PolyPlumb® enhanced

Plumbing & Heating System Testing

Pressure testing of pipe systems is essential. However, a successful pressure test using the following steps is not a guarantee of complete and correct installation and only ensures that pipes have been inserted into fittings passed both the 'O' ring and the grab ring. If pipes are scored or scratched during the installation process this could lead to weeps which may not be highlighted with a high-pressure test alone.

First Fix Installations

1. Pipe and fittings only should be tested, any parts of the system not designed to take these pressures should be isolated from the test.
2. The system should be completely filled using water at an ambient temperature, ensuring all air is expelled from the system.
3. Pressure testing should be carried out as follows:
4. A low-pressure test of 1bar should be applied for 30 minutes, the system should be inspected for leaks whilst the pressure is applied.
5. If the test is successful and no leaks are present this should be followed by:
6. A high-pressure test of 18bar for 30 minutes, the system should be inspected for leaks whilst the pressure is applied.
7. Joint security can be checked visually and by tugging at joints or using the In-Cert® feedback technology on PolyPlumb® Enhanced fittings to confirm the pipe is fully inserted.

Second Fix Installations

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

Underfloor Heating System Testing

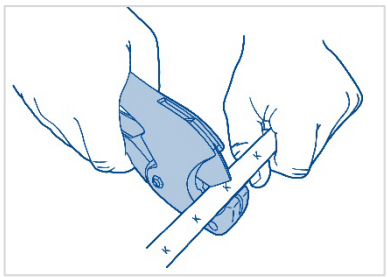
Underfloor heating pipework should be pressurised to 6 bar for 1 hour to check the integrity of the system before laying any screed or finished floor coverings, this can then be reduced to 3 bar while floor coverings are being installed. For further information consult the Polypipe Plumbing & Heating Installation Guide.

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 underfloor 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 underfloor 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.

Please note, due to Health and Safety reasons Polypipe products must not be air tested.

Jointing Instructions for PolyPlumb® Enhanced

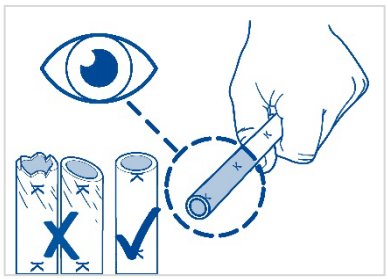


Step 1: Cutting the Pipe

Cut the pipe squarely with a Polypipe pipe cutter using the 'K' marks on the pipe as a guide.

These marks help indicate when the pipe has been fully inserted into the fitting.

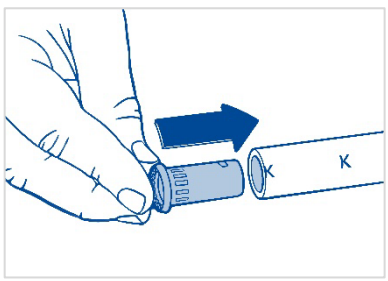
NB – If jointing copper pipe a rotational pipe cutter should be used. Ensure that all cut ends have a rounded lead in and the cut end is deburred to remove any sharp edges. Never use a hacksaw.



Step 2: Checking the Pipe

Visually check the pipe for any scratches or abrasions.

If any are found, the pipe should be cut back to a point where there is no damage, as this may compromise the joint integrity.

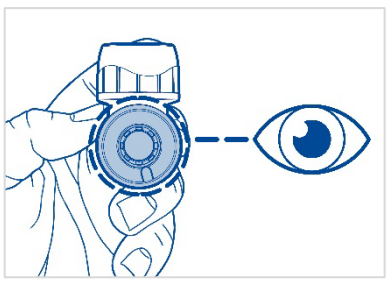


Step 3: Insert Stiffener

Fit the In-Cert® Stiffener into the pipe ensuring that it is fully inserted (not required on copper pipe).

Pipe stiffeners are an integral part of the joint when using Polypipe Plumbing & Heating Pipe with either PolyPlumb fittings or compression fittings.

Polypipe offer other types of pipe stiffener both metal and plastic. However, whilst these are compatible with new PolyPlumb fittings they do not feature the In-Cert® Feedback Technology.

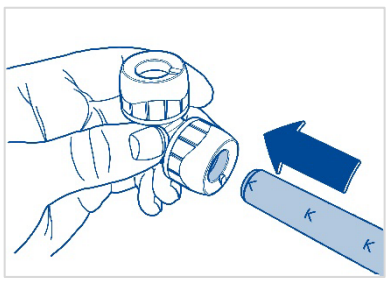


Step 4: Check the Fitting

Visually check the fitting to ensure that all components are present and that there is no damage or contamination (e.g. plaster, cement or other or site debris).

NB – The presence of contamination can lead to damage of the internal components and may compromise the integrity of the joint.

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.



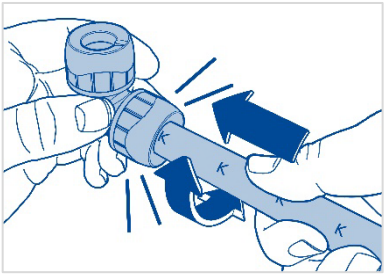
Step 5: Insert the Pipe

Squarely push the pipe into the fitting ensuring that it is fully inserted by using the 'K' marks as reference.

NB – Where the cut has been made elsewhere or if using copper pipe, the insertion depth should be marked on the pipe as below:

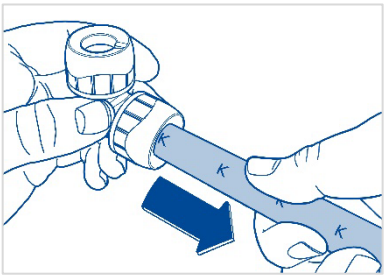
Pipe Diameter (mm)	10	15	22	28
Insertion Depth (mm)	22	27	30	35

Jointing Instructions for PolyPlumb® Enhanced



Step 6: In-Cert® Technology

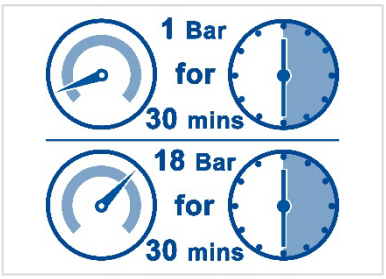
Gently push and twist the pipe in either direction to activate the In-Cert Feedback Technology.



Step 7: Tug Test

A quick tug on the pipe will confirm that the pipe is inserted past the grab ring.

It does not however ensure that the pipe is fully inserted as this can only be confirmed by using the In-Cert Feedback Technology or depth insertion mark.



Step 8: Pressure Testing

Pressure testing should be carried out as follows:

Low pressure test ***1bar for 30 minutes***

Followed by

High pressure test ***18bar for 30 minutes***

Step 9: Do Not Re-joint

Do not re-joint.

The joint is single use only; the grab ring **MUST NOT BE REUSED.**