

RWC

Fast, reliable and efficient solutions for air and pneumatics

Together John Guest and SharkBite offer an extended range of reliable, sustainable and efficient push-fit fittings and pipes for compressed air and pneumatics.

Available in 3 to 54mm sizes, our high performance air piping systems are fast and easy to install and deliver substantial labour and energy savings when compared to traditional methods.





Optimal flow and air quality

Outperforming steel or copper, which can degrade over time, our range of products resist corrosion ensuring optimal flow and air quality, while extending system and equipment lifecycle and efficiency.

Ultimate performance and efficiency

Since inventing the world's first push-fit compressed air fitting over 45 years ago, we have continued to perfect our design and unique sealing technology to reduce energy consumption, increase air flow and eliminate pressure drops and leaks.

System set up in half the time

Fast and simple to use, our air piping systems reduce installation time by up to 50% when compared to

conventional methods. Using an instant push-fit action, connections are made without tools or the need to thread, solder or glue pipes.

Alter, extend or modify in seconds

Our components are easy to disconnect, reusable and interchangeable, making layout modifications quick and simple with minimal production downtime and expense.

Greater choice and design freedom

Plastic and brass push-fit fittings and lightweight pipe that is easier to handle than copper and steel.
Components can be used in many combinations and are also compatible with other types of pipe.



⊗bcas



NEW

Create an efficient high performance solution

For small to large commercial and industrial applications

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 demounting tool, making system 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 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 pipes.

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

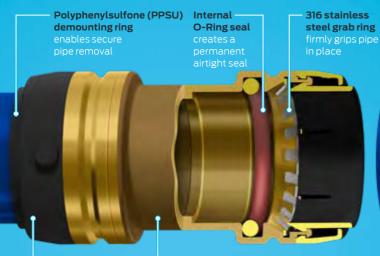
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Inside SharkBite technology

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.

Fittings 35 to 54mm

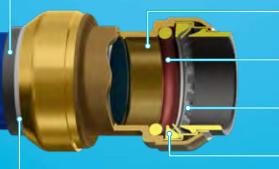


PPSU end cap

Brass body

Fittings 10 to 28mm

Acetal demounting ring



304 stainless steel cartridge ring

Internal O-Ring seal

316 stainless steel grab ring

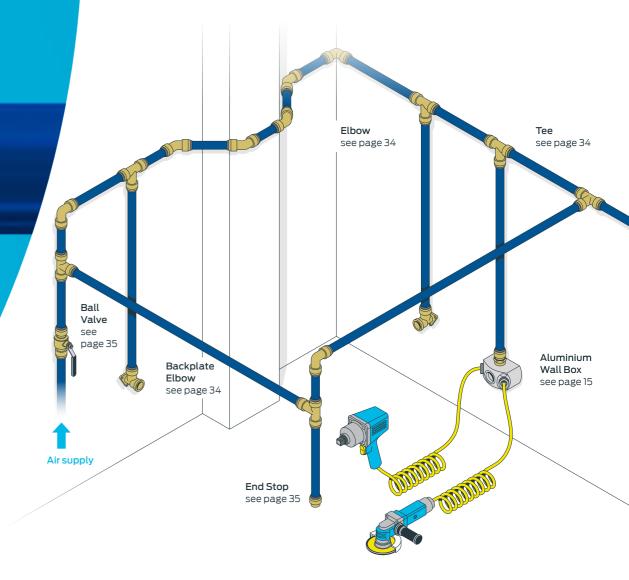
firmly grips pipe in place

Nylon 6 alignment ring

aligns pipe for easier insertion

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.

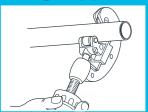


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Making a **connection**

Connecting push-fit

Cutting the pipe



Cut the pipe square using a rotary pipe cutter and then debur 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

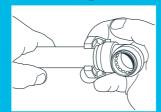
Making the connection



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.

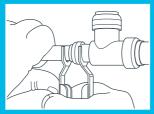
Demounting push-fit

Demounting 10-28mm with clip



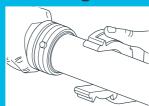
Holding the fitting in the palm of the hand, snap the demounting clip over the pipe, with the SharkBite logo away from the fitting. Slide the clip up to the demounting ring and press firmly on the two 'finger pads', while simultaneously twisting and pulling the pipe to release.

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.

Note

coated O-Ring. This coating is semi-permanent and multiple pipe insertions/de-mountings will remove this coating, making pipe insertion harder.



SharkBite

Air & pneumatics Brass fittings

Straight Coupling



Part number	Pipe OD	Bag qty	Box qty
SBA0110	10	5	360
SBA0115	15	10	300
SBA0122	22	5	130
SBA0128	28	5	75
UXL			
SBA0135E	35	1	12
SBA0142E	42	1	12
SBA0154E	54	1	8

45 Degree Elbow





Part number	Pipe OD	Bag qty	Box qty
SBA0515	15	10	150
SBA0522	22	5	60
SBA0528	28	5	35
UXL			
SBA0535E	35	1	10
SBA0542E	42	1	8
SBA0554E	54	1	6

Equal Tee





Part number	Pipe OD	Bag qty	Box qty
SBA0310	10	5	110
SBA0315	15	10	100
SBA0322	22	5	45
SBA0328	28	1	30
UXL			
SBA0335E	35	1	8
SBA0342E	42	1	5
SBA0354E	54	1	2

Pipe

Pipe Clips

Female Threaded Connector (FBSP thread)

Box qty

600

500

250

130

20



Part number	Pipe OD	Size mm/m	Pack qty
AL-IR1513-3M-20B	15	13 x 3	20
AL-IR2220-3M-20B	22	20 x 3	20
AL-IR2826-3M-10B	28	26 x 3	10
AL-IR3531-3M-10B	35	31 x 3	5
AL-IR4238-3M-10B	42	38 x 3	5
AL-IR5450-3M-10B	54	50 x 3	5

Accessories



Part number	Pipe OD	Bag qty
LIVI CO2	2E E/	1

Depth Marker Demounting Clip



Part number	Pipe OD	Bag qty
SB2910	10	1
SB2915	15	1
SB2922	22	1
SB2928	28	1



Part number	Pipe OD	Bag qty
SB2910	10	1
SB2915	15	1
SB2922	22	1
SB2928	28	1

Demounting Tongs

SB3010

L	4	
	Size	

Part number	Size mm	Box qty
SBA0855510	10-12	100
SBA0855515	14-16	100
SBA0855518	16-20	100
SBA0855522	20-23	50
SBA0855531	28-32	50
SBA0855538	35-40	25
SBA0855542	40-44	25
SBA0855554	48-55	15
SBA0855310*	10	25
	and contains a town a commercial	

^{*} Spacer block can only be used with sizes up to and including SBA0855531

Reducing Coupling



Part number	Pipe OD	Pipe OD	Bag qty	Box qty
SBA011510	15	10	5	200
SBA012215	22	15	5	130
SBA012822	28	22	1	60
UXL				
SBA013528E	35	28	1	12
SBA014235E	42	35	1	8
SBA015442E	54	42	1	б

90 Degree Elbow





Part number	Pipe OD	Bag qty	Box qty
SBA0210	10	5	250
SBA0215	15	10	150
SBA0222	22	5	70
SBA0228	28	5	65
UXL			
SBA0235E	35	1	10
SBA0242E	42	1	8
SBA0254E	54	1	б

Reduced Branch Tee



Part number	Pipe OD	Bag qty	Box qty
SBA0210	10	5	250
SBA0215	15	10	150
SBA0222	22	5	70
SBA0228	28	5	65
UXL			
SBA0235E	35	1	10
SBA0242E	42	1	8
SBA0254E	54	1	6





Part number	OD	OD	qty	qty
SBA03222210	22	10	1	60
SBA03222215	22	15	5	50
SBA03282815	28	15	1	25
SBA03282822	28	22	1	25
UXL				
SBA03353522E	35	22	1	12
SBA03353528E	35	28	1	12
SBA03424222E	42	22	1	6
SBA03424228E	42	28	1	6
SBA03424235E	42	35	1	4
SBA03545428E	54	28	1	5
SBA03545435E	54	35	1	5
SBA03545442E	54	42	1	5

Brass valves

Ouarter Turn Ball Valve



SBA111515F

SBA112220F

End Stop

SBA0410

SBA0415

SBA0422

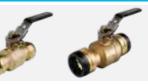
SBA0428

SBA0442E SBA0454E

UXL SBA0435E

SBA113532FE 35 SBA114240FE 42 SBA115450FE 54

UXI



1/2

Part number	OD Pipe	Bag qty	gty qty
SBA2715	15	1	30
SBA2722	22	1	16
SBA2728	28	1	12
UXL			
SBA2735E	35	1	9
SBA2742E	42	1	4
SBA2754E	54	1	4
Tamperproof loo	kable handles.		

Tamperproof lockable handles.

SB3022 SB3028

Demounting Clip (UXL sizes)

22

28



Part number	Pipe OD	Bag qty	Box qty
UXLDC35	35	1	100
UXLDC41	42	1	80
UXLDC54	54	1	60

Slip Coupling



Part number	Pipe OD	Bag qty	Box qty
SBA01S15	15	10	170
SBA01S22	22	5	80
SBA01S28	28	5	40
UXL			
SBA01S35E	35	1	12
SBA01S42E	42	1	10
SBA01S54E	54	1	6

Female Backplate Elbow (FBSP thread)



art number	Tube OD	Thread FBSP	Bag qty	Box qty	
BA121515FBP	15	1/2	5	100	
BA122220FBP	22	3/4	5	70	

Male Threaded Connector MBSP thread)





Part number	Pipe OD	Thread MBSP	Bag qty	Box qty
SBA111515MT	15	1/2	5	250
SBA112220MT	22	3/4	5	150
SBA112825MT	28	1	1	120
UXL				
SBA113532ME	35	11/4	1	15
SBA114240ME	42	11/2	1	12
SBA115450ME	54	2	1	10

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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 F	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.

John Guest Air working pressure and temperature

Diameter	Temperature	Rigid Nylon Pipe	Powder Coated Alur Pipe	minium Copper Pipe	LLDPE Pipe
4mm	-20°C	N/A	N/A	N/A	10 bar
	23°C	N/A	N/A	N/A	10 bar
	65°C	N/A	N/A	N/A	7 bar
6mm	-20°C	N/A	N/A	N/A	10 bar
	23°C	N/A	N/A	N/A	10 bar
	65°C	N/A	N/A	N/A	7 bar
8mm	-20°C	N/A	N/A	N/A	10 bar
	23°C	N/A	N/A	N/A	10 bar
	65°C	N/A	N/A	N/A	7 bar
10mm	-20°C	N/A	N/A	N/A	10 bar
	23°C	N/A	N/A	N/A	10 bar
	65°C	N/A	N/A	N/A	7 bar
12mm	-20°C	10 bar	N/A	N/A	10 bar
	23°C	10 bar	N/A	N/A	10 bar
	65°C	7 bar	N/A	N/A	7 bar
15mm	-20°C	10 bar	10 bar	10 bar	10 bar
	23°C	10 bar	10 bar	10 bar	10 bar
	65°C	7 bar	7 bar	7 bar	7 bar
18mm	-20°C	10 bar	10 bar	N/A	N/A
	23°C	10 bar	10 bar	N/A	N/A
	65°C	7 bar	7 bar	N/A	N/A
22mm	-20°C	10 bar	10 bar	10 bar	N/A
	23°C	10 bar	10 bar	10 bar	N/A
	65°C	7 bar	7 bar	7 bar	N/A
28mm	-20°C	10 bar	10 bar	10 bar	N/A
	23°C	10 bar	10 bar	10 bar	N/A
	65°C	7 bar	7 bar	7 bar	N/A

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		Length (m)								
Nm³/H	Nm³/min	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		Length (m)									
Nm³/H	Nm³/min	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									

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Key information

Condition of sale

All purchases are subject to our standard terms and conditions of sale, which can be found on johnguest.com (John Guest Air & Pneumatics products) and rwc.co.uk (SharkBite Air & Pneumatics products).

Technical information

RWC and its family of products are specifically designed and manufactured to the technical specifications set out in our Technical Specification Guides on our websites.

All products should be selected, used and maintained in accordance with these technical specifications and checklists. It is the end users responsibility to ensure that products are suitable for their intended application, are properly installed and maintained, and are used in accordance with our technical guides.

RWC operates a programme of continuous product development, and therefore reserves the right to modify or amend the specification of our products without notice. All information in this publication is given in good faith and believed to be correct at the time of going to print.

Orders & enquiries

01895 449233

Call our sales team to discuss pricing, product selection and special requirements.

Maintenance & replacement intervals

Our fittings generally require little maintenance but as a minimum we recommend routine visual inspection. Frequency of visual inspection will depend on the application and risk of failure. If after inspection, a product appears to be damaged, cracked, charred, discoloured, heat distorted, corroded or leaking, the product should be replaced.

Product life cycle is affected by the severity of the application, the hostility of the working environment and contact with aggressive chemicals or liquids. It is important that replacement intervals are considered by customers based on previous service life or when failure could result in unacceptable downtime, damage or risk of injury.





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