

AC-FIX PLASTIC RING EXPANSION FITTINGS



**AC-FIX PLASTIC RING
EXPANSION FITTINGS
FOR PEX-a PIPES
(SHRINK-FIT)**

NADIE MÁS TE PUEDE OFRECER EL MEJOR SISTEMA DE FONTANERÍA Y CALEFACCIÓN AL MEJOR PRECIO PIENSA EN ELLO



SISTEMA ANILLO PLÁSTICO de expansión



Todos los componentes del sistema AC-FIX ANILLO PLÁSTICO (tubos PEX-a, accesorios de unión de latón o PPSU, anillos de plástico y herramientas) son totalmente compatibles con todos los componentes del sistema Quick & Easy de Uponor®*.

*Marca(s) de una compañía no relacionada con AC-FIX (Global Piping Systems, S.L.)



AC-FIX

La elección inteligente



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AC-FIX PLASTIC RING FITTINGS FOR PEX-a PIPES

The AC-FIX PLASTIC RING system provides a complete, quick, easy and safe solution for all types of plumbing and heating installations. The AC-FIX PLASTIC RING fittings offer the following advantages over other systems:

- Safety of the assembly: No O-rings are needed. Once the assembly is finished, the sealing achieved is permanent and the set is suitable for embedding.
- The union has the same compression force on all the surface of the insert.
- It is not necessary to calibrate and chamfer the pipe.
- These fittings have a larger inner diameter, allowing the water flow to increase up to 20% more than most of the other different systems and ensuring minimal pressure drop.
- We have available the AC-FIX plastic ring of PEX-a without stop edge. Thanks to the absence of stop edge, the mentioned plastic ring can slide a little bit on the pipe while expanding it. This allows to check visually that the pipe end has reached the shoulder of the fitting.
- Considering the cost of materials and the very low labor cost thanks to its quick assembly, this system offers a maximum profitability.
- These fittings absorb safely the variations of the sizes of the plastic pipes due to the manufacturing tolerances of the pipes or to the differences of temperature of the transported fluids.
- These fittings have a high resistance to corrosion (internal and external).

The thermo-elastic memory of the PEX-a material makes it such a safe system that it improves over time as both the pipe and ring are constantly pushing against the fitting. After expanding the material, the pipe and the ring return to their original form, creating an absolutely watertight connection between the pipe and fitting.

All the components (PEX-a pipes, fittings made of brass or PPSU, plastic rings and assembly tools) of the AC-FIX PLASTIC RING system are fully intercompatible with all the components of the Quick and Easy system of Uponor®*.

The AC-FIX PLASTIC RING system, composed of its fittings made of brass or PPSU, plastic rings and PEX-a pipes, is fully certified by AENOR (Asociación Española de Normalización y Certificación).

BRASS FITTINGS

The AC-FIX PLASTIC RING fittings are made of brass for machining CuZn39Pb3 (CW614N) and brass for forging CuZn40Pb2 (CW617N).

The AC-FIX PLASTIC RING fittings are manufactured according to UNE-ISO-15875-3/-5:2004, reference standard for plastic piping systems for cold and hot water installations (PE-X) and stipulated in the CTE (Código Técnico de la Edificación) and mandatory (according to R.D. 314/2006, from March 17). The manufacturing system is certified ISO 9001 by DQS of Germany (IQNet).

They are exclusively compatible with AC-FIX or Uponor®* PEX-a pipes (according to EN-ISO 15875-2), with the following sizes:

Outside diameter (mm)	Wall thickness (mm)	
	S.5	S.3,2
16	1,8	2,2
20	1,9	2,8
25	2,3	3,5
32	2,9	4,4

Note: the same fitting is used for pipes Series 5 and for pipes Series 3,2.



To guarantee the integrity of the brass fittings and valves of the AC-FIX PLASTIC EXPANSION RING system, all the nipples are delivered protected by a cover in order to avoid possible damage during their handling. This cover shows the diameter of the nipple on its surface.

*Trademark(s) not related with AC-FIX (Global Piping Systems, S.L.)

PPSU FITTINGS

The AC-FIX PLASTIC RING fittings of PPSU are incredibly durable and resistant, withstanding strong impacts without fracturing and resistant to chemicals of building materials. The PPSU (polyphenylsulfone, of black color) is a high performance plastic, absolutely odorless and tasteless, so it's completely suitable for use with drinking water.

Like the brass fittings, the AC-FIX PLASTIC RING fittings of PPSU are exclusively compatible with AC-FIX and Uponor®* PEX-a pipes which have the dimensions specified above in the compatibility chart of pipes for AC-FIX PLASTIC RING fittings. They have the same fields of application and the type of assembly is identical to the brass fittings (see technical information and assembly steps of AC-FIX PLASTIC RING).



In addition, the AC-FIX PLASTIC RING fittings of PPSU have the following advantages:

- **Up to 7 times lighter** than brass fittings (PPSU density is 1.300 kg/m³ against 8.400 - 8.700 kg/m³ of brass).
- The PPSU is a much **better thermal insulator** than brass or copper.
- **Chemical resistance:** this material is resistant to mineral acids, alkaloids and salt solutions. Resistance to detergents and hydrocarbon oils is good, even at high temperatures under moderate pressure levels. Organic compounds, other than ketones, don't seriously affect this material. These materials should be avoided: esters, ketones, chlorinated methylene, trichlorethylenes, cyclohexane, tetrachlorethylene, toluene, xylene and benzene**.
- **No problems of galvanic corrosion** and oxidation. Unalterable to chlorinated water and construction materials.
- **Water resistance:** this material is not affected by hydrolysis.
- **Lower pressure drop** than brass fittings due to a very low internal roughness that confers a high resistance to scaling.
- **Safety:** zero migration of metal oxides to water.
- **High breaking resistance:** the PPSU fittings are capable of absorbing strong impacts, withstand high bursting pressures and can increase their length between 50% and 100% before breaking.
- Ideal for silent installations due to its **great sound insulation**.
- **More competitive price** than brass fittings due to lower production cost.

**Some chemical products can damage the PPSU fittings. Contact our technical department.



PEX-A PLASTIC RINGS

We have available plastic rings made of PEX-a, a high density crosslinked polyethylene that ensures that the ring can expand and contract safely. The AC-FIX plastic rings have a special thickness, larger than the normal pipes to ensure a perfect closing and sealing.

In addition, the marking of the rings is available in three colors: blue for cold water, red for hot water and black for installations seeking to be more discreet. Rings with blue and red marking also incorporate a point of the same color on the opposite side of the ring for an easier identification from any point of view.

TOOLS

To assemble these fittings, you can use the AC-FIX expansion tools. They can also be assembled with tools of the Uponor Quick and Easy®* system.

IMPORTANT

We advise you to avoid the use of hemp to seal the threads.

Make sure that threaded connections are not subjected to excessive mechanical stress. Over time this may result in breakage, with loss of water and damage to property. The torque settings of the threaded parts must not be more than 30 Nm.

PRESSURE TEST

The finished installation with the pipes at sight (before being hidden by masonry, filler or insulating material) must be subject to the hydrostatic pressure test of pipeline networks (pressure test) in accordance with local regulations. After the pressure test, the pipes of the drinking water installations should be thoroughly washed.

*Trademark(s) not related with AC-FIX (Global Piping Systems, S.L.)

FIELDS OF APPLICATION

These fittings have been designed to be used with PE-Xa pipes in the following applications as they are defined in the UNE-EN-ISO 15875-1:

Application class	Design temperature T_D °C	Time at T_D (Years)	T_{max} °C	Time at T_{max} (Years)	malT °C	Time at T_{mal} (hours)	Area of typical use
1 ^a	60	49	80	1	95	100	Hot water supply (60°C)
2 ^a	70	49	80	1	95	100	Hot water supply (70°C)
4 ^b	20 Followed by 40 Followed by 60	2,5 20 25	70	2,5	100	100	Underfloor heating and low temperature radiators
5 ^b	20 Followed by 60 Followed by 80	14 25 10	90	1	100	100	High temperature radiators

T_D : Design temperature (normal work) T_{max} : Maximum temperature T_{mal} : Malfunction temperature

^a A country may select either class 1 or class 2 to conform to its national regulations.

^b Where more than one design temperature appears for any class, the times should be aggregated (for example: the design temperature profile for 50 years of class 5 is: 20°C for 14 years, followed by 60°C for 25 years, 80°C for 10 years, 90°C for 1 year and 100°C for 100 hours). This allows to simulate approximate real temperatures and times during a useful life of 50 years.

The design pressures of each application are:

PEX-a and evalPEX-a

Series 5,0: class 1 / 6 bar; class 2 / 6 bar; class 4 / 8 bar; class 5 / 6 bar. Cold water: (20 °C) 15 bar.

Series 4,0: class 1 / 8 bar; class 2 / 8 bar; class 4 / 10 bar; class 5 / 8 bar. Cold water: (20 °C) 18 bar.

Series 3,2: class 1 / 10 bar; class 2 / 10 bar; class 4 / 10 bar and class 5 / 10 bar.

Series 5,0: 16x1,5, 20x1,9, 25x2,3, 32x2,9, 40x3,7, 50x4,6, 63x5,8, 75x6,8

Series 4,0: 16x1,8

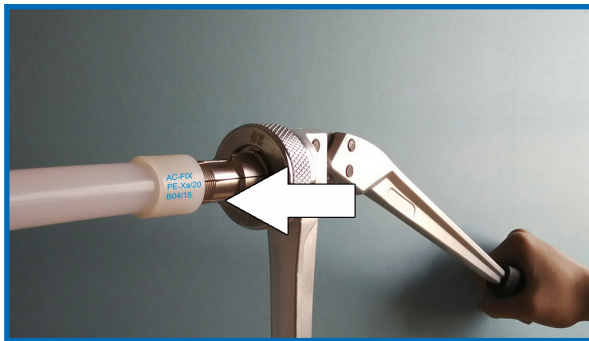
ASSEMBLY STEPS



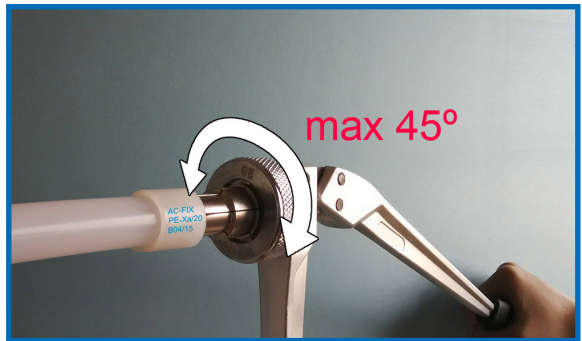
1. It is very important to cut the pipe as clean and perpendicular as possible to its axis. The pipe ends should be dry and without grease, so that the plastic ring will not slide on the pipe during expansion.



2. Fit the plastic ring on the end of the pipe so that a very small part of it (max. 1mm) is outside the pipe end. The plastic ring should be firmly fitted on the pipe. If the plastic ring fits loosely, expand the pipe end slightly without the plastic ring. Then push the plastic ring back into its correct position.



3. Open the expander tool handles fully and insert the expanding head straight into the pipe as far as possible.



4. Gradually press the handles together fully. On 20mm and larger pipe sizes, keep the handles together for around 3 seconds.


Open the handles entirely again while withdrawing the expander tool slightly, so that the jaws will be clear of the pipe wall. Spin the tool lightly (up to 45°) and insert the jaws back into the pipe as far as possible.

Repeat these steps until the flat parts of the jaws are all the way inside the pipe, i.e. the edge at the end of the flat part strikes the pipe when the jaws are pushed into the pipe. Expand the pipe by pressing the handles together, one last time.





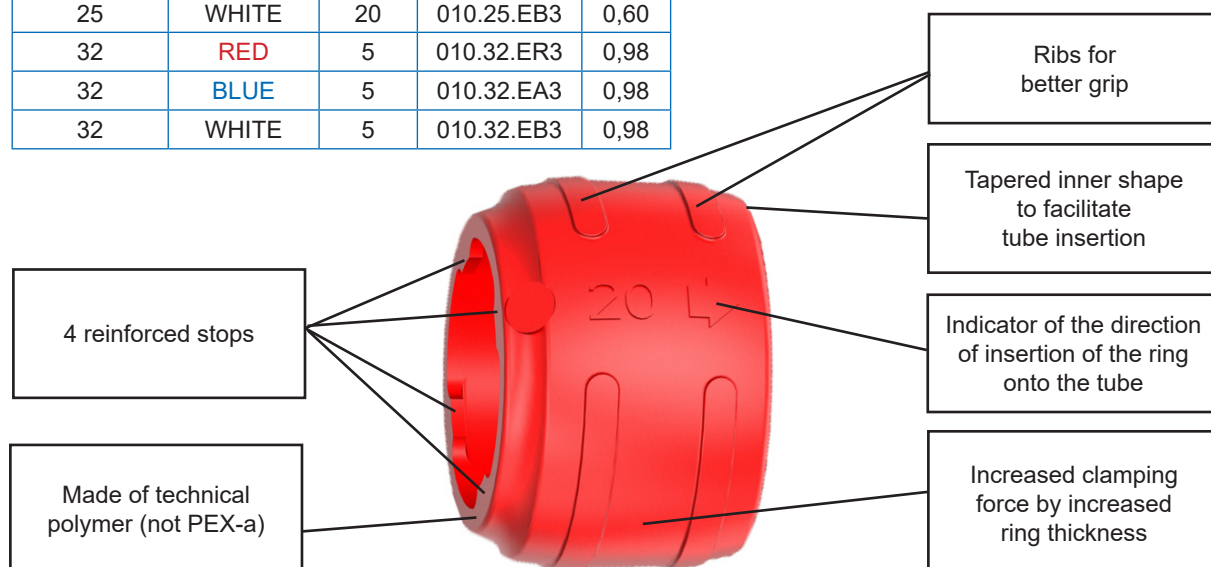
5. Open the handles, remove the expander tool and directly push the pipe onto the fitting nipple. The plastic ring on the pipe end must reach entirely the shoulder.

AC-FIX PLASTIC RING FOR PEX-a PIPES

DIMENSIONS	MARKING COLOR	UN./ BAG	CODE WITHOUT STOP EDGE	€/un. WITHOUT STOP EDGE	CODE WITH STOP EDGE	€/un. WITH STOP EDGE	PLASTIC RING OF PEX-a
16	RED	40	010.16.ER	0,38	010.16.ER2	0,51	
16	BLUE	40	010.16.EA	0,38	010.16.EA2	0,51	
16	BLACK	40	010.16.EN	0,38	010.16.EN2	0,51	
20	RED	40	010.20.ER	0,42	010.20.ER2	0,55	
20	BLUE	40	010.20.EA	0,42	010.20.EA2	0,55	
20	BLACK	40	010.20.EN	0,42	010.20.EN2	0,55	
25	RED	20	010.25.ER	0,47	010.25.ER2	0,59	
25	BLUE	20	010.25.EA	0,47	010.25.EA2	0,59	
25	BLACK	20	010.25.EN	0,47	010.25.EN2	0,59	
32	RED	5	010.32.ER	0,84	010.32.ER2	0,96	
32	BLUE	5	010.32.EA	0,84	010.32.EA2	0,96	
32	BLACK	5	010.32.EN	0,84	010.32.EN2	0,96	

- **Rings of PEX-a** with thermal-elastic memory (same behavior as PEX-a pipes).
- Exceptional elasticity even in assemblies with very low ambient temperature (up to -15 °C).
- **The rings of PEX-a** can be heated with hot air to accelerate their contraction when the ambient temperature is very low.

DIMENSIONS	COLOR RING	UN./ BAG	CODE	€/un.			RING EVO-PLUS
16	RED	40	010.16.ER3	0,52			
16	BLUE	40	010.16.EA3	0,52			
16	WHITE	40	010.16.EB3	0,52			
20	RED	40	010.20.ER3	0,56			
20	BLUE	40	010.20.EA3	0,56			
20	WHITE	40	010.20.EB3	0,56			
25	RED	20	010.25.ER3	0,60			
25	BLUE	20	010.25.EA3	0,60			
25	WHITE	20	010.25.EB3	0,60			
32	RED	5	010.32.ER3	0,98			
32	BLUE	5	010.32.EA3	0,98			
32	WHITE	5	010.32.EB3	0,98			



DIMENSIONS	CODE	UN./BOX	€/un.
16	I.006.1616.E	25	2,11
20	I.006.2020.E	25	2,86
25	I.006.2525.E	25	5,97
32	I.006.3232.E	25	13,31

EQUAL UNION



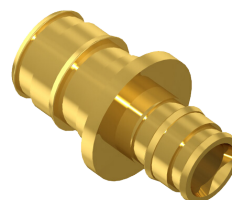
DIMENSIONS	CODE	UN./BOX	€/un.
16	I.P06.1616.E	25	1,71
20	I.P06.2020.E	25	2,29
25	I.P06.2525.E	25	4,78
32	I.P06.3232.E	25	9,06

EQUAL UNION OF PPSU



DIMENSIONS	CODE	UN./BOX	€/un.
20-16	I.006.2016.E	25	4,05
25-16	I.006.2516.E	25	4,78
25-20	I.006.2520.E	25	5,84
32-25	I.006.3225.E	25	16,44

REDUCING UNION



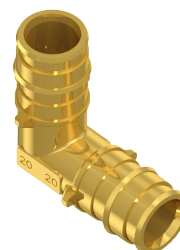
DIMENSIONS	CODE	UN./BOX	€/un.
20-16	I.P06.2016.E	25	2,95
25-16	I.P06.2516.E	25	4,39
25-20	I.P06.2520.E	25	4,57
32-25	I.P06.3225.E	25	7,01

REDUCING UNION OF PPSU



DIMENSIONS	CODE	UN./BOX	€/un.
16	I.009.1616.E	25	4,46
20	I.009.2020.E	25	5,16
25	I.009.2525.E	25	9,13
32	I.009.3232.E	25	16,40

ELBOW



DIMENSIONS	CODE	UN./BOX	€/un.
16	I.P09.1616.E	25	3,35
20	I.P09.2020.E	25	3,82
25	I.P09.2525.E	25	7,28
32	I.P09.3232.E	25	9,18

ELBOW OF PPSU



DIMENSIONS	CODE	UN./BOX	€/un.
16-1/2"	I.008.1612.E	25	4,91
20-1/2"	I.008.2012.E	25	5,06
20-3/4"	I.008.2034.E	25	10,47
25-3/4"	I.008.2534.E	25	11,50
32-1"	I.008.321.E	25	20,68

END FEMALE ELBOW



DIMENSIONS	CODE	UN./BOX	€/un.
16-1/2"	I.012.1612.E	25	3,93
20-1/2"	I.012.2012.E	25	6,91
20-3/4"	I.012.2034.E	25	7,63
25-3/4"	I.012.2534.E	25	10,03

END MALE ELBOW



DIMENSIONS	CODE	UN./BOX	€/un.
16-1/2"	I.007.1612.E	25	6,40
20-1/2"	I.007.2012.E	25	6,89
25-3/4"	I.007.2534.E	25	13,64

ELBOW WITH FIXING BASE



DIMENSIONS	CODE	UN./BOX	€/un.
16-1/2"	I.011.1612.E	25	6,79
20-1/2"	I.011.2012.E	25	7,50

HIGH ELBOW WITH FIXING BASE



DIMENSIONS	CODE	UN./BOX	€/un.
16-1/2"	I.015.1612.E	25	7,18
20-1/2"	I.015.2012.E	25	9,97
20-3/4"	I.015.2034.E	25	11,05
25-3/4"	I.015.2534.E	25	13,96

END FEMALE SWIVEL ELBOW



DIMENSIONS	CODE	UN./BOX	€/un.
16	I.005.161616.E	25	5,78
20	I.005.202020.E	25	6,94
25	I.005.252525.E	25	12,18
32	I.005.323232.E	25	26,63

EQUAL T



DIMENSIONS	CODE	UN./BOX	€/un.
16	I.P05.161616.E	25	4,09
20	I.P05.202020.E	25	4,75
25	I.P05.252525.E	25	11,16
32	I.P05.323232.E	25	15,92

EQUAL T OF PPSU



DIMENSIONS	CODE	UN./BOX	€/un.
16-20-16	I.005.162016.E	25	6,73
20-16-16	I.005.201616.E	25	7,00
20-16-20	I.005.201620.E	25	6,80
20-20-16	I.005.202016.E	25	7,80
20-25-20	I.005.202520.E	25	13,56
25-16-16	I.005.251616.E	25	10,33
25-16-20	I.005.251620.E	25	10,92
25-16-25	I.005.251625.E	25	12,49
25-20-16	I.005.252016.E	25	10,92
25-20-20	I.005.252020.E	25	13,56
25-20-25	I.005.252025.E	25	13,77
25-25-16	I.005.252516.E	25	12,48
25-25-20	I.005.252520.E	25	12,01
32-20-32	I.005.322032.E	25	24,29
32-25-25	I.005.322525.E	25	23,64
32-25-32	I.005.322532.E	25	23,88

REDUCED T



DIMENSIONS	CODE	UN./BOX	€/un.
16-20-16	I.P05.162016.E	25	5,15
20-16-16	I.P05.201616.E	25	5,56
20-16-20	I.P05.201620.E	25	6,24
20-20-16	I.P05.202016.E	25	5,95
20-25-20	I.P05.202520.E	25	9,63
25-16-16	I.P05.251616.E	25	8,41
25-16-20	I.P05.251620.E	25	10,02
25-16-25	I.P05.251625.E	25	10,02
25-20-16	I.P05.252016.E	25	9,62
25-20-20	I.P05.252020.E	25	9,80
25-20-25	I.P05.252025.E	25	11,14
25-25-20	I.P05.252520.E	25	11,00
25-32-25	I.P05.253225.E	25	13,20
32-20-25	I.P05.322025.E	25	13,60
32-20-32	I.P05.322032.E	25	14,48
32-25-20	I.P05.322520.E	25	14,31
32-25-25	I.P05.322525.E	25	14,35
32-25-32	I.P05.322532.E	25	14,62

REDUCED T OF PPSU



DIMENSIONS	CODE	UN./BOX	€/un.
16-1/2"	I.003.1612.E	25	6,19
20-1/2"	I.003.2012.E	25	6,43
25-1/2"	I.003.2512.E	25	12,79
25-3/4"	I.003.2534.E	25	16,62
32-1"	I.003.321.E	25	25,25

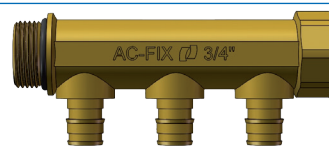
FEMALE END T



NEW

DIMENSIONS	CODE	€/un.
M/H 3/4" - 2 outlets 16	I.016.MH34.16X2.E	17,40
M/H 3/4" - 3 outlets 16	I.016.MH34.16X3.E	22,00
M/H 3/4" - 4 outlets 16	I.016.MH34.16X4.E	26,00

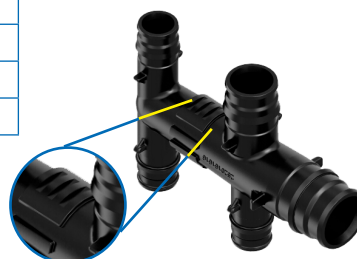
BRASS MANIFOLD MALE / FEMALE 3/4" WITH OUTLETS 16



- By joining two male/female brass manifolds, the outlets are automatically aligned in the same direction.
- With an EPDM O-ring on the 3/4" male thread that ensures tightness at the junction of two manifolds.
- Female side with octagon (8 faces).
- Distance between centers of the outlets: 35 mm.
- By joining two manifolds, the necessary distance between the outlets is maintained.

DIMENSIONS	CODE	UN./BOX	€/un.
20 / 20-16-16	I.P16.20201616.E	15	9,04
20 / 20-16-16-16	I.P16.2020161616.E	15	9,49
25 / 20-16-16	I.P16.25201616.E	15	10,04
25 / 20-16-16-16	I.P16.2520161616.E	15	10,37

CEILING MANIFOLD OF PPSU

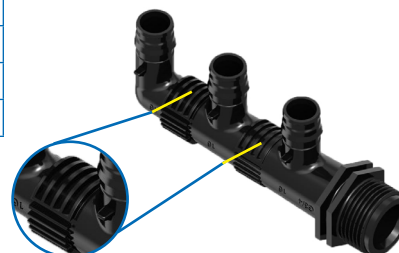


PPSU

With special shape to fix to the ceiling with Ø 22 mm clamp.

DIMENSIONS	CODE	UN./BOX	€/un.
3/4" / 16-16-16	I.P16.34161616.E	10	8,44
3/4" / 20-16-16	I.P16.34201616.E	10	8,57
3/4" / 16-16-16-16	I.P16.3416161616.E	10	9,94
3/4" / 20-16-16-16	I.P16.3420161616.E	10	10,34

MALE CONICAL MANIFOLD OF PPSU



PPSU

With special shape to fix with Ø 22 mm clamp(s).

DIMENSIONS	CODE	UN./BOX	€/un.
PEX 16 Cu 15	I.027.1615.E	25	3,59
PEX 20 Cu 22	I.027.2022.E	25	4,71
PEX 20 Cu 18	I.027.2018.E	25	3,94
PEX 25 Cu 22	I.027.2522.E	25	6,50
PEX 25 Cu 28	I.027.2528.E	25	7,30

UNION PEX-COPPER



NEW

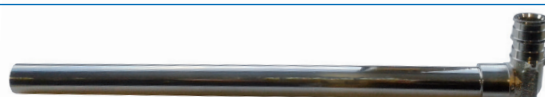
DIMENSIONS	CODE	UN./BOX	€/un.
16-1/2"	I.014.1612.E	25	3,51
20-1/2"	I.014.2012.E	25	4,09
20-3/4"	I.014.2034.E	25	4,55
25-3/4"	I.014.2534.E	25	6,76
25-1"	I.014.251.E	25	13,06
32-1"	I.014.321.E	25	18,61

SWIVEL FEMALE FITTING



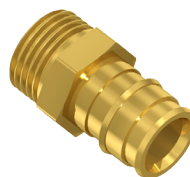
DIMENSIONS	CODE	UN./BOX	€/un.
PEX16-Cu 15 length Cu: 250mm	I.039.1615250.EN	-	22,95

ELBOW WITH NICKEL PLATED COPPER TUBE



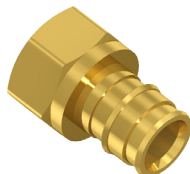
DIMENSIONS	CODE	UN./BOX	€/un.
16-1/2"	I.002.1612.E	25	2,43
16-3/4"	I.002.1634.E	25	2,89
20-1/2"	I.002.2012.E	25	2,67
20-3/4"	I.002.2034.E	25	4,23
25-3/4"	I.002.2534.E	25	5,45
25-1"	I.002.251.E	25	9,21
32-1"	I.002.321.E	25	12,02

FIXED FITTING MALE



DIMENSIONS	CODE	UN./BOX	€/un.	
16-1/2"	I.S01.1612.E	25	3,08	Normal
16-1/2"	I.001.1612.E	25	3,20	Long
20-1/2"	I.001.2012.E	25	3,63	Long
20-3/4"	I.001.2034.E	25	4,82	Long
25-3/4"	I.001.2534.E	25	5,63	Long
25-1"	I.001.251.E	25	11,00	Long
32-1"	I.001.321.E	25	16,29	Long

FIXED FITTING FEMALE

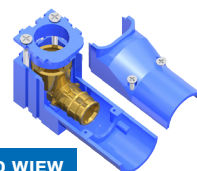


DIMENSIONS	CODE	UN./BOX	€/un.
16-1/2"	I.030.1612.E	25	7,18
20-1/2" (*)	I.030.2012.E	25	9,19

EXTRACTABLE ELBOW

(*) Dimension 20 cannot be assembled with EVO-PLUS rings.

EXPLODED VIEW

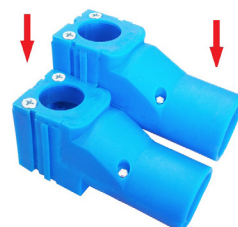
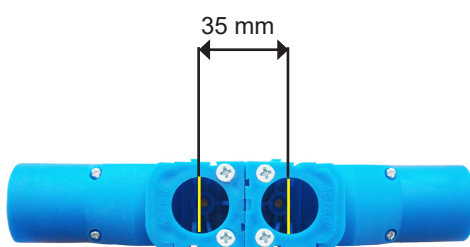


ASSEMBLED



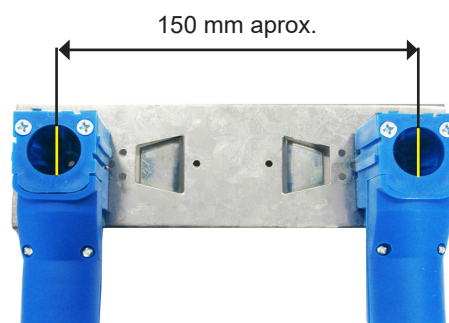
DESIGN OF THE BOXES OF THE EXTRACTABLE ELBOWS

- Each side of the box has grooves that allow to assemble one box with another.
- The boxes can be assembled in these two positions::



- The distance between both centres is 35mm (see picture).

- The boxes can be installed on our fixing plates, the centers of the outlets are then approximately 150 mm. (adjust with eccentrics).



PLASTIC RING EXPANSION VALVES FOR PEX-A PIPES

- The stems have an estriated shape compatible with handles of other manufacturers.
- 100% of production is checked for tightness at the factory.
- Approved as entrance valves to housing, toilets or bathrooms according to CTE.

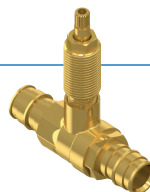
COMING SOON



Toggle valves

BALL VALVES

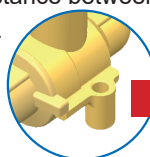
DIMENSIONS PIPE	CODE	UN./BOX	€/un.
16x1,8	I.042.16.EM	10	14,44
20x1,9	I.042.20.EM	10	15,11
25x2,3	I.042.25.EM	10	19,45



WITHOUT KNOB

U BALL VALVES COMPACT

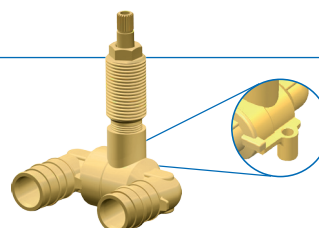
- Ultra compact construction with reduced distance between outlet centers (48 mm in DN 16 and 20; 58 mm in DN 25).
- Body built with only two pieces.



WITH FIXING EAR



DIMENSIONS PIPE	CODE	€/un.
16x1,8	I.42U.16.EM	22,02
20x1,9	I.42U.20.EM	22,70
25x2,3	I.42U.25.EM	30,77

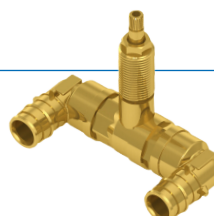


WITHOUT KNOB



U BALL VALVES

DIMENSIONS PIPE	CODE	UN./BOX	€/un.
16x1,8	I.046.16.EM	10	19,82
20x1,9	I.046.20.EM	10	20,43
25x2,3	I.046.25.EM	10	27,69



WITHOUT KNOB

KNOBS FOR BALL VALVES

DRIVES FOR BALL VALVES

LEVER KNOB WITH TWO INDICATORS (BLUE AND RED)

CODE	€/un.
I.048-C	6,66



CONCEALED LOCKSHIELD

CODE	€/un.
I.048-D	6,31



ACCESSORIES FOR BALL VALVES

LENGTHENER + SCREW

CODE	€/un.
I.049.15	1,42

Increase in length of stem = 15 mm

CODE	€/un.
I.049.25	2,24

Increase in length of stem = 25 mm



LENGTHENER OF THE AXIS

CODE	PVP €/un.
I.049-25P	4,97

Increase in length of stem = 25 mm

Use in combination with 25mm lengthener+screw.



TOOLS

SET LI-ION MAX POWER ELECTRIC EXPANDER



CODE	€/un.
100.1632.54-2	618,93

LI-ION MAX POWER ELECTRIC EXPANDER

- It includes: electric expander, 2 Li-ion batteries 12V 5,0Ah 60Wh, 1 battery charger 220V 50Hz, expanding heads 16, 20 y 25 mm and lubricating grease for the expanding heads.

DIMENSIONS	CODE	€/un.
16 mm	100.1632.5416	119,95
20 mm	100.1632.5420	119,96
25 mm	100.1632.5425	121,04
32 mm	100.1632.5432	121,38

EXPANDING HEAD FOR ELECTRIC EXPANDER

Only for the electric expander



CODE	€/un.
100.0005.5E	331,51

SET MANUAL EXPANDER

It includes heads of 16, 20, 25 mm and lubricating grease



DIMENSIONS	CODE	€/un.
16 mm	100.0005.5E16	119,95
20 mm	100.0005.5E20	119,96
25 mm	100.0005.5E25	121,04
32 mm	100.0005.5E32	121,38

EXPANDING HEAD

Only for manual expander

