



# Plumbing Fittings

Trade Guide and  
Technical Manual

**RWC**

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DONE.**



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## Terms and Conditions

No party should rely upon the contents of this publication as to the fitness of any particular product for any particular use or application. Goods are offered with the benefit of the manufacturers warranty. Reliance Worldwide Corporation (Aust.) Pty Ltd. shall not be liable for any loss or damage either direct or consequential arising from any defect.

RWC reserves the right to modify designs and specifications and to withdraw and introduce products at any time without notice.

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## Installation

Installation is subject to the requirements of the applicable regulatory authority, the National Construction Code Volume Three – Plumbing Code of Australia, associated reference standards as applicable at the time and AS/NZS 3500. This product is compliant to the Lead Free requirements of the National Construction Code Volume Three. For further Scope of Use, please visit [www.sharkbite.com.au/resources](http://www.sharkbite.com.au/resources).

## Reliance Worldwide Corporation Warranty

Reliance Worldwide Corporation (Aust.) Pty. Ltd. (RWC) will either replace or repair any defective goods where the defect arose as a result of manufacture for up to twenty-five (25) years (see website for more details). You may contact RWC at the phone number, address or e-mail shown and will be required to return the goods for evaluation. Should the defect be found to be one of our manufacture we will send you a replacement product to your stated address at our expense. Our goods come with guarantees that cannot be excluded under Australian Consumer Law. You are entitled to a replacement or refund for a major failure and for compensation for any other reasonably foreseeable loss or damage. You are also entitled to have the goods repaired or replaced if the goods fail to be of acceptable quality and failure does not amount to a major failure. Visit [www.rwc.com.au/warranty](http://www.rwc.com.au/warranty) to view the warranty statement in full and for further important information.

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## Environment

We recognise that environmental impacts are increasingly important to our stakeholders and to society more broadly. RWC actively manages its consumption of energy, water and raw materials for manufacturing and packaging to mitigate our impact on the environment.

RWC supports local and global efforts to combat climate change and strives for a sustainable low carbon future. Our efforts are aligned with the UNFCCC Paris agreement which is focused on reducing emissions to limit global warming to a 1.5 °C increase from pre-industrial level.

## System Description

SharkBite Max™ is a high-performance Push-To-Connect solution suitable for Copper and PEX applications.

SharkBite Max™ is manufactured under RWC's stringent and rigorous quality control to ensure every fitting and pipe meets the demands of real-world plumbing.

The system includes fittings suitable for PEX in 16mm, 20mm and 25mm sizes as well as fittings suitable for Copper in DN15, DN20 and DN25 sizes, offering robust versatility for new installations, maintenance and retrofit applications. Made for domestic and commercial water supply systems. Designed for licensed plumbers who value precision and reliability. It's a smarter, stronger and faster way to get the job done.

## System Benefits

- Instant Push-To-Connect connection. Cut. Push. Done.
- No expensive tools required—no soldering, glue or joining tools
- Patented technology
- Reinforced 304 stainless steel retainer for extra strength
- Compact, robust LF DZR brass body is strong, corrosion resistant and durable
- Transition fittings to Cu, SDR7.4 PEX, other SDR9 PEX and Polybutylene
- No product waste; simply disconnect and reuse
- Demountable, reusable and rotatable after installation
- Quick and easy to install in both wet and dry conditions
- Approved for behind the wall installations
- Approved for underground installation with SharkBite® Silicone Wrap (VC870)
- Fittings supplied ready for installation
- Clean, professional installation
- SharkBite® PEX Pipe is pre-gauged with 'Safe-Seal Indicator Markings' to aid correct installation

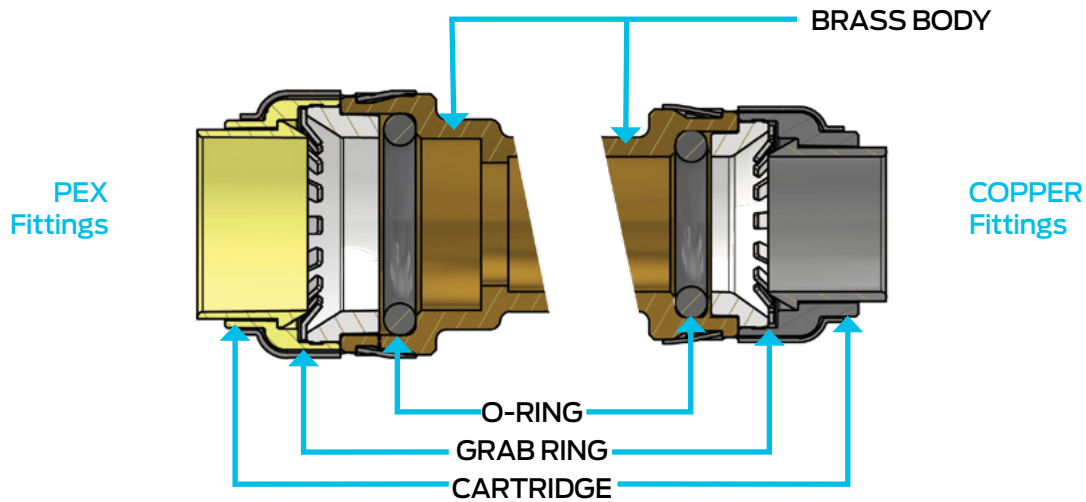
## Plumbing System Comparison

Feature	Push-To-Connect SharkBite®	Crimp	Expansion
No joining tools required	✓	✗	✗
No calibration/maintenance required for proper function of the tool	✓	✗	✗
No grooves in the tubing caused by the expansion tool that can create potential leak paths	✓	✓	✗
No potential for leaks caused by nicks on the fitting exterior	✓	✗	✗
Suitable for PEX & Copper Applications	✓	✗	✗
Easy install with minimal learning curve for new plumbers	✓	✗	✗
Reusable during installation – no wasted products	✓	✗	✗
Fitting factory assembled, ready to install from the bag	✓	✓	✗



## The SharkBite Max™ Design

The SharkBite Max™ fitting incorporates a number of unique and patented features.



## Materials

<b>Body</b>	Lead Free DZR C69300
<b>Grab Ring</b>	316 Stainless Steel
<b>O-Ring</b>	EPDM
<b>Cartridge</b>	15% Glass-filled Nylon 6

SharkBite Max™ Push-To-Connect (PTC) fittings are made from lead free dezincification resistant brass (LF DZR) compliant with the low lead requirements specified in NCC 2022 Volume Three - Plumbing Code of Australia. Products are available in 100+ configurations including Couplings, Elbows, Tees, Reducers, Threaded Adaptors, Caps, Breeches, Ball Valves, Tempering Valves and Copper Slip Repair Couplings plus Conversion Couplings and Tees to Cu, SDR7.4 PEX, other SDR9 PEX and PB.

## Cross-Linked Polyethylene

SharkBite® crosslinked polyethylene is extruded as a PEX-b pipe and manufactured using the silane or 'moisture cure' method and is made in a two stage simple process.

1. Silane grafted polyethylene is combined with a catalyst and extruded into PEX-b pipe.
2. The cross linking process is then performed by curing the pipe via steam.

The moisture cure process of cross linking PEX-b pipe enhances pipe performance properties including strength, temperature, chemical resistance, crack, creep and abrasion resistance, pipe flexibility, pressure rating, expansion and contraction.

Additionally, SharkBite® Crosslinked Polyethylene is made using a PEX100 rated material which provides the benefits of an SDR9 pipe wall, improved flow rates, whilst achieving a pressure rating equivalent to an SDR7.4 pipe, classically made with PEX80 material.

## SharkBite® PEX Pipe

SharkBite® PEX pipe is an SDR9 PEX-b pipe available in sizes 16, 20 and 25mm in coils and straights with over 30 variations from 5m lengths to 100m coils, in a variety of different colour codes according to AS 2492 and the relevant applications.



### Mustard Pipe

Mustard Pipe is typically used for Potable Water but can also be used for hot water installations.



### Red Pipe

Red Pipe is for hot water application only.



### Purple Pipe

Purple Pipe is coloured and branded specifically for Recycled Water applications in accordance with the authorities' requirements for the distribution of water not suitable for human consumption. This water is generally used for watering gardens and supply to cisterns.



### Green Pipe

Green Pipe is available for rainwater application only.

## PEX Dimensions

NOMINAL OUTSIDE DIAMETER	16.0	20.0	25.0
Average wall thickness	2.15	2.45	3.00
Average internal diameter	11.9	15.2	19.2

## Precautions

### Chemicals

Always check with RWC before using SharkBite® PEX pipe for applications other than for potable water. Additionally, check with RWC if pipework is to be installed in a known contaminated area, in contaminated soils or where chemical spills may have occurred.

### Electrical

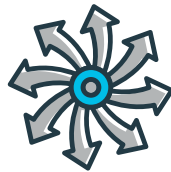
It is of the utmost importance that if a metallic pipe is being replaced or installed in part or in its entirety by a plastic pipe or other non-metallic fittings or couplings, the requirements of AS/NZS 3500 must be followed. Additionally, copper tube connected to a SharkBite Max™ fitting does not guarantee electrical continuity. No work should be carried out until the earth requirements have been checked by an electrical contractor and modified if necessary.

## 25 YEAR WARRANTY



The SharkBite Max™ range of fittings and SharkBite® PEX pipe can be relied upon to perform year after year. SharkBite Max™ is backed by the Reliance Worldwide Corporation (Aust.) Pty. Ltd. 25 year warranty.<sup>1</sup>

## VERSATILE AND REUSABLE



Can be easily disconnected using the SharkBite® Disassembly Clips. Fittings can be rotated once installed allowing for more versatile, easier use, especially in confined spaces. This feature is particularly useful where repairs and/or maintenance is required.

## QUICK AND EASY



SharkBite® is quick and easy to install, making it the most time effective plumbing system available, allowing the installer to move onto the next job faster than ever before.

Utilising state of the art Push-To-Connect system design, SharkBite® fittings and pipes are easily assembled by hand.

## STANDARDS APPROVED



SharkBite Max™ PEX fittings and pipe comply with and are approved to Australian Standards AS/NZS 2537 and AS 2492 respectively.



SharkBite Max™ copper fittings comply with and are approved to Australian Standards and AS 3688.

## Approved Applications

SharkBite Max™ fittings are available for use with both PEX and copper pipe applications. The SharkBite Max™ system has WaterMark certification to AS/NZS 2537 and AS 2492 product standards for use in potable water. For copper installations, fittings are designed and certified to AS 3688, ensuring compliance with Australian plumbing standards.

SharkBite Max™ plumbing systems are approved for hot and cold potable water installations above and below ground. Please consult with local codes for final approval. Failure to comply with the above types of pipe applications could result in connection failures.

### REFERENCES

- A. AS/NZS 4020 – Testing of products for use in contact with drinking water.
- B. AS 2492 – Cross-linked polyethylene (PEX) pipes for pressure applications.
- C. AS/NZS 2537 – Mechanical jointing fittings for use with cross-linked polyethylene (PEX) pipe for hot and cold water applications.
- D. AS 3688 – Water supply – metallic fittings and connectors.
- E. AS 1432 – Copper tubes for plumbing, gas fittings and drainage applications.
- F. AS 2345 – Dezincification resistance of copper alloys.
- G. AS/NZS 3500 – National plumbing and drainage.
- H. NSF/ANSI/CAN 372 – Drinking Water System Components – Lead Content
- I. NCC 2022 Volume Three – Plumbing Code of Australia

## Water Quality and Chlorine

Potable water in Australia is sourced through various methods and governed by the Australian Drinking Water Guidelines. To meet these standards, chlorine and other agents may be present in the water or used during commissioning.

For standard discontinuous flow applications, chlorine levels within guideline limits are generally acceptable. However, in continuous flow systems—such as circulating hot water lines—a maximum chlorine concentration of 1.2 ppm must be maintained.

Water pH must exceed 7.5. If there are concerns about water chemistry, including chlorine levels at a specific site or application, installers should contact RWC for guidance.

The SharkBite Max™ plumbing system is certified to AS/NZS 2537, AS 2492 and AS 3688, with all components also meeting AS/NZS 4020. This certification confirms that the system does not promote microbial growth, including legionella.

RWC recommends engaging an independently accredited provider for any chemical flushing. This process must comply with the Australian Drinking Water Guidelines, which prohibit flushing potable systems with chlorine concentrations above 5 ppm. Flushing must also adhere to the operating temperatures and pressures outlined in SharkBite Max™ Technical Literature. Improper dosing with high-concentration chlorine solutions can damage any piping system. Chlorine levels must not exceed 5 ppm at any point in the system.

AS/NZS 4020 prescribes tests for analysing the suitability of products for use in contact with drinking water, with regard to their effect on the quality of the water. It is a requirement of Watermark Certification. Both the fittings and the pipes separately have been tested and passes the requirements of this standard.

## Acoustic Tests

The following are the results of acoustic testing performed on the SharkBite® plumbing system.

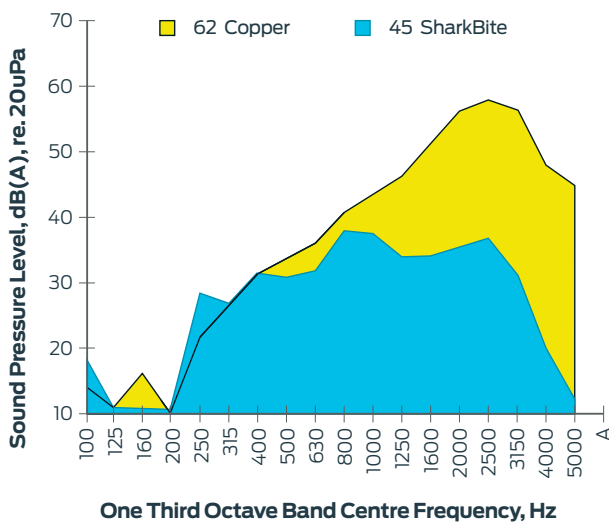
### Results Summary

- The noise emitted by the pipes through the wall was mainly evident in the mid to high frequencies of the A-weighted spectrum.
- Noise emitted at frequencies below 250Hz was affected by the level of background noise in the room.
- The change in radiated noise level was greater with the change in water flow compared with the change in water pressure.
- In all cases the overall noise level emitted by the SharkBite® pipe was less than for the copper pipe. For the same flow conditions the differences in overall noise level between the pipes was between 14 and 17dB(A).

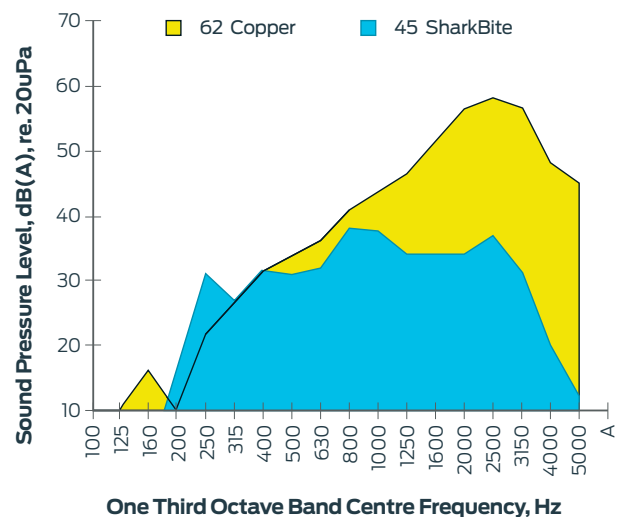
### Conclusion

Measurements of noise emitted from nominal 15mm bore pipes attached to the other side of a concrete block wall with water flowing through them and a noise source in the pipe showed that the SharkBite® cross-linked polyethylene pipe was between 14 and 17dB(A) quieter than the standard copper pipe.

WATERFLOW (L/min)	WATER PRESSURE (kPa)	MEASURED NOISE LEVEL dB(A)		DIFFERENCE dB(A) COPPER - SHARKBITE®
		SHARKBITE®	COPPER	
15	300	38	55	17
15	600	40	54	14
20	600	45	62	17
20	700	45	62	17



Measured noise level of water flow through nominal 15mm bore SharkBite® and copper pipe, 20L/min, 600kPa with DIN 52218 noise source.



Measured noise level of water flow through nominal 15mm bore SharkBite® and copper pipe, 20L/min, 700kPa with DIN 52218 noise source.

## UV Resistance

SharkBite® pipe should not be installed in direct or reflected sunlight as the material may degrade with extended UV exposure. Where external installation is required, install the SharkBite® pre-conduited product or provide other similar UV protection.

## SharkBite Max™ Burial

SharkBite Max™ fittings are suitable for burial in most applications; however care is required when using fittings in applications that require burial to ensure the correct installation practices are used and due care is given to any environmental factors that may have a detrimental effect on the life expectancy of the fittings and pipe.

The installation of SharkBite Max™ fittings that require burial or chasing into concrete or brickwork, must comply with all local plumbing code requirements. SharkBite Max™ fittings are not suitable for use in areas where the soil is or may become contaminated\* including the soil used for back filling. It is recommended that all SharkBite® fittings have an impervious barrier between the fitting and the surrounding soil through methods such as the use of *RWC Silicone Burial Wrap*.

The soil used for back filling must be free of rocks, debris or any sharp objects that may cause damage to the fitting or pipe through impact or abrasion.

*\* Examples of contamination include, but are not limited to: petrochemicals (reclaimed service station sites), high levels of nitrogen compounds (this could be caused by animal waste or fertilizer that may be found in some agricultural applications), low pH levels (below pH 6), high pH levels (above pH 8), run off from land fill, formaldehyde compounds, and solvents. It should be noted that such contaminants have been known to migrate through plastic piping systems and contaminate the Potable water supplied through these pipes.*

## RWC Silicone Burial Wrap

When using RWC Silicone Burial Wrap, make a SharkBite Max™ connection ensuring pipe is inserted correctly in the fitting (see Installation Instructions in this manual for details). While leaving the protective film in place, measure the amount of tape needed to completely wrap the fitting. To ensure a proper seal, overlap tape by 25mm past the end of the fitting on every end and 5mm – 10mm between/across the fitting.

Completely cover the fitting by wrapping (overlapping each edge of the tape) the fitting, pulling the tape tight and removing the protective film. The tape will bond to itself within minutes and form an impervious barrier within a few hours.

## Disinfection of Plumbing System

The SharkBite Max™ plumbing system is compliant and certified to AS/NZS 2537, AS 2492 and AS 3688 and as such all components of the system have been certified to AS/NZS 4020. RWC can confirm, based on the AS/NZS 4020 certification that the SharkBite Max™ system does not cause any multiplication of micro-organisms, microbial contamination. RWC recommend that an independently accredited provider is engaged to undertake any thermal disinfection or chemical flush of the system and that this work is carried out in line with the relevant Standards. Chemical flushes must be limited to a maximum of 5 occurrences over the system lifetime and records must be maintained showing when disinfection took place, what process was followed and who undertook the disinfection works.

Chemical flushing is to be done in line with the Australian Drinking Water Guidelines. The guidelines prohibit flushing potable plumbing systems with a solution greater than 5ppm of chlorine and within the normal operating temperatures and pressures (as specified in the SharkBite Max™ Technical Literature). If chemical flushing with a high concentration solution of chlorine is conducted incorrectly it will have a detrimental effect on any piping system. Dosing must be done in such a way as not to exceed the 5ppm chlorine level in any part of the plumbing system. Thermal disinfection processes must be conducted within the normal operating conditions of the SharkBite Max™ plumbing system.

## Installation Considerations

- Keep SharkBite® PEX pipe at a minimum of 500mm from sources of high heat such as heating appliances (e.g. flues)
- Keep SharkBite® PEX pipe 1500mm from slow combustion type stoves (wet back type).
- Leave 300mm minimum space between SharkBite® PEX pipe and recessed electric light fittings.
- SharkBite® PEX pipe should not be positioned within 150mm of gas or central heating vents or flues.
- Where fire collars or the like are required, installers should contact the manufacturer of those products to ensure they have certification for use with PEX pipes.

Refer to AS/NZS 3500

## Minimum Cold Bending Radii

DIAMETER	RADII
16mm	160mm
20mm	200mm
25mm	250mm

*Ten times the outside diameter of the pipe used*

Bending of the SharkBite® PEX pipe for change of direction is preferable to elbows, however fittings will be required where sharp bends are necessary. Tighter bends can be achieved by using a bend support.

Note: Do not use pipes that have kinks, cuts, deep scratches, squashed ends, imperfections or have been in contact with grease or tar substances. Any of the above should be cut out and replaced, as these conditions may affect the integrity of the SharkBite Max™ system.



## Pipe Clipping

AS/NZS 3500 recommend the following spacings:

Diameter	Horizontal	Vertical
16mm	600mm	1200mm
20mm	700mm	1400mm
25mm	750mm	1500mm

The above is a guide only. Good plumbing practice requires that clipping be installed so that stress is not imposed on the joint. When bending close to a joint, clips should be placed near the fitting in a manner not to stress the joint.

## Timber and Steel Frames

Drill holes through studs, plates etc. large enough so that the SharkBite® pipe can move freely to allow for expansion and contraction and pressure surges.

Holes drilled or formed in metal studs or plates must be accurately sized to enable use of suitable grommets. Insulation or a short sleeve of oversize pipe should also be firmly secured in the framework to be inserted around the pipe. This helps to ensure that there is no direct contact between the pipe and framework and allows for movement of the pipe through the grommet, lagging or sleeve. To avoid noises where pipes pass through studs, plates etc. that have large holes, consideration should be given to the use of a non-aggressive compound, grommet or sleeve in the annular space in the stud or plate.

AS/NZS 3500 allows neutral cure silicone to be used around PEX pipes to fill the annular space drilled through a stud or plate.

SharkBite Max™ fittings must be located away from stud penetrations or other abutments to ensure the fittings demount function is not engaged due to the effects of thermal expansion/contraction.

## Pipes in Chases, Ducts or Conduits

- SharkBite® PEX pipes in chases must be continuously wrapped with an impermeable flexible material
- Ducts shall be fitted with removable covers
- Conduits embedded in walls or floors should conform to the requirements of the NCC

Although water service pipes are not permitted to be embedded or cast directly into a concrete structure it is permissible for a water service pipe to be within a conduit and then embedded within a wall or floor of masonry or concrete construction.

*Refer to AS/NZS 3500 – 5.4.3*

## Under Concrete Slabs

Water pipes located beneath slabs on ground shall be laid on a compacted bed of sand or fine-grained soil with a minimum distance of 75mm from the top of the underside of the slab. Pipe work that penetrates the slab shall be at right angles to the slab surface and lagged the full length of the slab penetration with an impermeable flexible material not less than 6mm in thickness. Alternatively, impermeable plastic sleeves or conduit provide equivalent protection.

Any joints located beneath a concrete slab should be kept to a minimum and fitting protection applied.

Refer to SharkBite Max™ Burial

## Thermal Properties

PEX pipe will not melt. This is due to the irreversible cross-linking process which has changed the chemical structure of the base polyethylene. Proximity to direct, intense heat sources should be avoided by maintaining proper clearances as this will cause irreversible damage to the fitting and pipe used in the system.

PROPERTY	VALUE
Ignition Temperature °C	380
Specific Heat (J/kg/K)	2300
Density (g/cm³)	0.94
Thermal Expansion Coefficient (x10-6/K)	14.22

## Thermal Expansion

The table below represents expansion and contraction of PEX pipe in millimetres, resulting from a given change in temperature. The graph and table are calculated using the following equation:

Change in pipe length (mm) = 0.1422 × Pipe length (m) × Change in temperature

		CHANGE IN TEMPERATURE (°C)															
		10	12	14	16	18	20	22	24	26	28	30	32	34	36	38	40
LENGTH OF PIPE (m)	1	1.4	1.7	2.0	2.3	2.6	2.8	3.1	3.4	3.7	4.0	4.3	4.6	4.8	5.1	5.4	5.7
	2	2.8	3.4	4.0	4.6	5.1	5.7	6.3	6.8	7.4	8.0	8.5	9.1	9.7	10.2	10.8	11.4
	4	5.7	6.8	8.0	9.1	10.2	11.4	12.5	13.7	14.8	15.9	17.1	18.2	19.3	20.5	21.6	22.8
	6	8.5	10.2	11.9	13.7	15.4	17.1	18.8	20.5	22.2	23.9	25.6	27.3	29.0	30.7	32.4	34.1
	8	11.4	13.7	15.9	18.2	20.5	22.8	25.0	27.3	29.6	31.9	34.1	36.4	38.7	41.0	43.2	45.5
	10	14.2	17.1	19.9	22.8	25.6	28.4	31.3	34.1	37.0	39.8	42.7	45.5	48.3	51.2	54.0	56.9
	12	17.1	20.5	23.9	27.3	30.7	34.1	37.5	41.0	44.4	47.8	51.2	54.6	58.0	61.4	64.8	68.3
	14	19.9	23.9	27.9	31.9	35.8	39.8	43.8	47.8	51.8	55.7	59.7	63.7	67.7	71.7	75.7	79.6
	16	22.8	27.3	31.9	36.4	41.0	45.5	50.1	54.6	59.2	63.7	68.3	72.8	77.4	81.9	86.5	91.0
	18	25.6	30.7	35.8	41.0	46.1	51.2	56.3	61.4	66.5	71.7	76.8	81.9	87.0	92.1	97.3	102.4
	20	28.4	34.1	39.8	45.5	51.2	56.9	62.6	68.3	73.9	79.6	85.3	91.0	96.7	102.4	108.1	113.8
	22	31.3	37.5	43.8	50.1	56.3	62.6	68.8	75.1	81.3	87.6	93.9	100.1	106.4	112.6	118.9	125.1
	24	34.1	41.0	47.8	54.6	61.4	68.3	75.1	81.9	88.7	95.6	102.4	109.2	116.0	122.9	129.7	136.5
	26	37.0	44.4	51.8	59.2	66.5	73.9	81.3	88.7	96.1	103.5	110.9	118.3	125.7	133.1	140.5	147.9
	28	39.8	47.8	55.7	63.7	71.7	79.6	87.6	95.6	103.5	111.5	119.4	127.4	135.4	143.3	151.3	159.3
	30	42.7	51.2	59.7	68.3	76.8	85.3	93.9	102.4	110.9	119.4	128.0	136.5	145.0	153.6	162.1	170.6
	32	45.5	54.6	63.7	72.8	81.9	91.0	100.1	109.2	118.3	127.4	136.5	145.6	154.7	163.8	172.9	182.0
	34	48.3	58.0	67.7	77.4	87.0	96.7	106.4	116.0	125.7	135.4	145.0	154.7	164.4	174.1	183.7	193.4
	36	51.2	61.4	71.7	81.9	92.1	102.4	112.6	122.9	133.1	143.3	153.6	163.8	174.1	184.3	194.5	204.8
	38	54.0	64.8	75.7	86.5	97.3	108.1	118.9	129.7	140.5	151.3	162.1	172.9	183.7	194.5	205.3	216.1
	40	56.9	68.3	79.6	91.0	102.4	113.8	125.1	136.5	147.9	159.3	170.6	182.0	193.4	204.8	216.1	227.5

## Thermal Insulation

R-Values of Common Plumbing Piping and Insulation. In certain areas, AS/NZS 3500 requires a minimum insulation of R=0.3. No current piping material will meet this requirement without suitable thermal insulation.

*R-value = wall thickness (m)/ Conductivity. See AS/NZS 3500 Section 8.6"*

	CONDUCTIVITY (K)W/M/K	OD mm	ID mm	WALL THICKNESS mm	R-VALUE K.M²/W
Air	0.02			6	0.300
Copper DN15	401	12.7	10.88	.91	0.0000023
Lagged Copper (Approx.)	Cu + Air + Plastic			~2	0.034
SharkBite® PEX 16mm	0.35	16	11.6	2.2	0.006
SharkBite® PEX 20mm	0.35	20	15.1	2.45	0.007
SharkBite® PEX 25mm	0.35	25	18.6	3.2	0.009
E-Therm™	0.034			8	0.235
Requirement Of AS/NZS 3500 5.19 DN15	0.03			9	0.300
Requirement Of AS/NZS 3500 2003 Amendment 1 2005 (Table 8.1 and 8.2)	0.0433			13	0.300

## Operating Parameters – Pressure and Temperature

SharkBite Max™ fittings are designed for controlled environments and must operate within the following limits:

	SHARKBITE MAX™ PEX		SHARKBITE MAX™ COPPER
TEMPERATURE	20°C	70°C	95°C
PRESSURE (kPa)	2000	1000	2000

The SharkBite Max™ design allows for an uprated maximum operating pressure at 95°C, increasing by 43% from 1400kPa, now to 2000kPa

### Copper

- Copper fittings are certified to operate at maximum conditions of 2000 kPa at 95C, as per AS 3688 when assembled with copper pipe. Additional certification testing has been completed to show compliance above and beyond the maximum pressure within the scope of AS 3688.

### PEX

- PEX pipe is certified to operate at maximum working pressures of 2000kPa at 20°C and 1000kpa at 70°C.
- Exceeding operating parameters above 70°C for any period will affect the life of the pipe
- Designated SharkBite® connection can only be used on SharkBite® PEX SDR9 Pipe
- The table below represents the working pressures of cross-linked polyethylene PN20 pipe at various pipe material temperatures (PMT) as per AS 2492

\*Limitations apply in cases of uncontrolled heat sources – please see heat source guidelines.

	CROSSLINKED POLYETHYLENE PN20 PIPE		
TEMPERATURE	20°C	60°C	70°C
PRESSURE (kPa)	2000	1190	1000

## Heat Source Guidelines

### **Do not use SharkBite® PEX with these heat sources in accordance with AS/NZS 3500**

SharkBite® PEX pipe must not be used for primary flow and return lines in systems with uncontrolled heat sources, including:

- Slow combustion stoves
- Water heating coils
- Wet back boilers
- Solar thermal systems
- Any other heat source without active temperature control

### **Secondary Flow Lines – Use With Caution**

Secondary flow and return lines may use SharkBite® PEX only if:

- Temperature and pressure are actively controlled
- Water temperature remains below 70°C
- Pressure remains below 1000 kPa
- A tempering valve is installed in accordance with AS/NZS 3500

### **Solar Systems – Special Considerations**

Before installing SharkBite® PEX with solar systems:

- Consult the solar system manufacturer to confirm outlet temperatures
- Ensure water leaving the storage tank does not exceed pipe performance limits
- Never use SharkBite® PEX for primary solar flow and return lines

## Fitting Pressure Loss

To calculate the pressure loss through a particular fitting, the type and diameter of the fitting and the flow rate must be established. The pressure loss in kilopascals (kPa) may then be read from the table. To calculate the pressure loss through a number of fittings in a circuit, the number and type of fittings, along with the direction of flow must be known. The pressure loss through each fitting can then be added together to calculate a total pressure loss.

## Elbows Minor Pressure Loss

FITTING SIZE	FLOW RATE (L/min)												
	4	8	12	16	20	24	28	32	36	40	44	48	52
16mm	0.02	0.08	0.19	0.33	0.52	0.75	1.02	1.33	1.68	2.08	2.52	2.99	3.51
20mm	0.01	0.03	0.07	0.13	0.20	0.29	0.39	0.51	0.64	0.80	0.96	1.15	1.34
25mm	0.00	0.01	0.03	0.05	0.08	0.12	0.16	0.21	0.26	0.32	0.39	0.46	0.54
DN15	0.06	0.23	0.52	0.92	1.44	2.08	2.83	3.69	4.67	5.77	6.98	8.31	9.75
DN20	0.01	0.05	0.11	0.19	0.29	0.42	0.58	0.75	0.96	1.18	1.43	1.70	1.99

## Union Threaded Minor Pressure Loss

FITTING SIZE	FLOW RATE (L/min)												
	4	8	12	16	20	24	28	32	36	40	44	48	52
16mm	0.00	0.00	0.00	0.00	0.01	0.02	0.04	0.07	0.11	0.17	0.25	0.36	0.49
20mm	0.00	0.00	0.00	0.00	0.00	0.00	0.01	0.01	0.02	0.03	0.04	0.05	0.07
25mm	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.01	0.01	0.01
DN15	0.00	0.00	0.01	0.03	0.08	0.17	0.32	0.54	0.87	1.33	1.95	2.76	3.80
DN20	0.00	0.00	0.00	0.00	0.00	0.01	0.01	0.02	0.04	0.06	0.08	0.12	0.16

## Tees – Line Minor Pressure Loss

FITTING SIZE	FLOW RATE (L/min)												
	4	8	12	16	20	24	28	32	36	40	44	48	52
16mm	0.01	0.06	0.12	0.22	0.35	0.50	0.68	0.89	1.12	1.39	1.68	2.00	2.34
20mm	0.01	0.02	0.05	0.08	0.13	0.19	0.26	0.34	0.43	0.53	0.64	0.76	0.90
25mm	0.00	0.01	0.02	0.03	0.05	0.08	0.10	0.14	0.17	0.21	0.26	0.31	0.36
DN15	0.04	0.15	0.35	0.62	0.96	1.38	1.88	2.46	3.11	3.84	4.65	5.54	6.50
DN20	0.01	0.03	0.07	0.13	0.20	0.28	0.39	0.50	0.64	0.79	0.95	1.13	1.33

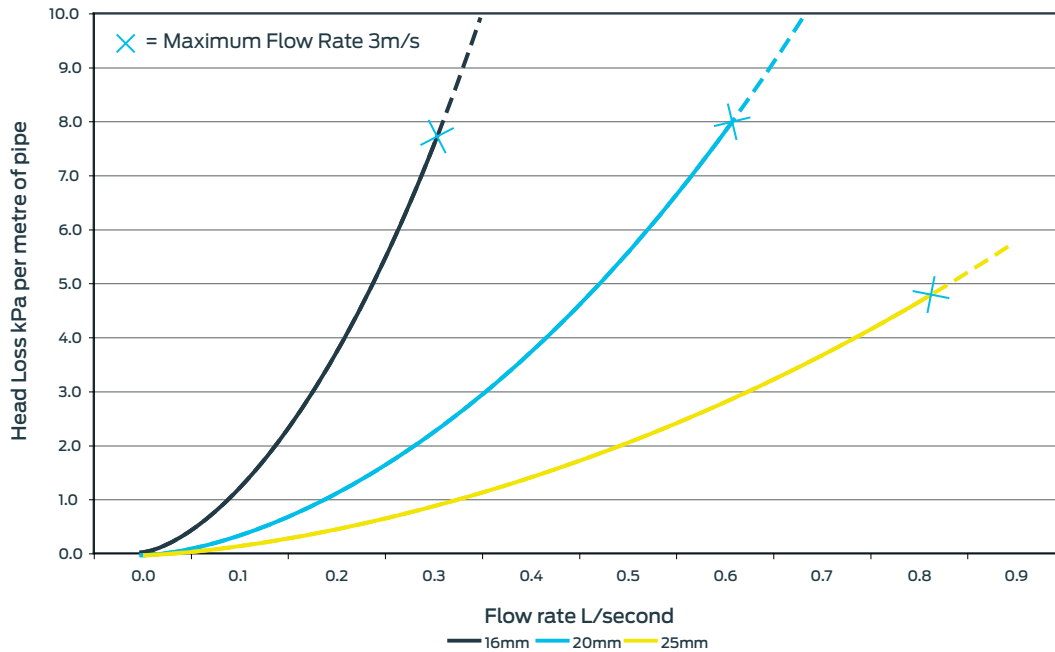
## Tees – Branch Minor Pressure Loss

FITTING SIZE	FLOW RATE (L/min)												
	4	8	12	16	20	24	28	32	36	40	44	48	52
16mm	0.07	0.28	0.62	1.11	1.73	2.49	3.40	4.43	5.61	6.93	8.38	9.98	11.71
20mm	0.03	0.11	0.24	0.42	0.66	0.95	1.30	1.70	2.15	2.65	3.21	3.82	4.48
25mm	0.01	0.04	0.10	0.17	0.27	0.38	0.52	0.68	0.87	1.07	1.29	1.54	1.80
DN15	0.19	0.77	1.73	3.08	4.81	6.92	9.42	12.30	15.57	19.22	23.26	27.68	32.49
DN20	0.04	0.16	0.35	0.63	0.98	1.41	1.93	2.52	3.18	3.93	4.76	5.66	6.64

## Pressure or Head Loss Through PEX Pipe

This graph shows pressure loss through SharkBite® PEX Pipe at various flow rates in 16mm and 20mm.

In order to calculate the pressure loss through the pipe, the given flow rate for a particular portion of tube must be established (this may be done using the table provided in AS/NZS 3500), along with the required pipe length and diameter. The pressure loss can then be read off the vertical axis.



Information provided here is theoretical and based on new clean pipe. No allowance has been made for age or any abnormal conditions of the interior surface of the pipe.

## Maximum Flow Rates

	SHARKBITE PEX PIPE SDR9			COPPER TUBE		
	16mm	20mm	25mm	DN15	DN20	DN25
<b>MIN ID (mm)</b>	11.5	15.0	18.7	10.7	17.0	23
<b>MAX FLOW (L/min)*</b>	18.7	31.8	49.4	16.2	40.9	74.8
<b>MAX FLOW (L/sec)*</b>	0.31	0.53	0.82	0.27	0.68	1.25

\* Based on AS/NZS 3500 maximum allowable velocity in pipe of 3m/s.

Based on its minimum ID of 15mm, 20mm SharkBite® may be used where AS/NZS 3500 requires a nominal pipe size of DN20 (eg. Part 1, Section 3.5.1). This is a feature of SharkBite® pipe, and not generally applicable to PEX pipe.

## Pipe Flow Characteristics

PIPE SIZE	FLOW RATE (L/min) VS HEAD LOSS (kPa)												
	4L/min	8L/min	12L/min	16L/min	20L/min	24L/min	28L/min	32L/min	36L/min	40L/min	44L/min	48L/min	52L/min
16mm	0.59	1.75	3.71	6.33	9.57	-	-	-	-	-	-	-	-
20mm	0.14	0.52	1.09	1.86	2.82	3.95	5.25	6.72	-	-	-	-	-
25mm	0.05	0.17	0.36	0.61	0.92	1.29	1.71	2.19	2.73	3.32	3.96	4.65	5.49



## SharkBite Max™ Push-To-Connect Plumbing System

The SharkBite Max™ fitting works via a two-stage process that ensures a quick, easy connection. In one easy push, the SharkBite Max™ fittings advanced design seals and locks the pipe securely.

**Stage ONE** As the pipe is inserted into the fitting, it passes through the cartridge including the 316-stainless steel grab ring. The grab ring opens out and grabs the pipe, preventing it from being withdrawn.

**Stage TWO** The pipe then passes through the protection ring. This aligns the pipe before it passes through the specially formulated EPDM O-Ring which compresses between the pipe OD and the wall of the fitting, creating a seal. When the pipe is fully inserted up to the tube stop, a secure joint has been made.

If required, the pipe and fitting can be easily disconnected using SharkBite® Disassembly Clips. Simply apply pressure to the demount ring. This releases the grab ring teeth, allowing the pipe to be withdrawn from the fitting.

Refer to this manual for detailed connection and disconnection instructions.

SharkBite® PEX fittings are designed for use only on SharkBite® PEX pipe.

SharkBite® copper fittings are designed for use only with copper pipe that conforms with and is approved to AS 1432.



## Insertion Depth Chart

Fitting Size	Pipe OD (mm)	SharkBite® Insertion Depth (mm)	SharkBite Max™ Insertion Depth (mm)
16mm	16.0 – 16.3	22.8	26.6
20mm	20.0 – 20.3	27.0	31.2
25mm	25.0 – 25.3	28.7	34.2
DN15	12.57 – 12.7	23.8	26.5
DN20	18.85 – 19.05	28.6	32.4

## Connection of PEX Fittings

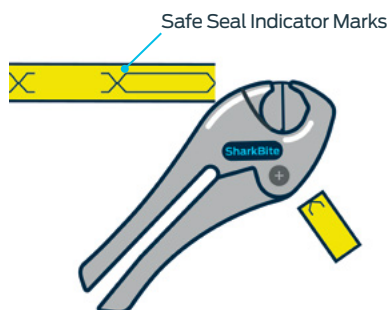
- Used to connect only SharkBite® PEX pipe
- PEX fittings have mustard coloured ends
- Fittings are rotatable after connection
- Fittings can be installed on wet pipe even with water flowing
- Fittings can be disconnected and reconnected as required



## Installation

1. All pipe should be free of damage or debris. Cut PEX pipe with quality PEX cutters. Cutters with blunt or damaged blades may damage the pipe, causing failure.
2. SharkBite® PEX pipe is supplied with pre-gauged "Safe Seal Indicator Marks" (SSIM) for faster installation. Cut between the SSIM.
3. Simply push to the next SSIM.

Note: SharkBite® (1st Generation) insertion depths are different to SharkBite Max™. Refer to SharkBite Max™ insertion depth chart.



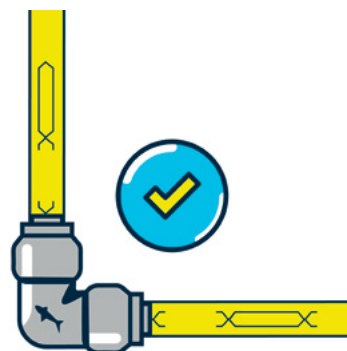
### Cut

Using SharkBite® PEX Pipe Cutters, cut the pipe squarely between two of the SharkBite® safe seal indicator marks as shown in the picture. Ensure pipe is round, clean and free of debris.



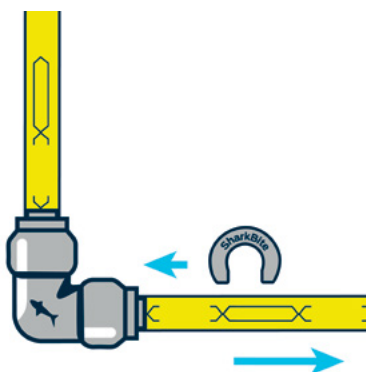
### Push

Insert the pipe through the retainer to rest against the grab ring. Push the pipe firmly with a twisting action and push to the SharkBite® safe seal indicator mark.



### Done

Ensure the SharkBite Max™ Safe Seal Indicator Mark aligns with the retainer as shown.



### Disassembly

Using the Disassembly Clip, fittings can be easily changed, removed and the fittings reused.

Note: Safety precautions need to be observed when cutting into pipework or disconnecting water meters, fittings and devices on pipework. There have been fatalities and injuries that have been attributed to water services carrying an electrical current.

If any existing metallic service pipework is to be replaced in part or in its entirety by plastics pipe or other non-metallic fittings or couplings, the work should not commence until the earthing requirements have been checked by an electrical contractor and modified, if necessary.

**Installation per AS/NZS 3500**

## Connection of Copper Fittings

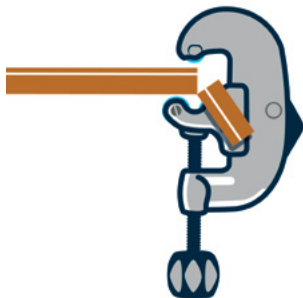
- Used to connect copper systems
- Copper fittings have black coloured ends
- A range of fittings and adapters are available
- Higher pressure rating than press systems



## Installation

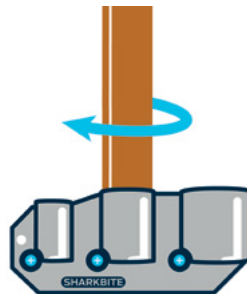
1. All pipe should be free of damage or debris. Cut copper pipe with a tube cutter. Do not use a hacksaw, as this will cause damage to the pipe ends.
2. Deburr the end of the pipe using the SharkBite® F702 Deburring tool. Be sure to remove any sharp edges that may damage the O-Ring, as this will cause failure.
3. Mark the pipe with a marker, using the SharkBite® F702 Gauge to determine the correct insertion depth.
4. Push the pipe into the fitting to the mark made in step 3. The mark should rest against the demount ring of the fitting, indicating correct insertion depth.

Note: SharkBite® (1st Generation) insertion depths are different to SharkBite Max™. Refer to SharkBite Max™ insertion depth chart.



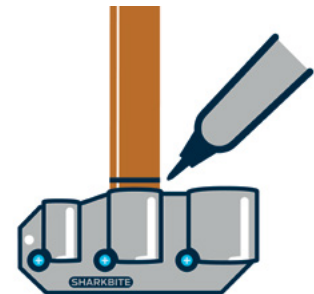
### Cut

Using a pipe cutter, cut the copper tube to length, making sure the pipe is cut squarely. Ensure pipe is round, clean and free of debris.



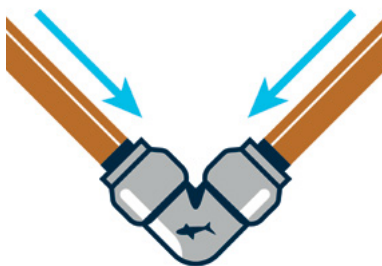
### Deburr

Remove burrs from the pipe using the SharkBite® Deburrer and Depth Gauge.



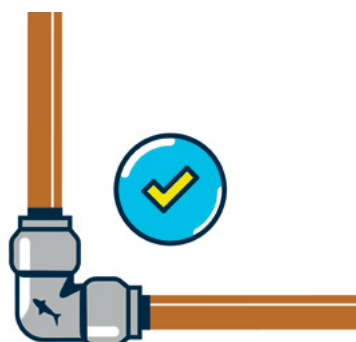
### Mark

Mark the pipe with a marker using the Depth Gauge.



### Push

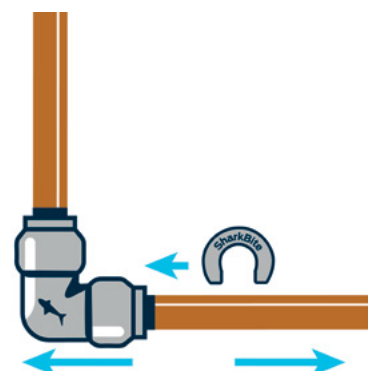
Insert the pipe by pushing firmly.



### Done

Ensure the mark made with Depth Gauge aligns with the retainer.

*When using the First Generation F702 tool with SharkBite Max™ fittings, the marked line will push behind the retainer.*



### Disassembly

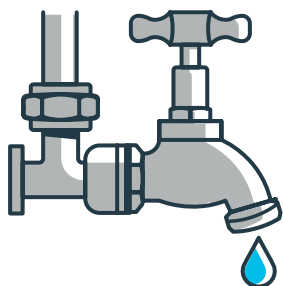
Using the Disassembly Clip, fittings can be easily changed, removed and the fittings reused.

**Installation per AS/NZS 3500**

## Disconnecting Fittings

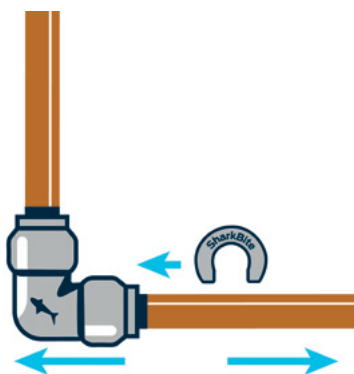
SharkBite Max™ fittings are designed to accommodate simple changes during installation.

When reusing fittings, ensure the fitting and pipe connection have not been compromised before reinstalling. Visit the Installation Trouble Shooting section for more details.



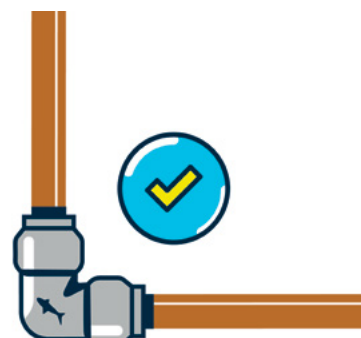
### Relieve Pressure

Ensure all system pressure has been relieved and drained where possible, although draining is not mandatory. SharkBite® can be installed wet or dry.



### Disconnect

Place the Disassembly Clip over the pipe with the flat face towards the fitting retainer. Apply pressure to the clip against the demount ring, and with your free hand, remove the pipe.



### Re-use

Refer to the SharkBite® Installation procedure when remaking a joint.

**Note:** Always recut pipe as damage may have been done during disassembly.

## Use approved SharkBite® Disassembly tools

### DISASSEMBLY CLIPS

RA710 suitable for use on DN15 pipes. F710 suitable for use on 16mm pipes. F712 and RA712P suitable for use on DN20 and 20mm pipes. *Refer to page 36 for more information*



F710 and F712 Disassembly Clips



RA710 and RA712P Disassembly Clips

## Installation Requirements

Installation is subject to the requirements of the applicable regulatory authority, the National Construction Code Volume Three – Plumbing Code of Australia, associated reference standards as applicable at the time and AS/NZS 3500. This product is compliant to the Lead Free requirements of the National Construction Code Volume Three. For further Scope of Use, please visit [www.rmc.com.au](http://www.rmc.com.au)

The SharkBite Max™ Push-To-Connect Plumbing System is simple and effective when executed in accordance with the joining procedures in this manual. However, if sufficient care is not taken, this can result in an ineffective joint.

SharkBite Max™ fittings are not suitable for use on stainless steel and multi layer pipe.

## Installation Best Practice

- All SharkBite Max™ O-Rings are pre-lubricated during manufacture, do not apply additional lubrication.
- Cut the pipe square – use SharkBite® cutting tools with sharp, undamaged cutting blades to ensure a clean, square cut. Do not use a hacksaw when cutting copper pipe and use the SharkBite® Deburring and Gauge Tool to ensure the ends are free from burrs.
- Keep it clean – ensure your SharkBite® PEX and fittings are free from building-site contamination such as dirt, sand, sawdust, concrete dust etc.
- To ensure fittings stay clean and the O-Ring is protected from damage, fittings must be kept in their original packaging until immediately prior to installation .
- Push the pipe all the way in – use the Safe Seal Indicator Marks on PEX or the SharkBite® Deburring and Gauge Tool as a depth indicator on copper to ensure the pipe has achieved full insertion .
- If the pipe is difficult to insert or will not engage into the fitting do not force the pipe. Remove and check for obstructions inside the fitting and check for damage to the end of the pipe.
- If SharkBite® pipe is to be refitted to a SharkBite Max™ fitting, it is important to trim the pipe before remaking the joint.
- SharkBite Max™ fittings are not to be installed back to back. A minimum distance of 25mm for PEX and copper, is required.
- If you are soldering/sweating copper pipe solder/sweat all connections first then make the SharkBite® connections – Do NOT solder next to SharkBite® connection.
- SharkBite Max™ copper fittings may be used on annealed copper tube, however, achieving a watertight connection may be difficult. Using an alternate connection method may be more suitable.
- Always pressure test with water on completion and before covering the pipe.
- Always look for the shark – beware of imitators, you can tell genuine SharkBite® fittings from the lasered shark icon on the fitting.



**Always look  
for the SHARK!**

## Ineffective Joints Most Often Occur When:

- There is debris or foreign matter inside the fitting
- The PEX or copper pipe has not been cut square
- The PEX or copper pipe has rough edges, cuts, abrasions or other damage
- The PEX pipe has been cut with blunt or damaged tools
- The copper pipe has been cut with a hack-saw
- Correct pipe insertion depth has not been achieved



**✗** Cutting tool damaged



**✗** Dirt/debris inside fitting



**✗** Pipe has not been cut square



**✗** Short engagement – pipe not inserted correctly

## If an ineffective joint is detected

- Disconnect the defective joint and recut the pipe to ensure it is square and free from damage
- Check the fitting is clean and there has been no damage to the grab ring or O-Ring
- Re-install the fitting as per instructions in this manual
- If the joint fails a pressure test, discard fitting and repeat these steps with a new fitting





# SharkBite Max™ Range





FF008

## F1 Straight Coupling

Order Code	Available in	Description	Retail Code (Qty: 1pc)
FF008	10pk	16mm OD	FF008A
FF016	10pk	20mm OD	FF016A
FF020	2pk	25mm (DN25 Cu) <i>Suits PEX or Copper</i>	



FF058

## F1 Reducing Coupling

Order Code	Available in	Description	Retail Code (Qty: 1pc)
FF058	10pk	20mm OD × 16mm OD	FF058A
FF060	2pk	25mm (DN25 Cu) × 20mm OD <i>25mm end suits PEX or Copper</i>	



FF068

## F2 Straight Connector

Order Code	Available in	Description	Retail Code (Qty: 1pc)
FF068	5pk	16mm OD × ¾" FI	FF068A
FF072	10pk	16mm OD × ½" FI	FF072A
FF088	5pk	20mm OD × ¾" FI	FF088A
FF094	2pk	25mm (DN25 Cu) × 1" FI <i>Suits PEX or Copper</i>	



FF116

## F3 Straight Connector

Order Code	Available in	Description	Retail Code (Qty: 1pc)
FF116	5pk	16mm OD × ¾" MI	FF116A
FF120	10pk	16mm OD × ½" MI	FF120A
FF134	5pk	20mm OD × ¾" MI	FF134A
FF138	5pk	20mm OD × ½" MI	FF138A
FF140	2pk	25mm (DN25 Cu) × 1" MI <i>Suits PEX or Copper</i>	
FF142	2pk	25mm (DN25 Cu) × ¾" MI <i>Suits PEX or Copper</i>	



FF248

## F12 Elbow

Order Code	WA Code	Available in	Description	Retail Code (Qty: 1pc)
FF248	FF248W	10pk	16mm OD	FF248A
FF256		10pk	20mm OD	FF256A
FF260		2pk	25mm (DN25 Cu) <i>Suits PEX or Copper</i>	



FF280

## F13 Elbow

Order Code	Available in	Description	Retail Code (Qty: 1pc)
FF280	5pk	16mm OD × ½" MI	FF280A
FF286	5pk	20mm OD × ¾" MI	



FF308

## F14 Elbow

Order Code	Available in	Description	Retail Code (Qty: 1pc)
FF308	5pk	16mm OD × ½" FI	FF308A
FF314	5pk	20mm OD × ¾" FI	



FF334

## F15BP Female Lugged Elbow

Order Code	Available in	Description	Retail Code (Qty: 1pc)
FF334	5pk	16mm OD × ½" FI	FF334A
FF340	5pk	20mm OD × ¾" FI	FF340A



FF350

## F19BP Male Lugged Elbow

Order Code	Available in	Description	Retail Code (Qty: 1pc)
FF350	10pk	16mm OD × ½" MI, 75mm Length	FF350A
FF351	5pk	16mm OD × ½" MI, 185mm Length	FF351A
FF352	5pk	16mm OD × ½" MI, 100mm Length	FF352A
FF354	5pk	20mm OD × ¾" MI, 200mm Length	FF354A
FF356	5pk	20mm OD × ½" MI, 100mm Length	
FF358	5pk	20mm OD × ½" MI, 200mm Length	



FF336

## Top-Plated Male Elbow

Order Code	Available in	Description
FF336	5pk	16mm OD × ½" MI, 100mm Length
FF336-230	1pk	16mm OD × ½" MI, 230mm Length



FF362

## F24 Tee

Order Code	WA Code	Available in	Description	Retail Code (Qty: 1pc)
FF362	FF362W	10pk	16mm OD	FF362A
FF370		10pk	20mm OD	FF370A
FF374		2pk	25mm (DN25 Cu) <i>Suits PEX or Copper</i>	



FF412

## F25 Unequal Tee

Order Code	WA Code	Available in	Description	Retail Code (Qty: 1pc)
FF412	FF412W	10pk	20mm OD × 20mm OD × 16mm OD	FF412A
FF416		2pk	25mm × 25mm × 20mm OD <i>25mm end suit PEX or Copper</i>	



FF444

## F26 Unequal Tee

Order Code	Available in	Description
FF444	10pk	20mm OD × 16mm OD × 20mm OD



FF454

## F27 Unequal Tee

Order Code	Available in	Description	Retail Code (Qty: 1pc)
FF454	10pk	20mm OD × 16mm OD × 16mm OD	FF454A



FF514

## F61 Stop End

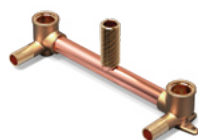
Order Code	Available in	Description	Retail Code (Qty: 1pc)
FF514	10pk	16mm OD	FF514A
FF518	5pk	20mm OD	FF518A
FF520	2pk	25mm (DN25 Cu) <i>Suits PEX or Copper</i>	



FF610

## PEX Flare Compression Adaptor

Order Code	Available in	Description	Retail Code (Qty: 1pc)
FF610	10pk	16mm OD × ½" M Flare	FF610A
FF612	5pk	20mm OD × ¾" M Flare	



F632X

## Recessed Assembly – Lugged with SharkBite® Tail

Order Code	Old Code	Description	Available in
F630X	F630	300mm Right Angled Breech	1pk
F632X	F632	200mm Right Angled Breech	1pk

*All breech outlets must be supported to restrict movement and require SharkBite® fittings for connection*



F650X

## Shower Assembly – Lugged with SharkBite® Tail (Without Riser)

Order Code	Old Code	Description	Available in
F650X	F650	200mm Right Angled	1pk
F652X	F652	150mm Right Angled	1pk

*All breech outlets must be supported to restrict movement and require SharkBite® fittings for connection*



FF690-3T

## Manifolds

Order Code	Available in	Description
FF690-3T	1pk	20mm PEX × 3 Way (16mm Take Offs) × 20mm PEX
FF690-4T	1pk	20mm PEX × 4 Way (16mm Take Offs) × 20mm PEX



FF670

## DR Ball Valve PEX Connections

Order Code	Available in	Description	Retail Code (Qty: 1pc)
FF670		16mm OD	FF670A
FF672		20mm OD	FF672A
FF674		25mm (DN25 Cu) <i>Suits PEX or Copper</i>	



FF680

## DR Ball Valve PEX Connection / Female

Order Code	Available in	Description	Retail Code (Qty: 1pc)
FF680		16mm OD × ½" FI	FF680A
FF682		20mm OD × ¾" FI	FF682A
FF684		25mm (DN25 Cu) × 1" FI <i>Suits PEX or Copper</i>	



FC008

## No.1 Straight Coupling

Order Code	Available in	Description	Retail Code (Qty: 1pc)
FC008	10pk	DN15 Cu	FC008A
FC016	10pk	DN20 Cu	FC016A
FF020	2pk	25mm (DN25 Cu) <i>Suits PEX or Copper</i>	



FC058

## No.1R Reducing Coupling

Order Code	Available in	Description	Retail Code (Qty: 1pc)
FC058	10pk	DN20 Cu × DN15 Cu	FC058A



FC3008

## Slip Coupling

Order Code	Available in	Description	Retail Code (Qty: 1pc)
FC3008	5pk	DN15 Cu	FC3008A
FC3016	5pk	DN20 Cu	FC3016A



FC072

## No.2 Straight Connector

Order Code	Available in	Description	Retail Code (Qty: 1pc)
FC072	10pk	DN15 Cu × 1/2" FI	FC072A
FC088	5pk	DN20 Cu × 3/4" FI	FC088A
FF094	2pk	25mm (DN25 Cu) × 1" FI <i>Suits PEX or Copper</i>	



FC120

## No.3 Straight Connector

Order Code	Available in	Description	Retail Code (Qty: 1pc)
FC120	10pk	DN15 Cu × 1/2" MI	FC120A
FC134	10pk	DN20 Cu × 3/4" MI	FC134A
FF140	2pk	25mm (DN25 Cu) × 1" MI <i>Suits PEX or Copper</i>	
FF142	2pk	25mm (DN25 Cu) × 3/4" MI <i>Suits PEX or Copper</i>	



FC248

## No.12 Elbow

Order Code	Available in	Description	Retail Code (Qty: 1pc)
FC248	10pk	DN15 Cu	FC248A
FC256	10pk	DN20 Cu	FC256A
FF260	2pk	25mm (DN25 Cu) <i>Suits PEX or Copper</i>	



FC334

## No.15BP Female Lugged Elbow

Order Code	Available in	Description	Retail Code (Qty: 1pc)
FC334	5pk	DN15 Cu × ½" FI	FC334A
FC340	5pk	DN20 Cu × ¾" FI	FC340A



FC350

## No.19BP Male Lugged Elbow

Order Code	Available in	Description	Retail Code (Qty: 1pc)
FC350	10pk	DN15 Cu × ½" MI, 75mm Length	FC350A
FC352	5pk	DN20 Cu × ¾" MI, 100mm Length	



FC380

## Hot Water Elbow

Order Code	Available in	Description
FC380	10pk	DN15 Cu × ¾" MI



FC362

## No.24 Tees

Order Code	Available in	Description	Retail Code (Qty: 1pc)
FC362	10pk	DN15 Cu	FC362A
FC370	10pk	DN20 Cu	FC370A
FF374	2pk	25mm (DN25 Cu) <i>Suits PEX or Copper</i>	



FC412

## No.25 Unequal Tee

Order Code	Available in	Description	Retail Code (Qty: 1pc)
FC412	10pk	DN20 Cu × DN20 Cu × DN15 Cu	FC412A



FC514

## No.61 Stop Ends

Order Code	Available in	Description	Retail Code (Qty: 1pc)
FC514	10pk	DN15 Cu	FC514A
FC518	5pk	DN20 Cu	FC518A
FF520	2pk	25mm (DN25 Cu) <i>Suits PEX or Copper</i>	



## DR Ball Valves Copper Connections

Order Code	Available in	Description	Retail Code (Qty: 1pc)
FC670	1pk	DN15 Cu	FC670A
FC672	1pk	DN20 Cu	FC672A
FF674	1pk	25mm (DN25 Cu) <i>Suits PEX or Copper</i>	



## DR Ball Valves Copper Connection / Female

Order Code	Available in	Description	Retail Code (Qty: 1pc)
FC682	1pk	DN20 Cu × ¾" FI	FC682A
FF684	1pk	25mm (DN25 Cu) × 1" FI <i>Suits PEX or Copper</i>	



## DR Ball Valves Copper Connections / Male

Order Code	Available in	Description	Retail Code (Qty: 1pc)
FC683	1pk	DN20 Cu × ¾" MI	FC683A





Potable Water

### PEX Pipe – Potable Water (Mustard)

Order Code	Description	Available in
XF860	16mm × 5m Straight Length	10pk
XF864	16mm × 50m Coil	1pk
XF870	20mm × 5m Straight Length	10pk
XF874	20mm × 50m Coil	1pk
XF880	25mm × 5m Straight Length	5pk
XF882	25mm × 25m Coil	1pk



Hot Water

### PEX Pipe – Hot Water (Red)

Order Code	Description	Available in
XF860R	16mm × 5m Straight Length	10pk
XF864R	16mm × 50m Coil	1pk
XF870R	20mm × 5m Straight Length	10pk
XF874R	20mm × 50m Coil	1pk
XF880R	25mm × 5m Straight Length	5pk
XF882R	25mm × 25m Coil	1pk



Recycled Water

### PEX Pipe – Recycled Water (Purple)

Order Code	Description	Available in
XF862L	16mm × 25m Coil	1pk
XF870L	20mm × 5m Straight Length	10pk
XF872L	20mm × 25m Coil	1pk
XF882L	25mm × 25m Coil	1pk



Rain Water

### PEX Pipe – Rainwater (Green)

Order Code	Description	Available in
XF860G	16mm × 5m Straight Length	10pk
XF862G	16mm × 25m Coil	1pk
XF870G	20mm × 5m Straight Length	10pk
XF872G	20mm × 25m Coil	1pk
XF880G	25mm × 5m Straight Length	5pk
XF882G	25mm × 25m Coil	1pk



Coiled Mustard

### 100m Coiled Mustard Pipe

Order Code	Description
XF864100	16mm × 100m Coil (Mustard only)
XF874100	20mm × 100m Coil (Mustard only)



Pre-Fitted with Conduit

## PEX Pipe – Pre-Fitted with Conduit for In-Slab Installation

Order Code	Description
XF863	16mm × 25m Coil
XF873	20mm × 25m Coil



Pre-Insulated

## Pre-Insulated PEX Pipe

Order Code	Description
XF862RR3	25m × 16mm Pre-Insulated PEX R0.3 Coil
XF872RR3	25m × 20mm Pre-Insulated PEX R0.3 Coil
XF882RR3	25m × 25mm Pre-Insulated PEX R0.3 Coil
XF862RR8	25m × 16mm Pre-Insulated PEX R0.8 Coil
XF872RR8	25m × 20mm Pre-Insulated PEX R0.8 Coil
XF882RR8	25m × 25mm Pre-Insulated PEX R0.8 Coil





FF009

## F1 Conversion Couplings SDR9 PEX – Cu

Order Code	WA Code	Available in	Description	Retail Code (Qty: 1pc)
FF009	FF009W	10pk	16mm OD × DN15 Cu	FF009A
FF017		10pk	20mm OD × DN20 Cu	FF017A



FF009PX

## F1 Conversion Couplings SDR9 PEX – SDR7.4 PEX

Order Code	Available in	Description
FF009PX	10pk	16mm OD × 16mm SDR7.4 PEX
FF017PX	10pk	20mm OD × 20mm SDR7.4 PEX



FF009PB

## F1 Conversion Couplings SDR9 PEX – PB

Order Code	Available in	Description
FF009PB	10pk	16mm OD × 18mm Polybutylene
FF017PB	10pk	20mm OD × 22mm Polybutylene



FF009AP

## F1 Conversion Couplings SDR9 PEX – SDR9 PEX Auspex / Other

Order Code	Available in	Description
FF009AP	10pk	16mm OD × 16mm SDR9 PEX Auspex
FF017AP	10pk	20mm OD × 20mm SDR9 PEX Auspex



FF363

## F24 Conversion Tee SDR9 PEX – Cu

Order Code	Available in	Description	Retail Code (Qty: 1pc)
FF363	5pk	16mm OD × 16mm OD × DN15 Cu	FF363A
FF364	5pk	DN15 Cu × DN 15mm Cu × 16mm OD	FF364A
FF371	5pk	20mm OD × 20mm OD × DN20 Cu	FF371A
FF372	5pk	DN20 Cu × DN 20mm Cu × 20mm OD	FF372A



FF364PX

## F24 Conversion Tee SDR9 PEX – SDR7.4 PEX

Order Code	Available in	Description
FF364PX	5pk	16mm SDR7.4 PEX × 16mm SDR7.4 PEX × 16mm OD
FF372PX	5pk	20mm SDR7.4 PEX × 20mm SDR7.4 PEX × 20mm OD



FF364PB

## F24 Conversion Tee SDR9 PEX – PB

Order Code	Available in	Description
FF364PB	5pk	18mm Polybutylene × 18mm Polybutylene × 16mm OD
FF372PB	5pk	22mm Polybutylene × 22mm Polybutylene × 20mm OD



FF250

## F12 Conversion Elbow SDR9 PEX – Cu

Order Code	Available in	Description	Retail Code (Qty: 1pc)
FF250	10pk	16mm OD × DN15 Cu	FF250A
FF258	5pk	20mm OD × DN20 Cu	FF258A



F701

### Tube Cutter

Order Code	Description
F701	PEX Tube Cutter 16mm to 25mm (Non-Ratchet style)



F710

### Disassembly Clip

Order Code	Description	Available in
RA710	DN15 Disassembly Clip Cu Only	10pk
F710	16mm Disassembly Clip PEX Only	5pk
F712	20mm Disassembly Clip PEX and Cu	5pk
RA712	20mm Disassembly Clip PEX and Cu	5pk



F702

### Depth Gauge / Deburring Tool

Order Code	Description
F702	DN15 Cu to DN25 Cu



F840

### Tube Bend Support

Order Code	Description	Pack Size
F840	16mm Bend Support	10
F842	20mm Bend Support	5
F844	25mm Bend Support	1



VC875

### Bare Conduit for UV Protection

Order Code	Description
VC875	23mm ID × 25m Coil (Suits 16mm and 20mm PEX)
VC876	29mm ID × 25m Coil (Suits 25mm PEX)





VC877

### PEX Pipe – Tube Chasing Sleeve

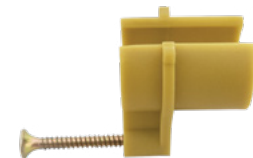
Order Code	Description
VC877	16mm and 20mm × 200m Coil (50mm Sleeve Width)



VC870

### PEX Pipe – RWC Silicone Burial Wrap

Order Code	Description
VC870	50mm × 3m (Self-adhesive)



F838



F824



F826



F820












F822

### Pipe Clip

Order Code	Description	Pack Size
F820	16mm Timber	100
F830	20mm Timber	100
F850	25mm Timber	50
F822	16mm Masonry Nail	100
F832	20mm Masonry Nail	100
F852	25mm Masonry Nail	50
F824	16mm Tek Screw	100
F834	20mm Tek Screw	100
F854	25mm Tek Screw	50
F826	16mm Masonry Concrete Anchor	50
F836	20mm Masonry Concrete Anchor	50
F828	16mm Metal Stud	50
F838	20mm Metal Stud	50

## Conversion Fitting Chart

PEX Conversion Fittings are NOT suitable for connection on stainless steel pipes nor aluminium multi-layer PEX systems.

PRODUCT	SYSTEM ADAPTORS	FITTING	SIZE	ORDER CODE	IMAGE
<b>SharkBite® SDR9 PEX to Copper 15-20mm</b>  (25mm fittings are suitable for both PEX and copper, so no adaptors are required in this size)	<ul style="list-style-type: none"> <li>SharkBite® Copper – must comply to AS 1432</li> </ul>	Couplings	16mm OD to DN15 Cu	FF009	
			20mm OD to DN20 Cu	FF017	
		Elbows	16mm OD to DN15 Cu	FF250	
			20mm OD to DN20 Cu	FF258	
		Tees – Copper Centre	16mm OD to DN15 Cu	FF363	
			20mm OD to DN20 Cu	FF371	
		Tees – SharkBite Max™ Centre	DN15 Cu to 16mm OD	FF364	
			DN20 Cu to 20mm OD	FF372	
<b>SharkBite® SDR9 PEX to SDR7.4 PEX</b>	<ul style="list-style-type: none"> <li>Rehau Rautitan</li> <li>PexPlus</li> <li>Iplex K2®</li> <li>Forza PEX</li> <li>Tradeplex and others</li> </ul>	Couplings	16mm	FF009PX	
			20mm	FF017PX	
		Tees – SharkBite Max™ Centre	16mm	FF364PX	
			20mm	FF372PX	
<b>SharkBite® SDR9 PEX to Polybutylene</b>	<ul style="list-style-type: none"> <li>Iplex Pro-fit®</li> <li>Buteline</li> <li>Hep20 and others</li> </ul>	Couplings	16mm OD to 18mm PB	FF009PB	
			20mm OD to 22mm PB	FF017PB	
		Tees – SharkBite Max™ Centre	16mm OD to 18mm PB	FF364PB	
			20mm OD to 22mm PB	FF372PB	
<b>SharkBite® SDR9 PEX to SDR9 PEX</b>	<ul style="list-style-type: none"> <li>Auspex</li> <li>EvoPEX™</li> <li>Rehau Edge and others</li> </ul>	Couplings	16mm OD to 16mm SDR9	FF009AP	
			20mm OD x 20mm SDR9	FF017AP	











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