



Permanent press fit plumbing

PolySure is our radial press fit system, available in UK sizes, and installed using specialist crimping tools.

PolySure features secure, tamperproof jointing technology for a permanent fit. The slim profile fittings are ideal for use in visible installations. An inbuilt location washer ensures the crimping tool jaws are correctly positioned for accurate fitting and a visual socket depth indicator and double 'O' ring seal provides enhanced jointing.

Use PolySure with Polypipe white or grey polybutylene flexible pipe.

PolySure can be used in any hot and cold water installation but is particularly suited to buildings with high levels of public access traffic, where security and joint integrity are paramount.

The system offers a number of benefits, including:

- Supplied in both metal and plastic bodied solutions, and both offering the same high security
- The first radial press fit system in standard UK sizes
- PolySure is ideal for applications where security is paramount
- PolySure offers a permanent, tamper proof fit and the slim profile fittings are ideal for visible applications
- Fitted location washer ensures jaws are correctly positioned for crimping
- Visual socket depth indicator and double 'O' ring seal provide enhanced jointing
- Use for all hot and cold water supply or heating applications
- Use with Polypipe white or grey pipe systems

Jointing

There are **seven** steps to completing a joint which uses PolySure fittings. Each step is covered in detail here.

Unlike the other plumbing systems, the PolySure system requires some specialist pressing tools which can be purchased directly from Polypipe or via the manufacturers stockists. Polypipe recommends using REMS pressing equipment who have a reputation for manufacturing durable products that can stand up to today's site conditions. For full details of products, instructions, servicing requirements and warranties please visit www.rems.de

Step 1: Cutting Polypipe pipe

Check the pipe is not scored or scratched in any way and if it is, cut back to a point where there is no damage.

Using a Polypipe pipe cutter, cut the pipe squarely using the "K" marks on the pipe as a guide. These marks indicate when the pipe has been inserted into the fitting correctly.

It is essential that pipes are cut squarely as this may affect chamfering (see step 2).



Step 2: Chamfering the pipes

As PolySure fittings use press fit technology which seals on the pipe bore, it is necessary to provide an internal lead on the pipe end so the square edge of the pipe does not damage the 'O' ring seals.

On push fit fittings this lead in is provided by the pipe stiffener. Polypipe offer specific pipe chamfering tools for our pipes and these must always be used.

The chamfering tools are available in either individual tools or as a block of four dependent on the installers preference however all work in the same way.

The chamfer tool spigot should be inserted down the bore of the pipe until contact is made with the blades.



The chamfer tool should be twisted gently to provide a lead in. Any debris should be removed from the pipe end and the chamfer tool. Check that the pipe has been cleanly chamfered around the full diameter of the pipe.



If not repeat step 2, if so proceed to step 3.

Step 3: Visually check of fitting and fitting components

Visually check that all components are present, undamaged and free from contamination.



Lubricants

All Polypipe fittings are supplied with pre-lubricated EPDM 'O' rings. If any further lubrication is required only Polypipe silicone lubricant should be used. Substances such as solder flux must not be used.

Step 4: Insert pipe into fitting

Polypipe pipes have a visual indicator to assist the installer in jointing pipes and fittings together. The chamfered Polypipe pipe should be inserted into the PolySure fitting and pushed in until pipe can be seen through the hole in the stainless steel pressing sleeve. When this has been done the joint is ready for pressing.



Step 5: Preparing the pressing tools

There are three types of pressing tool recommended for jointing PolySure fittings.

The REMS Eco Press is a manual pressing tool which can be used on 10mm, 15mm and 22mm joints only but provides the installer with a light weight, low cost entry pressing tool which can be used in most situations.

Alternatively the battery operated tools (mini or standard versions) can be used where a high volume of joints needs to be done in a short space of time. The battery operated tools must be used for 28mm fittings.

The 10mm, 15mm and 22mm Polypipe TH pressing jaws have been designed to fit both the manual and standard battery operated pressing tools. The mini pressing Jaws are only compatible with mini pressing gun and can not be used with the manual or standard battery operated guns. All jaws are specifically designed to press PolySure press fit fittings and should only be used for these fittings. Likewise no other pressing jaws should be used for PolySure fittings.

Manual pressing tool

Secure the jaw in the tool by firstly removing the locking pins from the Eco Press, lining up the holes in the Eco Press with those in the jaw and re-inserting the locking pins.



Battery operated pressing tool

To insert a Polypipe TH jaw into the battery operated gun, press the release catch on the locking pin on the gun. Slide the jaw into the gun, aligning the centre hole in the jaw with the locking pin, and push the locking pin back into position until locked. Once the jaws are locked in the respective machine the pressing tools are now ready to complete the joint process.



Step 6: Securing the joint

Whether using the manual or battery operated press gun, the jaws are located on to the fitting in exactly the same manner. Do a final check to ensure that the pipe is still inserted fully into the fitting, then using the white washer as a location point fix the jaws over the fitting in the un-pressed condition.

Manual pressing tool

The levers can now be closed completely, ensuring that the two stops on the press tool are touching.



Extension pieces are included with the Eco Press if extra leverage is required to completely close the tool. Only when the tool has been completely closed with the two stops touching is the fitting fully secured. The levers can then be opened and the fitting will be released from the jaws.

Battery operated pressing tool

The trigger can now be pressed on the tool to start the pressing process. Keep the trigger depressed until the jaws have closed completely and the pressing machine clicks to denote the end of the process.

NOTE:

Once the process is underway it must be completed before the safety catch can be pressed to allow the jaws to be released.



Step 7: Checking the joint

Finally check that the fitting has been pressed successfully by ensuring that the TH pressing profile has been indented consistently around the full circumference of the fitting. The white washer should not be damaged or have moved in any way, if so discard the fitting and re-press a replacement fitting. Spare pressing sleeves and washers are available to purchase if required. Once PolySure fittings have been pressed they are not demountable.

