CUPROFIT™

A versatile flame free push-fit jointing system

Innovation You Can Trust IBP

FLAME FREE

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CUPROFIT™

Introduction

The new Cuprofit push-fit fitting system from IBP has been designed for use with hard, half-hard and soft copper tube, plus cross linked polyethylene (PE-x) and polybutylene (PB) pipe.

Cuprofit is manufactured from a copper or DZR brass body and incorporates an EPDM 'O' ring plus gripping and release mechanisms as shown on Page 4.

Its unique design offers a leak-proof, tamper resistant yet demountable connection, capable of operating at a working pressure of 16 bar.

The push-fit concept eliminates the need for flames or flux on site, thus avoiding numerous health and safety issues, and saving substantial time during installation.

Quality
Cuprofit, as with all IBP products, has undergone extensive testing, and has WRAS, DVGW and KIWA approval. All Cuprofit products are manufactured in accordance with accredited EN ISO 9002 Quality Management Procedures.

Cuprofit can be used on drinking water and other hot and cold water systems, including central heating.

Each Cuprofit fitting is permanently marked with the trade mark >B< as well as the size. Clear identification of the fitting is therefore possible even after years of use.

Components

1. One piece body
2. Tube stop
3. EPDM ‘O’ ring
4. Spacer
5. Stainless steel grip ring
6. Tube release sleeve
7. Bush

Features

- Flame free installation
- Economic, simple and quick
- No expensive special tools needed
- Reliable
- Compatible with copper, PE-x, and PB pipe
- WRAS, DVGW and KIWA approved
- Design life of 50 years
- Tamper resistant
- Demountable
- Corrosion resistant
- Slimline, unobtrusive
- All in one fitting, no additional collet needed
- Connection can be rotated 360 degrees
- ± 2° angularity
- Can be painted

Pipe Compatibility

Copper

Cuprofit is suitable for use with Copper tube to EN1057:1996, but is unsuitable for use with imperial tubes to BS 659.

Nominal outside diameters and wall thicknesses - Copper EN1057:1996 (All tempers)

Dimensions in millimetres

Nominal outside diameter	Nominal wall thickness								
d	0.5	0.6	0.7	0.8	0.9	1.0	1.1	1.2	1.5
10	X	●	●	●		●			
12	X	●	X	●		●			
15	X		●	●		●		X	X
18		X		●		●		X	X
22		X		X	●	●	X	●	●
28		X		X	●	●		●	●

● Recommended tube sizes

X Tube sizes also available

Plastic

Both PE-x and PB pipe can be joined with Cuprofit; however, the appropriate pipe liner **must** be used. Cuprofit must be used with the specially designed pipe liner (which incorporates a chamfer to aid assembly past the 'O' ring seal).
Under no circumstances must other manufacturers' pipe liners be used, as these are not compatible with Cuprofit.

PE-x to BS 7291 Pt 3

Dimensions of PE-x pipes having nominal sizes and outside diameters consistent with those specified in BS 2871				
Nominal size	Mean outside diameter		Wall thickness	
	Min	Max	Min	Max
mm	mm	mm	mm	mm
10	9.9	10.1	1.5	1.8
12	11.9	12.1	1.5	1.8
15	14.9	15.1	1.5	1.8
18	17.9	18.1	1.7	2.0
22	21.9	22.1	2.0	2.3
28	27.9	28.1	2.6	2.9

The above details were correct at time of going to press. There is currently a review of BS 7291. Please refer to our Technical Department if any clarification is required.

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PB to BS 7291 Pt 2

Dimensions of PB pipes having nominal sizes and outside diameters consistent with those specified in BS 2871				
Nominal size	Mean outside diameter		Wall thickness	
	Min	Max	Min	Max
mm	mm	mm	mm	mm
10	9.9	10.1	1.5	1.8
12	11.9	12.1	1.5	1.8
15	14.9	15.1	1.7	2.0
18	17.9	18.1	1.8	2.0
22	21.9	22.1	2.0	2.3
28	27.9	28.1	2.6	2.9

The above details were correct at time of going to press. There is currently a review of BS 7291. Please refer to our Technical Department if any clarification is required.

Installation Guide

Pipe Supports

All pipework should be supported by the use of appropriate clips, brackets, or supports.
The tables below provide details of the MAXIMUM intervals between supports, as recommended by pipe manufacturers.
Bolivar® pipe clips and supports are recommended for use with all of the pipe materials listed below.

Copper

Size (mm)	Vertical Intervals (mm)	Horizontal Intervals (mm)
10	1200	800
12	1500	1000
15	1800	1200
18	2000	1500
22	2400	1800
28	2400	1800

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PE-x, including baripex™

Size (mm)	Vertical Intervals (mm) at Average Service Temperature			Horizontal Intervals (mm) at Average Service Temperature		
	20°C	60°C	80°C	20°C	60°C	80°C
10	800	600	500	500	400	300
15	800	600	500	500	400	300
22	1200	1000	800	800	600	500
28	1200	1000	800	800	600	500

PB

Size (mm)	Vertical Intervals (mm)	Horizontal Intervals (mm)
10	500	300
15	500	300
22	800	800
28	1000	1000

(It is recommended that these details are confirmed by the Polybutylene manufacturer.)

Installation Guide

The following details offer information and advice for designing and installing a pipework system. It is recommended that where reference is made to other manufacturers' materials, the appropriate manufacturer is consulted to ensure that the data is current and correct.

Joining Copper with Cuprofit

1. Ensure the fitting is the right size for the tube.
2. Using a suitable tube cutter, cut the tube end square. Ensure tube end is round and free from any damage.


Cut

3. To prevent damage to the 'O' ring, **it is essential that all burrs are removed and the outside diameter of the tube is correctly chamfered.** It is necessary to ensure that a full circumferential chamfer is applied. This process is greatly assisted by using the COAS Deburring tool.


Deburr

4. Using a pen or pencil, mark the length of tube required to make the joint. This provides visual evidence that the tube has been fully inserted.
   Do not score the tube.
   (Socket depths are given in Table A on page 13)


Mark

5 Keeping the fitting and tube in line and without applying any force, locate the tube end within the mouth of the socket squarely touching the grip ring. Then drive fully home through the grip ring, right up to the tube stop. A slight twisting action of the tube or the fitting often facilitates installation.

N.B. Gross misalignment could cause damage to the 'O' ring.

Additional lubrication to the tube will assist in difficult situations. Only WRAS approved silicone should be used.

Note: When using Cuprofit to install soft copper an appropriate liner must be used. See Table B on page 19.

6 Attempting to pull the tube away from the joint ensures the grip ring is securely engaged.

Table A

Approx. Socket Depth	
Size (mm)	Depth (mm)
10	17
12	18
15	18
18	19
22	22
28	27

Installation Guide

Joining PE-x and PB with Cuprofit

1. Ensure the fitting is the right size for the pipe.
2. Using a suitable pipe cutter, cut the pipe end square. Ensure pipe end is round and free from any damage. Rotating the pipe as it is cut helps to minimise ovality.


Cut

3. To prevent damage to the ‘O’ ring, **it is essential that all burrs are removed and the outside diameter of the pipe is chamfered to remove any sharp edges.** It is necessary to ensure that a full circumferential chamfer is applied.This process is greatly assisted by using a deburring tool.


Deburr

4 Locate our purpose designed ‘PP’ pipe liner in the end of the pipe.
The liner is necessary to:
a) support the pipe
b) help re-round the pipe
c) facilitate pipe entry

Other manufacturers’ pipe liners must not be used.

5 Using a pen or pencil, mark the length of pipe required to make the joint.This provides visual evidence that the pipe has been fully inserted. **Do not score the pipe**.
(Socket depths are given in Table A on page 13)

6 Keeping the fitting and pipe in line and without applying any force, locate the pipe end within the mouth of the socket squarely touching the grip ring. Then drive fully home through the grip ring, right up to the pipe stop. A slight twisting action of the pipe or the fitting often facilitates installation.

N.B. Gross misalignment could cause damage to the 'O' ring.

Additional lubrication to the pipe will assist in difficult situations. Only WRAS approved silicone should be used.

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7 Attempting to pull the pipe away from the joint will ensure the grip ring is securely engaged.

Table B

Pipe Material	Liner Designation
PB	PP
PE-x	PP
Soft Copper	SC1

Installation Guide

Minimum distance between Cuprofit fittings
This distance is based upon the possible requirement to dismantle the joint at some time during the lifespan of the plumbing system. Consequently, sufficient space must be allowed to enable the release tool to be attached to the pipe, plus room to undertake the removal procedure.

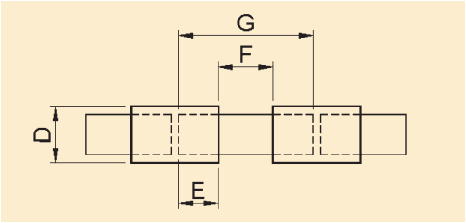

Table C

Pipe Size	D	E	F	G
10	18	17	20	54
12	21	18	25	61
15	24	18	20	56
18	28	19	25	63
22	32	22	20	64
28	38	27	25	79

D - Fitting OD
E - Socket depth
F - Clearance between fitting ends
G - Minimum length of tube

Note: dimension F is calculated to ensure access for release tool.
It may be reduced but demountability is likely to be impaired.

Demounting

Most of the fittings within the Cuprofit range are designed to be reusable and, to prevent accidental disassembly, they can only be demounted with the purpose designed release tool.

When correctly located on to the tube, the curved projection of the tool self-aligns with the release ring of the fitting. Push the release tool against the fitting end. Whilst maintaining force with the tool, either pull tube out of the fitting or pull the fitting away from the tube.

Do not attempt to dismantle the fitting prior to applying the force with the release tool.

Before re-use, ensure that the fitting has not been damaged.

Cuprofit has been designed for demounting and re-assembling to allow for system alteration. Tests show that it can be demounted and re-assembled up to 20 times providing that there is no damage to the fitting, particularly the ‘O’ ring seal and the grip ring. It is recommended that when a Cuprofit fitting has been demounted from a tube, the end of the tube is trimmed back to virgin tube before re-installing.

Test Certification

WRAS

Water Regulations Advisory Scheme

This certifies that

IMP LTD

has had the undermentioned product examined, tested and found, when correctly installed, to comply with the requirements of the United Kingdom Water Regulations Byelaws (Scotland).

CUPROFIT RANGE OF COPPER AND DZR BRASS PUSH FIT FITTINGS

The product so mentioned will be listed in the Water Fittings and Materials Directory for a period until

13 DECEMBER 2003

0012128

Certificate No

Chairman, Test and Assessment Group

Secretary

WRAS APPROVED PRODUCT

Additional Information

Applications
Cuprofit can be used for drinking water, plus cold and hot sanitary and domestic heating installations. Cuprofit is for use with water only, and **must not be used on any gas installations.**

Earth Continuity
Cuprofit does not maintain earth continuity. Building Regulations currently recommend that the water supply tubes are not used to earth out new installations.
In existing installations where the tube is used as an earth, the contact should be correctly re-established by installing a separate earth connection. If earth continuity is required the fitting should be bridged with a continuity strap.

Soldering/Brazing
Cuprofit is a push-fit system that requires no flames or flux. External heat sources should not be applied when installing any Cuprofit product, including street and stem elbows or socket reducers.

Test Certification
Cuprofit has numerous approvals including: WRAS, DVGW and KIWA. (See page 22)

Angularity
Cuprofit's unique design offers 360° rotation, and ± 2° angularity, thus further easing the installation process.

Liners
When joining flexible tubes, Cuprofit must be used with the specially designed pipe liner (which has a chamfered leading edge that aids assembly past the 'O' ring seal). Table B, page 19, provides details relating to the liners.

Under no circumstances must other manufacturers' liners be used, as these are not compatible with Cuprofit.

EPDM (Ethylene Propylene Diene Monomer) 'O' ring Compatibility
EPDM is compatible with drinking water, plus other hot and cold heating and sanitary applications within the working pressure and temperature limitation of the material.

Lifespan
Accelerated life tests to BS5760 show that the 'O' ring and the other components within a Cuprofit fitting have a life expectancy greater than 50 years.

Tube Compatibility
Cuprofit is suitable for use with Copper tube to EN1057, but is unsuitable for use with Imperial tubes to BS659. Cuprofit cannot be used with stainless steel tube. For details relating to the use of Cuprofit on chromium plated tube, please contact our Technical Department. Both PE-x and PB pipe can be joined with Cuprofit, however, the appropriate liner **must** be used.

Ovality
PE-x and PB pipe can become oval when stored. Inserting the appropriate liner should re-round the pipe sufficiently to allow installation to be successful. If the pipe is extremely oval it is recommended that new pipe is used, or appropriate re-rounding tools are used before the pipe liner is inserted.

Glycol Compatibility
Cuprofit can be used with a 25% Glycol : 75% Water solution.

Chlorination
Chlorinating the line in accordance with BS6700:1997 will have no detrimental effect upon the fittings. If the concentration of the chlorination solution exceeds 50mg/l (50 p.p.m), damage to the pipeline could occur.

Temperature and Pressure Rating
Refer to Table D:

Table D

	Working conditions	
Size (mm)	Max Temp °C	Max Pressure (bar)
10mm	30	16
to	60	10
28mm	95	6

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Pipe System Data

The following charts can be used to determine:
Water flow rate through the pipe.
Pipe diameter (Tentative approximation).
Water velocity through the pipe.
Head-loss rate of the pipe.

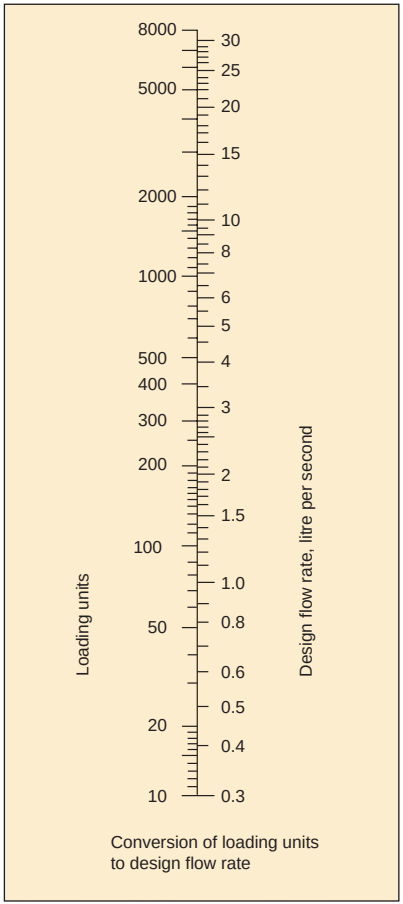
Example using copper tube:
Assumed loading units = 100 (ref. BS.6700).
Use Chart 1 to directly convert the loading units into the design flow rate.
100 loading units = 1.25 litres/second.

From the pipe material charts, select a pipe diameter such that when a straight line is drawn from the pipe diameter through the known flow rate, it indicates a water velocity near to, but less than 3m/s.

A 28mm diameter pipe is closest to fulfilling the conditions stated above.
This gives a water velocity of 2.3m/s.

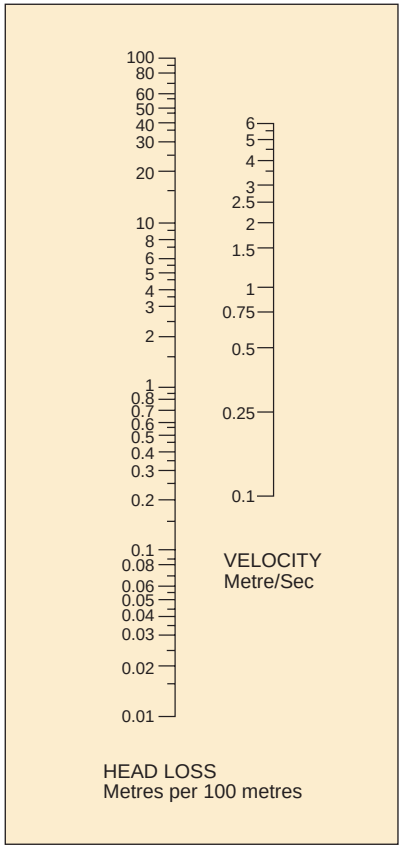
The head-loss rate of the pipe is seen to be 22m/100m.

Chart 1

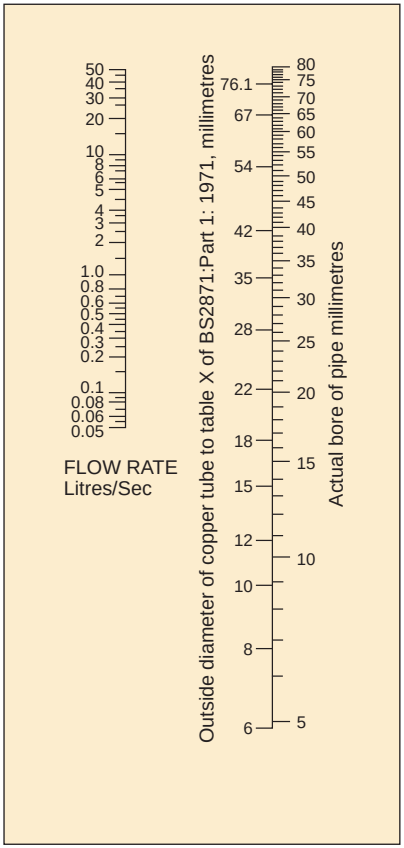


Conversion of loading units to design flow rate

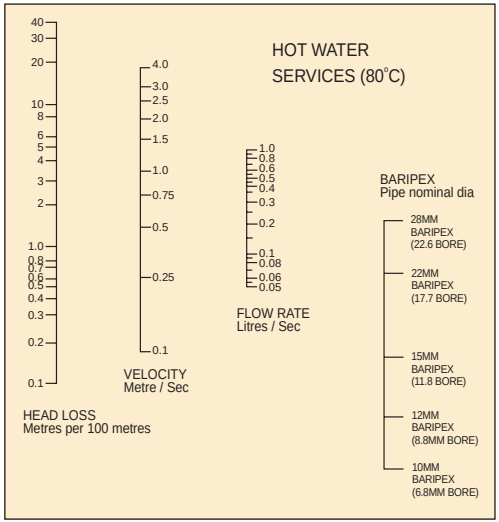
Copper



Copper



Plastic



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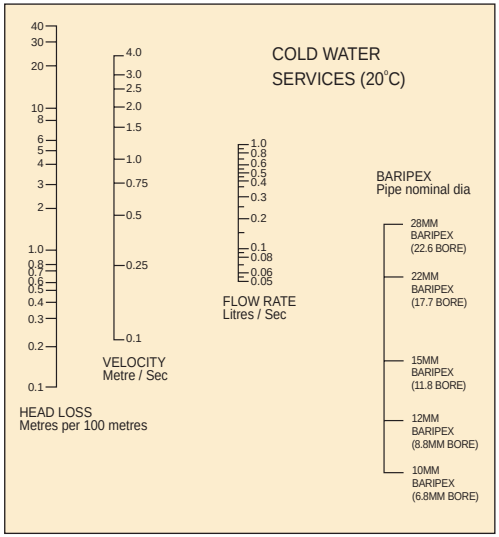
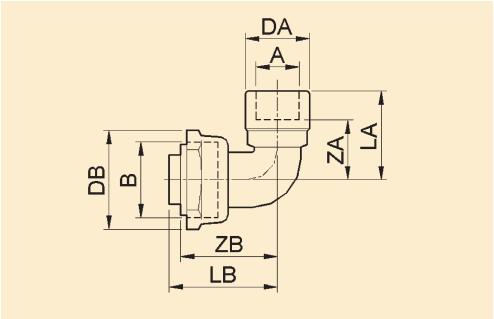
Plastic



Product Range

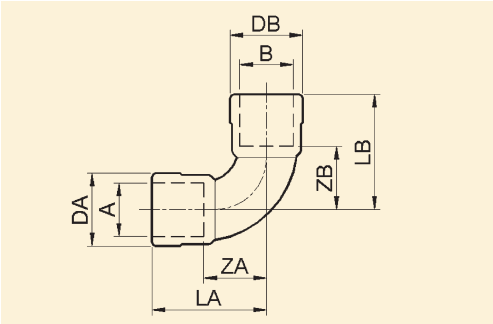
Dimensional Data



R002G

Bent Tap Connector
Push-Fit x Swivel BSP Female Parallel Thread (ISO 228)

Configuration	A	B	C	DA	DB	DC	LA	LB	LC	ZA	ZB	ZC	Product Code
15 x 1/2"	15	½"		24	28		25	29		7	23		R002G015004000



R090

Elbow

Push-Fit x Push-Fit

Configuration	A	B	C	DA	DB	DC	LA	LB	LC	ZA	ZB	ZC	Product Code
10 x 10mm	10	10		18	18		25	25		8	8		R090 010000000
12 x 12mm	12	12		21	21		35	35		17	17		R090 012000000
15 x 15mm	15	15		25	25		34	34		16	16		R090 015000000
18 x 18mm	18	18		28	28		42	42		23	23		R090 018000000
22 x 22mm	22	22		32	32		37	37		16	16		R090 022000000
28 x 28mm	28	28		38	38		59	59		32	32		R090 028000000

A	Pipe OD
B	Pipe OD
C	Pipe OD
D	Fitting OD

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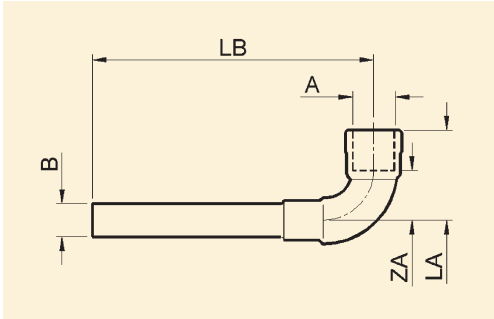


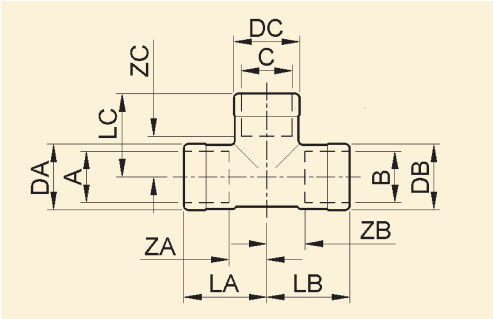
R092P

Extended Stem Elbow

Push-Fit x Plain Tail (250mm long)

Configuration	A	B	C	DA	DB	DC	LA	LB	LC	ZA	ZB	ZC	Product Code
10 x 10mm	10	10					26	250		9			R092P010000000

A	Pipe OD
B	Pipe OD
C	Pipe OD
D	Fitting OD

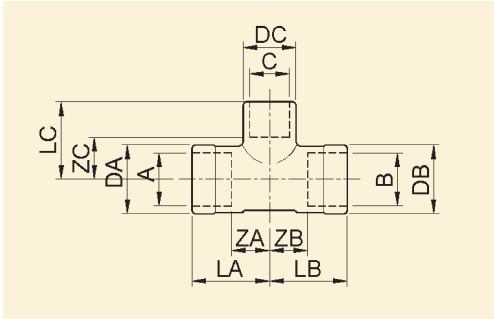


R130

Equal Tee
Push-Fit x Push-Fit x Push-Fit

Configuration	A	B	C	DA	DB	DC	LA	LB	LC	ZA	ZB	ZC	Product Code
10 x 10 x 10mm	10	10	10	18	18	18	23	23	23	7	7	7	R130 010010010
12 x 12 x 12mm	12	12	12	21	21	21	28	28	28	10	10	10	R130 012012012
15 x 15 x 15mm	15	15	15	25	25	25	30	30	30	12	12	12	R130 015015015
18 x 18 x 18mm	18	18	18	28	28	28	32	32	32	13	13	13	R130 018018018
22 x 22 x 22mm	22	22	22	31	31	31	37	37	37	16	16	16	R130 022022022
28 x 28 x 28mm	28	28	28	38	38	38	46	46	46	18	18	18	R130 028028028

A	Pipe OD
B	Pipe OD
C	Pipe OD
D	Fitting OD

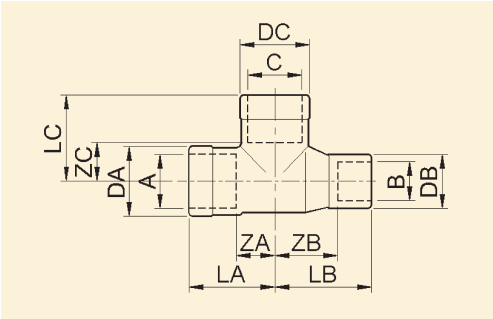


R130

Reduced Branch Tee
Push-Fit x Push-Fit x Push-Fit

Configuration	A	B	C	DA	DB	DC	LA	LB	LC	ZA	ZB	ZC	Product Code
15 x 15 x 10mm	15	15	10	25	25	18	26	26	28	8	8	11	R130R015010015
18 x 18 x 15mm	18	18	15	28	28	24	31	31	33	14	14	15	R130R018015018
22 x 22 x 10mm	22	22	10	31	31	18	35	35	23	16	16	7	R130R022010022
22 x 22 x 15mm	22	22	15	31	31	24	35	35	34	14	14	15	R130R022015022
28 x 28 x 22mm	28	28	22	38	38	31	46	46	37	18	18	16	R130R028022028

A	Pipe OD
B	Pipe OD
C	Pipe OD
D	Fitting OD

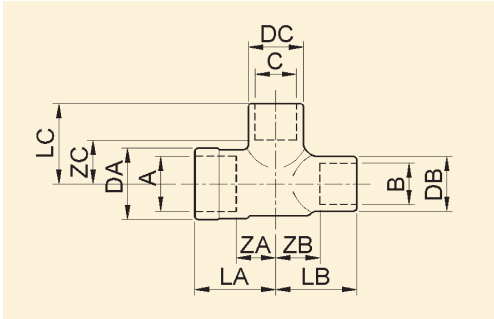


R130

Reduced End Tee
Push-Fit x Push-Fit x Push-Fit

Configuration	A	B	C	DA	DB	DC	LA	LB	LC	ZA	ZB	ZC	Product Code
15 x 10 x 15mm	15	10	15	25	18	25	26	23	26	12	7	15	R130R015015010
22 x 15 x 22mm	22	15	22	31	25	31	37	40	35	16	21	13	R130R022022015
Both Ends Reduced													
10 x 10 x 22mm	10	10	22	18	18	31	23	23	37	7	7	16	R130R010022010

A	Pipe OD
B	Pipe OD
C	Pipe OD
D	Fitting OD

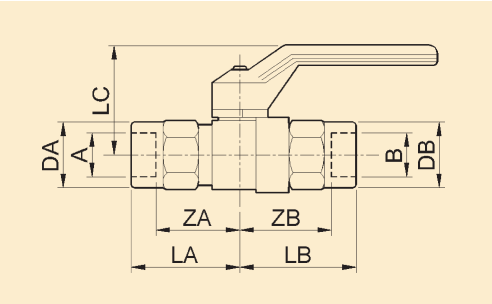


R130

Branch and End Reduced Tee

Configuration	A	B	C	DA	DB	DC	LA	LB	LC	ZA	ZB	ZC	Product Code
15 x 10 x 10mm	15	10	10	25	18	18	26	23	23	12	7	7	R130R015010010
22 x 15 x 15mm	22	15	15	31	25	25	37	30	30	16	12	12	R130R022015015

A	Pipe OD
B	Pipe OD
C	Pipe OD
D	Fitting OD

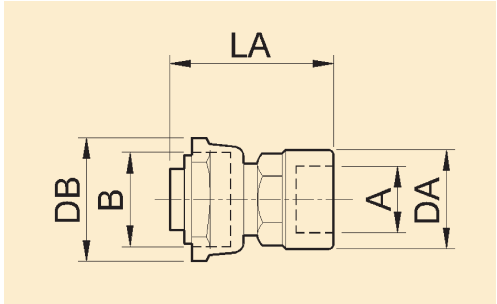


R204

Lever Ball Valve
Push-Fit x Push-Fit

Configuration	A	B	C	DA	DB	DC	LA	LB	LC	ZA	ZB	ZC	Product Code
15 x 15mm	15	15		24	24		42	42	51	25	25		R204 015000000
22 x 22 mm	22	22		31	31		61	61	54	39	39		R204 022000000

A	Pipe OD
B	Pipe OD
C	Pipe OD
D	Fitting OD

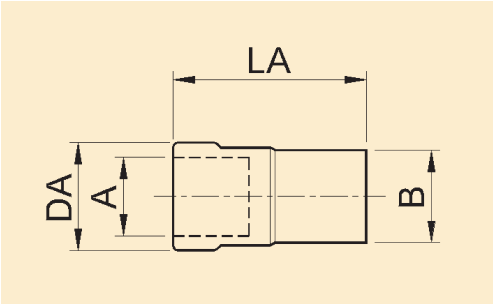


R240G

Straight Tap Connector
Push-Fit x Swivel BSP Female Parallel Thread (ISO 228)

Configuration	A	B	C	DA	DB	DC	LA	LB	LC	ZA	ZB	ZC	Product Code
15 x ½"	15	½"		24	28		41						R240G015004000
22 x ¾"	22	¾"		31	38		47						R240G022006000

A	Pipe OD
B	Pipe OD
C	Pipe OD
D	Fitting OD

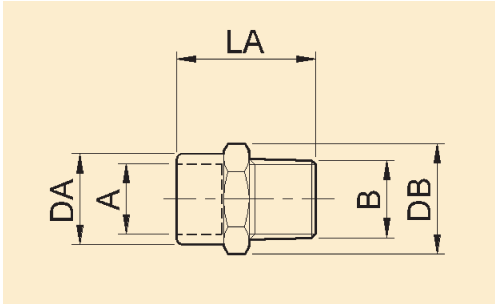


R243

Socket Reducer
Push-Fit x Plain Tail
(Not suitable for soldering or brazing)

Configuration	A	B	C	DA	DB	DC	LA	LB	LC	ZA	ZB	ZC	Product Code
15 x 10	10	15		18			38						R243 015010000
15 x 12	12	15		21			41						R243 015012000
18 x 15	15	18		21			43						R243 018015000
22 x 15	15	22		24			43						R243 022015000
22 x 18	18	22		29			46						R243 022018000
28 x 22	28	22		38			49						R243 028022000

A	Pipe OD
B	Pipe OD
C	Pipe OD
D	Fitting OD

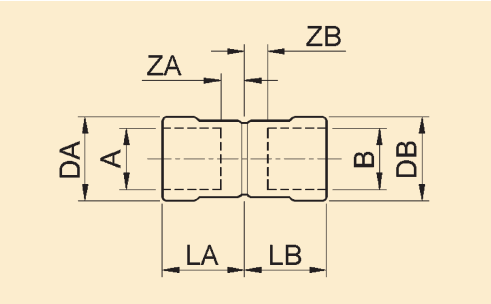


R243G

Straight Connector
Push-Fit x BSP Male Taper Thread (ISO 7)

Configuration	A	B	C	DA	DB	DC	LA	LB	LC	ZA	ZB	ZC	Product Code
15 x 1/2"	15	1/2"		24	29		37						R243G015004000
22 x 3/4"	22	3/4"		31	38		42						R243G022006000
28 x 3/4"	28	3/4"											R243G028006000
28 x 1"	28	1"											R243G028008000
28 x 1 1/4"	28	1 1/4"											R243G028010000

A	Pipe OD
B	Pipe OD
C	Pipe OD
D	Fitting OD

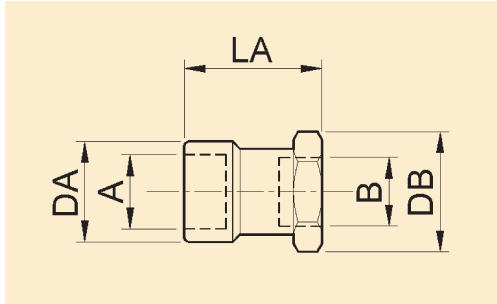


R270

Straight Connector
Push-Fit x Push-Fit

Configuration	A	B	C	DA	DB	DC	LA	LB	LC	ZA	ZB	ZC	Product Code
10 x 10mm	10	10		18	18		18	18		2	2		R270 010000000
12 x 12mm	12	12		21	21		20	02		2	2		R270 012000000
15 x 15mm	15	15		25	25		20	20		2	2		R270 015000000
18 x 18mm	18	18		28	28		21	21		2	2		R270 018000000
22 x 22mm	22	22		31	31		24	24		3	3		R270 022000000
28 x 28mm	28	28		38	38		31	31		3	3		R270 028000000

A	Pipe OD
B	Pipe OD
C	Pipe OD
D	Fitting OD

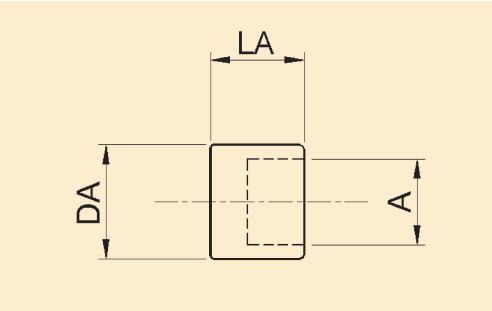


R270G

Straight Connector
Push-Fit x BSP Female Parallel Thread (ISO 228)

Configuration	A	B	C	DA	DB	DC	LA	LB	LC	ZA	ZB	ZC	Product Code
15 x ½"	15	½"		24	30		38						R270G015004000
22 x ¾"	22	¾"		31	38		44						R270G022006000
28 x ¾"	28	¾"											R270G028006000
28 x 1"	28	1"											R270G028008000
28 x 1¼"	28	1¼"											R270G028010000

A	Pipe OD
B	Pipe OD
C	Pipe OD
D	Fitting OD

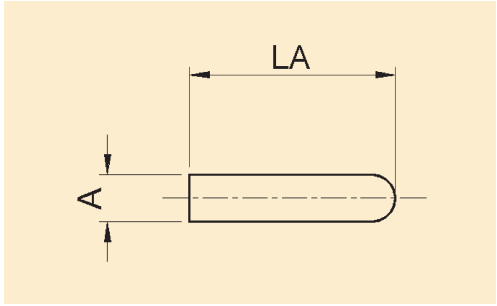


R301

Stop End
Push-Fit

Configuration	A	B	C	DA	DB	DC	LA	LB	LC	ZA	ZB	ZC	Product Code
10mm	10			18			18						R301 010000000
12mm	12			21			20						R301 012000000
15mm	15			25			20						R301 015000000
18mm	18			28			21						R301 018000000
22mm	22			31			24						R301 022000000
28mm	28			38			31						R301 028000000

A	Pipe OD
B	Pipe OD
C	Pipe OD
D	Fitting OD

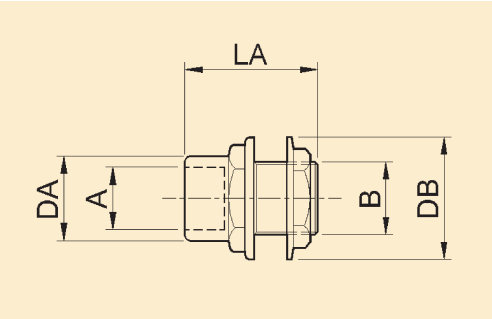


R302

Blanking Plug
Plain Tail

Configuration	A	B	C	DA	DB	DC	LA	LB	LC	ZA	ZB	ZC	Product Code
10mm	10						50						R302 010000000
12mm	12						50						R302 012000000
15mm	15						55						R302 015000000
18mm	18						60						R302 018000000
22mm	22						66						R302 022000000

A	Pipe OD
B	Pipe OD
C	Pipe OD
D	Fitting OD



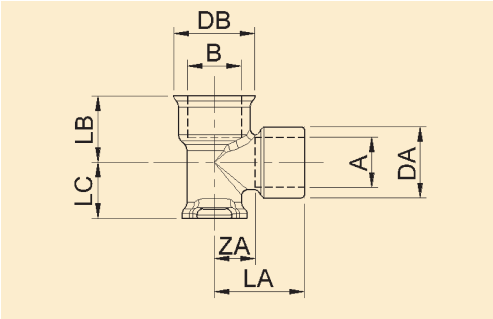
R350

Tank connector

Push-Fit x BSP Male Parallel Thread (ISO 228)

Configuration	A	B	C	DA	DB	DC	LA	LB	LC	ZA	ZB	ZC	Product Code
15 x 1/2"	15	1/2"		24	35		40						R350 015004000
22 x 3/4"	22	3/4"		31	43		46						R350 022006000

A	Pipe OD
B	Pipe OD
C	Pipe OD
D	Fitting OD



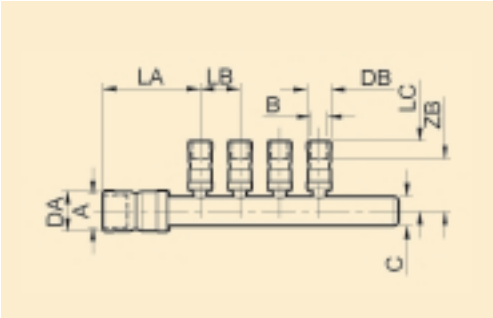
R472G

Wallplate Elbow

Push-Fit x BSP Female Parallel Thread (ISO 228)

Configuration	A	B	C	DA	DB	DC	LA	LB	LC	ZA	ZB	ZC	Product Code
15 x 1/2"	15	1/2"		24	28		30	23	19	12			R472G015040000

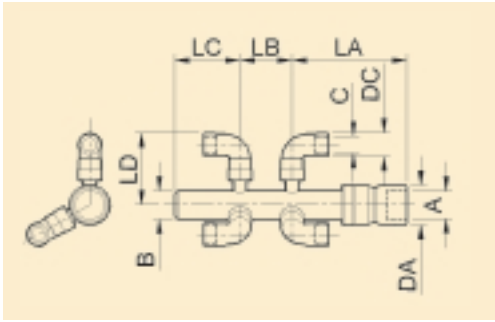
A	Pipe OD
B	Pipe OD
C	Pipe OD
D	Fitting OD



R5574

In-Line Manifold (Copper) 4 Ports x 10mm Push Fit x Plain Tail (Male Copper) x Push Fit

Configuration	A	B	C	DA	DB	DC	LA	LB	LC	ZA	ZB	ZC	Product Code
22 x 10 x 4 Port	22	10	22	31	24		72	36	58		41		R5574022010000

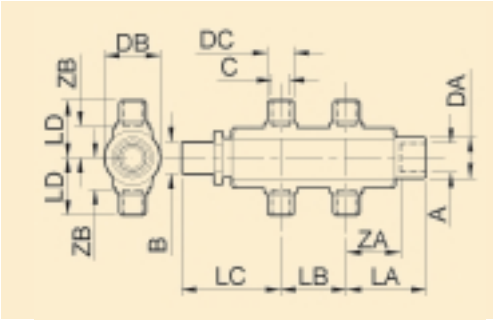


R5594

V4 Manifold (Copper) 4 Ports x 10mm Pushfit x Plain Tail (Male Copper) x Pushfit

Configuration	A	B	C	DA	DB	DC	LA	LB	LC	LD	ZA	ZB	Product Code
22 x 10 x 4 Port	22	22	10	32		18	72	41	60	52			R5594022010000

A	Pipe OD
B	Pipe OD
C	Pipe OD
D	Fitting OD

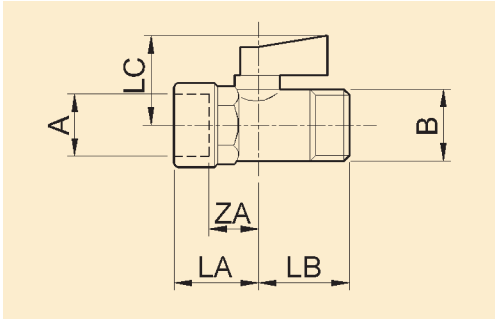


R5604

Boxer Manifold (Brass) 4 Ports x 10mm Push Fit x Plain Tail (Male Copper) x Pushfit

Configuration	A	B	C	DA	DB	DC	LA	LB	LC	LD	ZA	ZB	Product Code
22 x 10 x 4 PORT	22	22	10	28	38	18	55	45	68	40	35	22	R5604022010000

A	Pipe OD
B	Pipe OD
C	Pipe OD
D	Fitting OD

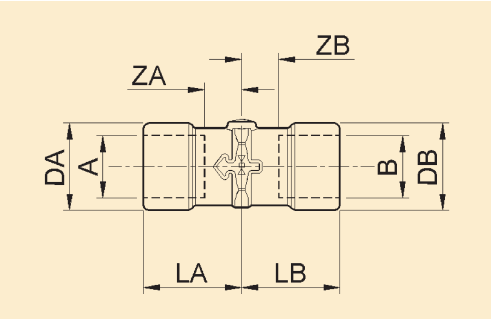


R717

Washing Machine Valve
Push-Fit x BSP Male Parallel Thread (ISO 228)

Configuration	A	B	C	DA	DB	DC	LA	LB	LC	ZA	ZB	ZC	Product Code
15 x ¾"	15	¾"					29	27	26	11			R717 015006000

A	Pipe OD
B	Pipe OD
C	Pipe OD
D	Fitting OD

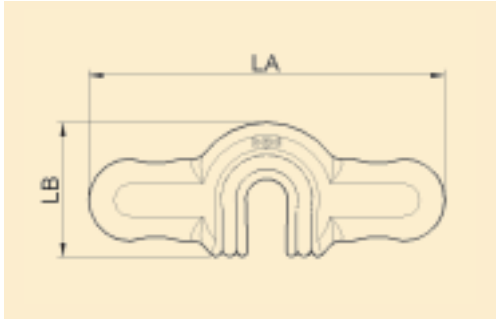


R720

Servicing Valve
Push-Fit x Push-Fit

Configuration	A	B	C	DA	DB	DC	LA	LB	LC	ZA	ZB	ZC	Product Code
15 x 15	15	15		25	25		27	29		8	10		R720 015000000
22 x 22	22	22		31	31		31	46		9	24		R720 022000000

A	Pipe OD
B	Pipe OD
C	Pipe OD
D	Fitting OD

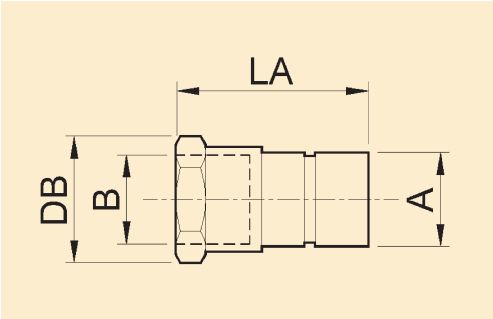


R850

Release Tool

Configuration	A	B	C	DA	DB	DC	LA	LB	LC	LD	ZA	ZB	Product Code
22 x 15							86	34					R850 022015000
22 x 15 x 10							86	34					R850 022015010
28							89	38					R850 028000000

A	Pipe OD
B	Pipe OD
C	Pipe OD
D	Fitting OD

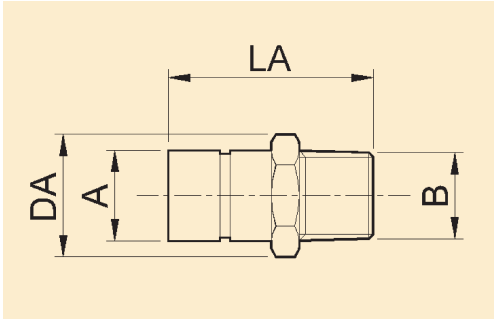


N246G

Plain Tail Adaptor - Female
Plain Tail x BSP Female Parallel Thread (ISO 228)

Configuration	A	B	C	DA	DB	DC	LA	LB	LC	ZA	ZB	ZC	Product Code
15 x ½"	15	½"			29		39						N246G015004000
22 x ¾"	22	¾"			37		44						N246G022006000

A	Pipe OD
B	Pipe OD
C	Pipe OD
D	Fitting OD

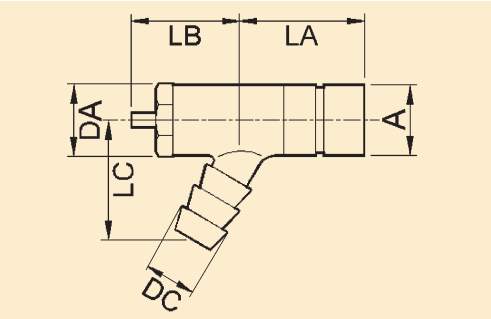


N280G

Plain Tail Adaptor - Male
Plain Tail x BSP Male Taper Thread (ISO 7)

Configuration	A	B	C	DA	DB	DC	LA	LB	LC	ZA	ZB	ZC	Product Code
15 x ½"	15	½"		26			43						N280G015004000
22 x ¾"	22	¾"		37			48						N280G022006000

A	Pipe OD
B	Pipe OD
C	Pipe OD
D	Fitting OD



N746

Draining Tap Plain Tail
Type 'A'

Configuration	A	B	C	DA	DB	DC	LA	LB	LC	ZA	ZB	ZC	Product Code
15mm	15			24		15	30	30	30				N746 015000000

A	Pipe OD
B	Pipe OD
C	Pipe OD
D	Fitting OD

D

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