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JG Speedfit®

THE PUSH-FIT SOLUTION FOR PLUMBING AND HEATING SYSTEMS

Speedfit Fittings are suitable for use with copper pipe.



Included in this leaflet:

- **Product Guide**
- **Trade Tips**
- **How Speedfit Works**
- **Making a Good Connection**

June 2011

JG Speedfit®

*Fittings for Central Heating or
Hot & Cold Water Services*

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Quality Manufacture

*A commitment to quality is at the heart of the
John Guest Philosophy.*



The strictest control is maintained by virtue of the fact that design and manufacture is carried out in modern purpose built manufacturing centres in West London and at Maidenhead in Berkshire.

Maintaining control over the whole process from initial tool design and tool making through to final assembly and testing ensures that only products of the highest quality are produced.

The company believe it is this commitment to quality that has led to it receiving prestigious awards from many of the world's leading testing and approvals organisations.

John Guest is a preferred supplier to many international companies and continues to expand its market reach.

What is JG Speedfit?

JG Speedfit is a push-fit system for normal UK domestic plumbing and heating systems.

Simply pushing a pipe into a fitting produces a permanent leakproof connection. A unique locking system using stainless steel teeth grips the pipe and an 'O' ring provides a leak proof seal. The fittings can be disconnected and used again without the need for replacement parts.

The low insertion force needed to make a connection means Speedfit is especially easy to install in hard to reach spaces and, as there is no need for a blowtorch, there is no risk of fire, fumes or other damage to décor.

The installation is greatly enhanced by the clean, all white appearance of pipe and fittings.

The flexibility of Speedfit Pipe means it can be threaded through concealed or inaccessible places.

Speedfit Fittings are suitable for both copper and Speedfit Pipe. And the range includes Flexi Hoses, ideal for plumbing in new taps or mixers, a unique Tap Connector which needs only a simple hand tightening operation (no spanner needed) and Appliance Taps that make for an easy installation of a washing machine or dish washer

Designed for a service life of 50 years, Speedfit products have WRAS and BBA Approval and are Kitemarked to BS7291 Parts 1,2 & 3 Class S.

25 Year Guarantee



Why Choose Speedfit?

System Features

- Truly demountable without damage to pipe or fitting
- Grip and seal connection
- Superseal Insert gives secondary seal
- Reduced pipe insertion force
- Lightweight and easy to handle on site

System Benefits

- Installation time reduced by up to 40%
- Pipe flexibility permits the cabling of pipe through less accessible areas
- No risk of fire or flames from a blowtorch
- Easier to work in confined places
- A permanent leak-proof connection
- Corrosion free
- No scale build up
- Lower thermal diffusivity maintains safer surface temperature
- Pipe elasticity can reduce the possibility of bursting under freezing conditions
- Lead free and non toxic
- Less noise from water flow and expansion/contraction
- Long pipe lengths reduce fittings required

Trade Tips

- **Make sure to always use a Pipe Insert when using Speedfit Pipe.**



This makes the pipe completely round ensuring the best possible seal between the 'O' ring and the outside diameter of the pipe. When using Speedfit Pipe with a compression fitting

the Insert gives rigidity to ensure the pipe does not collapse under pressure as the compression olive is tightened.

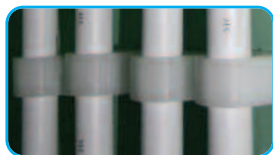
- **Always remove burrs and sharp edges.**



Make sure the pipe is cut square and remove burrs and sharp edges as these will damage the rubber 'O' ring. Always use a pipe cutter rather than a hacksaw.

- **Never bury fittings in plaster or concrete unless in an access box.**

- **Pipe Clips.**



Pipe Clips should not be fitted any closer than 60mm from the end of the fitting. Pipe should be adequately supported by the use of Pipe Clips to prevent any undue stress.

- **Connection to the boiler.**

A minimum 1 metre run of copper pipe must be installed between the boiler and the Speedfit System.

- **Blend in with your decoration.**

To help in with your decoration, Speedfit Fittings and Pipe can be painted with oil or water based paint.

- **Speedfit Fittings and Pipe should be insulated if there is a risk of freezing.**

- **Stainless Steel and Chrome Plated Pipe.**

Speedfit Fittings should not be used with stainless steel or chrome plated pipe. This is because it is difficult for teeth in a Speedfit Fitting to 'bite' into the very hard surface. And therefore the fitting could slip along the pipe.

- **Side Loads.**

Fittings should not be subject to excessive side loads and they should not be used as support brackets. Tubing and fittings should be adequately supported to prevent excessive side loading.

- **Exposure to Sunlight.**

Speedfit products, when used indoors, are not affected by sunlight. When used outdoors protect from ultra violet light by lagging or painting.

- **Solder Flux.**

No fluxes of any type should come into contact with Speedfit Pipe and Fittings. If fluxes are to be used in an environment where Speedfit is present extreme care should be taken to avoid such contact.

- **Guaranteed for 25 years.**

As a result of long term test programmes and rigorous quality standards John Guest Speedfit Limited offer a 25 year guarantee against defects in materials or manufacturing of 'PEM', 'PSE' and 'SFM' range plumbing fittings and Speedfit Barrier Pipe manufactured by John Guest.

John Guest Plumbing and Heating Products are for use with normal UK domestic plumbing and heating systems and supplied in accordance with our Conditions of Sale.

How Speedfit Works

Speedfit Fittings have a unique grip then seal construction made up of a collet with stainless steel teeth to grip the pipe and an 'O' ring to provide a permanent leak proof seal.

Always use a Pipe Insert when connecting Speedfit Pipe.

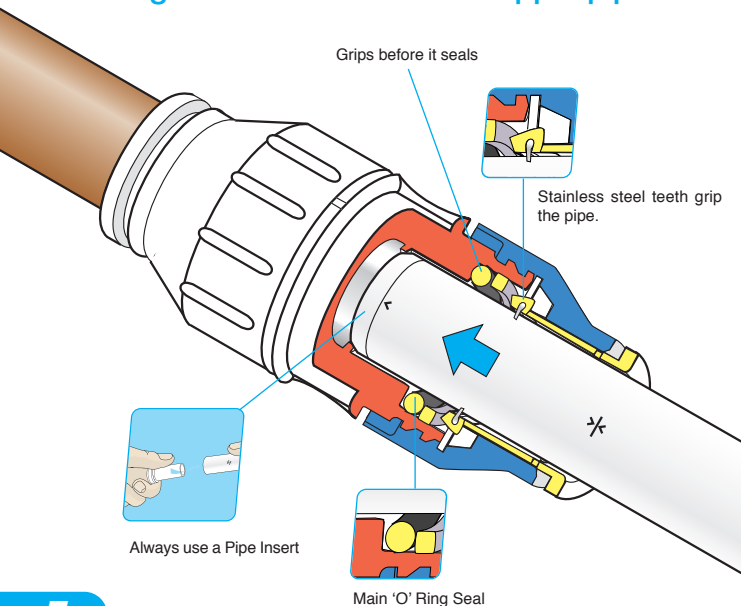
The insert provides greater rigidity of the pipe within the fitting and ensures the pipe is completely round to make for a better seal between the 'O' ring and the outside diameter of the pipe.

The stem of the insert gives greater rigidity of the length of pipe within the fitting, reducing the chance of leaks if a side load is applied.

The head of the insert has been designed for ease of insertion.

The additional benefit of Twist and Lock Fittings is that a twist of a screwcap locks the pipe in position and gives increased compression on the 'O' ring for even greater security.

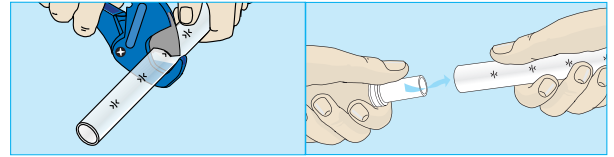
Fittings can also be used on copper pipe.



Making a Good Connection

Fittings and pipe should be kept clean, bagged and undamaged before use.

Prepare the Pipe

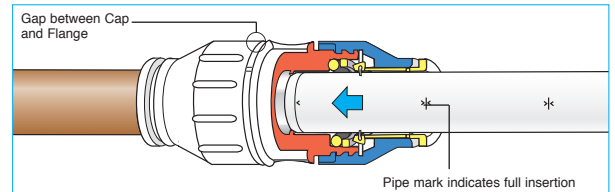


Ensure the pipe is free of score marks. Cut the pipe square. When using Speedfit Barrier Pipe cut along an insertion mark. We recommend the use of JG Pipe Cutters.

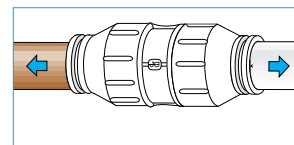
To prevent damage to the 'O' ring remove all burrs and sharp edges. When using Speedfit Pipe use a Speedfit Pipe Insert. A twisting motion will aid insertion. The insert should only be used with Speedfit Pipe.

Twist and Lock Fittings.

The fitting should be in the 'unlocked' position, this is shown by a small gap between the screwcap and the body flange.



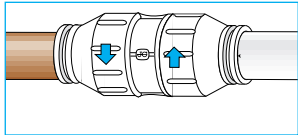
Push the pipe into the fitting, up to the pipe stop. If the Speedfit Pipe has been cut correctly the insertion mark on the pipe will be level with the collet head. A good connection has been made.



Pull to check connection is secure. It is good practice to test the system prior to leaving the site or before use. Our recommended test procedure is shown in our Technical Checklist.

Making a Good Connection

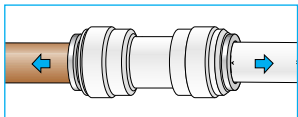
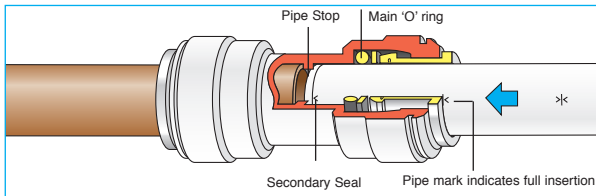
Added Benefit of Twist and Lock.



Twist the screwcap until it touches the body flange. This locks the pipe into position and increases the 'O' ring seal around the pipe for greater added security.

Standard Fittings.

Standard Speedfit connections are made in the same way as Twist and Lock.

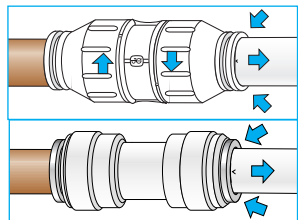


Pull to check the connection is secure. It is good practice to test the system prior to leaving the site or before use.

To Disconnect.

Ensure the system is depressurised.

The screwcap on Twist and Lock fitting will need to be turned back to the unlocked position.

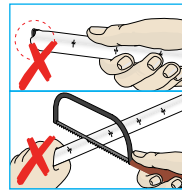


Push the collet square against the face of the fitting using fingers or with the help of our collet release tool.

With the collet held in this position the pipe can be easily removed.

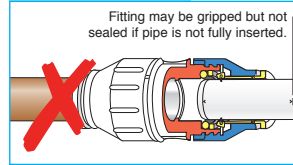
The fitting can be used again without the need for replacement parts.

WHAT NOT TO DO.



Don't use damaged or scored pipe.

Don't use hacksaws to cut the pipe or leave burrs on the end of the pipe.



Don't forget to push the pipe fully into the fitting, past both the collet (gripper) and the 'O' ring.

Do not insert fingers into the fitting as the stainless steel teeth may cause injury.

Remember to pressure test the completed installation according to the recommendations in our Technical Checklist.



EQUAL STRAIGHT CONNECTOR

SIZE
MM

10
15
22



Suitable for central heating systems.

EQUAL TEE

SIZE
MM

10
15
22



Suitable for central heating systems.

REDUCING STRAIGHT COUPLER

SIZE
MM

15 x 10
22 x 15



Suitable for central heating systems.

REDUCING TEE

SIZE
MM

15 x 15 x 22
22 x 15 x 15
22 x 15 x 22
22 x 22 x 15



Suitable for central heating systems.

Sizes are listed in the following order.



EQUAL ELBOW

SIZE
MM

10
15
22



Suitable for central heating systems.

STRAIGHT TAP CONNECTOR

SIZE
MM X BSP

15 x 1/2"
15 x 3/4"
22 x 3/4"



Suitable for central heating systems.
For torque figures see Technical Checklist.

With brass swivel nut and sealing washer.

REDUCING ELBOW

SIZE
MM

22 x 15



Suitable for central heating systems.

BENT TAP CONNECTOR

SIZE
MM X BSP

15 x 1/2"



Suitable for central heating systems.
For torque figures see Technical Checklist.

With brass swivel nut and sealing washer.

STEM ELBOW

PIPE
MM

15 x 15
22 x 22



Provides a swivel type connection.

Suitable for central heating systems.



PIPE REPAIR KIT

SIZE
MM

15
22



Suitable for central heating systems.

Provides a simple way of repair on a rigid pipe run.

Remove a damaged section of pipe and replace with a repair kit.

SLIP TEE CONNECTOR

SIZE
MM

15
22



Suitable for central heating systems.

Provides a simple way to break into an existing pipe run.

REDUCER

SIZE
MM

15 x 10
22 x 15



Suitable for central heating systems.

BRASS DRAIN COCK

SIZE
MM

15



Suitable for central heating systems.
 Manufactured in DZR Brass.

Speedfit Drain Cocks cannot be used where
 collet covers are fitted. They can be used
 with a standard fitting fitted with a collet clip.

BRASS MALE COUPLER

SIZE
MM X BSP

15 x 1/2"
 22 x 3/4"



Suitable for central heating systems.
 Manufactured in DZR Brass.

**BRASS BACK PLATE
 ELBOW**

SIZE
MM X BSP

15 x 1/2"



Suitable for central heating systems.
 Manufactured in DZR Brass.

STOP END*

SIZE
MM

10
 15
 22



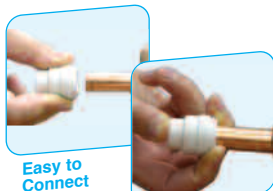
Suitable for central heating systems.

Just use your hands!

* The unique feature of the Speedfit concept, the ability to easily connect and disconnect the fitting should you want means the Speedfit Stop End not only provides a permanent leakproof seal but can also be used to give a temporary shut off to allow for a job to be interrupted and the water turned back on overnight for instance, or if the job has to be interrupted for any other reason.

With Speedfit Stop Ends there is no need for tools, sweating or threading. They can be used with plastic or copper pipe, and are reusable many times over.

*For a permanent or
 temporary shut off*



Easy to
 Connect

Easy to
 Disconnect

TANK CONNECTOR*

**Hand tightening
 tank connector**

SIZE
MM

15
 22



Suitable for cold water tanks only.

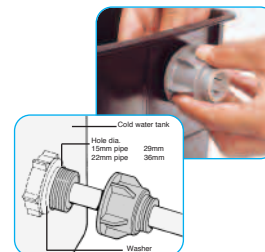
Requires hand tightening only.
 Maximum wall thickness of tank 4mm.

Just use your hands!

* To install the Speedfit Tank Connector, unscrew the nut and push the body of the fitting through the tank hole with the washer inside the tank.

Hand tighten the nut on to the body. Push the pipe into the connector

Note : Hand tightening the nut on to the body is all that is needed, further mechanical tightening will damage the fitting.



**FEMALE COUPLER -
 TAP CONNECTOR***

**Hand tighten tap connector.
 No tools required**

SIZE
MM X BSP

15 x 1/2"
 22 x 3/4"

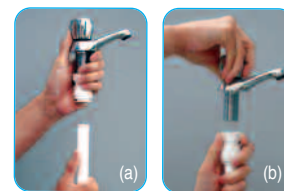


Just use your hands!

* The unique Speedfit Tap Connector means you only need a simple hand tightening operation to connect a tap or mixer to a water supply. Useful when replacing existing brassware in confined spaces such as under a sink or a bath.

An integral seal within the product avoids the need for further sealant.

Because of the ability of Speedfit Fittings to be twisted while connected to the pipe, there are two ways of installing the tap connector. Either (a) screw the connector onto the tap and then fit the pipe or (b) push the pipe into the connector and screw the connector onto the tap.

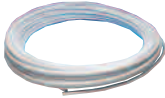


JG Speedfit® Pipe & Accessories

SPEEDPEX BARRIER PIPE

SIZE
MM X MM

10 x 25
15 x 25
15 x 50
22 x 25



Suitable for central heating systems.

Coils

The pipe has an inner barrier to stop the ingress of atmosphere.

British Gas accepted for water pipe in vented and sealed central heating systems.

SPEEDPEX BARRIER PIPE

SIZE
MM X MM

15 x 2
15 x 3
22 x 2
22 x 3



Suitable for central heating systems.

Straight lengths

The pipe has an inner barrier to stop the ingress of atmosphere.

Available in 2 metre and 3 metre lengths.

PIPE INSERT

SIZE
MM

10
15
22



Suitable for central heating systems.

Always use a Speedfit Pipe Insert when connecting Speedfit Pipe to a Speedfit Fitting or to a compression fitting.

NAIL CLIP

SIZE
MM

10
15
22



PIPE CUTTER



For up to 22mm size pipe.

Service Valves

Water Regulations require that you fit a Service Valve on the supply pipe to a tap, mixer or float valve. This is to allow for a temporary shut off for future repair or replacement without the need to shut down and drain the whole of the system. Service Valves have a quarter turn mechanism operated by a screwdriver slot, to help avoid unauthorised tampering.

PLASTIC SERVICE VALVE ●

SIZE
MM

15
22



Not suitable for central heating systems.
Hot and Cold water only, 65°C maximum.

BRASS CHROME PLATED SERVICE VALVE ●

SIZE
MM

15
22



Suitable for central heating systems.

PLASTIC SERVICE VALVE WITH TAP CONNECTOR ●

SIZE
MM X BSP

15 x 1/2"



Not suitable for central heating systems.
Hot and Cold water only, 65°C maximum.

BRASS CHROME PLATED SERVICE VALVE WITH TAP CONNECTOR ●

SIZE
MM X BSP

15 x 1/2"

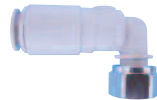


Suitable for central heating systems.

PLASTIC ANGLE SERVICE VALVE WITH TAP CONNECTOR ●

SIZE
MM X BSP

15 x 1/2"

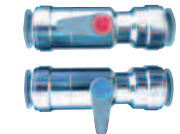


Not suitable for central heating systems.
Hot and Cold water only, 65°C maximum.

BRASS CHROME PLATED BALL VALVE ●

SIZE
MM

15
22



Suitable for central heating systems.
Each Valve has a red and a blue indice.

1/4 Turn Valves. These valves have been designed to allow temporary servicing of downstream equipment and must only be used in the fully open or fully closed position.

Do Not use these Valves:

- In a partially open position to control flow.
- To provide a permanent termination.
- Without tubing assembled or plugged (or threaded connections sealed).
- As a tap or "faucet".

1/4 Turn Valves are indicated by this marker '●'

APPLIANCE TAP & APPLIANCE TEE

No Tools Required

APPLIANCE TAP •

SIZE
MM X BSP



15 x 3/4"

Not suitable for central heating systems.
Hot and Cold water only, 65°C maximum.

APPLIANCE TEE •

SIZE
MM X BSP



15 x 3/4"

Not suitable for central heating systems.
Hot and Cold water only, 65°C maximum.

Just use your hands!

The plumbing in of a washing machine or dish washer could not be easier when you use the Speedfit Appliance Tap or Appliance Tee.

The supply pipe, fitted with a pipe insert, is pushed into the tap to provide a permanent leak-proof seal. No tools needed - all you need is a pair of hands.

The plastic thread on the outlet makes for an easy connection to the plastic thread on the hose.

A large round handle makes an easy grip on/off control.



EMERGENCY SHUT OFF TAP •

SIZE
MM



15

Not suitable for central heating systems.
Hot and Cold water only, 65°C maximum.

DOUBLE CHECK VALVE

SIZE
MM



15

Not suitable for central heating systems.
Hot and Cold water only, 65°C maximum.

STOP VALVE

SIZE
MM



15
22

Not suitable for central heating systems.
Hot and Cold water only, 65°C maximum.

THERMOSTATIC RADIATOR VALVE

SIZE
MM



15

BRASS STOP VALVE

SIZE
MM



15

Suitable for central heating only.
Body and Head DZR Brass.

LOCKSHIELD RADIATOR VALVE

SIZE
MM



15

1/4 Turn Valves. These valves have been designed to allow temporary servicing of downstream equipment and must only be used in the fully open or fully closed position.

Do Not use these Valves:

- In a partially open position to control flow.
- To provide a permanent termination.
- Without tubing assembled or plugged (or threaded connections sealed).
- As a tap or "faucet".

1/4 Turn Valves are indicated by this marker '•'

JG Speedfit® Flexi Hoses

Flexi Hoses provide an easy way of connection; especially useful when connecting up to a Tap or Mixer, Speedfit White Flexi Hoses are manufactured with a multi layer construction. An inner and outer layer of white PVC sandwich Polyester braiding, spirally bound, to give extra strength. An innermost layer of a special thermoplastic maintains water quality.

There are patterns with an integral service valve to give temporary shut off - see Service Valves.

More specialist patterns have been designed to help the installation of monobloc mixers. Sold in pairs, each hose in the pair has different spanner location to ease connection of the threaded ends into a monobloc's inlet.

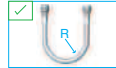
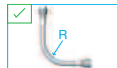
**The hoses are not suitable for central heating.
Hot and Cold Water Only 6 Bar @ 65°C.**

When Installing a Flexi Hose.

Observe minimum bend radius and use elbow fittings if necessary.

Minimum Bend Radii

15mm x 1/2" Hoses	R 50mm
22mm x 3/4" Hoses	R 75mm
22mm x 3/4" Full bore hoses	R150mm



Undersize bend radii stresses fittings and kinks the tube.



Do not over stretch, allow room for contraction.



Do not rotate or twist.



Minimum / Maximum Torque Figures

to be used on the brass threads of flexi hoses:

M10, M12, 3/8" BSP & 1/2" BSP 1.5 - 4.0 Nm, 3/4" BSP 1.5 - 5.0 Nm

SPEEDFIT X UNION NUT

SIZE
MM X BSP

300mm
15 x 1/2"
15 x 3/4"
22 x 3/4"
500mm
15 x 1/2"
15 x 3/4"
22 x 3/4"



SPEEDFIT X UNION NUT WITH SERVICE VALVE •

SIZE
MM X BSP

Plastic Valve with Handle
300mm
15 x 1/2"
22 x 3/4"
500mm
15 x 1/2"



FOR MONOBLOC MIXERS

SIZE
MM X MALE

300mm
15 x M10
15 x M12



SPEEDFIT X SPEEDFIT

SIZE
MM X MM

300mm
15 x 15
500mm
15 x 15



SPEEDFIT X UNION NUT WITH SERVICE VALVE •

SIZE
MM X MALE

Plastic Valve with Handle
300mm
15 x 1/2"

Plastic Valve
500mm
15 x 1/2"



SPEEDFIT X UNION NUT

SIZE
MM X BSP

300mm
15 x 1/2"
15 x 3/4"
22 x 3/4"
500mm
15 x 1/2"
22 x 3/4"



Just use your hands!

Just use your hands!

1/4 Turn Valves. These valves have been designed to allow temporary servicing of downstream equipment and must only be used in the fully open or fully closed position.

Do Not use these Valves:

- In a partially open position to control flow.
- To provide a permanent termination.
- Without tubing assembled or plugged (or threaded connections sealed).
- As a tap or "faucet".

1/4 Turn Valves are indicated by this marker '•'

JG Speedfit® Blue

Cold Water Services

This new range of fittings for MDPE Pipe has an improved collet with stainless steel teeth to provide extra grip on the pipe and has WRAS Approval.

Applications

Speedfit underground fittings for MRS PE80 metric size polyethylene cold water service pipe have been designed for connection of:

1. **Blue MDPE pipes to BS 6572** - used for underground service pipes for potable water.
2. **Black MDPE pipes to BS6730** - used for conveyance of potable water above ground or for industrial services above or below ground.
3. **Pipe to ISO 161/1, BS ISO 11922 and DIN 16893.**

Making the connection could not be easier. All you need is the pipe, the fitting and a pair of hands. The range is designed to provide a long service life and includes adaptors for screwed pipe, copper and imperial sized LDPE.

Installation Benefits

- Easy to use in confined spaces, no tools required
- Fast installation with resulting cost savings
- Lightweight and slimline
- Ready for immediate installation, no dismantling
- No adjustments required after fitting
- Adaptors for screwed pipe, copper and imperial LDPE

Performance Benefits

- Maintenance free
- Durable with high resistance to impact
- Patented collet ensures high resistance to pull out
- Lead free and non toxic
- Will not support biological growth
- A reliable and trouble free leakproof connection

EQUAL STRAIGHT CONNECTOR

SIZE
MM

20
25



Cold water only

EQUAL TEE

SIZE
MM

20
25



Cold water only

REDUCING STRAIGHT CONNECTOR

SIZE
MM

25 x 20



Cold water only

STOP END

SIZE
MM

20
25



Cold water only

PE-COPPER COUPLER

SIZE
MM X BSP

20 x 15
25 x 15
25 x 22



Cold water only

PIPE INSERT

SIZE
MM

20
25



Cold water only

EQUAL EBOW

SIZE
MM

20
25



Cold water only