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Introduction

Flame free

Flame free installation takes away risk of fire on site

Reliable simplicity

Simple, quick and reliable installation provides low installed cost

Fully certified

Extensive third party certification offers peace of mind to the client, specifier and installer

Performance and warranty

Corrosion resistant and with a design life of 50 years, >B< Press can be relied on to perform long after installation

Slimline profile

Slimline, unobtrusive design provides aesthetic finish

Electrical continuity

Maintains electrical continuity to meet requirements of national building regulations

Permanent joint

Secure, permanent joint crimped both sides of deep set 'O' ring ensures fitting cannot be tampered with

Practical by design

Lead-in edge aids installation and helps protect 'O' ring from damage or displacement

IBP is an international manufacturer of fittings for domestic, commercial, industrial and shipbuilding environments. Our market-leading brands include **Conex**® and **Bänninger**™.

The Company operates manufacturing facilities in the UK, Spain and Poland; and has sales offices in these countries as well as France, Germany, Italy and Portugal. Through distributor and agency partnerships IBP is represented across Europe, the Middle East and the Far East.

IBP works closely with industry professionals at all stages of the building cycle. Partnerships with clients, building owners, specifiers and designers, merchants and contractors ensure that IBP products continue to provide highly cost-effective solutions to satisfy building requirements covering such applications as drinking water, heating, gas, solar heating, compressed air and liquid gas systems.

reliable
simplicity



fully
certified

practical
by
design

slimline profile



Product features

>B< Press offers a versatile press fitting system for use with hard, half-hard and soft copper tube and stainless steel tube (see Table 3 on page 9 for details), providing a secure, long-life, leak-proof joint. >B< Press is user friendly and very quick to install, leading to savings on labour costs. It also offers the advantage of flame free installation, therefore posing no fire risk.



To install >B< Press, a mechanical press tool with a compatible jaw to fit each size of fitting is required. When pressure is exerted through the press tool the joint is permanently made and the fitting cannot be disconnected or re-used. The >B< Press system eliminates the need for solder, adhesives or additional jointing materials. >B< Press has undergone extensive testing to international, national and industry standards. WRAS, DVGW, SVGW, KIWA, Lloyds Register, Bureau Veritas and Germanischer Lloyd approvals amongst others have been awarded. All fittings are manufactured in accordance with accredited EN ISO 9001:2000 Quality Management Procedures.



flame free

electrical continuity

Product structure and applications

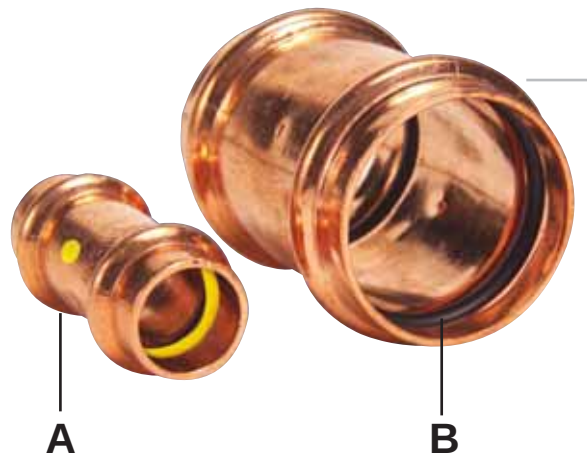
Drinking water

Heating

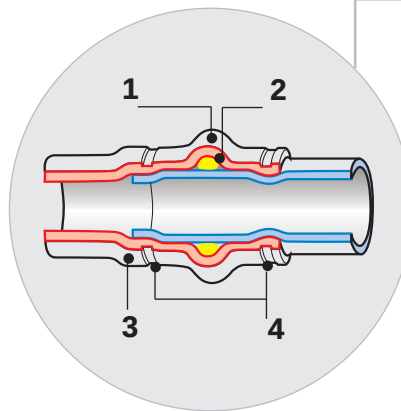
Compressed air

Natural gas/LPG

Domestic fire
sprinkler systems



- A. Copper, red brass or stainless steel body
- B. Specialist 'O' ring



Section through >B< Press fitting

- 1. Bead
- 2. 'O' ring
- 3. Cylindrical sleeve (socket)
- 4. Pressing both sides of 'O' ring

Product

The >B< Press range is available in **Copper, Red Brass** and **Stainless Steel** materials. Copper and Red Brass fittings are suitable for use with copper tube to EN 1057; Stainless Steel fittings are suitable for use with stainless steel tube to EN 10312.

Tables 1 and 2 identify suitable applications for the range and give the minimum and maximum working pressures and temperatures.

>B< Press fittings for natural gas and LPG applications are identified by a yellow coloured 'O' ring and body mark as shown above.

Accelerated life tests show that >B< Press components have a life expectancy greater than 50 years.

Table 1

Drinking water, heating and air

Application	Pressure	Temperature	Medium
Drinking water installations to pr EN 806	10 bar 16 bar	95°C 30°C	Drinking water to DWD
Chilled water	10 bar	5°C	Water
Water heating	6 bar	110°C	50/50 glycol/water mix
Solar heating	3 bar	-35°C to +130°C 200 °C 20 h/a 180°C 60 h/a	50/50 glycol/water mix
Long distance water heating	10 bar	130°C	50/50 glycol/water mix
Rainwater installations	10 bar	30°C	Rainwater
Compressed air installations (oil free)	10 bar	30°C	Compressed air to ISO 8573.1, Class 1-4 (oil free)
Shipbuilding	10 bar 16 bar	95°C 30°C	Water
Vacuum	-0.8 bar	Ambient	-
Domestic fire sprinkler systems	16 bar	Ambient	Water

Table 2

Gas

Application	Pressure	Temperature	Medium
Gas installations to DVGW - TRGI 1986/96	PN5/GT/1	-20°C to +70°C	Gases according to DVGW G260
Liquid gas installations (LPG)	PN5/GT/1	-20°C to +70°C	Gases according to DVGW G260
Fuel oil installations	PN5	-20°C to +40°C	-
Compressed air installations (with oil content)	10 bar	25°C	-

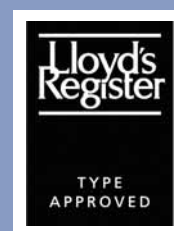
Standards & approvals

>B< Press Copper and Red Brass fittings have been assessed and approved by a wide number of approval bodies.

Clients, specifiers and installers can all take reassurance that >B< Press performs to the very highest standards.

Furthermore, the Company is a BSI Registered Firm of assessed capability, manufacturing in accordance with EN ISO 9001:2000.

For each geographic market, reference should be made to appropriate international, national or industry standards or approvals for a full understanding of the requirements of materials, products and systems in specific applications. Appendix 1 on page 23 provides a reference guide to many of these standards and approvals, which are met by >B< Press where applicable.



Design considerations

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Tube compatibility

Copper and Red Brass fittings are suitable for use with copper tube to EN 1057; Stainless Steel fittings are suitable for use with stainless steel tube to EN 10312.

Table 3 identifies the range of tube diameters/wall thicknesses that have been tested with >B< Press.

For gas installations, the wall thickness of copper tube should be determined by national regulations.

Table 3

Tube sizes suitable for >B< Press

Tube O/D	Tube Wall Thickness (mm)						
	Soft Copper R220		Half Hard Copper R250		Hard Copper R290		Stainless Steel
12	0.6	-	0.8	-	1.0	-	1.0
14	1.0	-	-	-	1.0	-	-
15	1.0	-	0.7	-	1.0	-	1.0
16	1.0	-	-	-	1.0	-	-
18	1.0	-	0.8	-	1.0	-	1.0
22	1.0	-	0.9	1.1	1.0	1.5	1.2
28	-	-	0.9	1.2	1.0	1.5	1.2
35	-	-	1.2	-	1.0	1.5	1.5
42	-	-	1.2	-	1.0	1.5	1.5
54	-	-	1.2	-	1.2	2.0	1.5
64	-	-	1.2	-	2.0	-	-
66.7	-	-	1.2	-	-	-	-
76.1	-	-	1.5	-	1.5	2.0	-
88.9	-	-	-	-	-	2.0	-
108	-	-	1.5	-	-	2.5	-

Table 4

Pipework support

All pipework should be supported by the use of appropriate clips, brackets or supports.

Table 4 provides details of the maximum intervals between supports generally recommended by tube manufacturers. However, please refer to manufacturers for specific details in relation to the particular application.

Additional support may be necessary when using soft copper tubes.

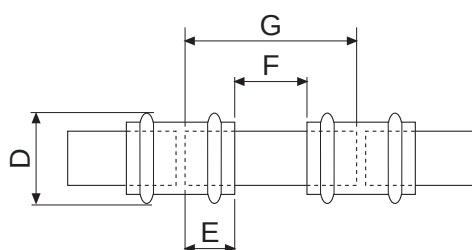
Size (mm)	Vertical Intervals (mm)	Horizontal Intervals (mm)
10	1500	1000
12	1800	1200
14	1800	1200
15	1800	1200
16	1800	1200
18	2000	1500
22	2400	1800
28	2400	1800
35	3000	2400
42	3000	2400
54	3000	2700
64	3000	2700
66.7	3000	2700
76.1	3600	3000
88.9	3600	3000
108	3600	3000

Table 5

Distance between fittings

Distance between fittings

Due to the reforming of the tube profile when pressed, it is advised that a minimum distance, shown as F in Table 5, is allowed between each fitting.



Tube Size	Minimum Distances			
	D	E	F	G
12	19	18	10	46
14	21.7	22	10	64
15	22.6	22	10	54
16	23.7	22	10	64
18	25.6	22	15	59
22	31	23	20	66
28	37	24	20	68
35	44	26	25	77
42	53.4	36	30	102
54	65.4	40	35	115
64	71	52	30	132
66.7	71	52	30	132
76.1	81	52	40	142
88.9	94	52	50	142
108	114	60	50	170

D - Fitting OD

E - Socket depth

F - Clearance between fitting ends

G - Minimum length of tube

Design considerations

Pipework clearances

Where there is insufficient access to allow the press tool to function correctly, two alternative courses of action are possible. Either:

- Pre-fabricate sections for areas of inaccessibility and connect where access allows, or
- Utilise alternative flame free solutions such as Conex Compression Fittings or Cuprofit Push-fit Fittings (size dependent).

Please refer to relevant product literature or consult the IBP Technical Department.

Tables 6 and 7 provide dimensional data for clearance distances.

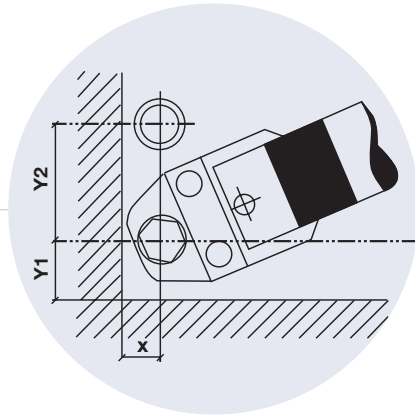


Table 6

Corner and pipe clearances

Size (mm)	X (mm)	Y1 (mm)	Y2 (mm)
12	31	45	71
14	31	45	73
15	31	45	73
16	31	45	73
18	31	45	74
22	31	45	76
28	38	55	80
35	38	55	85
42	75	75	115
54	85	85	140
64	100	100	145
66.7	100	100	145
76.1	115	115	165
88.9	125	125	185
108	135	135	200

Earth continuity

>B< Press fittings maintain earth continuity without the need for additional continuity straps.

Mixed material systems

When jointing a copper system to a stainless steel or carbon steel system it is recommended that red brass fittings are used as the intermediate connector. This will prevent the creation of a voltaic cell and electrolytic corrosion.

In systems that incorporate zinc coated steel tube and fittings, copper tube should be downstream of zinc coated steel.

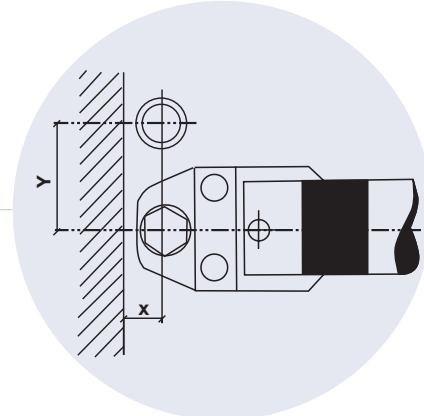


Table 7

Wall and pipe clearances

Size (mm)	X (mm)	Y (mm)
12	26	51
14	26	53
15	26	53
16	26	53
18	26	54
22	26	56
28	33	69
35	33	73
42	75	115
54	85	120
64	100	145
66.7	100	145
76.1	115	165
88.9	125	185
108	135	200

Pipework protection

Copper has a high resistance against corrosion. However, in some cases external protection may be necessary against fluids that may contain ammonia or its derivatives. If in doubt, please consult your regional IBP Technical Department.

Localised annealing

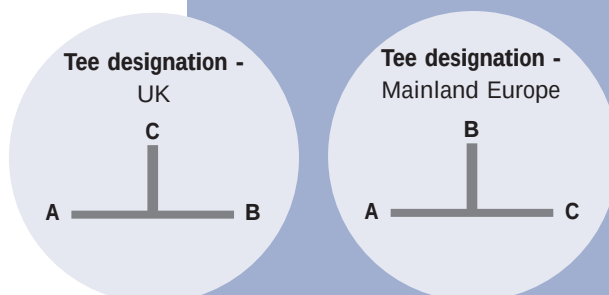
When designing and installing pipework systems that incorporate both press fitting and brazed joints you should note that the high temperature required for brazing anneals the copper tube, rendering it too soft for >B< Press jointing within 300mm of the brazed joint. Equally, do not incorporate brazed joints within 300mm of a >B< Press joint, as this may damage the 'O' ring.

Tee designation

When specifying tee fittings on drawings or tender documents and such like, you should note that tee fittings are specified differently between the UK and other European countries.

- UK specification - first quote the ends on the run (larger end first) and then the branch.
- European specification - quote the larger end first, then the branch, followed by the remaining end.

Sizes quoted in the product tables follow the European method of tee designation.



Terminal connections

In many pipework systems it is common to install products such as lever ball valves, radiator valves, gate valves, cylinder unions, tank connectors and manifolds. Connection of pipework into these products can be achieved with a traditional range of standard fittings, such as male and female straight union connectors. In addition, however, the >B< Terminal Connector is a unique product designed to connect any ISO 228 or ISO 7 female parallel threaded product.

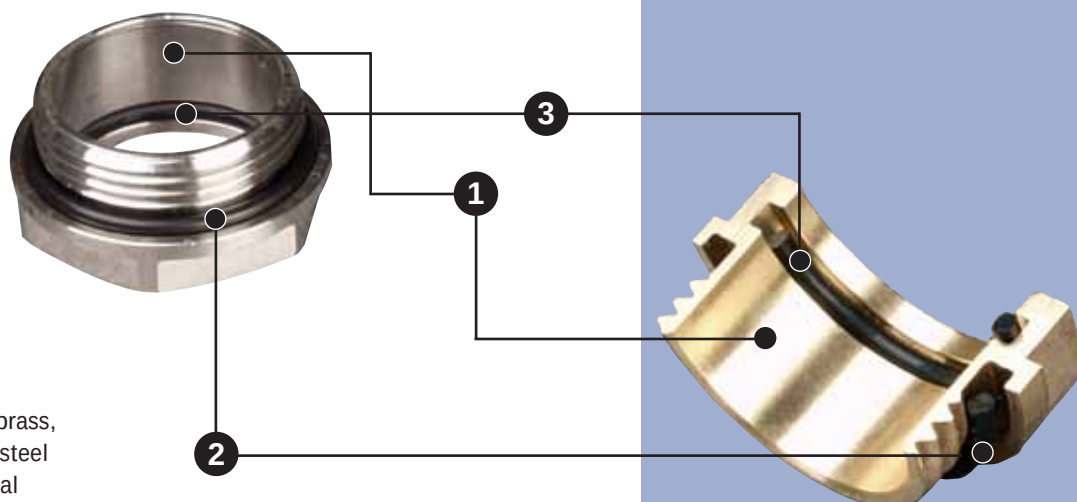
The fitting allows a connection to be made quickly and simply without the need for additional sealants such as PTFE. Sealing is achieved via two EPDM 'O' rings, one internal to seal on the tube, the other to make the fitting seal.

The >B< Terminal Connector can be used for drinking water, plus sanitary and heating installations, in domestic, industrial and commercial applications.

Other applications include chilled beams and a comprehensive range of OEM uses.

The >B< Terminal Connector is for use with water only, and must not be used on any gas installations. The product does not maintain earth continuity.

Installation guidelines are shown on page 20.

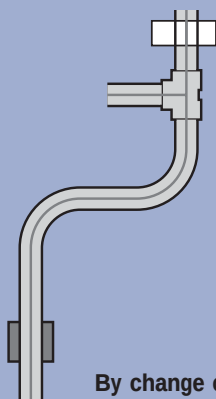


Product structure

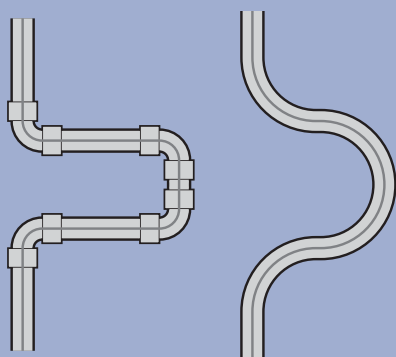
1. Body in either yellow brass, red brass or stainless steel
2. EPDM 'O' ring face seal
3. EPDM 'O' ring tube seal

Design considerations

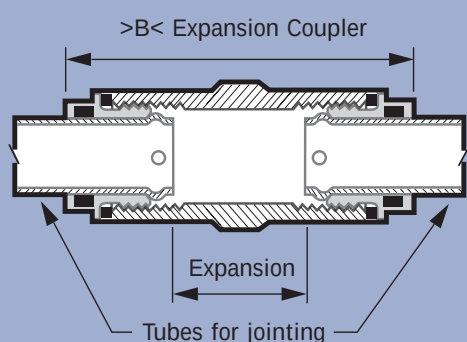
Expansion devices



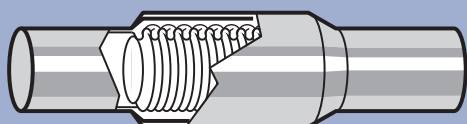
By change of direction



'Horseshoe' or compensating bend



Expansion coupler



Bellows type expansion joint

Effects of expansion

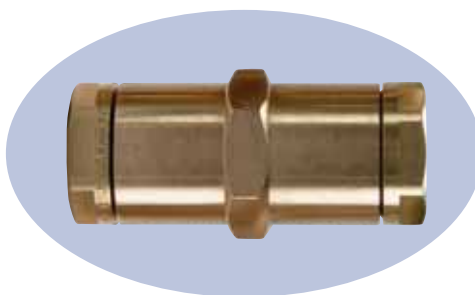
The coefficient of linear expansion of copper is 16.8×10^{-6} per °C and 16.0×10^{-6} per °C for stainless steel. For example, a 10m length of copper tube, irrespective of its size, wall thickness or temper, will increase in length by 10.80mm with a temperature rise of 60°C. Pipes installed on hot water services must be free to accommodate this expansion, otherwise stresses will build up in the pipework, which may lead to joints being pulled apart and/or tubes fracturing. Clearly the magnitude and frequency of such changes in length will determine the life of the joint or failure of the tube.

Table 8 shows the amount of pipe expansion for a given temperature rise.

In the case of tube in domestic hot water and heating installations the limited size of rooms and hence straight pipe runs, together with the many bends and offsets that normally occur, will result in thermal movement being accommodated automatically. However where long straight pipe runs, exceeding 10m, are encountered, allowance for expansion should be made.

A quick, economic and effective way of accommodating thermal expansion is to simply incorporate the >B< Expansion Coupler into the system design. Based on the unique >B< Terminal Connector product described on page 11, the coupler allows the pipework to move within the main body of the fitting whilst maintaining a perfect seal.

Installation of the >B< Expansion Coupler follows the same set of guidelines as the >B< Terminal Connector on page 20.



Where copper tubes pass through walls, floors and ceilings, they should be able to move as a result of expansion and contraction. This can be arranged by passing the tube through a sleeve or length of larger diameter pipe fixed through the whole thickness of the wall, floor or ceiling, or by means of flexible joints on either side of the wall.

Short stubs to and from radiators, connected to relatively long straight runs should also be avoided. This can usually be achieved by introducing an expansion loop, thereby increasing the length of pipework fixed between the flow/return legs and the radiator connection. However, expansion accommodation techniques such as the use of loops and horseshoes may not be sufficient to accommodate large expansions and in such cases the use of the >B< Expansion Coupler or bellows type couplers may be necessary.

Table 8

Thermal expansion (mm) of copper and stainless steel tube as a function of tube length and temperature difference

Table 8 shows the increase in length due to thermal expansion as a function of change in temperature Δt and the length of the tube at the lower temperature, irrespective of temper or wall thickness.

Tube Length m	Temperature Difference Δt °C							
	$\Delta t=30^\circ$	$\Delta t=40^\circ$	$\Delta t=50^\circ$	$\Delta t=60^\circ$	$\Delta t=70^\circ$	$\Delta t=80^\circ$	$\Delta t=90^\circ$	$\Delta t=100^\circ$
0.1	0.05	0.07	0.08	0.10	0.12	0.13	0.15	0.17
0.2	0.10	0.13	0.17	0.20	0.24	0.27	0.30	0.34
0.3	0.15	0.20	0.25	0.30	0.35	0.40	0.45	0.50
0.4	0.20	0.27	0.34	0.40	0.47	0.54	0.60	0.67
0.5	0.25	0.34	0.42	0.50	0.59	0.67	0.76	0.84
0.6	0.30	0.40	0.50	0.60	0.71	0.81	0.91	1.01
0.7	0.35	0.47	0.59	0.71	0.82	0.94	1.06	1.18
0.8	0.40	0.54	0.67	0.81	0.94	1.08	1.21	1.34
0.9	0.45	0.60	0.76	0.91	1.06	1.21	1.36	1.51
1.0	0.50	0.67	0.84	1.01	1.18	1.34	1.51	1.68
2.0	1.01	1.34	1.68	2.02	2.35	2.69	3.02	3.36
3.0	1.51	2.02	2.52	3.02	3.53	4.03	4.54	5.04
4.0	2.02	2.69	3.36	4.03	4.70	5.40	6.05	6.72
5.0	2.52	3.36	4.20	5.04	5.88	6.72	7.56	8.40
10.0	5.04	6.72	8.40	10.80	11.76	13.44	15.12	16.80
15.0	7.56	10.80	12.60	15.12	17.64	20.16	22.68	25.20
20.0	10.08	13.44	16.80	20.16	23.52	26.88	30.24	33.60
25.0	12.60	16.80	21.00	25.20	29.40	33.60	37.80	42.00

>B< Press tools



IBP has a close working relationship with two leading manufacturers of press tools - Klauke and Novopress. Klauke press tools are recommended for >B< Press fittings up to 54mm and the Novopress tool is recommended for >B< Press fittings 64mm to 108mm, both ranges being available from IBP.

A full listing of tools and jaws including technical details is provided on pages 186-189.

Novopress for fittings 64 -108mm

PRESSMAX EC03

Electro-mechanical

- Easy to operate, yet provides maximum pressing power despite its small size
- Microprocessor control ensures consistent force over the entire press cycle
- Electronic monitoring of the jaw's locking bolt ensures proper installation
- Automatic return stroke is standard
- A short cycle time of about 12 seconds is all it takes to make a perfect joint, regardless of the dimension
- Weight only 4.7 kg (without adaptor and collar)
- Power consumption of 400 W
- Piston force - maximum 45 kN



Klauke for fittings 12-54mm

UAP2

Battery-hydraulic

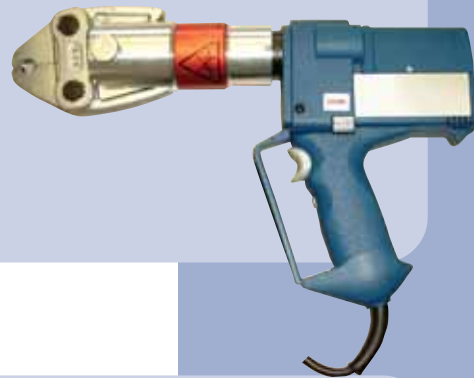
- Lightweight, compact design and construction - only 3.9 kg including battery
- Ergonomic design (one hand operation)
- Reliable, constant thrust of at least 32 kN
- Short pressing time of about 6 seconds
- Automatic piston retraction after reaching operating pressure
- Maintenance and malfunction warnings are microprocessor-controlled
- 360° moveable jaw holder



UNP2

Electro-hydraulic

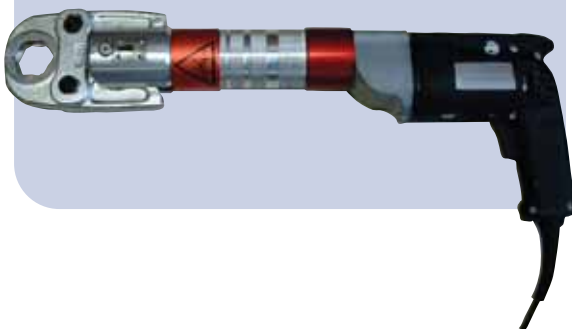
- Combines all the advantages of the battery pressing tool UAP2
- Without micro-processor control
- The hydraulic low-price alternative to UAP2
- Weight only 3.5 kg (without jaw)
- 360° moveable jaw holder
- Automatic piston retraction after reaching operating pressure



UP2EL-14

Electro-mechanical

- Tried and tested technology, reliable and fast
- With knurled pressing jaw holder and second retaining ring for improved safety
- Constant thrust of at least 32 kN
- Power consumption - 750 W
- Short pressing time of just 4 seconds
- Weight only 4.6 kg (without jaw)



MAP1 Mini

Battery-hydraulic

- Small machine - lightweight and easy to handle
- Suitable for fittings 12-28mm
- Ergonomic handling
- Constant thrust of 15 kN
- Short pressing time of 6 seconds
- Automatic piston return and motor cut off
- 360° moveable jaw holder
- Weight including pressing jaw, only 2.5 kg
- Approximately 65 pressings per battery charge (DN20)
- Charging time of approximately 40 minutes



>B< Press fittings are simple to install, just follow these straightforward guidelines.

Getting started

We recommend you keep the fitting in its packaging until you are ready to begin installation. This is important to keep the fitting free of any dust or dirt and to ensure the 'O' ring stays lubricated and protected from damage.

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

Preparation

1 We recommend you use a rotary pipe cutter to cut the tube square. If you use a hacksaw, a fine toothed blade should be used and care taken to ensure the tube is cut square. Grinding machines and wheels are not suitable. If tube ends have become distorted or damaged, the ends should be restored to the outside diameter dimensions specified in EN 1057 or cut back. Tube ends should be clean and free from scratches not less than the socket length. When using plastic coated tube to EN 13349, the plastic coating should be cut back to the minimum socket length without scoring the tube.

2 Make sure that the internal and external tube end are free from burrs or sharp edges by using a deburring tool. Then wipe the tube end clean to avoid damaging the 'O' ring on tube insertion.

3 The tube must be fully inserted into the fitting until it reaches the tube stop in order to make a perfect joint. Use a rule to mark the socket depth of the fitting onto the tube (see Table 9). This will ensure that any tube movement is detected, which is especially important if the joints are to be pressed at a later time.

4 Visually check that the 'O' ring is seated correctly within the fitting socket.



Joining

1

To assemble the joint, the tube must be inserted into the fitting up to the tube stop. (Use the mark on the tube which was made earlier as reference.) The pressing operation should only be undertaken when the tube reaches the tube stop.



2

Using the correct sized jaws in the press tool, place them over the bead at the mouth of the fitting. Maintain a 90° angle between tube and jaws to ensure a sound joint is made.



3

Depress the trigger/button to begin the compression cycle of the tool. This is complete when the mouth of the fitting is fully enclosed by the jaws. Now release the jaws from around the fitting. (For further information refer to tool manufacturer's instructions.)



Spacing

Make sure enough clearance is left around each fitting to attach the jaws without obstruction. The critical dimensions can be found in Tables 6 and 7 on page 10.

Table 9

Fitting socket depths

Size (mm)	Socket depth (mm)	
	Coupler	Other fittings
14	20	22
15	20	20
16	20	22
22	21	21
28	23	23
35	26	26
42	30	30
54	35	35
64	57	52
67	53	53
76	51.5	51.5
89	51.5	51.5
108	60	60



We recommend the use of press collars rather than two-piece jaws when jointing larger size fittings. The collars provide an equally distributed pull around the circumference of the fitting. For 108mm red brass fittings a secondary press is undertaken to ensure a sound joint.

Lubrication

Pivot points and collar slides should be regularly lubricated to prolong the life of the collar.

Getting started and preparation

The same care and attention should be taken with tube preparation and socket depth marking when jointing 64mm to 108mm fittings as outlined in the "Getting Started" and "Preparation" sections for 12mm to 54mm fittings on page 16.

1



Jointing

1

To assemble the joint, the tube must be inserted into the fitting up to the tube stop. (Use the mark on the tube which was made earlier as reference.) The pressing operation should only be undertaken when the tube reaches the tube stop.

2



2

Select the appropriate collar and open by depressing the spring loaded pin. Pull apart and position over the fitting.

3



3

Ensure that the groove in the collar corresponds to the bead on the fitting and that the support plate on the collar fits over the tube side of the joint.

4

Turn the catch mechanism towards the locking pin, press down the locking pin and push the catch into the pin until it locks. Revolve the collar around the fitting to the desired pressing position.



5

Take the appropriate adaptor and attach to the press tool, then close the breach bolt. To attach the collar, depress the jaw levers and attach the claws as far as you can into the grooves of the collar. Unless the adaptor is correctly connected to the press collar pressing will not be possible.



6

Depress the button on the press tool and begin the pressing operation.



7

On completion of the pressing operation an audible bleep will be heard; disengage the adaptor by depressing the jaw levers and remove the collar from the fitting. See below for 108mm fitting.



8

108mm fitting

Leave the press collar in place and attach the secondary adaptor as detailed in point 5, then repeat the pressing operation as described in steps 6 and 7. The fitting must go through two pressing operations to complete the 108mm joint.



1



2



3



4



6



7

**>B< Terminal Connector installation**

1

Cut the tube using a tube cutter, de-burr tube end and, for soft copper, re-round.

2

Insert the tube through the >B< Terminal Connector. If installing on to soft copper do not force the >B< Terminal Connector onto any tube where ovality has occurred. The soft copper tube must be re-rounded before the >B< Terminal Connector is installed.

3

Taking the pliers, put the jaw with the pin inside the tube, ensuring that the tube is pushed tight up to the pliers.

4

Squeeze the pliers to form a dimple projecting outward from the tube. Turn the tool and repeat the dimpling operation so that the appropriate number of equi-spaced dimples are produced as follows:
up to 16mm - 3 dimples
18mm to 42mm - 4 dimples
54mm - 6 dimples

5

The face of the mating product should be examined prior to installation to ensure that there is no visible damage or burrs that may affect the seal.

6

Slide the >B< Terminal Connector to the end of the tube, tight against the dimples.

7

Screw into the mating product until finger tight, then with a suitable spanner tighten until metal to metal contact is achieved between the flange of the >B< Terminal Connector and the mating product. Then further tighten by $\frac{1}{8}$ turn.

Tool requirements

Only >B< Terminal Connector pliers and either open-ended spanners or an adjustable spanner are required.



Standard pliers

Standard pliers can be used to form the required number of retaining dimples in the following tube materials and sizes:
copper - 12mm to 28mm

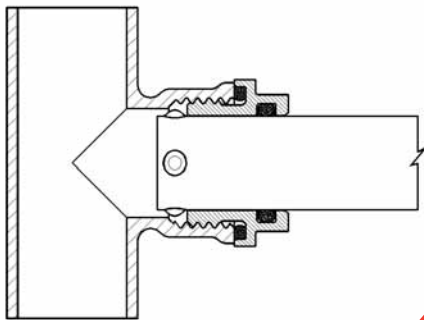


Ratchet pliers

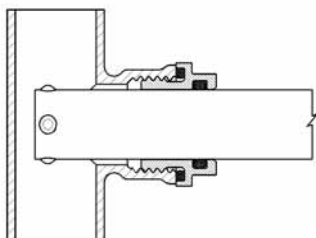
Ratchet pliers can be used to form the required number of retaining dimples in the following tube materials and sizes:
copper - 12mm to 54mm
stainless steel - 15mm to 54mm

Final installation positioning

Ensure tube retention dimples are engaged against >B< Press fitting.



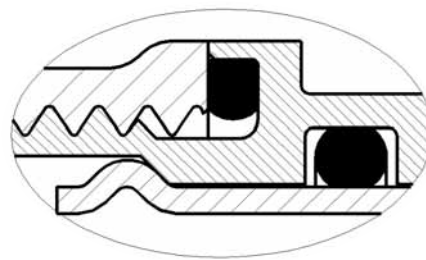
CORRECT - no flow restriction



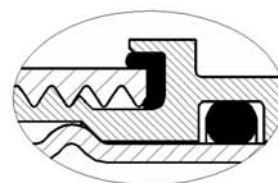
INCORRECT - potential flow restriction



Mating female part minimum diameters



CORRECT - metal flange contact of both parts



INCORRECT - female part screws inside flange



Testing and commissioning

Flushing of water installations

When the installation is complete, flushing with drinking water is essential before use to remove dust, debris and flux residues, in accordance with national regulations and guidelines.

When the piping system is not used immediately after commissioning, and has not been flushed at regular intervals (of up to thirty days, depending on the characteristics of the water), it must be disinfected before use.

Testing and commissioning drinking water installations

When the installation is complete, and after flushing, it should be slowly filled with water at ambient temperature, with the highest draw-off point open to allow air to be expelled from the system.

The installation should then be inspected for leaks and remedial action taken if necessary.

Water softening

Hard water may be softened to avoid excessive deposits of scale in hot water services. However, a degree of scale is necessary to form the protective patina on copper tube.

When a new copper tube installation has a water softener fitted from day one, it is good practice to run the system for approximately three months with the softener by-pass open to allow untreated water into the system, and allow the patina to form.

Testing and commissioning gas installations

Testing and commissioning of gas installation should be in accordance with the requirements specified in EN 1775 or national regulations.

Appendix 1

english

Standards and approvals reference guide

For each geographic market and application reference should be made to the appropriate international, national or industry standard or Approval body.

International

EN 1057	Copper and copper alloys - seamless, round copper tubes for water and gas in sanitary and heating applications.
pr EN 1254-7	Copper and copper alloy fittings with press ends for metallic tubes.
ISO 228-1	Pipe threads where pressure tight joints are not made on the threads. Dimensions, tolerances and designation (metric dimensions).
ISO7-1	Pipe threads where pressure tight joints are made on the threads (metric dimensions).
EN 10312	Welded stainless steel tubes for the conveyance of aqueous liquids including water for human consumption.
pr EN 14905	Copper and copper alloy - plumbing fittings - recommended practice for the installation of copper and copper alloy plumbing fittings.
EN 1775	Gas pipework for buildings - maximum operating pressures upto and including 5 bar - functional recommendations.

UK

BS 1306:1975	Specification for copper and copper alloy pressure piping systems.
BS 6700:1997	Specification for design, installation, testing and maintenance of services supplying water for domestic use within buildings and their curtileges.
WRAS	Water Regulations Advisory Scheme test codes for fittings for use with tube and pipe.

Germany

DIN 50930-6/2001	Corrosion of metals - corrosion of metallic materials under corrosion load by water inside of tubes, tanks and apparatus - Part 6: Influence of the composition of drinking water.
DVGW W541	Stainless steel and titan pipes for drinking water installation, requirements and testing.
DVGW VP614/2001	Permanent tube connections for metallic gas pipes; pressed joints.
DVGW GW 392/2002	Seamless drawn copper tubes for gas and drinking water installation, requirements and testing.
DVGW W270/1999	The growth of micro-organisms on materials intended for use in drinking water systems - examination and assessment.
DVGW W534/2004	Connecting pipe elements and pipe connections for pipes in the drinking water installation, requirements and testing.
DIN VDE 0100	Potential equalization





How to use this section

Benutzerhinweise

Comment utiliser cette section

Cómo usar esta sección

Come usare questa sezione

Jak korzystać z tego rozdziału

1

Use the colour-coded table headings to identify which metal(s) the product is available in:

Die Farbcodes in der Tabelle geben an, in welcher Materialausführung die einzelnen Produkte erhältlich sind:

Utiliser les en-têtes à code couleur des tableaux pour identifier dans quel métal le produit est disponible :

Utilice los códigos de colores en la tabla, para identificar en que materiales está disponible el producto:

Usare le intestazioni delle tabelle codificate a colori per identificare in che metallo(i) è disponibile il prodotto:

Barwne kody w nagłówkach tabeli informują, dla jakich metali jest dostępne oprzyrządowanie:



Copper / Kupfer / Cuivre / Cobre / Rame / Miedź



Red Brass / Rotguß / Bronze / Bronce / Bronzo / Brąz



Stainless Steel / Edelstahl / Acier inoxydable / Acero inoxidable / Acciaio Inossidabile (Inox) / Stal nierdzewna



Yellow Brass / Messing / Laiton / Latón / Ottone / Mosiądz



>B< Press tools / >B< Presswerkzeuge / Outils >B< Press / Herramientas >B< Press / Attrezzature per >B< Press / Narzędzia montażowe do złączy >B< Press

2

The symbols in the tables represent key information on the product:

Die Zeichen in der Tabelle bezeichnen die wichtigsten Parameter der einzelnen Produkte:

Les symboles dans les tableaux représentent les informations clés concernant le produit :

Los símbolos de las tablas representan información clave sobre el producto:

I simboli nelle tabelle rappresentano informazioni chiave sul prodotto:

Symbole w tabelach oznaczają główne informacje na temat produktu:



Product code / Artikelnr. / Code article / Código / Codice articolo / Kod produktu



Size / Abmessung / Dimension / Medida / Dimensione / Wymiary



Flange diameter / Nennweite der flange / Diametre de la bride / Diámetro brida (Dia) / Diametro flangia (Dia) / średnica kołnierza



Pitch circle diameter / Teilkreisdurchmesser / Entraxe des trous de part et d'autre du centre / Diametro de conexión brida / Diametro del foro di fissaggio / średnica otworu



Size/No. of holes / Bohrungsdurchmesser / Anzahl der Bohrungen / Diametre des trous / Diámetro / número de agujeros / Dimensione dei fori / Numero dei fori / Wielkość otworów



Length / Länge / Longueur / Longitud / Lunghezza / Długość



Description / Beschreibung / Description / Descripción / Descrizione / Opis



copper copper copper copper copper copper copper

stainless steel stainless steel stainless steel

red brass red brass red brass red brass red brass red brass red brass

>B< Press tools

Copper tube systems

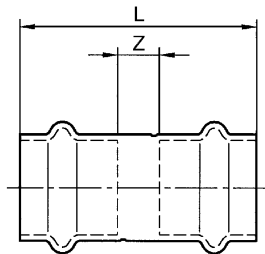
Kupferrohr-Systeme

Système en tube cuivre

Sistemas con tubo de cobre

Sistema con tubi di rame

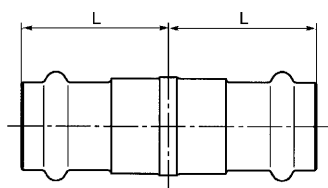
Instalacja z rur miedzianych

**Straight coupler**

Muffe | Manchon FF | Manguito HH | Manicotto con battuta F/F | Mufa

Product code ▲	Size ●	L	Z			
P5270 01200000	12	42	6			
P5270 01400000	14	48	4			
P5270 01500000	15	50	6			
P5270 01600000	16	49	5			
P5270 01800000	18	54	10			
P5270 02200000	22	56	10			
P5270 02800000	28	58	10			
P5270 03500000	35	62	10			
P5270 04200000	42	84	12			
P5270 05400000	54	92	12			

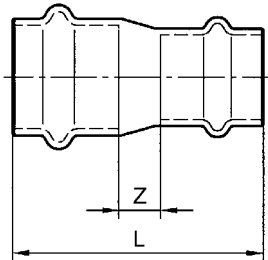
Product code ▲	Size ●	L	Z			
P4270 06400000	64	107	1			
P4270 06700000	66.7	107	1			
P4270 07600000	76.1	113	1			
P4270 08900000	88.9	113	1			
P4270 10800000	108	130	1			

**Slip coupler**Schiebemuffe | Manchon coulissant | Manguito deslizante |
Manicotto passante F/F | Mufa - nasuwka (naprawcza)

Product code ▲	Size ●	L				
P4275 01200000	12	32				
P4275 01500000	15	40				
P4275 01800000	18	40				
P4275 02200000	22	42.5				
P4275 02800000	28	47.5				
P4275 03500000	35	52.5				
P4275 04200000	42	60				
P4275 05400000	54	67.5				
P4275 06400000	64	107				
P4275 06700000	66.7	107				
P4275 07600000	76.1	113				
P4275 08900000	88.9	113				
P4275 10800000	108	130				

▲ Product code / Artikelnr. / Code article / Código / Codice articolo / Kod produktu

● Size / Abmessung / Dimension / Medida / Dimensione / Wymiary



Reduced straight coupler

Reduziermuffe | Réduction FF | Manguito de reducción HH |

Manicotto ridotto F/F | Mufa redukcyjna

Product code ▲	Size ●	L	Z			
P5240 01412000	14 x 12	45	5			
P5240 01512000	15 x 12	48	8			
P5240 01614000	16 x 14	47	3			
P5240 01815000	18 x 15	53	9			
P5240 02215000	22 x 15	55	10			
P5240 02218000	22 x 18	54	9			
P5240 02822000	28 x 22	58	11			
P5240 03528000	35 x 28	63	13			
P5240 04235000	42 x 35	77	15			
P5240 05442000	54 x 42	96	20			

Copper tube systems

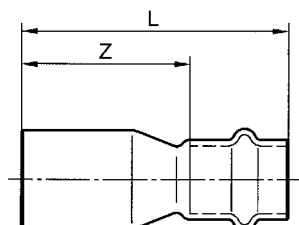
Kupferrohr-Systeme

Système en tube cuivre

Sistemas con tubo de cobre

Sistema con tubi di rame

Instalacja z rur miedzianych

**Fitting reducer**

Reduzierstück | Réduction MF | Manguito de reducción MH |

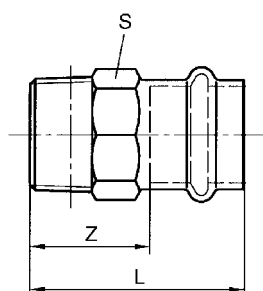
Manicotto ridotto M/F | łącznik redukcyjny

Product code ▲	Size ●	L	Z			
P5243 01412000	14 x 12	42.75	24.75			
P5243 01512000	15 x 12	50	32			
P5243 01612000	16 x 12	42.25	24.25			
P5243 01614000	16 x 14	46.5	24.5			
P5243 01812000	18 x 12	53	35			
P5243 01815000	18 x 15	54	32			
P5243 02215000	22 x 15	60	38			
P5243 02218000	22 x 18	57	35			
P5243 02815000	28 x 15	68	46			
P5243 02818000	28 x 18	63	41			
P5243 02822000	28 x 22	61	38			
P5243 03522000	35 x 22	71	48			
P5243 03528000	35 x 28	67	43			
P5243 04222000	42 x 22	89	66			
P5243 04228000	42 x 28	82	58			
P5243 04235000	42 x 35	79	53			
P5243 05435000	54 x 35	95	69			
P5243 05442000	54 x 42	99	63			

Product code ▲	Size ●	L	Z			
P4243 06435000	64 x 35	136	119			
P4243 06442000	64 x 42	148	117			
P4243 06454000	64 x 54	148	112			
P4243 06728000	66.7 x 28	137	113			
P4243 06735000	66.7 x 35	137	111			
P4243 06742000	66.7 x 42	149	108			
P4243 06754000	66.7 x 54	149	103			
P4243 07664000	76.1 x 64	156	105			
P4243 07635000	76.1 x 35	137	109			
P4243 07642000	76.1 x 42	150	109			
P4243 07654000	76.1 x 54	150	104			
P4243 07667000	76.1 x 66.7	155	102			
P4243 08954000	88.9 x 54	157	111			
P4243 08976000	88.9 x 76.1	159	107			
P4243 08964000	88.9 x 64	163	111			
P4243 10854000	108 x 54	178	134			
P4243 10867000	108 x 66.7	183	130			
P4243 10876000	108 x 76.1	173	121			
P4243 10889000	108 x 88.9	173	121			

▲ Product code / Artikelnr. / Code article / Código / Codice articolo / Kod produktu

● Size / Abmessung / Dimension / Medida / Dimensione / Wymiary



Male straight connector (ISO 7 R)

Übergangsnippel mit Außengewinde | Mamelon FM |

Manguito con rosca macho | Manicotto F/filetto M | Nypel przejściowy (GZ)

Product code ▲	Size ●	L	S	Z	
P4243G01203000	12 x 3/8	35	17	17	
P4243G01204000	12 x 1/2	39	22	21	
P4243G01503000	15 x 3/8	39	19	15	
P4243G01504000	15 x 1/2	44	22	20	
P4243G01506000	15 x 3/4	50	28	26	
P4243G01804000	18 x 1/2	44	22	20	
P4243G01806000	18 x 3/4	48	28	24	
P4243G02204000	22 x 1/2	45	27	21	
P4243G02206000	22 x 3/4	50	28	26	
P4243G02208000	22 x 1	55	35	31	
P4243G02806000	28 x 3/4	52	33	28	
P4243G02808000	28 x 1	55	36	31	
P4243G02810000	28 x 1 1/4	62	42	38	
P4243G03508000	35 x 1	52	40	26	
P4243G03510000	35 x 1 1/4	61	43	35	
P4243G03512000	35 x 1 1/2	61	50	35	
P4243G04210000	42 x 1 1/4	68	48	27	
P4243G04212000	42 x 1 1/2	68	50	27	
P4243G05412000	54 x 1 1/2	77.5	68	31.5	
P4243G05416000	54 x 2	80	68	34	
P4243G06416000	64 x 2	95	75	39	
P4243G06420000	64 x 2 1/2	95	75	42	
P4243G06720000	66.7 x 2 1/2	95	77	42	
P4243G07624000	76.1 x 3	106	88.5	51	
P4243G08924000	88.9 x 3	107	92	56	
P4243G10832000	108 x 4	127	116	66	

Product code ▲	Size ●	L	S	Z	
P4243G01403000	14 x 3/8	40	18.5	16	
P4243G01404000	14 x 1/2	45	21.5	21	
P4243G01406000	14 x 3/4	49	27.5	25	
P4243G01604000	16 x 1/2	45	21.5	21	
P4243G01606000	16 x 3/4	49	27.5	25	

Copper tube systems

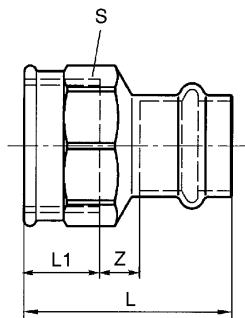
Kupferrohr-Systeme

Système en tube cuivre

Sistemas con tubo de cobre

Sistema con tubi di rame

Instalacja z rur miedzianych

**Female straight connector (ISO 7 Rp)**

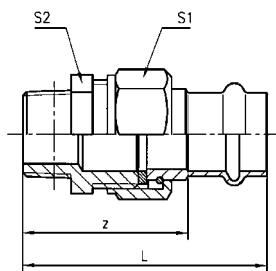
Übergangsmuffe mit Innengewinde | Manchon FF | Manguito con rosca hembra |
Manicotto F/filetto F | Nypel przejściowy (GW)

Product code ▲	Size ●	L	S	Z	L1
P4270G01203000	12 x 3/8	32	20.5	2.5	11.4
P4270G01204000	12 x 1/2	39	26	6	15
P4270G01503000	15 x 3/8	37	20.5	1.5	11.4
P4270G01504000	15 x 1/2	44	26	5	15
P4270G01506000	15 x 3/4	45	30.5	4.5	16.3
P4270G01804000	18 x 1/2	44	26	5	15
P4270G01806000	18 x 3/4	45	30.5	4.5	16.3
P4270G02204000	22 x 1/2	44	26	5	15
P4270G02206000	22 x 3/4	47	30.5	6.5	16.3
P4270G02208000	22 x 1	52	37.5	9	19.1
P4270G02806000	28 x 3/4	47	33	6.5	16.3
P4270G02808000	28 x 1	52	37.5	9	19.1
P4270G02810000	28 x 1 1/4	56	47	10.5	21.4
P4270G03508000	35 x 1	48	40	2	19.1
P4270G03510000	35 x 1 1/4	54	47	6.5	21.4
P4270G04210000	42 x 1 1/4	65	47	2.5	21.4
P4270G04212000	42 x 1 1/2	68	55	5.5	21.4
P4270G05416000	54 x 2	80	70	8.5	25.7

Product code ▲	Size ●	L	S	Z	L1
P4270G01403000	14 x 3/8	36	21.5	2	10
P4270G01404000	14 x 1/2	41	25.5	4	13
P4270G01406000	14 x 3/4	44.5	30.5	4.5	16
P4270G01604000	16 x 1/2	41	25.5	4	13
P4270G01606000	16 x 3/4	44.5	30.5	4.5	16

▲ Product code / Artikelnr. / Code article / Código / Codice articolo / Kod produktu

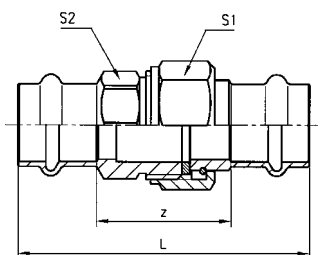
● Size / Abmessung / Dimension / Medida / Dimensione / Wymiary



Male straight union connector (ISO 7 R)

Rohrverschraubung mit Außengewinde flach dichtend | Union droit FM |
Unión roscada con rosca macho | Bocchettone F/filetto M, con Guarnizione |
śrubunek z uszczelnieniem płaskim i gwintem (GZ)

Product code ▲	Size ●	L	S1	S2	Z
P4331G01203000	12 x 3/8	55	29	27	38
P4331G01204000	12 x 1/2	58	29	27	41
P4331G01504000	15 x 1/2	65.5	29	27	41.5
P4331G01506000	15 x 3/4	69	29	27	45
P4331G01804000	18 x 1/2	65.5	29	27	41.5
P4331G01806000	18 x 3/4	69	29	28	45
P4331G02204000	22 x 1/2	73	36.5	33.5	49
P4331G02206000	22 x 3/4	74	36.5	33.5	50
P4331G02208000	22 x 1	77	36.5	33.5	53
P4331G02808000	28 x 1	80	45.5	44	56.5
P4331G03510000	35 x 1 1/4	86.5	52	50	59.5
P4331G04212000	42 x 1 1/2	94.5	58.5	55	53.5
P4331G05416000	54 x 2	117	75	72	71



Female straight union connector (ISO 7 Rp)

Rohrverschraubung mit Innengewinde flach dichtend | Union droit FF |
Unión roscada con rosca hembra | Bocchettone F/filetto F, con Guarnizione |
śrubunek z gwintem (GW) i uszczelnieniem płaskim

Product code ▲	Size ●	L	S1	S2	Z
P4330G01204000	12 x 1/2	55.5	29	27	23.5
P4330G01504000	15 x 1/2	63	29	27	24
P4330G01506000	15 x 3/4	66	29	30.5	25.5
P4330G01804000	18 x 1/2	63	29	27	24
P4330G01806000	18 x 3/4	66	29	30.5	25.5
P4330G02206000	22 x 3/4	71.5	36.5	36	31
P4330G02208000	22 x 1	81	36.5	40	34
P4330G02808000	28 x 1	77.5	45.5	42	30.5
P4330G03510000	35 x 1 1/4	82	52	50	30
P4330G04212000	42 x 1 1/2	89.5	58.5	55	23.5
P4330G05416000	54 x 2	95	75	70	20

Copper tube systems

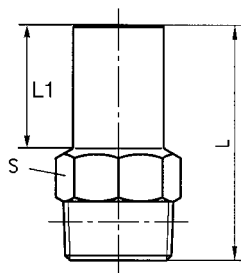
Kupferrohr-Systeme

Système en tube cuivre

Sistemas con tubo de cobre

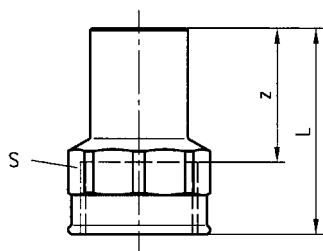
Sistema con tubi di rame

Instalacja z rur miedzianych

**Male adaptor with male thread (ISO 7 R)**

Doppelnippel mit AG | Mamelon MM | Adaptador macho con rosca macho |
Manicotto M/filetto M | Mufa przejściowa wtykowa z gwintem (GZ)

Product code ▲	Size ●	L	S	L1		
P4280G01204000	12 x 1/2	43	22	20		
P4280G01504000	15 x 1/2	49	22	26		
P4280G01804000	18 x 1/2	48	22	26		
P4280G01806000	18 x 3/4	54	28	26		
P4280G02204000	22 x 1/2	49	22	26		
P4280G02206000	22 x 3/4	53.5	28	26		
P4280G02808000	28 x 1	57.5	35	26		
P4280G03510000	35 x 1 1/4	59.5	43	28		
P4280G04212000	42 x 1 1/2	75	50	43		
P4280G05416000	54 x 2	96.5	68	48		

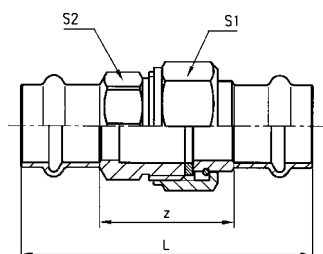
**Male adaptor with female thread (ISO 7 Rp)**

Übergangsmuffennippel mit IG | Manchon MF | Adaptador macho con rosca hembra | Manicotto M/filetto F | Mufa przejściowa wtykowa z gwintem (GW)

Product code ▲	Size ●	L	S	Z		
P4281G01204000	12 x 1/2	41	25	26		
P4281G01504000	15 x 1/2	46.5	25	31.5		
P4281G01804000	18 x 1/2	45.5	25	30.5		
P4281G01806000	18 x 3/4	49	30.5	33		
P4281G02204000	22 x 1/2	44	25	29		
P4281G02206000	22 x 3/4	48	30.5	32		
P4281G02806000	28 x 3/4	46	30.5	30		
P4281G02808000	28 x 1	51	37.5	32		
P4281G03508000	35 x 1	51	37.5	32		
P4281G03510000	35 x 1 1/4	55.5	50	34		
P4281G04212000	42 x 1 1/2	71	58	49.5		
P4281G05416000	54 x 2	80.5	70	55		

▲ Product code / Artikelnr. / Code article / Código / Codice articolo / Kod produktu

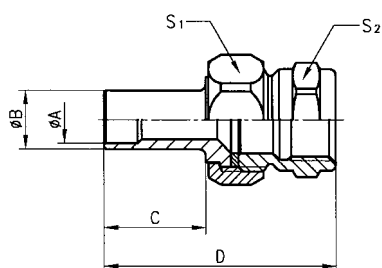
● Size / Abmessung / Dimension / Medida / Dimensione / Wymiary



Straight connector with threaded union

Rohrverschraubung flach dichtend | Union droit FF | Unión roscada |
Bocchettone F/F, con Guarnizione | śrubunek z uszczelnieniem płaskim

Product code ▲	Size ●	L	S1	S2	Z
P4330 01200000	12	65	29	25	31
P4330 01500000	15	78.5	29	25	30.5
P4330 01800000	18	78.5	29	25	30.5
P4330 02200000	22	89	36.5	31	41
P4330 02800000	28	96.5	45.5	39	48.5
P4330 03500000	35	99.5	52	45	45.5
P4330 04200000	42	119.5	58.5	50	37.5
P4330 05400000	54	143	75	70	51



Female union adaptor (ISO 7 Rp)

Verschraubung flach dichtend mit Innengewinde und Rohrstützen |
Adaptateur femelle union | Unión roscada con rosca hembra |
Adattatore M/filetto F | śrubunek z uszczelnieniem płaskim (GW)

Product code ▲	Size ●	ØA	ØB	S1	S2	C	D
4332G015004000	15 x 1/2	12	15	30	26	26	59.5
4332G018004000	18 x 1/2	15	18	30	26	27	60.5
4332G022006000	22 x 3/4	18	22	37	32	30.5	68.5
4332G028008000	28 x 1	22	28	46	39	37	76.5

Copper tube systems

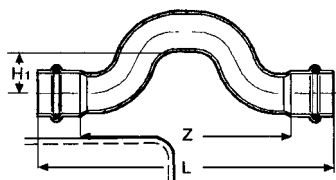
Kupferrohr-Systeme

Système en tube cuivre

Sistemas con tubo de cobre

Sistema con tubi di rame

Instalacja z rur miedzianych

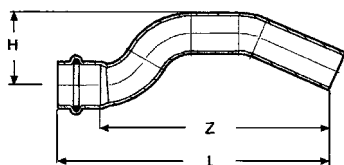


Crossover coupler

Überspringbogen | Chapeau de gendarme FF | Salto puente HH |

Sorpasso F/F | łącznik obejściowy dwukielichowy

Product code ▲	Size ●	L	Z	H ₁		
P5085 01500000	15	134	90	20		
P5085 01800000	18	144	100	20		
P5085 02200000	22	161	115	23		

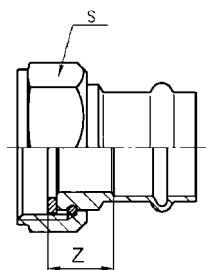


45° crossover coupler

Überspringbogen I/A | Chapeau de gendarme MF | Salto 45° MH |

Sorpasso M/F | łącznik obejściowy jednokielichowy

Product code ▲	Size ●	L	Z	H		
P5086 01200000	12	111	82	40		
P5086 01500000	15	123	100	31		
P5086 01800000	18	123	100	28		
P5086 02200000	22	145	122	24		



Connector with flat sealing face (ISO 7 Rp)

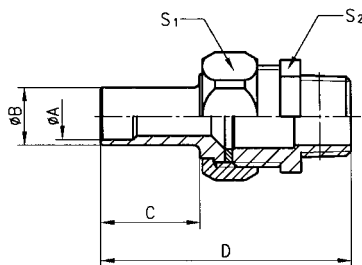
Übergangsadapter für INSY-UNI Freistromventile | Union FF | Racor loco recto |

Codulo F, con dado folle | łącznik z uszczelnieniem płaskim

Product code ▲	Size ●	Z	S		
P4355 01506000	15 x G 3/4	10.5	29		
P4355 01806000	18 x G 3/4	10.5	29		
P4355 02208000	22 x G 1	15	36.5		
P4355 02810000	28 x G 1 1/4	19	45.5		
P4355 03512000	35 x G 1 1/2	16	52		
P4355 04214000	42 x G 1 3/4	15.5	58.5		
P4355 05419000	54 x G 2 3/8	17	75		
P4355 06422000	64 x 2 3/4	17	87		
P4355 07602400	76.1 x 3	22	98		
P4355 08902800	88.9 x 3 1/2	22	110		

▲ Product code / Artikelnr. / Code article / Código / Codice articolo / Kod produktu

● Size / Abmessung / Dimension / Medida / Dimensione / Wymiary



Male union adaptor (ISO 7 R)

Verschraubung flach dichtend mit Außengewinde und Rohrstutzen |

Adaptateur union male | Unión roscada con rosca macho |

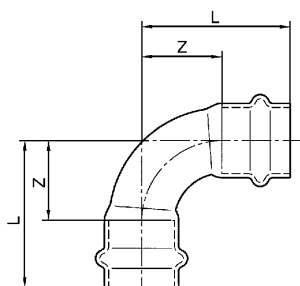
Adattatore M/filetto M | śrubunek z uszczelnieniem płaskim (GZ)

Product code ▲	Size ●	øA	øB	S1	S2	C	D
4333G015004000	15 x 1/2	12	15	30	27	26	65.5
4333G018004000	18 x 1/2	15	18	30	27	27	66.5
4333G022006000	22 x 3/4	18	22	37	33.5	30.5	74.5
4333G028008000	28 x 1	22	28	46	44	37	83

90° bend

Bogen 90° | Courbe 90° FF | Curva 90° HH | Curva a 90° F/F |

łuk dwukielichowy 90°



Product code ▲	Size ●	L	Z			
P5002 01200000	12	33	15			
P5002 01400000	14	39.5	17.5			
P5002 01500000	15	40	18			
P5002 01600000	16	40.5	18.5			
P5002 01800000	18	44	22			
P5002 02200000	22	50	27			
P5002 02800000	28	58	34			
P5002 03500000	35	68	42			
P5002 04200000	42	87	51			
P5002 05400000	54	105	65			

Drinking water, heating and air

Trinkwasser, Heizung und Luft

Eau potable, chauffage et air

Copper tube systems

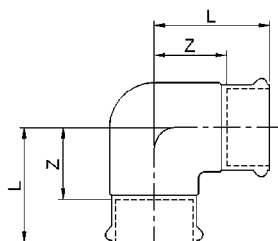
Kupferrohr-Systeme

Système en tube cuivre

Sistemas con tubo de cobre

Sistema con tubi di rame

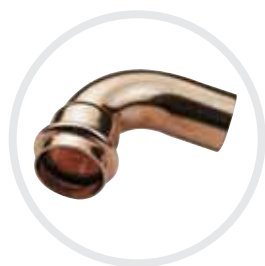
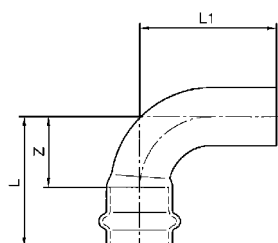
Instalacja z rur miedzianych



90° elbow

Winkel 90° | Coude 90° | Codo 90° HH | Gomito a 90° F/F | Kolano 90°

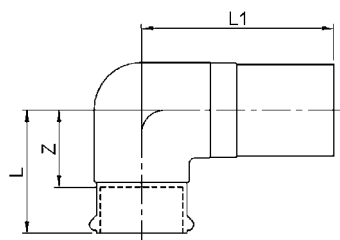
Product code ▲	Size ●	L	Z		
P4090 06400000	64	94	51		
P4090 06700000	66.7	94	51		
P4090 07600000	76.1	104	64		
P4090 08900000	88.9	123	72		
P4090 10800000	108	161	105		



90° street bend

Bogen 90° I/A | Courbe 90° MF | Curva 90° MH | Curva a 90° M/F | łuk jednokielichowy 90°

Product code ▲	Size ●	L	L1	Z	
P5001 01200000	12	33	35	15	
P5001 01400000	14	39.5	17.5	41	
P5001 01500000	15	40	42	18	
P5001 01600000	16	40.5	18.5	43	
P5001 01800000	18	44	46	22	
P5001 02200000	22	50	52	27	
P5001 02800000	28	58	60	34	
P5001 03500000	35	68	70	42	
P5001 04200000	42	87	89	51	
P5001 05400000	54	105	107	65	



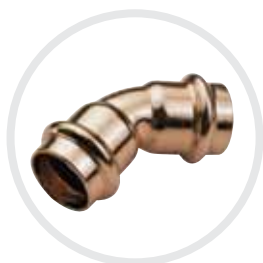
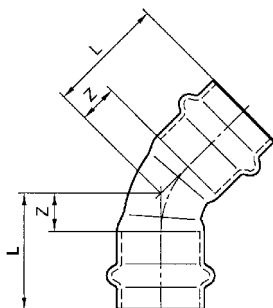
90° street elbow

Winkel 90° | Coude 90 MF | Codo 90° MH | Gomito a 90° M/F | Kolano 90° jednokielichowe

Product code ▲	Size ●	L1	L	Z	
P4092 06400000	64	133	94	51	
P4092 06700000	66.7	133	94	51	
P4092 07600000	76.1	143	104	64	
P4092 08900000	88.9	151	123	72	
P4092 10800000	108	200	161	105	

▲ Product code / Artikelnr. / Code article / Código / Codice articolo / Kod produktu

● Size / Abmessung / Dimension / Medida / Dimensione / Wymiary

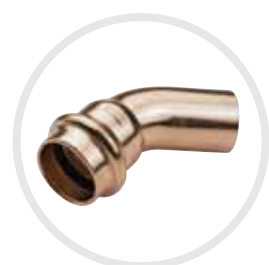
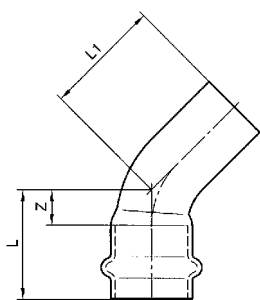


45° obtuse elbow

Bogen 45° | Courbe 45° FF | Curva 45° HH | Curva a 45° F/F |
łuk dwukielichowy 45°

Product code ▲	Size ●	L	Z			
P5041 01200000	12	24	6			
P5041 01400000	14	29.5	7.5			
P5041 01500000	15	30	8			
P5041 01600000	16	30.5	8.5			
P5041 01800000	18	31	9			
P5041 02200000	22	34	11			
P5041 02800000	28	38	14			
P5041 03500000	35	44	18			
P5041 04200000	42	57	21			
P5041 05400000	54	67	27			

Product code ▲	Size ●	L	Z			
P4041 06400000	64	87	35			
P4041 06700000	66.7	87	35			
P4041 07600000	76.1	98	48			
P4041 08900000	88.9	103	53			
P4041 10800000	108	131	71			



45° obtuse street elbow

Bogen 45° I/A | Courbe 45° MF | Curva 45° MH | Curva a 45° M/F |
łuk jednokielichowy 45°

Product code ▲	Size ●	L	L1	Z		
P5040 01200000	12	24	26	6		
P5040 01400000	14	29.5	31.5	7.5		
P5040 01500000	15	30	32	8		
P5040 01600000	16	30.5	32.5	8.5		
P5040 01800000	18	31	33	9		
P5040 02200000	22	34	36	11		
P5040 02800000	28	38	40	14		
P5040 03500000	35	44	46	18		
P5040 04200000	42	57	59	21		
P5040 05400000	54	67	69	27		

Product code ▲	Size ●	L	L1	Z		
P4040 06400000	64	87	117	35		
P4040 06700000	66.7	87	117	35		
P4040 07600000	76.1	98	127	48		
P4040 08900000	88.9	103	132	53		
P4040 10800000	108	131	171	71		

Copper tube systems

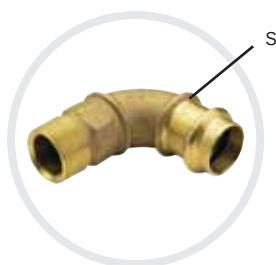
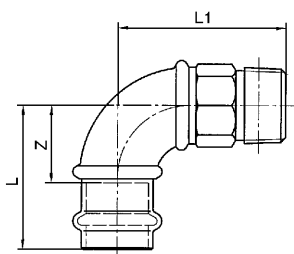
Kupferrohr-Systeme

Système en tube cuivre

Sistemas con tubo de cobre

Sistema con tubi di rame

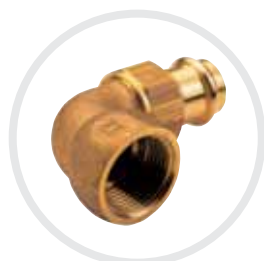
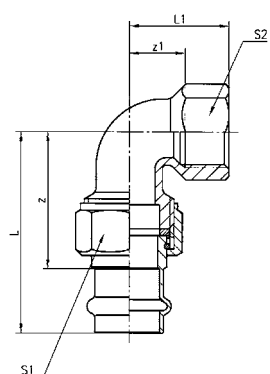
Instalacja z rur miedzianych

**90° bend with male thread (ISO 7 R)**

Einschraubbogen 90° mit Außengewinde | Courbe 90° FM | Curva 90° rosca macho | Curva a 90° F/filetto M | łuk 90° z jednostronnym gwintem (GZ)

Product code ▲	Size ●	L	L1	Z	S	
P4001G01203000	12 x 3/8	38	40	20	15	
P4001G01204000	12 x 1/2	37	44	19	17	
P4001G01503000	15 x 3/8	46	48	22	17	
P4001G01504000	15 x 1/2	45	48	21	21	
P4001G01804000	18 x 1/2	46	50	22	21	
P4001G01806000	18 x 3/4	47	56	23	27	
P4001G02206000	22 x 3/4	51	59	27	27	
P4001G02808000	28 x 1	58	72	34	36	
P4001G03510000	35 x 1 1/4	73	89	47	44	
P4001G04212000	42 x 1 1/2	93	97	52	52	
P4001G05416000	54 x 2	110	130	64	60	

Product code ▲	Size ●	L	L1	Z		
P4001G01403000	14 x 3/8	43.5	34	19.5		
P4001G01404000	14 x 1/2	43.5	37	19.5		
P4001G01604000	16 x 1/2	43.5	37	19.5		

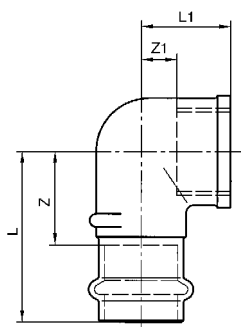
**90° bend with female thread (ISO 7 Rp) and threaded union**

Winkelverschraubung 90° mit Innengewinde flach dichtend | Coude union FF | Codo 90° con rosca hembra y unión roscada | Bocchettone 90° F/filetto F | 90° z uszczelnieniem płaskim (GW)

Product code ▲	Size ●	L	L1	S1	S2	Z	Z1
P4096G01204000	12 x 1/2	56	33	29	27	39	18
P4096G01504000	15 x 1/2	63.5	33	29	27	39.5	18
P4096G01804000	18 x 1/2	74	33	29	27	50	18
P4096G01806000	18 x 3/4	74	37	36.5	33	50	20.5
P4096G02206000	22 x 3/4	75	37	36.5	33	51	20.5
P4096G02208000	22 x 1	77	45	36.5	40	53	26
P4096G02808000	28 x 1	83	47	45.5	40	59	28
P4096G03510000	35 x 1 1/4	87	55	52	48	60	33.5
P4096G04212000	42 x 1 1/2	101.5	59	58.5	55	60.5	37.5
P4096G05416000	54 x 2	125	68	75	69	79	42.5

▲ Product code / Artikelnr. / Code article / Código / Codice articolo / Kod produktu

● Size / Abmessung / Dimension / Medida / Dimensione / Wymiary

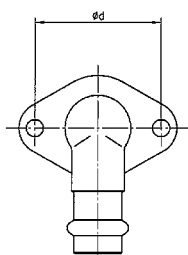
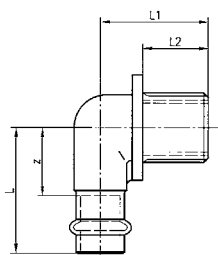


90° elbow with female thread (ISO 7 Rp)

Winkel 90° mit Innengewinde | Coude 90° FF | Codo 90° rosca hembra |
Gomito 90° F/filettoF | Kolano 90° (GW)

Product code ▲	Size ●	L	L1	Z	Z1	
P4090G01203000	12 x 3/8	39	19	21	7.5	
P4090G01204000	12 x 1/2	40	22.5	22	7.5	
P4090G01503000	15 x 3/8	46	19	22	7.5	
P4090G01504000	15 x 1/2	40	22.5	22	7.5	
P4090G01506000	15 x 3/4	50	26	26	9.5	
P4090G01804000	18 x 1/2	45	23.5	21	8.5	
P4090G01806000	18 x 3/4	50	26	26	9.5	
P4090G02204000	22 x 1/2	51	26	27	11	
P4090G02206000	22 x 3/4	52	27	28	10.5	
P4090G02208000	22 x 1	59	30	35	11	
P4090G02808000	28 x 1	59	34	35	15	
P4090G03510000	35 x 1 1/4	66	40	40	18.5	
P4090G04212000	42 x 1 1/2	77	44	36	22.5	
P4090G05416000	54 x 2	98	55	53	29.5	

Product code ▲	Size ●	L	L1	Z	Z1	
P4090G01403000	14 x 3/8	43.5	22	19.5	12	
P4090G01404000	14 x 1/2	43.5	22	19.5	9	
P4090G01604000	16 x 1/2	43.5	22	19.5	9	
P4090G01606000	16 x 3/4	46.5	26	22.5	10	



Wallplate tank connector elbow

Wanddurchführung winklig | Passage de cloison coudé à 90° |
Codo 90° pasamuros | Gomito 90° F/filetto M (passamuro) |
łuk do monażu na zbiornikach

Product code ▲	Size ●	L	L1	L2	Z	ød
P4093G01504025	15 x 1/2IG x 3/4AG x 25	48	41	25	24	48
P4093G01504035	15 x 1/2IG x 3/4AG x 35	48	51	35	24	48



Copper tube systems

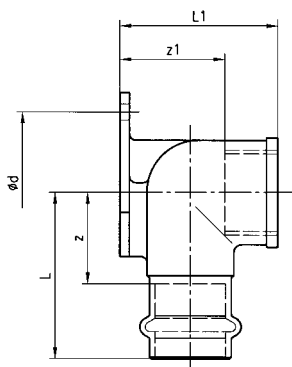
Kupferrohr-Systeme

Système en tube cuivre

Sistemas con tubo de cobre

Sistema con tubi di rame

Instalacja z rur miedzianych

**Wallplate elbow (3 hole) with female thread (ISO 7 Rp)**

Deckenwinkel mit 3 Lochflansch | Coude applique FF 3 attaches |

Codo de fijación (3 agujeros) con rosca hembra | Gomito a 90° F/filetto F, con

flangia a 3 fori di fissaggio | Kolano z 3 łapami i gwintem (GW)

Product code ▲	Size ●	L	L1	ød	Z	Z1	
P4471G01204000	12 x 1/2	40	34.5	40	22	19.5	
P4471G01404000	14 x 1/2	43.5	34.5	35	19.5	21.5	
P4471G01504000	15 x 1/2	46	34	40	22	21	
P4471G01604000	16 x 1/2	43.5	34.5	35	19.5	21.5	
P4471G01804000	18 x 1/2	45	37.5	40	21	22.5	
P4471G02206000	22 x 3/4	52	49	50	28	32.5	

Union joint flat sealing washer

Dichtung für Rotgussverschraubung >B< Press | Rondelle pour raccord union |

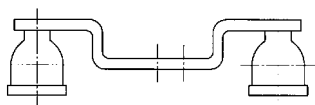
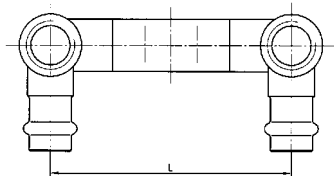
Junta | Guarnizione piatta per Bocchettoni e Codulo F, con dado folle |

Uzczelka >B<Press do łączników z brązu

Product code ▲	Size ●				
P4991 00600000	3/4				
P4991 00800000	1				
P4991 01000000	1 1/4				
P4991 01200000	1 1/2				
P4991 01400000	1 3/4				
P4991 01900000	2 3/8				

▲ Product code / Artikelnr. / Code article / Código / Codice articolo / Kod produktu

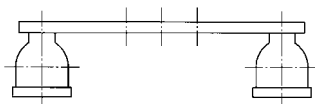
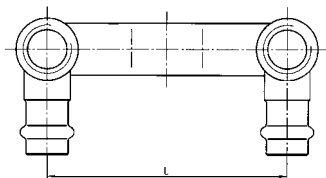
● Size / Abmessung / Dimension / Medida / Dimensione / Wymiary



Twin wallplate elbow with female thread (ISO 7 Rp) with stepped fixing bracket

Montageeinheit gekröpft | Unité de montage décalé | Unidad de montaje con doble codo de fijación rosca hembra | Blocco di montaggio sagomato con n°2 gomiti a 90° F/filetto F | Listwa do baterii 150 mm (gięta)

Product code ▲	Size ●	L			
P4976 01504150	15 x 1/2 x 150	150			



Twin wallplate elbow with female thread (ISO 7 Rp) with straight fixing bracket

Montageeinheit gerade | Unité de montage droite | Unidad de montaje recta con doble codo de fijación rosca hembra | Blocco di montaggio sagomato con n°2 gomiti a 90° F/filetto F | Listwa do baterii płaska 150 mm

Product code ▲	Size ●	L			
P4977 01504150	15 x 1/2 x 150	150			

Copper tube systems

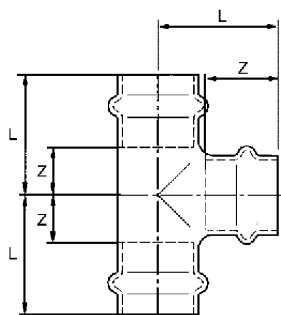
Kupferrohr-Systeme

Système en tube cuivre

Sistemas con tubo de cobre

Sistema con tubi di rame

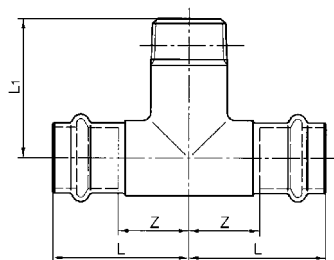
Instalacja z rur miedzianych

**Equal tee**

T-Stück | Té réduit | Te HHH | Tee F/F/F | Trójnik równoprzelotowy

Product code ▲	Size ●	L	Z			
P5130 01212012	12	38	18			
P5130 01414014	14	40	18			
P5130 01515015	15	41	19			
P5130 01616016	16	41	19			
P5130 01818018	18	42	17			
P5130 02222022	22	45	20			
P5130 02828028	28	48	24			
P5130 03535035	35	52	26			
P5130 04242042	42	65	29			
P5130 05454054	54	75	35			

Product code ▲	Size ●	L	Z			
P4130 06464064	64	104	51			
P4130 06767067	66.7	104	51			
P4130 07676076	76.1	114	52			
P4130 08989089	88.9	122	71			
P4130 108108108	108	161	101			

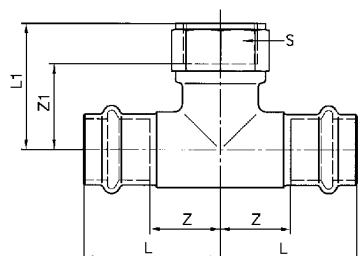
**Tee with male threaded branch (ISO 7 R)**

T-Stück mit Außengewinde | Té réduit | Te con rosca macho | Tee F/F/filetto M | Trójnik z gwintem (GZ)

Product code ▲	Size ●	L	L ₁	Z	
P4132G01504015	15 x 1/2 x 15	45	40	21	
P4132G01806018	18 x 3/4 x 18	45	40	21	
P4132G02206022	22 x 3/4 x 22	48.5	50	24.5	
P4132G02806028	28 x 3/4 x 28	50	45	26	
P4132G03506035	35 x 3/4 x 35	50	50	24	
P4132G04206042	42 x 3/4 x 42	55	50	14	
P4132G05408054	54 x 1 x 54	69	64	23	
P4132G05410054	54 x 1 1/4 x 54	72	66	27	

▲ Product code / Artikelnr. / Code article / Código / Codice articolo / Kod produktu

● Size / Abmessung / Dimension / Medida / Dimensione / Wymiary



Tee with female threaded branch (ISO 7 Rp)

T-Stück mit Innengewinde | Té réduit | Te con rosca hembra |

Tee F/F/filetto F | Trójnik z gwintem (GW)

Product code ▲	Size ●	L	L ₁	Z	Z ₁	S
P4130G01204012	12 x 1/2 x 12	40	20	22	35	26
P4130G01503015	15 x 3/8 x 15	42.5	23.5	18.5	35	22
P4130G01504015	15 x 1/2 x 15	45	23	21	38	26
P4130G01804018	18 x 1/2 x 18	45	25	21	40	26
P4130G02204022	22 x 1/2 x 22	48.5	27	24.5	42	26
P4130G02206022	22 x 3/4 x 22	48.5	28.5	24.5	45	32
P4130G02804028	28 x 1/2 x 28	48.5	30	24.5	45	26
P4130G02806028	28 x 3/4 x 28	52.5	33.5	28.5	50	32
P4130G03504035	35 x 1/2 x 35	50	33	24	48	26
P4130G04204042	42 x 1/2 x 42	55	35	14	50	26
P4130G05404054	54 x 1/2 x 54	66	40	20	55	26
P4130G06406064	64 x 3/4 x 64	84	43	30	58	N/A
P4130G06416064	64 x 2 x 64	95	42	42	66	N/A
P4130G06706067	66.7 x 3/4 x 66.7	84	43	30	58	N/A
P4130G06716067	66.7 x 2 x 66.7	95	42	42	66	N/A
P4130G07606076	76.1 x 3/4 x 76.1	93	58	43	41.5	N/A
P4130G07616076	76.1 x 2 x 76.1	105	66	42	54	N/A
P4130G08906089	88.9 x 3/4 x 88.9	97	64	49	45	N/A
P4130G08916089	88.9 x 2 x 88.9	105	73	49	57	N/A
P4130G10806108	108 x 3/4 x 108	120	77	62	60	N/A
P4130G10816108	108 x 2 x 108	135	85	62	75	N/A

Product code ▲	Size ●	L	L ₁	Z	Z ₁	
P4130G01604016	16 x 1/2 x 16	43.5	22	19.5	9	

Copper tube systems

Kupferrohr-Systeme

Système en tube cuivre

Sistemas con tubo de cobre

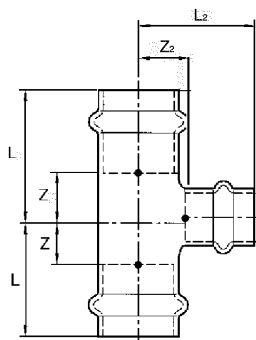
Sistema con tubi di rame

Instalacja z rur miedzianych

Reduced tee - branch

T-Stück reduziert | Té réduit | Te reducida HHH (en boca central) |

Tee ridotto F/F/F (in derivazione) | Trójnik redukcyjny

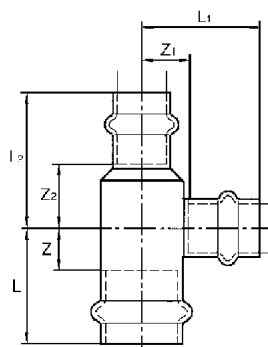


Product code ▲	Size ●	L	Z	L ₂	Z ₂
P5130 01412014	14 x 12 x 14	38.5	16.5	37.5	19.5
P5130 01512015	15 x 12 x 15	39	17	29	11
P5130 01612016	16 x 12 x 16	38.5	16.5	39	21
P5130 01614016	16 x 14 x 16	41	19	41	19
P5130 01812018	18 x 12 x 18	32	10	31	13
P5130 01815018	18 x 15 x 18	41	15	35	13
P5130 02212022	22 x 12 x 22	33	10	33	15
P5130 02215022	22 x 15 x 22	41	19	37	15
P5130 02218022	22 x 18 x 22	42	17	37	16
P5130 02815028	28 x 15 x 28	41	17	42	20
P5130 02818028	28 x 18 x 28	42	18	41	17
P5130 02822028	28 x 22 x 28	45	19	42	19
P5130 03515035	35 x 15 x 35	37	11	44	22
P5130 03518035	35 x 18 x 35	39	13	44	22
P5130 03522035	35 x 22 x 35	41	15	45	22
P5130 03528035	35 x 28 x 35	45	19	46	22
P5130 04222042	42 x 22 x 42	51	15	52	29
P5130 04228042	42 x 28 x 42	55	19	53	29
P5130 04235042	42 x 35 x 42	58	22	55	29
P5130 05422054	54 x 22 x 54	55	15	58	35
P5130 05428054	54 x 28 x 54	59	19	59	35
P5130 05435054	54 x 35 x 54	62	22	61	35
P5130 05442054	54 x 42 x 54	69	29	71	35

Product code ▲	Size ●	L	Z	L ₂	Z ₂
P4130 06435064	64 x 35 x 64	94	41	90	64
P4130 06442064	64 x 42 x 64	94	41	103	61
P4130 06454064	64 x 54 x 64	95	42	107	61
P4130 06728067	66.7 x 28 x 66.7	98	41	85	59
P4130 06735067	66.7 x 35 x 66.7	94	41	90	64
P4130 06742067	66.7 x 42 x 66.7	94	41	103	61
P4130 06754067	66.7 x 54 x 66.7	95	42	107	61
P4130 07664076	76 x 64 x 76	104	51	104	51
P4130 07628076	76.1 x 28 x 76.1	94	53	85	59
P4130 07635076	76.1 x 35 x 76.1	94	53	90	64
P4130 07642076	76.1 x 42 x 76.1	94	53	103	61
P4130 07654076	76.1 x 54 x 76.1	95	54	107	61
P4130 08954089	88.9 x 54 x 88.9	118	67	114	68
P4130 08976089	88.9 x 76.1 x 88.9	122	72	129	59
P4130 08964089	88.9 x 64 x 88.9	122	72	129	59
P4130 10854108	108 x 54 x 108	135	75	127	81
P4130 10864108	108 x 64 x 108	143	83	133	81
P4130 10876108	108 x 76.1 x 108	143	83	133	81
P4130 10889108	108 x 88.9 x 108	155	95	142	92

▲ Product code / Artikelnr. / Code article / Código / Codice articolo / Kod produktu

● Size / Abmessung / Dimension / Medida / Dimensione / Wymiary

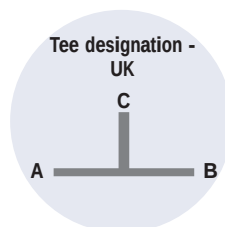


Reduced tee - end and branch

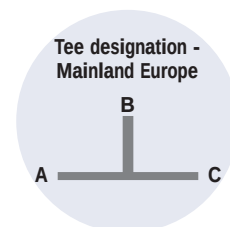
T-Stück reduziert | Té réduit | Te reducida HHH (en boca lateral y central) |

Tee ridotto F/F/F (in derivazione e da una estremità) | Trójnik redukcyjny

Product code ▲	Size ●	L	Z	L1	Z1	L2	Z2
P5130 01412012	14 x 12 x 12	38.5	16.5	37.5	19.5	37.5	19.5
P5130 01512012	15 x 12 x 12	32	10	29	11	32	14
P5130 01614014	16 x 14 x 14	41	19	41	19	41	19
P5130 01815015	18 x 15 x 15	41	18	35	13	41	18
P5130 02215015	22 x 15 x 15	34	11	37	15	40	18
P5130 02215018	22 x 15 x 18	34	11	37	15	38	16
P5130 02218015	22 x 18 x 15	36	13	37	15	42	20
P5130 02218018	22 x 18 x 18	36	13	37	15	40	18
P5130 02815022	28 x 15 x 22	35	11	41	19	40	17
P5130 02818022	28 x 18 x 22	37	13	41	19	42	19
P5130 02822022	28 x 22 x 22	39	15	42	19	44	21
P5130 03522028	35 x 22 x 28	41	15	45	22	47	23
P5130 03528028	35 x 28 x 28	45	19	46	22	51	27
P5130 04235035	42 x 35 x 35	58	22	55	29	56	30
P5130 05442042	54 x 42 x 42	69	29	71	35	76	40



Bezeichnung von T-Stücken in UK
Designations des té UK
Designación de las tes - UK
Designazione tee - UK
Trójnik - opis brytyjski



Bezeichnung von T-Stücken in Europa außer UK
Designation des té Europe continentale
Designación de las tes - Europa
Designazione tee - Europa
Trójnik - opis europejski

See page 11 for explanation of Tee designations.

Erklärung der Bezeichnung von T-Stücken siehe Seite 33.

Voir page 55 pour la désignation des té.

Ver en página 77 la forma de designación de tes.

Vedere pag 99 per Identificazione dei raccordi a tee.

Oznaczenie wymiarów trójnika patrz strona 121.

Copper tube systems

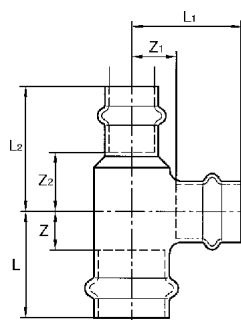
Kupferrohr-Systeme

Système en tube cuivre

Sistemas con tubo de cobre

Sistema con tubi di rame

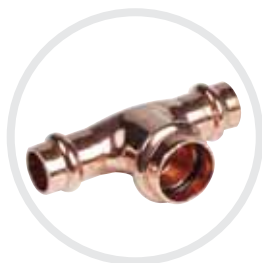
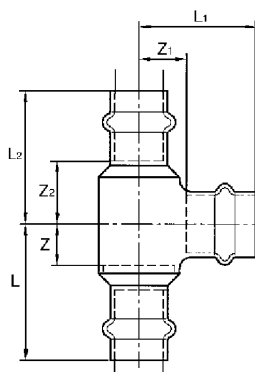
Instalacja z rur miedzianych

**Reduced tee - end**

T-Stück reduziert | Té réduit | Te reducida HHH (en boca lateral) |

Tee ridotto F/F/F (da una estremità) | Trójnik redukcyjny

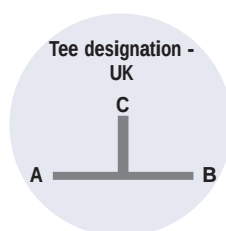
Product code ▲	Size ●	L	Z	L1	Z1	L2	Z2
P5130 01515012	15 x 15 x 12	33	11	33	11	33	15
P5130 01616014	16 x 16 x 14	41	19	41	19	41	19
P5130 01818015	18 x 18 x 15	42	18	36	14	42	17
P5130 02222015	22 x 22 x 15	45	23	39	16	45	21
P5130 02222018	22 x 22 x 18	38	15	38	15	42	20
P5130 02828015	28 x 28 x 15	43	19	43	19	51	29
P5130 02828018	28 x 28 x 18	43	19	43	19	49	27
P5130 02828022	28 x 28 x 22	43	19	43	19	48	25

**Reduced tee - both ends**

T-stück reduziert | Té réduit | Te reducida HHH (en ambos laterales) |

Tee ridotto F/F/F (da entrambe le estremità) | Trójnik redukcyjny

Product code ▲	Size ●	L	Z	L1	Z1	L2	Z2
P5130 01215012	12 x 15 x 12	32	14	32	10	32	14
P5130 01518015	15 x 18 x 15	38	16	33	11	38	16
P5130 01522015	15 x 22 x 15	41	19	34	11	41	19
P5130 01822018	18 x 22 x 18	40	18	36	13	40	18
P5130 02228022	22 x 28 x 22	45	22	39	15	45	22



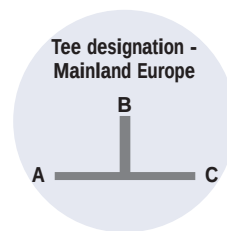
Bezeichnung von T-Stücken in UK

Designations des té UK

Designación de las tes - UK

Designazione tee - UK

Trójnik - opis brytyjski



Bezeichnung von T-Stücken in Europa außer UK

Designation des té Europe continentale

Designación de las tes - Europa

Designazione tee - Europa

Trójnik - opis europejski

See page 11 for explanation of Tee designations.

Erklärung der Bezeichnung von T-Stücken siehe Seite 33.

Voir page 55 pour la désignation des té.

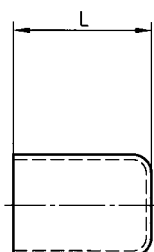
Ver en página 77 la forma de designación de tes.

Vedere pag 99 per Identificazione dei raccordi a tee.

Oznaczenie wymiarów trójnika patrz strona 121.

▲ Product code / Artikelnr. / Code article / Código / Codice articolo / Kod produktu

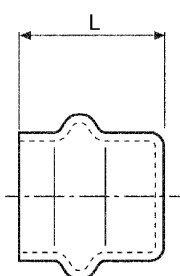
● Size / Abmessung / Dimension / Medida / Dimensione / Wymiary



Fitting stop end

Stopfen | Bouchon M | Tapón | Tappo di chiusura M | Korek

Product code ▲	Size ●	L				
P5290 01200000	12	25				
P5290 01500000	15	29				
P5290 01800000	18	29				
P5290 02200000	22	30				
P5290 02800000	28	31				
P5290 03500000	35	34				
P5290 04200000	42	45				
P5290 05400000	54	49				



Tube stop end

Kappe | Bouchon F | Tapón | Tappo di chiusura F | Zaślepka

Product code ▲	Size ●	L				
P5301 01200000	12	23				
P5301 01400000	14	27				
P5301 01500000	15	27				
P5301 01600000	16	27				
P5301 01800000	18	27				
P5301 02200000	22	28				
P5301 02800000	28	29				
P5301 03500000	35	32				
P5301 04200000	42	42				
P5301 05400000	54	46				

Product code ▲	Size ●	L				
P4301 06400000	64	46.8				
P4301 06700000	66.7	46.8				
P4301 07600000	76.1	52.1				
P4301 08900000	88.9	52.2				
P4301 10800000	108	62.6				

Copper tube systems

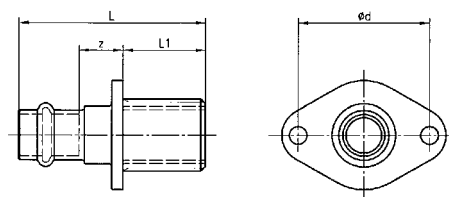
Kupferrohr-Systeme

Système en tube cuivre

Sistemas con tubo de cobre

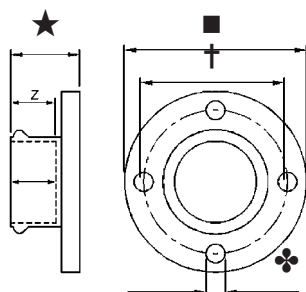
Sistema con tubi di rame

Instalacja z rur miedzianych

**Straight tank connector**

Wanddurchführung gerade | Traversée de cloison à 90° | Manguito pasamuros recto |
Manicotto F/filetto M (passamuro) | Przejście przez ściankę

Product code ▲	Size ●	L	Z	L1	Ød
P4244G01504030	15 x 1/2IG x 3/4AG x 30	68	14	30	48

**PN16 flange (4/8 hole)**

Flansch PN16 | Bride PN16 | Brida PN16 | Manicotto con battuta F,
con flangia a 4/8 fori di fissaggio | Kołnierz PN16

Product code ▲	Size ●	Flange dia ■	Pitch circle dia†	Size/No. of holes ♣	Length ★	Z
P4230B06720000	66.7	185	145	18/4	96	53
P4230B07620000	76.1	200	160	18/8	106	51.5
P4230B10811500	108	220	180	18/8	103	60

BS4504



Product code ▲	Size ●	Flange dia ■	Pitch circle dia†	Size/No. of holes ♣	Length ★	Z
P4230D06420000	64	185	145	18/4	106	53
P4230D07620000	76.1	185	145	18/4	106	51.5
P4230D08924000	88.9	200	160	18/8	108	86.5
P4230D10811500	108	220	180	18/8	103	60

DIN2566

**>B< Tools - for use with >B< Terminal Connectors**

>B< Markierzange | Pince >B< | Herramientas de uso con accesorios >B<
para terminaciones roscadas | >B< pinze normali ed a cricchetto |
Szczypce do >B<

Product code ▲	Description *
Y77266 0000000	Ratchet pliers / Markierzange Y77266S / Pince à cliquet / Alicates >B< de trinquete / Pinza a cricchetto / Szczypce z mechanizmem zapadkowym
Y77267 0000000	Standard pliers / Markierzange Y77267S / Pince standard / Alicates >B< estándar / Pinza normale / Standardowe szczypce

▲ Product code / Artikelnr. / Code article / Código / Codice articolo / Kod produktu

● Size / Abmessung / Dimension / Medida / Dimensione / Wymiary

■ Flange diameter / Nennweite der flange / Diametre de la bride / Diámetro brida (Dia) / Diametro flangia (Dia) / średnica kołnierza

† Pitch circle diameter / Teilkreisdurchmesser / Entraxe des trous de part et d'autre du centre / Diametro de conexión brida / Diametro del foro di fissaggio / średnica otworu

✱ Size/No. of holes / Bohrungsdurchmesser/Anzahl der Bohrungen / Diametre des trous / Diámetro/número de agujeros / Dimensione dei fori/Numero dei fori / Wielkość otworów

★ Length / Länge / Longueur / Longitud / Lunghezza / Długość

✱ Description / Beschreibung / Description / Descripción / Descrizione / Opis

NP Nickel plate / Vernickelt / Plaque de nickel / Niquelado / Nichelato / Niklowany



>B< Terminal Connector

>B< Übergangskupplung | >B< Terminal Connector | Accesorio >B< para terminaciones roscadas | >B< - Manicotto F/filetto M | łącznik przejściowy >B<

Product code ▲	Size ●				
Y8243G01203000	12 x 3/8				
Y8243G01204000	12 x 1/2				
Y8243G01504000	15 x 1/2				
Y8243G01806000	18 x 3/4				
Y8243G02206000	22 x 3/4				
Y8243G02208000	22 x 1				
Y8243G02808000	28 x 1				
Y8243V01204000	12 x 1/2 NP				
Y8243V01504000	15 x 1/2 NP				
Y8243V01806000	18 x 3/4 NP				
Y8243V02206000	22 x 3/4 NP				

Product code ▲	Size ●				
Y4243G01203000	12 x 3/8				
Y4243G01204000	12 x 1/2				
Y4243G01504000	15 x 1/2				
Y4243G01806000	18 x 3/4				
Y4243G02206000	22 x 3/4				
Y4243G02208000	22 x 1				
Y4243G02808000	28 x 1				
Y4243G03510000	35 x 1 1/4				
Y4243G04242000	42 x 1 1/2				
Y4243G05416000	54 x 2				



>B< Expansion Coupler

>B< Kompensator | Compensateur de dilatation pour >B< | Manguito de dilatación >B< | >B< Compensatore di dilatazione | Mufa kompensatorowa >B< z brązu

Product code ▲	Size ●				
Y3270 00400000	12				
Y3270 00400000	15				
Y3270 00600000	18				
Y3270 00600000	22				
Y3270 00800000	22				
Y3270 00800000	28				
Y3270 01000000	35				
Y3270 01200000	42				
Y3270 01600000	54				

Stainless steel tube systems

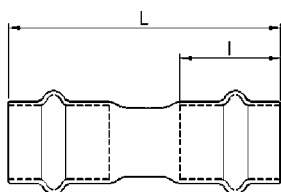
Sistemas con tubo de acero Inoxidable

Edelstahlrohr-Systeme

Sistema di tubi in acciaio

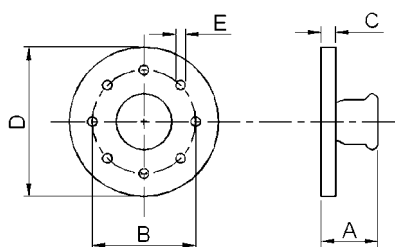
Systeme en tube inox

Instalacja z rur ze stali nierdzewnej

**Straight coupler**

Muffe | Manchon FF | Manguito HH | Manicotto con battuta F/F | Mufa

Product code ▲	Size ●	L	I		
PS5270 0150000	15	68	23		
PS5270 0180000	18	70	23		
PS5270 0220000	22	71	25		
PS5270 0280000	28	75	27		
PS5270 0350000	35	83	29		
PS5270 0420000	42	97	37		
PS5270 0540000	54	106	41		
PS5270 0760000	76.1	153	52		
PS5270 0890000	88.9	173	64		
PS5270 1080000	108	205	75		

**PN16 flange (4/8 hole)**

Flansch PN16 | Bride PN16 | Brida PN16 | Manicotto con battuta F, con flangia a 4/8 fori di fissaggio | Kołnierz PN16

Product code ▲	Size ●	A	B	C	D	Size / No. of holes ♣
PS5270F0760000	76.1	86	145	18	186	18 x 4
PS5270F0890000	88.9	92	158	20	201	18 x 8
PS5270F1080000	108	112	179	22	220	18 x 8

Stainless steel >B< Press fittings are currently available from stock in Italy. For all other markets please consult your regional IBP Sales Office for details of availability by special order.

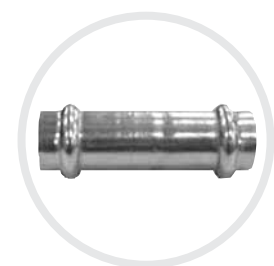
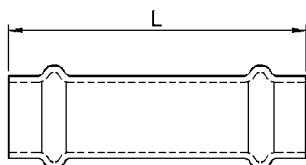
>B< Edelstahl-Pressfittings sind zur Zeit aus Lagerbeständen in Italien lieferbar. In allen anderen Markgebieten erfragen Sie bitte Näheres zur Verfügbarkeit und zu Sonderbestellungen bei Ihrem zuständigen IBP Vertriebsbüro.

Les raccords >B< Press en acier inoxydable sont disponibles actuellement en stock en Italie. Pour tous les autres marchés, veuillez consulter votre bureau de ventes régional IBP pour la disponibilité sur commande spéciale.

▲ Product code / Artikelnr. / Code article / Código / Codice articolo / Kod produktu

● Size / Abmessung / Dimension / Medida / Dimensione / Wymiary

✦ Size/No. of holes / Bohrungsdurchmesser/Anzahl der Bohrungen / Diametre des trous / Diámetro/número de agujeros / Dimensione dei fori/Numero dei fori / Wielkość otworów

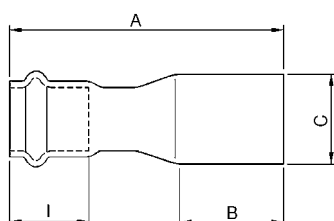


Slip coupler

Schiebemuffe | Manchon coulissant | Manguito deslizante |

Manicotto passante F/F | Mufa - nasuwka (naprawcza)

Product code ▲	Size ●	L				
PS4275 0150000	15	70				
PS4275 0180000	18	72				
PS4275 0220000	22	70				
PS4275 0280000	28	75				
PS4275 0350000	35	84				
PS4275 0420000	42	98				
PS4275 0540000	54	106				



Fitting reducer

Reduzierstück | Réduction MF | Manguito de reducción MH |

Manicotto ridotto M/F | łącznik redukcyjny nypłowy

Product code ▲	Size ●	C	A	B	I	
PS5243 0181500	18 x 15	18	75	31	23	
PS5243 0221500	22 x 15	22	69	25	25	
PS5243 0221800	22 x 18	22	74	33	25	
PS5243 0281500	28 x 15	28	58	30	27	
PS5243 0281800	28 x 18	28	83	36	27	
PS5243 0282200	28 x 22	28	75	31	27	
PS5243 0351800	35 x 18	35	65	40	29	
PS5243 0352200	35 x 22	35	84	33	29	
PS5243 0352800	35 x 28	35	77	32	29	
PS5243 0422800	42 x 28	42	102	44	37	
PS5243 0423500	42 x 35	42	97	40	37	
PS5243 0542800	54 x 28	54	148	57	41	
PS5243 0543500	54 x 35	54	119	46	41	
PS5243 0544200	54 x 42	54	105	40	41	
PS5243 0765400	76.1 x 54	76.1	170	73	39	
PS5243 0895400	88.9 x 54	88.9	216	83	39	
PS5243 0897600	88.9 x 76.1	88.9	188	81	52	
PS5243 1085400	108 x 54	108	272	103	39	
PS5243 1087600	108 x 76.1	108	244	83	52	
PS5243 1088900	108 x 88.9	108	250	82	64	

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Złączki ze stali nierdzewnej >B< Press są obecnie dostępne ze składu we Włoszech. W przypadku innych rynków prosimy o skontaktowanie się z lokalnym przedstawicielem handlowym firmy IBP w celu omówienia możliwości realizacji specjalnego zamówienia.

Stainless steel tube systems

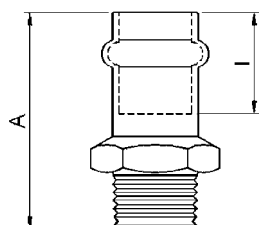
Sistemas con tubo de acero Inoxidable

Edelstahlrohr-Systeme

Sistema di tubi in acciaio

Systeme en tube inox

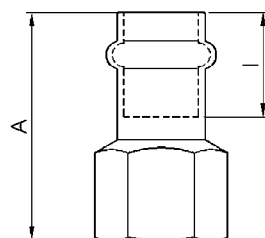
Instalacja z rur ze stali nierdzewnej

**Male straight connector (ISO 7 R)**

Übergangsnippel mit Außengewinde | Mamelon FM |

Manguito con rosca macho | Manicotto F/filetto M | Nypel przejściowy (GZ)

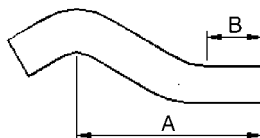
Product code ▲	Size ●	A	I		
PS4273G0150400	15 x 1/2	48	23		
PS4273G0180400	18 x 1/2	48	23		
PS4273G0180600	18 x 3/4	49	23		
PS4273G0220600	22 x 3/4	53	25		
PS4273G0280800	28 x 1	56	27		
PS4273G0351000	35 x 1 1/4	80	29		
PS4273G0421200	42 x 1 1/2	91	37		
PS4273G0541600	54 x 2	108	41		

**Female straight connector (ISO 7 Rp)**

Übergangsmuffe mit Innengewinde | Manchon FF | Manguito con rosca hembra |

Manicotto F/filetto F | Nypel przejściowy (GW)

Product code ▲	Size ●	A	I		
PS4270G0150400	15 x 1/2	48	23		
PS4270G0180400	18 x 1/2	48	23		
PS4270G0180600	18 x 3/4	49	23		
PS4270G0220600	22 x 3/4	53	25		
PS4270G0280800	28 x 1	56	27		
PS4270G0351000	35 x 1 1/4	80	29		
PS4270G0421200	42 x 1 1/2	91	37		
PS4270G0541600	54 x 2	108	41		

**Crossover coupler (short)**

Überspringbogen beidseitig mit Pressende | Clarinette MM |

Salto MM (Corto) | Sorpasso M/M corto | łącznik obejściowy

Product code ▲	Size ●	A	B		
PS5087 0150000	15	117	37		
PS5087 0180000	18	123	15		
PS5087 0220000	22	124	41		
PS5087 0280000	28	138	44		

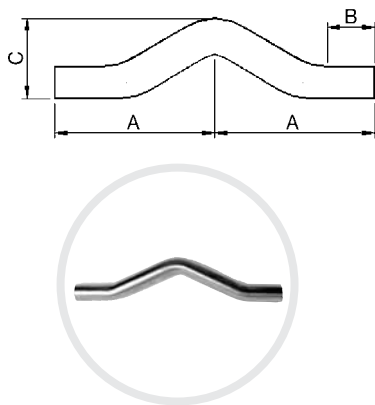
Stainless steel >B< Press fittings are currently available from stock in Italy. For all other markets please consult your regional IBP Sales Office for details of availability by special order.

>B< Edelstahl-Pressfittings sind zur Zeit aus Lagerbeständen in Italien lieferbar. In allen anderen Markgebieten erfragen Sie bitte Näheres zur Verfügbarkeit und zu Sonderbestellungen bei Ihrem zuständigen IBP Vertriebsbüro.

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▲ Product code / Artikelnr. / Code article / Código / Codice articolo / Kod produktu

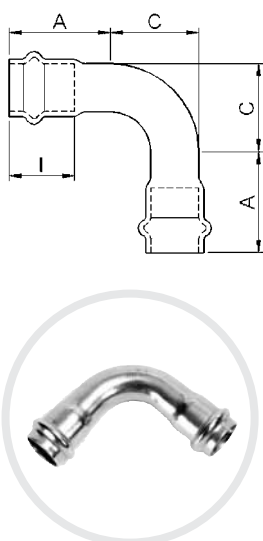
● Size / Abmessung / Dimension / Medida / Dimensione / Wymiary



Crossover coupler (long)

Überspringbogen beidseitig mit Pressende / gerade | Chapeau de gendarme MM | Salto MM (Largo) | Sorpasso M/M lungo | łącznik obejściowy

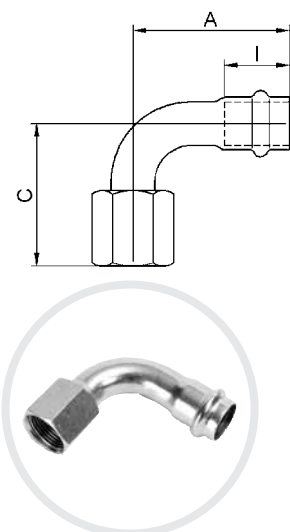
Product code ▲	Size ●	A	B	C	
PS5088 0150000	15	117	37	44	
PS5088 0180000	18	123	15	48	
PS5088 0220000	22	124	41	53	
PS5088 0280000	28	138	44	63	



90° bend

Bogen 90° | Courbe 90° FF | Curva 90° HH | Curva a 90° F/F | łuk dwukielichowy 90°

Product code ▲	Size ●	A	C	I		
PS5002 0150000	15	54	65	23		
PS5002 0180000	18	58	69	23		
PS5002 0220000	22	65	77	25		
PS5002 0280000	28	75	86	27		
PS5002 0350000	35	94	106	29		
PS5002 0420000	42	111	121	37		
PS5002 0540000	54	131	140	41		
PS5002 0760000	76.1	78	131	52		
PS5002 0890000	88.9	84	158	65		
PS5002 1080000	108	143	196	75		



90° bend with female thread (ISO 7 Rp)

Winkel 90° mit Innengewinde | Coude à 90° avec filetage femelle | Curva 90° rosca hembra | Curva a 90° F/filetto F | łuk 90° z jednostronnym gwintem (GW)

Product code ▲	Size ●	A	C	I		
PS4002G0150400	15 x 1/2	53	54	23		
PS4002G0180400	18 x 1/2	58	61	23		
PS4002G0220600	22 x 3/4	64	67	25		
PS4002G0280800	28 x 1	74	80	27		
PS4002G0351000	35 x 1 1/4	89	90	29		
PS4002G0421200	42 x 1 1/2	111	n.d.	37		
PS4002G0541600	54 x 2	131	n.d.	41		

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Złączki ze stali nierdzewnej >B< Press są obecnie dostępne ze składu we Włoszech. W przypadku innych rynków prosimy o skontaktowanie się z lokalnym przedstawicielem handlowym firmy IBP w celu omówienia możliwości realizacji specjalnego zamówienia.

Stainless steel tube systems

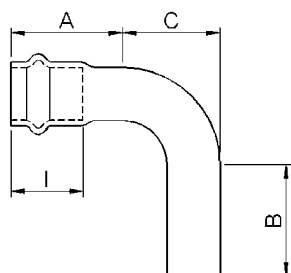
Sistemas con tubo de acero Inoxidable

Edelstahlrohr-Systeme

Sistema di tubi in acciaio

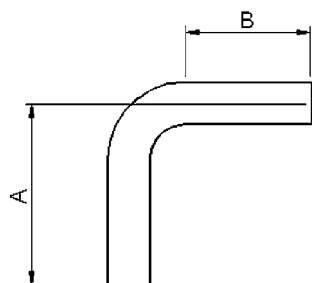
Systeme en tube inox

Instalacja z rur ze stali nierdzewnej

**90° street bend**

Bogen 90° I/A | Courbe 90° MF | Curva 90° MH | Curva a 90° M/F |
łuk jednokielichowy 90°

Product code ▲	Size ●	A	B	C	I	
PS5001 0150000	15	54	54	65	23	
PS5001 0180000	18	58	58	69	23	
PS5001 0220000	22	65	65	77	25	
PS5001 0280000	28	75	75	86	27	
PS5001 0350000	35	94	94	106	29	
PS5001 0420000	42	111	111	121	37	
PS5001 0540000	54	131	131	140	41	
PS5001 0760000	76.1	78	90	131	52	
PS5001 0890000	88.9	84	98	158	65	
PS5001 1080000	108	143	111	196	75	

**Male 90° street bend**

Winkel 90° beidseitig mit Pressende | Tube courbe 90° MM |
Tubo curvo a 90° MM | Tubo Curvo a 90° M/M | Kolano 90°

Product code ▲	Size ●	A	B		
PS5030 0150000	15	70	45		
PS5030 0180000	18	63	40		
PS5030 0220000	22	79	47		
PS5030 0280000	28	91	52		
PS5030 0350000	35	115	66		
PS5030 0420000	42	133	81		
PS5030 0540000	54	140	88		

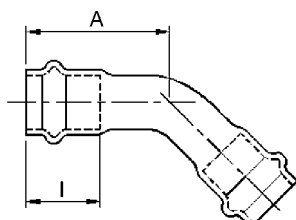
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▲ Product code / Artikelnr. / Code article / Código / Codice articolo / Kod produktu

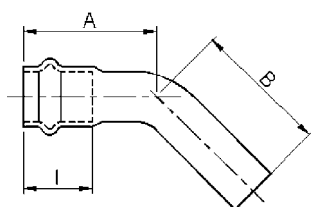
● Size / Abmessung / Dimension / Medida / Dimensione / Wymiary



45° obtuse elbow

Bogen 45° | Courbe 45° FF | Curva 45° HH | Curva a 45° F/F | łuk dwukielichowy 45°

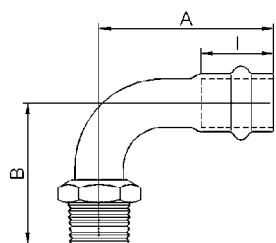
Product code ▲	Size ●	A	I			
PS5041 0150000	15	41	23			
PS5041 0180000	18	43	23			
PS5041 0220000	22	47	25			
PS5041 0280000	28	50	27			
PS5041 0350000	35	63	29			
PS5041 0420000	42	75	37			
PS5041 0540000	54	87	41			
PS5041 0760000	76.1	110	52			
PS5041 0890000	88.9	126	64			
PS5041 1080000	108	159	75			



45° obtuse street elbow

Bogen 45° I/A | Courbe 45° MF | Curva 45° MH | Curva a 45° M/F | łuk jednokielichowy 45°

Product code ▲	Size ●	A	B	I		
PS5040 0150000	15	41	54	23		
PS5040 0180000	18	43	55	23		
PS5040 0220000	22	47	59	25		
PS5040 0280000	28	50	62	27		
PS5040 0350000	35	63	70	29		
PS5040 0420000	42	75	84	37		
PS5040 0540000	54	87	92	41		
PS5040 0760000	76.1	110	126	52		
PS5040 0890000	88.9	126	137	64		
PS5040 1080000	108	159	174	75		



90° bend with male thread (ISO 7 R)

Einschraubbogen 90° mit Außengewinde | Courbe 90° FM | Curva 90° rosca macho | Curva a 90° F/filetto M | łuk 90° z jednostronnym gwintem (GZ)

Product code ▲	Size ●	A	B	I		
PS4001G0150400	15 x 1/2	53	49	23		
PS4001G0180400	18 x 1/2	58	56	23		
PS4001G0220600	22 x 3/4	64	63	25		
PS4001G0280800	28 x 1	74	74	27		
PS4001G0351000	35 x 1 1/4	89	84	29		
PS4001G0421200	42 x 1 1/2	111	97	37		
PS4001G0541600	54 x 2	131	124	41		

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Złączki ze stali nierdzewnej >B< Press są obecnie dostępne ze składu we Włoszech. W przypadku innych rynków prosimy o skontaktowanie się z lokalnym przedstawicielem handlowym firmy IBP w celu omówienia możliwości realizacji specjalnego zamówienia.

Stainless steel tube systems

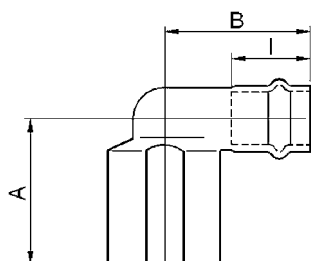
Sistemas con tubo de acero Inoxidable

Edelstahlrohr-Systeme

Sistema di tubi in acciaio

Systeme en tube inox

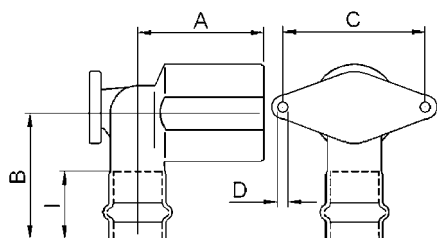
Instalacja z rur ze stali nierdzewnej

**90° elbow with female thread (ISO 7 Rp)**

Winkel 90° mit Innengewinde | Coude à 90° avec filetage femelle |

Codo 90° rosca hembra | Gomito 90° F/filetto F | łuk 90° z jednostronnym gwintem (GW)

Product code ▲	Size ●	A	B	I		
PS4090G0150400	15 x 1/2	38	41	23		
PS4090G0180400	18 x 1/2	37	42	23		
PS4090G0220600	22 x 3/4	42	56	25		
PS4090G0280800	28 x 1	46	63	27		

**Wallplate elbow with female thread (ISO 7 Rp)**

Deckenwinkel mit 3 Lochflansch | Coude applique FF 3 attaches |

Codo de fijación HH | Gomito a 90° F/filetto F, con flangia a 3 fori di fissaggio |

Kolano z 3 łapami i gwintem (GW)

Product code ▲	Size ●	A	B	I	D X C
PS4471G0150400	15 x 1/2	38	41	23	5 x 40
PS4471G0180400	18 x 1/2	37	42	23	5 x 40
PS4471G0220600	22 x 3/4	42	56	25	5 x 45
PS4471G0280800	28 x 1	46	63	27	5 x 52

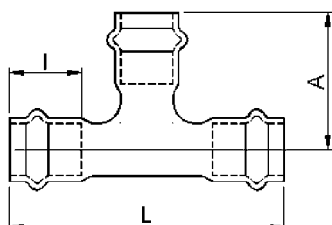
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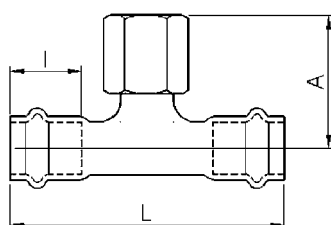
● Size / Abmessung / Dimension / Medida / Dimensione / Wymiary



Equal tee

T-Stück | Té réduit | Te HHH | Tee F/F/F | Trójnik równoprzelotowy

Product code ▲	Size ●	L	A	I		
PS5130 0151515	15	91	54	23		
PS5130 0181818	18	91	55	23		
PS5130 0222222	22	98	61	25		
PS5130 0282828	28	113	67	27		
PS5130 0353535	35	136	68	29		
PS5130 0424242	42	160	79	37		
PS5130 0545454	54	183	94	41		
PS5130 0760000	76.1	241	79	52		
PS5130 0890000	88.9	272	86	64		
PS5130 1080000	108	324	107	75		



Tee with female threaded branch (ISO 7 Rp)

T-Stück mit Innengewinde | Té réduit | Te con rosca hembra | Tee F/F/filetto F | Trójnik z gwintem (GW)

Product code ▲	Size ●	L	A	I		
PS4130G0150415	15 x 1/2 x 15	91	38	23		
PS4130G0180418	18 x 1/2 x 18	91	39	23		
PS4130G0180618	18 x 3/4 x 18	91	43	23		
PS4130G0220622	22 x 3/4 x 22	98	45	25		
PS4130G0280828	28 x 1 x 28	113	51	27		
PS4130G0351035	35 x 1 1/4 x 35	136	55	29		
PS4130G0421242	42 x 1 1/2 x 42	160	57	37		
PS4130G0541654	54 x 2 x 54	183	78	41		

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Stainless steel tube systems

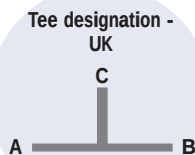
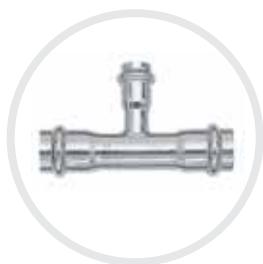
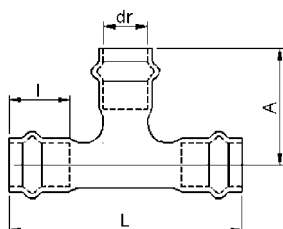
Sistemas con tubo de acero Inoxidable

Edelstahlrohr-Systeme

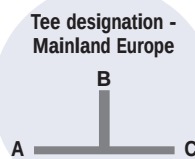
Sistema di tubi in acciaio

Systeme en tube inox

Instalacja z rur ze stali nierdzewnej



Bezeichnung von T-Stücken in UK
Designations des té UK
Designación de las tes - UK
Designazione tee - UK
Trójnik - opis brytyjski



Bezeichnung von T-Stücken in Europa außer UK
Designation des té Europe continentale
Designación de las tes - Europa
Designazione tee - Europa
Trójnik - opis europejski

See page 11 for explanation of Tee designations.

Erklärung der Bezeichnung von T-Stücken siehe Seite 33.

Voir page 55 pour la désignation des té.

Ver en página 77 la forma de designación de tes.

Vedere pag 99 per Identificazione dei raccordi a tee.

Oznaczenie wymiarów trójnika patrz strona 121.

Reduced tee - branch

T-Stück reduziert | Té réduit | Te reducida HHH (en boca central) |

Tee ridotto F/F/F (in derivazione) | Trójnik redukcyjny

Product code ▲	Size ●	L	A	I	
PS5130 0181518	18 x 15 x 18	91	55	23	
PS5130 0221522	22 x 15 x 22	98	58	25	
PS5130 0221822	22 x 18 x 22	98	59	25	
PS5130 0281528	28 x 15 x 28	113	60	27	
PS5130 0281828	28 x 18 x 28	113	60	27	
PS5130 0282228	28 x 22 x 28	113	64	27	
PS5130 0351535	35 x 15 x 35	136	65	29	
PS5130 0351835	35 x 18 x 35	136	65	29	
PS5130 0352235	35 x 22 x 35	136	69	29	
PS5130 0352835	35 x 28 x 35	136	72	29	
PS5130 0422242	42 x 22 x 42	160	73	37	
PS5130 0422842	42 x 28 x 42	160	75	37	
PS5130 0423542	42 x 35 x 42	160	74	37	
PS5130 0542254	54 x 22 x 54	183	79	41	
PS5130 0542854	54 x 28 x 54	183	81	41	
PS5130 0543554	54 x 35 x 54	183	78	41	
PS5130 0544254	54 x 42 x 54	183	87	41	
PS5130 0762276	76.1 x 22 x 76.1	241	53	52	
PS5130 0762876	76.1 x 28 x 76.1	241	55	52	
PS5130 0763576	76.1 x 35 x 76.1	241	64	52	
PS5130 0764276	76.1 x 42 x 76.1	241	81	52	
PS5130 0765476	76.1 x 54 x 76.1	241	72	52	
PS5130 0892289	88.9 x 22 x 88.9	272	68	64	
PS5130 0892889	88.9 x 28 x 88.9	272	69	64	
PS5130 0893589	88.9 x 35 x 88.9	272	71	64	
PS5130 0894289	88.9 x 42 x 88.9	272	72	64	
PS5130 0895489	88.9 x 54 x 88.9	272	74	64	
PS5130 0897689	88.9 x 76.1 x 88.9	272	108	64	
PS5130 10822108	108 x 22 x 108	324	53	75	
PS5130 10828108	108 x 28 x 108	324	55	75	
PS5130 10835108	108 x 35 x 108	324	66	75	
PS5130 10842108	108 x 42 x 108	324	79	75	
PS5130 10854108	108 x 54 x 108	324	72	75	
PS5130 10876108	108 x 76.1 x 108	324	85	75	
PS5130 10889108	108 x 88.9 x 108	324	88	75	

Stainless steel >B< Press fittings are currently available from stock in Italy. For all other markets please consult your regional IBP Sales Office for details of availability by special order.

>B< Edelstahl-Pressfittings sind zur Zeit aus Lagerbeständen in Italien lieferbar. In allen anderen Markgebieten erfragen Sie bitte Näheres zur Verfügbarkeit und zu Sonderbestellungen bei Ihrem zuständigen IBP Vertriebsbüro.

Les raccords >B< Press en acier inoxydable sont disponibles actuellement en stock en Italie. Pour tous les autres marchés, veuillez consulter votre bureau de ventes régional IBP pour la disponibilité sur commande spéciale.

▲ Product code / Artikelnr. / Code article / Código / Codice articolo / Kod produktu

● Size / Abmessung / Dimension / Medida / Dimensione / Wymiary

Expansion joint

Dehnungsausgleicher | Compensateur de dilatation | Manguito de dilatación |
Compensatore di dilatazione F/F | Kompensator



Product code ▲	Size ●				
PS5500 0150000	15				
PS5500 0180000	18				
PS5500 0220000	22				
PS5500 0280000	28				
PS5500 0350000	35				
PS5500 0420000	42				
PS5500 0540000	54				

>B< Terminal Connector

>B< Übergangskupplung | >B< Terminal Connector |
Accesorio >B< para terminaciones roscadas | >B<-Manicotto F/filetto M |
łącznik przejściowy >B<



Product code ▲	Size ●				
Y7243G01504000	15 x 1/2				
Y7243G01806000	18 x 3/4				
Y7243G02206000	22 x 3/4				
Y7243G02808000	28 x 1				
Y7243G03510000	35 x 1 1/4				
Y7243G04212000	42 x 1 1/2				
Y7243G05416000	54 x 2				

Los accesorios >B< Press en acero inoxidable se encuentran actualmente en stock en Italia. Por favor consulte con el Servicio de Atención al Cliente de IBP en su país sobre la disponibilidad bajo pedido. In Italia i raccordi >B< Press in acciaio inox sono attualmente disponibili a magazzino. Per tutti gli altri mercati preghiamo di consultare l'Ufficio vendite IBP per i dettagli riguardanti la possibilità di ordini speciali.

Złączki ze stali nierdzewnej >B< Press są obecnie dostępne ze składu we Włoszech. W przypadku innych rynków prosimy o skontaktowanie się z lokalnym przedstawicielem handlowym firmy IBP w celu omówienia możliwości realizacji specjalnego zamówienia.

Gas - Natural gas and LPG

Gas - Erdgas und Flüssiggas

Gaz - Gaz naturel et GPL

Copper tube systems

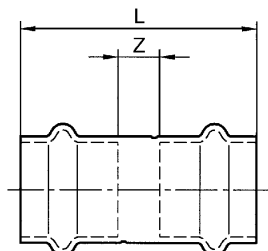
Kupferrohr-Systeme

Système en tube cuivre

Sistemas con tubo de cobre

Sistema con tubi di rame

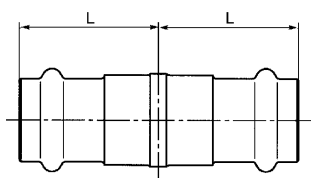
Instalacja z rur miedzianych



Straight coupler

Muffe | Manchon FF | Manguito HH | Manicotto con battuta F/F | Mufa

Product code ▲	Size ●	L	Z		
PG5270 0150000	15	50	6		
PG5270 0180000	18	54	10		
PG5270 0220000	22	56	10		
PG5270 0280000	28	58	10		
PG5270 0350000	35	62	10		
PG5270 0420000	42	84	12		
PG5270 0540000	54	92	12		



Slip coupler

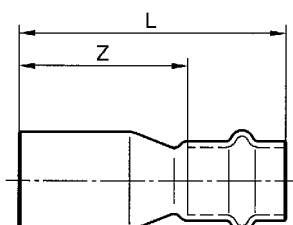
Schiebemuffe | Manchon coulissant | Manguito deslizante |

Manicotto passante F/F | Mufa - nasuwka (naprawcza)

Product code ▲	Size ●	L			
PG4275 0150000	15	40			
PG4275 0180000	18	40			
PG4275 0220000	22	42.5			
PG4275 0280000	28	47.5			
PG4275 0350000	35	52.5			
PG4275 0420000	42	60			
PG4275 0540000	54	67.5			

▲ Product code / Artikelnr. / Code article / Código / Codice articolo / Kod produktu

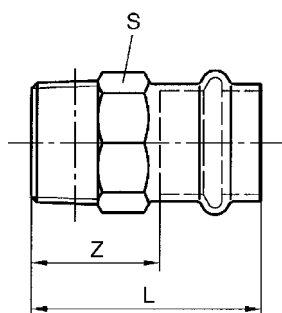
● Size / Abmessung / Dimension / Medida / Dimensione / Wymiary

**Fitting reducer**

Reduzierstück | Réduction MF | Manguito de reducción MH |

Manicotto ridotto M/F | łącznik redukcyjny

Product code ▲	Size ●	L	Z		
PG5243 0181500	18 x 15	54	32		
PG5243 0221500	22 x 15	60	38		
PG5243 0221800	22 x 18	57	35		
PG5243 0281500	28 x 15	68	46		
PG5243 0281800	28 x 18	63	41		
PG5243 0282200	28 x 22	61	38		
PG5243 0352200	35 x 22	71	48		
PG5243 0352800	35 x 28	67	43		
PG5243 0422200	42 x 22	89	66		
PG5243 0422800	42 x 28	82	58		
PG5243 0423500	42 x 35	79	53		
PG5243 0543500	54 x 35	95	69		
PG5243 0544200	54 x 42	99	63		

**Male straight connector (ISO 7 R)**

Übergangsnippel mit Außengewinde | Mamelon FM | Manguito con rosca macho |

Manicotto F/filetto M | łącznik z gwintem wewnętrznym

Product code ▲	Size ●	L	S	Z	
PG4243G0150400	15 x 1/2	44	22	20	
PG4243G0150600	15 x 3/4	50	28	26	
PG4243G0180400	18 x 1/2	44	22	20	
PG4243G0180600	18 x 3/4	48	28	24	
PG4243G0220400	22 x 1/2	45	27	21	
PG4243G0220600	22 x 3/4	50	28	26	
PG4243G0220800	22 x 1	55	35	31	
PG4243G0280600	28 x 3/4	52	33	28	
PG4243G0280800	28 x 1	55	36	31	
PG4243G0281000	28 x 1 1/4	62	42	38	
PG4243G0350800	35 x 1	52	40	26	
PG4243G0351000	35 x 1 1/4	61	43	35	
PG4243G0351200	35 x 1 1/2	61	50	35	
PG4243G0421000	42 x 1 1/4	68	48	27	
PG4243G0421200	42 x 1 1/2	68	50	27	
PG4243G0541200	54 x 1 1/2	77.5	68	31.5	
PG4243G0541600	54 x 2	80	68	34	

Gas - Natural gas and LPG

Gas - Erdgas und Flüssiggas

Gaz - Gaz naturel et GPL

Copper tube systems

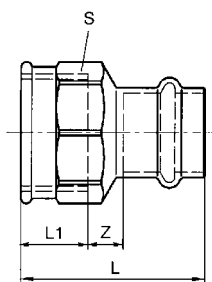
Kupferrohr-Systeme

Système en tube cuivre

Sistemas con tubo de cobre

Sistema con tubi di rame

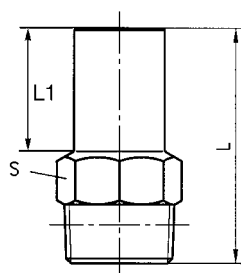
Instalacja z rur miedzianych



Female straight connector (ISO 7 Rp)

Übergangsmuffe mit Innengewinde | Manchon FF | Manguito con rosca hembra |
Manicotto F/filetto F | Nypel przejściowy (GW)

Product code ▲	Size ●	L	S	Z	L1
PG4270G0150400	15 x 1/2	44	26	5	15
PG4270G0150600	15 x 3/4	45	30.5	4.5	16.3
PG4270G0180400	18 x 1/2	44	26	5	15
PG4270G0180600	18 x 3/4	45	30.5	4.5	16.3
PG4270G0220400	22 x 1/2	44	26	5	15
PG4270G0220600	22 x 3/4	47	30.5	6.5	16.3
PG4270G0220800	22 x 1	52	37.5	9	19.1
PG4270G0280600	28 x 3/4	47	33	6.5	16.3
PG4270G0280800	28 x 1	52	37.5	9	19.1
PG4270G0281000	28 x 1 1/4	56	47	10.5	21.4
PG4270G0350800	35 x 1	48	40	2	19.1
PG4270G0351000	35 x 1 1/4	54	47	6.5	21.4
PG4270G0421000	42 x 1 1/4	65	47	2.5	21.4
PG4270G0421200	42 x 1 1/2	68	55	5.5	21.4
PG4270G0541600	54 x 2	80	70	8.5	25.7



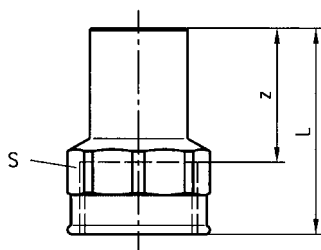
Male adaptor with male thread (ISO 7 R)

Doppelnippel mit AG | Mamelon MM | Adaptador macho con rosca macho |
Manicotto M/filetto M | Mufa przejściowa wtykowa z gwintem (GZ)

Product code ▲	Size ●	L	S	L1	
P4280G01504000	15 x 1/2	49	22	26	
P4280G01804000	18 x 1/2	48	22	26	
P4280G01806000	18 x 3/4	54	28	26	
P4280G02204000	22 x 1/2	49	22	26	
P4280G02206000	22 x 3/4	53.5	28	26	
P4280G02808000	28 x 1	57.5	35	26	
P4280G03510000	35 x 1 1/4	59.5	43	28	
P4280G04212000	42 x 1 1/2	75	50	43	
P4280G05416000	54 x 2	96.5	68	48	

▲ Product code / Artikelnr. / Code article / Código / Codice articolo / Kod produktu

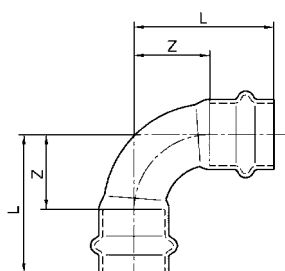
● Size / Abmessung / Dimension / Medida / Dimensione / Wymiary



Male adaptor with female thread (ISO 7Rp)

Übergangsmuffennippel mit IG | Manchon MF | Adaptador macho con rosca hembra | Manicotto M/filetto F | Mufa przejściowa wtykowa z gwintem (GW)

Product code ▲	Size ●	L	S	Z	
P4281G01504000	15 x 1/2	46.5	25	31.5	
P4281G01804000	18 x 1/2	45.5	25	30.5	
P4281G01806000	18 x 3/4	49	30.5	33	
P4281G02204000	22 x 1/2	44	25	29	
P4281G02206000	22 x 3/4	48	30.5	32	
P4281G02806000	28 x 3/4	46	30.5	30	
P4281G02808000	28 x 1	51	37.5	32	
P4281G03508000	35 x 1	51	37.5	32	
P4281G03510000	35 x 1 1/4	55.5	50	34	
P4281G04212000	42 x 1 1/2	71	58	49.5	
P4281G05416000	54 x 2	80.5	70	55	



90° bend

Bogen 90° | Courbe 90° FF | Curva 90° HH | Curva a 90° F/F | łuk dwukielichowy 90°

Product code ▲	Size ●	L	Z		
PG5002 0150000	15	40	18		
PG5002 0180000	18	44	22		
PG5002 0220000	22	50	27		
PG5002 0280000	28	58	34		
PG5002 0350000	35	68	42		
PG5002 0420000	42	87	51		
PG5002 0540000	54	105	65		

Gas - Natural gas and LPG

Gas - Erdgas und Flüssiggas

Gaz - Gaz naturel et GPL

Copper tube systems

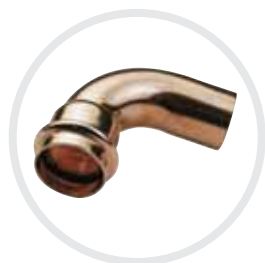
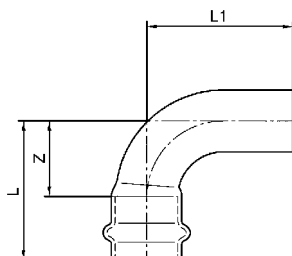
Kupferrohr-Systeme

Système en tube cuivre

Sistemas con tubo de cobre

Sistema con tubi di rame

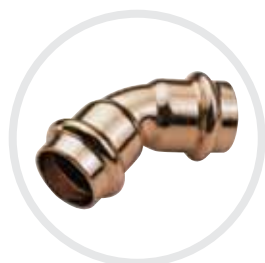
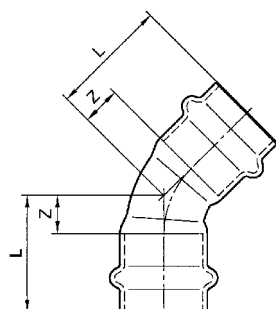
Instalacja z rur miedzianych



90° street bend

Bogen 90° I/A | Courbe 90° MF | Curva 90° MH | Curva a 90° M/F |
łuk jednokielichowy 90°

Product code ▲	Size ●	L	L1	Z	
PG5001 0150000	15	40	42	18	
PG5001 0180000	18	44	46	22	
PG5001 0220000	22	50	52	27	
PG5001 0280000	28	58	60	34	
PG5001 0350000	35	68	70	42	
PG5001 0420000	42	87	89	51	
PG5001 0540000	54	105	107	65	



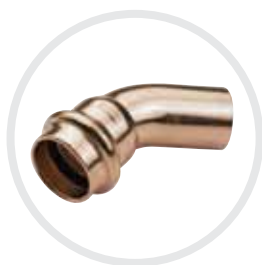
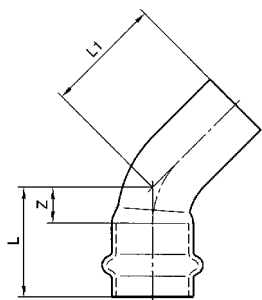
45° obtuse elbow

Bogen 45° | Courbe 45° FF | Curva 45° HH | Curva a 45° F/F |
łuk dwukielichowy 45°

Product code ▲	Size ●	L	Z		
PG5041 0150000	15	30	8		
PG5041 0180000	18	31	9		
PG5041 0220000	22	34	11		
PG5041 0280000	28	38	14		
PG5041 0350000	35	44	18		
PG5041 0420000	42	57	21		
PG5041 0540000	54	67	27		

▲ Product code / Artikelnr. / Code article / Código / Codice articolo / Kod produktu

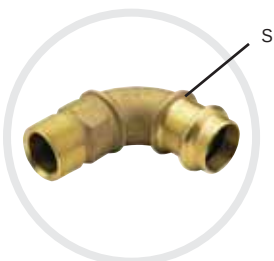
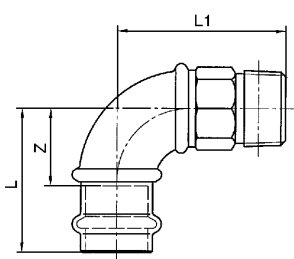
● Size / Abmessung / Dimension / Medida / Dimensione / Wymiary



45° obtuse street elbow

Bogen 45° I/A | Courbe 45° MF | Curva 45° MH | Curva a 45° M/F |
łuk jednokielichowy 45°

Product code ▲	Size ●	L	L1	Z	
PG5040 0150000	15	30	32	8	
PG5040 0180000	18	31	33	9	
PG5040 0220000	22	34	36	11	
PG5040 0280000	28	38	40	14	
PG5040 0350000	35	44	46	18	
PG5040 0420000	42	57	59	21	
PG5040 0540000	54	67	69	27	



90° bend with male thread (ISO 7 R)

Einschraubbogen 90° mit Außengewinde | Courbe 90° FM | Curva 90° rosca macho |
Curva a 90° F/filetto M | łuk 90° z jednostronnym gwintem (GZ)

Product code ▲	Size ●	L	L1	Z	S
PG4001G0150400	15 x 1/2	45	48	21	21
PG4001G0180400	18 x 1/2	46	50	22	21
PG4001G0180600	18 x 3/4	47	56	23	27
PG4001G0220600	22 x 3/4	51	59	27	27
PG4001G0280800	28 x 1	58	72	34	36
PG4001G0351000	35 x 1 1/4	73	89	47	44
PG4001G0421200	42 x 1 1/2	93	97	52	52
PG4001G0541600	54 x 2	110	130	64	60

Gas - Natural gas and LPG

Gas - Erdgas und Flüssiggas

Gaz - Gaz naturel et GPL

Copper tube systems

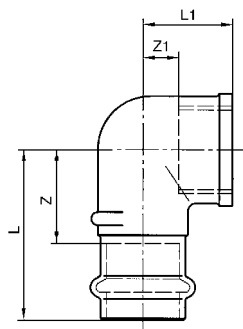
Kupferrohr-Systeme

Système en tube cuivre

Sistemas con tubo de cobre

Sistema con tubi di rame

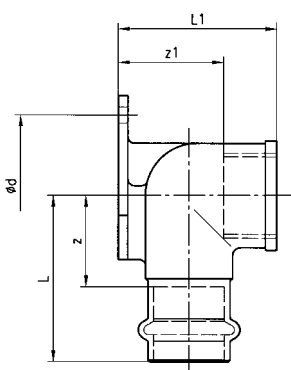
Instalacja z rur miedzianych



90° elbow with female thread (ISO 7 Rp)

Winkel 90° mit Innengewinde | Courbe 90° FF | Curva 90° rosca hembra |
Gomito a 90° F/filetto F | łuk dwukielichowy 90° (GW)

Product code ▲	Size ●	L	L ₁	Z	Z ₁
PG4090G0150400	15 x 1/2	40	22.5	22	7.5
PG4090G0150600	15 x 3/4	50	26	26	9.5
PG4090G0180400	18 x 1/2	45	23.5	21	8.5
PG4090G0180600	18 x 3/4	50	26	26	9.5
PG4090G0220400	22 x 1/2	51	26	27	11
PG4090G0220600	22 x 3/4	52	27	28	10.5
PG4090G0220800	22 x 1	59	30	35	11
PG4090G0280800	28 x 1	59	34	35	15
PG4090G0351000	35 x 1 1/4	66	40	40	18.5
PG4090G0421200	42 x 1 1/2	77	44	36	22.5
PG4090G0541600	54 x 2	98	55	53	29.5



Wallplate elbow (3 hole) with female thread (ISO 7 Rp)

Deckenwinkel mit 3 Lochflansch | Coude applique FF 3 attaches |
Codo de fijación (3 agujeros) con rosca hembra | Gomito 90° F/filetto F,
con flangia a tre fori di fissaggio | łuk ścienny (3-otworowy) GW

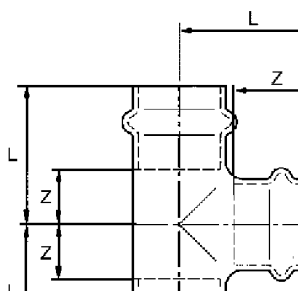
Product code ▲	Size ●	L	L ₁	L ₂	ød	Z	Z ₁
PG4471G0150400	15 x 1/2	46	34	22	40	22	21
PG4471G0180400	18 x 1/2	45	37.5	23.5	40	21	22.5
PG4471G0220600	22 x 3/4	52	49	27	50	28	32.5

▲ Product code / Artikelnr. / Code article / Código / Codice articolo / Kod produktu

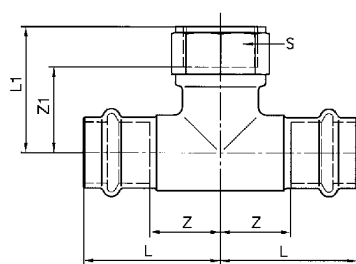
● Size / Abmessung / Dimension / Medida / Dimensione / Wymiary

Equal tee

T-Stück | Té réduit | Te HHH | Tee F/F/F | Trójnik równoprzelotowy



Product code ▲	Size ●	L	Z		
PG5130 0151515	15	41	19		
PG5130 0181818	18	42	17		
PG5130 0222222	22	45	20		
PG5130 0282828	28	48	24		
PG5130 0353535	35	52	26		
PG5130 0424242	42	65	29		
PG5130 0545454	54	75	35		



Tee with female threaded branch (ISO 7 Rp)

T-Stück mit Innengewinde | Té réduit | Te con rosca hembra |

Tee F/F/filetto F | Trójnik z gwintem (GW)

Product code ▲	Size ●	L	L ₁	Z	Z ₁	S
PG4130G0150415	15 x 1/2 x 15	45	38	21	23	26
PG4130G0180418	18 x 1/2 x 18	45	40	21	25	26
PG4130G0220422	22 x 1/2 x 22	48.5	42	24.5	27	26
PG4130G0220622	22 x 3/4 x 22	48.5	45	24.5	28.5	32
PG4130G0280428	28 x 1/2 x 28	48.5	45	24.5	30	26
PG4130G0280628	28 x 3/4 x 28	52.5	50	28.5	33.5	32
PG4130G0350435	35 x 1/2 x 35	50	48	24	33	26
PG4130G0420442	42 x 1/2 x 42	55	50	14	35	26
PG4130G0540454	54 x 1/2 x 54	66	55	20	40	26

Gas - Natural gas and LPG

Gas - Erdgas und Flüssiggas

Gaz - Gaz naturel et GPL

Copper tube systems

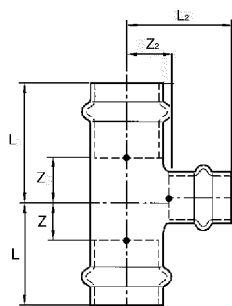
Kupferrohr-Systeme

Système en tube cuivre

Sistemas con tubo de cobre

Sistema con tubi di rame

Instalacja z rur miedzianych



Reduced tee - branch

T-Stück reduziert | Té réduit | Te reducida HHH (en boca central) |

Tee ridotto F/F/F (in derivazione) | Trójnik redukcyjny

Product code ▲	Size ●	L	Z	L ₁	Z ₁	L ₂	Z ₂
PG5130 0181518	18 x 15 x 18	41	15	35	13	41	15
PG5130 0221522	22 x 15 x 22	41	19	37	15	41	19
PG5130 0221822	22 x 18 x 22	42	17	37	16	42	17
PG5130 0281528	28 x 15 x 28	41	17	42	20	41	17
PG5130 0282228	28 x 22 x 28	45	19	42	19	45	19
PG5130 0352235	35 x 22 x 35	41	15	45	22	41	15
PG5130 0352835	35 x 28 x 35	45	19	46	22	45	19
PG5130 0422842	42 x 28 x 42	55	19	53	29	55	19
PG5130 0423542	42 x 35 x 42	58	22	55	29	58	22
PG5130 0544254	54 x 42 x 54	69	29	71	35	69	29

Reduced tee - end and branch

T-Stück reduziert | Té réduit | Te reducida HHH (en boca lateral y central) |

Tee ridotto F/F/F (in derivazione e da una estremità) | Trójnik redukcyjny

Product code ▲	Size ●	L	Z	L ₁	Z ₁	L ₂	Z ₂
PG5130 0221515	22 x 15 x 15	34	11	37	15	40	18

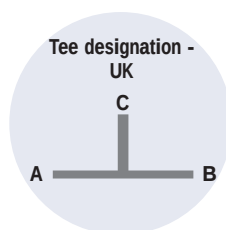


Reduced tee - end

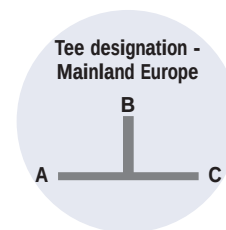
T-Stück reduziert | Té réduit | Te reducida HHH (en boca lateral) |

Tee ridotto F/F/F (in derivazione e da una estremità) | Trójnik redukcyjny

Product code ▲	Size ●	L	Z	L ₁	Z ₁	L ₂	Z ₂
PG5130 0222215	22 x 22 x 15	45	23	39	16	45	21



Bezeichnung von T-Stücken in UK
Designations des té UK
Designación de las tes - UK
Designazione tee - UK
Trójnik - opis brytyjski

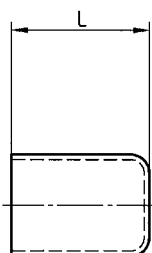


Bezeichnung von T-Stücken in Europa außer UK
Designation des té Europe continentale
Designación de las tes - Europa
Designazione tee - Europa
Trójnik - opis europejski

See page 11 for explanation of Tee designations.
Erklärung der Bezeichnung von T-Stücken siehe Seite 33.
Voir page 55 pour la désignation des té.
Ver en página 77 la forma de designación de tes.
Vedere pag 99 per Identificazione dei raccordi a tee.
Oznaczenie wymiarów trójnika patrz strona 121.

▲ Product code / Artikelnr. / Code article / Código / Codice articolo / Kod produktu

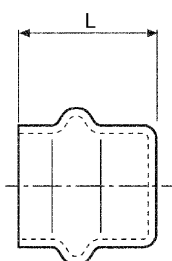
● Size / Abmessung / Dimension / Medida / Dimensione / Wymiary



Fitting stop end

Stopfen | Bouchon M | Tapón | Tappo di chiusura M | Korek

Product code ▲	Size ●	L			
P5290 01500000	15	29			
P5290 01800000	18	29			
P5290 02200000	22	30			
P5290 02800000	28	31			
P5290 03500000	35	34			
P5290 04200000	42	45			
P5290 05400000	54	49			



Tube stop end

Kappe | Bouchon F | Tapón | Tappo di chiusura F | Zaślepka

Product code ▲	Size ●	L			
PG5301 0150000	15	27			
PG5301 0180000	18	27			
PG5301 0220000	22	28			
PG5301 0280000	28	29			
PG5301 0350000	35	32			
PG5301 0420000	42	42			
PG5301 0540000	54	46			

>B< Press tools

>B< Presswerkzeuge

Outils >B< Press

**Klauke MAP1 Mini 9.6 volt battery-hydraulic press machine in plastic case (charger, spare battery and jaws included - 15, 22, 28mm)**

Klauke MAP1 Mini 9,6 Volt Akku-hydraulische Pressmaschine im Kunststoffkoffer (Ladegerät, Ersatz-akku und Pressbacken 15, 22, 28 mm) | Klauke MAP1 Mini 9.6 volts hydraulique sur batterie en boîte plastique (chargeur et batterie supplémentaire inclus) | Máquina de prensar de batería de 9.6 V Klauke MAP1 Mini en caja de plástico (incluye cargador, batería de repuesto y mordazas 15-22 y 28 mm) | Klauke Mini MAP1- macchina a pressare idraulica a testa girevole alimentata a batteria 9,6V in cassetta di plastica (completa di batteria e carica batteria) | Zaciskarka hydrauliczna akumulatorowa Klauke MAP1 Mini 9.6 w skrzynce plastikowej (ładowarka, zapasowy akumulator i szczęki - 15, 22, 28mm)

Product code ▲	
P77282 0000100	
P77282 00001UK	

**Klauke UAP2 12 volt battery-hydraulic press machine in steel case (charger and spare battery included)**

Klauke UAP2 12 Volt Akku elektro-hydraulische Pressmaschine im stabilen Metallkoffer mit 2 Stück Wechselakkus und 230 Volt 50Hz Ladegerät | Sertisseuse Klauke UAP 12 volts hydraulique sur batterie en boîte acier (chargeur et batterie supplémentaire fournis) | Klauke UAP2 de 12 v. máquina de prensar de batería en caja de acero (cargador y batería incluidos) | Klauke UAP 2-macchina a pressare idraulica a testa girevole alimentata a batteria 12 V in cassetta metallica (completa di batteria e carica batteria) | Zaciskarka hydrauliczno-akumulatorowa Klauke UAP2 12 volt w stalowej skrzynce (w komplecie zapasowy akumulator 12 volt i ładowarka)

Product code ▲	
P77265 0000000	
P77265 00000UK	

**Klauke UNP2 hydraulic press machine (230 volt or 110 volt) in steel case**

Klauke UNP2 elektro-hydraulische Pressmaschine 230 Volt im stabilen Metallkoffer | Sertisseuse UNP2 hydraulique (230 volts ou 110 volts) en boîte acier | Klauke UNP2. máquina de prensa hidráulica (230 v ó 110 v) en caja de acero | Klauke UNP 2-macchina a pressare elettroidraulica a testa girevole alimentata a 230 V in cassetta metallica | Zaciskarka hydrauliczno-elektryczna Klauke (230 lub 110 volt) w stalowej skrzynce

Product code ▲	
P77281 0000000	230 Volt
P77281 00000UK	110 Volt

▲ Product code / Artikelnr. / Code article / Código / Codice articolo / Kod produktu

● Size / Abmessung / Dimension / Medida / Dimensione / Wymiary



Klauke UP2EL-14 electro-mechanical press machine (230 volt) in steel case (jaws included - 15, 18, 22, 28)

Klauke UP2EL-14 elektro-mechanische Pressmaschine (230 Volt) im stabilen Metallkoffer incl. Pressbacken - 15, 18, 22, 28 mm) | Sertisseuse UP2EL-14 electro-mécanique (230 volts) en boîte acier (mâchoires incluses: 15, 18, 22, 28) | Klauke UP2EL-14. Máquina de prensar eléctrica (230 v) en caja de acero (mordazas de 15,18,22 y 28 incluidas) | Klauke UP2EL 14-macchina a pressare elettromeccanica a limentata a 230 V in cassetta metallica (completa di ganasce da 15, 18, 22, 28) | Zaciskarka elektro-mechaniczna Klauke UP2EL-14 (230 Volt) w stalowej skrzynce

Product code ▲	
P77280 0000000	230 Volt



Novopress Pressmax ECO3 press machine (230 volt or 110 volt) in steel case

Novopress Pressmax ECO3 Pressmaschine (230 volt) im stabilen Metallkoffer | Sertisseuse Novopress Pressmax ECO3 (230 volts ou 110 volts) en boîte acier | Novopress Pressmax ECO3. máquina de prensar (230 v ó 110 v) en caja de acero | Novopress Pressman ECO 3- macchina a pressare elettromeccanica alimentata a 230 V in cassetta metallica | Zaciskarka Novopress Pressmax ECO3 (230 lub 110 Volt) w stalowej skrzynce

Product code ▲	
P77300 0000100	230 Volt
P77300 00001UK	110 Volt



Press jaws: Klauke MAP1 Mini

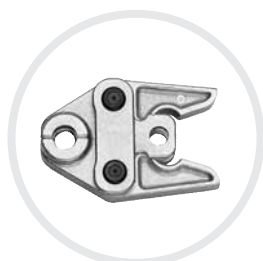
Pressbacke für Klauke MAP1 Mini | Mâchoires : Klauke MAP1 Mini | Mordazas de prensar para: Klauke MAP1 Mini | Ganasce per Klauke Mini MAP1 | Szczęki: Klauke MAP1 Mini

Product code ▲	Size ●
P77282 0120000	12mm
P77282 0140000	14mm
P77282 0150000	15mm
P77282 0160000	16mm
P77282 0180000	18mm
P77282 0220000	22mm
P77282 0280000	28mm

>B< Press tools

>B< Presswerkzeuge

Outils >B< Press

**Press jaws: Klauke UAP2, UNP2, UP2EL-14**

Pressbacke für Klauke UAP2, UNP2, UP2EL-14 | Mâchoires : Klauke UAP2, UNP2, UP2EL-14 |

Mordazas de prensar para: Klauke UAP2, UNP2, UP2EL-14 | Ganasce per Klauke UAP 2,

UNP 2, UNP2EL -14 | Szczęki: Klauke UAP2, UNP2, UP2EL-14

Product code ▲	Size ●		
P77267 0120000	12		
P77267 0140000	14		
P77267 0150000	15		
P77267 0160000	16		
P77267 0180000	18		
P77267 0220000	22		
P77267 0280000	28		
P77267 0350000	35		
P77267R0420000	42		
P77267R0540000	54		

**Press jaws set in steel case: Klauke UAP2, UNP2, UP2EL-14**

Pressbacken Set im Metallkoffer für Klauke UAP2, UNP2, UP2EL-14 | Ensemble de mâchoires

en boîte acier : Klauke UAP2, UNP2, UP2EL-14 | Juego de mordazas de prensar en caja de

acero para: Klauke UAP2, UNP2, UP2EL-14 | Ganasce per Klauke UAP 2, UNP 2, UNP2EL -14

in cassetta metallica | Szczęki, komplet w stalowej skrzynce: Klauke UAP2, UNP2, UP2EL-14

Product code ▲	Size ●		
P77268 0123500	12, 15, 18, 22, 28, 35		
P77268 0152800	15, 18, 22, 28		

**Press jaws set in steel case: Klauke UAP2, UNP2, UP2EL-14**

Pressbacken Set im Metallkoffer für Klauke UAP2, UNP2, UP2EL-14 | Ensemble de mâchoires

en boîte acier : Klauke UAP2, UNP2, UP2EL-14 | Juego de mordazas de prensar en caja de

acero para: Klauke UAP2, UNP2, UP2EL-14 | Ganasce per Klauke UAP 2, UNP 2, UNP2EL-14

in cassetta metallica | Szczęki, komplet w stalowej skrzynce: Klauke UAP2, UNP2, UP2EL-14

Product code ▲	Size ●		
P77267R04254000	42, 54		

▲ Product code / Artikelnr. / Code article / Código / Codice articolo / Kod produktu

● Size / Abmessung / Dimension / Medida / Dimensione / Wymiary

**Press collars: Novopress ECO3**

Press-Schlinge für Novopress ECO3 | Mâchoires Novopress ECO3 |

Mordaza para: Novopress ECO3 | Ganascia per Novopress pressman ECO3 |

Pierscien do zaprasowywania: Novopress ECO3

Product code ▲	Size ●		
P77300 0670000	66.7		
P77300 0760000	76.1		
P77300 0890000	88.9		
P77300 1080000	108		

**Press adaptors: Novopress ECO3**

Zwischenbacke für Novopress ECO3 | Adaptateurs : Novopress ECO3 |

Adaptador para: Novopress ECO3 | Adattatore per Novopress pressman ECO3 |

Szczeka zaciskowa do pierścienia: Novopress ECO3

Product code ▲	Size ●		
P77300 3020000	64 - 66.7		
P77300 3210000	76.1 - 108 (1)		
P77300 3220000	108 (2)		

Steel case for collars and adaptors: Novopress ECO3

Metallkoffer für press-schlingen und zwischenbacken: Novopress ECO3 |

Boite acier pour colliers et adaptateurs : Novopress ECO 3 | Caja de acero para mordazas y

adaptadores: Novopress ECO3 | Casseta metallica per adattatori e ganasce: Novopress ECO3 |

Stalowa skrzynka na pierścienie i adaptery: Novopress ECO3

Product code ▲	Size ●		
P77300 1010000	64 - 66.7		
P77300 1020000	76.1 - 88.9		
P77300 1030000	108		

**Press collar and adaptor set: Novopress ECO3**

Set mit Press-Schlinge und Zwischenbacke: ECO3 | Machoire et adaptateur: Novopress ECO3 |

Mordaza y adaptador: Novopress ECO3 | Ganasce e set adattatori : Novopress ECO3 |

Szczeka i komplet adapterów: Novopress ECO3

Product code ▲	Size ●
P77300 0070000	(P77300 0640000 + P77300 3020000)
P77300 0010000	(P77300 0670000 + P77300 3020000)
P77300 0020000	(P77300 0760000 + P77300 3210000)
P77300 0030000	(P77300 0890000 + P77300 3210000)
P77300 0050000	(P77300 1080000 + P77300 3210000)
P77300 0060000	(P77300 1080000 + P77300 3220000)

