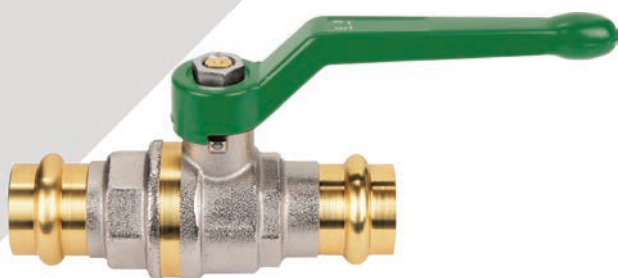


press fit
joints



installation guide

altecnic
Caleffi group

Introduction

Installing valves with press fit end connections or fittings with a press fit connection is quicker and easier than the traditional methods of threading or soldering.

Press fit joints avoid the risks and liabilities inherently connected with using a flammable torch.

Press fit joints are intended for non-shock applications.

Applications were water hammer, stress loading, impacts, corrosive or erosive applications or environments should be avoided.

Preparation

Select clean, undamaged copper tube and cut to the desired length.

Cut the tube end square using a rotary pipe cutter. If a hacksaw is used a fine toothed blade must be used and care taken to ensure the tube is cut squarely.

Deburr the internal and external diameters of the tube using a round nosed file or deburring tool.

Clean the end of the tube of all dirt, oil and grease as well as copper dust and debris from sawing.

NOTE: Tube deburring is critical as rough edges may tear or damage the 'O' ring seal during insertion, which may cause joint leakage.

When using plastic coated carbon steel tube, the coating must be removed to the exact socket depth and the tube deburred.

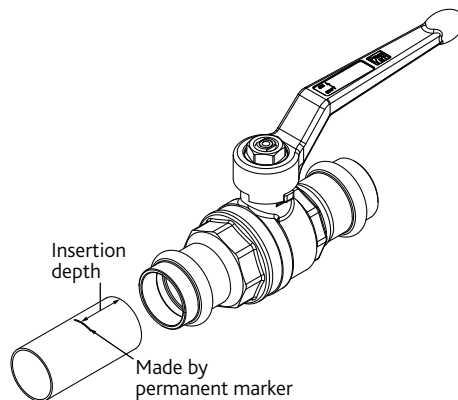
Check the internal diameter of the valve or fitting to ensure the 'O' ring seal is in place and seated correctly, is clean and free from contaminates.

Making the joint

It is important that the tube is fully inserted into the socket before pressing the joint.

This is not always obvious especially on the larger sizes as inserting the tube past the 'O' ring sometimes feels as if it fully inserted when it is not.

To overcome this problem mark the tube with the fully insertion depth using a permanent marker as shown, to the depths given in the table.



Making the joint continued

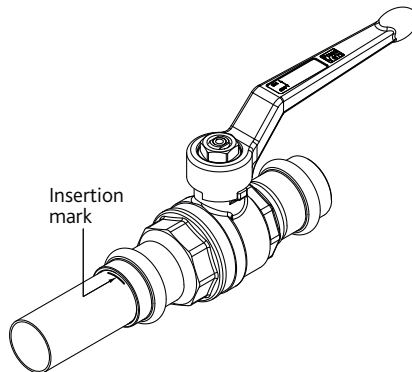
Insertion depth

Tube Diameter	Insertion Depth
15	20
22	21
28	23
38	26
42	30
54	35

Insert the tube into the socket of the valve or fitting using a twisting motion and ensure the tube is fully inserted. Do not use any lubricants when inserting the tube.

Check that the mark on the tube is adjacent to the end of the joint which confirms that the tube is fully inserted.

For plastic coated carbon steel tube the mouth of the fitting should contact the plastic coating.



Press Tool

With the correctly sized jaws inserted into the press tool place them over the bead at the mouth of the fitting. An angle of 90° must be maintained between the tube and jaws to ensure a sound joint.

Depress the trigger or button to commence the compression cycle of the tool, which is completed when the jaws fully enclose the mouth of the press fitting.

Please refer to the press tool manufacturer's instructions for further information.

Spacing

In order to make a joint correctly sufficient clearance around each fitting must be left to allow the press fit jaws to be attached. A minimum of two pipe diameters should be allowed between any two pressed joints.

Do not solder or braze within 300mm of any valve or fitting with press end connections. If absolutely necessary, take the appropriate precautions to protect the 'O' ring seal from any heat source.

Pipework with press fit joints must be adequately supported as with other type of connections.

In this procedure document we have endeavoured to make the information as accurate as possible.
We cannot accept any responsibility should it be found that in any respect the information is inaccurate or incomplete or becomes so as a result of further developments or otherwise.

Altecnic Ltd Mustang Drive, Stafford, Staffordshire ST16 1GW
T: +44 (0)1785 218200 E: sales@altecnic.co.uk
Registered in England No: 2095101

altecnic.co.uk

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