5	PB1522
28mm x 22mm x 22mm Branch & 1 End Reduced Tee	5	PB1528





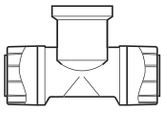
Two Ends Reduced Tee	Pack Qty	Code No
15mm x 15mm x 22mm 2 Ends Reduced Tee	5	PB1622



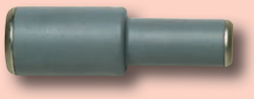


Female Tee *(Brass)*	Pack Qty	Code No
15mm x 1/2"	5	PB2915
22mm x 1/2"	5	PB292212

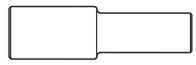
Use PTFE tape to seal threads

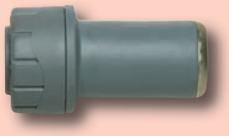


Polyplumb Fittings

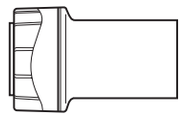


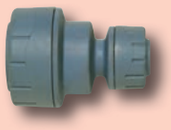
Spigot Reducer	Pack Qty	Code No
15mm x 10mm Spigot Reducer	5	PB815
22mm x 15mm Spigot Reducer (22mm end not suitable for use with compression fittings)	5	PB822
28mm x 22mm Spigot Reducer (not suitable for use with compression fittings)	5	PB828



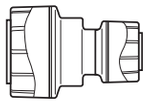


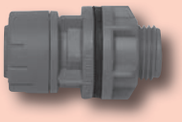
Socket Reducer	Pack Qty	Code No
15mm x 10mm Socket Reducer	10	PB1815
22mm x 15mm Socket Reducer (not suitable for use with compression fittings)	10	PB1822
28mm x 22mm Socket Reducer (not suitable for use with compression fittings)	5	PB1828



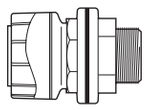


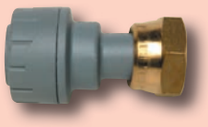
Reducing Coupling	Pack Qty	Code No
22mm x 10mm Socket Reducer	5	PB582210
22mm x 15mm Socket Reducer	5	PB5822



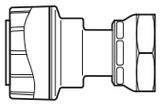


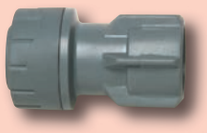
Tank Connector *(cold water only)*	Pack Qty	Code No
15mm x 1/2" Tank Connector	10	PB3815
22mm x 3/4" Tank Connector	10	PB3822
28mm x 1" Tank Connector	5	PB3828
Complete with E.P.D.M. Sealing Washer (tighten by hand)		



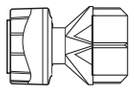


Straight Tap Connector *(Brass Connecting Nut)*	Pack Qty	Code No
15mm x 1/2" Straight Tap Connector (1)	10	PB715
15mm x 3/4" Straight Tap Connector (2)	5	PB71534
22mm x 3/4" Straight Tap Connector (2)	5	PB722
(1) Complete with E.P.D.M. Sealing Washer. Spare flat seal included (tighten by hand plus a further 1/4 of a turn with a spanner) (2) Complete with fibre sealing washer. (tighten by hand plus a further 1/6 of a turn with a spanner)		

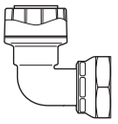


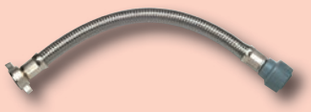


Hand Tighten Tap Connector *(not suitable for central heating)*	Pack Qty	Code No
15mm x 1/2" Hand Tighten Connector	10	PB2715
15mm x 3/4" Hand Tighten Connector	5	PB271534
22mm x 3/4" Hand Tighten Connector	5	PB2722
Complete with E.P.D.M. Sealing Washer		

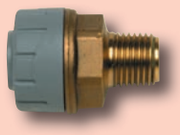


Bent Tap Connector *(Brass Connecting Nut)*	Pack Qty	Code No
15mm x 1/2" Bent Tap Connector	10	PB1715
Complete with E.P.D.M. Sealing Washer. Spare flat seal included (tighten by hand plus a further 1/4 of a turn with a spanner)		



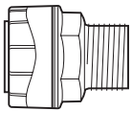


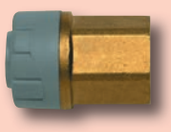
Flexible Hose Tap Connectors *(not suitable for central heating)*	Pack Qty	Code No
10mm x 1/2" Flexible Tap Connector	2	PB681012
15mm x 1/2" Flexible Tap Connector	2	PB6815
15mm x 3/4" Flexible Tap Connector	2	PB681534
22mm x 3/4" Flexible Tap Connector	2	PB6822



Male BSP Adaptor *(DZR Brass Body)*	Pack Qty	Code No
10mm x 1/4" MBSP Adaptor	10	PB4310
10mm x 3/8" MBSP Adaptor	10	PB431038
15mm x 1/2" MBSP Adaptor	10	PB4315
22mm x 3/4" MBSP Adaptor	10	PB4322
28mm x 1" MBSP Adaptor	5	PB4328

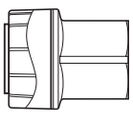
Taper BSP threads to BS21 only use PTFE tape to seal threads



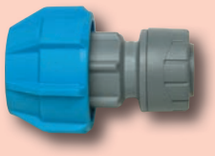


Female BSP Adaptor *(DZR Brass Body)*	Pack Qty	Code No
10mm x 1/4" Female BSP Adaptor	10	PB4410
10mm x 3/8" Female BSP Adaptor	10	PB441038
15mm x 1/2" Female BSP Adaptor	10	PB4415
15mm x 3/4" Female BSP Adaptor	10	PB441534
22mm x 3/4" Female BSP Adaptor	10	PB4422
28mm x 1" Female BSP Adaptor	5	PB4428

Parallel BSP threads to BS21 only use PTFE tape to seal threads

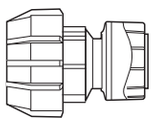


Polyplumb Fittings

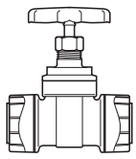


MDPE Polyfast Adaptor *(cold water only)*	Pack Qty	Code No
15mm x 20mm MDPE Adaptor	5	PB422015
15mm x 25mm MDPE Adaptor	5	PB422515
22mm x 25mm MDPE Adaptor	5	PB422522
22mm x 32mm MDPE Adaptor	5	PB423222
28mm x 32mm MDPE Adaptor	5	PB423228

All include MDPE 12 Bar Plastic Pipe Stiffener

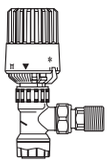


Gate Valve *(Brass)*	Pack Qty	Code No
15mm Gate Valve	5	PB3115
22mm Gate Valve	5	PB3122



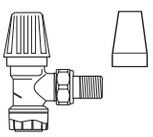
Thermostatic Radiator Valve *(Plated Brass)*	Pack Qty	Code No
10mm Thermostatic Radiator Valve	1	PB3310
15mm Thermostatic Radiator Valve	1	PB3315

Use PTFE tape to seal threads



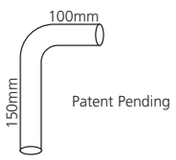
Radiator/Lockshield Valve *(Plated Brass)*	Pack Qty	Code No
10mm Radiator Valve	1	PB3210
15mm Radiator Valve	1	PB3215

Use PTFE tape to seal threads

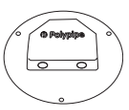


Radiator Connector *(Bend "RCB")*	Pack Qty	Code No
10mm Radiator Connector Bend	10	PB3910
15mm Radiator Connector Bend	10	PB3915

Pipe stiffeners must be used on each end

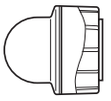


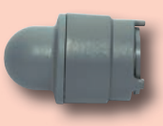
Radiator Terminal Plate	Pack Qty	Code No
Radiator Terminal Plate	10	RTP10



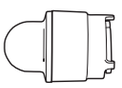
Spigot Blank Ends	Pack Qty	Code No
10mm Spigot Blank End	10	PB910
15mm Spigot Blank End	10	PB915
22mm Spigot Blank End (not suitable for use with compression fittings)	10	PB922
28mm Spigot Blank End (not suitable for use with compression fittings)	5	PB928

Socket Blank Ends	Pack Qty	Code No
10mm Socket Blank End	10	PB1910
15mm Socket Blank End	10	PB1915
22mm Socket Blank End	10	PB1922
28mm Socket Blank End	5	PB1928



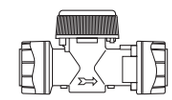


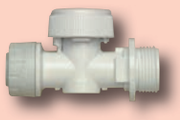
Demountable Socket Blank Ends	Pack Qty	Code No
10mm Demountable Socket Blank End	10	PB6910
15mm Demountable Socket Blank End	10	PB6915
22mm Demountable Socket Blank End	10	PB6922
28mm Demountable Socket Blank End	5	PB6928



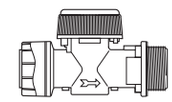
Polyplumb Fittings

Shut-Off Valve *(not suitable for central heating)*	Pack Qty	Code No
15mm x 15mm Shut-Off Valve - Warm/Cold	5	PB5915
(Please note these valves now contain a plain white index)		

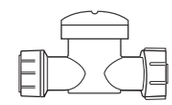




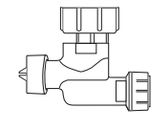
Appliance Valve *(not suitable for central heating)*	Pack Qty	Code No
15mm x 3/4" Appliance Valve - Warm/Cold	5	PB6115
(Please note these valves now contain a plain white index)		



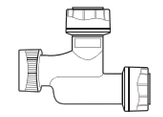
Straight Service Valve *(not suitable for central heating)*	Pack Qty	Code No
15mm x 1/2" Straight Service Valve	5	PB6515



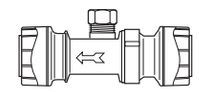
Bent Service Valve *(not suitable for central heating)*	Pack Qty	Code No
15mm x 1/2" 90° Bent Service Valve	5	PB6615

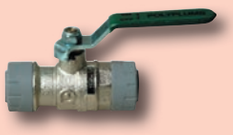


Bent Service Valves *(not suitable for central heating)*	Pack Qty	Code No
15mm x 15mm 90° Bent Service Valve	5	PB7915
(Please note these valves now contain a plain white index)		

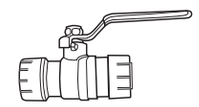


Double Check Valve *(not suitable for central heating)*	Pack Qty	Code No
15mm Double Check Valve	1	PB3715
22mm Double Check Valve	1	PB3722
28mm Double Check Valve	1	PB3728

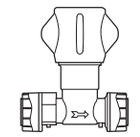


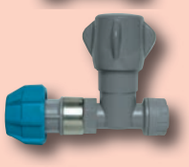


Quarter Turn Ball Valve *(Nickel Plated Brass)*	Pack Qty	Code No
15mm Quarter Turn Ball Valve	5	PB6715
22mm Quarter Turn Ball Valve	2	PB6722
28mm Quarter Turn Ball Valve	2	PB6728

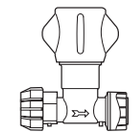


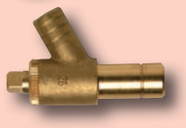
Stopcock *(cold water only)*	Pack Qty	Code No
15mm x 15mm Stopcock	5	PB2615
22mm x 22mm Stopcock	5	PB2622



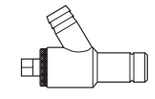


MDPE Stopcocks *(Polyfast) (cold water only)*	Pack Qty	Code No
20mm MDPE x 15mm Polyfast Stopcock	5	PB262015
25mm MDPE x 15mm Polyfast Stopcock	5	PB262515
25mm MDPE x 22mm Polyfast Stopcock	5	PB262522

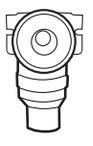




Spigot Draincock *(Brass)*	Pack Qty	Code No
15mm Spigot Draincock	10	PB3615

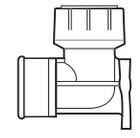


Conduit Terminal Box	Pack Qty	Code No
Conduit Terminal Box including 15mm x 1/2" Wall Plate Elbow	2	PB4515
Conduit Terminal Box Wall Plate	10	CTWP

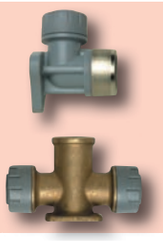


Wall Plate Elbow *(Brass)*	Pack Qty	Code No
15mm x 1/2" BSP Wall Plate Elbow	5	PB1315
22mm x 1/2" BSP Wall Plate Elbow	5	PB132212
28mm x 1/2" BSP Wall Plate Elbow	5	PB132812

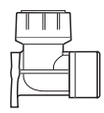
Use PTFE tape to seal threads



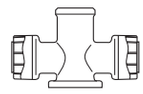
Polyplumb Fittings



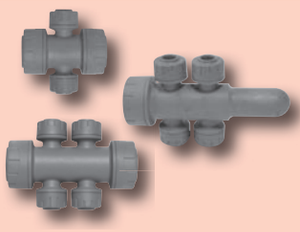
Wall Plate Elbow *(Plastic) (cold water only)*		Pack Qty	Code No
15mm x 1/2" BSP Wall Plate Elbow	Use PTFE tape to seal threads	5	PB5315
22mm x 1/2" BSP Wall Plate Elbow		5	PB532212
22mm x 3/4" BSP Wall Plate Elbow		5	PB5322



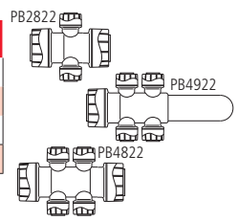
Wall Plate Tee *(Brass)*		Pack Qty	Code No
15mm x 1/2" BSP Wall Plate Tee	Use PTFE tape to seal threads	5	PB5115
22mm x 1/2" BSP Wall Plate Tee		5	PB512212

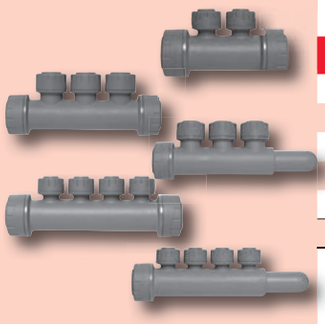


Polyplumb Manifold System

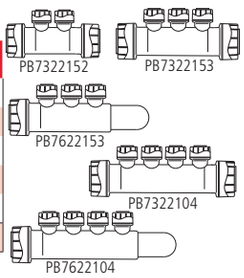


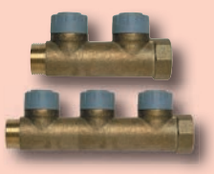
Polybutene Double Sided Manifold	Pack Qty	Code No
22mm x 10mm – 2 Port (Socket/Socket)	5	PB2822
22mm x 10mm – 4 Port (Socket/Socket)	5	PB4822
22mm x 10mm – 4 Port (Socket/Spigot)	5	PB4922
(use Ball Valve to convert to Valved Manifold)		



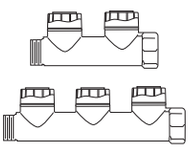


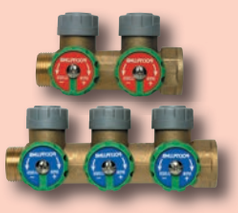
Polybutene Single Sided Manifold	Pack Qty	Code No
22mm x 15mm – 2 Port (Socket/Socket)	1	PB7322152
22mm x 15mm – 3 Port (Socket/Socket)	1	PB7322153
22mm x 15mm – 3 Port (Socket/Spigot)	1	PB7622153
22mm x 10mm – 4 Port (Socket/Socket)	1	PB7322104
22mm x 10mm – 4 Port (Socket/Spigot)	1	PB7622104
(use Ball Valve to convert to Valved Manifold)		



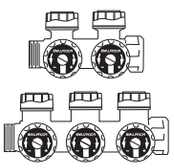


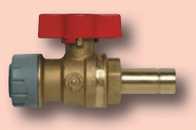
Brass Single Sided Manifold Unvalved *(Brass)*		Pack Qty	Code No
15mm x 3/4" Female/Male BSP 2 Port	Use PTFE tape to seal threads	1	PB47152
15mm x 3/4" Female/Male BSP 3 Port		1	PB47153



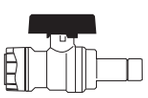


Brass Single Sided Manifold Valved *(Brass)*		Pack Qty	Code No
15mm x 3/4" Female/Male BSP 2 Port	Use PTFE tape to seal threads	1	PB5234152
15mm x 3/4" Female/Male BSP 3 Port		1	PB5234153





Ball Valve *(Brass)*	Pack Qty	Code No
15mm x 15mm Ball Valve – (Socket/Spigot)	5	PB4015
(use to convert Unvalved to Valved version)		

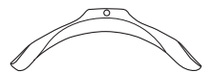


Manifold Bracket *(Metal)*	Pack Qty	Code No
3/4" Manifold Bracket	2	PB4634

Polyplumb Ancillaries

Bend Former	Pack Qty	Code No
15mm Bend Former	5	PB6315
22mm Bend Former	5	PB6322

Bend radius is 8 x Pipe diameter

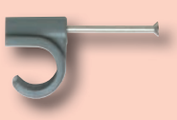


Pipe Stiffener *(Plastic)*	Pack Qty	Code No
10mm Pipe Stiffener	20	PB6410
15mm Pipe Stiffener	50	PB6415
22mm Pipe Stiffener	50	PB6422
28mm Pipe Stiffener	20	PB6428

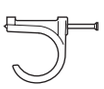
Must be used with Polybutene pipe

Pipe Stiffener *(Stainless Steel)*	Pack Qty	Code No
10mm Pipe Stiffener	20	PB6410M
15mm Pipe Stiffener	50	PB6415M
22mm Pipe Stiffener	50	PB6422M

Bulldog Clips *(Polypropylene)*	Pack Qty	Code No
15mm Bulldog Clip	50	PB2115
22mm Bulldog Clip	50	PB2122
28mm Bulldog Clip	50	PB2128

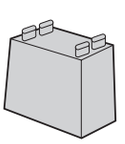


Nail-In Clips *(Polypropylene)*	Pack Qty	Code No
10mm Nail-In Clip	50	PB2210
15mm Nail-In Clip	50	PB2215
22mm Nail-In Clip	50	PB2222
28mm Nail-In Clip	50	PB2228



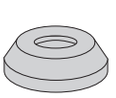
Snap-Fit Clips *(Polypropylene)*	Pack Qty	Code No
10mm Snap-Fit Clip	50	PB2310
15mm Snap-Fit Clip	50	PB2315
22mm Snap-Fit Clip	50	PB2322
28mm Snap-Fit Clip	50	PB2328

Pipe Clip Spacer *(Polypropylene)*	Pack Qty	Code No
10mm Pipe Clip Spacer	20	PB2410
15mm Pipe Clip Spacer	20	PB2415
22mm Pipe Clip Spacer	20	PB2422
28mm Pipe Clip Spacer	20	PB2428

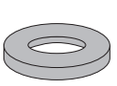


Spares Component Kit	Pack Qty	Code No
10mm Spares Component Kit	10	PB9510
15mm Spares Component Kit	10	PB9515
22mm Spares Component Kit	10	PB9522
28mm Spares Component Kit	5	PB9528
15mm Component Pack for Ireland Specification	10	IPB9515

Conical E.P.D.M. Sealing Washer *(for Tap Connector with brass nut)*	Pack Qty	Code No
1/2" Sealing Washer	20	PB9312
3/4" Sealing Washer	20	PB9334

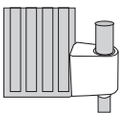


Flat E.P.D.M. Sealing Washer *(for Hand Tighten Tap Connector)*	Pack Qty	Code No
1/2" Sealing Washer	20	PB9412
3/4" Sealing Washer	20	PB9434



'O' Rings EPDM Rubber *(must be lubricated before use with Silicone Lubricant)*	Pack Qty	Code No
3/4" 'O' Ring	20	PB9034

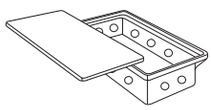
Valve Tidy Cover *(Polypropylene)*	Pack Qty	Code No
Radiator Valve Cover Complete with Pipe Adaptors for 10mm/8mm pipe	6	VT149



POLYPLUMB
The **FAST** & **PERMANENT** system

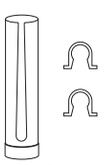
Polyplumb Ancillaries

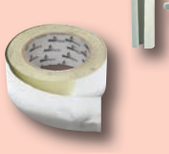
Junction Inspection Box *(Polypropylene)*	Pack Qty	Code No
Junction Box (75mm deep - grey)	1	JIB1
Junction Box Lid (12mm plywood)	1	JIB2
Junction Box (65mm deep - black)	1	JIB3



Silicone Lubricant, Solvent Cement and Cleaning Fluid	Pack Qty	Code No
Silicone Lubricant 100gm Screw Top Jar	10	SG100
Solvent Cement c/w Brush 125ml (BS6209)	10	SC125
Solvent Cement c/w Brush 250ml (BS6209)	10	SC250
Solvent Cement c/w Brush 500ml (BS6209)	10	SC500
Cleaning Fluid 250ml Tin	10	CF250

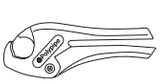
Boiler Overflow Pipe Guard	Pack Qty	Code No
Boiler Overflow Pipe Guard	1	BOPG50
(Pipe Guard comes with x 2 Pipe Clips)		



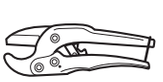


Self Adhesive Aluminium Tape	Pack Qty	Code No
48mm wide x 46 metres long	24	ALTP
(do not stick to Polyplumb pipes)		

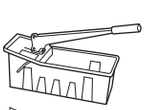
Pipe Cutters Standard	Pack Qty	Code No
V Bladed Standard Cutter 10mm to 22mm	1	PB781



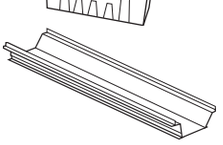
Pipe Cutters Ratchet	Pack Qty	Code No
Ratchet Type Cutters	1	PB778
Replacement Blade for Ratchet Cutter	1	PB779



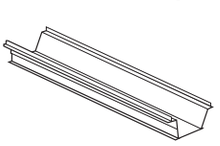
System Test Kit	Pack Qty	Code No
Polyplumb System Test Kit	1	PB993



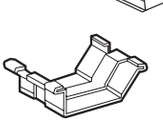
Under Floor Pipe Duct *(PVCu)*	Pack Qty	Code No
50mm depth x 150mm width x 3 metre For 10, 15 & 22mm Pipe	5	FD50
(requires 12mm thickness Cover Board)		



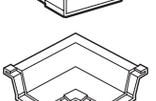
Under Floor Pipe Duct *(PVCu)*	Pack Qty	Code No
70mm depth x 150mm width x 3 metre For 28mm Pipe, Duct only - fittings fabricated on site	5	FD70
(requires 12mm Cover Board)		



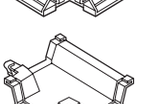
Push-Fit Union *(PVCu)*	Pack Qty	Code No
Double Socket for 50mm only	10	FD52



Push-Fit 90° Angle *(PVCu)*	Pack Qty	Code No
Double Socket for 50mm only	10	FD53



Push-Fit 90° Tee *(PVCu)*	Pack Qty	Code No
Triple Socket for 50mm only	10	FD54



Push-Fit End Cap *(PVCu)*	Pack Qty	Code No
Single Socket for 50mm only	10	FD55
(insert Solvent Weld pipe clips and base)		

Solvent Weld Pipe Clips *(for use with PVCu Pipe Duct)*	Pack Qty	Code No
15mm (ABS)	100	FDB15
22mm (ABS)	100	FDB22
28mm (ABS)	100	FDB28
Pipe Clip Base Plate (PVC)	100	FDB93

POLYFIT

The **FAST** and **DEMOUNTABLE** system

PUSH FIT

Polyfit is the one step, fully demountable and reusable pushfit plumbing product, using white polybutene pipe to create a truly flexible, yet highly secure, plumbing system.

The Polyfit system brings extensive benefits:

- One step operation, for quick and easy installation
- Flexible polybutene pipe, for even the most difficult locations
- Fittings lock tight, preventing accidental release
- Fully demountable and re-usable when required

'Push click', that's it

The polybutene pipe is simply inserted into the Polyfit fitting to engage. There's no need to make a quarter locking turn, just 'push click', that's it.

Locked tight

Polyfit fittings lock tight in one click and can only be released when required, providing both installers and consumers with total piece of mind. Once engaged into the fitting it is completely secure against accidental release.

Fully demountable

Polyfit fittings have been designed to be completely secure once installed. However, there will always be times when they need to be removed or adjusted, so they are also fully demountable when required.

Jointing

There are four stages to successfully jointing the Polyfit system.

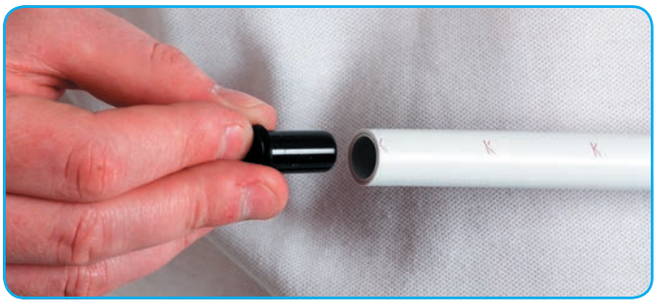
Step 1: Cutting Polyfit pipes

Firstly check that the pipe is not scored or scratched in any way and if it is so cut back to a point where there is no damage present.

Using an approved pipe cutter cut the pipe squarely using the "K" marks on the pipe as a guide.

Step 2: Use of pipe stiffener

Insert a pipe stiffener into the pipe (not required on copper pipes).



Step 3: Inserting pipe into fitting

Push pipe into the fitting, ensuring it is inserted to the full socket depth denoted by the next "K" mark on the pipe.

Insertion depth markers on fittings

Each fitting now has an insertion depth marker on the fitting body to aid with installation. The only way of being certain that a joint has been completed successfully is by using the insertion depth marks on the pipe for cutting and insertion purposes.

Step 4: Checking the joint security

Tug back on pipe to check it is inserted fully.

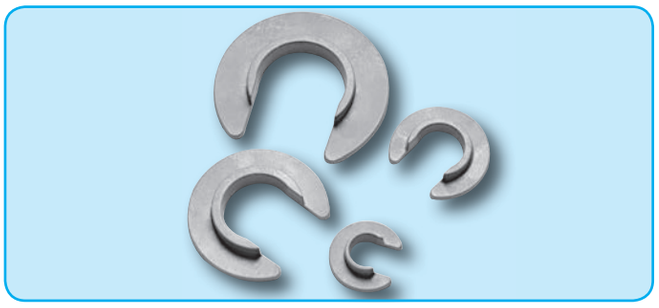
Connecting Polyfit to copper pipes

Cut the copper pipe using a rotational pipe cutter. Mark the copper pipe insertion depth as shown in the table below. Follow steps 3 and 4 using the mark as a socket depth guide.

Insertion Depth				
Pipe diameter (mm)	10	15	22	28
Insertion depth (mm)	25	35	42	44

Demounting a Polyfit joint

Polyfit fittings are fully demountable and re-usable. To demount a Polyfit fitting simply depress the collet squarely towards the fitting and pull the pipe out of the fitting. When systems have been pressurised the collet is designed to grip into the pipe therefore using a fitting release aid (product code FITAID) will assist in demounting fittings.



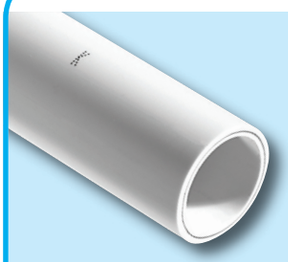
System testing

Prior to completing installation it is necessary to fully test the installed system. Please refer to the section on page 40 of this Product Guide for system testing guidance.

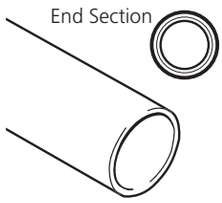
POLYFIT

The **FAST** & **DEMOUNTABLE** system

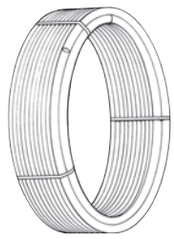
Polyfit Pipe & Fittings



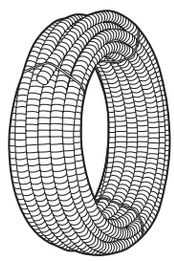
Barrier Polybutene Pipe Cut Length	Pack Qty	Code No
15mm x 2 metre Cut Length	10	FIT215B
15mm x 3 metre Cut Length	10	FIT315B
15mm x 6 metre Cut Length	10	FIT615B
22mm x 2 metre Cut Length	10	FIT222B
22mm x 3 metre Cut Length	10	FIT322B
22mm x 6 metre Cut Length	10	FIT622B
28mm x 3 metre Cut Length	10	FIT328B
28mm x 6 metre Cut Length	10	FIT628B



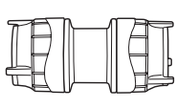
Barrier Polybutene Pipe Coils - *(featuring "Plumb Straight" Coiling Technology)*	Pack Qty	Code No
10mm x 25 metre Coil	1	FIT2510B
10mm x 50 metre Coil	1	FIT5010B
10mm x 100 metre Coil	1	FIT10010B
15mm x 25 metre Coil	1	FIT2515B
15mm x 50 metre Coil	1	FIT5015B
15mm x 100 metre Coil	1	FIT10015B
15mm x 120 metre Coil	1	FIT12015B
15mm x 150 metre Coil	1	FIT15015B
22mm x 25 metre Coil	1	FIT2522B
22mm x 50 metre Coil	1	FIT5022B
28mm x 25 metre Coil	1	FIT2528B
28mm x 50 metre Coil	1	FIT5028B



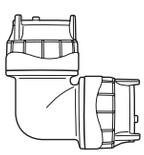
Conduit Pipe Coils *(Polypropylene)*	Pack Qty	Code No
15mm x 25 metre Conduit Pipe Coil (Black)	1	CPC1525
15mm x 50 metre Conduit Pipe Coil (Black)	1	CPC1550
22mm x 25 metre Conduit Pipe Coil (Black)	1	CPC2225
22mm x 50 metre Conduit Pipe Coil (Black)	1	CPC2250
15mm x 25 metre Conduit Pipe Coil (Red)	1	CPC1525R
15mm x 50 metre Conduit Pipe Coil (Red)	1	CPC1550R
22mm x 25 metre Conduit Pipe Coil (Red)	1	CPC2225R
22mm x 50 metre Conduit Pipe Coil (Red)	1	CPC2250R
15mm x 25 metre Conduit Pipe Coil (Blue)	1	CPC1525BU
15mm x 50 metre Conduit Pipe Coil (Blue)	1	CPC1550BU
22mm x 25 metre Conduit Pipe Coil (Blue)	1	CPC2225BU
22mm x 50 metre Conduit Pipe Coil (Blue)	1	CPC2250BU



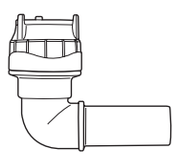
Straight Coupler	Pack Qty	Code No
10mm Straight Coupler	10	FIT010
15mm Straight Coupler	10	FIT015
22mm Straight Coupler	10	FIT022
28mm Straight Coupler	5	FIT028



Elbow	Pack Qty	Code No
10mm Elbow	10	FIT110
15mm Elbow	10	FIT115
22mm Elbow	10	FIT122
28mm Elbow	5	FIT128

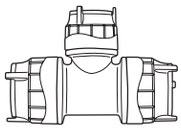


Spigot Elbow	Pack Qty	Code No
10mm Spigot Elbow	10	FIT1010
10mm x 15mm Spigot Elbow	10	FIT101510
15mm Spigot Elbow	10	FIT1015
22mm Spigot Elbow (not suitable for use with compression fittings)	10	FIT1022

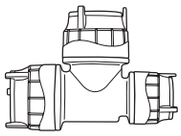


Polyfit Fittings

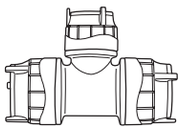
Equal Tee	Pack Qty	Code No
10mm Equal Tee	10	FIT210
15mm Equal Tee	10	FIT215
22mm Equal Tee	10	FIT222
28mm Equal Tee	5	FIT228



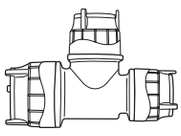
End Reduced Tee	Pack Qty	Code No
15mm x 10mm x 15mm End Reduced Tee	5	FIT1415
22mm x 15mm x 22mm End Reduced Tee	5	FIT1422
28mm x 22mm x 28mm End Reduced Tee	5	FIT1428



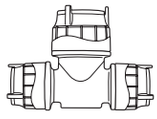
Branch Reduced Tee	Pack Qty	Code No
15mm x 15mm x 10mm Branch Reduced Tee	5	FIT1115
22mm x 22mm x 10mm Branch Reduced Tee	5	FIT112210
22mm x 22mm x 15mm Branch Reduced Tee	5	FIT1122
28mm x 28mm x 22mm Branch Reduced Tee	5	FIT1128



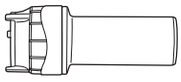
Branch and one End Reduced Tee	Pack Qty	Code No
15mm x 10mm x 10mm Branch & One End Reduced Tee	5	FIT1515
22mm x 15mm x 15mm Branch & One End Reduced Tee	5	FIT1522
28mm x 22mm x 22mm Branch & One End Reduced Tee	5	FIT1528



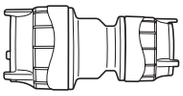
Two Ends Reduced Tee	Pack Qty	Code No
15mm x 15mm x 22mm 2 End Reduced Tee	5	FIT1622



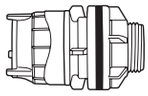
Socket Reducer	Pack Qty	Code No
15mm x 10mm Socket Reducer	10	FIT1815
22mm x 15mm Socket Reducer (not suitable for use with compression fittings)	10	FIT1822
28mm x 15mm Socket Reducer (not suitable for use with compression fittings)	10	FIT182815
28mm x 22mm Socket Reducer (not suitable for use with compression fittings)	5	FIT1828

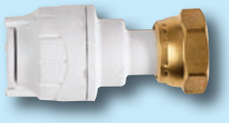


Reducing Coupler	Pack Qty	Code No
15mm x 10mm Reducing Coupler	5	FIT5815
22mm x 10mm Reducing Coupler	5	FIT582210
22mm x 15mm Reducing Coupler	5	FIT5822

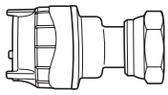


Tank Connector *(cold water only)*	Pack Qty	Code No
15mm x 1/2" Tank Connector	10	FIT3815
22mm x 3/4" Tank Connector	10	FIT3822
Complete with E.P.D.M. Sealing Washer (tighten by hand)		

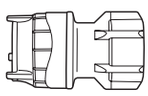




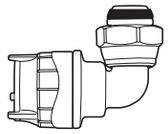
Straight Tap Connector *(Brass Connecting Nut)*	Pack Qty	Code No
15mm x 1/2" Straight Tap Connector (1)	10	FIT715
15mm x 3/4" Straight Tap Connector (2)	5	FIT71534
22mm x 3/4" Straight Tap Connector (2)	5	FIT722
(1) Complete with E.P.D.M. Sealing Washer. Spare flat seal included (tighten by hand plus a further 1/4 of a turn with a spanner) (2) Complete with fibre sealing washer(tighten by hand plus a further 1/6 of a turn with a spanner)		



Hand Tighten Tap Connector *(not suitable for central heating)*	Pack Qty	Code No
10mm x 1/2" Hand Tighten Tap Connector	10	FIT271012
15mm x 1/2" Hand Tighten Tap Connector	10	FIT2715
15mm x 3/4" Hand Tighten Tap Connector	5	FIT271534
22mm x 3/4" Hand Tighten Tap Connector	5	FIT2722
Complete with E.P.D.M. Sealing Washer		



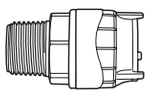
Bent Tap Connector *(Brass Connecting Nut)*	Pack Qty	Code No
15mm x 1/2" Bent Tap Connector	10	FIT1715
Complete with E.P.D.M. Sealing Washer. Spare flat seal included (tighten by hand plus a further 1/4 of a turn with a spanner)		

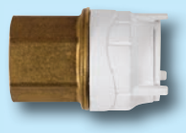


Polyfit Fittings

Male BSPT Adaptor *(DZR Brass Body)*	Pack Qty	Code No
10mm x 1/2" Male BSPT Adaptor	10	FIT431012
15mm x 1/2" Male BSPT Adaptor	10	FIT4315
22mm x 3/4" Male BSPT Adaptor	10	FIT4322
28mm x 1" Male BSPT Adaptor	5	FIT4328

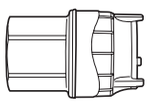
Taper BSP threads to BS21 only use PTFE tape to seal threads



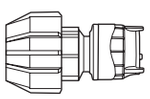


Female BSP Adaptor *(DZR Brass Body)*	Pack Qty	Code No
10mm x 1/2" Female BSP Adaptor	10	FIT441012
15mm x 1/2" Female BSP Adaptor	10	FIT4415
22mm x 3/4" Female BSP Adaptor	10	FIT4422

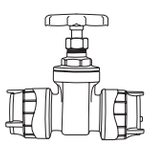
Taper BSP threads to BS21 only use PTFE tape to seal threads

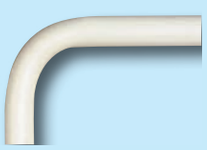


MDPE x PolyFit Adaptor *(cold water only)*	Pack Qty	Code No
20mm x 15mm MDPE x PolyFit Adaptor	5	FIT422015
25mm x 15mm MDPE x PolyFit Adaptor	5	FIT422515
25mm x 22mm MDPE x PolyFit Adaptor	5	FIT422522

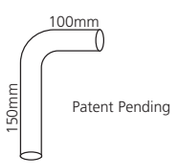


Gate Valve	Pack Qty	Code No
15mm Gate Valve	5	FIT3115
22mm Gate Valve	5	FIT3122

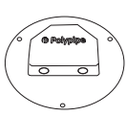




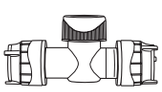
Radiator Connector Bend "RCB" *(Pipe Stiffeners must be used on each end)*	Pack Qty	Code No
10mm Radiator Connector Bend	10	PB3910
15mm Radiator Connector Bend	10	PB3915

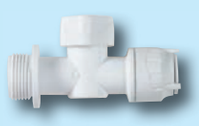


Radiator Terminal Plate	Pack Qty	Code No
Radiator Terminal Plate	10	RTP10

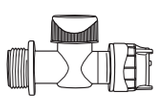


Shut-Off Valve *(not suitable for central heating)*	Pack Qty	Code No
15mm x 15mm Shut-Off Valve Warm/Cold	5	FIT5915
(Please note these valves now contain a plain white index)		

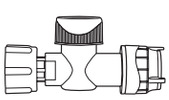


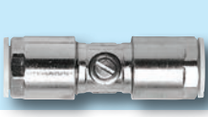


Appliance Valve *(not suitable for central heating)*	Pack Qty	Code No
15mm x 3/4" Appliance Valve Warm/Cold	5	FIT6115
(Please note these valves now contain a plain white index)		

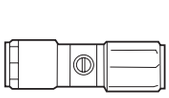


Service Valve *(not suitable for central heating)*	Pack Qty	Code No
15mm x 1/2" Straight Service Valve	5	FIT6515
(Please note these valves now contain a plain white index)		

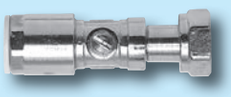




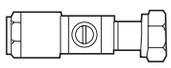
Chrome Plated Service Valve *(Brass)*	Pack Qty	Code No
15mm x 15mm Brass c/p Service Valve	5	FIT8515
22mm x 22mm Brass c/p Service Valve	5	FIT8522



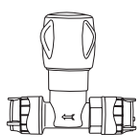
Polyfit Fittings



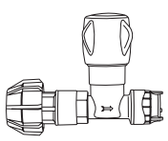
Chrome Plated Service Valve with Tap Connector *(Brass)*	Pack Qty	Code No
15mm x 1/2" Brass c/p Service Valve	5	FIT8615
22mm x 3/4" Brass c/p Service Valve	5	FIT8622

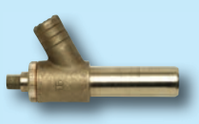


Stopcock *(cold water only)*	Pack Qty	Code No
15mm x 15mm Stopcock	5	FIT2615
22mm x 22mm Stopcock	5	FIT2622

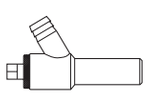


MDPE Stopcock *(cold water only)*	Pack Qty	Code No
20mm MDPE x 15mm Polyfit Stopcock	5	FIT262015
25mm MDPE x 22mm Polyfit Stopcock	5	FIT262522

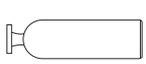




Spigot Draincock *(Brass)*	Pack Qty	Code No
15mm Spigot Draincock	10	FIT3615

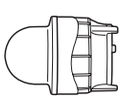


Spigot Blank Ends *(not suitable for use with compression fittings)*	Pack Qty	Code No
10mm Spigot Blank End	10	FIT910
15mm Spigot Blank End	10	FIT915
22mm Spigot Blank End	10	FIT922
(with reinforcing sleeve)		

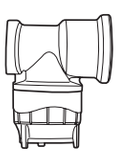


Socket Blank Ends	Pack Qty	Code No
10mm Socket Blank End	10	FIT1910
15mm Socket Blank End	10	FIT1915
22mm Socket Blank End	10	FIT1922
28mm Socket Blank End	5	FIT1928

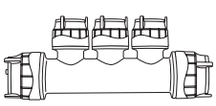
Use PTFE tape to seal threads



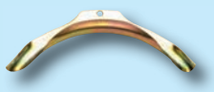
Wall Plate Elbow *(Brass)*	Pack Qty	Code No
15mm x 1/2" BSP Wall Plate Elbow	5	FIT1315



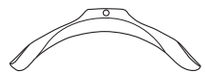
Polybutene Double Sided Manifold	Pack Qty	Code No
22mm x 10mm – 2 Port (Socket/Socket)	5	FIT2822
22mm x 10mm – 4 Port (Socket/Socket)	5	FIT4822
Polybutene Single Sided Manifold	**Pack Qty**	**Code No**
22mm x 10mm – 4 Port (Socket/Socket)	1	FIT7322104
22mm x 15mm – 3 Port (Socket/Socket)	1	FIT7322153



Polyfit Ancillaries



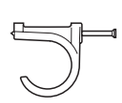
Bend Former	Pack Qty	Code No
15mm Bend Former	5	PB6315
22mm Bend Former	5	PB6322
(bend radius is 8 x pipe diameter)		

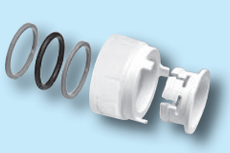


Pipe Stiffener *(Plastic)*	Pack Qty	Code No
10mm Pipe Stiffener	20	PB6410
15mm Pipe Stiffener	50	PB6415
22mm Pipe Stiffener	50	PB6422
28mm Pipe Stiffener	20	PB6428
(must be used with Polybutene pipe)		

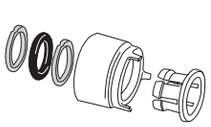
Pipe Stiffener *(Stainless Steel)*	Pack Qty	Code No
10mm Pipe Stiffener	20	PB6410M
15mm Pipe Stiffener	50	PB6415M
22mm Pipe Stiffener	50	PB6422M
(must be used with Polybutene pipe)		

Nail-In Clips *(Polypropylene)*	Pack Qty	Code No
10mm Nail-In Clip	50	FIT2210
15mm Nail-In Clip	50	FIT2215
22mm Nail-In Clip	50	FIT2222
28mm Nail-In Clip	50	FIT2228

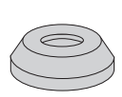




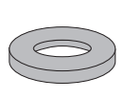
Spares Component Kit	Pack Qty	Code No
10mm Spares Component Kit	10	FIT9510
15mm Spares Component Kit	10	FIT9515
22mm Spares Component Kit	10	FIT9522
28mm Spares Component Kit	5	FIT9528



Conical E.P.D.M. Sealing Washer For Tap Connector with Brass Nut	Pack Qty	Code No
1/2" Sealing Washer	20	PB9312
3/4" Sealing Washer	20	PB9334

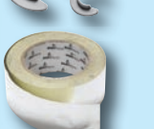


Flat E.P.D.M. Sealing Washer For Hand Tighten Tap Connector	Pack Qty	Code No
1/2" Sealing Washer	20	PB9412
3/4" Sealing Washer	20	PB9434

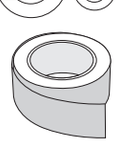


'O'-Rings *(EPDM Rubber)*	Pack Qty	Code No
3/4" 'O'Ring	20	PB9034
(must be lubricated before use with Silicone Lubricant)		

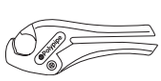
PolyFit Fitting Release Aid	Pack Qty	Code No
Set of 4 for 10mm, 15mm, 22mm and 28mm fittings, a useful tool to assist in demounting PolyFit fittings, but not essential	Per Set	FITAID



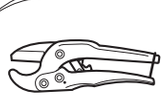
Self Adhesive Aluminium Tape	Pack Qty	Code No
48mm wide x 46 metres long	24	ALTP
(do not stick to Polyplumb pipes)		



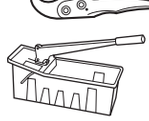
Pipe Cutters Standard	Pack Qty	Code No
V Bladed Standard Cutter 10mm to 22mm	1	PB781



Pipe Cutters Ratchet	Pack Qty	Code No
Ratchet Type Cutters	1	PB778
Replacement Blade for Ratchet Cutter	1	PB779

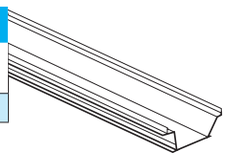


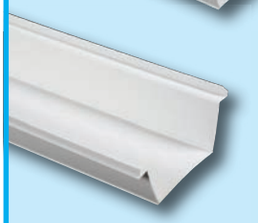
System Test Kit	Pack Qty	Code No
Polyplumb System Test Kit	1	PB993



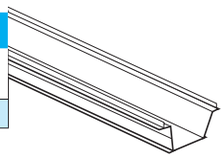
Polyfit Ancillaries

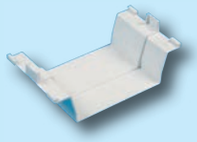
Underfloor Pipe Duct *(PVCu)*	Pack Qty	Code No
50mm depth x 150mm width x 3 metre For 10, 15 & 22mm Pipework	5	FD50
(requires 12mm thickness Cover Board)		



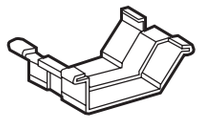


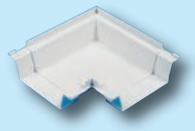
Underfloor Pipe Duct *(PVCu)*	Pack Qty	Code No
70mm depth x 150mm width x 3 metre For 28mm Pipework	5	FD70
Requires 12mm Cover Board (Duct only - fittings fabricated on site)		



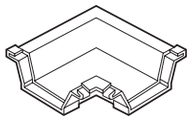


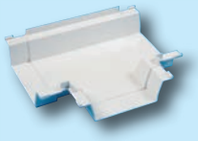
Push-Fit Union *(PVCu)*	Pack Qty	Code No
Double Socket for 50mm only	10	FD52



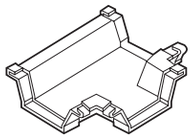


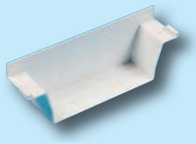
Push-Fit 90° Angle *(PVCu)*	Pack Qty	Code No
Double Socket for 50mm only	10	FD53



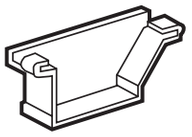


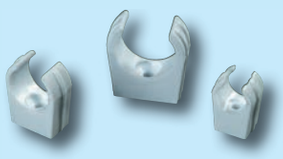
Push-Fit 90° Tee *(PVCu)*	Pack Qty	Code No
Triple Socket for 50mm only	10	FD54





Push-Fit End Cap *(PVCu)*	Pack Qty	Code No
Single Socket for 50mm only	10	FD55
(insert Solvent Weld pipe clips and base)		





Solvent Weld Pipe Clips *(for use with PVCu Pipe Duct)*	Pack Qty	Code No
15mm (ABS)	100	FDB15
22mm (ABS)	100	FDB22
28mm (ABS)	100	FDB28
Pipe Clip Base Plate (PVC)	100	FDB93

Silicone Lubricant, Solvent Cement and Cleaning Fluid	Pack Qty	Code No
Silicone Lubricant 100gm Screw Top Jar	10	SG100
Solvent Cement c/w Brush 125ml (BS6209)	10	SC125
Solvent Cement c/w Brush 250ml (BS6209)	10	SC250
Solvent Cement c/w Brush 500ml (BS6209)	10	SC500
Cleaning Fluid 250ml Tin	10	CF250

Flexible hose connectors are the latest great addition to the Polyfit product range. This versatile collection comes in a wide range of length and connection end combinations to suit every need. Many of our flexible connectors include the Polyfit one step joint feature, which are quick and easy to install and are ideal for use in tricky to reach or tight locations.

- All Polyfit hoses which have a tap connector nut now contain captive rubber seals ensuring that seals are not lost or damaged on site.
- All Polyfit flexible connectors are listed under the WaterRegulations Advisory Scheme. Look out for the black thread that is wound into each hose, which denotes a WRAS quality product. Each EPDM hose is suitable for use in domestic hot and cold water applications and must not be used for heating applications.
- Polyfit flexible hoses come in a packaging design which aids quick and easy product selection and all hoses come in pairs.

Selecting your Polyfit Flexible Connector

Polyfit Fitting 15mm and 22mm

Polyfit push fit connections. Just push, click, Polyfit ends are secure in use but also fully demountable and reusable.

Polyfit Chrome Plated Valve 15mm and 22mm

Connectors incorporating service valves to reduce the number of joints within a system. Incorporates the Polyfit push fit feature.

Tap Connection Nut 1/2" and 3/4"

These "wing nut" style tap connector nuts will only require hand tightening.

Compression Fitting 15mm and 22mm

Our compression end connectors use the same high quality components as the rest of the Polyfit push fit range.

Polyfit Fittings

Flexible Hose Tap Connector - *150mm long (not suitable for central heating)*	Pack Qty	Code No
15mm x 1/2" Flexible Hose Tap Connector	2	FIT5715

Flexible Hose Tap Connector - *300mm long (not suitable for central heating)*	Pack Qty	Code No
15mm x 1/2" Flexible Hose Tap Connector	2	FIT6815
15mm x 3/4" Flexible Hose Tap Connector	2	FIT681534
22mm x 3/4" Flexible Hose Tap Connector	2	FIT6822

Flexible Hose Tap Connector - *500mm long (not suitable for central heating)*	Pack Qty	Code No
15mm x 1/2" Flexible Hose Tap Connector	2	FIT8315
15mm x 3/4" Flexible Hose Tap Connector	2	FIT831534
22mm x 3/4" Flexible Hose Tap Connector	2	FIT8322

Flexible Hose Tap Connector - *1000mm long (not suitable for central heating)*	Pack Qty	Code No
15mm x 1/2" Flexible Hose Tap Connector	2	FIT8015
15mm x 3/4" Flexible Hose Tap Connector	2	FIT801534
22mm x 3/4" Flexible Hose Tap Connector	2	FIT8022

Polyfit Fittings


Flexible Hose Tap Connector with Service Valve - *300mm long (not suitable for central heating)*	Pack Qty	Code No
15mm x 1/2" Flexible Hose Tap Connector	2	FIT8415
22mm x 3/4" Flexible Hose Tap Connector	2	FIT8422

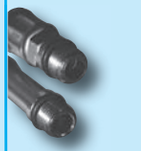

Flexible Hose Tap Connector with Service Valve - *500mm long (not suitable for central heating)*	Pack Qty	Code No
15mm x 1/2" Flexible Hose Tap Connector	2	FIT8715
15mm x 3/4" Flexible Hose Tap Connector	2	FIT871534


Flexible Polyfit Connector with Service Valve - *300mm long (not suitable for central heating)*	Pack Qty	Code No
15mm x 15mm Flexible Polyfit Connector	2	FIT8815


Flexible Polyfit Connector with Service Valve - *500mm long (not suitable for central heating)*	Pack Qty	Code No
15mm x 15mm Flexible Polyfit Connector	2	FIT8915


Flexible Polyfit Connector - *300mm long (not suitable for central heating)*	Pack Qty	Code No
15mm x 15mm Flexible Polyfit Connector	2	FIT8115
22mm x 22mm Flexible Polyfit Connector	2	FIT8122


Flexible Polyfit Connector - *500mm long (not suitable for central heating)*	Pack Qty	Code No
15mm x 15mm Flexible Polyfit Connector	2	FIT8215
22mm x 22mm Flexible Polyfit Connector	2	FIT8222

Monobloc Mixer Tap Flexible Connector - *300mm long (not suitable for central heating)*	Pack Qty	Code No
15mm x M10 Flexible Polyfit Connector	Set of 2	FIT7515M10
15mm x M12 Flexible Polyfit Connector	Set of 2	FIT7515M12
Supplied in pairs with offset nuts to aid installation to mixer tap		


Compression Flexible Hose Tap Connector - *300mm long (not suitable for central heating)*	Pack Qty	Code No
15mm x 1/2" Flexible Hose Tap Connector	2	FIT9615
22mm x 3/4" Flexible Hose Tap Connector	2	FIT9622


Compression Flexible Hose Tap Connector - *500mm long (not suitable for central heating)*	Pack Qty	Code No
15mm x 1/2" Flexible Hose Tap Connector	2	FIT9815
22mm x 3/4" Flexible Hose Tap Connector	2	FIT9822


Compression Flexible Hose Tap Connector with Service Valve - *300mm long (not suitable for central heating)*	Pack Qty	Code No
15mm x 1/2" Flexible Hose Tap Connector	2	FIT9715
22mm x 3/4" Flexible Hose Tap Connector	2	FIT9722


90° Elbow Flexible Hose Connector	Pack Qty	Code No
90° Elbow Flexible Hose Connector	2	FIT7115

DESIGN APPLICATION & INSTALLATION INFORMATION

The following information is designed to provide basic guidance for installers and specifiers when designing, planning and installing hot and cold water and heating systems using Polypipe products. The information is not exhaustive and guidance may change dependent on site conditions, applications and local practices. This document should be read in conjunction with all other installation and application instructions available. If in doubt please contact our technical services department on +971 (0)4 454 8328 .

Service Conditions

Polyplumb and Polyfit are suitable for the following Class S service conditions in a normal domestic operation (subject to the exceptions referred to in note[2] below):

(Continuously operated re-circulating systems are excluded from these applications)

Application	Nominal system flow temperature Tf °C (see explanatory note[1] below)	Maximum system service temperature Ts °C (see explanatory note[1] below)	System malfunction temperature Tm °C (see explanatory note[1] below)	System maximum working pressure bar
Indirect cold water systems	20	20	—	3½
Direct mains-fed cold water systems	20	20	—	12½
Subsurface heating systems (including Underfloor)	60	83	100	3½
Vented hot water supply systems	65	83	100	3½
Unvented hot water supply systems including instantaneous heaters and/or incorporating storage	65	95	100	6
Vented central heating systems	82	95	100	3½
Sealed central heating systems	82	105	114	3

Note[1]:

- nominal system flow temperature Tf is the intended maximum flow temperature of a system for a particular application as recommended in codes of practice and other guidance documents
- maximum system service temperature Ts is the maximum service temperature that can occur intermittently during normal operation
- system malfunction temperature Tm is the maximum temperature likely to be applied to pipes and fittings in the event of control thermostat failure or malfunction

Note[2]:

- Certain fittings in the Polyplumb and Polyfit ranges are not suitable for all the Class S service conditions. The limitations are indicated against every applicable fitting in the Trade Price List eg "Cold Water Only".

Connections to other materials

Connection to Imperial Copper using Polyplumb

Imperial ¾" copper pipe is of significantly different size to its metric 22mm counterpart and therefore requires a different 'O' ring to that supplied in the 22mm fitting. The 22mm 'O' ring should be replaced with a ¾" 'O' ring (PB9034). Standard 15mm fittings can be connected to Imperial ½" copper pipe, and 28mm fittings can be connected to 1" copper pipe.

Connection to European copper pipe

European copper pipe to IS238:1980 can be connected to Polyplumb fittings which incorporate the ¾" or 1" adaptor set. Using a standard 22mm or 28mm Polyplumb fitting, remove the nut and socket components and discard. Replace these parts with the relevant adaptor set, ¾" - PB7034 or 1" - PB701. The adaptor sets are distinguishable by the black cap nut.

Connections to chrome plated and stainless steel pipework

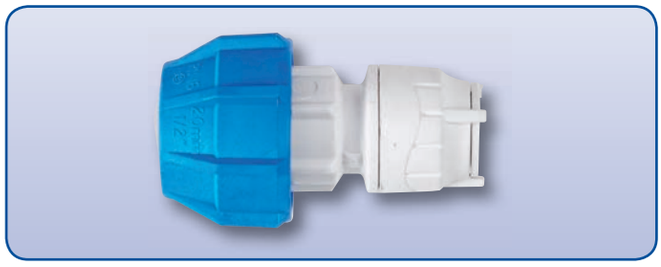
Polyplumb and Polyfit fittings should not be connected directly to chrome plated copper pipes or stainless steel pipes. To connect to these pipes we recommend the use of a compression coupler. A pipe stiffener should be used when connecting Polyplumb and Polyfit pipe to a compression fitting.

Connections close to capillary fittings

Capillary fittings should preferably be completed prior to the use of Polypipe fittings. Where this is not possible, care should be taken to ensure that flux or solder does not come into contact with plastic pipes or fittings. A damp cloth should be wrapped around the copper pipe close to the nearest plastic pipe or fitting to ensure against damage by conductive heat. Pipework should be flushed to clear flux before active use.

Connections to incoming cold water supply

There are two options for connecting incoming MDPE mains water service pipe to Polyplumb and Polyfit pipe systems. Firstly the push fit x compression adaptors provide a one piece transition fitting covering connections from 20mm, 25mm and 32mm MDPE service pipes to 15mm, 22mm and 28mm Polybutene pipes and most sizes are available in both Polyplumb and Polyfit versions. Secondly, as there is a requirement for a stopcock on the incoming main there is also a combined stopcock and adaptor which reduces the number of fittings required in a position where there is often limited space e.g. under a kitchen sink. These products allow connections from 20mm or 25mm MDPE pipe via a compression end to 15mm or 22mm Polybutene using a push fit connection.



Pushfit x compression adaptor

Design Application & Installation Information

Combined stopcock and pushfit x compression adaptor

Gas, oil, and compressed air

Pipes and fittings must not be used for gas and oil supply pipework or compressed air pipework.

Continuously operated re-circulating systems (Secondary Hot Water Circulation / Ring main installations)

A continuously operated re-circulating system is a water-replenished circulating system which is maintained at a constant high temperature to provide a constant source of hot water. Continuously operated re-circulating systems are used to distribute constant hot water to wards or rooms that may be distant from the heat source or hot water storage vessel. Locations where continuously operated re-circulating systems are used include, but are not limited to, residential care homes, hospitals and hotels. Continuously operated re-circulating systems are very different from conventional hot water supply and central heating systems found in domestic properties, for which our products have been tested to, under either BS 7291 Class S or WRAS approval standards, and for this reason Polyplumb or Polyfit should not be used on any continuously operated re-circulating systems.

Re-cycled rainwater systems

Polypipe products can be used in systems conveying re-cycled or harvested rainwater within domestic properties. All pipe work used in this type of system should be clearly identifiable and this should be carried out in accordance with regulations. If self adhesive labels are to be used, these should not be applied directly to the pipe.

Chlorine and other additives

The Polybutene material used in Polyplumb and Polyfit pipes and fittings is WRAS approved. It is resistant to the buildup of scale. Normal levels of chlorine in UK domestic water supplies will not have an adverse effect on Polyplumb and Polyfit.

However Polyplumb and Polyfit are not suitable for systems in which any further additives are ever added, periodically added, or regularly dosed in to or additional to the normal mains water supply, for example chlorine for swimming pools or those used for bacteria control or legionella prevention. Systems must not be flushed through with anything other than water from the normal mains water supply or a cleaning product at the correct concentration that is specifically recommended for plastic piping systems.

The use of corrosion inhibitor in central heating systems is acceptable provided that the inhibitor is specifically designed for plastic piping systems and guidance on their suitability should be sought from the inhibitor manufacturer prior to adding to the system.

Light

Polyplumb & Polyfit pipe and fittings should be protected from UV light. Standard decorating paints form adequate protection. Pipe insulation forms adequate protection for external use. Polypipe products are delivered in light protective packaging.

Compatibility with other substances

For details of compatibility with building and cleaning substances, and treatments (eg filler foam and wood worm treatments) please consult the relevant manufacturers to confirm suitability with Polybutene. Polyplumb and Polyfit pipes and fittings can be painted using emulsion or undercoat and gloss. Cellulose based paints, strippers or thinners must not be used.

Vermin

There is no evidence to suggest that Polyplumb and Polyfit attract vermin. Where vermin are present they can cause damage to other services, building fabric and pipes and fittings, and therefore a qualified pest controller should be employed to remove vermin from the affected area.

Connections to other equipment

(please refer to local guidlines as these may differ from country to country)

Boilers and appliances:

All boilers and appliances must have safety devices such as thermostatic controls, cut-outs and pump over-run protection to make sure that they cannot operate above the Class S working temperature and pressure limits set out in the table of Class S service conditions on page 27. Exposure to conditions in excess of those specified could result in failure of the pipes or fittings with the potential for serious injury.

Electric Water Heaters:

Polypipe products can be connected directly to electric water heaters, however, if the unit has no maximum temperature control we would recommend that you follow the same guidelines as above for boilers, care must be taken to follow the manufacturers (of the water heater) guide lines for installation.

Solar Panels / Systems:

Pipes and fittings must not be used for connection of solar panels or any part of solar distribution that operates above the Class S working temperature and pressure limits set out in the table of Class S service conditions on page 27.

Gas Boilers:

Pipe should only be connected to gas boilers where the pipe connection is outside the boiler casing and where the boiler incorporates a high limit thermostat and pump over-run facility. The pipe connections should be 350mm from the heat source. In all other situations, a section of metal pipe should be at least 1m in length. In addition for back boilers metal pipe work should be used within the fire opening extending out of the chimney brickwork.

Combination Boilers:

Where system connections are made to an incoming water supply pipe from a water meter or any other device which contains a check valve a suitable expansion vessel must be fitted to prevent the expansion of heated water back down the supply pipe. This is especially important where a water meter is fitted retrospectively.

Note: The drain pipe from an integral pressure/temperature relief valve to be installed in metallic pipework

Solid Fuel Boilers & Cooking Ranges:

Pipes and fittings must not be used for primary or gravity circuits from solid fuel boilers, cooking ranges or other uncontrolled heat sources.

Oil Fired Boilers:

Open Vented Central Heating Systems:
The use of plastic pipe and fittings is acceptable when used in oil fired installations where the boiler is connected to an open vented system, however the first metre of primary pipework from the boiler connections must be installed using metal pipe. The boiler must be suitable for this type of application and all relevant safety features as supplied and fitted to the boiler must be checked for correct operation. The system must also be commissioned in accordance with the boiler manufacturers instructions.

For further information regarding the suitable applications for our plastic pipe and fittings please refer to the Class S Service Conditions in this publication.

Sealed Central Heating Systems:

Where a sealed system oil fired boiler is to be used all primary boiler pipework to and from the hot water cylinder (if fitted) and any radiator or towel rail circuits must be installed using metal pipe and fittings.

Plastic pipes can be used on underfloor central heating systems where the plastic pipes are fitted after the UFCH control unit and manifold arrangement which must contain a correctly operating thermostatic mixing valve.

Plastic pipe and fittings can also be used in the hot and cold water system with the exception of continuously operated re-circulating systems where plastic pipe and fittings should not be used.

All relevant safety features as supplied and fitted to the boiler such as the boiler temperature control thermostat, high limit thermostat, pump overrun facility and the pressure and temperature relief valve must be checked for correct operation at both installation stage and at any subsequent boiler service intervals. The system must also be commissioned in accordance with the boiler manufacturers instructions.

For further information regarding the suitable applications for our plastic pipe and fittings please refer to the Class S Service Conditions table in this publication.

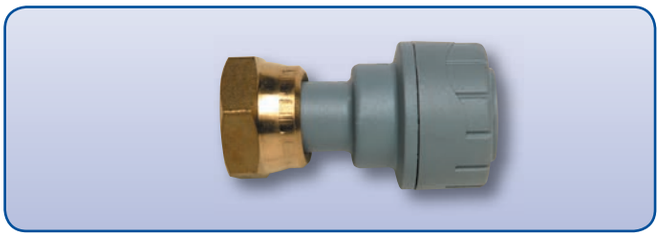
Hot Water Storage Vessels:

All pipework in the cylinder cupboard should be from cut lengths rather than coils and should be clipped to a pipe board rather than the wall using screw clips at 300mm centres. Pipe clip spacers should be used to achieve crossovers where necessary.

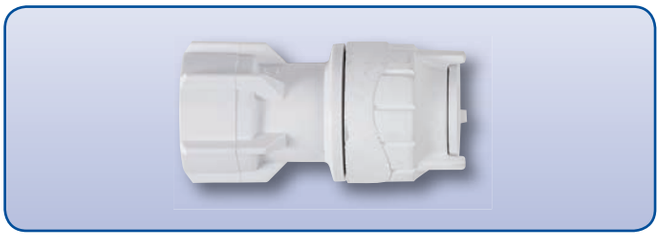
Connections to sanitary appliances:

The connection to sanitary appliances such as baths, basins, sinks and WC's is easy with the Polypipe product ranges. With a wide range of fitting types to choose from every eventuality is covered. Swivel tap connectors with brass connecting nuts are available in Polyplumb and Polyfit versions. There are hand tighten tap connectors available in Polyplumb and Polyfit for those difficult to access places. A number of specialist products are also available which incorporate valves into appliance connectors. Both straight and bent valved connectors are available as well as versions in both plastic and chrome plated brass.

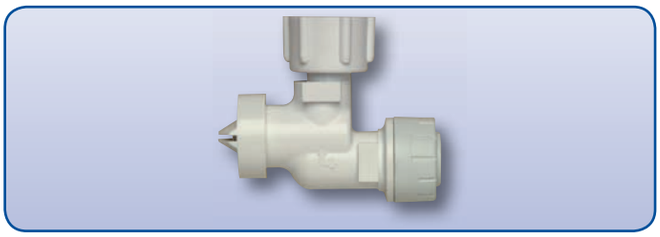
Polypipe supply both a conical seal (attached to the connector) and a flat seal (supplied loose with each individually packed tap connector) with each swivel style brass nut tap connector. As we do not know what type of tap is being installed it is the installers responsibility to ensure that the seal supplied is compatible with the tap to ensure a water tight seal is made.



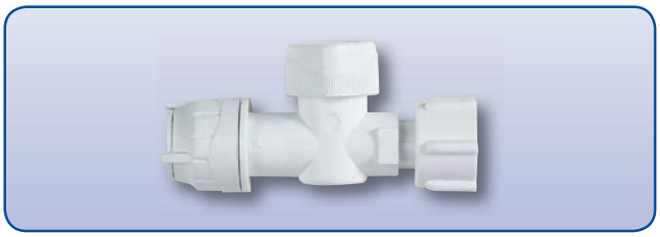
Polyplumb swivel tap connector with brass nut



Polyfit hand tighten tap connector



Polyplumb bent valved tap connector



Polyfit straight valved tap connector

Finally the Polyfit range contains one of the widest ranges of flexible connectors on the market with products of varying lengths and connection type. Connections to ½" and ¾" taps are covered as well as products which include built in service valves. There are also specialist products which are available for connection to monobloc mixer taps and a space saving elbow pattern connector.

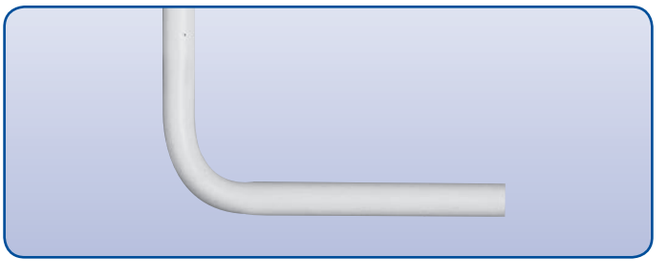
Polyplumb terminal fitting:

Where wall mounted taps are being utilised the use of a conduit terminal box is recommended. The fitting consists of a 15mm x ½" female elbow which is housed in a plastic terminal box allowing the hot and cold water supply pipes to be hidden in a wall cavity. The terminal elbow can also be mounted onto a backing plate which assists installation and centring the taps. Once installed, taps can be screwed into the female threaded elbow and the wall finish applied to give a neat cleanly designed environment.

Design Application & Installation Information

Connecting to radiators:

As with connections to sanitary appliances there are a number of options for connecting pipes to radiators. Available within the ranges are spigot elbows for 10mm and 15mm connections as well as a 10mm x 15mm version which allows 10mm pipes to be connected directly into a 15mm radiator valve with out the need for additional reducers. The Radiator Connector Bend "RCB" provides installers with an attractive method of connecting 10mm or 15mm Polypipe pipe from walls or floors to radiators. The rigid white 100mm x 150mm bend can be cut to length and connects directly to Polypipe fittings and radiator valves and requires pipe stiffeners in each end.



Use of aluminium tape

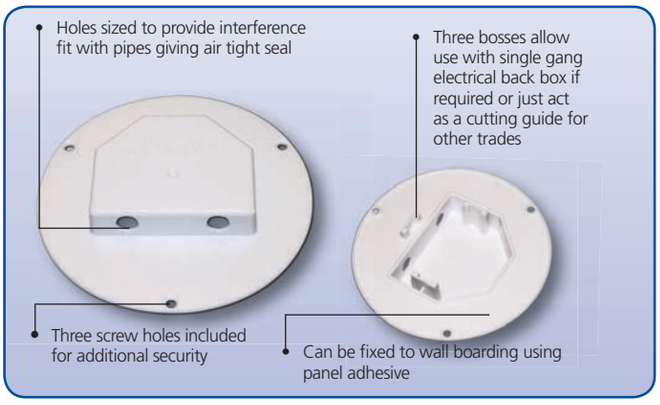
To comply with the UK guidelines regarding detection of pipes in wall cavities Polypipe recommends the use of aluminium tape. This tape should be applied directly to the wall sub-structure and pipes should be clipped on top of the tape. The tape must not be applied directly to the pipes. Please refer to local guidelines.

Radiator terminal plate

The new Polypipe Radiator Terminal Plate is a multi functional product for use in Polyplumb and Polyfit piping systems.

- It provides an air tight seal around pipework entering rooms from wall cavities to feed radiators
- Gives a neat and secure entry point for pipes serving radiators.
- Ensures pipes are not damaged by rough edges of wall boards or plaster boards
- Can be fitted with or without a single gang electrical back box (supplied by others)

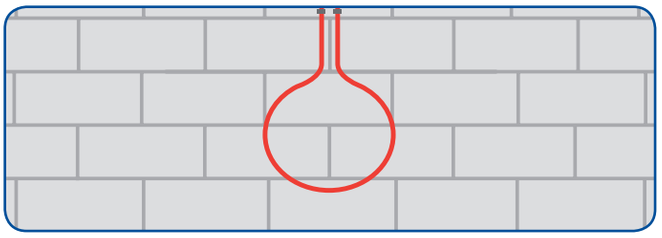
Product features



Radiator Terminal Plate Installation instructions

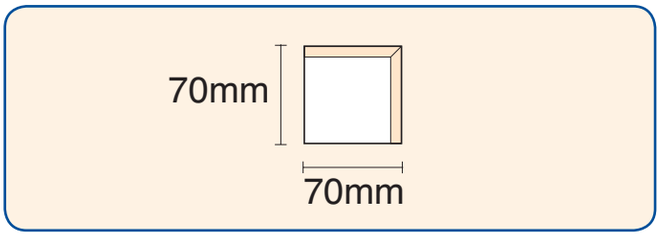
Step 1: Installing flow and return pipework

Install 10mm flow and return pipework down sub-wall with continuous loop long enough for radiator feeds through wall. Pressure testing of the heating system must be carried out at this stage.



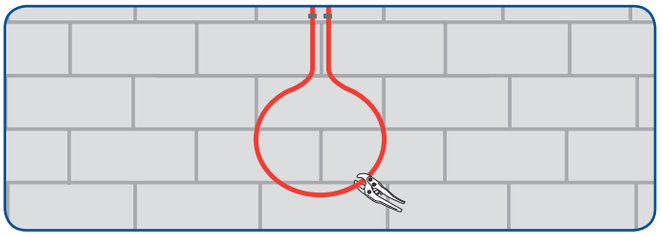
Step 2: Preparing the wall boarding

Cut a hole the size of a standard electrical back box in the wall boarding. For guidance use the three bosses on the reverse side of the Polypipe Radiator Terminal Plate.



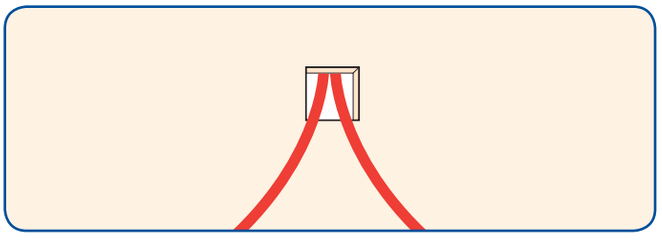
Step 3: Cutting the pipes

Cut pipes at appropriate point to allow for wall board to be installed ensuring enough pipe is left to reach valves at each end of the radiator.



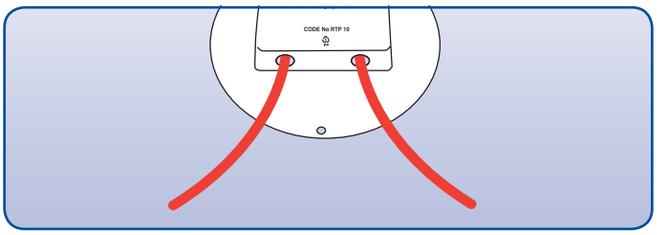
Step 4: Pipe threading

Thread pipes through hole cut in wall board taking care not to scratch or damage pipes.



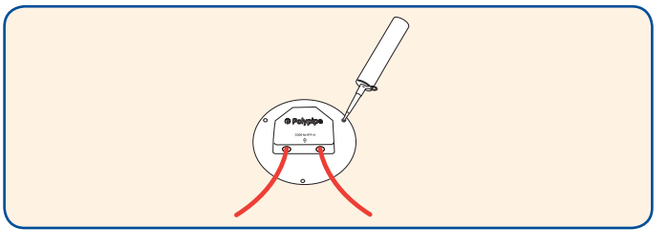
Step 5: Fit Radiator Terminal Plate on to pipes

Pass the pipes through the radiator terminal plate from back to front using the pipe guides to aid routing. They should be a tight interference fit through the holes which provides the seal. Cutting the ends of the pipes at an angle may help to thread pipes through the hole but remember to cut pipes square again before connecting into a fitting.



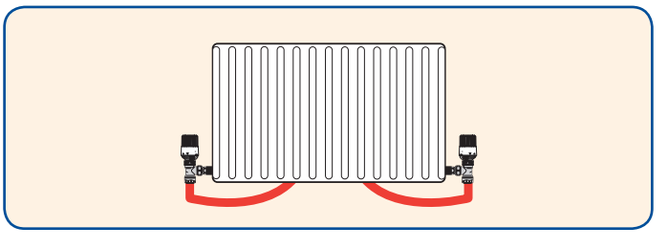
Step 6: Securing the Radiator Terminal Plate

Use panel adhesive to seal the Polypipe Radiator Terminal Plate to the wall board and if necessary use tape or three countersunk screws to hold the plate in position whilst the adhesive sets.



Step 7: Fitting the Radiator

Fit radiator and valves and connect the pipes as per normal installation instructions.



Pipework installation

Minimum bending radius

The minimum bending radius of unsupported Polybutene pipe is 12 times the pipe diameter. Bends can either be supported at each end of the bends using pipe clips where possible. Alternatively, bends can be supported by a bend former (PB6315 or PB6322) where only one screw hole is required, and the minimum bend radius is 8 times the diameter.

Bend former

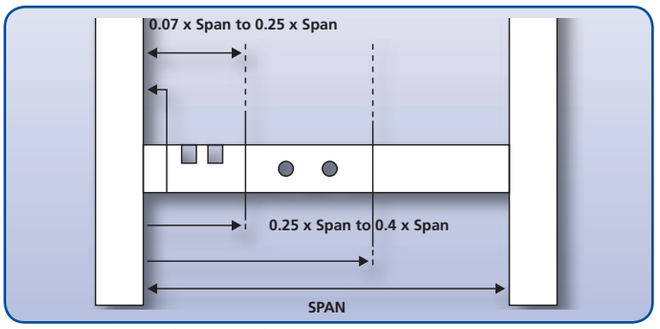
Minimum bending radius				
Pipe diameter (mm)	10	15	22	28
Unsupported (mm)	120	180	264	336
Supported (mm)	80	120	176	224

Pipe cabling

The main benefit of using Polypipe Polybutene pipes is that the pipe flexibility allows pipe to be cabled through the fabric of the building offering the following advantages.

New build applications

- Allows 1st floors to be laid before plumbing is installed. Plumbing can be installed through holes drilled in joists.
- Site safety is enhanced as pipework can therefore be installed from below.
- Post installation repair work is reduced, as expansion noise due to trapped pipes does not occur, and leaks due to nailed pipes are avoided.

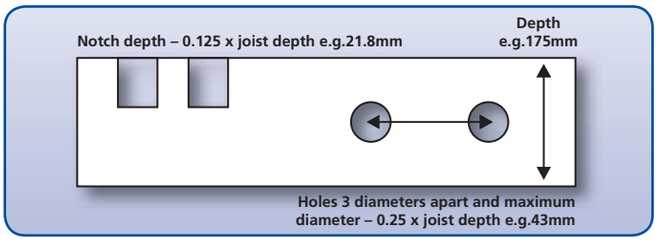


Position of notches and holes

Alterations to existing systems

- Less disruption to property as floors and carpets may not have to be removed in some rooms.
- Kinder to building structure, as existing joists may not allow further notching.
- Pipes can be cabled around existing obstructions.
- Safety is enhanced as no naked flames are required.

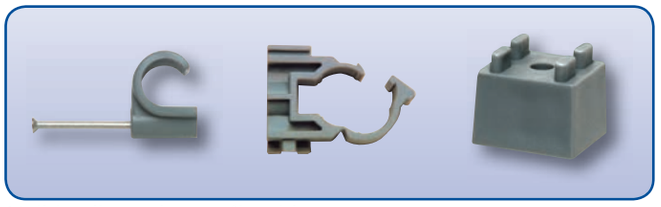
Polybutene pipe provides installers with the flexibility of installing pipes through both holes and notches in joists, choosing the most appropriate method. Building Regulations provide instructions on the drilling and notching of floor joists however an example is shown below.



Size of notches and holes

Pipe supports

All pipes should be correctly supported using either nail-in, snap-fit or bulldog clips. Where required spacer pieces are available for the snap-fit clips. All pumps and valves must be correctly supported to prevent unnecessary strain on the pipework.



Nail-in clip and snap-fit with spacer

Minimum support centres		
	Horizontal Pipes	Vertical Pipes
10mm & 15mm	0.3m	0.5m
22mm	0.5m	0.8m
28mm	0.8m	1.0m

Design Application & Installation Information

In instances where pipes have alternative adequate means of support or are run within concealed spaces (eg through floors or joists), the number of clips can be significantly reduced under the following conditions:

- There is absolutely no risk of the pipes or fittings coming into contact with potentially damaging surfaces (eg abrasive, sharp or destructive surfaces)
- Hot and cold pipes do not come into contact with each other.
- Pipe distribution does not form a circuit where effective air venting could potentially be impaired by poor pipe alignment.
- The pipe does not come into contact or close proximity with any material which may be affected by transmitted heat.

Pipe conduit can also be used.

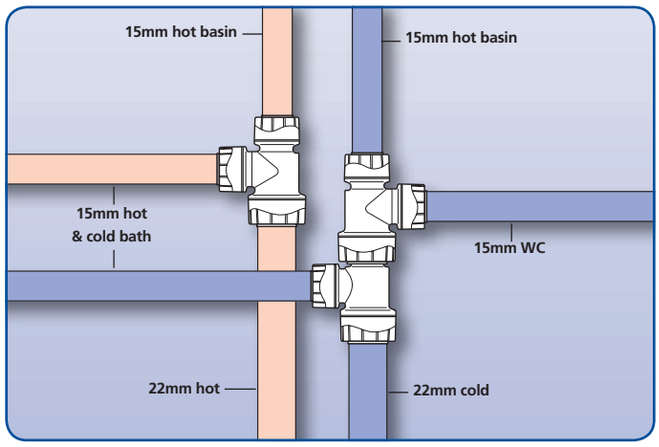
System design

Although flexible systems can be used in exactly the same way as rigid systems, the flexibility of the pipe allows more design options which may benefit the installer, the building, or during future maintenance.

The general theory of designing water systems in Polypipe products is to use the flexibility of the pipe to its best advantage and therefore using fewer fittings. This not only ensures the most cost-effective use, but also allows fewer joints and hence improved flow around changes of direction. The flexibility of the pipe allows jointing to be made in fewer locations and joint locations can more easily be made accessible.

Use of 10mm pipe for heating applications

Use of 10mm pipe for heating applications. As 10mm pipe is so flexible and can easily be positioned behind dry lining, its use offers many installation advantages. As it is the smallest of the pipe diameters offered in the Polypipe ranges, restrictions on the use of 10mm pipe should be considered. The table below gives a guide on the restrictions of using 10mm pipes with Polyfit and Polyplumb fittings.



Example water system design

EXAMPLE: 10m of pipe prior to 10mm connection (5m flow, 5m return) used with 1.25kW Radiator. Maximum length of 10mm = 13m (6·5m flow, 6·5m return).

Max length of pipe prior to 10mm connection e.g. 10m = 5m flow and 5m return	Maximum length of 10mm pipe total e.g. 13m - 6.5m flow and 6.5m return		
	1 kW Rad	1.25 kW Rad	1.5kW Rad
5	24	15	11
6	23	15	11
7	22	15	10
8	22	14	10
9	21	14	10
10	20	13	10
11	20	13	9
12	19	13	9
13	19	12	9
14	18	12	8
15	17	11	8
16	17	11	8
17	16	10	8
18	15	10	7
19	15	10	7
20	14	9	7

Polyplumb manifold system

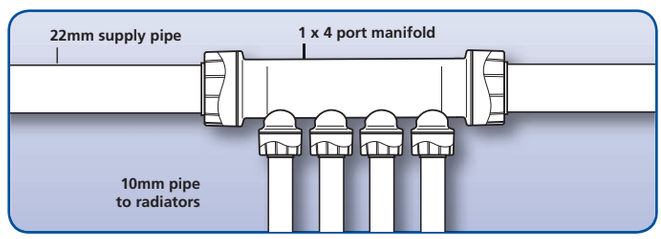
For use in most domestic hot and cold water supply and radiator heating projects, Polypipe manifold systems provides a central connection point for water distribution.

Manifold plumbing which is ideally suited for use with Polyplumb "pipe-in-pipe" technology (where screed embedded pipework is used with minimal joints) is employed in a similar way to simple electrical circuits in that all services are supplied from an easily accessible central distribution unit that can be either wall mounted, placed in an unobtrusive void or housed within an inspection box and subsequent supply pipework cabled through wall, floor or ceiling voids. Although manifolds are available in various port configurations they can be close coupled together to create manifolds with any number of outlets.

Application of manifolds in central heating

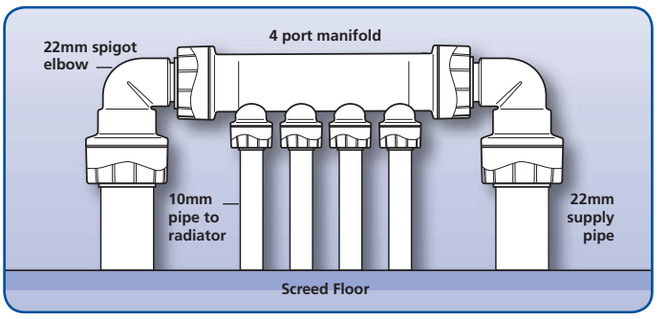
Polypipe manifolds are dimensionally compact and can be used in joisted floors or ceiling voids for in-line distribution. They are normally used unvalved, as each radiator has valves on for isolation purposes.

There are both single and double sided versions with 10mm ports and in-line side versions with 15mm ports. Being lightweight they can be simply used inline without bracketed support as long as the pipework is adequately supported.



Polyplumb 4-port manifold for radiator supply

When heating supply is to be used with a screeded floor, (where no joints are allowed below the floor surface) a 22mm pipe-in-pipe main supply is used. This supply would exit the floor, pass through the manifold system above the floor surface, and re-enter the floor to the next manifold supply point elsewhere in the building.



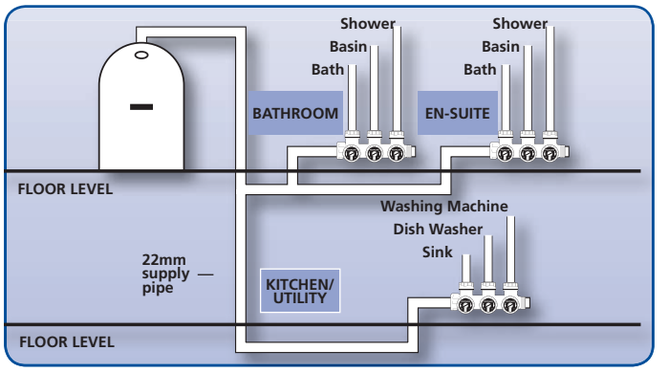
Manifold used above a screeded floor

The supply to each radiator would then be taken off the manifold, these single sided unvalved manifolds are available in both brass with 15mm ports or plastic with 10mm or 15mm ports (10mm pipe for small radiators or short runs and 15mm for longer runs or larger radiators).

Application of manifolds for hot and cold water supply

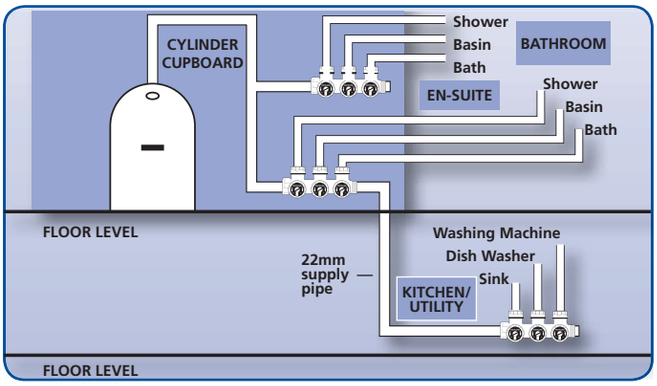
There are two ways that the manifold system can be employed in hot and cold water supply, the benefits of which are that all pipework is concealed but fittings are above floor level and can be hidden away in cupboards and voids. Services can be isolated where needed using the valved manifolds.

Localised supply is where the manifold is placed unobtrusively within a void or cupboard or under the bath in the area supplied, i.e. bathroom, en-suite or kitchen area. The 22mm supply pipe is fed through the house to the manifold and then secondary supply pipes are taken out of the ports to feed each appliance, e.g. basin, bath or shower.



Localised supply design layout

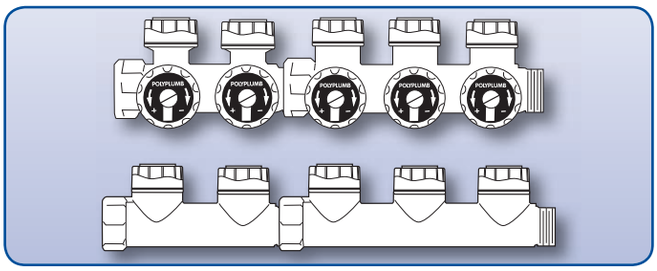
Centralised manifold supply is where the manifold distributes water to each appliance directly from a central cylinder cupboard, where a series of valved manifolds are dedicated to each area, i.e. bathroom, en-suite, kitchen or utility room.



Centralised supply design layout

Using manifolds to create extra ports

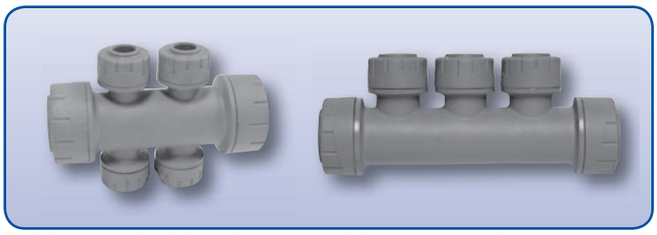
One clever design feature of the Polyplumb Manifold Range is that both Polybutene and brass manifolds can be joined together to create extra ports where required.



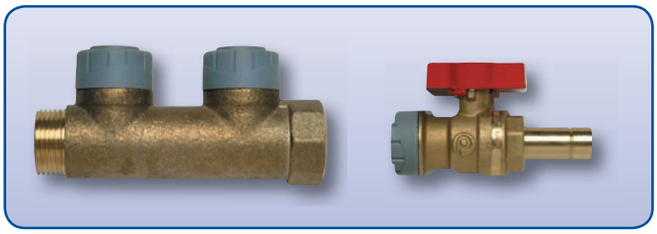
Joining together of manifolds increases number of ports

Manifold options

There are three distinct variations of manifolds that can be employed. Both brass and plastic non-valved (with separate push-fit ball valves if required) or brass integrally valved manifolds can be used. Manifold brackets are also available for brass products.



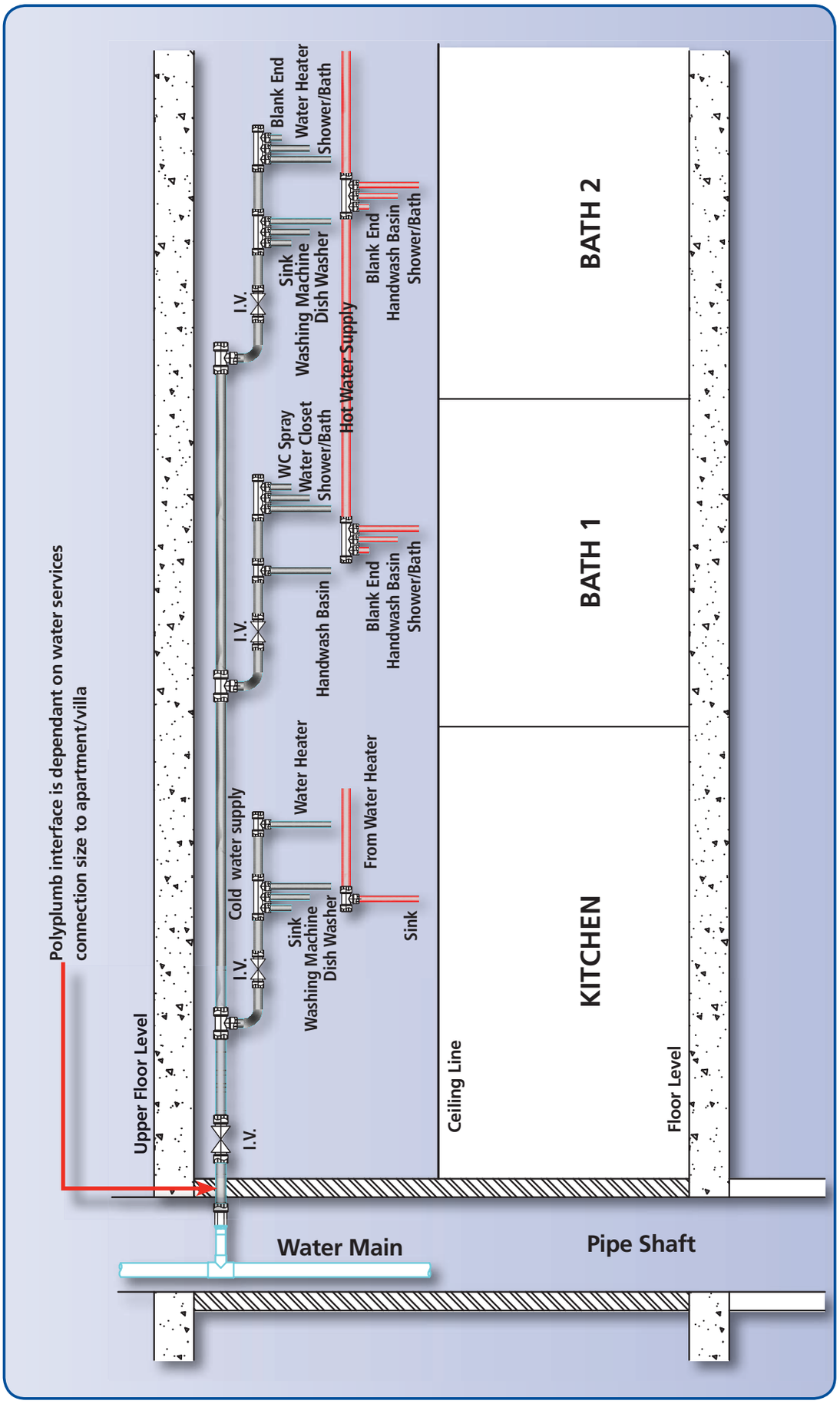
Polybutene double sided manifold - 4 port and Polybutene single sided manifold - 3 port

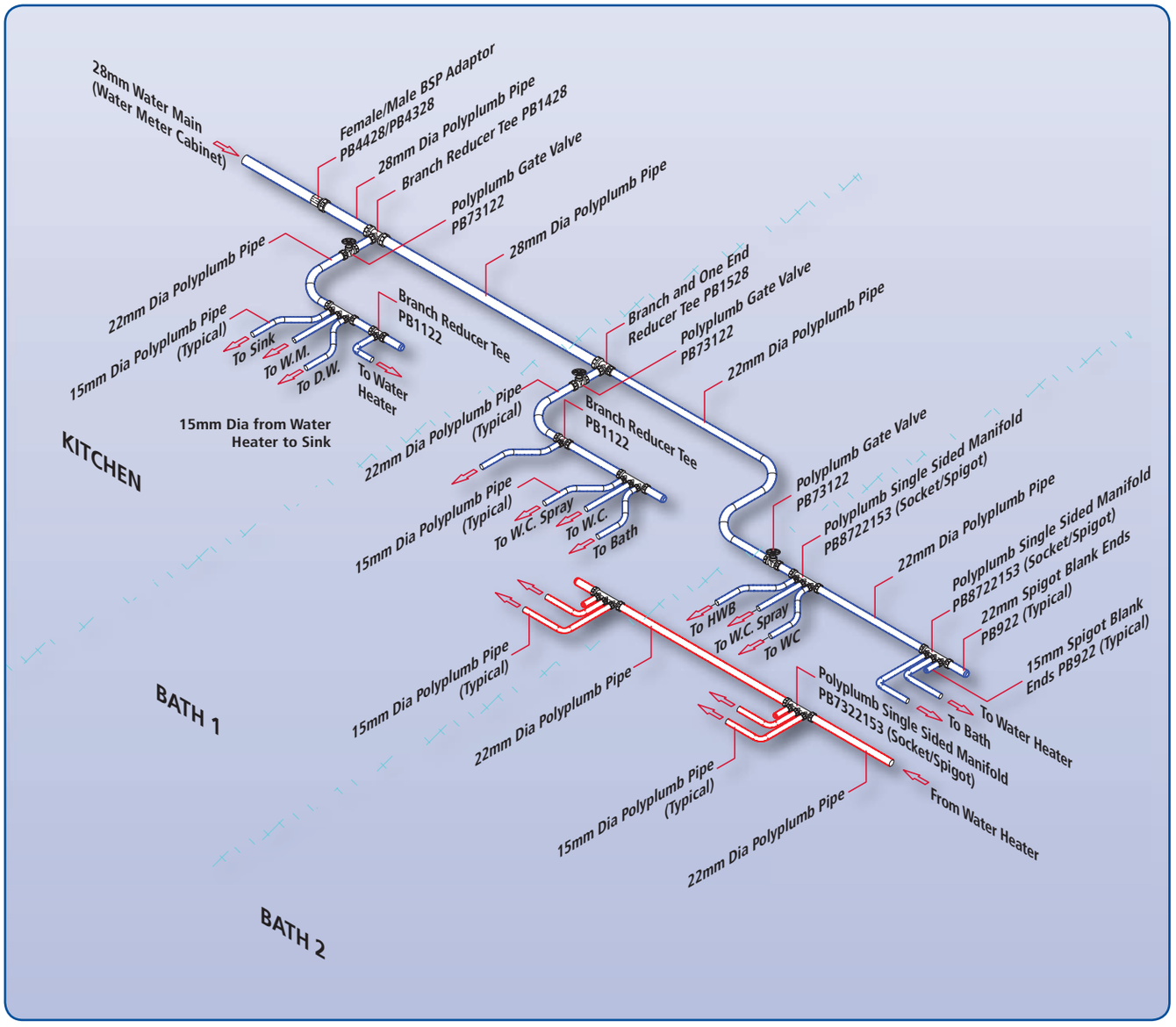


Brass single sided manifold unvalved - 2 port and Ball valve brass

Brass single sided manifold valved - 3 port and manifold bracket

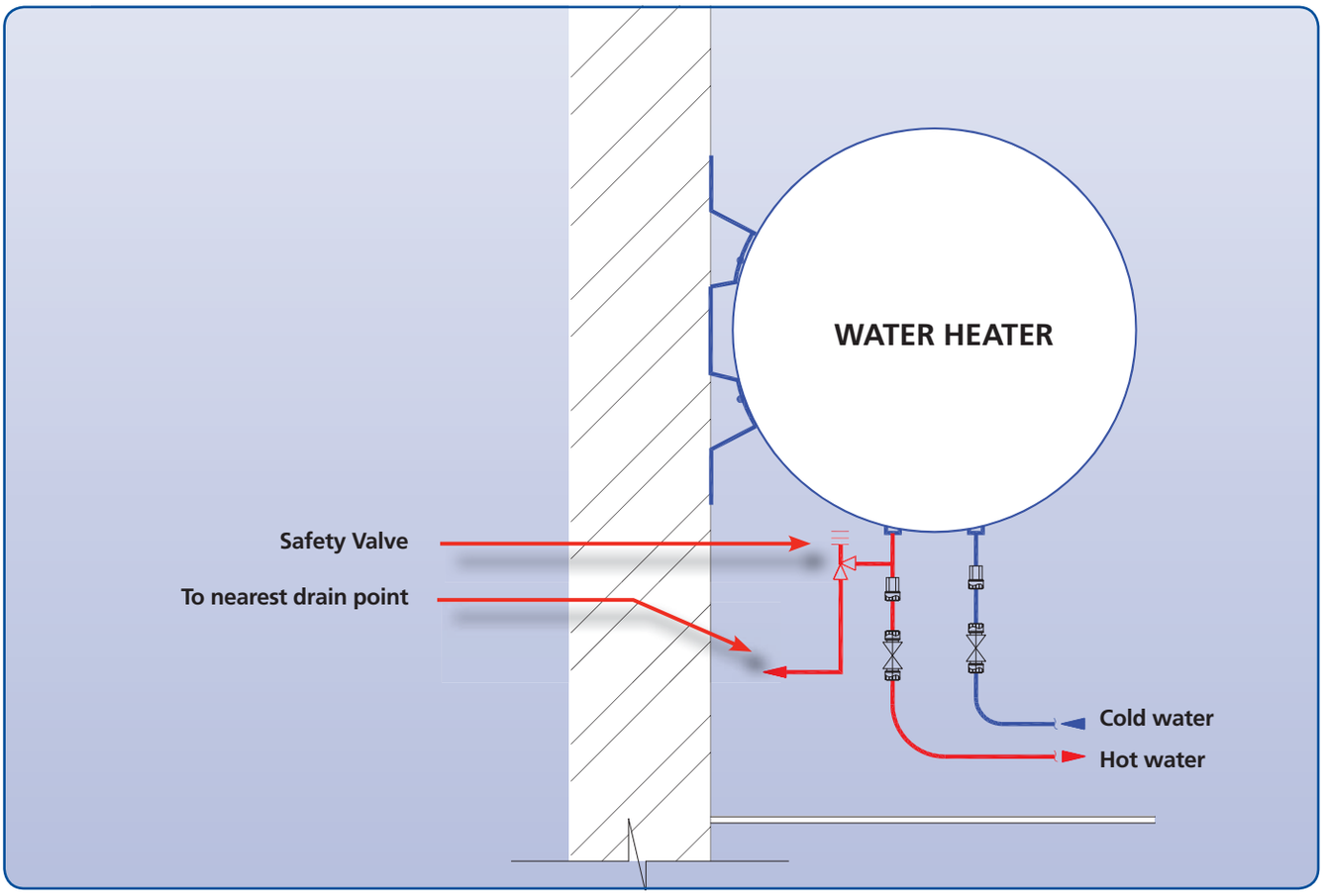
Water distribution layout



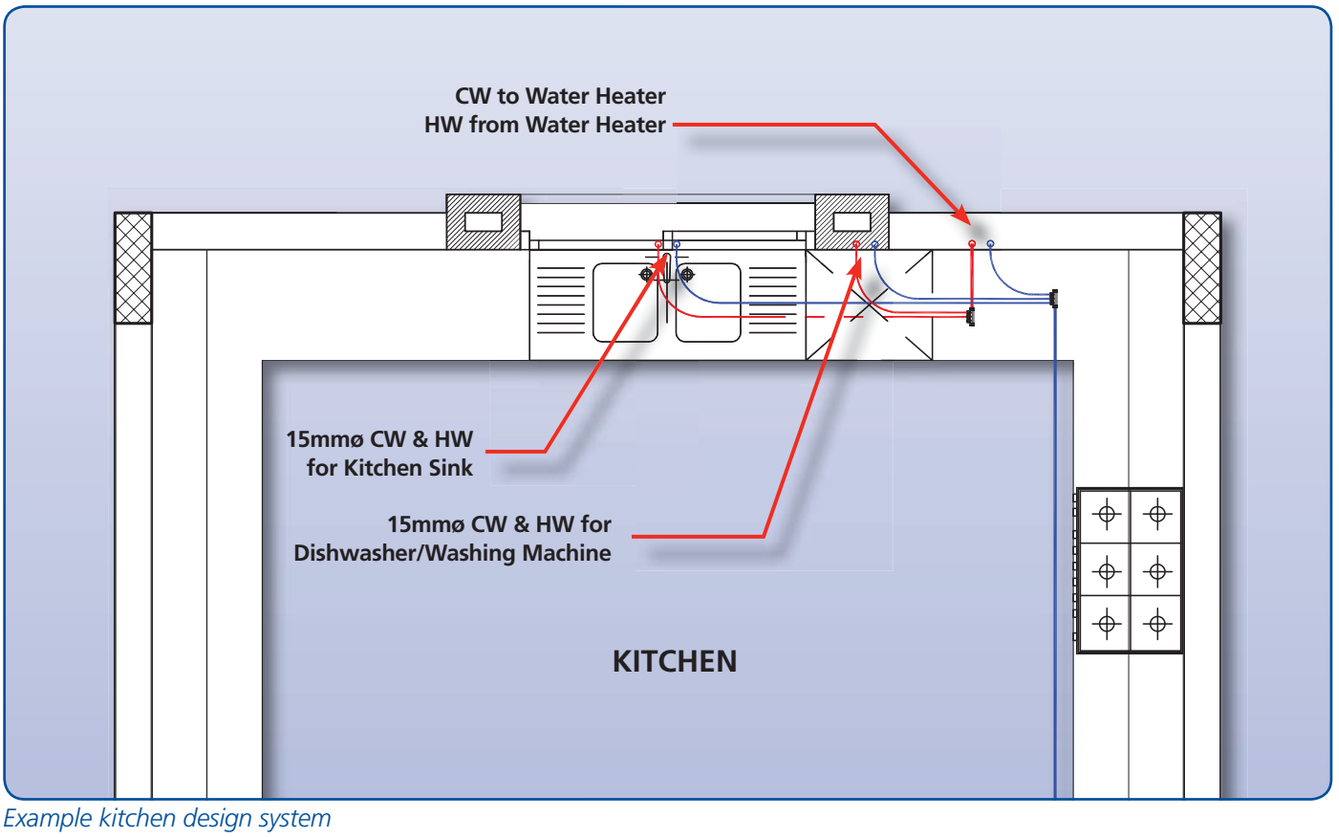


Water distribution schematic

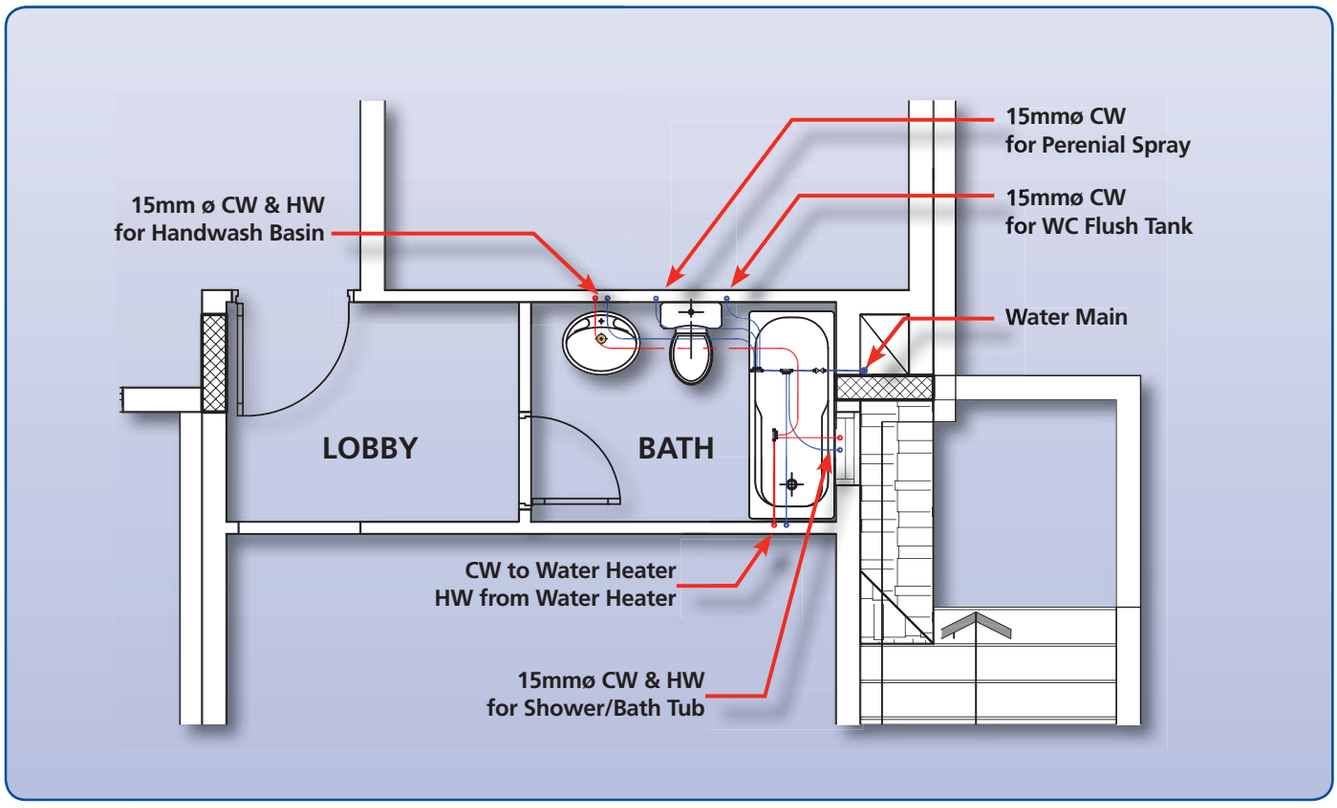
Design Application & Installation Information



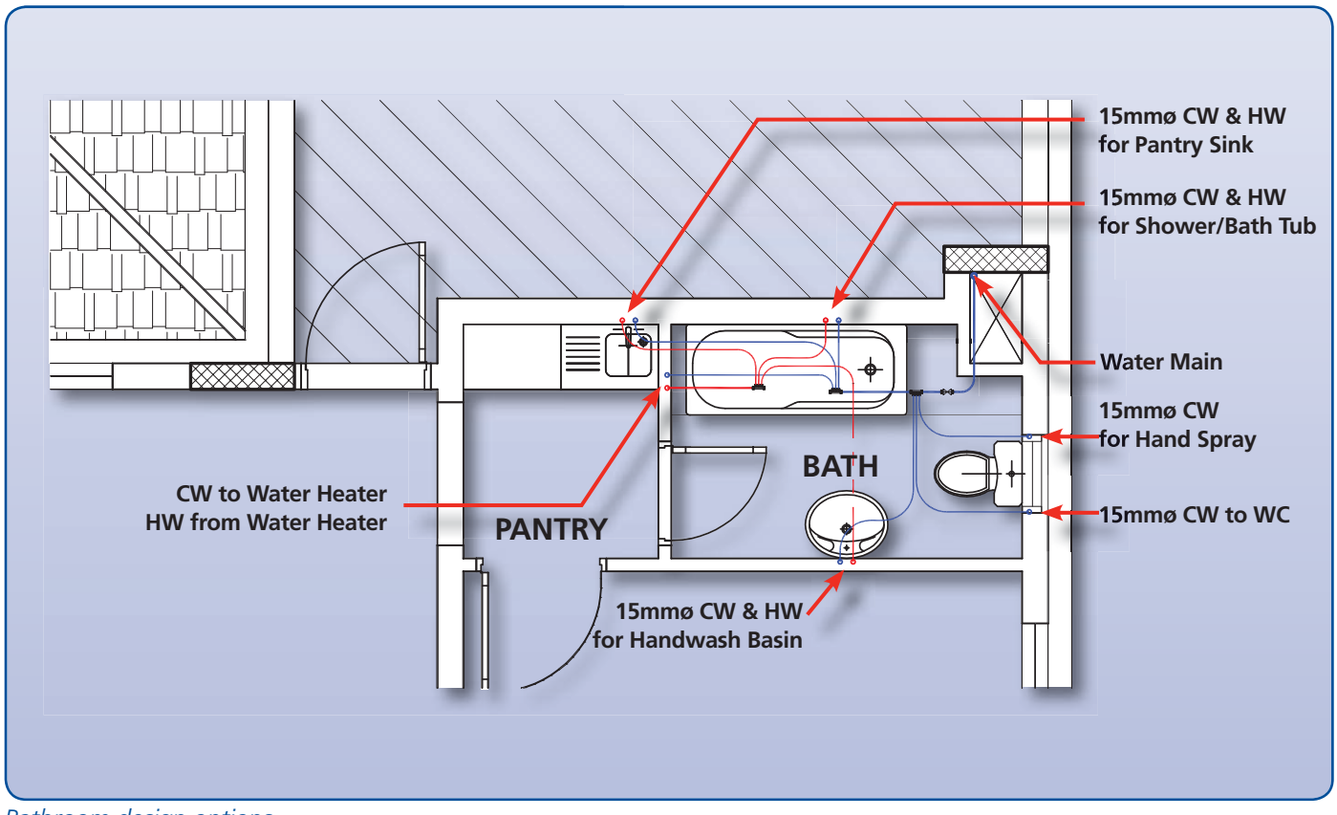
Typical installation of water heater



Example kitchen design system



Bathroom design options



Bathroom design options

Design Application & Installation Information

Conduit Pipe and Pipe-in-Pipe

The conduit pipe coils (CPC15XX and CPC22XX) provide a conduit pipe which allows 15mm and 22mm pipes to be buried in a solid floor or wall screed whilst also providing protection.
The installation and application of the system is described in the following section. The conduit pipe used in conjunction with the conduit boxes (JIB1 and JIB3) which house fittings, provides a cost effective and practical pipework solution.

Polyplumb Pipe-in-Pipe consists of a Polybutene barrier pipe encased within a black conduit pipe.

The conduit provides protection for the Polybutene pipe in the installation process as well as allowing easy withdrawal for future alteration or maintenance.

Installing conduit systems

Step 1: Positioning the conduit box

Loosely position conduit boxes where required.

Step 2: Assembling fittings

Assemble fittings in boxes

HANDY TIP: Where boxes abut a wall, i.e. elbows beneath radiators or sanitary appliances, boxes can be cut in two with the open end abutting the wall, this reduces the number of boxes required.

Step 3: Positioning drill holes

Drill conduit box using fitting assembly to determine hole position.

Step 4: Fixing the conduit box

Fix conduit box to floor.

Step 5: Preparing the pipe

Make joint at one end of pipe to be installed and cut pipe to length required.

Step 6: Cutting conduit pipe

Cut conduit to length required before threading conduit over pipe and through hole in box to 2 or 3 corrugations.

Step 7: Securely fitting conduit pipe

Push away pipe from end yet to be connected to allow grip onto the pipe and push the pipe into the fitting before allowing conduit to cover pipe. Push conduit through hole in box to 2 or 3 corrugations.

Joints in screeded floors due to accidental damage

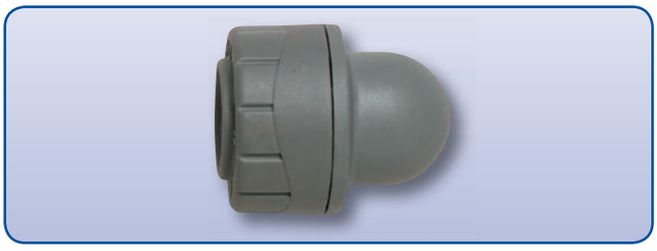
Where it is necessary to have joints in screeded floors or solid walls, these joints must be accessible. For example, where accidental damage to a pipe has occurred, the damaged section of pipe must be removed and replaced. The section containing the joints must be installed within a Junction Inspection Box. Junction Inspection Boxes are manufactured to suit two screed depths; 65mm (Product Code JIB3) - black in colour and 75mm (Product Code JIB1) - grey in colour. Both accept the 12mm plywood lid (Product Code JIB2) to provide future access should it be required.

Pipe and Fitting Blanking

Pipes and fittings may need to be temporarily or permanently blanked for testing, avoidance of construction debris or for future connections.

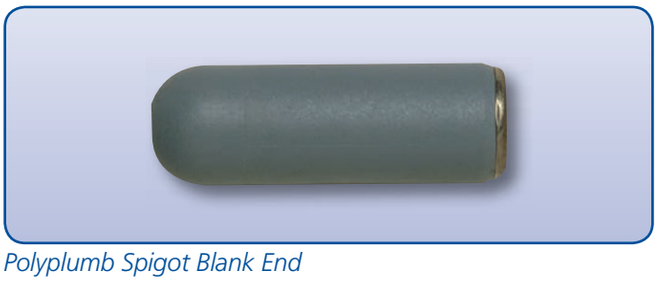
There are a number of options for blanking pipes in the Polyplumb and Polyfit ranges. For example for permanent capping off of pipes we would recommend the use of a Polyplumb socket blank (product code PB19XX) or where blanking off is only a temporary measure then either a Polyplumb demountable cap end (PB69XX) or Polyfit socket blank end (FIT19XX) is ideal.

Fittings can be blanked off using either a Polyplumb blank end (PB9XX) for permanence or a Polyfit version (FIT9XX) which features handy finger slots for gripping when demounting when used in temporary situations.



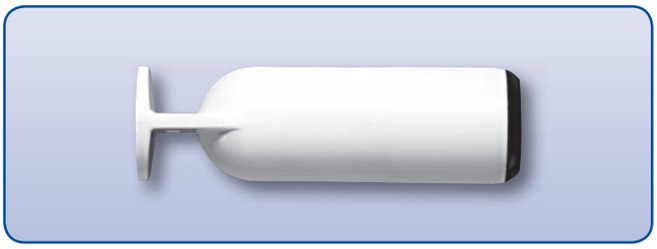
Polyplumb Socket Blank End

Polyplumb Demountable Socket Blank End



Polyplumb Spigot Blank End

Polyfit Socket Blank End



Polyfit Spigot Blank End

Painting

Pipes and fittings can be painted using emulsion or undercoat and gloss. Cellulose based paints, strippers or thinners must not be used.

Electrical safety

Where Polypipe pipes break the continuity of existing metal pipe, which may be used for earthing, or bonding this continuity must be re-instated by affixing permanent earth clips and a section of earth cable between the copper ends on either side of the plastic sections.

Equipotential bonding

Both the IEE and the Chartered Institute of Plumbing and Heating Engineers now give guidance on the Earth Bonding requirements of Plastic Pipe systems. As plastic pipes do not conduct electricity, installations generally require less equipotential bonding than metal systems although if in doubt exact guidance should be sought.

Handling and storage of products

The packaging of both pipes and fittings is designed to protect from ultraviolet light and environmental contamination. Pipes and fittings should therefore be retained in their packaging as long as possible, and should be stored in a cool dry area.

When on site, fittings should be stored to prevent dust and debris from entering the fitting and sticking to the pre-lubricated 'O' ring. Care should be taken to avoid scratching the pipe surface during the handling, storage and installation processes.

Insulation of pipework

If pipe and fittings are installed in an environment that is not heated or alternatively outside, they should be protected from potential frost damage in accordance with BS6700 and BS5422.

SYSTEM TESTING

Essential pressure testing of systems.

Step 1: 1st fix Installations

Pipe and fittings only should be tested. The system should be completely filled using water at not more than 20°C at a test pressure of 18 bar which should be applied for not less than 15 minutes and no longer than 1 hour. Joint security can be checked visually and by tugging at joints.

Step 2: 2nd fix Installations

Complete installations including appliances should be tested with water to the maximum test pressure allowed by manufacturers of the appliances and fittings.

Please note, due to health and safety reasons pipework installations must not be air tested.

Pressure testing in sub zero temperatures

Special precautions are necessary if the pressure testing is to take place in sub-zero temperatures.

This applies particularly in under floor central heating systems using the screeded floor system where most of the pipe is encased in concrete. Due to the contact between pipe and floor panel on screeded installations, where the screed does not completely surround the pipe, there may be points where strain is created on the pipe in freezing conditions which is not normally present.

Therefore it is advisable to drain the under floor central heating system once testing and screeding has been completed.

Precautions should also be taken where installations contain large quantities of fittings which due to the rigidity of their construction may put undue pressure on the pipe.

EXTENSIVE SUPPORT SERVICES

Standards

Polypipe meets, and constantly strives to exceed, the changing laws and regulations governing our operations and products.

We have invested in extensive testing and development facilities to ensure the products we supply are of the highest quality. Our plumbing systems conform to a number of 3rd party accredited standards which are listed below.

- British Standard Class S rated to BS7291 Part 1 and Kitemark Licence Number 38148 to BS7291 Part 1 & 2.
- Polyplumb Polybutene barrier pipe, fittings and accessories are covered by BBA Certificate No 00/3699.
- Listed in the WRAS Water Fittings and Materials Directory.
- Standards Manufacturing Quality Assurance - in accordance with BS EN ISO 9002 (BSI registered firm Certificate FM00318).

FM00318

We have invested significantly in our quality control procedures, have our own fully-equipped modern laboratory for development and analysis, and also have our own tooling and extrusion processes.

- Installation Standard must follow the requirements of BS5955 - PART 8 2001 Plastic Pipework (Thermoplastic Materials).

Guarantee

Polypipe guarantees for 25 years against defects in materials or manufacture of the Polyplumb and Polyfit hot and cold water supply and heating systems from the date purchased. This guarantee only applies if the products are installed in accordance with the manufacturers recommendations and are used in a normal domestic operation.

A normal domestic operation is defined as a residential property and excludes commercially run residential properties e.g. care homes and is also defined as being part of an open vented or sealed central heating system, direct or indirect single pipe hot water supply or mains or tank fed cold water supply system.

The system must be designed, installed and operated within the temperature and pressure ratings as defined in BS 7291 Class S which are also published in the manufacturer's literature and must also take account of all the other exclusions and limitations as defined in the design, application and installation guidance provided by the manufacturer.

Exclusions apply, please contact the manufacturer for further details.

CENTRE OF EXCELLENCE

Polypipe has created a new, purpose-built training and development facility - the Centre of Excellence - at its Aylesford site in the UK, demonstrating its commitment to invest in people and training. Spacious and well appointed, the Centre of Excellence provides exhibition, training and demonstration facilities for consultants, clients, contractors, installers and distributors. Major investment in the Centre allows us to provide instruction in our entire product range.

Sustainable Products and Manufacturing Processes

Evolving solutions are the key to success, at Polypipe we're making it happen

At Polypipe we aim to make our customers' lives easier. We know they are faced with ever increasing regulation and legislation and have therefore developed an outstanding range of product and system solutions that meet more legislation requirements than anyone else.

We always work with sustainability in mind, in fact sustainability isn't just a pipe dream… at Polypipe we are making it happen.

Our innovative approach to changing regulations and legislation has made us synonymous with best practice within our industry.

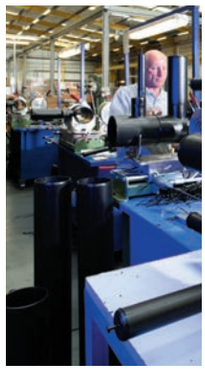
Plastics are lighter and more robust than traditional materials - less to do more. They help reduce energy usage and therefore greenhouse gas emissions because they are lightweight in production, transport and use. In comparison to traditional materials, like concrete or clay, plastics are recyclable, require no quarrying activities and reduce the carbon footprint from transportation.

We produce:

- Products which consider the long-term effects to the environment and which provide environmentally friendly solutions
- Rainwater harvesting and recycling solutions
- Energy saving products
- Clean, lightweight, flame-free, non-hazardous products
- Products which reduce noise
- Stormwater management systems

Due to its longer lengths and lighter weight, it can be 70% cheaper to transport than equivalent concrete pipes

Our Philosophy: Reduce, Reuse, Recycle



Polypipe has always led the way in manufacturing quality products to meet and exceed ever changing regulations

With the support of WaterAid, more than 5.5 million people have gained access to safe, clean water thanks to the use of plastic pipes

APME (Association of Plastics Manufacturers in Europe), Plastics: At Work for a Sustainable Future

Polypipe sustainable indoor environmental solutions can help meet the Merton Rule by providing at least 10% of predicted energy requirements through incorporating renewable energy production equipment on larger developments

Rainwater harvested from a Rainstream system can easily replace 50% of the domestic demand for non-potable water

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