

XPress

Press-fit solutions

NEW
copper gas
XPress
67mm-108mm
copper
XPress
Chromium Plated



Pegler Yorkshire

Unrivalled quality, innovation, customer service and long-term value for money

As part of the global Aalberts Industries NV Group, Pegler Yorkshire is one of Britain's largest and most respected manufacturers of innovative products for the demanding and diverse plumbing and heating industries.

Pegler Yorkshire – a unique story

It was in the late 19th century when two separate and altruistic companies set out on the long road to satisfying the needs of prospective customers and, of course, to profit in the process. Coincidentally located just 30 miles apart, each was driven by the same vision and ideals of a no-compromise culture. Cutting corners was never an option and only the best could ever be good enough.

These two companies were Pegler and Yorkshire Fittings. In meeting all the challenges of the 20th and 21st centuries both companies have changed a great deal, the business ethos common to both never has. And now these two like minds have come together as Pegler Yorkshire – a single source of proven, flow control solutions for installers, specifiers and engineers in the domestic, public and commercial markets.

Reputable and established brands

Just as Pegler and Yorkshire have endured over such a long period, many of the brand names they have created over time are similarly very well established, in many cases as market leaders in their respective categories. The very extensive Pegler Yorkshire product range now comprises more than 15,000 lines – without rival for the choice and coverage it offers and for the number and scope of applications it satisfies.

A mind for innovation

Brands which endure and are not easily displaced must by definition be the product of innovative thinking and technology that continually stand the test of time. Pegler Yorkshire's no-compromise philosophy will always put new product development high on the agenda, based on not only meeting the needs of today's markets, but also anticipating and meeting customers' future needs.

The true value of knowledge

As well as the benefit of unparalleled experience of the flow control market and its growth over many decades, Pegler Yorkshire has strong associations with major industry bodies such as those responsible for determining product and performance standards.

The result is a comprehensive store of knowledge and reference which is invaluable in the key areas of research, development and dealing efficiently and accurately with customer enquiries – particularly with regard to product application and suitability.

A charter for the best in customer service

With such a diverse product range and customer base, Pegler Yorkshire's no-compromise standards of quality, reliability and value for money naturally go hand in hand with the principle of delivering the best in customer service.

Green awareness and responsibilities

Developing products which reduce the carbon footprint by saving water and energy is only one side of the green issues coin. Pegler Yorkshire is also increasingly committed to recycling key production materials (such as brass), eliminating the need for excessive packaging wherever possible, and looking for new ways in which the company's day-to-day operations can be improved to reduce waste and minimise the impact on the environment.

Likewise, social responsibilities such as supporting employee and local community welfare are aspects of the very fabric and philosophy upon which both Pegler and Yorkshire were founded.

Standards

Pegler Yorkshire is dedicated to designing, developing and manufacturing products of the highest quality. We are members of numerous standards committees and take an active part in their development. Our products, where applicable, comply with the relevant British, European and International standards. Whatever the latest developments, we guarantee that our products will always meet the latest and highest standards.



Trade bodies

Pegler Yorkshire is pleased to be associated with several influential industry organisations:



Association of Plumbing and Heating Contractors



The Bathroom Manufacturers Association



Construction Products Association

Brass

The Brass Page for specifiers, designers, engineers and manufacturers



British Plumbing Employers Council



Builders Merchants Federation



The Copper Development Association



The UK Copper Board



Institute of Plumbing



Heating and Ventilating Contractors Association



Thermostatic Mixing Valve Manufacturers Association

Thermostatic Mixing Valve Manufacturers Association



Scottish and Northern Ireland Plumbing Employers Federation



This data book has been produced in clearly defined sections to help the user to find relevant information quickly and easily. At the foot of each page there is a reminder of the brochure sections with the relevant page numbers.

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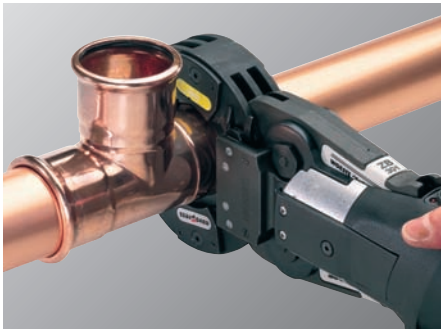
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XPress fittings from Pegler Yorkshire make jointing easier, faster and more cost effective than other jointing methods – a fittings system which simply presses together in seconds to create a perfect joint, every time.



XPress press-fit: cost-effective jointing solutions for so many applications

Pegler Yorkshire's innovative and comprehensive XPress range delivers all the benefits of a heat-free, press-fit jointing system to a wide variety of domestic, commercial and industrial applications.

XPress also lives up to the promise of its name in every respect: a method which is easy, fast and highly cost-effective, simply pressing together in seconds to create a perfect joint every time, with the guarantee of an uncontaminated installation.

So many XPress benefits, and so much choice

- Major savings in installation time and cost compared with traditional jointing methods
- A completely heat-free jointing system that requires no additional solders, adhesives, compounds, gas, hotworks permits or extra and costly insurance
- Clean, rapid, heat-free jointing: no complicated clamping techniques or long preparation procedures or waiting for adhesive to dry
- Safety: no naked flames
- Perfectly clean internal bore – less finishing or cleaning required
- No localised annealing from high-temperature working
- No carbon deposits, internal solder runs or flux residue – less risk of corrosion
- System does not need to be 'dry' for effective jointing
- XPress fittings have a wide range of approvals including WRAS and DVGW
- Electrical continuity assured when the XPress jointing process is complete
- Ideal for diverse applications such as domestic maintenance and refurbishment, new build and large-scale public sector projects.



XPress range at a glance

- XPress Copper: for hot and cold water services, closed circuit heating, chilled water and oil-free compressed air applications, and incorporating a unique and time-saving Leak Before Press (LBP) design to instantly identify unpressed joints, in 12mm-108mm sizes
- XPress Carbon: for closed circuit heating and chilled water applications, with LBP feature in 15mm-108mm sizes
- XPress Stainless: the perfect solution where water quality and hygiene are crucial in food, pharmaceutical and healthcare environments. Also offers LBP in 15mm-108mm sizes
- XPress Copper Gas: for internal and external above-ground 2nd- and 3rd-family gas services, includes the new supersize range 15mm-108mm
- XPress Stainless Gas: for use with XPress Stainless and other stainless steel System tubes on above-ground 2nd- and 3rd-family gas pipelines, including applications where high levels of hydrogen sulphide make copper unsuitable. Available in sizes 15mm-54mm
- XPress Solar: delivers all the benefits of a heat-free, press-fit jointing system for solar applications. Available in sizes 15mm-54mm
- For 67mm-108mm sizes of the above designs, fitting allows for leak detection prior to pressing.

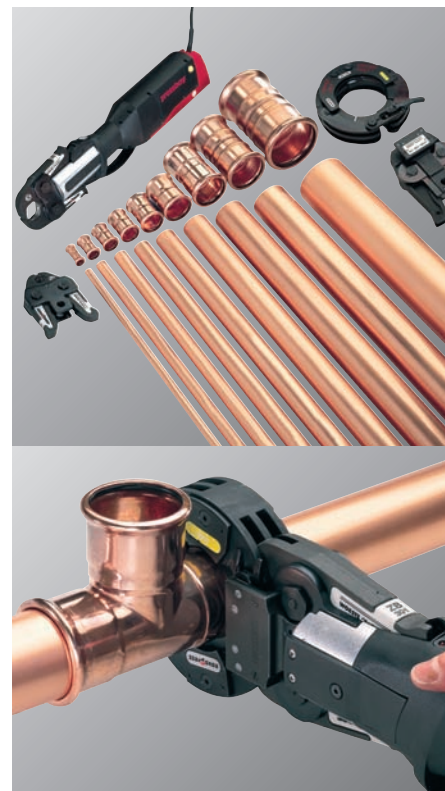
XPress^{copper}

XPress Copper fittings are manufactured from copper and copper alloy and incorporate a black EPDM Ethylene Propylene Diene Monomer 'O' ring and a unique "Leak Before Press" (LBP) design. LBP has been developed to provide instant identification of joints that have been assembled correctly but mistakenly left unpressed. This feature saves time, money and potentially expensive call-backs.

Ideal for fast, efficient jointing of copper tube to BS EN 1057 R250 and R290 in sizes 12mm-108mm. XPress fittings are designed for use on hot and cold water services, vented and unvented closed circuit heating, chilled water and oil-free compressed air applications within permissible pressure and temperature limits.

Features

- Manufactured from copper alloy
- Available in sizes 12mm to 108mm
- Leak Before Press
- Electrical continuity assured when XPress joint complete
- Clean, heat free jointing
- Safety, no naked flames, no hotwork permits or costly insurance
- Wide range of approvals
- GL approved (previously British Gas) see XPress Gas section
- Chromium plated range
- Temperature rating from -24°C to 110°C
- Pressure rating 16bar throughout the temperature range.

**XPress**^{stainless}

XPress Stainless Steel is optimised for use as a system and fittings are manufactured from 316L (1.4404) stainless steel.

316 System tube is available in straight 6m lengths. 15mm-54mm tube is manufactured from BS 316 831/DIN 1.4401 stainless steel strips conforming to BS 10088 Part 2. Above 54mm the tube conforms to DVGW W541. The fittings incorporate a black EPDM (Ethylene Propylene Diene Monomer) 'O' ring and a unique "Leak Before Press" (LBP) design. LBP has been developed as a final check to the system to provide instant identification of joints that have been assembled correctly but mistakenly left unpressed. This feature saves time, money and potentially expensive call backs.

Designed for potable water applications where water quality and hygiene are crucial, particularly in the food, pharmaceutical and healthcare environments and chilled water applications. Water purified by Reverse Osmosis (RO) is likely to have a low pH and

an extremely low dissolved solid content. XPress Stainless provides resistance to RO purified water.

Features

- Fittings are manufactured from 316L stainless steel
- Tube is manufactured from 316 stainless steel
- Available in sizes 15mm to 108mm
- Leak Before Press
- Clean, heat free jointing
- Safety - no naked flames no hotwork permits or costly insurance
- Wide range of approvals
- Temperature range -20°C to 110°C
- Pressure rating 16bar throughout the temperature range
- Light weight, easy to handle.



carbon XPress

XPress Carbon Steel is optimised for use as a system. XPress Carbon Steel fittings are now manufactured from EN 100-27-1S205G2T (formerly known as Rst 34-2) carbon steel.

The fittings incorporate a black EPDM (Ethylene Propylene Diene Monomer) 'O' ring and a unique "Leak Before Press" (LBP) design. LBP has been developed as a final check to the system to provide instant identification of joints that have been assembled correctly but mistakenly left unpressed. This feature saves time, money and potentially expensive call backs.

Each fitting is individually marked indicating material.

XPress Carbon is designed for vented and unvented closed circuit heating and chilled water applications.

Features

- *Manufactured from carbon steel*
- *Galvanised carbon system tube available in 15mm to 108mm*
- *Plastic coated carbon system tube available in 15mm to 54mm*
- *Leak Before Press*
- *Temperature rating from -20°C to 110°C*
- *Pressure rating 16bar throughout the temperature range*
- *Clean, heat free jointing*
- *Safety - no naked flames, no hotwork permits or costly insurance*



copper gas XPress

XPress Copper Gas fittings are manufactured from copper or copper alloy (typically gunmetal) and incorporate a yellow (HNBR) Hydrogenated Acrylonitrile Butadiene Rubber 'O' ring. XPress Copper Gas fittings do not have the LBP feature for safety reasons.

Designed specifically for use with copper tube to BS EN 1057 on internal and external above ground 2nd and 3rd family gas services and available in sizes 12mm-108mm.

XPress Copper Gas performance, when correctly assembled with copper tube to BS EN 1057 R250 and R290 (for above ground use only), has a minimum operating temperature range of between -20°C and 70°C. The maximum working pressure inside buildings is 1bar and maximum working pressure outside buildings is 5bar (maximum test pressure 7.5bar).

XPress Copper Gas fittings are permanently marked with a highly visible yellow marking stating Gas/PN5 GT/1 on each fitting.

As part of the DVGW/GL (formerly British Gas) approvals process, XPress Copper Gas fittings have passed the High Temperature Leakage Rate test at 650°C for 30 minutes.

Features

- *Manufactured from copper alloy*
- *Available in sizes 15mm to 108mm (new)*
- *For use in internal and external above ground 2nd and 3rd family gas services (see page 81) – where we locate the gas families*
- *Clean, heat free jointing*
- *Safety - no naked flames, no hotwork permits or costly insurance*
- *GL Verified (formerly British Gas).*





XPRESS Stainless Steel Gas is optimised for use as a system. Fittings are manufactured from 316 (BS 316S31/DIN 1.4401) or 316 Ti (BS 320531/DIN 1.4571).

The fittings incorporate a yellow HNBR (Hydrogenated Acrylonitrile Butadiene Rubber) 'O' ring. XPRESS Stainless Steel Gas fittings do not have the LBP feature for safety reasons.

Designed for use with 316 System tube or stainless steel tube for BS 4127:1994 and DVGW W541 on internal and external above ground 2nd and 3rd family gas services and available in sizes from 15mm-54mm.

XPRESS Stainless Gas fittings are approved for use at temperatures from -20°C to 70°C. The maximum working pressure inside buildings is 1bar and maximum working pressure outside buildings is 5bar (maximum test pressure 7.5bar).

XPRESS Stainless Steel Gas fittings are marked with a highly visible yellow label stating Gas on each fitting.

As part of the DVGW/GL (formerly British Gas) approvals process, XPRESS Stainless Gas fittings have passed the High Temperature Leakage Rate test at 650°C for 30 minutes at PN5/GT5.

Features

- Manufactured from 316 stainless steel
- Available in sizes 15mm to 54mm
- Designed for use with XPRESS stainless steel system tube
- For use in internal and external above ground 2nd and 3rd family gas services (see page 81) – where we locate the gas families
- Clean, heat free jointing
- Safety - no naked flames, no hotwork permits or costly insurance
- GL Verified (formerly British Gas).



XPRESS Copper Solar fittings are manufactured from copper and copper alloy and incorporate a green FPM (Fluorocarbon rubber/Viton™) 'O' ring and incorporate the unique "Leak Before Press" (LBP) design. This feature means that any assembled joints inadvertently left unpressed will exhibit a leak during system testing. This enables contractors to easily identify unpressed fittings before commissioning.

XPRESS Copper Solar fittings are available in sizes 15mm-54mm and are marked with a highly visible label stating Solar on each fitting, to confirm that solar fittings have been installed once crimped.

Designed for use in solar applications and for use with most proprietary ethylene glycol and propylene glycol heat transfer fluids in concentrations of up to 40%.

Features

- Manufactured from copper alloy
- Available in sizes 15mm to 54mm
- Leak Before Press
- Suitable for high temperature solar applications
- Electrical continuity assured when XPRESS joint complete
- Clean, heat free jointing
- Safety - no naked flames, no hotwork permits or costly insurance
- Temperature rating -35°C to 200°C
- Pressure rating 10bar maximum working pressure.



It is Pegler Yorkshire's policy to provide a range of products and services which meet, or exceed, the requirements of our customers in respect of quality, cost and delivery.

Standards and approvals

Current and future standards

We at Pegler Yorkshire are dedicated to designing, developing and manufacturing products of the highest quality. It is on this basis that you can trust the XPress range to achieve all relevant British, European and International standards.

Over recent years, tube and fittings for plumbing and heating systems have been subject to a gradual harmonisation of standards. Today, a further harmonisation is taking place that is set to incorporate copper and copper alloy press-fit fittings within pr EN 1254 under Part 7.

It is a sign of our standing in the industry that we at Pegler Yorkshire are helping to draft this and other new European standards, assisted by our fellow members on the various European standards committees.

So, you can rest assured that whatever developments arise, our products will always meet the latest standards.

WRAS APPROVED PRODUCT XPress Copper and XPress Stainless Steel fittings are tested and comply with the requirements of the United Kingdom Water Regulations/ Byelaws (Scotland). The XPress stainless steel System has been designed to provide optimum performance and cost saving benefits for commercial and industrial potable water applications.

XPress Copper Gas fittings have been tested by the GWI and verified by GL (formerly Advantica/British Gas).



ISO is achieved through the continuous improvement of our Quality Management System in line with the requirements of BS EN ISO 9001: 2008.

PRODUCT APPROVALS					
Approval	Country	XPress Copper (water)	XPress Copper (gas)	XPress Stainless	XPress Stainless (gas)
Advantica	UK	-	-	-	✓
ATG	Belgium	✓	-	-	-
CORBTI	Poland	✓	-	-	-
CSTB	France	✓	-	-	-
DG	Denmark	-	✓	-	-
DNV	Denmark	✓	-	-	-
DVGW	Germany	✓	✓	✓	-
Emi	Hungary	✓	-	-	-
ETA	Denmark	✓	-	-	-
GASTEC	Netherlands	-	✓	-	-
GL (formerly Advantica)	UK	-	✓	-	-
G-LLOYDS	Germany	✓	-	-	-
GOST-R	Russia	✓	-	-	-
Kiwa	Netherlands	✓	-	-	-
Kiwa Gastec	Netherlands	-	✓	-	-
KVGB	Belgium	-	✓	-	-
OVGW	Austria	-	✓	-	-
Sintef	Norway	✓	-	-	-
SITAC	Sweden	✓	-	-	-
STF	Finland	✓	-	-	-
WRAS	UK	✓	-	✓	-

XPress fittings and tube	Guarantee period (years)				
	5	10	25	30	
XPress ^{copper}	Fittings	-	-	✓	-
	Fittings with Yorkex* copper tube	-	-	-	✓
XPress ^{copper gas}	Fittings	-	-	✓	-
	Fittings with Yorkex* copper tube	-	-	-	✓
XPress ^{stainless}	Fittings	-	-	✓	-
	Fittings with XPress Stainless steel System tube	-	-	-	✓
XPress ^{carbon}	Fittings	✓	-	-	-
	Fittings with XPress carbon steel System tube	-	✓	-	-
	Fittings with XPress plastic coated carbon steel System tube	-	✓	-	-
XPress ^{stainless gas}	Fittings	-	-	✓	-
	Fittings with XPress Stainless steel System tube	-	-	-	✓
XPress ^{solar}	Fittings	-	-	✓	-
	Fittings with Kuterlon* copper tube	-	-	-	✓

To qualify for guarantees, all products must be installed in accordance with our instructions on specified applications.
*Yorkex and Kuterlon are brand names of Yorkshire Copper Tube/KME Group.

Guarantees

10 YEAR GUARANTEE

XPress Carbon is guaranteed against all manufacturing defects for 10 years when installed as a system using the respective XPress Carbon tube. If installed along with other manufacturing pipeline components that conform to the specified standards they will carry a 5 year guarantee against all manufacturing defects.

25 YEAR GUARANTEE

The XPress Copper, XPress Gas, XPress Stainless Gas and XPress Solar ranges are guaranteed against all manufacturing defects for 25 years when installed along with other manufacturers pipeline components conforming to the specified standard.

30 YEAR GUARANTEE

Where pipelines are constructed exclusively from compatible XPress Copper, Gas, Stainless and XPress Solar fittings and XPress system tubes (including the relevant Yorkshire copper system tube, namely Yorkex and Kuterlon, the resulting installations will be deemed XPress Systems and as such qualify for a 30 year guarantee against all manufacturing defects.

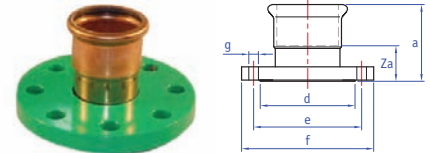
To qualify for guarantees, all products must be installed in accordance with our instructions on specified applications.

LBP press-fit fittings for jointing copper tube

S1FMF/7510 Composite flange

Size	a	d	e	f	g	Za	Bolt holes	Order code
67 x DN65 (2½") PN16	103	100	145	185	18	53	4	38364
76 x DN80 (3") PN16	103	115	160	200	18	53	8	38365
89 x DN80 (3") PN16	113	135	160	200	18	51	8	38366
108 x DN100 (4") PN16	126	158	180	220	18	59	8	38367

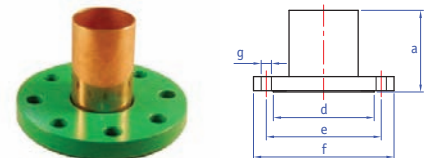
Connection: Female copper press-fit socket with powder coated steel outer flange to BS 4504 type 133, PN16 rated.



S1FMM/7520 Composite flange

Size	a	d	e	f	g	Bolt holes	Order code
67 x DN65 (2½") PN16	112	100	145	185	18	4	38359
76 x DN80 (3") PN16	113	115	160	200	18	8	38360
108 x DN100 (4") PN16	141	158	180	220	18	8	38362

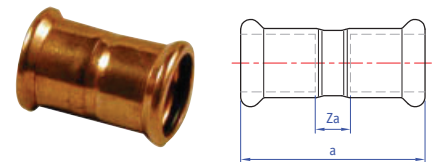
Connection: Press-fit x male end for insertion into fitting. Male copper spigot connection for insertion into press-fit socket. Powder coated steel outer flange to BS 4504 type 133, PN16 rated.



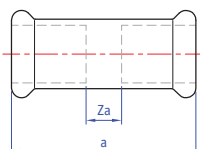
S1/7270 Straight coupling

Size	a	Za	Order code
12mm	42	8	38009
15mm	43	3	38010
18mm	44	4	38011
22mm	46	4	38020
28mm	50	4	38030
35mm	62	6	38032
42mm	71	7	38034
54mm	83	9	38035
64mm	148	48	38970
67mm	110	10	38036
76mm	110	10	38037
89mm	220	96	38039
108mm	205	71	38038

Connection: Press-fit x press-fit.



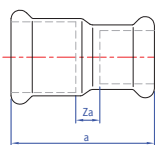
LBP press-fit fittings for jointing copper tube



S1/7270S Slip – Straight coupling slip pattern

Size	a	Za	Order code
15mm	80	40	38044
18mm	80	40	38054
22mm	84	42	38045
28mm	91	45	38046
35mm	99	50	38047
42mm	119	60	38048
54mm	141	70	38049
64mm	102	2	38971
67mm	110	10	38040
76mm	110	10	38041
89mm	127	3	38042
108mm	131	9	38043

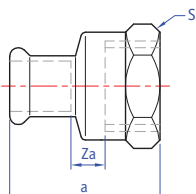
Connection: Press-fit x press-fit (without tube stop).



S1R/7240 Straight reducing coupling

Size	a	Za	Order code
15 x 12mm	44	7	38063
15 x 14mm	42	2	38060
16 x 15mm	42	2	38061
18 x 16mm	42	2	38062
22 x 15mm	52	11	38064
28 x 15mm	59	16	38065
28 x 22mm	54	10	38066
35 x 28mm	60	11	38067
42 x 35mm	67	11	38068
54 x 42mm	80	15	38069

Connection: Press-fit x press-fit.



S2/6270G Straight female connector

Size	a	S	Za	Order code
12mm x 3/8"	31	20	2	38082
12mm x 1/2"	35	25	3	38081
15mm x 3/8"	33	20	2	38083
15mm x 1/2"	38	25	3	38090
15mm x 3/4"	39	30	3	38091
18mm x 1/2"	37	25	2	38084
18mm x 3/4"	39	30	3	38085
22mm x 1/2"	37	30	1	38086
22mm x 3/4"	39	30	2	38092
22mm x 1"	43	37	3	38087

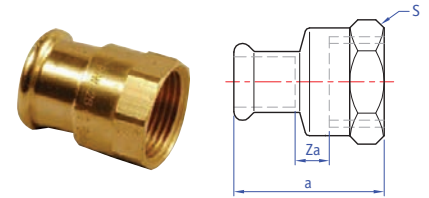
Connection: Press-fit x BSP parallel female thread.

- Leak Before Press (LBP) technology identifies joints that have not been pressed correctly in sizes 15mm-54mm
- Designed for use in hot and cold water services, closed circuit heating, chilled water and oil free compressed air applications
- Heat free jointing provides time and cost saving benefits to contractors/installers.

S2/6270G Straight female connector cont.

Size	a	S	Za	Order code
28mm x 3/4"	40	37	1	38088
28mm x 1"	45	37	2	38093
28mm x 1 1/4"	48	46	4	38103
35mm x 3/4"	42	30	4	38080
35mm x 1"	46	41	1	38089
35mm x 1 1/4"	50	46	1	38094
42mm x 1 1/4"	52	46	1	38101
42mm x 1 1/2"	54	53	2	38095
54mm x 2"	63	65	2	38096
64mm x 2 1/2"	123	83	12	38954

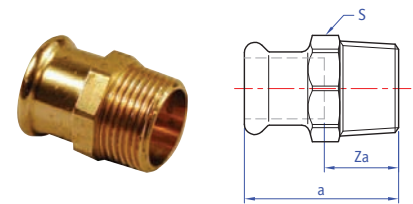
Connection: Press-fit x BSP parallel female thread.



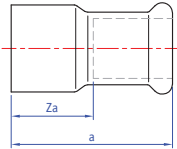
S3/6243G Straight male connector

Size	a	S	Za	Order code
12mm x 3/8"	32	19	15	38105
12mm x 1/2"	36	19	19	38106
15mm x 3/8"	33	21	13	38107
15mm x 1/2"	37	21	17	38114
15mm x 3/4"	39	25	19	38115
18mm x 1/2"	37	25	17	38108
18mm x 3/4"	39	25	19	38109
22mm x 1/2"	38	30	17	38110
22mm x 3/4"	40	30	21	38116
22mm x 1"	42	32	21	38117
28mm x 3/4"	43	36	20	38111
28mm x 1"	44	36	21	38118
28mm x 1 1/4"	48	40	25	38127
35mm x 1"	48	41	22	38112
35mm x 1 1/4"	50	41	24	38119
42mm x 1 1/4"	58	51	28	38113
42mm x 1 1/2"	58	51	28	38120
54mm x 2"	63	63	28	38121
64mm x 2 1/2"	129	75	79	38956
67mm x 2 1/2"	93	80	50	38122
76mm x 2 1/2"	99	84	44	38126
76mm x 3"	110	94	59	38123
89mm x 3"	144	93	82	38125
108mm x 4"	132	117	50	38124

Connection: Press-fit x BSP male taper thread.



LBP press-fit fittings for jointing copper tube



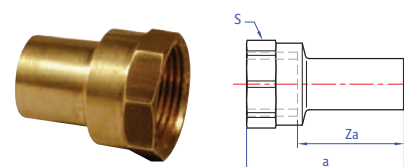
S6/7243 Reducer

Size	a	Za	Order code
15 x 12mm	45	28	38193
15 x 14mm	52	32	38194
15 x 16mm	52	32	38195
18 x 12mm	47	30	38196
18 x 15mm	47	25	38197
18 x 16mm	52	32	38205
22 x 15mm	54	34	38200
22 x 18mm	48	26	38201
28 x 15mm	62	42	38202
28 x 18mm	59	37	38203
28 x 22mm	56	34	38204
35 x 22mm	68	47	38207
35 x 28mm	66	44	38208
42 x 22mm	76	55	38210
42 x 28mm	73	48	38211
42 x 35mm	75	48	38212
54 x 28mm	89	67	38215
54 x 35mm	90	63	38216
54 x 42mm	89	58	38217
67 x 28mm	109	86	38218
67 x 35mm	109	83	38219
67 x 42mm	110	80	38220
67 x 54mm	112	77	38221
76 x 35mm	113	87	38222
76 x 42mm	113	86	38223
76 x 54mm	116	81	38224
76 x 67mm	126	78	38225
89 x 42mm	135	105	38233
89 x 54mm	132	97	38226
89 x 76mm	140	90	38227
108 x 42mm	153	124	38228
108 x 54mm	156	120	38229
108 x 64mm	162	112	38236
108 x 67mm	166	116	38230
108 x 76mm	162	112	38231
108 x 89mm	166	106	38232

Connection: Larger end male for insertion into fitting x press-fit.

S7/6246G Female adaptor

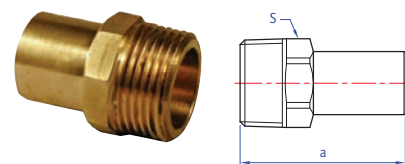
Size	<i>a</i>	<i>S</i>	<i>Za</i>	Order code
15mm x 1/2"	47	25	32	38160
18mm x 1/2"	47	25	32	38157
18mm x 3/4"	49	30	33	38158
22mm x 1/2"	46	25	31	38159
22mm x 3/4"	49	30	32	38161
28mm x 3/4"	50	30	34	38166
28mm x 1"	54	37	35	38162
35mm x 1"	56	37	37	38167
35mm x 1 1/4"	60	46	38	38163
42mm x 1 1/2"	76	53	55	38164
54mm x 2"	86	65	60	38165



Connection: Male copper for insertion into a fitting x BSP parallel female thread.

S8/6280G Male adaptor

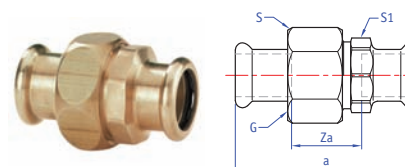
Size	<i>a</i>	<i>S</i>	Order code
15mm x 1/2"	50	19	38170
18mm x 1/2"	50	19	38173
18mm x 3/4"	53	25	38174
22mm x 1/2"	51	25	38175
22mm x 3/4"	52	25	38171
28mm x 1"	57	32	38172
35mm x 1 1/4"	63	40	38176
42mm x 1 1/2"	80	46	38177



Connection: Male copper for insertion into a fitting x BSP male taper thread.

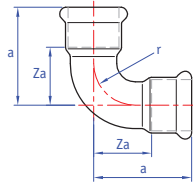
S11/6330 Union coupling

Size	<i>a</i>	<i>G</i>	<i>S</i>	<i>S1</i>	<i>Za</i>	Order code
15mm	60	3/4"	30	25	20	38180
18mm	62	3/4"	30	25	22	38179
22mm	68	1"	36	32	26	38181
28mm	73	1 1/4"	46	40	27	38182
35mm	71	1 1/2"	52	46	19	38183
42mm	91	1 3/4"	58	51	31	38184
54mm	98	2 3/8"	75	65	28	38185



Connection: Press-fit x press-fit.

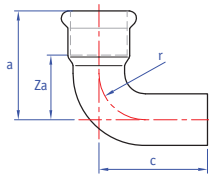
LBP press-fit fittings for jointing copper tube



S12/7002A Elbow

Size	a	r	Za	Order code
12mm	31	14	14	38279
15mm	38	17	17	38280
18mm	42	22	22	38282
22mm	47	26	26	38290
28mm	56	34	34	38300
35mm	68	42	42	38302
42mm	80	50	50	38304
54mm	100	65	65	38306
64mm	172	90	122	38958
67mm	132	80	87	38307
76mm	142	90	92	38308
89mm	170	127	112	38309
108mm	201	161	135	38310

Connection: Press-fit x press-fit.



S12S/7001A Street elbow

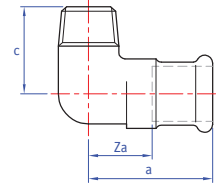
Size	a	c	r	Za	Order code
12mm	31	45	14	14	38317
15mm	36	50	18	16	38318
18mm	42	53	22	22	38319
22mm	47	58	26	27	38320
28mm	58	64	34	34	38322
35mm	69	82	42	44	38324
42mm	81	101	50	52	38325
54mm	100	120	65	66	38326
67mm	130	175	80	78	38327
76mm	147	190	90	98	38328
89mm	215	250	127	153	38329
108mm	206	259	161	141	38330

Connection: Press-fit x male end for insertion into an XPress fitting.

S13/6092G Male elbow

Size	a	c	Za	Order code
12mm x 3/8"	30	25	13	38371
12mm x 1/2"	32	31	15	38370
15mm x 3/8"	32	27	12	38339
15mm x 1/2"	38	34	19	38333
18mm x 1/2"	35	34	15	38340
18mm x 3/4"	38	33	18	38372
22mm x 3/4"	49	45	28	38334
28mm x 1"	58	53	36	38335
35mm x 1 1/4"	55	47	30	38336
42mm x 1 1/2"	62	51	32	38337
54mm x 2"	70	63	35	38338

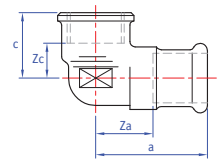
Connection: Press-fit x BSP male taper thread.



S14/6090G Female elbow

Size	a	c	Za	Zc	Order code
12mm x 3/8"	32	23	15	10	38346
12mm x 1/2"	34	23	17	7	38345
15mm x 3/8"	33	24	13	11	38347
15mm x 1/2"	41	24	20	15	38351
15mm x 3/4"	36	70	16	16	38344
18mm x 1/2"	36	30	16	14	38348
18mm x 3/4"	38	30	18	12	38349
22mm x 1/2"	53	24	32	13	38350
22mm x 3/4"	45	27	24	11	38353
28mm x 1"	51	33	28	14	38354
35mm x 1 1/4"	55	45	29	21	38355
42mm x 1 1/2"	85	45	57	26	38356
54mm x 2"	104	54	72	33	38357

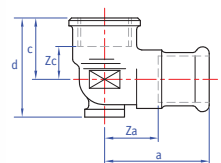
Connection: Press-fit x BSP parallel female thread.



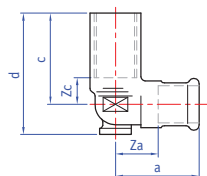
S15/6472G Backplate elbow

Size	a	c	d	Za	Zc	Order code
12mm x 1/2"	61	22	35	44	7	38397
15mm x 3/8"	41	36	49	21	14	38396
15mm x 1/2"	41	23	36	21	8	38400
18mm x 1/2"	41	24	39	21	9	38398
22mm x 3/4"	45	27	45	24	11	38401

Connection: Press-fit x BSP parallel female thread.



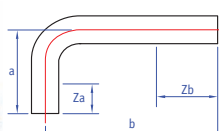
LBP press-fit fittings for jointing copper tube



S15L/6472L Backplate elbow

Size	a	c	d	Za	Zc	Order code
15mm x 1/2"	41	45	58	21	8	38399

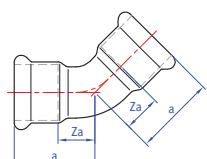
Connection: Press-fit x parallel female thread.



S19/7005 90° bend

Size	a	b	Za	Zb	Order code
15mm	70	120	22	72	38390
18mm	70	120	17	67	38391
22mm	70	120	9	59	38392
28mm	80	120	7	47	38393

Connection: Both ends male for insertion in to an XPress fitting.



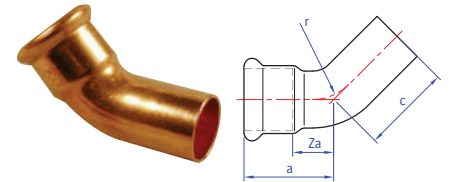
S21/7041 Obtuse elbow

Size	a	Za	Order code
12mm	23	6	38411
15mm	28	8	38410
18mm	29	9	38413
22mm	31	12	38412
28mm	37	16	38414
35mm	44	18	38416
42mm	51	21	38417
54mm	62	27	38418
64mm	114	64	38960
67mm	85	35	38419
76mm	91	45	38420
89mm	109	47	38422
108mm	125	59	38421

Connection: Press-fit x press-fit.

S21S/7040 Obtuse street elbow

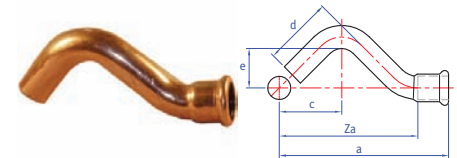
Size	<i>a</i>	<i>c</i>	<i>Za</i>	Item code
12mm	23	32	6	38402
15mm	28	37	8	38404
18mm	29	39	9	38403
22mm	32	44	11	38405
28mm	37	47	14	38406
35mm	43	58	17	38407
42mm	51	71	21	38408
54mm	62	82	27	38409
64mm	114	145	64	38959
67mm	85	88	35	38430
76mm	95	146	35	38431
89mm	132	196	70	38433
108mm	127	184	60	38432



Connection: Press-fit x male end for insertion into an XPress fitting.

S22/7086 Partial crossover

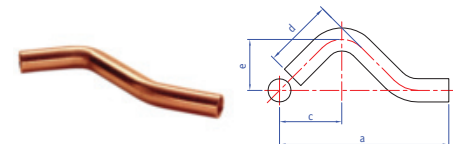
Size	<i>a</i>	<i>c</i>	<i>d</i>	<i>e</i>	<i>Za</i>	Order code
15mm	110	40	44	25	90	38435
18mm	120	45	49	27	100	38437
22mm	134	50	55	30	113	38436



Connection: Press-fit x male end for insertion into an XPress fitting.

S22S/7087 Street crossover

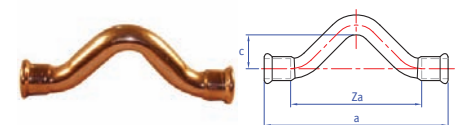
Size	<i>a</i>	<i>c</i>	<i>d</i>	<i>e</i>	Order code
15mm	157	56	46	30	38438
18mm	166	60	49	31	38434
22mm	178	65	55	33	38439



Connection: Both ends male for insertion into an XPress fitting.

S23/7085 Full crossover

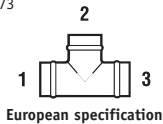
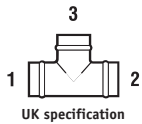
Size	<i>a</i>	<i>c</i>	<i>Za</i>	Order code
15mm	140	26	100	38440
18mm	151	27	111	38442
22mm	170	28	128	38441



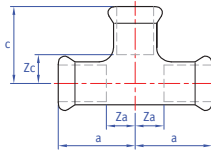
Connection: Press-fit x press-fit.

Tee specification

See page 73



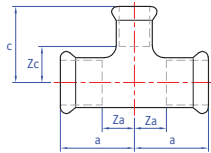
LBP press-fit fittings for jointing copper tube



S24/7130 Equal tee

Size	a	c	Za	Zc	Order code
12mm	28	28	11	11	38472
15mm	32	32	12	12	38450
18mm	34	34	14	14	38451
22mm	37	37	16	16	38460
28mm	42	42	19	19	38462
35mm	50	50	24	24	38464
42mm	58	58	28	28	38466
54mm	69	69	34	34	38467
64mm	133	134	83	84	38961
67mm	95	107	45	58	38468
76mm	101	114	50	64	38469
89mm	162	162	100	100	38470
108mm	159	159	92	92	38471

Connection: Press-fit on all ends.



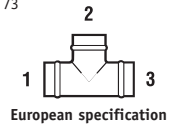
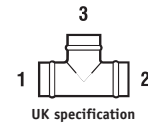
S25/7130 Tee, reduced branch

Size UK	European	a	c	Za	c	Order code
15 x 15 x 12mm	15 x 12 x 15mm	32	32	12	15	38488
18 x 18 x 12mm	18 x 12 x 18mm	34	35	14	18	38452
18 x 18 x 15mm	18 x 15 x 18mm	34	35	14	15	38454
22 x 22 x 12mm	22 x 12 x 22mm	37	34	16	17	38491
22 x 22 x 15mm	22 x 15 x 22mm	37	38	16	18	38490
22 x 22 x 18mm	22 x 18 x 22mm	37	38	16	18	38535
28 x 28 x 12mm	28 x 12 x 28mm	42	41	19	21	38493
28 x 28 x 15mm	28 x 15 x 28mm	42	41	19	21	38492
28 x 28 x 18mm	28 x 18 x 28mm	42	41	19	21	38538
28 x 28 x 22mm	28 x 22 x 28mm	42	41	19	20	38494
35 x 35 x 15mm	35 x 15 x 35mm	45	44	19	24	38496
35 x 35 x 22mm	35 x 22 x 35mm	45	45	19	24	38497
35 x 35 x 28mm	35 x 28 x 35mm	50	44	24	21	38498
42 x 42 x 15mm	42 x 15 x 42mm	50	48	20	28	38499
42 x 42 x 22mm	42 x 22 x 42mm	50	48	20	27	38500
42 x 42 x 28mm	42 x 28 x 42mm	56	49	26	26	38501
42 x 42 x 35mm	42 x 35 x 42mm	56	50	26	24	38502
54 x 54 x 22mm	54 x 22 x 54mm	60	54	25	33	38504
54 x 54 x 28mm	54 x 28 x 54mm	60	55	25	32	38505
54 x 54 x 35mm	54 x 35 x 54mm	61	55	24	29	38506
54 x 54 x 42mm	54 x 42 x 54mm	69	64	34	34	38507
64 x 64 x 35mm	64 x 35 x 64mm	115	102	65	76	38962
64 x 64 x 42mm	64 x 42 x 64mm	126	109	76	79	38963

Connection: Press-fit on all ends.

Tee specification

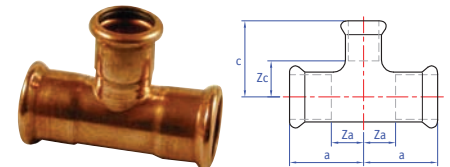
See page 73



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S25/7130 Tee, reduced branch cont.

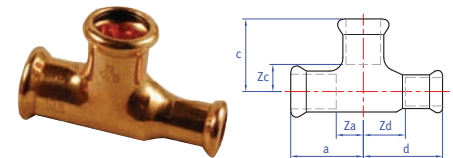
Size UK	European	a	c	Za	c	Order code
67 x 67 x 28mm	67 x 28 x 67mm	76	67	26	43	38550
67 x 67 x 35mm	67 x 35 x 67mm	80	70	29	43	38560
67 x 67 x 42mm	67 x 42 x 67mm	82	76	32	41	38561
67 x 67 x 54mm	67 x 54 x 67mm	88	78	47	43	38562
76 x 76 x 22mm	76 x 22 x 76mm	73	73	22	50	38563
76 x 76 x 28mm	76 x 28 x 76mm	77	73	26	50	38564
76 x 76 x 35mm	76 x 35 x 76mm	80	78	30	53	38553
76 x 76 x 42mm	76 x 42 x 76mm	103	106	55	70	38551
76 x 76 x 54mm	76 x 54 x 76mm	108	104	60	72	38552
89 x 89 x 54mm	89 x 54 x 89mm	136	119	77	86	38554
89 x 89 x 76mm	89 x 76 x 89mm	151	146	91	96	38556
108 x 108 x 54mm	108 x 54 x 108mm	131	129	66	93	38555
108 x 108 x 67mm	108 x 67 x 108mm	117	136	46	91	38565
108 x 108 x 76mm	108 x 76 x 108mm	140	141	73	93	38557



Connection: Press-fit on all ends.

S26/7130 Tee, one end reduced

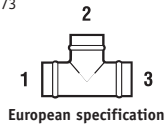
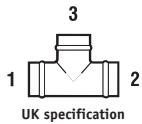
Size UK	European	a	c	d	Za	Zc	Zd	Order code
15 x 12 x 15mm	15 x 15 x 12mm	32	32	36	12	12	19	38508
18 x 15 x 18mm	18 x 18 x 15mm	34	34	42	14	14	22	38455
22 x 15 x 22mm	22 x 22 x 15mm	37	37	46	16	16	26	38510
22 x 18 x 22mm	22 x 22 x 18mm	37	37	43	16	16	23	38511
28 x 15 x 28mm	28 x 28 x 15mm	42	42	55	19	19	35	38512
28 x 22 x 28mm	28 x 28 x 22mm	42	42	52	19	19	31	38514
35 x 22 x 35mm	35 x 35 x 22mm	51	50	72	25	24	51	38517
35 x 28 x 35mm	35 x 35 x 28mm	51	50	67	25	24	41	38518



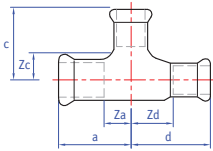
Connection: Press-fit on all ends.

Tee specification

See page 73



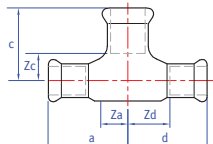
LBP press-fit fittings for jointing copper tube



S27/7130 Tee, one end and branch reduced

Size								
UK	European	a	c	d	Za	Zc	Zd	Order code
15 x 12 x 12mm	15 x 12 x 12mm	32	32	35	12	15	18	38527
18 x 15 x 15mm	18 x 15 x 15mm	34	35	40	14	15	20	38453
22 x 18 x 15mm	22 x 15 x 18mm	37	38	44	16	18	24	38531
22 x 15 x 15mm	22 x 15 x 15mm	37	44	43	16	18	23	38530
22 x 15 x 18mm	22 x 18 x 15mm	37	38	44	16	18	24	38533
22 x 18 x 18mm	22 x 18 x 18mm	37	38	41	16	18	21	38534
28 x 22 x 15mm	28 x 15 x 22mm	42	41	46	19	21	25	38536
28 x 22 x 18mm	28 x 18 x 22mm	42	41	47	19	21	26	38529
28 x 22 x 22mm	28 x 22 x 22mm	42	41	49	19	20	28	38532
35 x 22 x 22mm	35 x 22 x 22mm	51	44	67	25	23	45	38539
35 x 28 x 22mm	35 x 22 x 28mm	51	44	63	25	23	40	38541
35 x 28 x 28mm	35 x 28 x 28mm	51	44	67	25	21	44	38542
42 x 35 x 35mm	42 x 35 x 35mm	56	50	74	26	24	48	38546
54 x 42 x 42mm	54 x 42 x 42mm	69	64	83	34	34	53	38566

Connection: Press-fit on all ends.



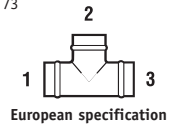
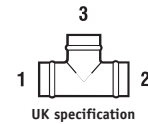
S28/7130 Tee, both ends reduced

Size						
UK	European	a	c	Za	Zc	Order code
12 x 12 x 15mm	12 x 15 x 12mm	36	32	19	15	38447
15 x 15 x 18mm	15 x 18 x 15mm	35	32	15	12	38547
15 x 15 x 22mm	15 x 22 x 15mm	38	34	18	13	38545
22 x 22 x 28mm	22 x 28 x 22mm	52	42	31	19	38548
28 x 28 x 35mm	28 x 35 x 28mm	68	50	45	24	38549

Connection: Press-fit on all ends.

Tee specification

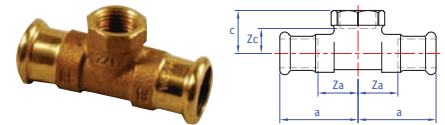
See page 73



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S30/6130G Female branch tee

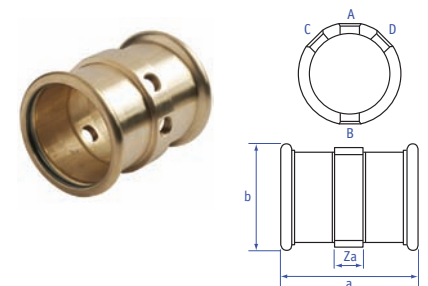
Size UK	European	a	c	Za	Zc	Order code
12 x 12mm x 1/2"	12 x 1/2" x 12mm	29	23	12	7	38584
15 x 15mm x 1/2"	15 x 1/2" x 15mm	34	26	14	11	38585
18 x 18mm x 1/2"	18 x 1/2" x 18mm	42	24	22	8	38586
22 x 22mm x 1/2"	22 x 1/2" x 22mm	42	26	21	11	38591
22 x 22mm x 3/4"	22 x 3/4" x 22mm	45	27	24	11	38587
28 x 28mm x 1/2"	28 x 1/2" x 28mm	44	29	21	14	38592
28 x 28mm x 3/4"	28 x 3/4" x 28mm	41	34	18	14	38593
35 x 35mm x 1/2"	35 x 1/2" x 35mm	50	34	24	19	38594
42 x 42mm x 1/2"	42 x 1/2" x 42mm	57	38	27	23	38596
54 x 54mm x 1/2"	54 x 1/2" x 54mm	69	44	34	29	38597
76 x 76mm x 1/2"	76 x 1/2" x 76mm	65	48	15	30	38190
108 x 108mm x 1/2"	108 x 1/2" x 108mm	82	65	15	53	38191



Connection: Press-fit x BSP parallel female branch.

S32/6130G Female branch tee with multi ports

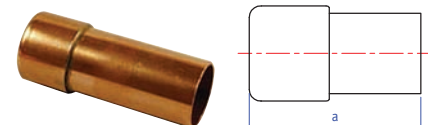
Size	a	b	Za	Tappings				Item code
				A	B	C	D	
67mm x 1/2"	130	84	29	1/2"	1/2"	-	-	38189
76mm x 1/2"	130	96	28	1/2"	1/2"	-	-	38188
89mm x 3/4"	160	108	36	3/4"	3/4"	3/4"	-	38192
108mm x 3/4"	170	132	35	3/4"	3/4"	3/4"	3/4"	38206



Connection: Press-fit x BSP parallel female branch.

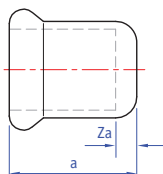
S60/S302 Stop end

Size	a	Item code
35mm	96	38686
42mm	108	38688
54mm	125	38690



Connection: Male end for insertion into an XPress fitting.

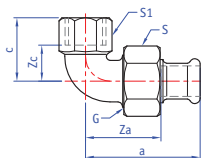
LBP press-fit fittings for jointing copper tube



S61/7301 Stop end

Size	a	Za	Order code
12mm	17	2	38702
15mm	20	2	38695
18mm	20	2	38696
22mm	21	2	38697
28mm	23	2	38698
35mm	26	2	38699
42mm	30	2	38700
54mm	35	2	38701
64mm	50	2	38689
67mm	50	2	38691
76mm	50	2	38692
89mm	62	2	38693
108mm	67	2	38694

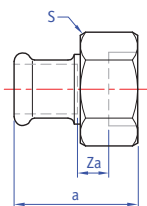
Connection: Press-fit, for use with copper tube.



S65F/6096G Straight female union elbow connector

Size	a	c	G	S	S1	Za	Zc	Order code
12mm x 1/2"	49	32	3/4"	30	27	32	17	38790
15mm x 1/2"	53	32	3/4"	30	27	33	17	38791
18mm x 1/2"	55	32	3/4"	30	27	35	17	38792
18mm x 3/4"	61	36	1	36	33	41	20	38793
22mm x 3/4"	62	36	1	36	33	41	20	38794
22mm x 1"	66	40	1	36	40	45	21	38795
28mm x 1"	68	44	1 1/4"	46	40	45	25	38796
35mm x 1 1/4"	75	50	1 1/2"	52	50	49	28	38797
42mm x 1 1/2"	85	53	1 3/4"	58	56	55	32	38798
54mm x 2"	99	64	2 3/8"	75	68	64	38	38799

Connection: Press-fit x parallel female end.



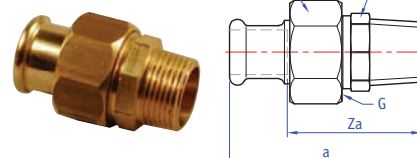
S68FF/6359 Union

Size	a	Za	S	Order code
15mm x 3/4"	25	5	30	38235
18mm x 3/4"	28	8	30	38237
22mm x 1"	29	8	36	38238
28mm x 1 1/4"	31	8	46	38239
35mm x 1 1/2"	32	6	52	38242
42mm x 1 3/4"	39	9	58	38243

Connection: Press-fit x female union end.

S69/6331G Straight male union connector

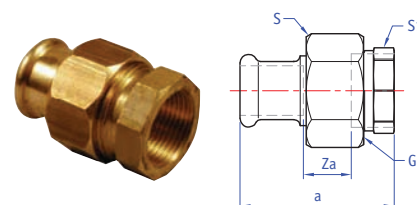
Size	<i>a</i>	<i>G</i>	<i>S</i>	<i>S1</i>	<i>Za</i>	Order code
12mm x 3/8"	48	1/2"	24	19	31	38807
12mm x 1/2"	54	3/4"	30	25	37	38808
15mm x 1/2"	62	3/4"	30	25	42	38813
15mm x 3/4"	58	3/4"	30	25	38	38809
18mm x 1/2"	59	3/4"	30	25	39	38810
18mm x 3/4"	61	3/4"	30	25	41	38811
22mm x 1/2"	66	1"	36	32	45	38812
22mm x 3/4"	74	1"	36	32	53	38814
22mm x 1"	68	1"	36	32	47	38815
28mm x 3/4"	75	3/4"	46	-	52	38820
28mm x 1"	76	1 1/4"	46	40	53	38816
35mm x 1 1/4"	79	1 1/2"	52	46	53	38817
42mm x 1 1/2"	88	1 3/4"	58	51	58	38818
54mm x 2"	101	2 3/8"	75	65	66	38819



Connection: Press-fit x BSP taper male thread.

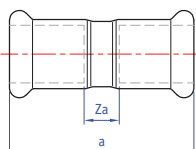
S69F/6330G Straight female union connector

Size	<i>a</i>	<i>G</i>	<i>S</i>	<i>S1</i>	<i>Za</i>	Order code
12mm x 1/2"	42	3/4"	30	26	10	38828
15mm x 1/2"	52	3/4"	30	26	30	38833
15mm x 3/4"	55	3/4"	30	31	18	38829
18mm x 1/2"	48	3/4"	30	26	13	38830
18mm x 3/4"	57	3/4"	30	31	21	38831
22mm x 3/4"	68	1"	36	32	43	38834
22mm x 1"	65	1"	36	39	25	38832
28mm x 3/4"	65	3/4"	46	31	28	38827
28mm x 1"	65	1 1/4"	46	43	43	38835
35mm x 1 1/4"	74	1 1/2"	52	48	52	38836
42mm x 1 1/2"	83	1 3/4"	58	53	48	38837
54mm x 2"	90	2 3/8"	75	65	50	38838



Connection: Press-fit x BSP parallel female thread.

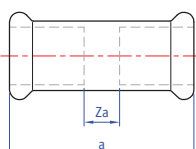
Chromium plated press-fit fittings for jointing chromium plated copper tube



S1CP/7270CP Straight coupling

Size	a	Za	Order code
12mm	42	8	38610
15mm	43	3	38611
22mm	46	4	38612

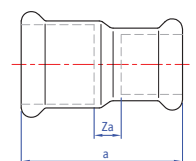
Connection: Press-fit x press-fit.



S1SCP/7270SCP Slip Straight coupling slip pattern

Size	a	Za	Order code
15mm	80	40	38614

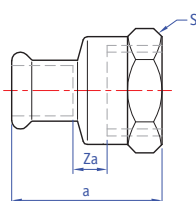
Connection: Press-fit x press-fit (without tube stop).



S1RCP/7240SCP Straight reducing coupling

Size	a	Za	Order code
15 x 12mm	44	7	38616
22 x 15mm	52	11	38617

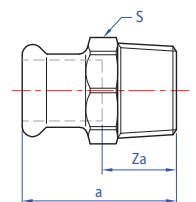
Connection: Press-fit x press-fit.



S2CP/6270GCP Straight female connector

Size	a	S	Za	Order code
12mm x 3/8"	31	20	2	38619
12mm x 1/2"	35	25	3	38620
15mm x 3/8"	33	20	2	38621
15mm x 1/2"	38	25	3	38622

Connection: Press-fit x BSP parallel female thread.



S3CP/6243GCP Straight male connector

Size	a	S	Za	Order code
12mm x 3/8"	32	19	15	38627
12mm x 1/2"	36	19	19	38628
15mm x 3/8"	33	21	13	38629
15mm x 1/2"	37	21	17	38630

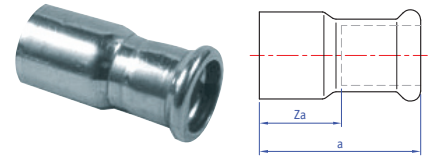
Connection: Press-fit x BSP taper male thread.

- Leak Before Press (LBP) technology identifies joints that have not been pressed correctly
- Suitable for connecting to copper tube to BS EN 1057 (R250/R290)
- Designed with a chromium plate finish to complement any room design where exposed pipework is a feature.

S6CP/7243CP Reducer

Size	a	Za	Order code
15 x 12mm	45	28	38636
18 x 12mm	47	30	38637
18 x 15mm	47	25	38638
22 x 15mm	54	34	38639

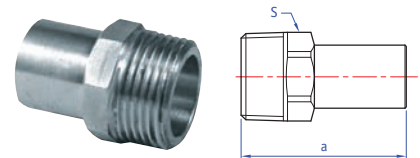
Connection: Larger end male for insertion into fitting x press-fit.



S8CP/6280GCP Male adaptor

Size	a	S	Order code
15mm x 1/2"	50	19	38642

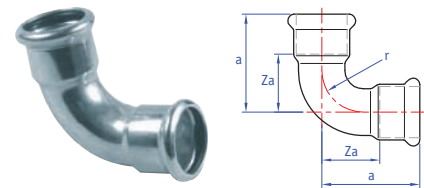
Connection: Male copper for insertion into an XPress fitting with BSP male taper thread.



S12CP/7002ACP Elbow

Size	a	r	Za	Order code
12mm	31	14	14	38645
15mm	38	17	17	38646
22mm	47	26	26	38647

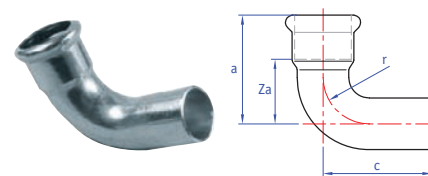
Connection: Press-fit x press-fit.



S12SCP/7001ACP Street elbow

Size	a	c	r	Za	Order code
12mm	31	45	14	14	38649
15mm	36	50	18	16	38650
22mm	47	58	27	26	38651

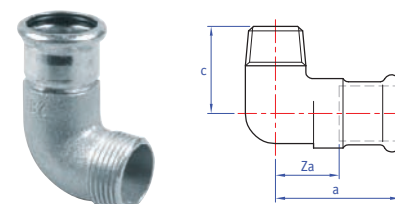
Connection: Press-fit x male end for insertion into an XPress fitting.



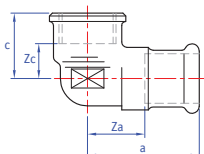
S13CP/6092GCP Male elbow

Size	a	c	Za	Order code
12mm x 1/2"	32	31	15	38654
15mm x 1/2"	38	34	19	38655

Connection: Press-fit x BSP taper male thread.



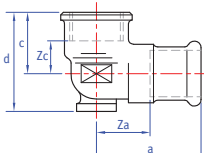
Chromium plated press-fit fittings for jointing chromium plated copper tube



S14CP/6090GCP Female elbow

Size	a	c	Za	Zc	Order code
12mm x 3/8"	32	23	15	10	38659
15mm x 1/2"	41	24	20	15	38660

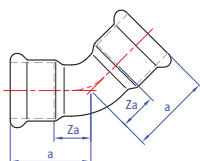
Connection: Press-fit x BSP parallel female thread.



S15CP/6472GCP Backplate elbow

Size	a	c	d	Za	Zc	Item code
12mm x 1/2"	61	22	35	44	6	38665
15mm x 1/2"	41	23	36	21	8	38666

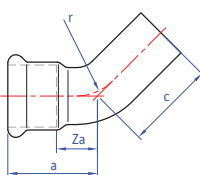
Connection: Press-fit x BSP parallel female thread.



S21CP/7041CP Obtuse elbow

Size	a	Za	Order code
12mm	23	6	38667
15mm	28	8	38668

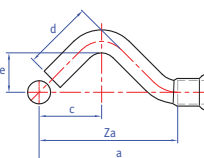
Connection: Press-fit x press-fit.



S21SCP/7040CP Obtuse street elbow

Size	a	c	Za	Item code
12mm	23	32	6	38671
15mm	28	37	8	38672

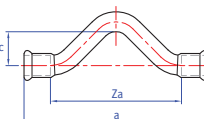
Connection: Press-fit x male end for insertion into an XPress fitting.



S22CP/7086CP Partial crossover

Size	a	c	d	e	Za	Order code
15mm	110	40	44	25	90	38675

Connection: Press-fit x male end for insertion into an XPress fitting.



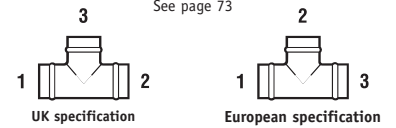
S23CP/7085CP Full crossover

Size	a	c	Za	Order code
15mm	140	26	100	38677

Connection: Press-fit x press-fit.

Tee specification

See page 73

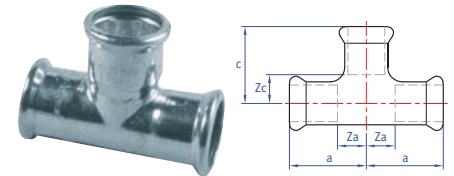


2

S24CP/7130CP Equal tee

Size	a	c	Za	Zc	Order code
12mm	28	28	11	11	38710
15mm	32	32	12	12	38711
22mm	37	37	16	16	38712

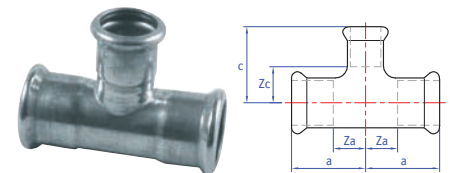
Connection: Press-fit on all ends.



S25CP/7130CP Tee, reduced branch

Size UK	European	a	c	Za	Zc	Order code
15 x 15 x 12mm	15 x 12 x 15mm	32	32	12	15	38714
22 x 22 x 15mm	22 x 15 x 22mm	37	37	16	16	38715

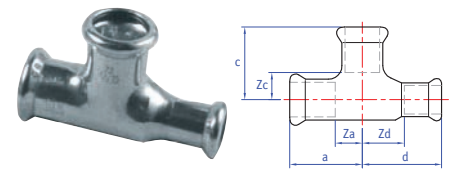
Connection: Press-fit on all ends.



S26CP/7130CP Tee, one end reduced

Size UK	European	a	c	d	Za	Zc	Zd	Order code
15 x 12 x 15mm	15 x 15 x 12mm	32	32	36	12	12	19	38719

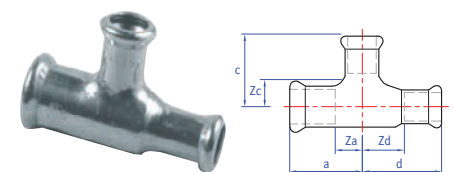
Connection: Press-fit on all ends.



S27CP/7130CP Tee, one end and branch reduced

Size UK	European	a	c	d	Za	Zc	Zd	Order code
15 x 12 x 12mm	15 x 12 x 12mm	32	32	35	12	15	18	38723

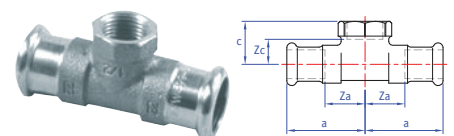
Connection: Press-fit on all ends.



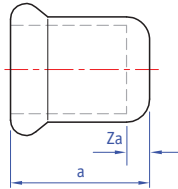
S30CP/6130GCP Female branch tee

Size UK	European	a	c	Za	Zc	Order code
15 x 15mm x 1/2"	15 x 1/2" x 15mm	34	26	14	11	38733

Connection: Press-fit x BSP parallel female thread.



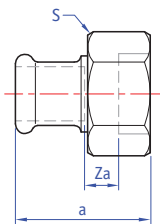
Chromium plated press-fit fittings for jointing chromium plated copper tube



S61CP/7301CP Stop end

Size	a	Za	Order code
15mm	20	2	38739

Connection: Press-fit for use with copper tube.



S68FFCP/6359CP Union

Size	a	Za	S	Item code
15mm x 3/4"	25	5	30	38742

Connection: Press-fit x female union end.

LBP 316 stainless steel press-fit jointing system

Stainless steel 316 system tube

SS610 Stainless steel 316 system tube

Size	Finish	Item code
15mm x 0.6mm x 6m	Stainless steel	25010
18mm x 0.6mm x 6m	Stainless steel	25012
22mm x 0.6mm x 6m	Stainless steel	25014
28mm x 0.8mm x 6m	Stainless steel	25016
35mm x 1.0mm x 6m	Stainless steel	25018
42mm x 1.0mm x 6m	Stainless steel	25020
54mm x 1.0mm x 6m	Stainless steel	25022



Suitable for: XPress Stainless steel fittings and XPress Stainless Gas fittings.

SS620 Stainless steel 316 system tube

Size	Finish	Item code
76mm x 2.0mm x 6m	Stainless steel	25026
89mm x 2.0mm x 6m	Stainless steel	25028
108mm x 2.0mm x 6m	Stainless steel	25030

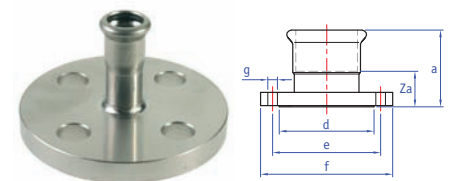


Suitable for: XPress Stainless steel fittings.

Stainless steel fittings

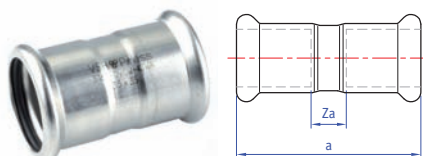
SS1FMF Composite flange

Size	a	Za	e	f	g	Holes	Item code
42	91	61	110	150	18	4	11680
54	112	77	125	165	18	4	11681
76	111	56	145	185	18	4	20412
89	117	59	160	200	18	8	20413
108	136	60	180	220	18	8	20414



Connection: Press-fit x metric flange. Female press-fit socket with steel flange. Outer flange to BS 4504 type 133, PN16 rated.

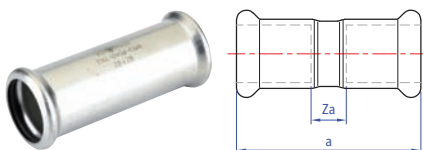
LBP 316 stainless steel press-fit jointing system



SS1 Straight coupling

Size	a	Za	Item code
15mm	52	12	11694
18mm	53	13	11695
22mm	52	10	11696
28mm	57	12	11697
35mm	62	9	11698
42mm	74	15	11699
54mm	83	16	11700
76mm	126	15	20415
89mm	145	19	20416
108mm	171	17	20417

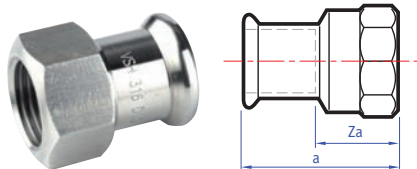
Connection: Press-fit x press-fit.



SS1S Slip

Size	a	Za	Item code
15mm	80	34	11728
18mm	80	34	11730
22mm	84	25	11729
28mm	89	30	11731
35mm	99	30	11732
42mm	121	47	11733
54mm	138	40	11734
76mm	220	60	20428
89mm	201	20	20429
108mm	320	80	20430

Connection: Press-fit x press-fit (without tube stop).



SS2 Straight female connector

Size	a	Za	Item code
15mm x 1/2"	38	8	11641
18mm x 1/2"	51	16	11643
18mm x 3/4"	38	6	11644
22mm x 1/2"	37	5	11646
22mm x 3/4"	40	16	11647
28mm x 1"	45	8	11648
35mm x 1 1/4"	50	24	11653
42mm x 1 1/2"	54	10	11654
54mm x 2"	63	11	11657

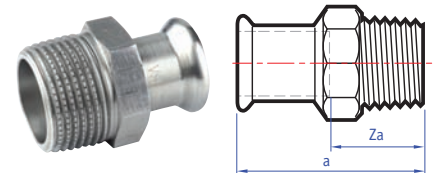
Connection: Press-fit x BSP parallel female thread.

- *Leak Before Press (LBP) technology identifies joints that have not been pressed correctly in sizes 15mm-54mm*
- *Designed for potable water applications where water quality and hygiene are crucial, particularly in the food, pharmaceutical and health care industries*
- *Heat-free jointing provides time and cost saving benefits to contractors/installers.*

SS3 Straight male connector

Size	a	Za	Item code
15mm x 1/2"	38	18	11658
18mm x 1/2"	52	32	11660
18mm x 3/4"	55	32	11661
22mm x 3/4"	44	22	11664
28mm x 1"	48	25	11665
35mm x 1 1/4"	55	29	11670
42mm x 1 1/2"	60	30	11671
54mm x 2"	69	34	11674

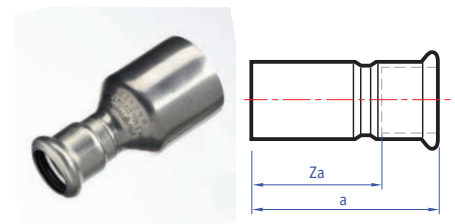
Connection: Press-fit x BSP taper male thread.



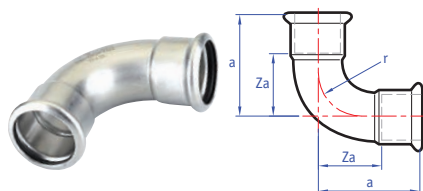
SS6 Reducer

Size	a	Za	Item code
18 x 15mm	59	39	11712
22 x 15mm	60	40	11713
22 x 18mm	61	42	11714
28 x 15mm	66	47	11715
28 x 18mm	63	43	11716
28 x 22mm	62	41	11717
35 x 18mm	77	57	11718
35 x 22mm	69	48	11719
35 x 28mm	68	44	11720
42 x 28mm	78	55	11722
42 x 35mm	80	54	11723
54 x 22mm	98	78	11724
54 x 28mm	96	73	11725
54 x 35mm	96	65	11726
54 x 42mm	96	64	11727
76 x 54mm	155	117	20422
89 x 54mm	167	129	20423
89 x 76mm	178	122	20424
108 x 54mm	184	145	20425
108 x 76mm	217	161	20426
108 x 89mm	206	144	20427

Connection: Large end male for insertion into a fitting x press-fit.



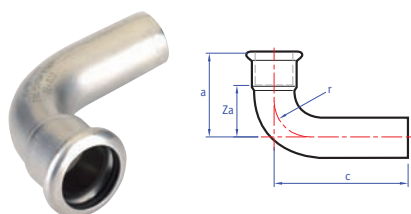
LBP 316 stainless steel press-fit jointing system



SS12 Elbow

Size	a	Za	Item code
15mm	41	21	11620
18mm	54	34	11621
22mm	61	40	11622
28mm	60	37	11623
35mm	71	45	11624
42mm	86	56	11625
54mm	106	70	11626
76mm	151	95	20406
89mm	175	112	20407
108mm	226	152	20408

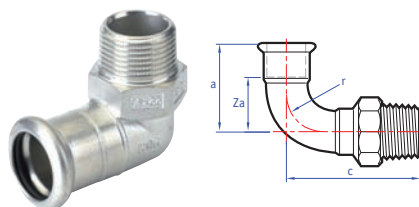
Connection: Press-fit x press-fit.



SS12S Street elbow

Size	a	Za	c	Item code
15mm	42	21	54	11634
18mm	45	25	67	11635
22mm	52	30	62	11636
28mm	60	37	70	11637
35mm	73	45	81	11638
42mm	87	56	96	11639
54mm	106	71	113	11640
76mm	150	96	164	20409
89mm	280	216	318	20410
108mm	217	142	236	20411

Connection: Press-fit x male end for insertion into a fitting.



SS13 Male elbow

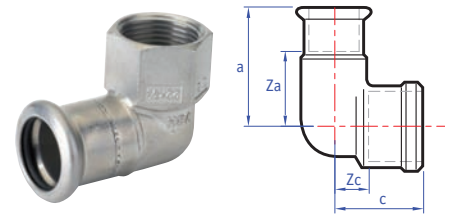
Size	a	Za	c	Item code
15mm x 1/2"	40	20	28	11687
18mm x 1/2"	56	36	37	11688
22mm x 3/4"	45	25	38	11689
28mm x 1"	65	42	44	11690
35mm x 1 1/4"	52	26	51	11691
42mm x 1 1/2"	65	35	58	11692
54mm x 2"	90	55	60	11693

Connection: Press-fit x BSP taper male thread.

SS14 Female elbow

Size	<i>a</i>	<i>Za</i>	<i>c</i>	<i>Zc</i>	Item code
15mm x 1/2"	39	30	27	9	11682
22mm x 3/4"	45	24	33	27	11684
28mm x 1"	52	28	35	16	11685
35mm x 1 1/4"	59	33	42	20	11686

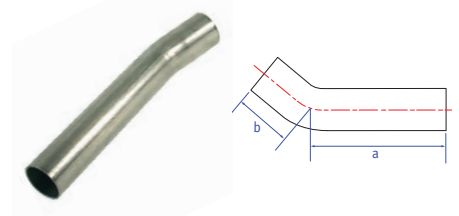
Connection: Press-fit x BSP parallel female thread.



SS19S 30° bend

Size	<i>a</i>	<i>b</i>	Item code
35mm	214	80	11795
42mm	272	99	11796
54mm	326	134	11797

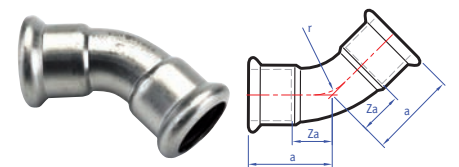
Connection: Press-fit x BSP parallel female thread.



SS21 Obtuse elbow

Size	<i>a</i>	<i>Za</i>	Item code
15mm	32	12	11604
18mm	37	17	11605
22mm	36	15	11606
28mm	41	18	11607
35mm	48	22	11608
42mm	56	26	11609
54mm	85	50	11610
76mm	100	43	20400
89mm	112	49	20401
108mm	138	60	20402

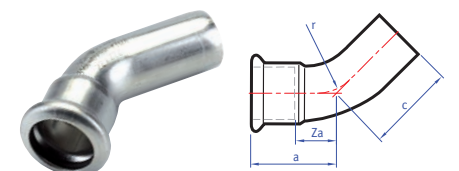
Connection: Press-fit x press-fit.



SS21S Obtuse street elbow

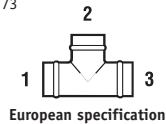
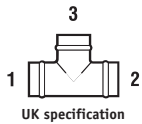
Size	<i>a</i>	<i>Za</i>	<i>c</i>	Item code
15mm	32	16	40	11611
18mm	37	17	48	11612
22mm	36	15	43	11613
28mm	41	27	52	11614
35mm	48	28	53	11615
42mm	56	43	66	11616
54mm	67	32	73	11617
76mm	100	121	115	20403
89mm	107	42	130	20404
108mm	142	64	156	20405

Connection: Press-fit x male end for insertion into a fitting.

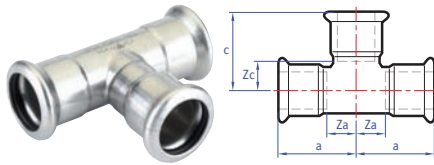


Tee specification

See page 73



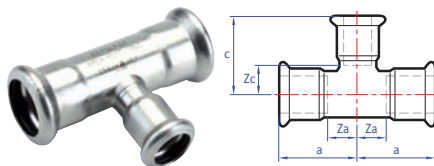
LBP 316 stainless steel press-fit jointing system



SS24 Equal tee

Size	a	Za	c	Zc	Item code
15mm	37	17	34	14	11735
18mm	39	19	35	19	11737
22mm	42	21	40	19	11740
28mm	46	23	47	24	11744
35mm	51	25	54	28	11749
42mm	59	29	60	30	11753
54mm	71	36	71	36	11758
76mm	127	72	119	64	20431
89mm	128	64	132	70	20432
108mm	155	77	163	85	20433

Connection: Press-fit on all ends.



SS25 Tee, reduced branch

Size UK	European	a	Za	c	Zc	Item code
18 x 18 x 15mm	18 x 15 x 18mm	39	19	35	15	11736
22 x 22 x 15mm	22 x 15 x 22mm	41	20	36	16	11738
22 x 22 x 18mm	22 x 18 x 22mm	42	21	38	18	11739
28 x 28 x 15mm	28 x 15 x 28mm	46	23	42	22	11741
28 x 28 x 18mm	28 x 18 x 28mm	46	23	42	22	11742
28 x 28 x 22mm	28 x 22 x 28mm	46	23	45	24	11743
35 x 35 x 15mm	35 x 15 x 35mm	50	24	45	25	11745
35 x 35 x 18mm	35 x 18 x 35mm	51	24	44	24	11746
35 x 35 x 22mm	35 x 22 x 35mm	50	24	47	26	11747
35 x 35 x 28mm	35 x 28 x 35mm	51	25	49	26	11748
42 x 42 x 22mm	42 x 22 x 42mm	59	29	50	29	11750
42 x 42 x 28mm	42 x 28 x 42mm	59	29	53	30	11751
42 x 42 x 35mm	42 x 35 x 42mm	59	29	57	31	11752
54 x 54 x 22mm	54 x 22 x 54mm	71	36	56	35	11754
54 x 54 x 28mm	54 x 28 x 54mm	71	36	59	36	11755
54 x 54 x 35mm	54 x 35 x 54mm	71	36	64	38	11756
54 x 54 x 42mm	54 x 42 x 54mm	71	36	68	38	11757
76 x 76 x 22mm	76 x 22 x 76mm	126	75	71	50	20434
76 x 76 x 28mm	76 x 28 x 76mm	126	75	74	51	20435
76 x 76 x 35mm	76 x 35 x 76mm	126	75	78	52	20436
76 x 76 x 42mm	76 x 42 x 76mm	126	75	84	54	20437
76 x 76 x 54mm	76 x 54 x 76mm	126	75	91	56	20438
89 x 89 x 22mm	89 x 22 x 89mm	128	64	78	57	20439
89 x 89 x 28mm	89 x 28 x 89mm	128	64	81	58	20440
89 x 89 x 35mm	89 x 35 x 89mm	128	64	85	59	20441
89 x 89 x 42mm	89 x 42 x 89mm	128	64	91	61	20442
89 x 89 x 54mm	89 x 54 x 89mm	128	64	97	62	20443
89 x 89 x 76mm	89 x 76 x 89mm	128	64	129	72	20444
108 x 108 x 22mm	108 x 22 x 108mm	155	77	87	66	20445

Connection: Press-fit on all ends.

Tee specification

See page 73

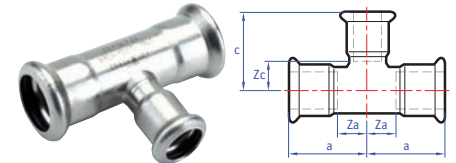


2

SS25 Tee, reduced branch cont.

Size UK	European	a	Za	c	Zc	Item code
108 x 108 x 28mm	108 x 28 x 108mm	155	77	90	67	20446
108 x 108 x 35mm	108 x 35 x 108mm	155	77	94	68	20447
108 x 108 x 42mm	108 x 42 x 108mm	155	77	100	70	20448
108 x 108 x 54mm	108 x 54 x 108mm	155	77	106	71	20449
108 x 108 x 76mm	108 x 76 x 108mm	155	77	140	85	20450
108 x 108 x 89mm	108 x 89 x 108mm	155	77	138	74	20451

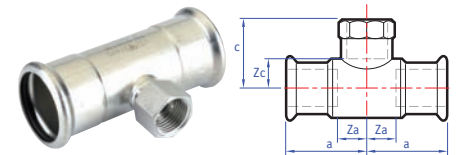
Connection: Press-fit on all ends.



SS30 Female branch tee

Size UK	European	a	Za	c	Zc	Item code
15 x 15 x 1/2"	15 x 1/2" x 15	37	17	37	22	11759
18 x 18 x 1/2"	18 x 1/2" x 18	39	19	38	23	11760
18 x 18 x 3/4"	18 x 3/4" x 18	39	19	43	26	11761
22 x 22 x 1/2"	22 x 1/2" x 22	41	20	41	26	11762
22 x 22 x 3/4"	22 x 3/4" x 22	42	21	41	25	11763
28 x 28 x 1/2"	28 x 1/2" x 28	46	23	38	23	11765
28 x 28 x 3/4"	28 x 3/4" x 28	46	23	45	29	11766
35 x 35 x 1/2"	35 x 1/2" x 35	50	24	47	32	11767
35 x 35 x 3/4"	35 x 3/4" x 35	50	24	48	32	11768
42 x 42 x 1/2"	42 x 1/2" x 42	59	29	46	31	11769
42 x 42 x 3/4"	42 x 3/4" x 42	59	29	51	35	11770
54 x 54 x 1/2"	54 x 1/2" x 54	69	34	54	39	11771
54 x 54 x 3/4"	54 x 3/4" x 54	71	36	52	42	11773
54 x 54 x 2"	54 x 2" x 54	72	37	64	45	11772
76 x 76 x 3/4"	76 x 3/4" x 76	127	74	69	53	20452
76 x 76 x 2"	76 x 2" x 76	127	74	89	63	20453
89 x 89 x 3/4"	89 x 3/4" x 89	128	64	76	60	20454
89 x 89 x 2"	89 x 2" x 89	128	64	97	71	20455
108 x 108 x 3/4"	108 x 3/4" x 108	155	77	85	69	20456
108 x 108 x 2"	108 x 2" x 108	155	77	106	80	20457

Connection: Press-fit x BSP parallel female branch.



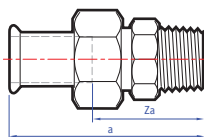
LBP 316 stainless steel press-fit jointing system



SS61 Stop end

Size	a	Item code
15mm	37	11701
18mm	23	11702
22mm	41	11703
28mm	26	11704
35mm	30	11705
42mm	37	11706
54mm	41	11707
76mm	98	20418
89mm	100	20419
108mm	126	20420

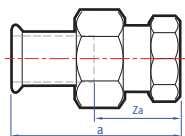
Connection: Press-fit, for use on stainless steel tube.



SS69 Straight male union connector

Size	a	Za	Item code
15mm x 1/2"	62	42	11774
18mm x 1/2"	62	42	11776
22mm x 3/4"	69	48	11779
28mm x 1"	73	50	11781
35mm x 1 1/4"	78	52	11782
42mm x 1 1/2"	85	55	11783
54mm x 2"	100	65	11784

Connection: Press-fit x BSP taper male thread.



SS69F Straight female union connector

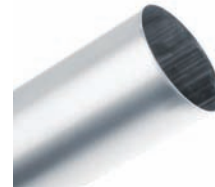
Size	a	Za	Item code
15mm x 1/2"	57	22	11785
18mm x 1/2"	78	42	11787
22mm x 3/4"	63	26	11789
28mm x 1"	65	23	11791
35mm x 1 1/4"	73	25	11792
42mm x 1 1/2"	82	30	11793
54mm x 2"	91	30	11794

Connection: Press-fit x BSP parallel female thread.

LBP carbon steel press-fit jointing system

SC640 Galvanised carbon steel system tube

Size	Finish	Item code
15mm x 1.2mm x 3m	Galvanised carbon steel	45080
18mm x 1.2mm x 3m	Galvanised carbon steel	45081
22mm x 1.5mm x 3m	Galvanised carbon steel	45082
28mm x 1.5mm x 3m	Galvanised carbon steel	45083
35mm x 1.5mm x 3m	Galvanised carbon steel	45084
42mm x 1.5mm x 3m	Galvanised carbon steel	45085
54mm x 1.5mm x 3m	Galvanised carbon steel	45086
67mm x 1.5mm x 3m	Galvanised carbon steel	45090
76mm x 2.0mm x 3m	Galvanised carbon steel	45087
89mm x 2.0mm x 3m	Galvanised carbon steel	45088
108mm x 2mm x 3m	Galvanised carbon steel	45089
15mm x 1.2mm x 6m	Galvanised carbon steel	25080
18mm x 1.2mm x 6m	Galvanised carbon steel	25081
22mm x 1.5mm x 6m	Galvanised carbon steel	25082
28mm x 1.5mm x 6m	Galvanised carbon steel	25083
35mm x 1.5mm x 6m	Galvanised carbon steel	25084
42mm x 1.5mm x 6m	Galvanised carbon steel	25085
54mm x 1.5mm x 6m	Galvanised carbon steel	25086
67mm x 1.5mm x 6m	Galvanised carbon steel	25090
76mm x 2.0mm x 6m	Galvanised carbon steel	25087
89mm x 2.0mm x 6m	Galvanised carbon steel	25088
108mm x 2.0mm x 6m	Galvanised carbon steel	25089



Suitable for: XPress Carbon press fittings

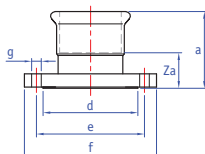
SC660 Plastic coated galvanised carbon steel system tube

Size	Finish	Item code
15mm x 2.2mm x 6m	Plastic coated carbon steel	25060
18mm x 2.2mm x 6m	Plastic coated carbon steel	25061
22mm x 2.5mm x 6m	Plastic coated carbon steel	25062
28mm x 2.5mm x 6m	Plastic coated carbon steel	25063
35mm x 2.5mm x 6m	Plastic coated carbon steel	25064
42mm x 2.5mm x 6m	Plastic coated carbon steel	25065
54mm x 2.5mm x 6m	Plastic coated carbon steel	25066



Suitable for: XPress Carbon press fittings

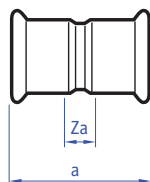
LBP carbon steel press-fit jointing system



SC1FMF Composite flange

Size	a	Za	d	e	f	g	Holes	Item code
67 x DN65 (2 1/2") PN16	79	29	55	145	185	18	4	20685
76 x DN65 (2 1/2") PN16	126	74	-	145	185	18	4	20659
89 x DN80 (3") PN16	143	83	70	160	200	18	8	20660
108 x DN65 (4") PN16	168	79	-	180	220	18	8	20661

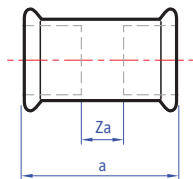
Connection: Press-fit x metric flange. Female press-fit socket with carbon steel flange. Outer flange to BS 4504, type 133, PN16 rated.



SC1 Straight coupling

Size	a	Za	Item code
15mm	53	13	20136
18mm	53	13	20137
22mm	55	13	20138
28mm	59	13	20139
35mm	65	13	20140
42mm	76	16	20141
54mm	86	16	20142
67mm	120	16	20662
76mm	141	31	20620
89mm	160	35	20621
108mm	193	46	20622

Connection: Press-fit x press-fit.



SC1S Slip – Straight coupling slip pattern

Size	a	Za	Item code
15mm	80	25	20144
18mm	80	25	20145
22mm	84	25	20146
28mm	91	30	20147
35mm	102	30	20148
42mm	120	40	20149
54mm	140	40	20150
67mm	120	20	20663
76mm	230	60	20623
89mm	255	70	20624
108mm	310	80	20625

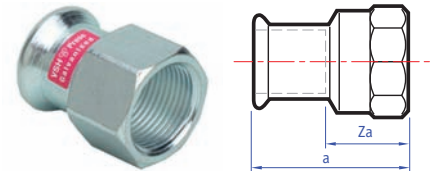
Connection: Press-fit x press-fit (without tube stop).

- Leak Before Press (LBP) technology identifies joints that have not been pressed correctly in sizes 15mm-54mm
- Designed for vented and unvented closed circuit heating and chilled water applications
- Heat-free jointing provides time and cost saving benefits to contractors/installers.

SC2 Straight female connector

Size	a	Za	Item code
15mm x 1/2"	41	6	20237
18mm x 1/2"	40	5	20238
18mm x 3/4"	43	6	20239
22mm x 3/4"	43	6	20240
28mm x 1"	49	3	20241

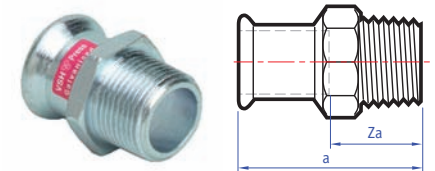
Connection: Press-fit x BSP parallel female thread.



SC3 Straight male connector

Size	a	Z	Item code
15mm x 3/8"	35	15	20227
15mm x 1/2"	39	19	20228
18mm x 1/2"	39	19	20229
18mm x 3/4"	40	20	20230
22mm x 3/4"	44	23	20231
28mm x 1"	48	25	20232
35mm x 1 1/4"	55	29	20233
42mm x 1 1/2"	59	29	20234
54mm x 2"	69	34	20235
67mm x 2 1/2"	83	33	20664

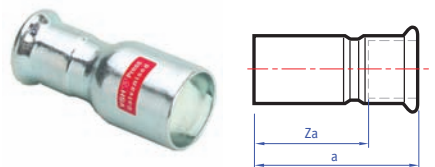
Connection: Press-fit x BSP taper male thread.



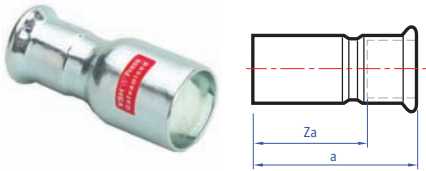
SC6 Reducer

Size	a	Za	Item code
18 x 15mm	55	35	20213
22 x 15mm	58	38	20215
22 x 18mm	59	39	20216
28 x 15mm	65	45	20217
28 x 18mm	63	43	20218
28 x 22mm	63	42	20219
35 x 22mm	69	48	20220
35 x 28mm	70	47	20221
42 x 35mm	78	52	20222
54 x 22mm	98	77	20223
54 x 28mm	90	67	20224
54 x 35mm	90	64	20226
54 x 42mm	96	66	20225
67 x 28mm	142	119	20665
67 x 35mm	142	116	20666
67 x 42mm	142	112	20667
67 x 54mm	138	103	20668
76 x 54mm	143	106	20639

Connection: Large male end for insertion into a fitting x press-fit.



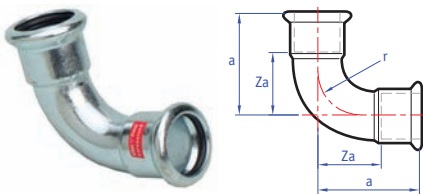
LBP carbon steel press-fit jointing system



SC6 Reducer cont.

Size	a	Za	Item code
76 x 67mm	158	108	20669
89 x 54mm	161	125	20640
89 x 67mm	170	118	20670
89 x 76mm	157	102	20641
108 x 67mm	208	158	20671
108 x 76mm	199	144	20642
108 x 89mm	194	133	20643

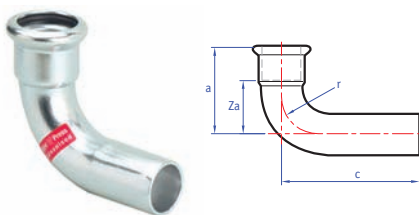
Connection: Large male end for insertion into a fitting x press-fit.



SC12 Elbow

Size	a	Za	r	Item code
15mm	41	21	21	20155
18mm	45	25	25	20156
22mm	51	30	30	20157
28mm	60	37	37	20158
35mm	71	45	45	20159
42mm	86	56	56	20160
54mm	105	70	70	20161
67mm	165	115	80	20672
76mm	151	96	-	20626
89mm	174	114	-	20627
108mm	214	137	-	20628

Connection: Press-fit x press-fit.



SC12S Street elbow

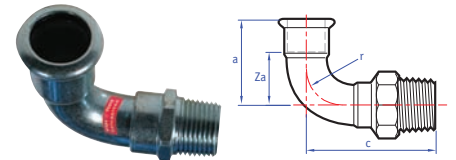
Size	a	Za	c	r	Item code
15mm	41	21	48	21	20163
18mm	45	25	51	25	20164
22mm	51	30	58	30	20165
28mm	60	37	66	37	20166
35mm	71	45	77	45	20167
42mm	86	56	93	56	20168
54mm	105	70	111	70	20169
67mm	165	115	172	80	20673
76mm	151	96	167	-	20629
89mm	173	110	188	-	20630
108mm	214	137	235	-	20631

Connection: Press-fit x male end for insertion into a fitting.

SC13 Male elbow

Size	a	Za	c	Item code
15mm x 3/8"	41	21	45	20198
15mm x 1/2"	41	21	50	20199
18mm x 1/2"	45	25	58	20200
22mm x 3/4"	51	30	62	20201
28mm x 1"	60	37	75	20202
35mm x 1 1/4"	71	45	86	20206
42mm x 1 1/2"	86	56	96	20204
54mm x 2"	105	70	117	20205

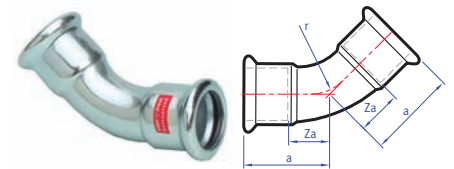
Connection: Press-fit x male BSP taper thread.



SC21 Obtuse elbow

Size	a	Za	Item code
15mm	31	11	20170
18mm	32	12	20171
22mm	35	14	20172
28mm	40	17	20173
35mm	46	20	20174
42mm	56	26	20175
54mm	67	32	20176
67mm	119	69	20674
76mm	99	47	20632
89mm	113	53	20633
108mm	140	63	20634

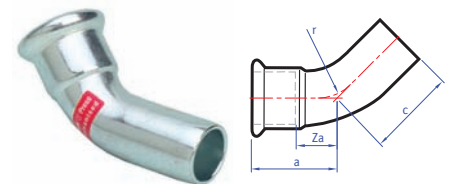
Connection: Press-fit x press-fit.



SC21S Obtuse street elbow

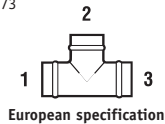
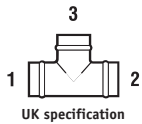
Size	a	Za	c	Item code
15mm	31	11	38	20177
18mm	32	12	38	20178
22mm	35	14	42	20179
28mm	40	17	46	20180
35mm	46	20	51	20181
42mm	56	26	63	20182
54mm	67	32	73	20183
67mm	119	69	126	20675
76mm	99	47	115	20635
89mm	109	46	128	20636
108mm	139	65	160	20637

Connection: Press-fit x male end for insertion into a fitting.

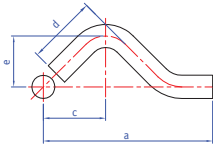


Tee specification

See page 73



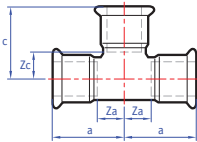
LBP Carbon steel press-fit jointing system



SC22S Partial crossover

Size	a	c	d	e	Item code
15mm	155	54	45	31	20193
18mm	167	60	48	34	20194
22mm	177	65	54	37	20195
28mm	215	75	64	43	20196

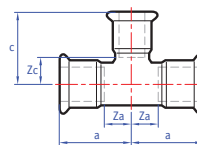
Connection: Both ends male for insertion into a fitting.



SC24 Equal tee

Size	a	Za	c	Zc	Item code
15mm	35	15	44	24	20249
18mm	37	17	46	26	20250
22mm	40	19	49	28	20251
28mm	45	22	54	31	20252
35mm	51	25	60	34	20253
42mm	60	30	67	37	20254
54mm	71	36	78	43	20255
67mm	99	49	101	51	20676
76mm	115	60	111	56	20644
89mm	125	65	134	72	20645
108mm	155	79	153	77	20646

Connection: Press-fit on all ends.



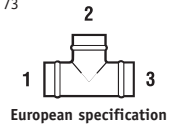
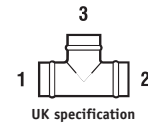
SC25 Tee, reduced branch

Size UK	European	a	Za	c	Zc	Item code
18 x 18 x 15mm	18 x 15 x 18mm	37	17	46	26	20258
22 x 22 x 15mm	22 x 15 x 22mm	40	19	48	28	20260
22 x 22 x 18mm	22 x 18 x 22mm	40	19	48	28	20261
28 x 28 x 15mm	28 x 15 x 28mm	45	22	51	31	20262
28 x 28 x 18mm	28 x 18 x 28mm	45	22	51	31	20263
28 x 28 x 22mm	28 x 22 x 28mm	45	22	52	31	20264
35 x 35 x 15mm	35 x 15 x 35mm	51	25	54	34	20265
35 x 35 x 18mm	35 x 18 x 35mm	51	25	54	34	20266
35 x 35 x 22mm	35 x 22 x 35mm	51	25	55	34	20267
35 x 35 x 28mm	35 x 28 x 35mm	51	25	57	34	20268
42 x 42 x 22mm	42 x 22 x 42mm	60	30	58	37	20269
42 x 42 x 28mm	42 x 28 x 42mm	60	30	60	37	20270
42 x 42 x 35mm	42 x 35 x 42mm	60	30	63	37	20271
54 x 54 x 22mm	54 x 22 x 54mm	71	36	64	43	20272
54 x 54 x 28mm	54 x 28 x 54mm	71	36	66	43	20273

Connection: Press-fit on all ends.

Tee specification

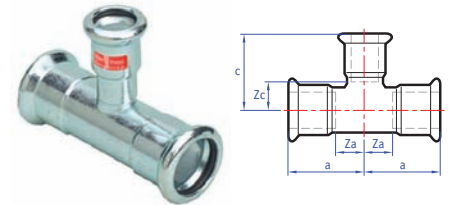
See page 73



2

SC25 Tee, reduced branch cont.

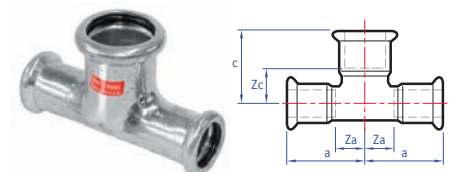
Size UK	European	a	Za	c	Zc	Item code
54 x 54 x 35mm	54 x 35 x 54mm	71	36	69	43	20274
54 x 54 x 42mm	54 x 42 x 54mm	71	36	73	43	20275
67 x 67 x 28mm	67 x 28 x 67mm	99	49	70	46	20677
67 x 67 x 35mm	67 x 35 x 67mm	99	49	74	47	20678
67 x 67 x 42mm	67 x 42 x 67mm	99	49	80	48	20679
67 x 67 x 54mm	67 x 54 x 67mm	99	49	83	48	20680
76 x 76 x 22mm	76 x 22 x 76mm	126	70	71	48	20686
76 x 76 x 28mm	76 x 28 x 76mm	126	70	74	45	20687
76 x 76 x 35mm	76 x 35 x 76mm	126	70	80	53	20688
76 x 76 x 42mm	76 x 42 x 76mm	126	70	84	52	20689
76 x 76 x 54mm	76 x 54 x 76mm	115	60	84	46	20647
76 x 76 x 67mm	76 x 67 x 76mm	126	70	105	55	20681
89 x 89 x 22mm	89 x 22 x 89mm	126	63	79	50	20690
89 x 89 x 28mm	89 x 28 x 89mm	125	60	82	51	20691
89 x 89 x 35mm	89 x 35 x 89mm	126	63	86	58	20692
89 x 89 x 42mm	89 x 42 x 89mm	125	60	91	59	20693
89 x 89 x 54mm	89 x 54 x 89mm	126	63	99	61	20694
89 x 89 x 67mm	89 x 67 x 89mm	128	63	112	62	20682
89 x 89 x 76mm	89 x 76 x 89mm	129	68	117	62	20648
108 x 108 x 22mm	108 x 22 x 108mm	155	77	87	64	20695
108 x 108 x 28mm	108 x 28 x 108mm	155	77	90	66	20696
108 x 108 x 35mm	108 x 35 x 108mm	155	77	94	67	20697
108 x 108 x 42mm	108 x 42 x 108mm	155	77	100	68	20698
108 x 108 x 54mm	108 x 54 x 108mm	155	77	106	68	20699
108 x 108 x 76mm	108 x 76 x 108mm	155	77	133	78	20700
108 x 108 x 89mm	108 x 89 x 108mm	155	80	140	79	20649



Connection: Press-fit on all ends.

SC28 Tee, both ends reduced

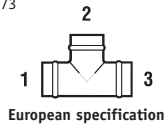
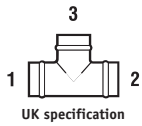
Size UK	European	a	Za	c	Zc	Item code
15 x 15 x 18mm	15 x 18 x 15mm	35	15	44	24	20709
15 x 15 x 22mm	15 x 22 x 15mm	33	15	39	18	20710
22 x 22 x 28mm	22 x 28 x 22mm	40	18	46	21	20712



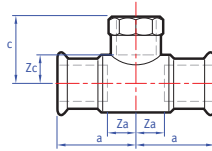
Connection: Press-fit on all ends.

Tee specification

See page 73



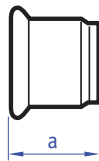
LBP Carbon steel press-fit jointing system



SC30 Female branch tee

Size		<i>a</i>	<i>Za</i>	<i>c</i>	<i>Zc</i>	Item code
UK	European					
15 x 15mm x 1/2"	15 x 1/2" x 15mm	35	15	36	16	20281
18 x 18mm x 1/2"	18 x 1/2" x 18mm	37	17	37	17	20282
22 x 22mm x 1/2"	22 x 1/2" x 22mm	40	19	39	20	20283
28 x 28mm x 1/2"	28 x 1/2" x 28mm	45	22	42	23	20284
35 x 35mm x 1/2"	35 x 1/2" x 35mm	51	25	45	27	20285
42 x 42mm x 1/2"	42 x 1/2" x 42mm	60	30	48	30	20286
54 x 54mm x 1/2"	54 x 1/2" x 54mm	71	36	54	35	20287
67 x 67mm x 3/4"	67 x 3/4" x 67mm	99	49	65	47	20683
76 x 76mm x 3/4"	76 x 3/4" x 76mm	115	60	71	39	20650
89 x 89mm x 3/4"	89 x 3/4" x 89mm	129	67	75	55	20651
108 x 108mm x 3/4"	108 x 3/4" x 108mm	155	79	86	68	20652

Connection: Press-fit x BSP parallel female branch.



SC61 Stop end

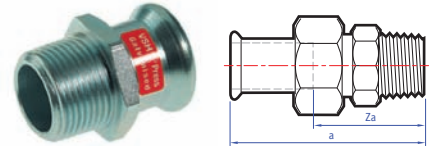
Size	<i>a</i>	<i>Za</i>	Item code
15mm	26	6	20295
18mm	26	6	20296
22mm	29	8	20297
28mm	32	9	20298
35mm	34	8	20299
42mm	43	13	20300
54mm	52	17	20301
67mm	84	34	20684
76mm	71	16	20656
89mm	80	19	20657
108mm	98	21	20658

Connection: Press-fit, for use on carbon steel tube.

SC69 Straight male union connector

Size	<i>a</i>	<i>Za</i>	Item code
15mm x 1/2"	64	44	20302
15mm x 3/4"	86	65	20303
18mm x 1/2"	64	44	20304
22mm x 3/4"	70	49	20307
28mm x 1"	75	52	20309
35mm x 1 1/4"	82	56	20310
42mm x 1 1/2"	88	58	20311
54mm x 2"	100	65	20312

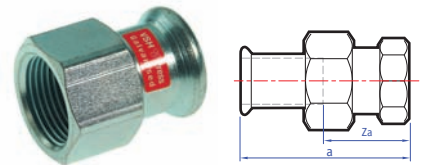
Connection: Press-fit x BSP taper male thread.



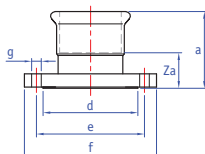
SC69F Straight female union connector

Size	<i>a</i>	<i>Za</i>	Item code
15mm x 1/2"	59	20	20313
15mm x 3/4"	80	44	20314
18mm x 1/2"	59	20	20315
22mm x 3/4"	63	22	20317
28mm x 1"	65	19	20319
35mm x 1 1/4"	76	25	20320
42mm x 1 1/2"	83	28	20321
54mm x 2"	93	27	20322

Connection: Press-fit x BSP parallel female thread.



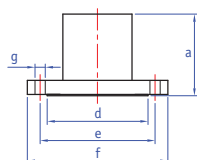
Copper press-fit fittings for gas services



SG1FMF/7510 Composite flange

Size	a	Za	d	e	f	g	Holes	Item code
67 x DN65 (2½") PN16	103	53	100	145	185	18	4	39281
76 x DN80 (3") PN16	103	53	115	160	200	18	8	39282
108 x DN100 (4") PN16	126	59	158	180	220	18	8	39284

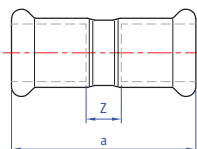
Connection: Press-fit x metric flange. Female press-fit socket with carbon steel flange. Outer flange to BS 4504, type 133, PN16 rated.



SG1FMM/7520 Composite flange

Size	a	d	e	f	g	Holes	Item code
67 x DN65 (2½") PN16	112	100	145	185	18	4	39395
76 x DN80 (3") PN16	113	115	160	200	18	8	39396
108 x DN100 (4") PN16	141	158	180	220	18	8	39398

Connection: Press-fit x metric flange. Female press-fit socket with carbon steel flange. Outer flange to BS 4504, type 133, PN16 rated.



SG1/G7270 Straight coupling

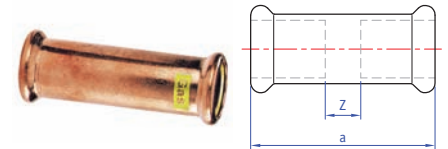
Size	a	Z	Item code
15mm	43	3	39700
18mm	44	4	39699
22mm	46	4	39701
28mm	50	4	39702
35mm	62	6	39703
42mm	71	7	39704
54mm	83	9	39705
67mm	110	10	39302
76mm	110	10	39303
108mm	205	71	39305

Connection: Press-fit x press-fit.

- Designed for internal and external above ground 2nd and 3rd family gas services - sizes 15mm-108mm
- Designed specifically for use with copper tube to BS EN 1057
- Heat-free jointing provides time and cost saving benefits to contractors/installers.

SG1S/G7270SG Slip – Straight coupling slip pattern

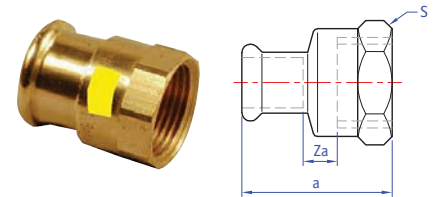
Size	a	Z max.	Item code
15mm	80	40	39710
18mm	80	40	39709
22mm	84	42	39711
28mm	91	45	39712
35mm	99	50	39713
42mm	119	60	39714
54mm	141	70	39715
67mm	110	10	39307
76mm	110	10	39308
108mm	131	9	39310



Connection: Press-fit x press-fit (without tube stop).

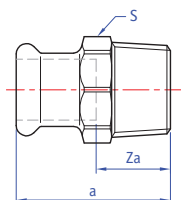
SG2/G6270G Straight female connector

Size	a	S	Za	Item code
15mm x 1/2"	38	25	3	39720
15mm x 3/4"	39	30	3	39721
18mm x 1/2"	37	25	2	39716
18mm x 3/4"	39	30	3	39717
22mm x 1/2"	37	30	1	39722
22mm x 3/4"	39	30	2	39723
28mm x 1"	45	37	2	39724
35mm x 1 1/4"	50	46	2	39725
42mm x 1 1/2"	54	53	2	39726
54mm x 2"	63	65	2	39727



Connection: Press-fit x BSP parallel female thread.

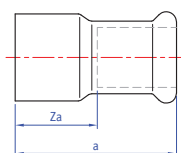
Copper press-fit fittings for gas services



SG3/G6243G Straight male connector

Size	a	S	Za	Item code
15mm x 1/2"	37	21	17	39730
15mm x 3/4"	39	25	19	39731
18mm x 1/2"	37	25	17	39728
18mm x 3/4"	39	25	19	39729
22mm x 1/2"	38	30	17	39732
22mm x 3/4"	40	30	21	39733
22mm x 1"	42	32	21	39734
28mm x 3/4"	43	36	20	39737
28mm x 1"	44	36	21	39735
28mm x 1 1/4"	48	40	25	39736
35mm x 1"	48	41	22	39738
35mm x 1 1/4"	50	41	24	39739
42mm x 1 1/4"	58	51	28	39741
42mm x 1 1/2"	58	51	28	39740
54mm x 2"	63	63	28	39742
67mm x 2 1/2"	93	80	50	39311
76mm x 3"	110	94	59	39313
108mm x 4"	132	117	50	39315

Connection: Press-fit x BSP taper male thread.



SG6/G7243 Reducer

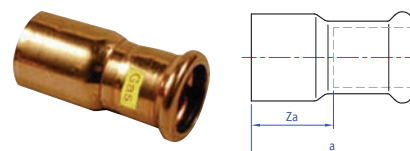
Size	a	Za	Item code
18 x 15mm	47	25	39761
22 x 15mm	54	34	39750
22 x 18mm	48	26	39762
28 x 15mm	62	42	39751
28 x 18mm	59	37	39763
28 x 22mm	55	34	39752
35 x 22mm	68	47	39753
35 x 28mm	66	44	39754
42 x 22mm	76	55	39755
42 x 28mm	73	48	39756
42 x 35mm	75	48	39757
54 x 28mm	89	67	39760
54 x 35mm	90	63	39758
54 x 42mm	90	57	39759
67 x 28mm	109	86	39319
67 x 35mm	109	83	39320
67 x 42mm	110	80	39321
67 x 54mm	112	77	39322
76 x 35mm	113	87	39323
76 x 42mm	113	86	39324

Connection: Larger male end for insertion into a fitting x press-fit.

SG6/G7243 Reducer cont.

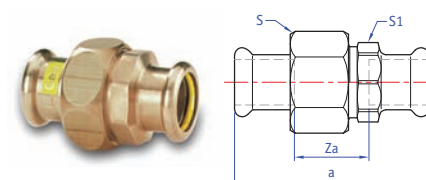
Size	<i>a</i>	<i>Za</i>	Item code
76 x 54mm	116	81	39325
76 x 67mm	126	78	39327
108 x 42mm	153	124	39334
108 x 54mm	156	120	39335
108 x 67mm	166	116	39337
108 x 76mm	162	112	39338

Connection: Larger male end for insertion into a fitting x press-fit.

**SG11/G6330 Union coupling**

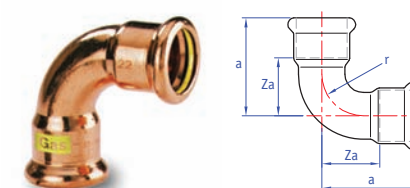
Size	<i>a</i>	<i>Za</i>	<i>S</i>	<i>S1</i>	Item code
15mm	61	21	34	28	39770
18mm	67	27	41	36	39906
22mm	66	24	41	36	39771
28mm	75	29	48	41	39772
35mm	82	30	58	50	39773
42mm	97	37	65	55	39774
54mm	103	33	80	70	39775

Connection: Press-fit x press-fit.

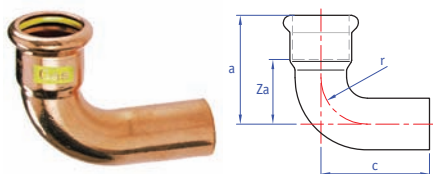
**SG12/G7002A Elbow**

Size	<i>a</i>	<i>Za</i>	<i>r</i>	Item code
15mm	38	18	18	39780
18mm	42	22	22	39779
22mm	47	26	26	39781
28mm	57	34	34	39782
35mm	68	42	42	39783
42mm	80	50	50	39784
54mm	100	65	65	39785
67mm	132	87	80	39341
76mm	142	92	90	39342
108mm	201	135	161	39344

Connection: Press-fit x press-fit.



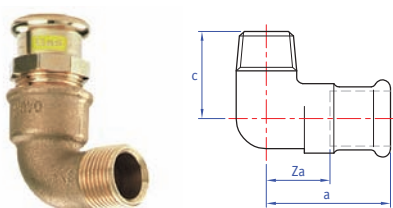
Copper press-fit fittings for gas services



SG12S/G7001A Street elbow

Size	a	c	Za	r	Item code
15mm	36	50	16	18	39790
18mm	42	53	22	22	39789
22mm	47	58	27	26	39791
28mm	58	64	34	34	39792
35mm	69	82	44	42	39793
42mm	81	101	52	50	39794
54mm	100	120	66	65	39795
67mm	130	175	78	80	39346
76mm	147	190	98	90	39347
108mm	206	259	141	161	39349

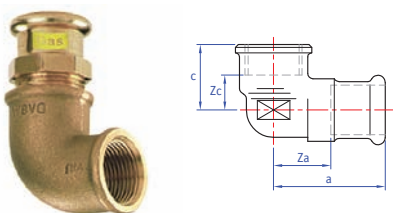
Connection: Press-fit x male end for insertion into a fitting.



SG13/G6092G Male elbow

Size	a	c	Za	Item code
15mm x 1/2"	37	67	18	39800
18mm x 1/2"	64	34	35	39806
18mm x 3/4"	60	37	40	39807
22mm x 3/4"	48	79	27	39801
28mm x 1"	57	88	34	39802
35mm x 1 1/4"	80	59	54	39803
42mm x 1 1/2"	104	57	74	39804
54mm x 2"	118	80	83	39805

Connection: Press-fit x BSP taper male thread.



SG14/G6090G Female elbow

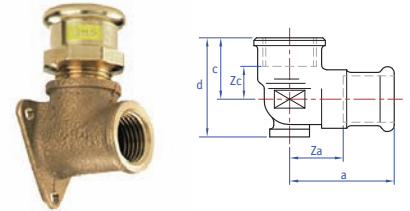
Size	a	c	Za	Zc	Item code
15mm x 1/2"	55	26	35	12	39810
15mm x 3/4"	63	29	43	22	39811
18mm x 1/2"	55	25	34	14	39808
18mm x 3/4"	61	29	41	22	39809
22mm x 1/2"	56	25	35	13	39813
22mm x 3/4"	62	29	25	14	39814
22mm x 1"	66	38	45	21	39812
28mm x 1"	73	37	50	20	39815
35mm x 1 1/4"	83	43	57	23	39816
42mm x 1 1/2"	88	46	59	27	39817
54mm x 2"	104	55	69	33	39818

Connection: Press-fit x parallel female thread.

SG15/G6471G Backplate elbow

Size	a	d	c	Za	Zc	Item code
15mm x 1/2"	51	38	22	31	10	39820
18mm x 1/2"	51	38	22	31	10	39819
22mm x 3/4"	61	48	31	40	17	39821

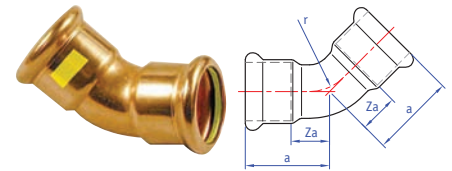
Connection: Press-fit x BSP parallel female thread.



SG21/G7041 Obtuse elbow

Size	a	Za	r	Item code
15mm	28	8	18	39825
18mm	29	9	22	39823
22mm	33	14	26	39826
28mm	41	19	34	39827
35mm	47	22	42	39828
42mm	57	28	50	39829
54mm	68	32	65	39830
67mm	85	35	-	39351
76mm	91	45	-	39352
108mm	125	59	-	39354

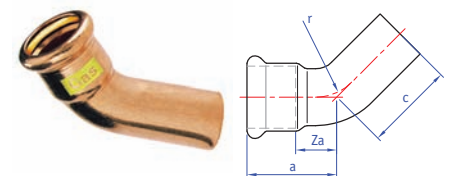
Connection: Press-fit x press-fit.



SG21S/G7040 Obtuse street elbow

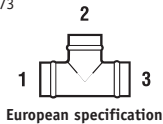
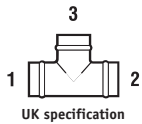
Size	a	c	Za	r	Item code
15mm	28	37	8	18	39835
18mm	29	39	9	22	39833
22mm	32	44	11	26	39836
28mm	37	47	14	34	39837
35mm	43	58	17	42	39838
42mm	51	71	21	50	39839
54mm	62	82	27	65	39840
67mm	85	88	35	-	39356
76mm	95	146	35	-	39357
108mm	127	184	60	-	39359

Connection: Press-fit x male end for insertion into a fitting.

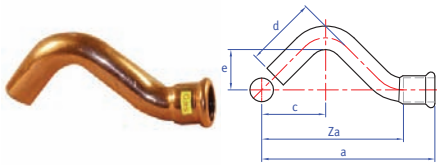


Tee specification

See page 73



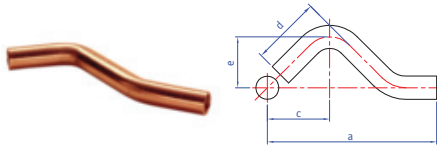
Copper press-fit fittings for gas services



SG22/G7086 Street crossover

Size	a	c	d	e	Za	Order code
15mm	110	41	46	26	90	39841
18mm	120	45	49	27	100	39842
22mm	135	50	55	28	114	39843

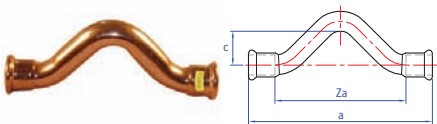
Connection: Press-fit x male end for insertion into a fitting.



SG22S/7087 Full crossover

Size	a	c	d	e	Order code
15mm	157	56	46	30	38438
18mm	166	60	49	31	38434
22mm	178	65	55	33	38439

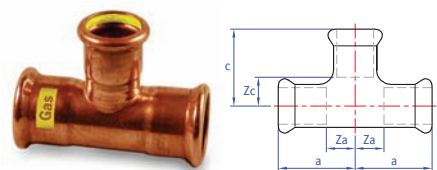
Connection: Both ends male for insertion into fitting.



SG23/G7085 Crossover

Size	a	Za	c	Order code
15mm	140	100	26	39844
18mm	151	111	27	39845
22mm	169	127	28	39846

Connection: Press-fit x press-fit.



SG24/G7130 Equal tee

Size	a	c	Za	Zc	Item code
15mm	32	32	12	12	39850
18mm	34	34	14	14	39847
22mm	37	37	16	16	39851
28mm	42	42	19	19	39852
35mm	50	50	24	24	39853
42mm	57	57	27	27	39854
54mm	69	78	34	43	39855
67mm	95	107	45	58	39361
76mm	101	114	50	64	39362
108mm	159	159	92	92	39364

Connection: Press-fit on all ends.

Tee specification

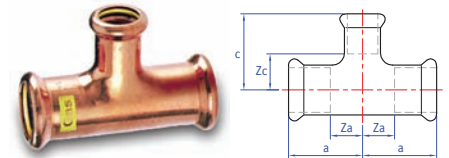
See page 73



2

SG25 Tee, reduced branch

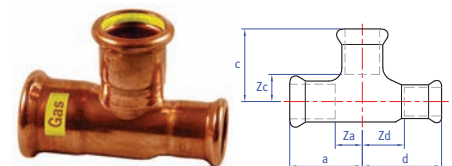
Size UK	European	a	c	Za	Zc	Item code
18 x 18 x 15mm	18 x 15 x 18mm	34	35	14	15	39856
22 x 22 x 15mm	22 x 15 x 22mm	37	38	16	18	39860
22 x 22 x 18mm	22 x 18 x 22mm	37	38	16	18	39868
28 x 28 x 15mm	28 x 15 x 28mm	42	41	19	21	39861
28 x 28 x 18mm	28 x 18 x 28mm	42	41	19	21	39857
28 x 28 x 22mm	28 x 22 x 28mm	42	41	19	20	39862
35 x 35 x 22mm	35 x 22 x 35mm	45	44	19	23	39863
35 x 35 x 28mm	35 x 28 x 35mm	50	44	24	21	39864
42 x 42 x 22mm	42 x 22 x 42mm	50	48	20	27	39869
42 x 42 x 28mm	42 x 28 x 42mm	56	49	26	26	39865
42 x 42 x 35mm	42 x 35 x 42mm	56	50	27	35	39866
54 x 54 x 22mm	54 x 22 x 54mm	60	54	25	33	39871
54 x 54 x 42mm	54 x 42 x 54mm	69	64	34	34	39867
67 x 67 x 28mm	67 x 28 x 67mm	76	67	26	43	39368
67 x 67 x 35mm	67 x 35 x 67mm	80	70	29	43	39369
67 x 67 x 42mm	67 x 42 x 67mm	82	76	32	41	39370
67 x 67 x 54mm	67 x 54 x 67mm	88	78	47	43	39371
76 x 76 x 22mm	76 x 22 x 76mm	73	73	22	50	39372
76 x 76 x 28mm	76 x 28 x 76mm	77	73	26	50	39373
76 x 76 x 35mm	76 x 35 x 76mm	80	78	30	53	39374
76 x 76 x 42mm	76 x 42 x 76mm	103	106	55	70	39375
76 x 76 x 54mm	76 x 54 x 76mm	108	104	60	72	39376
108 x 108 x 54mm	108 x 54 x 108mm	136	119	77	86	39382
108 x 108 x 67mm	108 x 67 x 108mm	117	136	46	91	39383
108 x 108 x 76mm	108 x 76 x 108mm	140	141	73	93	39384



Connection: Press-fit on all ends.

SG26/G7130 Tee, one end reduced

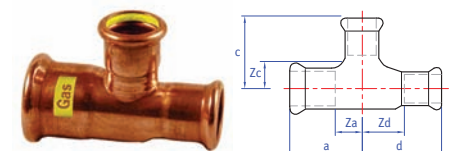
Size UK	European	a	c	d	Za	Zc	Zd	Item code
22 x 15 x 22mm	22 x 22 x 15mm	37	37	46	16	16	26	39870



Connection: Press-fit on all ends.

SG27/G7130 Tee, one end and branch reduced

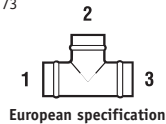
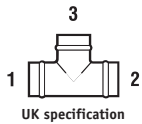
Size UK	European	a	c	d	Za	Zc	Zd	Item code
22 x 15 x 15mm	22 x 15 x 15mm	37	38	43	16	18	23	39875



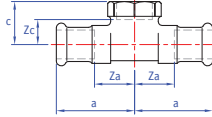
Connection: Press-fit on all ends.

Tee specification

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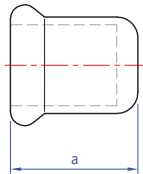
Copper press-fit fittings for gas services



SG30/G6130G Female branch tee

Size UK	European	a	c	Za	Zc	Order code
15 x 15mm x 1/2"	15 x 1/2" x 15mm	32	59	12	44	39890
18 x 18mm x 1/2"	18 x 1/2" x 18mm	34	62	14	47	39891
22 x 22mm x 1/2"	22 x 1/2" x 22mm	37	65	16	50	39892
22 x 22mm x 3/4"	22 x 3/4" x 22mm	37	67	16	51	39893
28 x 28mm x 1/2"	28 x 1/2" x 28mm	42	68	19	53	39894
28 x 28mm x 3/4"	28 x 3/4" x 28mm	42	69	19	52	39895
35 x 35mm x 1/2"	35 x 1/2" x 35mm	45	72	16	63	39896
35 x 35mm x 1"	35 x 1" x 35mm	50	34	24	19	39897
42 x 42mm x 1/2"	42 x 1/2" x 42mm	50	72	19	61	39898
54 x 54mm x 1/2"	54 x 1/2" x 54mm	60	79	26	70	39899
76 x 76mm x 1/2"	76 x 1/2" x 76mm	65	48	15	30	39386
108 x 108mm x 1/2"	108 x 1/2" x 108mm	82	65	15	53	39388

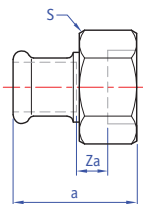
Connection: Press-fit x BSP parallel female branch.



SG61/G7301 Stop end

Size	a	Item code
15mm	20	39880
18mm	20	39878
22mm	21	39881
28mm	23	39882
35mm	26	39883
42mm	30	39884
54mm	35	39885
67mm	50	39390
76mm	50	39391
108mm	67	39393

Connection: Press-fit, for use on copper tube.



SG68FF/G6360 Union

Size	a	Za	S	Order code
15mm x 7/8"	29	9	34	39910
22mm x 1 1/8"	34	13	41	39911
28mm x 1 3/8"	41	18	48	39912

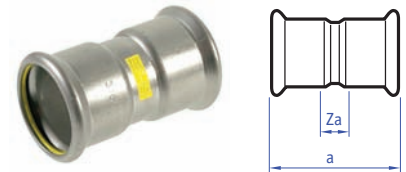
Connection: Press-fit x female union end.

Stainless steel press-fit fittings for gas services

SSG1 Straight coupling

Size	a	Za	Item code
15mm	52	12	11800
22mm	52	10	11802
28mm	57	12	11803
35mm	62	9	11804
42mm	74	15	11805
54mm	83	16	11806

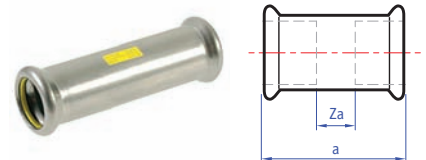
Connection: Press-fit x press-fit.



SSG1S Straight coupling slip pattern

Size	a	Za	Item code
15mm	80	34	11808
22mm	84	25	11810
28mm	89	30	11811
35mm	99	30	11812
42mm	121	47	11813
54mm	138	40	11814

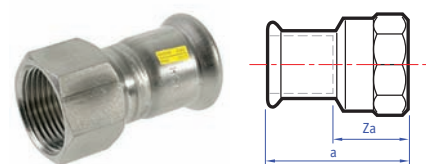
Connection: Press-fit x press-fit (without tube stop).



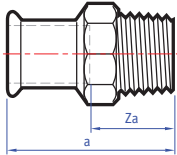
SSG2 Straight female connector

Size	a	Za	Item code
15mm x 1/2"	38	8	11928
22mm x 1/2"	37	5	11930
22mm x 3/4"	40	16	11931
28mm x 1"	45	8	11933
35mm x 1 1/4"	50	24	11934
42mm x 1 1/2"	54	10	11936
54mm x 2"	63	11	11937

Connection: Press-fit x BSP parallel female thread.



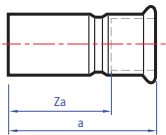
Stainless steel press-fit fittings for gas services



SSG3 Straight male connector

Size	a	Za	Item code
15mm x 1/2"	38	18	11914
22mm x 3/4"	44	22	11917
28mm x 1"	48	25	11919
35mm x 1 1/4"	55	29	11920
42mm x 1 1/2"	60	30	11923
54mm x 2"	69	34	11924

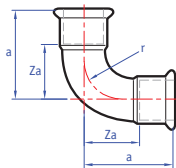
Connection: Press-fit x BSP taper male thread.



SSG6 Reducer

Size	a	Za	Item code
22 x 15mm	60	40	11849
28 x 15mm	66	47	11851
28 x 22mm	62	41	11853
35 x 22mm	69	48	11854
35 x 28mm	68	44	11855
42 x 28mm	78	55	11856
42 x 35mm	80	54	11857
54 x 28mm	96	73	11858
54 x 35mm	96	65	11859
54 x 42mm	96	64	11860

Connection: Larger male end for insertion into a fitting x press-fit.



SSG12 Elbow

Size	a	Za	Item code
15mm	41	21	11816
22mm	61	40	11818
28mm	60	37	11819
35mm	71	45	11820
42mm	86	56	11821
54mm	106	70	11822

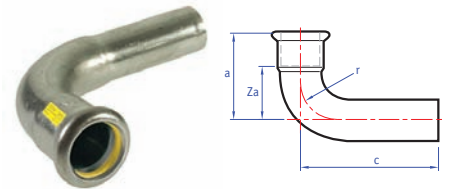
Connection: Press-fit x press-fit.

- Designed for use on above ground 2nd and 3rd family gas services
- Designed to suit applications where high levels of hydrogen sulphide lead to dust problems in copper pipelines
- Designed for use with XPress stainless steel system tube.

SSG12S Street elbow

Size	a	Za	c	Item code
15mm	42	21	54	11824
22mm	52	30	62	11826
28mm	60	37	70	11827
35mm	73	45	81	11828
42mm	87	56	96	11829
54mm	106	71	113	11830

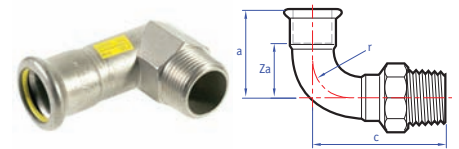
Connection: Press-fit x male end for insertion into a fitting.



SSG13 Male elbow

Size	a	Za	c	Item code
15mm x 1/2"	40	20	28	11940
22mm x 3/4"	45	25	38	11942
28mm x 1"	65	42	44	11943
35mm x 1 1/4"	52	26	51	11944

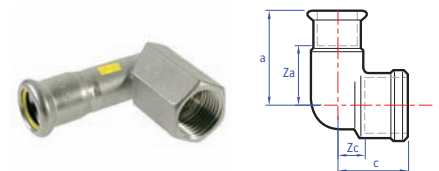
Connection: Press-fit x BSP taper male thread.



SSG14 Female elbow

Size	a	Za	c	Zc	Item code
15mm x 1/2"	39	30	27	9	11950
22mm x 3/4"	45	24	33	27	11952
28mm x 1"	52	28	35	16	11953
35mm x 1 1/4"	59	33	42	20	11954

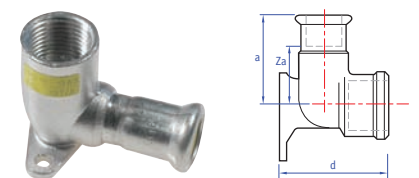
Connection: Press-fit x BSP parallel female thread.



SSG15 Backplate elbow

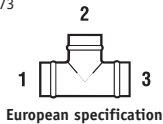
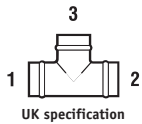
Size	a	d	Za	Item code
15mm x 1/2"	49	43	29	11957
22mm x 3/4"	53	51	32	11959

Connection: Press-fit x BSP parallel female thread.

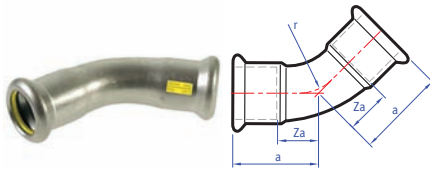


Tee specification

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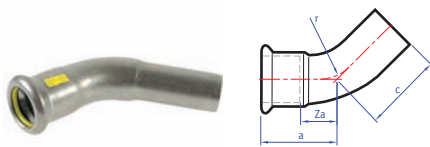
Stainless steel press-fit fittings for gas services



SSG21 Obtuse elbow

Size	a	Za	Item code
15mm	32	12	11832
22mm	36	15	11834
28mm	41	18	11835
35mm	48	22	11836
42mm	56	26	11837
54mm	85	50	11838

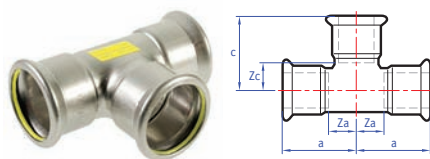
Connection: Press-fit x press-fit.



SSG21S Obtuse street elbow

Size	a	Za	c	Item code
15mm	32	16	40	11840
22mm	36	15	43	11842
28mm	41	27	52	11843
35mm	48	28	53	11844
42mm	56	43	66	11845
54mm	67	32	73	11846

Connection: Press-fit x male end for insertion into a fitting.



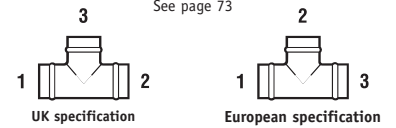
SSG24 Equal tee

Size	a	Za	c	Zc	Item code
15mm	37	17	34	14	11865
22mm	42	21	40	19	11867
28mm	46	23	47	24	11868
35mm	51	25	54	28	11869
42mm	59	29	60	30	11870
54mm	71	36	71	36	11871

Connection: Press-fit on all ends.

Tee specification

See page 73

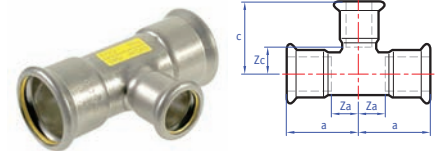


2

SSG25 Reduced branch tee

Size UK	European	a	Za	c	Zc	Item code
22 x 22 x 15mm	22 x 15 x 22mm	41	20	36	16	11873
28 x 28 x 15mm	28 x 15 x 28mm	46	23	42	22	11875
28 x 28 x 22mm	28 x 22 x 28mm	46	23	45	24	11877
35 x 35 x 15mm	35 x 15 x 35mm	50	24	45	25	11878
35 x 35 x 22mm	35 x 22 x 35mm	50	24	47	26	11880
35 x 35 x 28mm	35 x 28 x 35mm	51	25	49	26	11881
42 x 42 x 22mm	42 x 22 x 42mm	59	29	50	29	11882
42 x 42 x 28mm	42 x 28 x 42mm	59	29	53	30	11883
42 x 42 x 35mm	42 x 35 x 42mm	59	29	57	31	11884
54 x 54 x 22mm	54 x 22 x 54mm	71	36	56	35	11885
54 x 54 x 28mm	54 x 28 x 54mm	71	36	59	36	11886
54 x 54 x 35mm	54 x 35 x 54mm	71	36	64	38	11887
54 x 54 x 42mm	54 x 42 x 54mm	71	36	68	38	11888

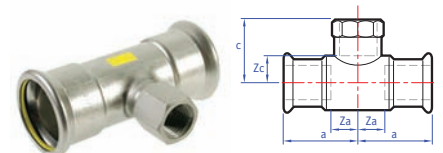
Connection: Press-fit on all ends.



SSG30 Female branch tee

Size UK	European	a	Za	c	Zc	Item code
15 x 15mm x 1/2"	15 x 1/2" x 15mm	37	17	37	22	11900
22 x 22mm x 1/2"	22 x 1/2" x 22mm	41	20	41	26	11903
22 x 22mm x 3/4"	22 x 3/4" x 22mm	42	21	41	25	11904
28 x 28mm x 1/2"	28 x 1/2" x 28mm	46	23	38	23	11905
28 x 28mm x 3/4"	28 x 3/4" x 28mm	46	23	45	29	11906
35 x 35mm x 1/2"	35 x 1/2" x 35mm	50	24	47	32	11907
35 x 35mm x 3/4"	35 x 3/4" x 35mm	50	24	48	32	11908
42 x 42mm x 1/2"	42 x 1/2" x 42mm	59	29	46	31	11909
54 x 54mm x 1/2"	54 x 1/2" x 54mm	69	34	54	39	11910
54 x 54mm x 3/4"	54 x 3/4" x 54mm	71	36	52	42	11911
54 x 54mm x 2"	54 x 2" x 54mm	72	37	64	45	11912

Connection: Press-fit x BSP parallel female branch.



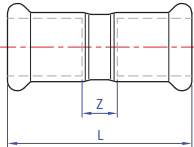
SSG61 Stop end

Size	a	Item code
15mm	37	11980
22mm	41	11982
28mm	26	11983
35mm	30	11984
42mm	37	11985
54mm	41	11986

Connection: Press-fit.



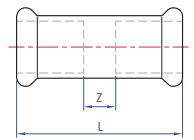
LBP copper press-fit jointing system for solar



SR1/7270 Straight coupling

Size	L	Z	Item code
15mm	43	3	38010R
22mm	46	4	38020R
28mm	50	4	38030R
35mm	62	6	38032R
42mm	71	7	38034R
54mm	83	9	38035R

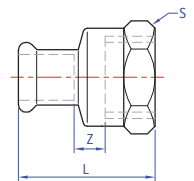
Connection: Press-fit x press-fit.



SR1S/7270S Slip – Straight coupling slip pattern

Size	L	Z	Item code
15mm	80	40	38044R
22mm	84	42	38045R
28mm	91	45	38046R
35mm	99	50	38047R
42mm	119	60	38048R
54mm	141	70	38049R

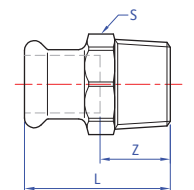
Connection: Press-fit x press-fit (without tube stop).



SR2/6270G Straight female connector

Size	L	S	Z	Item code
15mm x 1/2"	38	25	3	38090R
22mm x 3/4"	39	30	2	38092R
28mm x 1"	45	37	2	38093R
35mm x 1 1/4"	50	46	1	38094R
42mm x 1 1/2"	54	53	2	38095R
54mm x 2"	63	65	2	38096R

Connection: Press-fit x BSP parallel female thread.



SR3/6243G Straight male connector

Size	L	S	Z	Item code
15mm x 1/2"	37	21	17	38114R
22mm x 3/4"	40	30	21	38116R
28mm x 1"	44	36	21	38118R
35mm x 1 1/4"	50	41	24	38119R
42mm x 1 1/2"	58	51	28	38120R
54mm x 2"	63	63	28	38121R

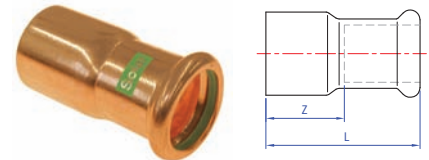
Connection: Press-fit x BSP taper male thread.

- Leak Before Press (LBP) technology identifies joints that have not been pressed correctly (15mm-54mm)
- Designed for solar installations where extreme temperatures operate as low as -35°C to a maximum 200°C
- Heat-free jointing provides time and cost saving benefits to contractors/installers.

SR6/7243 Reducer

Size	L	Z	Item code
22 x 15mm	54	34	38200R
28 x 15mm	62	42	38202R
28 x 22mm	56	34	38204R
35 x 22mm	68	47	38207R
35 x 28mm	66	44	38208R
42 x 22mm	76	55	38210R
42 x 28mm	73	48	38211R
42 x 35mm	75	48	38212R
54 x 28mm	89	67	38215R
54 x 35mm	90	63	38216R
54 x 42mm	89	58	38217R

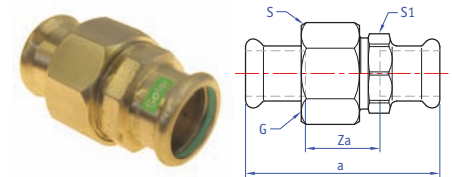
Connection: Larger male end for insertion into a fitting x press-fit.



SR11/6330 Union coupling

Size	a	G	s	S1	Za	Item code
15mm	60	3/4"	30	25	20	38180R
22mm	68	1"	36	32	26	38181R
28mm	73	1 1/4"	46	40	27	38182R
35mm	71	1 1/2"	52	46	19	38183R
42mm	91	1 3/4"	58	51	31	38184R
54mm	98	2 3/8"	75	65	28	38185R

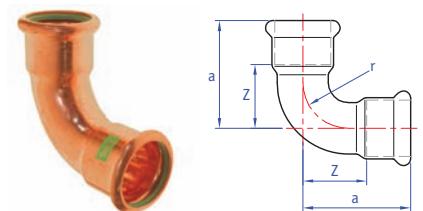
Connection: Press-fit x press-fit.



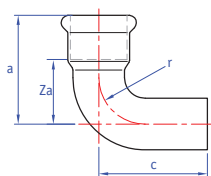
SR12/7002A Elbow

Size	a	Z	r	Item code
15mm	38	17	17	38280R
22mm	47	26	26	38290R
28mm	56	34	34	38300R
35mm	68	42	42	38302R
42mm	80	50	50	38304R
54mm	100	65	65	38306R

Connection: Press-fit x press-fit.



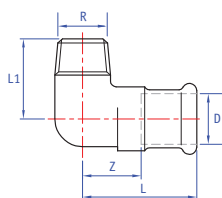
LBP copper press-fit jointing system for solar



SR12S/7001A Street elbow

Size	a	c	r	Za	Item code
15mm	36	50	18	16	38318R
22mm	47	58	26	27	38320R
28mm	58	64	34	34	38322R
35mm	69	82	42	44	38324R
42mm	81	101	50	52	38325R
54mm	100	120	65	66	38326R

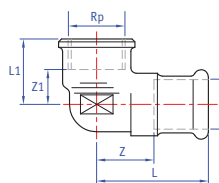
Connection: Press-fit x male end for insertion into a fitting.



SR13/6092G Male elbow

Size	a	c	Za	Item code
15mm x 1/2"	38	34	19	38333R
22mm x 3/4"	49	45	28	38334R
28mm x 1"	58	53	36	38335R
35mm x 1 1/4"	55	47	30	38336R
42mm x 1 1/2"	62	51	32	38337R
54mm x 2"	70	63	35	38338R

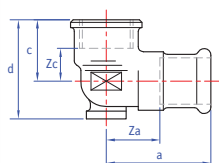
Connection: Press-fit x BSP taper male thread.



SR14/6090G Female elbow

Size	a	c	Za	Zc	Item code
15mm x 1/2"	41	24	20	15	38351R
22mm x 3/4"	45	27	24	11	38353R
28mm x 1"	51	33	28	14	38354R
35mm x 1 1/4"	55	45	29	21	38355R
42mm x 1 1/2"	85	45	57	26	38356R
54mm x 2"	104	54	72	33	38357R

Connection: Press-fit x BSP parallel female thread.



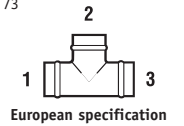
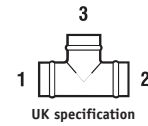
SR15/6472G Backplate elbow

Size	a	c	d	Za	Zc	Item code
15mm x 1/2"	41	23	36	21	8	38400R
22mm x 3/4"	45	27	45	24	11	38401R

Connection: Press-fit x BSP parallel female thread.

Tee specification

See page 73

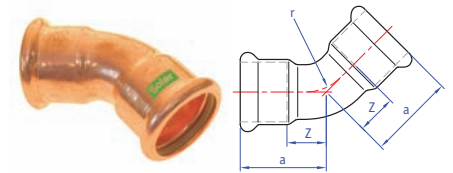


2

SR21/7041 Obtuse elbow

Size	a	Z	r	Item code
15mm	28	8	18	38410R
22mm	31	12	26	38412R
28mm	41	19	34	38414R
35mm	47	22	42	38416R
42mm	57	28	50	38417R
54mm	68	32	65	38418R

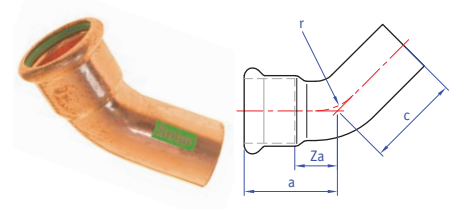
Connection: Press-fit x press-fit.



SR21S/7040 Obtuse street elbow

Size	a	c	Za	Item code
15mm	28	37	8	38404R
22mm	32	44	11	38405R
28mm	7	47	14	38406R
35mm	43	58	17	38407R
42mm	51	71	21	38408R
54mm	62	82	27	38409R

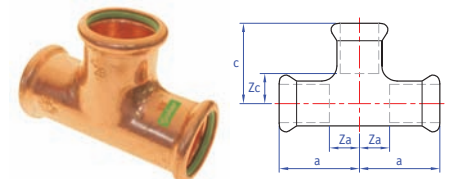
Connection: Press-fit x male end for insertion into a fitting.



SR24/7130 Equal tee

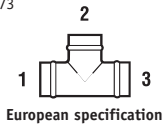
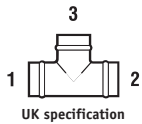
Size	a	c	Za	Zc	Item code
15mm	32	32	12	12	38450R
22mm	37	37	16	16	38460R
28mm	42	42	19	19	38462R
35mm	50	50	24	24	38464R
42mm	58	58	28	28	38466R
54mm	69	69	34	34	38467R

Connection: Press-fit on all ends.

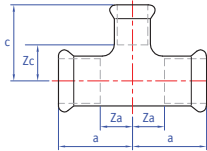


Tee specification

See page 73



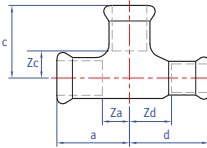
LBP copper press-fit jointing system for solar



SR25/7130 Tee, reduced branch

Size		<i>a</i>	<i>c</i>	<i>Za</i>	<i>Zc</i>	Item code
UK	European					
22 x 22 x 15mm	22 x 15 x 22mm	37	38	16	18	38490R
28 x 28 x 15mm	28 x 15 x 28mm	42	41	19	21	38492R
28 x 28 x 22mm	28 x 22 x 28mm	42	41	19	20	38494R
35 x 35 x 15mm	35 x 15 x 35mm	45	44	19	24	38496R
35 x 35 x 22mm	35 x 22 x 35mm	45	45	19	24	38497R
35 x 35 x 28mm	35 x 28 x 35mm	50	44	24	21	38498R
42 x 42 x 15mm	42 x 15 x 42mm	50	48	20	28	38499R
42 x 42 x 22mm	42 x 22 x 42mm	50	48	20	27	38500R
42 x 42 x 28mm	42 x 28 x 42mm	56	49	26	26	38501R
42 x 42 x 35mm	42 x 35 x 42mm	56	50	26	24	38502R
54 x 54 x 22mm	54 x 22 x 54mm	60	54	25	33	38504R
54 x 54 x 28mm	54 x 28 x 54mm	60	55	25	32	38505R
54 x 54 x 35mm	54 x 35 x 54mm	61	55	24	29	38506R
54 x 54 x 42mm	54 x 42 x 54mm	69	64	34	34	38507R

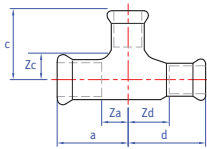
Connection: Press-fit on all ends.



SR26/7130 Tee, one end reduced

Size		<i>a</i>	<i>c</i>	<i>d</i>	<i>Za</i>	<i>Zc</i>	<i>Zd</i>	Item code
UK	European							
22 x 15 x 22mm	22 x 22 x 15mm	37	37	46	16	16	26	38510R
28 x 15 x 28mm	28 x 28 x 15mm	42	42	55	19	19	35	38512R
28 x 22 x 28mm	28 x 28 x 22mm	42	42	52	19	19	31	38514R
35 x 22 x 35mm	35 x 35 x 22mm	51	50	72	25	24	51	38517R
35 x 28 x 35mm	35 x 35 x 28mm	51	50	67	25	24	41	38518R

Connection: Press-fit on all ends.



SR27/7130 Tee, one end and branch reduced

Size		<i>a</i>	<i>c</i>	<i>d</i>	<i>Za</i>	<i>Zc</i>	<i>Zd</i>	Item code
UK	European							
22 x 15 x 15mm	22 x 15 x 15mm	37	44	43	16	18	23	38530R
28 x 22 x 22mm	28 x 22 x 22mm	42	41	49	19	20	28	38532R
28 x 22 x 15mm	28 x 15 x 22mm	42	41	53	19	20	33	38536R
35 x 22 x 22mm	35 x 22 x 22mm	51	44	67	25	23	45	38539R
35 x 28 x 22mm	35 x 22 x 28mm	51	44	63	25	23	40	38541R
35 x 28 x 28mm	35 x 28 x 28mm	51	44	67	25	21	44	38542R

Connection: Press-fit on all ends.

Tee specification

See page 73

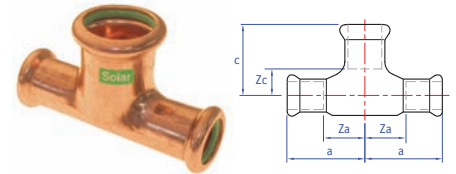


2

SR28/7130 Tee, both ends reduced

Size						
UK	European	<i>a</i>	<i>c</i>	<i>Za</i>	<i>Zc</i>	Item code
15 x 15 x 22mm	15 x 22 x 15mm	38	34	18	13	38545R

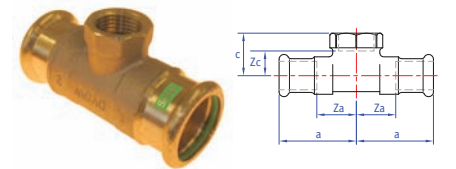
Connection: Press-fit on all ends.



SR30/6130G Female branch tee

Size						
UK	European	<i>a</i>	<i>c</i>	<i>Za</i>	<i>Zc</i>	Item code
15 x 15mm x 1/2"	15 x 1/2" x 15mm	34	26	14	11	38585R
22 x 22mm x 1/2"	22 x 1/2" x 22mm	42	26	21	11	38591R
22 x 22mm x 3/4"	22 x 3/4" x 22mm	45	27	24	11	38587R
28 x 28mm x 1/2"	28 x 1/2" x 28mm	44	29	21	14	38592R
28 x 28mm x 3/4"	28 x 3/4" x 28mm	41	34	18	14	38593R
35 x 35mm x 1/2"	35 x 1/2" x 35mm	50	34	24	19	38594R
42 x 42mm x 1/2"	42 x 1/2" x 42mm	57	38	27	23	38596R

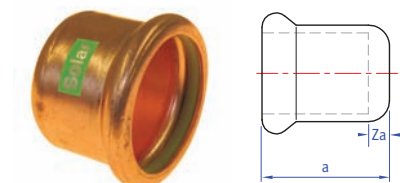
Connection: Press-fit x BSP parallel female branch.



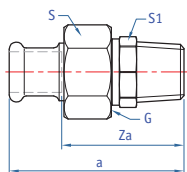
SR61/7301 Stop end

Size	<i>a</i>	<i>Za</i>	Item code
15mm	20	2	38695R
22mm	21	2	38697R
28mm	23	2	38698R
35mm	26	2	38699R
42mm	30	2	38700R
54mm	35	2	38701R

Connection: Press-fit, for copper tube.



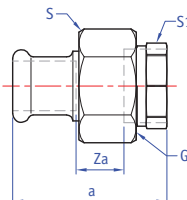
LBP copper press-fit jointing system for solar



SR69/6331G Straight male union connector

Size	G	S	S1	a	Za	Item code
15mm x 1/2"	3/4"	30	25	62	42	38813R
22mm x 3/4"	1"	36	32	74	53	38814R
28mm x 1"	1 1/4"	46	40	76	53	38816R
35mm x 1 1/4"	1 1/2"	52	46	79	53	38817R
42mm x 1 1/2"	1 3/4"	58	51	88	58	38818R
54mm x 2"	2 3/8"	75	65	101	66	38819R

Connection: Press-fit x BSP taper male thread.



SR69F/6330G Straight female union connector

Size	G	S	S1	a	Za	Item code
15mm x 1/2"	3/4"	30	26	52	30	38833R
22mm x 3/4"	1"	36	32	68	43	38834R
28mm x 1"	1 1/4"	46	43	65	43	38835R
35mm x 1 1/4"	1 1/2"	52	48	74	52	38836R
42mm x 1 1/2"	1 3/4"	58	53	83	48	38837R
54mm x 2"	2 3/8"	75	65	90	50	38838R

Connection: Press-fit x BSP parallel female thread.

XPress accessories

S100 Replacement 'O' Rings

For use on XPress copper fittings only

Size	Item code
15mm	39115
22mm	39122
28mm	39128
35mm	39135
42mm	39142
54mm	39154
67mm	39230
76mm	39231
108mm	39232



S104 Flat face union fibre washer (Mk1)

For use with XPress unions (not suitable for stainless steel)

Size	Item code
1/2"	38989
3/4"	38990
1"	38991
1 1/4"	38992
1 1/2"	38993
2"	38994
2 1/2"	38995



SS100 Replacement 'O' Rings

For use on XPress stainless and carbon fittings only

Size	Item code
15mm	27000
18mm	27001
22mm	27002
28mm	27003
35mm	27004
42mm	27005
54mm	27006
76mm	27007
89mm	27008
108mm	27009



Gas 'O' rings are not offered as spares. We do not recommend substituting gas 'O' rings to XPress fittings.

XPress accessories



SS106 Flat face union rubber washer (Mk2)

For use with XPress unions stainless and carbon steel only

Size	Item code
15mm - 18mm	27030
22mm	27031
28mm	27032
35mm	27033
42mm	27034
54mm	27035



SV100 Viton 'O' Rings

For use on XPress copper and XPress solar fittings

Size	Item code
15mm	39100
22mm	39101
28mm	39102
35mm	39103
42mm	39104
54mm	39105
67mm*	39106

**Suitable for XPress copper and carbon 67mm.*



SV105 Viton 'O' Rings

For use on XPress stainless and XPress carbon fittings only

Size	Item code
15mm	39080
18mm	39081
22mm	39082
28mm	39083
35mm	39084
42mm	39085
54mm	39086
76mm	39088
89mm	39089
108mm	39090



S110 Depth gauge

Suitable for copper, carbon and stainless steel

Size	Item code
15mm - 54mm	39160

S115 Tube stripper*For use with SC660 tube*

Size	Item code
15mm	39260
18mm	39261
22mm	39262
28mm	39263
35mm - 54mm	39264

**S120 Deburring tool**

Size	Item code
15mm - 54mm	39168

**TA150 Noga deburring kit**

Size	Item code
15mm - 22mm	76207

**S122 Copper tube preparation kit**

Size	Item code
35mm - 54mm	39233

**S130 Silicon 'O' ring lubricant***For use with 'O' rings only*

Size	Item code
100g tub	39219

**S135 Dri-slide lubricant***For use with jaws and slings only*

Size	Item code
115ml	39169



Press-fit tools and jaws

Press tools approved for pressing XPress

Dimension (mm)	Manufacturer	Press Tool	Jaws (up to 35mm)	Sling Jaw adaptor (42mm and above)	Sling (Copper, Stainless/Carbon)	Profile
15 - 28	REMS	REM-578012 Mini-Press ACC Battery powered (14.4V)	Mini M15 - M28	-	-	M
15 - 35	REMS	REM-571013 Akku-Press Battery powered (14.4V)	M15 - M35	-	-	M
		REM-571014 Akku-Press ACC Battery powered (14.4V)	M15 - M35	-	-	M
		REM-577011 Power-Press	M15 - M35	-	-	M
		REM-572110 Power-Press E	M15 - M35	-	-	M
		REM-577010 Power-Press ACC	M15 - M35	-	-	M
42 - 54	REMS	REM-571013 Akku-Press Battery powered (14.4V)	-	Z3	M42 (PR) M54 (PR)	M
		REM-571014 Akku-Press ACC Battery powered (14.4V)	-	Z3	M42 (PR) M54 (PR)	M
		REM-577011 Power-Press	-	Z3	M42 (PR) M54 (PR)	M
		REM-572110 Power-Press E	-	Z3	M42 (PR) M54 (PR)	M
		REM-577010 Power-Press ACC	-	Z3	M42 (PR) M54 (PR)	M
12 - 28	Novopress	AFP 101 Battery powered (12V)	PB1	-	-	M
12 - 35	Novopress	EFP2	PB2	-	-	M
		EFP202	PB2	-	-	M
		AFP202	PB2	-	-	M
		ECO202	PB2	-	-	M
		ACO202	PB2	-	-	M
42 - 54	Novopress	EFP2	-	ZB201/ZB203	(42/54mm)	M
		EFP202	-	ZB201/ZB203	(42/54mm)	M
		AFP202	-	ZB201/ZB203	(42/54mm)	M
		ECO202	-	ZB201/ZB203	(42/54mm)	M
		ACO202	-	ZB201/ZB203	(42/54mm)	M
12 - 35 42 - 67*	Novopress	ECO301	PB3	- ZB302 (For 42/54/67mm)	- 42/54 (also suitable for EFP2, EFP202, AFP202, ECO202, ACO202) and 67mm	M M
67* - 108**				ZB321 (For 76/89/108 First press)**	76/89/108 and 108 copper only**	M
108**				ZB322 (For 108 second press only)**	108 and 108 copper only**	M

*See page 71 for 67mm sling.

**For 108mm jaws, specify use for copper or stainless/carbon.

*67mm Sling (S322-67mm)

Novopress offers alternative slings for use on different press systems. As such we have to reinforce the following instruction.

Where **67mm slings** are required for crimping XPress Copper and XPress Carbon fittings, installers must only use the Novopress sling reference 36516-01, marked **“WOESTE Yorkshire 67”** as this is the correct profile for our XPress Press-fit **67mm** fittings. See photo on right.

Under no circumstances should any other brand of sling be used with our **67mm** fittings as these will lead to an incorrect crimp resulting in an immediate joint failure and invalidate the Pegler Yorkshire Warranty.

XPress **67mm** fittings that have inadvertently been crimped with the wrong brand of sling cannot be successfully re-crimped with the **“WOESTE Yorkshire 67”** sling and unfortunately will have to be cut out and replaced with a new fitting using the correct sling.



Power supply

It is essential when preparing to undertake an installation using XPress fittings and tools that a suitable constant power source is available. If the supply of power is not constant it may affect the performance of the joint.

Checking the power source is particularly important prior to joining with the S301/EC03 Pressmax tool as it includes safety software, which detects the amount of power available to the machine. If there is not enough for the tool to initiate the pressing cycle and complete a sound joint the tool will not commence the pressing operation. This feature is particularly useful when installing large size press fittings, as the pressure required to press these fittings is significantly greater than for smaller fittings, hence the power supply to the tool must be guaranteed.

It is therefore recommended that when using a portable transformer to provide power to the press tool, the transformer should be a minimum of 3KVA rated in order that a continuous uninterrupted power supply is always available.

When a semi-permanent source of power such as a generator is being used it is essential the plant is well maintained. The maximum cable size from generator to outlet and the minimum length of cable between the power outlet and the tool should be used.

Fitting and tube compatibility

Tube/pipe type	XPress Copper	XPress Chromium Plated	XPress Stainless	XPress Carbon	XPress Copper Gas	XPress Stainless Gas	XPress Solar
Copper tube**	✓	-	-	-	✓	-	✓
Chromium plated copper tube	-	✓	-	-	-	-	-
Stainless steel tube	-	-	✓	✓*	-	✓	-
Carbon steel tube	-	-	✓*	✓	-	-	-
Plastic coated carbon steel tube	-	-	✓*	✓	-	-	-

It is advisable to make copper to steel connections via gunmetal/copper alloy fittings.

*Heating applications only.

**For XPress solar, copper tube with a maximum temperature of 200°C.

Typical applications



- Hot and cold water services
- Vented and unvented closed circuit heating
- Chilled water and oil free compressed air applications
- With chromium plated finish for surface mounted installations



- Potable water applications where water quality and hygiene are crucial
- Pharmaceutical, food and health-care environments
- Chilled water applications



- Vented and unvented closed circuit heating
- Chilled water applications



- Internal and external applications
- Above ground 2nd and 3rd family gas service pipelines



- Above ground 2nd and 3rd family gas service pipelines, including instances where high levels of hydrogen sulphide make copper unsuitable



- Solar water heating systems

Materials specification

Component	XPress ^{copper}	XPress ^{stainless}	XPress ^{carbon}	XPress ^{copper gas}	XPress ^{stainless gas}	XPress ^{solar}
Body	Copper or Gunmetal Alloy	Stainless steel (316L)	Carbon Steel ST34-2 (Nickel plated)	Copper or Gunmetal Alloy	Stainless steel (316)	Copper or Gunmetal alloy
'O' ring	EPDM*	EPDM*	EPDM*	Yellow HNBR†	Yellow HNBR†	Green (FPM) (Viton™)
'O' ring bead	Copper					Copper

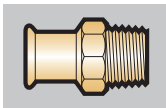
NB. 'O' rings are supplied lubricated for easy tube insertion. *Ethylene Propylene Diene Monomer. †Hydrogenated Acrylonitrile Butadiene Rubber.

Manufacturing standards

Component	Standard	Summary	XPress ^{copper}	XPress ^{stainless}	XPress ^{carbon}	XPress ^{copper gas}	XPress ^{stainless gas}	XPress ^{solar}
Male end thread	ISO 7/EN10226-1 (formerly BS 21/ISO 7)	Pipe-threads, where pressure-tight joints are made on the threads (metric dimensions)	✓	✓	✓	✓	✓	✓
Female end thread	BS EN ISO 228:2003 (formerly BS 2779/ISO R228/1)	Pipe-threads, where pressure-tight joints are not made on the threads (metric dimensions)	✓	-	-	✓	-	✓
Female end thread	ISO 7/1	Pipe-threads, where pressure-tight joints are not made on the threads (metric dimensions)	-	✓	✓	-	✓	-

Connectors

Male connectors



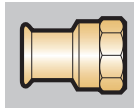
XPress male connectors have threads to BS 21/

ISO 7/EN 10226-1. Inert jointing compounds or PTFE tape should be applied to taper threads and good quality jointing washers should be used with parallel threaded fittings.

PTFE tape should not be used in conjunction with stainless steel threads due to the water soluble chloride ions it contains.

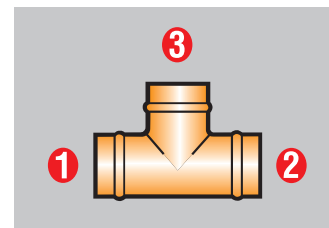
All XPress fittings with flat face unions are supplied with fibre washer seals.

Female connectors



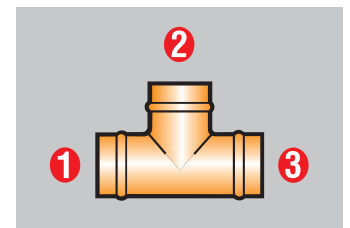
XPress female threaded connectors have internal parallel threads to ISO 7/EN 10226-1.

Tee specification



UK specification

First quote the ends on the run (larger end first) and then the branches.



European specification

Quote the larger end first, then the branch, followed by the remaining end.

Working temperatures and pressure tables

XPress Copper fittings have all been tested and are suitable for use with approved tubes at temperatures from -24°C to 110°C at a maximum working pressure of 16bar throughout the temperature range.

XPress Solar is approved with tube meeting the temperature rates shown in the table below and operates from -35°C to 200°C at a maximum working pressure of 16bar throughout the temperature range.

XPress Stainless and XPress Carbon fittings have been tested and are suitable for use with approved tubes at temperatures from -20°C to 110°C at a maximum working pressure of 16bar throughout the temperature range. For high working pressure applications contact the Pegler Yorkshire technical help desk.

In wet systems based installations we recommend all systems be thoroughly tested upon completion. The installation may be tested to 1.5 times the working pressure of the system, up to a maximum of 16bar. If higher test pressures are required advice should be sought from Pegler Yorkshire.

Pressure testing of carbon steel systems

The following recommendations apply concerning the testing of XPress Carbon Steel.

Due to the potential for corrosion and perforation of carbon steel tube and fitting systems left partially drained for extended periods following hydraulic testing. It is recommended that XPress Carbon Steel systems be dry air/nitrogen tested, up to a maximum of 3bar.

If hydraulic testing must be undertaken the following should be considered.

A. The test water should contain anti-corrosion chemicals with the intention that post testing the system shall be left completely full of water (suitable protection against freezing will also have to be considered).

B. If leaving the system full of water is not practical then every effort shall be made to fully drain and dry the pipe work by purging with dry air.

Regarding the air/nitrogen testing of pipe work with XPress Carbon Steel crimped fittings the following points will need to be considered.

1. The air should be clean, dry and free from oil. Excessive oil carry over in compressed air may be detrimental to the EPDM seals. This is not a problem with nitrogen.
2. Air is many times more searching than water. Hence, if the purpose of the air test is only leak detection, then 0.5bar pressure will be more than sufficient. Higher pressures can in fact mask sealing issues that would be revealed by low-pressure tests.
3. The need for higher test pressures to prove the mechanical integrity of the joints brings with it serious safety issues. Testing for such a failure mode with high-pressure air/nitrogen is potentially very dangerous as the energy stored in 5bar air/nitrogen, when released suddenly, could lead to damage to equipment or more seriously, injury to personnel. HSE issue guidelines for such testing should be strictly adhered too.
4. It is therefore; recommended that an initial low pressure test at 0.5bar is carried

out, having put the necessary safety measures in place, to enable any leaks to be found. Significantly leaking, un-pressed or damaged joints shall be replaced, but those with low leakage rates should be identified for close inspection during the high-pressure test. The full loading of the 'O' rings often resolve small leaks identified during the 0.5bar test. When satisfied that the system is sound and having the necessary safety measures in place a 1.5 times working pressure test can be carried out as per the Copper Development Association (CDA) Guidelines document 'Pressure Testing Piping Systems'. Leaking joints at this stage should be identified and marked for replacement. The system pressure should then be reduced to 0.5bar again to confirm that no persistent low-pressure leaks are present.

XPress Copper Gas fittings are approved for use with copper tubes to BS EN 1057 at temperatures from -20°C to 70°C and a maximum working pressure of 5bar for outside above ground pipework and 1bar within buildings.

As part of the DVGW/GL (formerly British Gas) approvals process, XPress Gas fittings have passed the High temperature test at 650°C for 30 minutes at PN1 (copper)/PN5 (stainless).

N.B. The maximum temperature and pressure range in any system is dictated by the component with the lowest performance rating.

Achieving low temperatures

For products used in water systems, working temperatures of less than 4°C can only be achieved if antifreeze is added to the system.

Localised annealing of copper tube

XPress Copper installation should not be carried out within 300mm of a brazed or soldered joint, as the high temperature required for capillary jointing anneals the copper tube rendering it too soft for press-fit jointing. In an existing XPress Copper installation, brazing or soldering should not be carried out within 300mm of an existing press-fit joint as this may damage the 'O' ring.

Do not braze or weld XPress carbon or XPress stainless steel tubes.

Temperature	Durability
200°C	Cumulative exposure 20hrs/year
180°C	Cumulative exposure 60hrs/year
150°C	Cumulative exposure 480hrs/year
90 - 130°C	Normal working temperature
-35°C	Winter temperature

Pressure	Working condition
3bar	Normal operating pressure
10bar	Maximum working pressure
16bar	Maximum test pressure
16bar	Maximum surge pressure

Pressure Equipment Directive

From 30th May 2002 most pressure equipment and assemblies on the market in the United Kingdom must comply with the Pressure Equipment Directive (PED) 1999. Fittings are exempt from the PED unless they are incorporated into pressure equipment falling within its scope. XPress valves are also exempt. For a detailed explanation please visit:

www.pegler-yorkshire.co.uk/technical.cfm

Equipotential bonding

It is the installers duty to ensure that all metallic pipework systems should comply with the equipotential bonding requirements of the current edition of the IEE electrical wiring regulations (BS 7671: 1992).

All XPress products (below) provide guaranteed electrical continuity once the joints are pressed.

After all plumbing work has been completed, always ensure continuity checks are conducted by a qualified electrician in accordance with regulations.

Electrical continuity

XPress Copper	✓
XPress Stainless	✓
XPress Carbon	✓
XPress Copper Gas	✓
XPress Stainless Gas	✓
XPress Solar	✓



XPress fitting	Tube/pipe used with	Min. temperature and pressure		Max. temperature and pressure	
XPress Copper	Copper	-24°C	16bar	110°C	16bar
XPress Copper chromium plated	Copper chromium plated copper	-24°C	16bar	110°C	16bar
XPress Stainless	Stainless steel	-20°C	16bar	110°C	16bar
XPress Carbon	Carbon steel	-20°C	16bar	110°C	16bar
	Plastic coated carbon steel	-20°C	16bar	110°C	16bar
XPress Copper Gas	Copper	-20°C	1bar*	70°C	5bar**
XPress Stainless Gas	Stainless steel	-20°C	1bar*	70°C	5bar**
XPress Solar	Copper	-35°C	3bar	200°C	10bar

All performance figures based on correct assembly of fittings and tube/pipe as detailed in installation instructions. *1bar inside. **5bar outside above ground.

Press-fit solutions Tubes, pipe and their compatibilities

Copper tube



Compatible copper tube must meet the requirements

of BS EN 1057 R250 and R290 for copper and copper alloy – seamless round copper tubes for water (and gas) in sanitary and heating applications.

The higher the number, the harder the material. As a result, tube diameter, wall thickness, length and the material temper must all be specified for full product designation.

All XPress Copper, Copper Gas and XPress Solar fittings can be used with copper tube, although

in humid conditions some staining of the tube may be witnessed (see page 79 Phenolic foam section for details on moisture-proof insulation).

Yorkex* copper System tube is manufactured to the same standards as above and offers the same features and benefits with a maximum rating of 100°C.

Kuterlon* copper tube is manufactured to the same standards as above and offers the same features and benefits with the maximum temperature rating of 200°C.

Yorkex and Kuterlon* are brand names of Yorkshire Copper Tube/KME Group.*



When Yorkex* and Kuterlon* copper tube is used with XPress fittings as part of a complete system an enhanced guarantee of 30 years will apply.

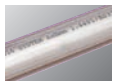
XPress fittings can also be used with copper tube to the above standards, in which case a 25 year guarantee will apply.

COPPER TUBE BS EN 1057 COMPATIBILITY: XPress Copper, XPress Copper Gas fittings and XPress Solar. All tube tempers (R250 and R290) are available in all the designated wall thicknesses

Outside diameter	Wall thickness								
	0.6mm	0.7mm	0.8mm	0.9mm	1.0mm	1.2mm	1.5mm	2.0mm	2.5mm
12mm	✓†	-	-	-	-	-	-	-	-
15mm	-	✓†	-	-	✓†	-	-	-	-
22mm	-	-	-	✓†	✓†	✓†	-	-	-
28mm	-	-	-	✓†	✓	✓†	✓	-	-
35mm	-	-	-	-	-	✓†	✓	-	-
42mm	-	-	-	-	-	✓†	✓	-	-
54mm	-	-	-	-	-	✓†	-	✓	-
64mm	-	-	-	-	-	-	-	✓	-
67mm	-	-	-	-	-	✓	-	✓	-
76mm	-	-	-	-	-	-	✓	✓	-
88.9mm	-	-	-	-	-	-	-	✓	-
108mm	-	-	-	-	-	-	✓	-	✓

✓† R250 temper ✓ R290 temper

Stainless steel 316 System tube



Specially designed to be used with XPress stainless

steel fittings, 316 System tube is available in 6m straight lengths in sizes from 15mm to 54mm. The tube is manufactured from BS 316 S31/DIN 1.4401 stainless steel

strip conforming to BS10088 Part 2 and thanks to its thin-walled geometry, is stiff, lightweight and easy to handle.

However, when bending 316 System tube we recommend the use of the Rothenberger Robend 3000 with rollers up to 28mm.

XPress stainless gas fittings are also compatible with stainless steel tubes to BS EN 10312 (encompassing the former BS 4127) and DVGW GW541.



When XPress stainless steel System tube is used with XPress fittings as part of a complete system an enhanced guarantee of 30 years will apply.

XPress fittings can also be used with stainless steel tube to the above standards, in which case a 25 year guarantee will apply.

STAINLESS STEEL 316 SYSTEM TUBE: Specification

Outside diameter	Pegler Yorkshire 316 System tube	Wall thickness	
		EN 10312 Table 1 (formerly BS 4127) (Comparison)	EN 10312 Table 2 EN 10312 Table 3 GW541 Table 3 (Comparison)
15mm	0.6mm	0.6mm	-
18mm	0.6mm	0.7mm	-
22mm	0.6mm	0.7mm	-
28mm	0.8mm	0.8mm	-
35mm	1.0mm	1.0mm	-
42mm	1.0mm	1.1mm	-
54mm	1.0mm	1.2mm	-
76mm	2.0mm	-	2.0mm
89mm	2.0mm	-	2.0mm
108mm	2.0mm	-	2.0mm

The comparison data is for reference purposes only. Pegler Yorkshire offers the 'Pegler Yorkshire 316 System tube'.

To qualify for our guarantees, all products must be installed in accordance with our instructions on specified applications.

XPress galvanised carbon steel System tube and plastic coated carbon steel System tube



Carbon steel System tube is available in 6m straight lengths in sizes from 15mm to 108mm. Plastic coated galvanised carbon steel tube is available in straight 6 metre lengths in sizes 15 to 54mm. Galvanised carbon steel System tube is manufactured in accordance with DIN 2394/ NEN1982 from material with a very low carbon content and has a thin walled profile resulting in a lightweight easier to handle product.

The galvanised coating (external only) has a minimum thickness of 7 microns and is thermally applied which provides a superior bond to the tube and further resistance to corrosion.

XPress Carbon fittings can be used with our SC640 galvanised carbon steel System tube or our SC660 plastic coated carbon steel System tube.

Carbon tube should be stored under cover and not exposed to the elements.

XPRESS GALVANISED CARBON STEEL TUBE: Specification

Outside diameter	Outside diameter including plastic coating	Wall thickness EN 10312 Table 1 GW541 Table 2 (formerly BS 4127)	
		Galvanised tube	Including plastic coating
15mm	17mm	1.2mm	2.2mm
18mm	19mm	1.2mm	2.2mm
22mm	24mm	1.5mm	2.5mm
28mm	30mm	1.5mm	2.5mm
35mm	37mm	1.5mm	2.5mm
42mm	44mm	1.5mm	2.5mm
54mm	56mm	1.5mm	2.5mm
67mm	–	1.5mm	–
76mm	–	2.0mm	–
89mm	–	2.0mm	–
108mm	–	2.0mm	–



When XPress galvanised carbon steel System tube or plastic carbon steel System tube is used with XPress fittings as part of a complete system an enhanced 10 year guarantee will apply.

XPress fittings can also be used with carbon steel tube and plastic coated carbon steel tube to the above standards, in which case a 5 year guarantee will apply.

To qualify for our guarantees, all products must be installed in accordance with our instructions on specified applications.

Press-fit solutions System design considerations and tube expansion

The following are some of the specific design considerations which are important to take account of when designing and installing pipework systems containing XPress fittings.

Thermal movement

Thermal movement is a major consideration when designing plumbing and heating systems. Pipework systems expand and contract with changes in temperature. If they are fixed

too rigidly and their movement restricted, the systems will be subject to stress which must be avoided. So it's important to take the effect of thermal movement into account when designing or installing a system.

It's especially important to avoid stress concentrations between fixed points typically found at radiators, valves and other fittings.

The following tables show thermal expansion details for a

range of tube/pipe lengths and temperature changes. For further calculations please refer to the Pegler Yorkshire System Design Document or visit the website.

XPRESS COPPER, XPRESS COPPER GAS AND XPRESS SOLAR: Copper tube expansion

Temperature change	Tube length									
	3m	4m	5m	6m	7m	8m	9m	10m	12m	25m
10°C	0.5mm	0.7mm	0.9mm	1.0mm	1.2mm	1.4mm	1.5mm	1.7mm	2.0mm	4.3mm
20°C	1.0mm	1.4mm	1.7mm	2.0mm	2.4mm	2.7mm	3.0mm	3.4mm	4.0mm	8.5mm
30°C	1.5mm	2.0mm	2.6mm	3.1mm	3.6mm	4.1mm	4.6mm	5.1mm	6.1mm	13.0mm
40°C	2.0mm	2.7mm	3.4mm	4.1mm	4.8mm	5.4mm	6.1mm	6.8mm	8.2mm	17.0mm
50°C	2.6mm	3.4mm	4.3mm	5.1mm	6.0mm	6.8mm	7.7mm	8.5mm	10.2mm	21.0mm
60°C	3.1mm	4.1mm	5.1mm	6.1mm	7.1mm	8.2mm	9.2mm	10.2mm	12.2mm	26.0mm
70°C	3.6mm	4.8mm	6.0mm	7.1mm	8.3mm	9.5mm	10.7mm	11.9mm	14.3mm	30.0mm
80°C	4.1mm	5.4mm	6.8mm	8.2mm	9.5mm	10.9mm	12.2mm	13.6mm	16.3mm	34.0mm
90°C	4.6mm	6.1mm	7.7mm	9.2mm	10.7mm	12.2mm	13.8mm	15.3mm	18.4mm	38.0mm
100°C	5.1mm	6.8mm	8.5mm	10.2mm	11.9mm	13.6mm	15.3mm	17.0mm	20.4mm	43.0mm
150°C*	7.7mm	10.2mm	12.8mm	15.3mm	17.9mm	20.4mm	23.0mm	25.5mm	30.6mm	63.8mm
200°C*	10.2mm	13.6mm	17.0mm	20.4mm	23.8mm	27.2mm	30.6mm	34.0mm	40.8mm	85.0mm

*Kuterlon copper tube.

XPRESS STAINLESS AND XPRESS STAINLESS GAS: Stainless steel System tube expansion

Temperature change	Tube length									
	3m	4m	5m	6m	7m	8m	9m	10m	12m	25m
10°C	0.5mm	0.6mm	0.8mm	1.0mm	1.1mm	1.3mm	1.4mm	1.6mm	1.9mm	4.0mm
20°C	1.0mm	1.3mm	1.6mm	1.9mm	2.2mm	2.6mm	2.9mm	3.2mm	3.8mm	8.0mm
30°C	1.4mm	1.9mm	2.4mm	2.9mm	3.4mm	3.8mm	4.3mm	4.8mm	5.8mm	12.0mm
40°C	1.9mm	2.6mm	3.2mm	3.8mm	4.5mm	5.1mm	5.8mm	6.4mm	7.7mm	16.0mm
50°C	2.4mm	3.2mm	4.0mm	4.8mm	5.6mm	6.4mm	7.2mm	8.0mm	9.6mm	20.0mm
60°C	2.9mm	3.8mm	4.8mm	5.8mm	6.7mm	7.7mm	8.6mm	9.6mm	11.5mm	24.0mm
70°C	3.4mm	4.5mm	5.6mm	6.7mm	7.8mm	9.0mm	10.1mm	11.2mm	13.4mm	28.0mm
80°C	3.8mm	5.1mm	6.4mm	7.7mm	9.0mm	10.2mm	11.5mm	12.8mm	15.4mm	32.0mm
90°C	4.3mm	5.8mm	7.2mm	8.6mm	10.1mm	11.5mm	13.0mm	14.4mm	17.3mm	36.0mm
100°C	4.8mm	6.4mm	8.0mm	9.6mm	11.2mm	12.8mm	14.4mm	16.0mm	19.2mm	40.0mm

XPRESS CARBON:** Galvanised carbon steel System tube and plastic coated carbon steel System tube expansion

Temperature change	Tube length									
	3m	4m	5m	6m	7m	8m	9m	10m	12m	25m
10°C	0.3mm	0.4mm	0.5mm	0.7mm	0.8mm	0.9mm	1.0mm	1.1mm	1.3mm	2.7mm
20°C	0.7mm	0.9mm	1.1mm	1.3mm	1.5mm	1.7mm	1.9mm	2.2mm	2.6mm	5.4mm
30°C	1.0mm	1.3mm	1.6mm	1.9mm	2.3mm	2.6mm	2.9mm	3.2mm	3.9mm	8.1mm
40°C	1.3mm	1.7mm	2.2mm	2.6mm	3.0mm	3.5mm	3.9mm	4.3mm	5.2mm	10.8mm
50°C	1.6mm	2.2mm	2.7mm	3.2mm	3.8mm	4.3mm	4.9mm	5.4mm	6.5mm	13.5mm
60°C	1.9mm	2.6mm	3.2mm	3.9mm	4.5mm	5.2mm	5.8mm	6.5mm	7.8mm	16.2mm
70°C	2.3mm	3.0mm	3.8mm	4.5mm	5.3mm	6.1mm	6.8mm	7.6mm	9.1mm	18.9mm
80°C	2.6mm	3.5mm	4.3mm	5.2mm	6.1mm	6.9mm	7.8mm	8.6mm	10.4mm	21.6mm
90°C	2.9mm	3.9mm	4.9mm	5.8mm	6.8mm	7.8mm	8.8mm	9.7mm	11.7mm	24.3mm
100°C	3.2mm	4.3mm	5.4mm	6.5mm	7.6mm	8.6mm	9.7mm	10.8mm	13.0mm	27.0mm

**Closed circuit systems only.

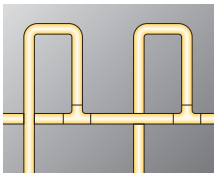
Correct anchoring

Always ensure the spur used to anchor the branch of a tee or connecting a radiator is long enough to allow normal thermal movement. Failure to observe this simple rule can lead to a failure. Incorporating expansion loops or bellows devices into the system can help guard against such problems, whilst a horseshoe link or offset (see diagrams) is an ideal way to counteract continual thermal cycling.

Techniques for expansion stress relief



Horseshoe expansion link Offset



Crossover tee arrangement expansion loop

Design considerations

Some contracts may still require that proprietary chemicals are used to cleanse and flush pipework before full commissioning. XPress is compatible with a wide selection of products, to find out more contact us.

Pipe restraint

In any installation, the system should be supported to ensure the minimum stress is imposed on the tube/pipe and joints. For the maximum spacing of supporting brackets for internal installations, please see the tables (above).

Insulation

For all XPress Systems, we recommend you adhere to the insulation requirements as specified by the Water Supply (Water Fittings) Regulations and Building Regulations 1999. These requirements are equally applicable to plastic pipe and stainless steel tube.

Phenolic foam

When using rigid phenolic foam (or other thermal insulation) to lag pipework,

<i>Maximum spacing of support brackets for 316 System tube, BS 4127 and W541 stainless steel tube and plastic coated and galvanised carbon steel tube</i>			
Size	Horizontal pitch	Vertical pitch	
15mm	1.80m	2.00m	
18mm	2.10m	2.30m	
22mm	2.40m	3.00m	
28mm	2.40m	3.00m	
35mm	2.70m	3.00m	
42mm	3.00m	3.60m	
54mm	3.00m	3.60m	
76mm	3.00m	3.60m	
89mm	3.60m	4.50m	
108mm	3.60m	4.50m	

<i>Maximum spacing of support brackets for copper tube to BS EN 1057</i>				
Size	Wall thickness	Temper	Horizontal pitch	Vertical pitch
12mm	0.6mm	R250	1.00m	1.50m
15mm	0.7mm	R250/R290	1.20m	1.80m
22mm	0.9mm	R250/R290	1.80m	2.40m
28mm	0.9mm	R250/R290	1.80m	2.40m
35mm	1.2mm	R250/R290	2.40m	3.00m
42mm	1.2mm	R250/R290	2.40m	3.00m
54mm	1.2mm	R250/R290	2.70m	3.00m
64mm	2.0mm	R250/R290	3.00m	3.00m
67mm	1.2mm	R250/R290	3.00m	3.60m
76mm	1.5mm	R250/R290	3.00m	3.60m
89mm	2.0mm	R250/R290	3.00m	3.00m
108mm	1.5mm	R250/R290	3.00m	3.60m

always remember to refer to the lagging manufacturer's fixing instructions. To avoid the risk of external corrosion of copper pipework lagged with this foam, the European Phenolic Foam Association recommend that such insulation products be installed with a moisture barrier. Materials like Densopaste or a plastics covering applied by the tube manufacturer both provide an appropriate barrier between the outer surface of the tube or fitting and the foam.

Some manufacturers of this type of lagging supply their products with an internal, factory-applied sodium silicate barrier to prevent external corrosion problems. However, if you do need to add a barrier product, we recommend that all XPress fittings be fully installed before these are applied and that they are completely coated.

Local Water Authority

We recommend consulting the local water authority when it comes to pipework accessibility.

Building in dimensions

All Building in dimensions are correct at the time of going to press. Pegler Yorkshire reserves the right to change these dimensions without prior notice, however to ensure you are using the most up to date information please refer to our web site www.pegleryorkshire.co.uk

Covered pipework

Making provision for thermal movement is vital where pipework of any material is installed under screed or plaster or passes through brick or blockwork. The preferred practice is to use tubing with factory applied protective plastic covering incorporating air gaps to accommodate thermal movement or to pass tubes and pipes through sleeves or conduits or to lay them in ducts surrounded by loose, inert non-rigid material such as vermiculite or glass wool. For further information, consult the publication BS 6700:2006 Design, installation, testing and maintenance of services supplying water for domestic use within buildings their curtilages.

Press-fit solutions System design considerations and tube expansion

Additives

For the most up to date information on additives compatible with Pegler Yorkshire systems please refer to the web site www.pegleryorkshire.co.uk/en/brochures/bulletins. We strongly recommend consulting a commissioning engineer in conjunction with the manufacturer prior to their use.

Tube bending

Portable bending machines are ideal for copper tubes up to 28mm. Most machines bend the tube between matched formers and back guides that support the outside diameter (OD) of the tube. This eliminates the risk of the tube wall collapsing.

The point at which the bending pressure is exerted must be maintained at the correct distance in front of the former's point of support. It's also important to keep formers and guides well lubricated. Bending tubes correctly will avoid any wrinkling and flattening that can affect flow conditions.

Using adjustable bending machines (which allow the pressure on the back guide to be adjusted) will ensure perfect bends every time so long as the root (inside) bending radius is at least 3 times the outside diameter of the tube.

With the bending of carbon tube it is important to ensure the weld seam is kept to the inside radius of the bend.

Pipework clearance

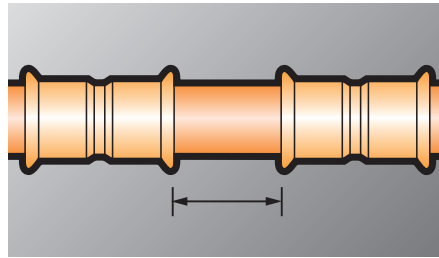
When designing an XPress System, please take care to ensure all joints can be accessed easily. Observe minimum gaps and insertion distances to ensure sufficient access for the pressing tool, where applicable.

Fitting spacing for XPress

Sizes	Min. gap between fittings	Min. tube projection
15mm	10mm	40mm
18mm	10mm	40mm
22mm	10mm	40mm
28mm	10mm	60mm
35mm	10mm	70mm
42mm	20mm	70mm
54mm	20mm	70mm
67mm	30mm	70mm
76mm	40mm	80mm
89mm	50mm	90mm
108mm	50mm	100mm

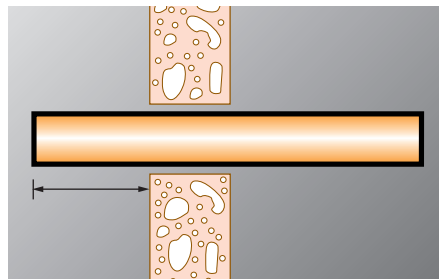
Spacing

Fitting spacing



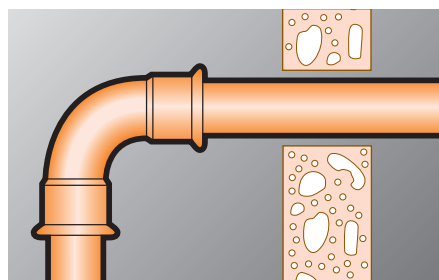
Sufficient space must be left between fittings to allow jaws or slings to be attached to operate. See table for fitting spacing.

Minimum projection



Similar consideration should be given to the distance pipe stubs project through walls or bulkheads. Refer to adjacent table.

Good practice



Projection distances shown in the adjacent table also ensure that the subsequent installation will be a convenient distance from the wall.

CARBON STEEL SYSTEM TUBE: Bends

Size	Minimum Radii
15mm	53mm
18mm	63mm
22mm	77mm
28mm	98mm

In sizes up to 28mm Carbon steel System tube, is suitable for bending using proprietary bend formers.

Thermal expansion

When including expansion joints in a system take care not to introduce tensional stress when assembling and tightening threaded connections. The XPress range includes male and female connectors for the correct jointing of expansion joints.

XPress 'Leak Before Press'

XPress Copper, XPress Carbon, XPress Stainless and XPress Solar offer a unique 'Leak Before Press' feature (LBP) which enables any connections which haven't been pressed to be easily identified during pressure testing at pressures as low as 0.5bar.



XPress Carbon and XPress Stainless

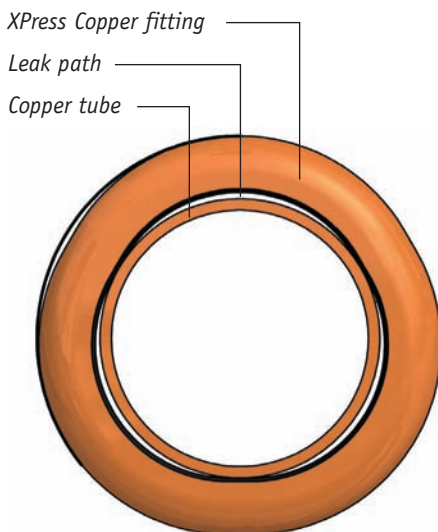
The LBP feature on both XPress Carbon and XPress Stainless (sizes 15mm-54mm) is created by the use of a specially profiled EPDM 'O' ring.



The LBP 'O' rings have been specially designed to incorporate a series of three grooves in its surface through which water will leak from any un-pressed fitting. When pressed, the 'O' ring distorts, closing the grooves to create a fully water- and air-tight connection.

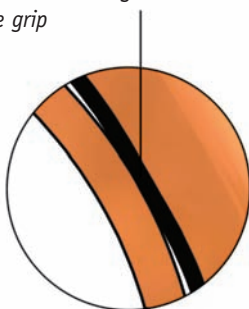
XPress Copper/XPress Solar

Whilst the mechanical properties of XPress Copper with LBP are different, the benefits are the same. The softer nature of copper enables the LBP feature to be incorporated into the 'O' ring bead in the fitting. The bead is slightly triangular in shape and this creates three spaces between the fitting and the tube through which water will leak if the fitting is not pressed. One additional advantage of this system is that there is still sufficient contact between the 'O' ring and the tube to prevent it moving when inserted. When pressed the shape of the 'O' ring bead is transformed from its triangular shape to a round shape which, once again, is perfectly water- and air-tight.



Note: Contact between 'O' ring and tube, to maintain tube grip

Contact between tube, 'O'-ring and fitting which fixates the tube.



The 'O'-ring is black for XPress Copper and green for XPress Solar.

Gas 'O' rings (and 'O' rings)

Pegler Yorkshire does not recommend 'O' rings are removed from the standard product and replaced with a gas 'O' ring. To prevent this gas 'O' rings are not offered as spares within the XPress accessories range. We only recommend gas fittings are purchased as fully assembled products. We also do not recommend that gas 'O' rings are removed and replaced with standard 'O' rings.

Connecting tubes made from dissimilar metal

The UK Water Regulations recommend that tubes and fittings made from different types of metals shall not be connected directly together except where galvanic action is unlikely or where effective measures are taken to prevent it. Galvanic corrosion is a process whereby the materials that come in to contact with each other oxidises or corrodes. If you are in doubt, we recommend you refer to the full and detailed information provided in Water Regulations Guide (G2.11 and R3.2), or by contacting the Water Regulations Advisory Scheme info@wras.co.uk.

Mixed metal installations

The substitution of stainless steel XPress or Tectite 316 fittings on a galvanised carbon steel installation is acceptable in heating and chilled water applications, if required.

When joining copper to carbon steel we recommend the use of a yellow metal i.e. brass or gunmetal to prevent galvanic corrosion.

When doing this, care must be taken to protect the SC640 galvanised tube surface from the increased risk of external corrosion at the stainless/galvanised steel interface.

Galvanised carbon steel is anodic to stainless steel in air and, if the pipeline is allowed to become wet, there is a risk of localised corrosion of the carbon steel tube surface adjacent to the stainless steel fitting. This potential problem is less likely in heating pipe work which usually remains hot and dry.

In chilled water installations, an accumulation of environmental condensate on the pipe work could, under some circumstances, leach out aggressive

chemicals from the insulation, resulting in corrosion, particularly at the stainless steel/carbon steel interface. Consequently, we recommend that where stainless steel fittings are installed on carbon steel pipe, the joint area should be provided with additional protection to prevent localised corrosion. This can be as simple as wrapping the interface area with an impervious material such as Denso or PVC tape.

Provided these precautions are taken, there is no reason why the combination of stainless steel fittings and carbon steel tube should not be entirely satisfactory.



Gas families

There are three gas families:

- 1st Family - manufactured gas
- 2nd Family - natural gas
- 3rd Family - LPG, compressed propane and butane gas

XPress Copper Gas and Stainless Gas do not have the LBP feature for safety reasons and are designed for use in internal and external above ground 2nd and 3rd family gas services.

Press-fit solutions

Installation instructions

15mm to 35mm sizes

The XPress jointing system has been designed with easy, efficient installation in mind. XPress Copper, XPress Stainless, XPress Carbon, XPress Copper Gas, XPress Stainless Gas and XPress Solar have common installation instructions.

Guide to installation

Jointing procedures are almost identical for every type of XPress fitting and compatible tube material. This includes XPress fittings with 'Leak before Press' (LBP). Where there are variations these are shown on the following pages and in the fitting instructions. To ensure the fittings stay clean and the 'O' ring remains protected from damage, only remove the fitting from its packaging immediately prior to installation.

XPress gas fittings are not leak before press.

The tube can be fully inserted by hand. A damaged tube end will require excessive force to be used. If this is the case you should check the tube is round and deburred before continuing. Check the 'O' ring is not damaged. XPress fittings with plain male ends must not be used directly with capillary fittings, since heating will damage the non-metallic parts.

Heat should not be applied to XPress fittings, directly or indirectly. They should be disconnected (where applicable) to avoid any possible damage to non-metallic parts if they are to be used on a system in conjunction with capillary fittings.

Similarly, reconnection must not be considered until the heated tubes have been allowed to cool. Use pipe clips to secure finished installations and prevent vibration or movement.

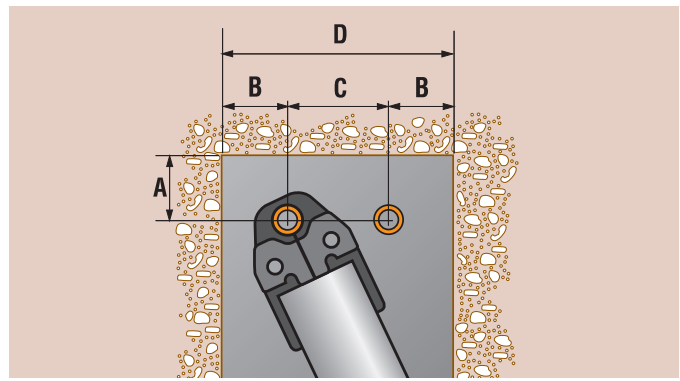
Socket depths

SOCKET DEPTHS: <i>XPRESS COPPER, SOLAR, STAINLESS, CARBON, COPPER GAS AND STAINLESS GAS</i>	
Size	Socket depth
15mm	20mm
18mm*	20mm
22mm	21mm
28mm	23mm
35mm	26mm

*Not XPress Copper/Gas

Spacing

Allow sufficient clearance around each fitting to allow press-fit jaws to be attached without hindrance.



Size	PIPEWORK CLEARANCE (mm)			
	A	B	C	D
15mm	25	28	75	131
18mm	25	28	75	131
22mm	31	35	80	150
28mm	31	35	80	150
35mm	31	44	80	170

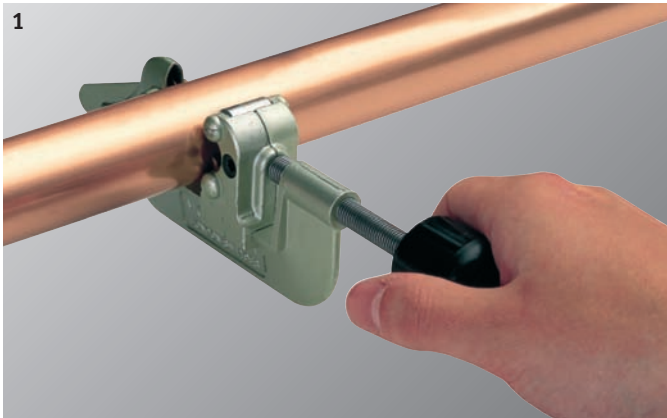
Health and safety

1. We recommend that eye protection is worn when operating all pressing tools.
2. Do not activate a pressing tool without a fitting in the jaws.

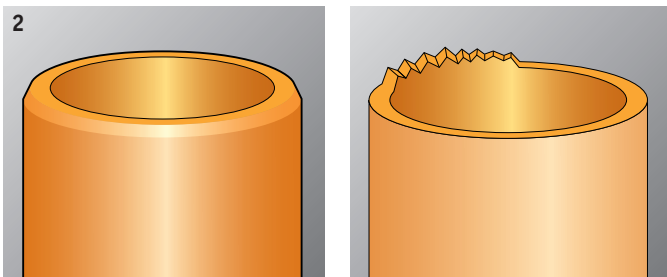
Note: When using power tools, great care must be taken at all times. Always refer to the manufacturers' instructions for all machines and tools you use. Please refer to www.pegler.yorkshire.co.uk/SHE for further COSHH information.

Preparation

Select the correct size of tube and fitting for the job. Ensure that both are clean, in good condition and free from damage and imperfections.



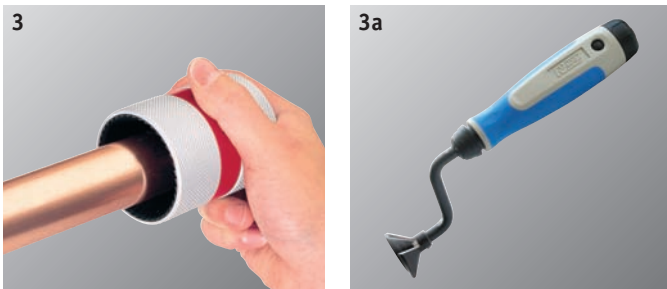
1. Cut the tube square using a cutting tool such as the Rems Cento, or a rotary tube cutter.



Tube cutters

Remove burrs

2. Care must be taken to ensure that tube is cut square, properly deburred and free from scores.



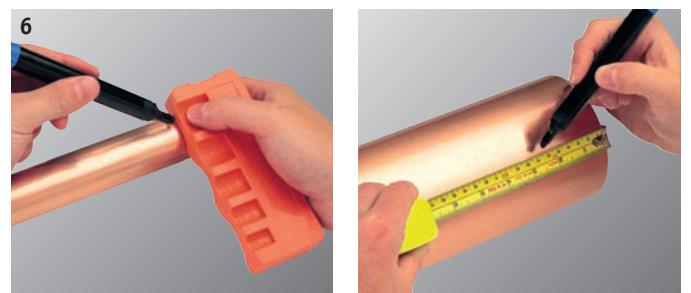
3. Deburr both internal and external tube ends then wipe clean of all swarf and debris to avoid damage to the 'O' ring upon tube insertion. A S120 deburring tool can be used for this purpose, or the Noga deburring kit (TA150) from the Tectite Advance range of accessories.

3a. Noga hand tools. In order to remove any internal and external burrs caused by the tube cutting operation, we recommend the use of the Noga deburring kit. For internal deburring of all sizes, we recommend the use of the TA143 and TA144 swivel blades used in conjunction with TA147 handle. For external deburring of 15, 18 and 22mm tubes, we recommend the use of the TA145 used in conjunction with the TA146 Rotadrive holder and the TA147 handle.



4. If a deburrer is not available use a fine file to prepare the tube end.

5. If using plastic coated carbon steel system tube the plastic coating must be removed from the socket depth of the fitting using the S115 stripping tool from the XPress accessories range. Select the correct size tool, fully insert the tube and twist the tool until the excess of plastic is completely detached



6. The tube must be fully inserted to the fitting until it meets the tube stop. Use a S110 XPress depth gauge or ruler to mark the insertion (socket) depth of the fitting onto the tube – see table.

Press-fit solutions

Installation instructions

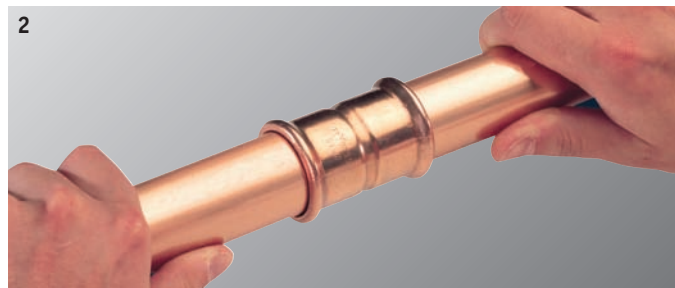
15mm to 35mm sizes

Joining 15mm to 35mm

Please refer to the press-fit tool manufacturers instructions for detailed operating and safety information before pressing joints. Pegler Yorkshire recommends both Novopress and Rems tools.



1. Keep all fittings in their bag prior to installation to ensure the lubrication does not dry out. Ensure the 'O' ring is seated correctly within the fitting socket.



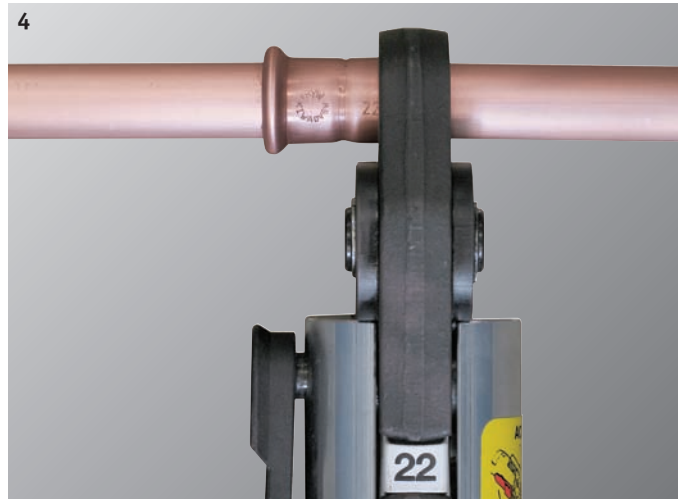
2. Assemble the joint, ensuring the tube is inserted into the fitting until it meets the tube stop, using the insertion depth mark as a visual aid. Only when the tube reaches the tube stop should the pressing operation be undertaken.



3. Make the tool safe by isolating it from the power supply.

Select the correct jaws for the joint being made, checking that they are free from damage. Attach the jaws, following the instructions for your particular press-tool, and reconnect the power supply when ready.

Insert the correctly sized jaws into the pressing tool and place them over the bead at the mouth of the fitting. Ensure the jaw is correctly lubricated with Dri-slide lubricant (S135 see page 86).



4. A 90° angle between the tube and jaws must be maintained when pressing all joints. This will ensure the integrity of the joint as well as protecting you from 'kickback'. The pressing operation should only be carried out when the tube is adequately supported by brackets, not when the tube is suspended in the fitting socket alone.



5. Keep your hands safely away from the joint and press the trigger or button to start the jointing cycle. When the jaws fully enclose the mouth of the fitting, the joint is complete. The jaw should then be released from around the fitting. If all is in order, mark the joint as complete.

The XPress jointing system has been designed with easy, efficient installation in mind. XPress Copper, XPress Stainless, XPress Carbon, XPress Copper Gas, XPress Stainless Gas and XPress Solar have common installation instructions.

Socket depths

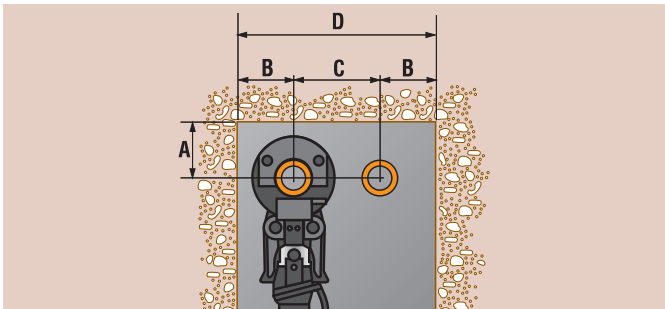
**SOCKET DEPTHS:
XPRESS COPPER AND SOLAR, STAINLESS, CARBON,
COPPER GAS AND STAINLESS GAS**

Size	Socket depth
42mm	30mm
54mm	35mm
67mm**	50mm
76mm Copper	50mm
76mm Stainless/carbon	55mm
89mm*	64mm
108mm Copper	64mm
108mm Stainless/carbon	78mm

*Not XPress Copper/Gas
**Not XPress Stainless/Carbon

Spacing

Allow sufficient clearance around each fitting to allow pressing jaws to be attached without hindrance.



PIPEWORK CLEARANCE (mm)

Size	A	B	C	D
42mm	75	75	115	265
54mm	85	85	120	290
67mm	100	100	145	345
76mm	115	115	165	395
89mm	125	125	185	435
108mm	135	135	200	470

Health and safety

1. We recommend that eye protection is worn when operating all pressing tools.

2. Do not activate a pressing tool without a fitting in the jaws.

Note: When using power tools, great care must be taken at all times. Always refer to the manufacturers' instructions for all machines and tools you use. Please refer to www.pegleryorkshire.co.uk/SHE for further COSHH information.

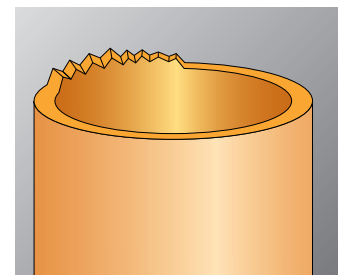
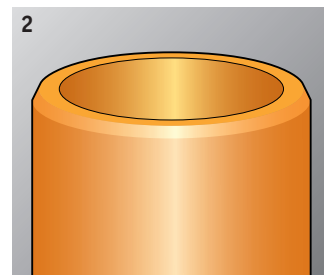
Preparation

Select the correct size of tube and fitting for the job. Ensure that both are clean, in good condition and free from damage and imperfections.



1. Cut the tube square using a cutting tool such as the REMS Cento, or a rotary tube cutter.

The Pegler Yorkshire/REMS cutting wheel is also available for cutting carbon steel tube. This significantly reduces subsequent tube preparation time. It is available from REMS - quote Ref. No. 845055.



Tube cutters

Remove burrs

2. Care must be taken to ensure that tube is cut square, properly deburred and free from scores.

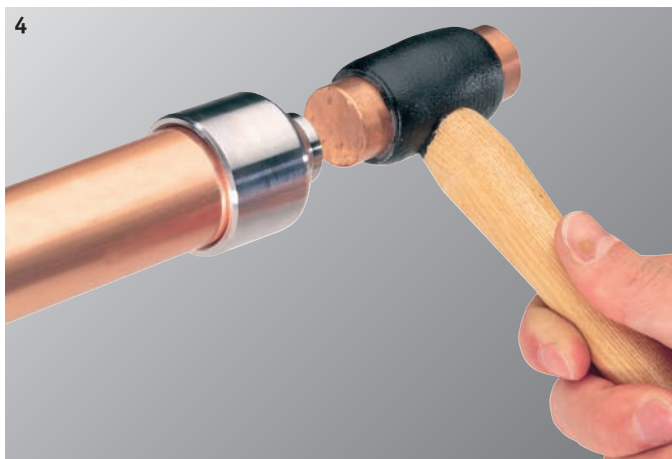


3. Deburr both internal and external tube ends then wipe clean of all swarf and debris to avoid damage to the 'O' ring upon tube insertion. An S120 deburring tool can be used for this purpose on copper, stainless steel or carbon.

Press-fit solutions

Installation instructions

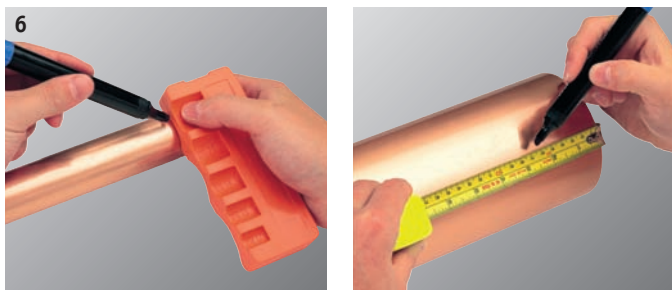
42mm to 108mm sizes



4. Alternatively, for copper, use the appropriate sized XPress S122 percussion deburrer.



5. If a deburrer is not available use a fine file to prepare the tube end.



6. The tube must be fully inserted to the fitting until it meets the tube stop. Use a S110 XPress depth gauge or ruler to mark the insertion (socket) depth of the fitting onto the tube – see table.

Dri-slide lubricant (jaws and slings only)

Use of S135 Dri-Slide lubricant is essential when jointing large sized fittings. The pressing profile groove of the sling jaws should be cleaned and lubricated after every 50 joints for 42mm to 76mm sizes, and every 5 joints for 108mm.

Dri-slide should also be applied between the main sling arms and the moving segments; and along the pivot pins between the arms.

Note: Wipe clean any excess lubricant so that it does not come into contact with the fitting 'O' ring.



Joining 42mm to 108mm

Please refer to the pressing tool manufacturer's instructions for detailed operating and safety information before pressing joints. Pegler Yorkshire recommends Novopress tools. 108mm XPress Copper fittings must only be pressed with sling jaws marked for copper only.



1. Assemble the joint, ensuring the tube is inserted into the fitting until it meets the tube stop, using the insertion depth mark as a visual aid. Only when the tube reaches the tube stop should the pressing operation be undertaken.



2. Select the appropriate sized sling jaw, open the sling by depressing the spring loaded pin, pull the sling apart and place over the fitting. Make sure the groove in the sling corresponds to the bead on the fitting and the support plate on the sling fits over the tube side of the joint, taking care not to trap your fingers in the sling.

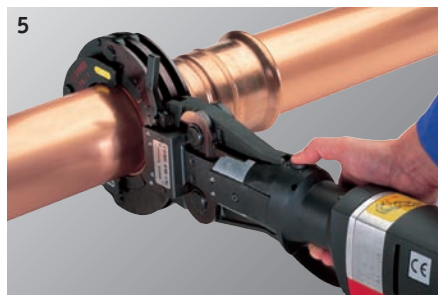
Ensure the sling is correctly lubricated with Dri-slide lubricant (S135 see page 86).



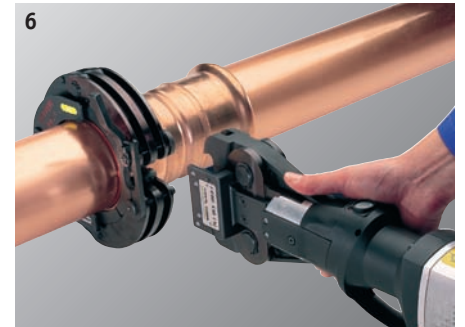
3. Turn the catch mechanism toward the locking pin, depress the spring loaded pin and push the catch into the pin until the mechanism engages. Revolve the sling around the fitting to the desired pressing position.



4. Attach the appropriate adaptor to the press tool and close the breach bolt. Make the tool safe by isolating it from the power supply.



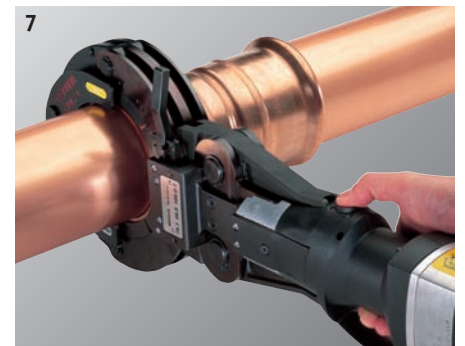
5. Attach the sling by depressing the adaptor jaw levers and inserting the claws as far as possible into the grooves of the sling. A 90° angle between the tube and sling must be maintained when pressing all joints. This will ensure the integrity of the joint as well as protecting you from 'kickback'. Commence the pressing operation by pressing the trigger or button.



6. When pressing has been completed the adaptor should be disengaged by depressing the jaw levers, and the slings removed from the fitting.

With the tool fully supported and not hanging from the pipework, and with your hands safely away from the jaws, start the pressing cycle.

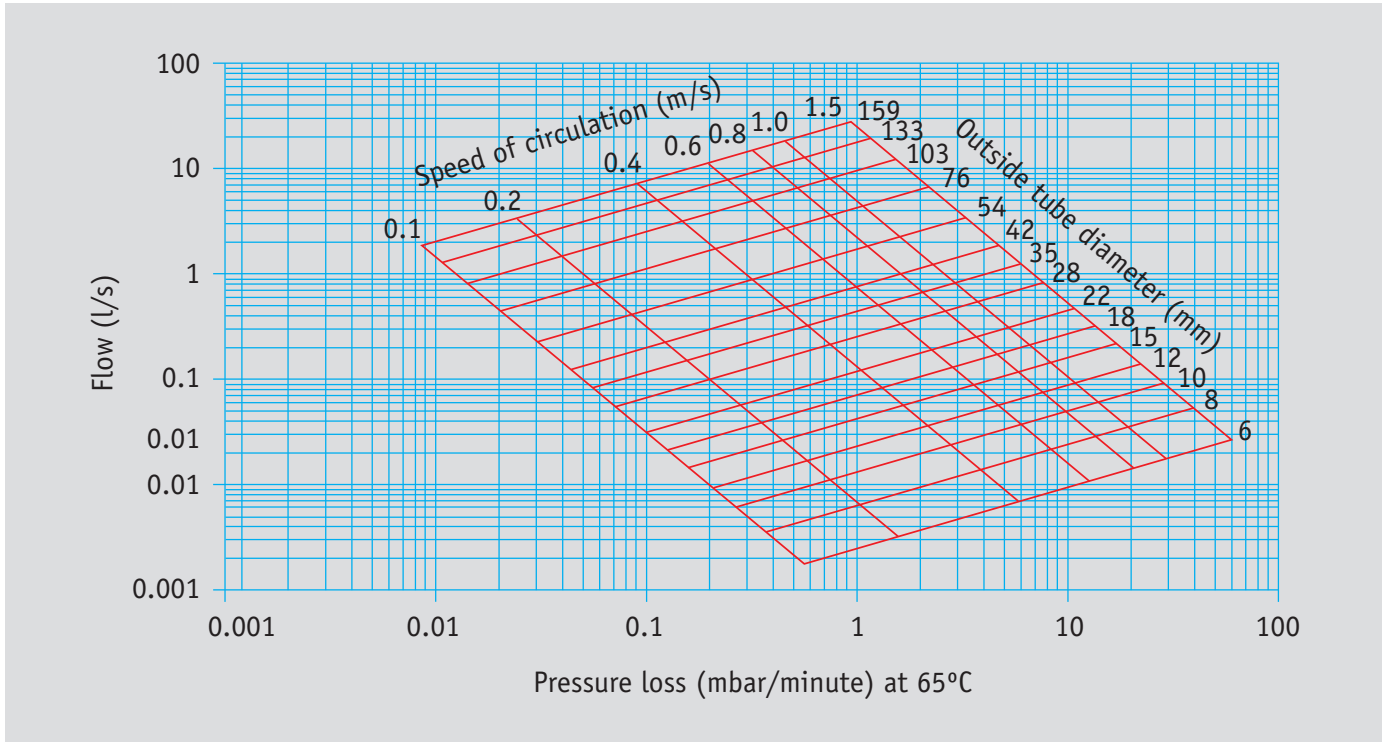
108mm second press



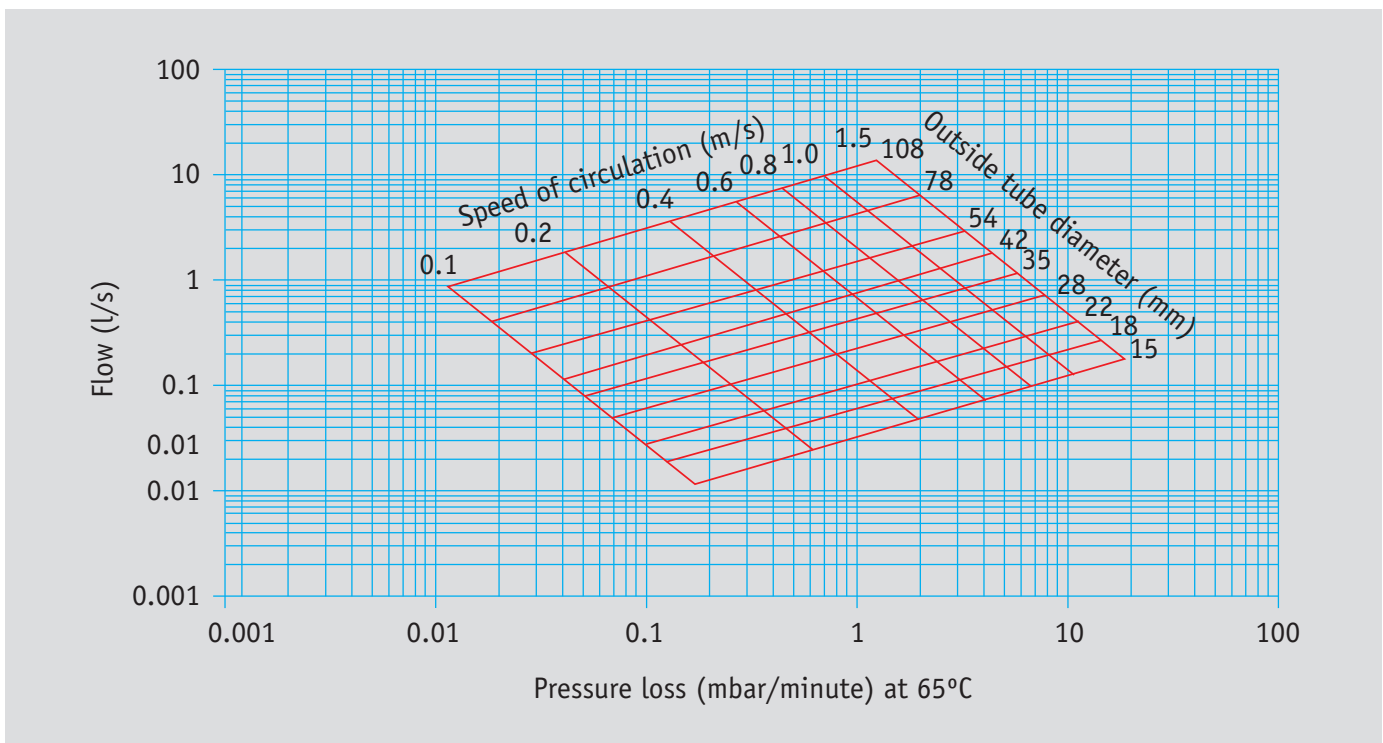
7. For 108mm fittings the press sling should be left in place after the first clamp and the secondary adaptor (S324) attached. Re-check to ensure the tube is still fully inserted into the fitting and repeat the pressing operation to complete the procedure.

The 108mm joint is not fully made until the fitting has been through two pressing operations. Allow sufficient clearance around each fitting to allow press-fit jaws to be attached without hindrance.

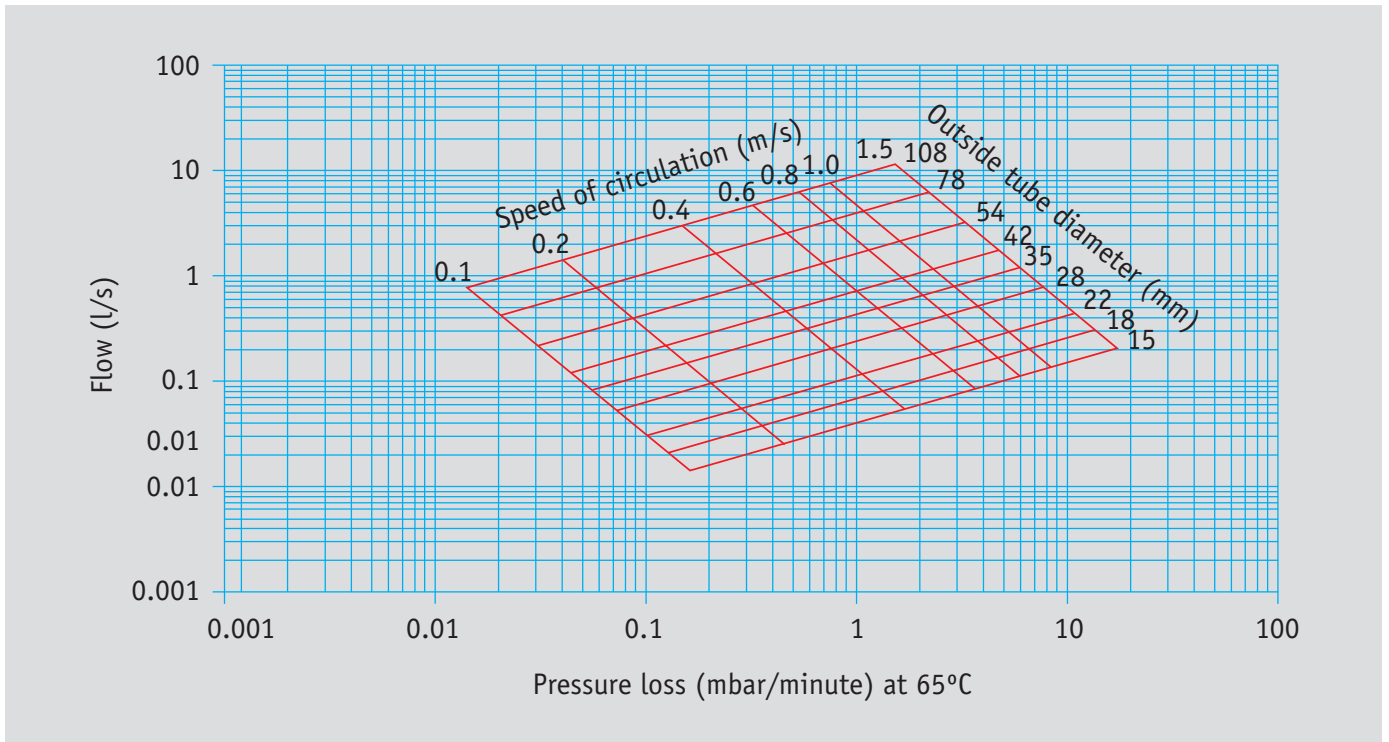
Head loss/Pressure loss diagram: Copper



Head loss/Pressure loss diagram: Carbon steel



Head loss/Pressure loss diagram: Stainless steel



Notes





Pegler Yorkshire

Our brands:

terrier

HEATING SOLUTIONS

YORKSHIRE

SOLDER RING SOLUTIONS

Tectite

PUSH-FIT SOLUTIONS

XPress

PRESS-FIT SOLUTIONS

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