



SWIVEL FERRULES

TAPPING SYSTEMS

SWIVEL FERRULES

Swivel Ferrules provide a quick, permanent, leak free service connection, consisting of a stem with an inner plug for valve isolation and a 360° swivel outlet at 90° to the stem. The swivel outlet provides a direct connection to the service line via an integral joint in the ferrule banjo so no adaptor is needed. These ferrules will provide service connections, dry or under pressure, directly into cast iron, ductile iron or steel mains. Fibre cement, PE and PVC mains can also be tapped via a Flat Boss Saddle.



FUNCTIONS

Allows the connection of a service pipe to a mains pipe, dry or underpressure.

ADVANTAGES

▮ Quick and simple to install

Quick, permanent, leak free connection provided by a tried and tested design.

▮ Extensive range

A range has been developed which enables the user to make connections to almost any type of mains and service pipe, either underpressure or dry.

▮ Robust and long lasting

Years of service in even the most aggressive soil and water conditions.

▮ Reliable and leak free

Specifically designed to operate at pressures up to 16 bar (240 psi) subject to the ratings of the pipe.

APPLICATIONS



House connection

USES

▮ Making service connections to mains pipes

- The ferrule will provide service connections dry or underpressure directly into cast iron, ductile iron and steel mains. Asbestos cement and PVC mains can also be tapped via a Flat Boss Strap.

CHARACTERISTICS

- └ **Main stem** with a 360° swivel outlet at 90° with control of water flow via a threaded inner plug. The inlet shall be a male taper thread to BS EN10226-1 (BS21), ISO 7/1.
- └ **For use underground** and to handle potable water at temperatures of up to 40°C and at pressures up to 16 bar (240 psi) without leakage.
- └ **Permits service pipe installations** via conventional drilling and tapping machines, underpressure or dry, with or without service saddles. Also permits use with conventional drilling machines mounted onto the ferrule/strap assembly to drill the main via the ferrule stem, dry or underpressure.
- └ **Range of different outlets** for the connections of service pipes: pushfit or compression for PE pipe, or threaded outlet.
- └ **Mains pipe connection** - service connections dry or underpressure directly into cast iron, ductile iron and steel mains. Asbestos cement and PVC mains can also be tapped via a Flat Boss Strap. NB. Ferrules should not be inserted directly into PVC or AC mains. The walls of these pipes are not strong enough to hold the stem.



APPROVALS

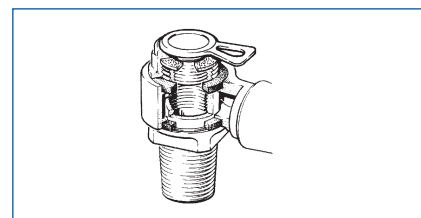
- └ Made from WRAS approved materials

OPTIONS/VARIANTS

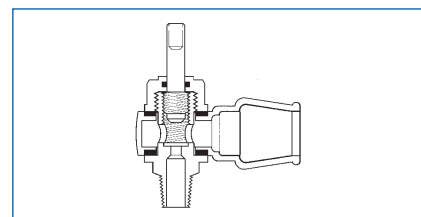
- └ Available in a range of different sizes of inlets and outlets.
- └ Available in different outlet types (plastic pushfit, gunmetal pushfit, EBCO-B compression, female thread).
- └ Available as standard pattern or screwdown.
- └ Can be supplied fitted to a flat boss strap (combined ferrule strap).

TECHNICAL DATA

- └ **Nominal Diameter (DN):** DN50-DN600
- └ **Inlet sizes:** 1/2" - 2"
- └ **Outlet sizes:** 20mm/1/2" - 63mm/2"
- └ **Nominal Pressure (PN):** Working 16 bar, test 24 bar (up to 20°C)
- └ **Medium Temperature:** Up to up to 40°
- └ **Material:** Gunmetal to BS EN 1982:2008 Grade CC491K
- └ **Seals:** EPDM.



Standard pattern ferrule

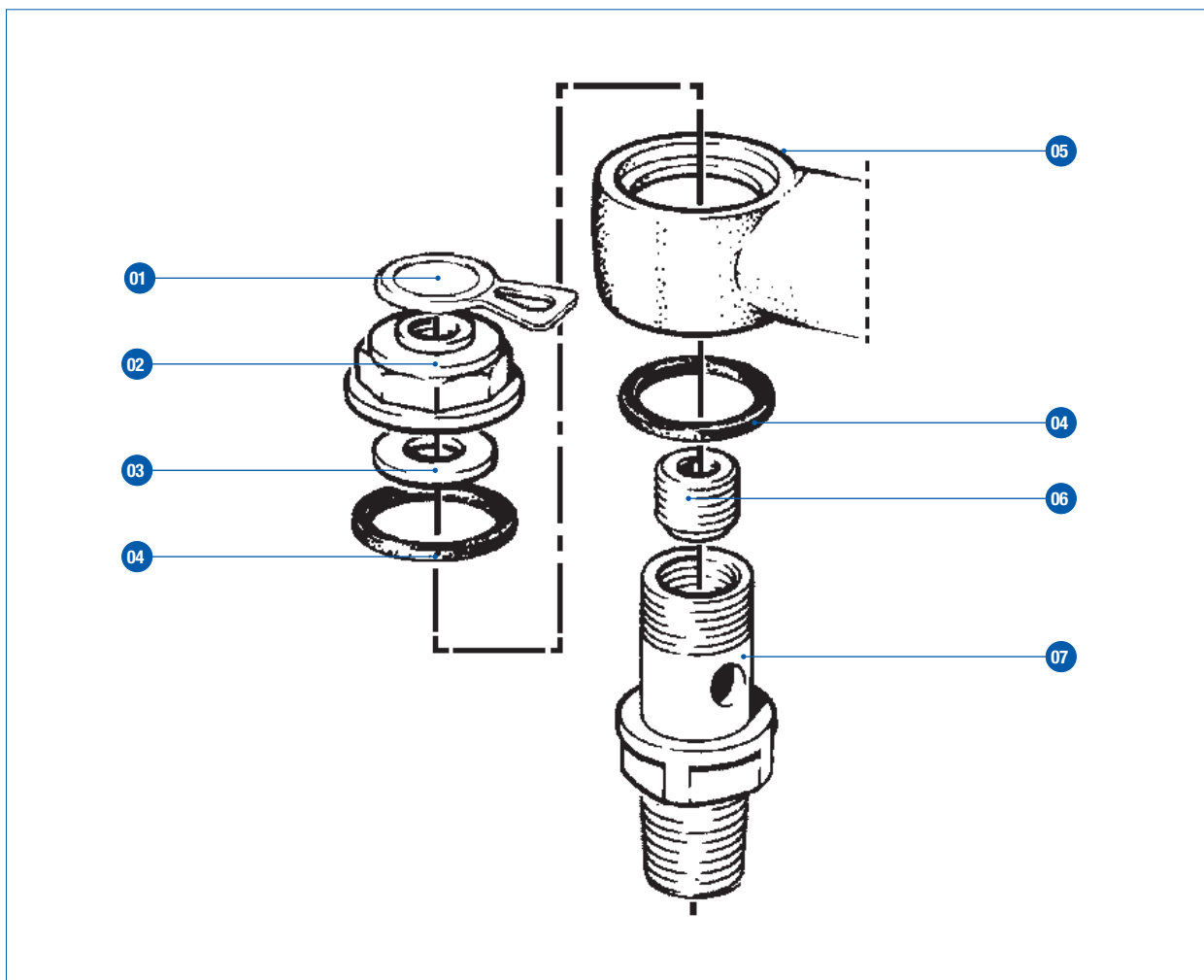


Screwdown ferrule

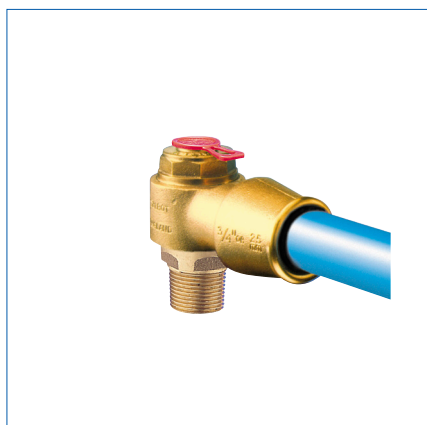
MATERIALS AND DIMENSIONS



INLET SIZE		OUTLET SIZE		
BSPT Male	BSP Female Thread	EBCO Push Fit for PE	EBCO-B for PE	Talbot Pushfit for PE
1/2"	1/2"	-	20mm/1/2"	20mm/1/2"
1/2"	3/4"	25mm	25mm/3/4"	25mm/3/4"
3/4"	1/2"	20mm	20mm/1/2"	1/2"
3/4"	3/4"	25mm	25mm/3/4"	25mm/3/4"
1"	1"	32mm	32mm/1"	32mm/1"
1 1/4"	1 1/4"	-	-	40mm
1 1/2"	1 1/2"	50mm	50mm/1 1/2"	50mm
1 1/2"	-	-	63mm/2"	63mm
2"	2"	63mm	63mm/2"	63mm/2"

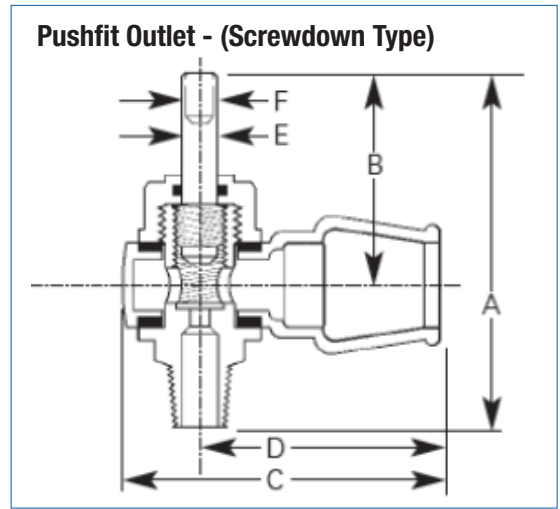
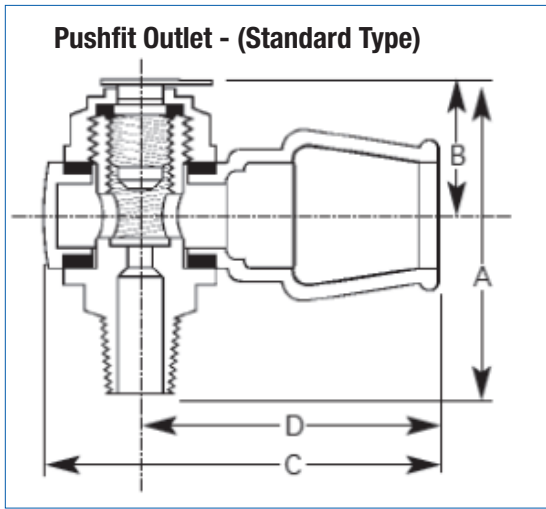


Item	Description	Quantity	Material	Standard	Alternative Material	Standard
1	Top plug	1	LDPE	-	-	-
2	Top cap	1	Gunmetal CC491K	EN 1982	LDPE	-
3	Top cap washer	1	EPDM	BS 2494	Acetal	-
4	Banjo washer	1	EPDM	BS 2494	PP or Nitrile	-
5	Banjo	1	Gunmetal CC491K	EN 1982	Acetal	-
6	Inner plug	1	Gunmetal CC491K	EN 1982	-	-
7	Stem	1	Gunmetal CC491K	EN 1982	-	-



STANDARD PATTERN SWIVEL FERRULE DIMENSIONS

DN	½" (20mm)					¾" (25mm)					1" (32mm)					1 ¼" (40mm)					1 ½" (50mm)					2" (63mm)					1 ½" x 2" (63mm)					
Outlet type	EBCO Pushfit	EBCO-B PE Compression	Female Thread	Talbot Pushfit Plastic Banjo	Talbot Pushfit Metal Banjo	EBCO Pushfit	EBCO-B PE Compression	Female Thread	Talbot Pushfit Plastic Banjo	Talbot Pushfit Metal Banjo	EBCO Pushfit	EBCO-B PE Compression	Female Thread	Talbot Pushfit Plastic Banjo	Talbot Pushfit Metal Banjo	EBCO Pushfit	EBCO-B PE Compression	Female Thread	Talbot Pushfit Plastic Banjo	Talbot Pushfit Metal Banjo	EBCO Pushfit	EBCO-B PE Compression	Female Thread	Talbot Pushfit Plastic Banjo	Talbot Pushfit Metal Banjo	EBCO Pushfit	EBCO-B PE Compression	Female Thread	Talbot Pushfit Plastic Banjo	Talbot Pushfit Metal Banjo	EBCO Pushfit	EBCO-B PE Compression	Female Thread	Talbot Pushfit Plastic Banjo	Talbot Pushfit Metal Banjo	
A (mm)	-	86	86	86	86	82	82	82	82	82	94	94	94	94	94	94	94	94	94	94	94	106	106	106	106	106	106	120	120	120	120	120	120	120	120	120
B (mm)	-	38	38	38	38	38	38	38	38	38	44	44	44	44	44	44	44	44	44	44	44	50	50	50	50	50	50	48	48	48	48	48	48	48	48	48
C (mm)	-	74	62	97	76	100	87	66	102	95	122	95	82	115	118	-	-	102	144	144	195	143	118	173	166	219	159	140	201	192	-	138	-	201	192	
D (mm)	-	52	40	73	54	79	62	43	78	74	94	67	54	88	90	-	-	68	110	110	154	102	77	131	131	172	112	95	-	152	152	97	-	152	152	



SCREWDOWN PATTERN SWIVEL FERRULE DIMENSIONS

DN	½" (20mm)					¾" (25mm)					1" (32mm)					1 ¼" (40mm)					1 ½" (50mm)					2" (63mm)					1 ½" x 2" (63mm)					
Outlet type	EBCO Pushfit	EBCO-B PE Compression	Female Thread	Talbot Pushfit Plastic Banjo	Talbot Pushfit Metal Banjo	EBCO Pushfit	EBCO-B PE Compression	Female Thread	Talbot Pushfit Plastic Banjo	Talbot Pushfit Metal Banjo	EBCO Pushfit	EBCO-B PE Compression	Female Thread	Talbot Pushfit Plastic Banjo	Talbot Pushfit Metal Banjo	EBCO Pushfit	EBCO-B PE Compression	Female Thread	Talbot Pushfit Plastic Banjo	Talbot Pushfit Metal Banjo	EBCO Pushfit	EBCO-B PE Compression	Female Thread	Talbot Pushfit Plastic Banjo	Talbot Pushfit Metal Banjo	EBCO Pushfit	EBCO-B PE Compression	Female Thread	Talbot Pushfit Plastic Banjo	Talbot Pushfit Metal Banjo	EBCO Pushfit	EBCO-B PE Compression	Female Thread	Talbot Pushfit Plastic Banjo	Talbot Pushfit Metal Banjo	
A Open (mm)	-	108	108	108	108	105	105	105	105	105	116	116	116	116	116	-	-	150	150	150	151	151	151	151	151	151	168	168	168	168	168	-	151	-	151	151
A Closed (mm)	-	92	92	92	92	90	90	90	90	90	97	97	97	97	97	-	-	123	123	123	130	130	130	130	130	130	137	137	137	137	137	-	130	-	130	130
B Open (mm)	-	58	58	58	58	58	58	58	58	58	65	65	65	65	65	-	-	92	92	92	93	93	93	93	93	93	100	100	100	100	100	-	93	-	93	93
B Closed (mm)	-	42	42	42	42	42	42	42	42	42	46	46	46	46	46	-	-	65	65	65	72	72	72	72	72	72	70	70	70	70	70	-	72	-	72	72
C (mm)	-	74	62	97	76	100	87	66	83	83	122	95	82	107	107	-	-	102	144	144	195	143	118	173	166	219	159	140	201	192	-	138	-	201	192	
D (mm)	-	52	40	54	54	79	62	43	61	61	94	67	54	79	79	-	-	68	110	110	154	102	77	131	131	172	112	95	-	152	152	97	-	152	152	
E (mm)	-	11	11	11	11	11	11	11	11	11	16	16	16	16	16	-	-	20	20	20	22	22	22	22	22	22	25	25	25	25	25	-	25	-	25	25
F (mm)	-	10	10	10	10	10	10	10	10	10	13	13	13	10	10	-	-	17	13	13	19	19	19	19	17	17	19	19	19	19	19	19	19	19	19	

FERRULE INSTALLATION

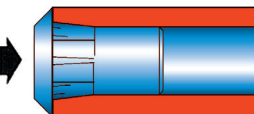
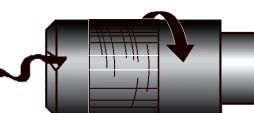
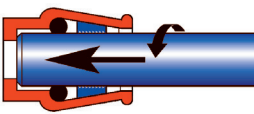

A drilling and tapping machine should be used to install the ferrule. Please follow the instructions of the manufacturer of the machine.

Ferrules should not be inserted directly into PVC or AC mains. The walls of these pipes are not strong enough to hold the stem. The manufacturers of ductile iron and steel mains pipe should be consulted for their specific recommendations regarding tapping directly into these pipe materials. Typically it is advised that the nominal diameter of the tapping should not exceed a quarter of the nominal diameter of the main for direct ferrule insertion without a strap or one third of the nominal diameter when a strap is used. For tappings larger than this a tapping tee should be used.

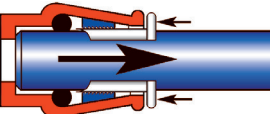
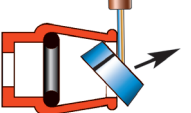

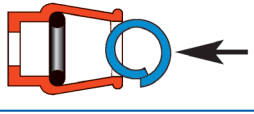

SERVICE PIPE INSTALLATION

TALBOT PUSHFIT FOR PE ASSEMBLY INSTRUCTIONS

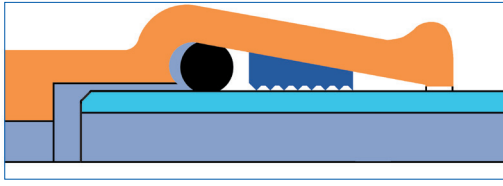
Pushfit Assembly Instructions

	1a. For metric British standard pipe only, push the correct liner fully into the pipe.
	1b. For imperial BS, DIN and ISO pipe only. Bevel the pipe. No liner is required.
	2. Push the pipe fully into the fitting with a slight twist.
	3. Ensure that the pipe passes two points of resistance and is fully seated.

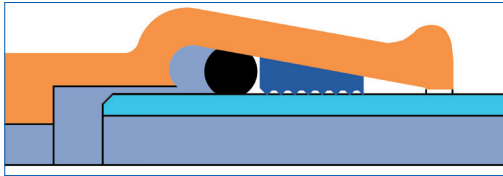
Pushfit Dismantling Instructions

	1. Slide extractors home and withdraw the pipe.
	2. Extract the grip ring with a screwdriver. Do not re-use the grip ring.
	3. Extract and inspect the 'O' ring - replace it if damaged.
	4. Insert a new grip ring by forming a figure '6' and pressing it in.
	5. Ensure the grip ring is inserted the correct way round.

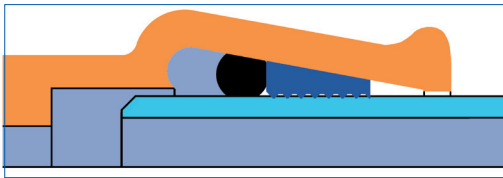
HOW TALBOT PUSHFIT WORKS:



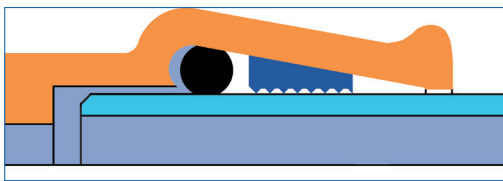
After insertion of the pipe, with the components at rest, the O-ring provides the water seal and the grip ring is ready to resist any pull out.



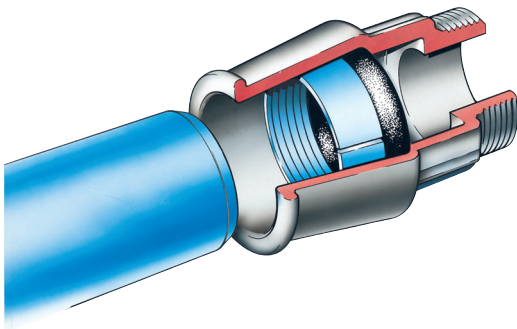
Water pressure forces the O-ring against the grip ring, pushing both components down the taper of the fitting creating an excellent pressure seal on the pipe.



As the water pressure rises the O-ring is forced further down the tapered body towards the grip ring, increasing the sealing pressure against the pipe and body.



In negative pressure conditions the O-ring remains in its original seating position and provides an effective vacuum seal.



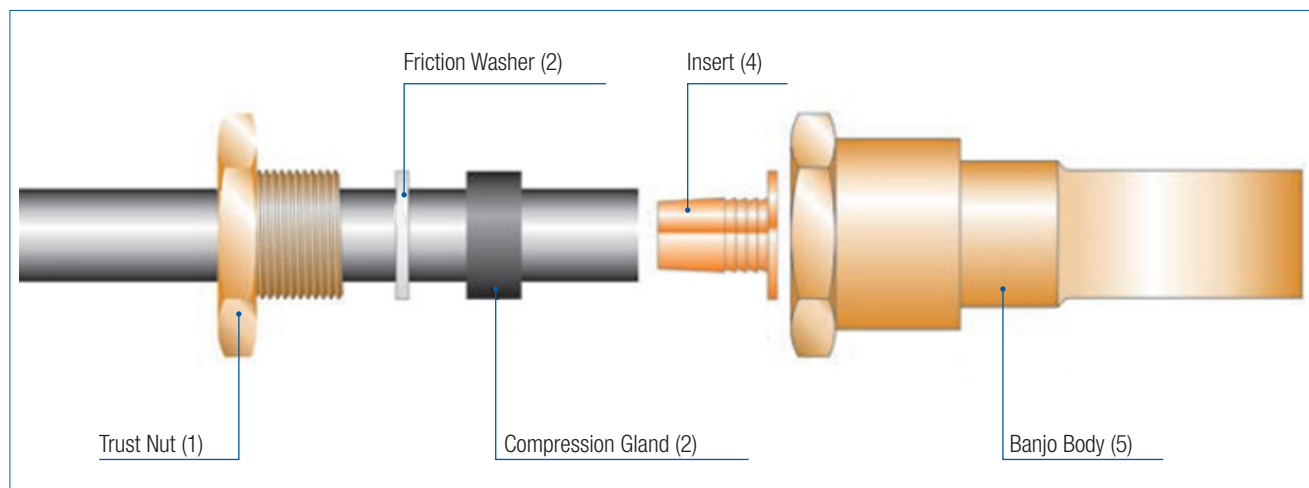
EPDM O-rings provide a watertight seal



Grip rings ensure resistance against pull out

EBCO-B FOR PE ASSEMBLY INSTRUCTIONS

Ensure the pipe is cut square then disassemble the end of the fitting to be connected, slide the thrust nut (1) then the friction washer (2), then the compression gland (3) over the end of the pipe to be connected. Insert the serrated insert (4) into the pipe and securely hammer it fully home with a soft faced mallet. Place the end of the pipe into the banjo's body (5) and screw the thrust nut fully into the body, securely locating the friction washer and sealing rubber inside the body of the fitting. Once the thrust nut has been hand tightened use a spanner and tighten a further 1 1/2 to 2 turns to form a fully sealed connection.

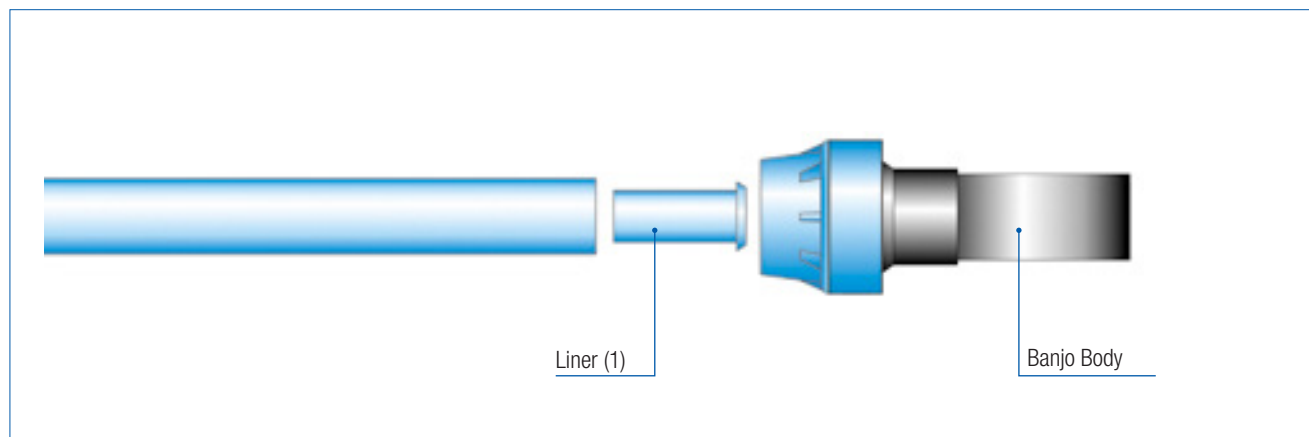


EBCO THREADED OUTLET ASSEMBLY INSTRUCTIONS

Ensure the metal pipe is male threaded to the correct BSP size and apply sufficient PTFE tape to the male thread to aid the sealing process. Screw the pipe fully into the banjo outlet using a spanner to create a watertight seal. Test and tighten further if necessary.

EBCO PUSH FIT ASSEMBLY INSTRUCTIONS

Remove the red end cap from the blue cone of the EBCO Push Fit connection and remove the liner (1) and insert it fully into the PE pipe. Once the liner is inserted into the pipe push the pipe fully into the PE end, past two points of resistance, until it is fully seated.



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Note: Specifications may be changed without notification at any time.

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