

Specification Clause

Date Created: 26/04/2023

Eco Duo 45 Degree Elbow

Eco Duo 45 Degree Elbow for 15 mm
Eco Duo 45 Degree Elbow for 22 mm
Eco Duo 45 Degree Elbow for 28 mm
Eco Duo 45 Degree Elbow for 35 mm
Eco Duo 45 Degree Elbow for 42 mm
Eco Duo 45 Degree Elbow for 54 mm
Eco Duo 45 Degree Elbow for 66.7 mm
Eco Duo 45 Degree Elbow for 76.1 mm
Eco Duo 45 Degree Elbow for 108 mm



The fittings and tube shall be drawn from the Eco Duo Copper Solder Fittings (available from Water Kinetics), manufactured from copper. These fittings are for jointing copper tube and are available in sizes 15 mm to 108 mm. The fittings shall also offer electrical continuity.

Where pressure/temperature gauges, binder points or drain offs etc are required the Eco Duo Confluence Tee should be used.

Suitable applications include hot & cold potable water services (Eco Duo is not suitable for heating systems) Eco Duo fittings are exempt from the Pressure Equipment Directive (PED 1999) unless they are incorporated into pressure equipment falling within its scope.

Tube Compatibility

Eco Duo Copper fittings are suitable for connecting to the following:

Eco-Duo pipework, certified to BS EN1057 – Copper pipes with a hardness rating R250 (half hard) and BS EN1057 – Copper pipe with a hardness rating of R290 (hard).

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Copper Fittings

Temperature (Degrees C)	Maximum Pressure
-24 to 100	16 Bar (throughout temperature range)

2.0 – Installation

To be Installed in accordance with water and building regulations.

2.1 – Electrical Continuity

All metallic pipe work should comply with the equipotential bonding requirements of the current edition of the IEE wiring regulations (BS 7671: 2001). After all plumbing work has been completed, continuity checks are to be conducted by a qualified electrician in accordance with regulations.

2.2 – Insulation

Water Supply (Water Fittings) Regulations and Building Regulations 1999. Always use suitable insulation.

2.3 – Dissimilar Metals

The UK Water Regulations recommend that tubes and fittings made from different types of metals shall not be connected directly together except where galvanic action is unlikely or where effective measures are taken to prevent it. Galvanic corrosion is a process whereby the materials that come into contact with each other oxidises or corrodes. If you are in doubt, we recommend you refer to the full and detailed information provided in Water Regulations Guide (G2.11 and R3, or by contacting the Water Regulations Advisory Scheme info@wras.co.uk).

2.4 – Temperature

For products used in water systems, working temperatures of less than 4 degrees C can only be achieved if antifreeze is added to the system.

2.5 – Hot Works

The Eco-Duo Copper Solder Fittings range requires a heat source for jointing so hot work permits and the current HSE regulations will apply.

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2.6 – Solder Process and Tooling

Water Kinetics Ltd do not manufacture or provide solder or solder tools, these can readily be acquired from most hardware or plumbing stores. Lead-free solder must be used with potable water systems. Pipes must not be wet during soldering. Pressure should not be allowed to build up in the pipe system when soldering, any valves should be open. Please check Eco-Duo installation information for more details.

2.7 – Pre-Installation – Health and Safety

Before starting work on any installation, a risk assessment must be made to consider the possibility of operational limits being exceeded and reduction or elimination of any potential hazards. Protective clothing and safety equipment must be utilised as appropriate to the hazard presented by the nature of the process of the installation. The system shall be installed all in accordance with the manufacturers installation recommendations.

3.0 – Testing

Eco-Duo Copper installations may be tested to 1.5 times their normal working pressure at ambient temperature to a maximum of 16 bar. If higher test pressures are required advice should be sought from Water Kinetics Limited.

3.1 – Additives

It is strongly recommended to consult a commissioning engineer in conjunction with the manufacturer prior to their use.

3.2 – Warranty

Eco-Duo is guaranteed against all manufacturing defects for 25 years when installed as a system using Eco-Duo copper tube.

3.3 – Storage

Eco-Duo Copper tube and fittings must be protected against dirt and damage whilst in transit and being stored. The fittings should be kept in the packaging until point of use.

4.0 – Contact Details

For further details please contact our technical department:

0141 280 9585

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