

The SharkBite Air & Pneumatics push-fit range provides fast, simple and reliable pipe connections. Available in 10 to 54mm sizes, the robust brass-body fittings can withstand high pressure and a range of system requirements, making it ideal for small to large commercial and industrial applications.

Suitable for use from the compressor to the point of use, we offer a wide range of fittings and anodised aluminium pipe, including a 45° elbow for improved air flow

Using a simple push-fit action, pipes are instantly joined without the need for tools, silicon, hot works, solder or glue. Fittings can also be disconnected with a secure demounting tool, making system extensions and modifications quick and easy. Designed to securely grip our range of anodised aluminium pipe, SharkBite is also compatible with powder coated aluminium, copper, PEXa and nylon pipe.

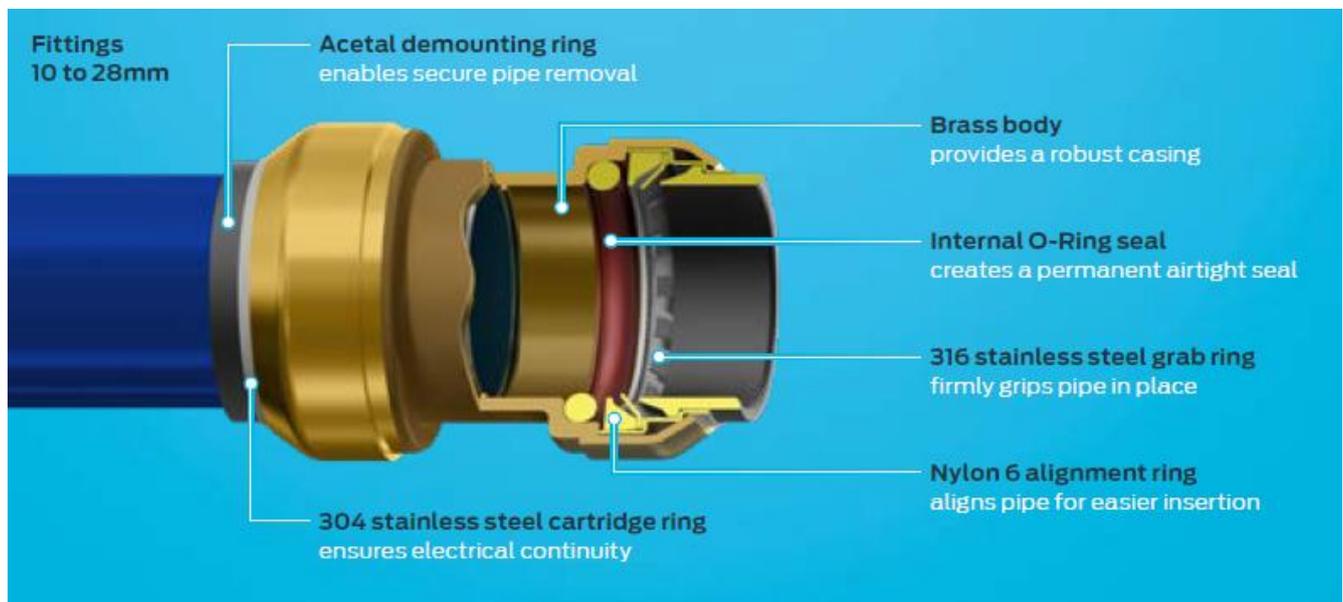
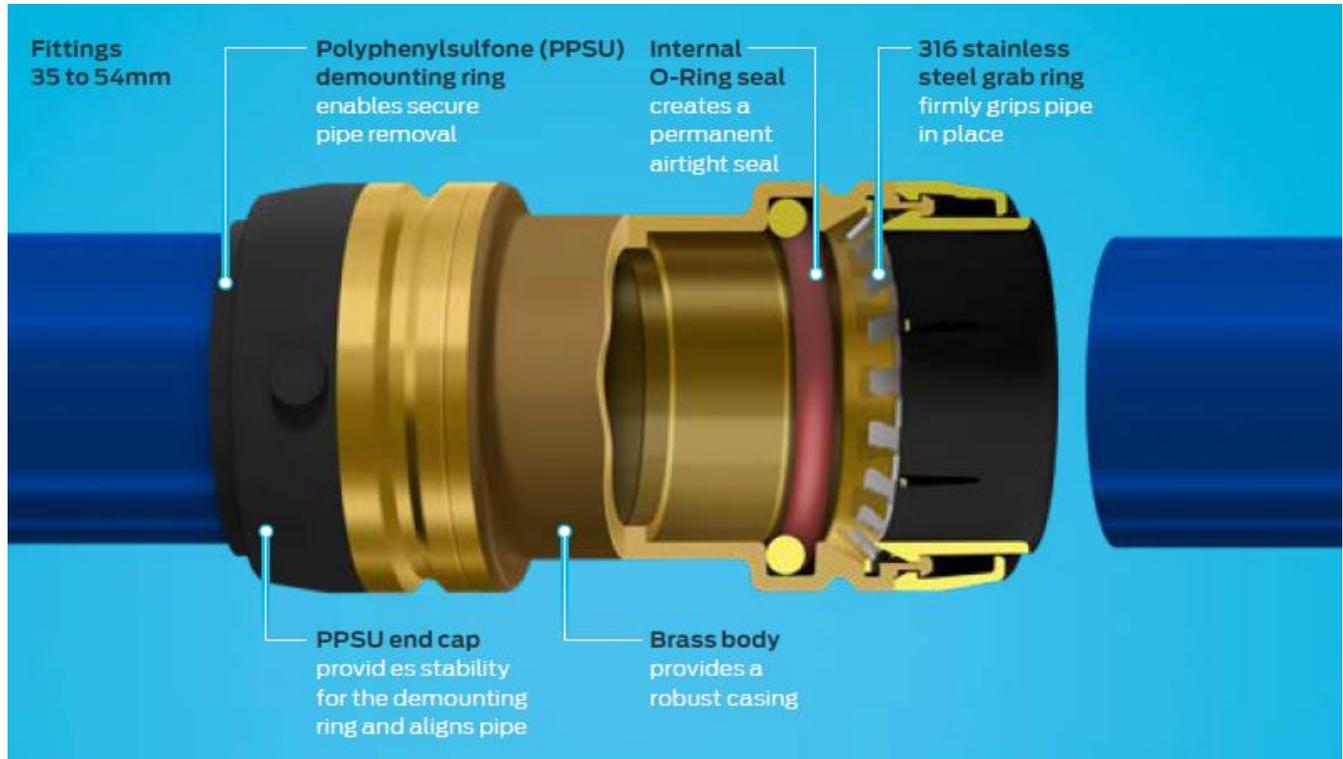
Features

- Engineered brass body
- Push-fit connection ends
- Tamperproof secure demounting tool
- Nitrile O-Ring and stainless steel grab ring
- Suitable for air and vacuum applications up to 20 bar

Benefits

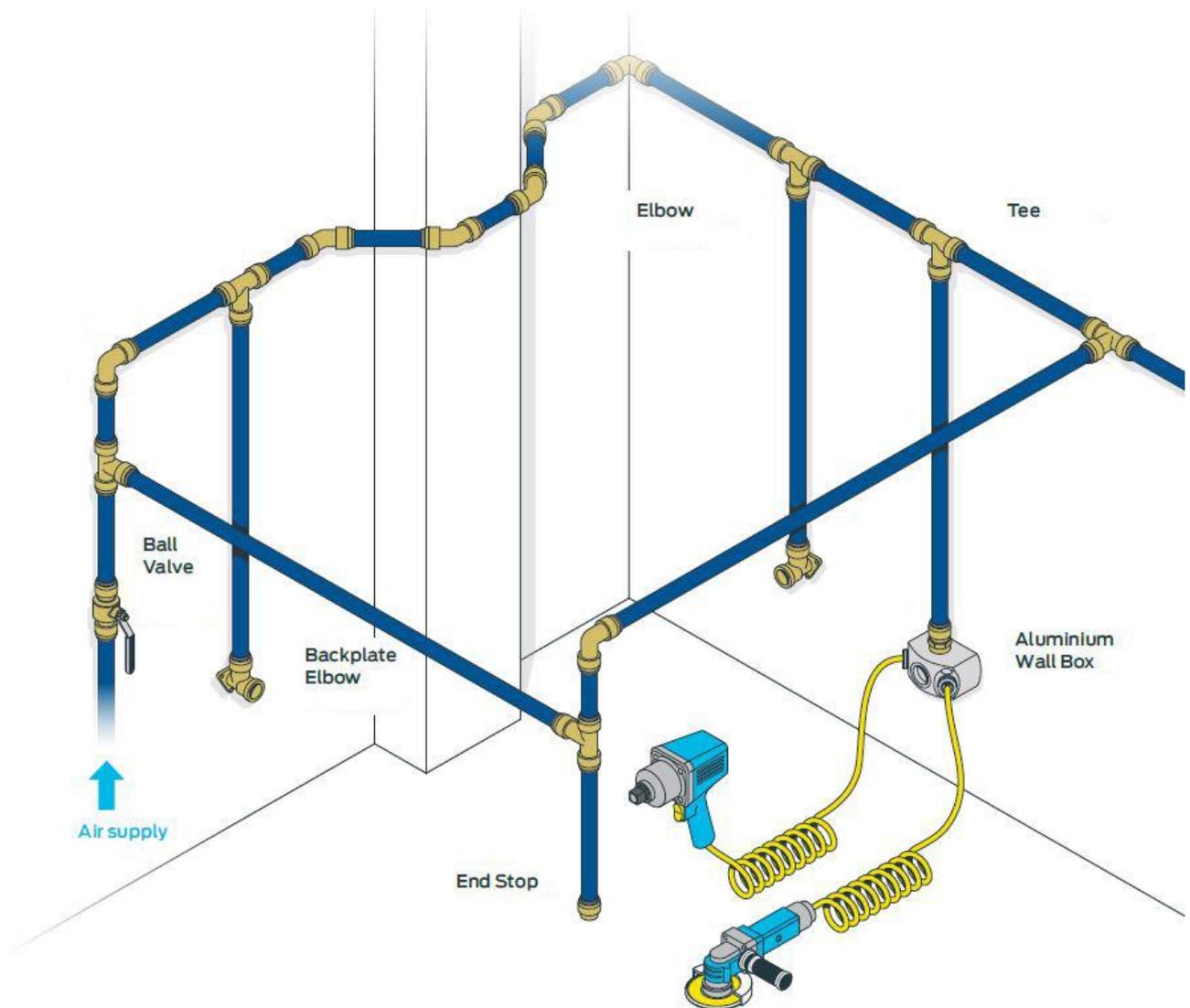
- Reliable leakproof solution that withstands high pressure
- Instant, tool-free, push-fit connection with no hot works, silicon, solvent or glue
- Corrosion-free solution that extends equipment lifecycle and reduces maintenance
- Quick and easy system reconfiguration and extension, with minimal downtime
- Lightweight and easy to handle material
- A versatile solution that connects to metal or plastic pipe

SharkBite push-fit fittings use grip and seal technology. The stainless steel grab ring grips the pipe and the O-Ring provides an airtight seal.



Air system configuration

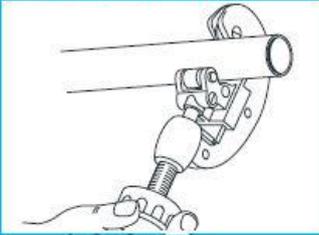
The SharkBite Air & Pneumatics system offers rapid assembly from the compressor to air line, through to the complete ring main and take off points.



Making a connection

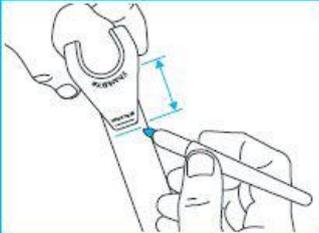
Connecting push-fit

Cutting the pipe



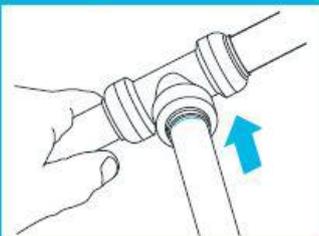
Cut the pipe square using a rotary pipe cutter and then deburr using a SharkBite Depth/Deburring tool. There should be no burrs or sharp edges on the pipe end as this can damage the O-Ring during pipe insertion.

Measure the depth



Using the appropriate Depth Marker Demounting Clip or tape measure, mark the insertion depth onto the pipe.

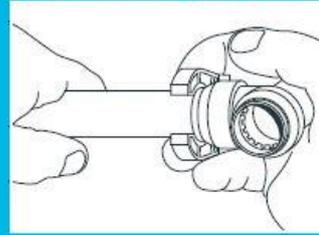
Making the connection



Align the pipe squarely with the fitting de-mounting ring and push the pipe into the fitting with a slight twist until the pipe reaches the pipe stop. If using plastic pipe, use a liner if specified by the pipe manufacturer.

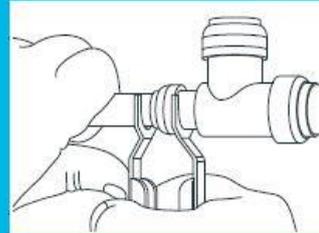
Demounting push-fit

Demounting 10-28mm with clip



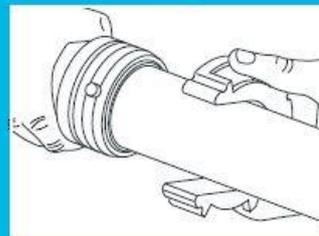
Holding the fitting in the palm of the hand, snap the demounting clip over the pipe, with the SharkBite logo away from the fitting. Slide the clip up to the demounting ring and press firmly on the two 'finger pads', while simultaneously twisting and pulling the pipe to release.

Demounting 10-28mm with tongs



Position the tongs over the fitting and pipe with the SharkBite logo facing away from the fitting. Squeeze the tongs together, while gripping the pipe in the other hand, simultaneously twist and pull the pipe to remove, if necessary. Use the thumb as a lever to assist release.

Demounting 35-54mm UXL



Snap the demounting clip over the pipe and locate the clip slots over the two studs in the end cap. Rotate the clip clockwise by 10° until it locks, then twist and pull the pipe from the fitting.

Selecting the right pipe

Select the pipe and diameter for your application based on the required flow against pressure drop.

Pipe flow rates

Maximum recommended flow rates according to ISO 4414

Working Pressure		Aluminium Pipe						Nylon Pipe			
kPa	(bar)	15mm	22mm	28mm	35mm	42mm	54mm	10mm	15mm	22mm	28mm
20	0.2	0.86 l/s	2.11 l/s	3.57 l/s	9.81 l/s	15.0 l/s	28.0 l/s	0.33 l/s	0.79 l/s	2.0 l/s	2.9 l/s
40	0.4	1.32 l/s	3.27 l/s	5.49 l/s	10.2 l/s	17.0 l/s	43.0 l/s	0.51 l/s	1.21 l/s	3.0 l/s	4.5 l/s
63	0.63	1.80 l/s	4.38 l/s	7.39 l/s	13.7 l/s	22.9 l/s	59.0 l/s	0.69 l/s	1.64 l/s	4.1 l/s	6.0 l/s
80	0.8	2.08 l/s	5.19 l/s	8.91 l/s	16.5 l/s	27.4 l/s	70.0 l/s	0.81 l/s	1.90 l/s	4.8 l/s	7.2 l/s
100	1	2.46 l/s	6.14 l/s	10.43 l/s	19.3 l/s	32.0 l/s	82.0 l/s	0.97 l/s	2.25 l/s	5.7 l/s	8.4 l/s
125	1.25	2.93 l/s	7.25 l/s	12.05 l/s	22.4 l/s	37.9 l/s	97.0 l/s	1.14 l/s	2.68 l/s	6.7 l/s	9.8 l/s
160	1.6	3.59 l/s	8.55 l/s	14.67 l/s	27.5 l/s	46.0 l/s	120.0 l/s	1.38 l/s	3.28 l/s	8.0 l/s	11.7 l/s
200	2	4.25 l/s	10.78 l/s	18.13 l/s	33.0 l/s	55.4 l/s	140.0 l/s	1.64 l/s	3.88 l/s	9.9 l/s	14.8 l/s
250	2.5	5.20 l/s	12.58 l/s	21.53 l/s	39.9 l/s	66.9 l/s	170.0 l/s	2.03 l/s	4.75 l/s	11.7 l/s	17.3 l/s
315	3.15	6.33 l/s	15.62 l/s	26.47 l/s	48.5 l/s	82.1 l/s	210.0 l/s	2.43 l/s	5.78 l/s	14.3 l/s	21.7 l/s
400	4	7.84 l/s	19.13 l/s	32.33 l/s	59.9 l/s	100.0 l/s	260.0 l/s	3.00 l/s	7.15 l/s	17.7 l/s	26.3 l/s
500	5	9.46 l/s	23.65 l/s	39.67 l/s	74.4 l/s	124.3 l/s	320.0 l/s	3.73 l/s	8.65 l/s	22.0 l/s	32.2 l/s
630	6.3	12.26 l/s	29.20 l/s	49.47 l/s	90.0 l/s	150.0 l/s	390.0 l/s	4.57 l/s	11.15 l/s	27.0 l/s	40.2 l/s
800	8	15.10 l/s	36.75 l/s	61.73 l/s	115.0 l/s	192.9 l/s	490.0 l/s	5.70 l/s	13.75 l/s	34.0 l/s	50.3 l/s
1000	10	17.97 l/s	45.30 l/s	75.47 l/s	141.3 l/s	238.6 l/s	610.0 l/s	7.10 l/s	16.43 l/s	42.0 l/s	61.7 l/s
1250	12.5	22.60 l/s	56.37 l/s	96.40 l/s	178.8 l/s	297.1 l/s	750.0 l/s	8.27 l/s	20.50 l/s	52.3 l/s	77.5 l/s
1600	16	29.20 l/s	71.47 l/s	120.00 l/s	223.8 l/s	375.7 l/s	950.0 l/s	10.70 l/s	26.50 l/s	66.3 l/s	97.5 l/s

Note: The flow rates are based on 10% pressure drops for 10 and 15mm pipe sizes and 5% for 22, 28, 35, 42 and 54mm pipe sizes.

SharkBite Air working pressure and temperature

Diameter	Temperature	Nylon Pipe	PEXa Pipe	Anodised Aluminium Pipe	Powder Coated Aluminium Pipe	Copper Pipe	LLDPE Pipe
10mm	-20°C	15 bar	N/A	N/A	N/A	16 bar	N/A
	20°C	15 bar	N/A	N/A	N/A	16 bar	N/A
	65°C	8 bar	N/A	N/A	N/A	10 bar	N/A
15mm	-20°C	15 bar	16 bar	20 bar	20 bar	20 bar	10 bar
	20°C	15 bar	16 bar	20 bar	20 bar	20 bar	10 bar
	65°C	8 bar	9 bar	16 bar	16 bar	16 bar	7 bar
22mm	-20°C	14 bar	16 bar	20 bar	20 bar	20 bar	N/A
	20°C	14 bar	16 bar	20 bar	20 bar	20 bar	N/A
	65°C	7 bar	9 bar	16 bar	16 bar	16 bar	N/A
28mm	-20°C	14 bar	16 bar	20 bar	20 bar	20 bar	N/A
	20°C	14 bar	16 bar	20 bar	20 bar	20 bar	N/A
	65°C	7 bar	9 bar	16 bar	16 bar	16 bar	N/A
35mm	-20°C	N/A	N/A	20 bar	20 bar	20 bar	N/A
	20°C	N/A	N/A	20 bar	20 bar	20 bar	N/A
	65°C	N/A	N/A	16 bar	16 bar	16 bar	N/A
42mm	-20°C	N/A	N/A	20 bar	20 bar	20 bar	N/A
	20°C	N/A	N/A	20 bar	20 bar	20 bar	N/A
	65°C	N/A	N/A	16 bar	16 bar	16 bar	N/A
54mm	-20°C	N/A	N/A	18 bar	18 bar	18 bar	N/A
	20°C	N/A	N/A	18 bar	18 bar	18 bar	N/A
	65°C	N/A	N/A	14 bar	14 bar	14 bar	N/A

Note: Ball Valves. 16 bar @ 20°C max.

System pipe sizing

To determine the correct size of pipe required for a closed loop network, select the flow and pipe length for your application from the tables. Velocity is not used in the calculation. The calculations show the data for an 8 and 16 bar system with SharkBite Anodised Aluminium system pipe, further data is available on request.

8 bar network pressure using hard anodised pipe with a maximum 0.24 bar (3%) pressure loss

Flow	Nm ³ /H	Nm ³ /min	Length (m)									
			50	100	150	300	500	750	1000	1300	1600	2000
10	0.2		15	15	15	22	22	22	22	22	22	28
30	0.5		22	22	22	28	28	28	35	35	35	35
50	0.8		22	28	28	28	35	35	35	42	42	42
70	1.2		22	28	28	35	35	42	42	42	42	54
100	1.7		28	35	35	42	42	42	54	54	54	54
150	2.5		35	35	42	42	54	54	54	54		
250	4.2		35	42	42	54	54					
350	5.8		42	54	54	54						
500	8.3		54	54	54							
750	12.5		54									

16 bar network pressure using hard anodised pipe with a maximum 0.49 bar (3%) pressure loss

Flow	Nm ³ /H	Nm ³ /min	Length (m)									
			50	100	150	300	500	750	1000	1300	1600	2000
10	0.2		15	15	15	15	15	15	22	22	22	22
30	0.5		15	15	22	22	22	22	28	28	28	28
50	0.8		22	22	22	22	28	28	28	28	35	35
70	1.2		22	22	22	28	28	35	35	35	35	35
100	1.7		22	22	28	28	35	35	35	42	42	42
150	2.5		28	28	28	35	35	42	42	42	54	54
250	4.2		28	35	35	42	42	54	54	54	54	54
350	5.8		35	35	42	42	54	54	54			
500	8.3		35	42	42	54	54					
750	12.5		42	54	54	54						
1000	16.7		54	54	54							
1250	20.8		54	54								
1500	25.0		54									
1750	29.2		54									
2000	33.3		54									