ISOLTUBEX®

CATALOGUE 2019

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ISOLTUBEX

PRODUCTIVE AND LOGISTIC FACILITIES AT YOUR SERVICE

Isoltubex, SL
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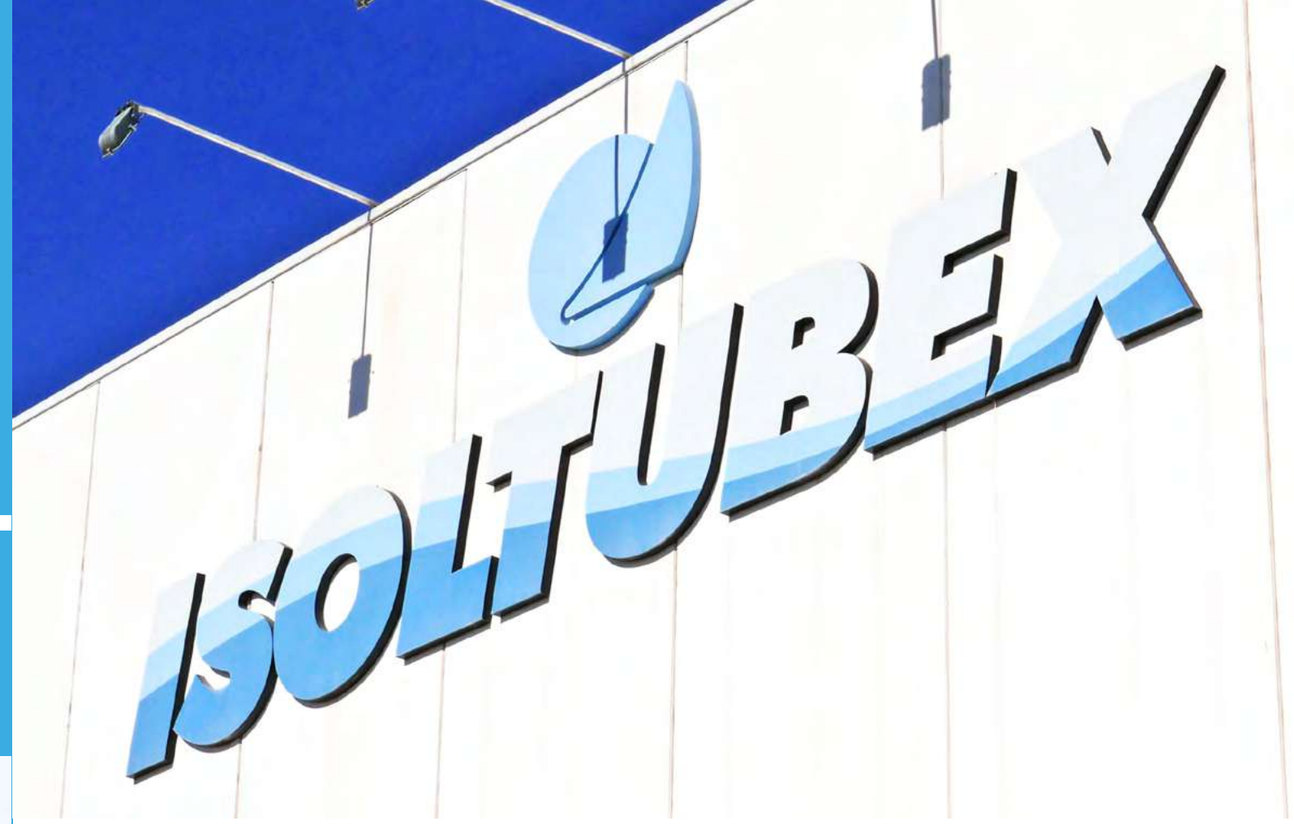
February, 2019



ISOLTUBEX was created in 2002 with the purpose of channeling the distribution of products from other countries, related to plumbing and heating installations, mainly: Multilayer pipes, temperature resistant polyethylene (PE-RT) and its accessories.
ISOLTUBEX has more than 17,000 m2 of productive and logistic area at your service between our facilities in Náquera and Pobla de Farnals (Valencia).
At ISOLTUBEX we are committed to Quality, which is why the Spanish Association for Standardization and Certification "AENOR" has granted us the corresponding certificates of:

- Quality management system.
- IQNet Certificate
- Multilayer System (Pipe + Accessory)
- I-Pert System (Pipe + Accessory)
- Pex-a pipe
- Pert Evoh pipe
- PP-R Faser CT pipe
- Radiating floor
- Compression System (Pipe + Accessory)
- Gas Multilayer System (Pipe + Accessory)
- Outdoor Gas Multilayer System (Pipe + Accessory)

In addition to these certificates The "CARSO" laboratories authorized for the water analyzes of the FRENCH Ministry of Health, have granted us the corresponding certificate of:
- Multilayer pipes
- Fitting Press Fittings
- Compression Accessories

During the year 2018 we have exported 15% approx. of the total billing. We currently export to: Portugal, France, England, Poland, Romania, Morocco, Algeria, Italy, Bulgaria, China, Chile, Mexico, Ukraine, Cameroon, Mauritania, Dominican Republic, Egypt, Belgium, Slovenia, Jordan and Senegal.

We have always considered that the most important thing is quality, service and price, therefore we maintain large stocks in our warehouses. Our technicians have established extensive quality controls and our company has no budget dedicated to advertising fields (except participation in the most important European fairs in the sector), this coupled with an optimal business structure, allows us to offer our customers highly competitive prices .

CERTIFICATES

Quality management system

Certificates IQNet

Myltilayer System

SystemI-Pert

Pipe Pert Evoh

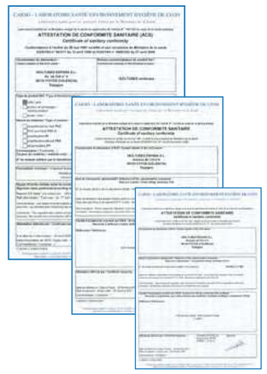
Compression System

System Multilayer Gas

Gas Multilayer outdoor use

Pipe Pex-a

Pipe PP-R FASER CT



Multilayer Pipe,
Acc. Compresión y Acc. Press Fitting
Cert. Francés

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The temperature uniform distribution inside domestic, work and industrial environments creates a sense of physical well-being, allowing to obtain the optimum values for people comfort.

CLEAN AND HEALTHY

The low temperatures at which the underfloor heating system works, avoids the absence of air convective currents that can cause a sensation of dryness and irritation in the throat which are often the cause of allergic phenomena, providing a much healthier system.

When the installation is placed under the floor, the system is invisible and therefore does not need to condition the placement of static and permanent emitters and therefore to have all the free space for furniture and opens the door to all the possibilities of architecture, interior decoration and the free choice of flooring.

UNDER FLOOR HEATING SYSTEM

SYSTEM ISOLPLUS

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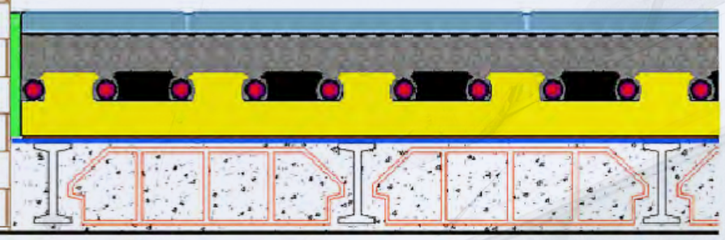
Main components under pavement

- Polyethylene anti-humidity film
- Expansion Joint
- Insulation
- Plastic tubing
- Transmitting plate+additive
- Pavement

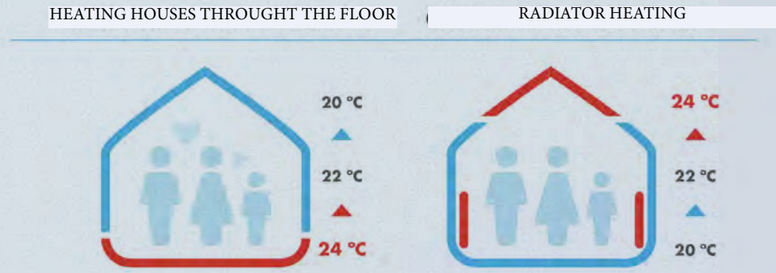


¿What is a underfloor heating?

A underfloor heating is the Heating System by irradiation of heat, produced by the conduction under the floor of circuits of hot water, which provides a greater sensation of comfort.

Under floor heating principle

The basic principle of a under floor heating installation consists in the circulation of hot water at low temperature under the pavement.
The heat is dissipated through the mortar plate, and this plate to the pavement, being the emitter of the thermal energy necessary to heat each room.



Advantages of the underfloor heating

- Heating without air movements.
- Compatibility with any source of energy.
- Hidden emitter system, perfect for decoration.
- Compatible with practically any type of pavement.
- Energy saving

The under floor heating and health

With underfloor heating you breathe health

- Avoid dust particles are in suspension (ideal for allergic)
- Easy ventilation and air renewal when opening windows as the slab does not cool.
- It does not cause circulation problems in the blood or produce varicose veins. The surface temperature is up to 8 °C below body temperature.

PE-RT EVOH

Our PE-RT EVOH pipes are manufactured using PE-RT type II, in accordance with the UNE-EN-ISO 22391 standard and are intended for use in underfloor heating installations inside buildings. These pipes incorporate an external film as an anti-oxygen diffusion barrier.

Oxygen anti-diffusion barrier (EVOH): The oxygen barrier consists of a thin film of ethylene-vinyl alcohol copolymer resin (EVOH). This resin is characterized by its unequaled properties of oxygen barriers, as well as its excellent chemical resistance to solvents and petroleum products.
In hot water conduction applications in closed circuits, as the temperature increases, the intermolecular space in the pipe wall increases, becoming superior to the oxygen molecule. This fact allows the oxygen molecules to penetrate through the wall of the pipe producing the permanent oxygenation of the water in the installation, with the consequent continuous oxidation of the metallic parts of the installation. All this produces the reduction of the durability of the materials as well as deposits of oxide that can clog the pipe.

PERT Tipo II: The polymeric resin used for manufacturing is composed of a last generation ethylene-octene copolymer that provides the pipe with an increase in its long-term hydrostatic resistance. The use of PE-RT type II in the pipes also provides them with the following properties:

Corrosion resistance: PE-RT type II pipe provides great resistance to corrosion both against external attack (protection against the environment, contact with construction materials, etc.), as well as the internal attack produced by corrosive waters.

Roughness: The low Roughness coefficient that the pipe presents 0.007 mm, decreases the loss of load in the installation achieving a reduction of the costs of pumping. It also helps to reduce the formation of incrustations inside it.

Permeability: Standard UNE-EN 1264-2, in ANNEX A specifies that the pipe must have an oxygen permeability ≤ 0.32 mg / (m2xd). PE-RT EVOH pipe has a value of 0.01 mg / (m2xd).

PROPERTIES POLYETHYLENE TEMPERATURE RESISTANT (PE-RT)

Density	0.941	g/cm3
Coeficiente of linear thermal dilation	0.19	m/m ºC
Maximum operating temperature	95	ºC
Thermal conductivity	0.45	W/m ºK
Radius of curvature	5 x DN	From ⌀16 ⌀20

DIMENSIONS: There is a relationship between the maximum design pressure of the pipe for a given application class with the pipeline series. PE-RT EVOH pipe has the following dimensional characteristics

PIPE SELECTION CHART (mm)

Outer diametr	Series	Thickness	Inner Diameter
16	4	1,8	12,4
20	5	1,9	16,2

DESIGN PRESSURE (BAR)

Class 4	Class 5
8	6
6	4

PLASTIC PIPES
FOR UNDER FLOOR HEATING

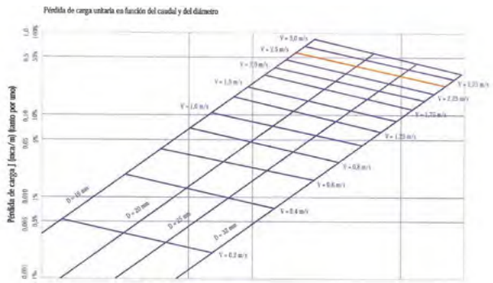
PE-RT PIPE WITH EVOH BARRIER

PE-RT EVOH ⌀16x1,8
(Standard manufacture in rolls of120, 200, 450, 500 y 600 mts.)

PE-RT EVOH ⌀20x1,9
(Standard manufacture in rolls of 200, 450, 500 y 600 mts.)

Applications: The main application of PE-RT EVOH pipe is underfloor heating due to its excellent properties.

The application classes are according to the UNE-EN-ISO 22391 standard



CLASSIFICATION OF SERVICE CONDITIONS

Kind of application	T_D ºC	Time to T_D Years	$T_{máx.}$ ºC	Time to $T_{D\,máx.}$ Years	T_{mal} ºC	Time to $T_{D\,mal}$ H	Typical field of application
4	20 more accumulated 40 more accumulated 60	2,5 more accumulated 20 more accumulated 25	70	2,5	100	100	Underfloor heating and radiators at low temperature

All systems that meet the conditions specified in the table (Properties PE-RT) must be suitable for the conduction of cold water for a period of 50 years, at a temperature of 20 °C and at a design pressure of 10 bars.

PERT-AL-PERT SYSTEM

APPLICATIONS

Multilayer pipes are used in the distribution of water in underfloor heating installations. The classes of application according to the UNE-EN-ISO 21003 standard are those expressed in the following table:

CLASSIFICATION OF SERVICE CONDITIONS

Kind of application	T_D °C	Time to T_D Years	$T_{máx.}$ °C	Time to $T_{D\ máx.}$ Years	T_{mal} °C	Time to $T_{D\ mal}$ H	Typical field of application
4	20 more accumulated 40 more accumulated 60	2,5 more accumulated 20 more accumulated 25	70	2,5	100	100	Underfloor heating and radiators at low temperature

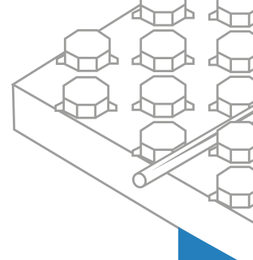
AENOR Producto Certificado

REGULATIONS AND CERTIFICATION

THE PERT-AL-PERT Tube has a Product Certificate granted by AENOR complying with the UNE-EN-ISO 22391 STANDARD

Nº: 001/004987

PLASTIC PIPES
FOR UNDER FLOOR HEATING



MULTILAYER PIPES PERT-AL-PERT

MULTILAYER ∅16x2
(Manufacture standard in rolls of 120, 200 y 450 mts.)

MULTICAPA ∅20x2
(Manufacture standard in rolls of 100 y 200 mts.)

CHARACTERISTICS

- **Resistance to corrosion against external and internal attacks.**
- **The low coefficient of roughness decreases the loss of load, achieving a reduction of pumping costs of the transported fluids.**
- **The butt-welded aluminum layer gives the pipe improved mechanical properties, such as an oxygen diffusion barrier and a low coefficient of expansion.**

MINIMUM RADII OF CURVATURE (MM)

DN (mm)	Wiht hand	With spring
16	80	64
20	100	80

Minimum radii of curvature (mm)

Our PERT-Al-PERT pipes are manufactured using PERT type II according to the UNE EN ISO-21003 standard (ø16 and 20 for Under Heating Floor installations).

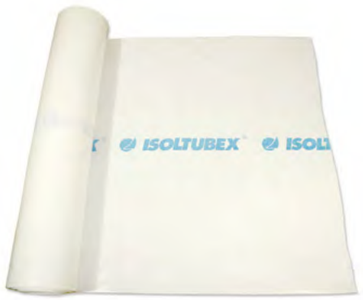
· They combine the advantages of metallic and thermoplastic tubes, the result of the union of an aluminum tube with two polyethylene tubes.

· Reduces the problems of metallic pipes: rigidity, toxicity, corrosion, incrustations, weight, noise transmission, load losses and galvanic currents.

· Reduces the problems of plastic pipes: winter fragility, high thermal expansion and little or no malleability.

· Designed to obtain the maximum performance of resistance and safety in under and cooling floor installations.

BASIC COMPONENTS
FOR UNDER FLOOR HEATING



FILM

Ref. FILM-12

Thickness	Galga 400	UNE 53328
Presentation	Coil 12kg 125 m2 approx.	UNE 53328
Longitudinal Retraction 120°C 20"	65-70%	ISO 527-3
Transverse Retraction 120°C 20"	30-35%	ISO 527-3
Non-slip material density	0,924	g/cm3
Fluency rate	1g/10min	-
Maximum working temperature	-80/+80°C	-
Tear strength (length.-Transv.)	250 – 590 c/N	ISO 6383-2
Lengthening in break (length.-Transv.)	449 – 513%	ISO 527-3
Impact resistance F50	288g	ISO 6383-2
Global transmission visible ligh	95%	-

The Film is a LDPE polyethylene sheet to waterproof creating a vapor barrier and preventing the appearance of moisture.
It comes in bobbins of width 100 cm, open 200 cm, gauge 400, white color and printed logo.

How to use:

1.- Extend the film on the surface.
2.- Overlap about 15 cm one on another.
3.- It must be taken into account to protect the sheet from perforation and mechanical damage.

- Prevents the formation of moisture.
- Great resistance to the flow of water vapor.
- Avoids efflorescence phenomena by capillarity.
- Protects from the humidity of the ground.
- Avoid condensation due to temperature differences.
- High water impermeability

BASIC COMPONENTS
FOR UNDER HEATING FLOOR

PERIMETER STRIP

Ref. BANDA
Packed in packs of 5 units

Made of polyethylene with closed cell. It is a light, waterproof, rot-proof band, is not attacked by molds and has a hight resistance to chemical reactions and aggressions.
It incorporates a protective transparent skirt in its front part, avoiding the penetration of the mortar by the joints. On the back it has an adhesive band which facilitates its placement.

Its function is to absorb the dilatations that occur in the emitting mortar with its heating. It must be placed in all the perimeters where there is a radiant / refreshing floor installation.

Lenght	50	m
Height	150	mm
Skirt lenght	240	mm
Thickness	8	mm
Density	25	Kg/m3
Temperature of use	-10.....70	ºC
Ozone resistance	Óptimal	-
Resistance to deformation	Óptimal	-
Resistance to mold	Óptimal	-

TECHNICAL CHARACTERISTICS	PLUS 32	PLUS 48		
Useful dimensions	1400x800	1400x800	mm	UNE EN 822
Total area	1,12	1,12	m2	-
Thickness without the tube holder.	10	26	mm	-
Total height	32	48	mm	-
Density	30	25	Kg/m3	-
Thermal resistance	0,35	0,75	m2·k/W	UNE EN 12667
Thermal conductivity	0,030	0,034	W/ m2·k	UNE EN 12667
Compression resistance at 10%	200	150	kPa	UNE EN 826
Fire resistance	E	E	Euroclasse	UNE EN 13501-1
Absorption of water by immersion	<3	<3	%	UNE EN 12087
Resistance to the diffusion of water vapor (μ)	30 a 70	30 a 70	μ	UNE EN 13163
Permeability to water vapor (μ)	0,010 a 0,024	0,010 a 0,024	mg/(Pa h m)	UNE EN 13163

Code Designation CE PLUS 32	EPS-EN 13163-T1-L1-W1-S1-P3-DS(N)5-DS(70/90)1-BS200-CS(10)150-WL(T)3	UNE EN 13163
Code Designation CE PLUS 48	EPS-EN 13163-T(2)-L(3)-W(3)-S(5)-P(10)-DS(N)5-DS(70/90)1-BS200-CS(10)150-WL(T)3	UNE EN 13163

CONDITIONS AND PRECAUTIONS FOR USE

·Before beginning the assembly, it must be ensured that the partitions are raised and the drainage network is finished.
· Before placing the board, the perimeter strips should be placed on the perimeter of the rooms, using the partitions as support, until the board are placed. These bands have the function of avoiding thermal bridges and absorbing the dilatations of the mortar.
· The surface of the floor must be as smooth as possible, in addition to being level. To do this, it must be cleaned of possible plaster or concrete pegs.
· The board are placed directly on the clean slab, because if it is placed on irregular surfaces can break, as well as having chances of cracks appearing in the floor of the floating slab.
· Once the boards are installed, the pipe is installed and covered with a layer of mortar with a thickness of 4 cm. above the pipe.
· It must have what is indicated in the regulations of mandatory compliance with the slab.
· If the slab was irregular, it could be filled the irregularities with mortar, leaving the boads perfectly seated.
· The boads boxes will be stored in a dry place protected from rain, sun and extreme temperatures.
· Solar radiation can cause degradation of the surface of the boads. The rigid original cardboard packaging is used to prevent as far as possible any possibility of degradation.
· Accumulated dirt can be easily cleaned.
· Store them in covered and ventilated places that comply with the laws in force regarding their storage.
· Product considered as non-hazardous for transport.
· In all cases, the standards of good practices in Health and Safety in force in the construction sector should be taken into account.

**For any additional clarification, please consult our Technical Department.*

BASIC COMPONENTS

FOR UNDER FLOOR HEATING

BOARD PLUS

Board PLUS with 32 mm thickness
Presentation: box of board16 = 17,92 m²

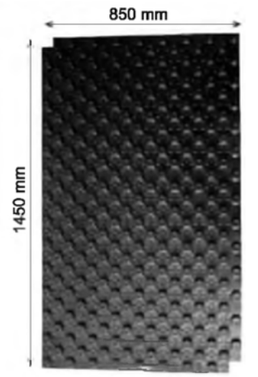
Board PLUS with 48 mm thickness
(Certified by AENOR acording to norm 1264)
Presentation: box of 8 board = 8,96 m²

PLUS Under floor heating boards are made of High Density Expanded Self-Extinguishing Polystyrene (EPS-AU) with a poly-formed top cover.

These boards are specially designed to be used in the installation of under floor heating / cooling floor systems.
The high density EPS gives the panel a great thermal insulation, avoiding the loss of temperature through them in the direction of the floor.

The thermoforming is black, rigid and impermeable, which prevents the loss of temperature by steam, also increasing the mechanical strength of the panel.
This thermoforming is molded and tongue and groove on four sides, allowing a simple placement of the boards and avoiding thermal bridges.

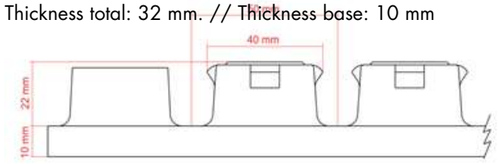
These boards allow a pipe pitch of 50 mm, and are valid for pipes of 16 millimeters in diameter.



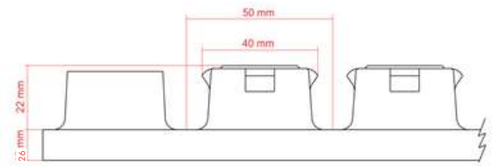
PLUS 32:

PLUS 32:

Thickness total: 32 mm. // Thickness base: 10 mm



PLUS 48:
Thickness total: 48 mm. // Thickness base:



ADVANTAGE

Thanks to its thermal insulation, the loss of heat through the floor is avoided. Thus the comfort of the house is increased at the same time as the energy consumption is reduced.

· The design of the tube holde allows the pipes to be fastened very quickly, without the need for staples or accessories.

· Easy placement as it is a light and very handy material.

· The thermoforming gives great mechanical resistance and aging, so it perfectly supports the footsteps that are made during installation.

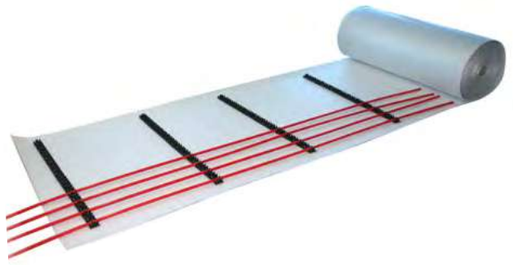
· Specially designed to meet the requirements of the Technical Building CODE.

· Meets the requirements of the CE marking.

BASIC COMPONENTS

FOR UNDER FLOOR HEATING

AISLAMIENTO
TERMOACÚSTICO REFLECTIVO



Ref. AISLASR

TECHNICAL SPECIFICATIONS

Weight	11 Kg.
Roll measurement	25 x 1,20 = 30 m2
Thermal resistance	1,35 m^2 K/W
Thermal conductivity	0,025 W/mK
Reflectividad	88%
Impact noise insulation	22 69 dB (A)
Espesor	8 mm
Compression resistance	10,2 KPa
Classification by fire	F
Impermeability	Water and water vapor
Anti-condensation	Yes

PROPERTIES AND ADVANTAGES

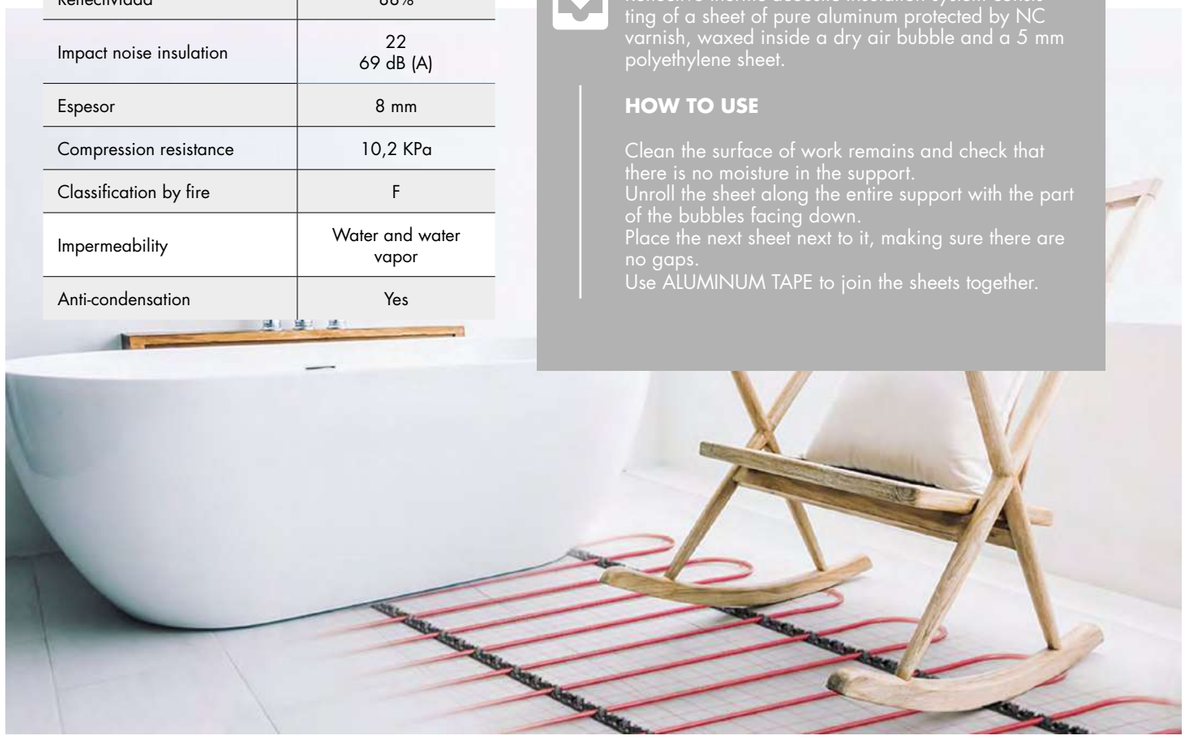
Light material and reduced thickness
Excellent water resistance
Semirigid, adaptable to any surface
Saving installation costs
Easy installation
Ecological

COMPOSITION

Reflective thermo-acoustic insulation system consisting of a sheet of pure aluminum protected by NC varnish, waxed inside a dry air bubble and a 5 mm polyethylene sheet.

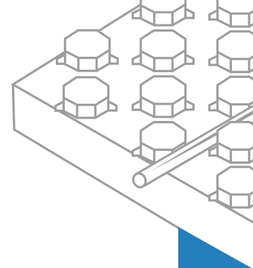
HOW TO USE

Clean the surface of work remains and check that there is no moisture in the support.
Unroll the sheet along the entire support with the part of the bubbles facing down.
Place the next sheet next to it, making sure there are no gaps.
Use ALUMINUM TAPE to join the sheets together.



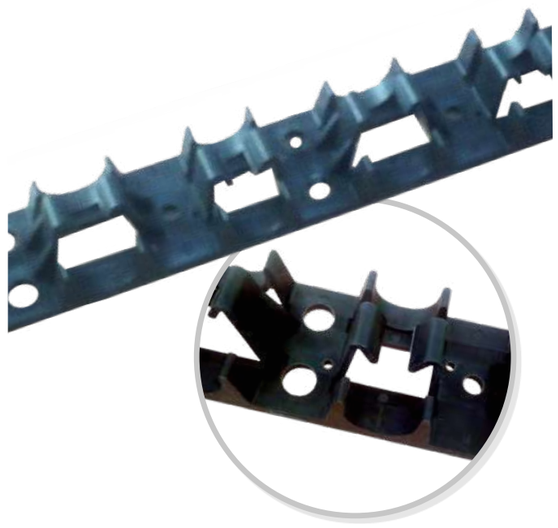
BASIC COMPONENTS

FOR UNDER FLOOR HEATING



UNDER FLOOR HEATING GRIP RAIL FOR PERT EVOH AND MULTILAYER PIPES

Ref. RSTSR

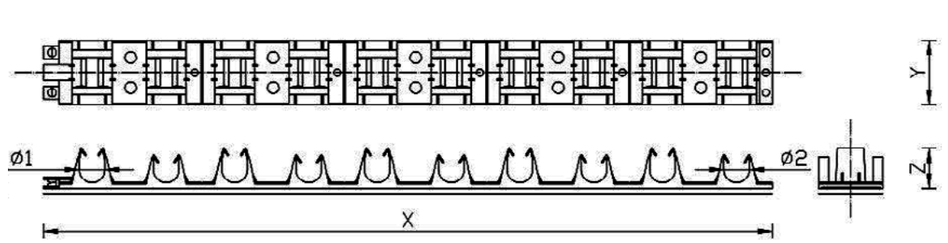


Material:
Polyamide with fiberglass.

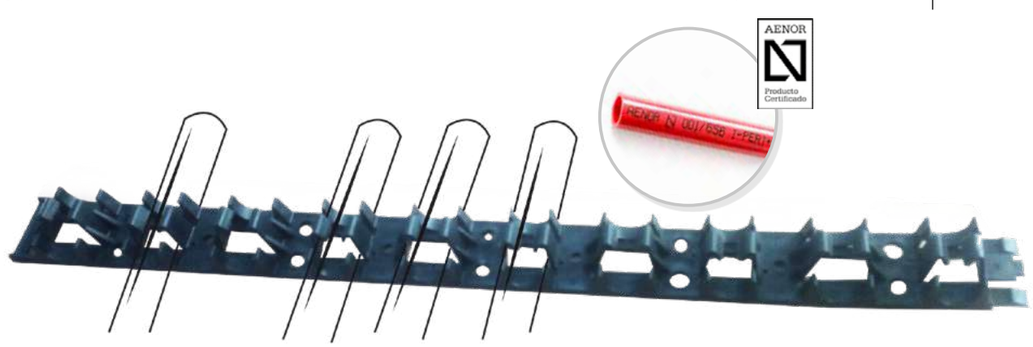
Technical parameter:
Working temperature: 0°C - 65°C

SUITABLE FOR TUBES:

			BOX		
Diameter	Dimensions X/Y/Z (mm)	Weight (g)	Quantity (box)	Dimensions (box)	Weight (Box)
16 - 20	1000x45x29	185	100 rails	102x41x20 cm	18,5 Kg



X=500mm (x2)
Y= 45mm
Z= 29mm
Ø 1= 20 mm
Ø 2= 16 mm



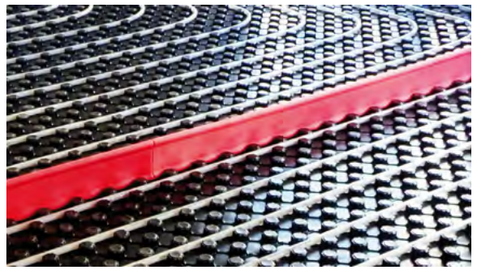
BASIC COMPONENTS
FOR UNDER FLOOR HEATING

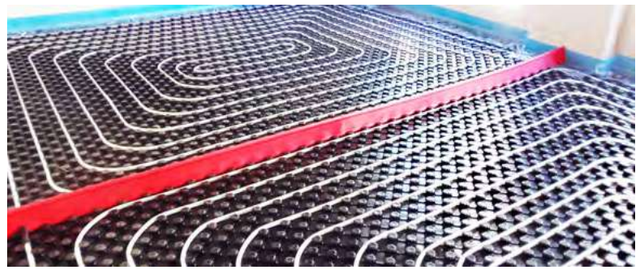
EXPANSION JOINT

Ref. JUNTA-D

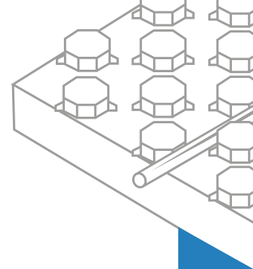
The expansion joint is made of polyethylene with a closed cell. It is a waterproof, imputrescible joint, is not attacked by molds and with a high resistance to chemical aggressions and reactions.
The function of the expansion joint is to absorb the expansion that in length that can occur in the emitting screed. By dividing the cement mortar in parts, the effect of the expansion is attenuated, thus preventing cracks in the mortar and paving.
They must be installed when the surface of the room to be heated is greater than 40 m2, when the length of the room is greater than 8 meters, or the length is twice the width.

Length	2	m
Height	90	mm
Thickness	8	mm
Thickness of the base	20	mm
Density	50	Kg/m3
Complies with Regulations	**UNE EN 1264**	





BASIC COMPONENTS
FOR UNDER HEATING FLOOR



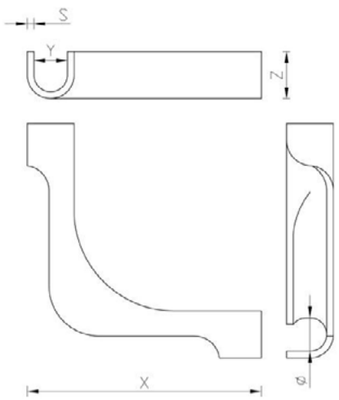
CURVE POLYAMIDE GUIDE

For ⌀16 pipes
Presentation: box 70 guides

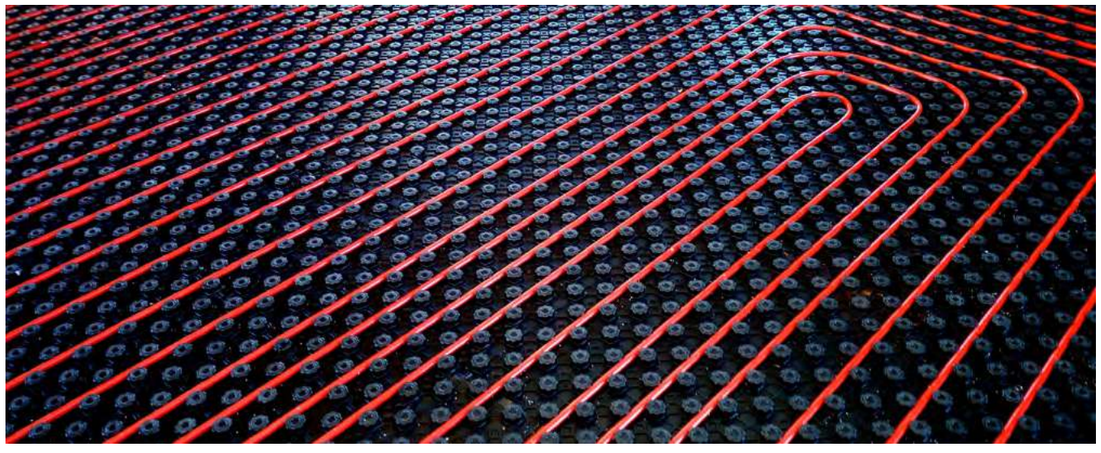
For ⌀20 pipes
Presentatión: box 40 guides

Material:
Polyamide with fiberglass.

Technical parameter:
Working temperature: 0°C – 65°C



For Pipe Diameter	Dimensions X, Y, Z (mm)
ø 16 mm	125 x 17 x 25
ø 20 mm	140 x 20 x 39



BASIC COMPONENTS
FOR UNDER FLOOR HEATING

ADDITIVE
FLUIDIFYING FOR MORTAR

Ref. ADITIVO

Package of 25 liters

Superplasticizer additive that allows to obtain and maintain very fluid concretes, even in hot weather. It is free of chlorides.

Applications:
Formulated specifically for concretes to which a high quality is demanded.

It slows the setting of cement.

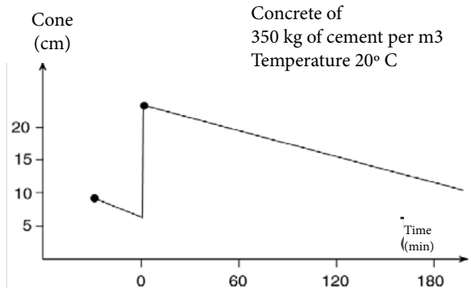
It is used mainly in the execution of underfloor heating.

·As a guideline, with temperatures of approx 20 ºC, allows to maintain the maneuverability up to 2 hours.

Certificates/Standard
It complies with the UNE-EN 934-2 standard. Tables 11.1 and 11.2: Retardant / Water Reducer / Superplasticizer

Characteristics / Advantages

Superplasticizer with prolonged effect
- It allows to realize concretes that maintain a great fluidity for more time than the one obtained with traditional superplasticizers.
- Fluidizes in normal conditions and with a duration of effectiveness of 30/60 minutes, all concretes with dry-plastic consistency that have a temperature above 25 °C.
- It allows to realize important water reductions, for which very compact concretes are obtained that have very high mechanical resistance and a good impermeability.
- It decreases the segregation and exudation of water. Reduces vibration time



BASIC COMPONENTS
FOR UNDER HEATING FLOOR

INHIBIDOR
OF INCRUSTATIONS AND CORROSION

Ref. INHIBIDOR

Package of 5 liters

A complex mixture of corrosion inhibitors specially formulated to effectively protect all the metals that make up the cooling-heating systems.
Its use extends the life of the treated facilities, not affecting the materials.
Product developed to avoid incrustations and corrosion in closed circuits. It can be used in any type of independent heating or cooling circuit in a temperature range of up to 120ºC.

Dosage and method of use:
The recommended dose is 25 c.c per liter of water capacity circuit. In case of high concentration of chlorides and sulfates above 500 ppm, double the dose of use. The optimum working pH of the product is 9.5 -10.5. The product must be dosed pure in the installation through the expansion tank of the circuit.

Physical and chemical properties

Appearance	liquid
Color	Red - Orange
Density	1200 ± 0,020 g/cc
Solubility water	Total

Composition
- Corrosion inhibitors
- Chelators
- Dispersants
- Inorganic salts
- Destillad water

Precautions
- Irritating to eyes and skin
- Keep out of reach of children
- **In case of contact with eyes or skin, wash immediately with plenty of water and seek medical advice**

BASIC COMPONENTS
FOR UNDER FLOOR HEATING

INSTALLATION DESCALER

Ref. DESINCRUSTANTE
Package of 10 liters

Concentrated product based on surfactants, acid character.
Since its chemical action is controlled by corrosion inhibitors, it is especially indicated to remove calcareous incrustations.
Ideal for cleaning and eliminating limescale in pipes or closed heating and cooling circuits.

Dosage and method of use:
Dilute depending on the degree of incrustation.
Test initially with a 10% dilution of product in water.
Being an acid product, handling must be carried out according to the precautions of these products.

Qualitative composition

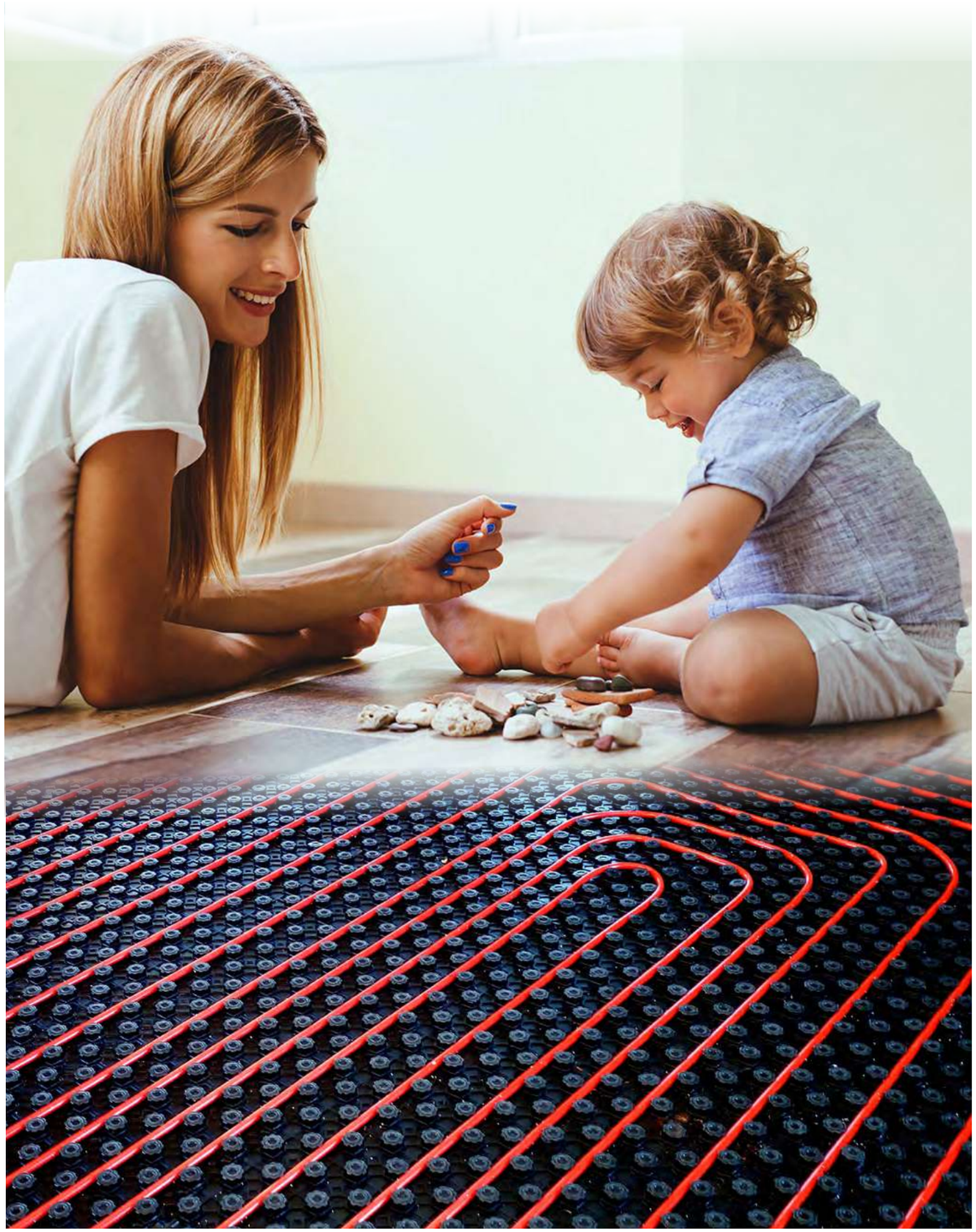
- Organic and inorganic acids
- Corrosion inhibidor
- Surfactants
-

Precautions

- Causes burns
- Keep out of reach of children Use proper protective clothing. **In case of contact wiht eyes or skin, wash immediately with planty of water and seek medical advice.**

Physical and chemycal properties

Appearance	Clear liquid
Color	Blue
Density	1,5 ± 0,5
pH (1%)	1100 ± 0,020 g/mL



THE METAL BOXES

1. Body: Made of steel sheet Galvanized cold, which prevents the possible formation of rust. With two adjustment feet in height from 0 to 100 mm. It incorporates a rear mesh for the grip of the plaster. The thickness of this galvanized steel sheet is 0.8 mm. The sides have pre-cuts of the sheet that allow the incorporation of the pipes at any level.

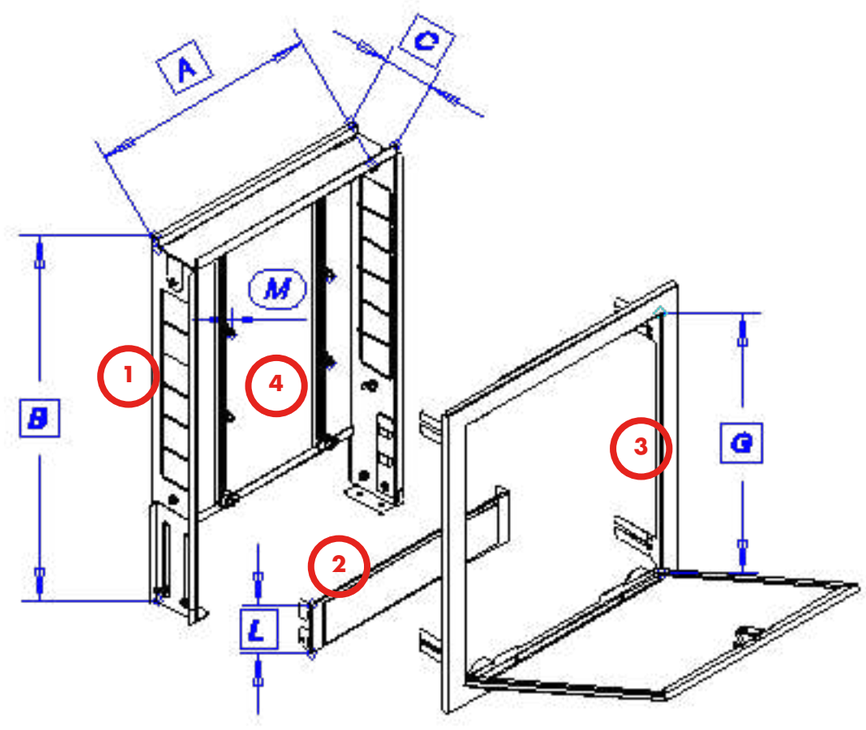
2. Front panel: Made of cold-galvanized steel sheet. It is fixed with standard hooks present laterally and internally to the body. In addition, the front panel incorporates a mesh that has been designed to facilitate the adhesion of plaster.

3. Frame and Door: Made of sheet steel with a thickness of 0.8 mm, painted on the inside and on the outside, resistant to scratching, as well as an additional protective varnish (RAL 9010). Radial lock easy to open using a flat-blade screwdriver.

4. Support guides: Set of elements that allow to adjust collectors in the box. It consists of two vertical guides, fastening elements in the base and sliding screws for assembly of collectors.

DIMENSIONS in *mm.*

A								B	C	G	L	M
BOX 4	BOX 5	BOX 6	BOX 7	BOX 8	BOX10	BOX12	BOX 13					
400	500	600	700	850	1000	1200	1300	630	110	450	80	M8



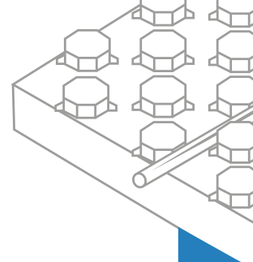
SELECTION TABLE OF BOXES SUITABLE FOR COLLECTOR *Dimensions in mm.*

2 tracks	3 tracks	4 tracks	5 tracks	6 tracks	7 tracks	8 tracks	9 tracks	10 tracks	11 tracks	12 tracks
BOX4	BOX5		BOX6		BOX7		BOX8		BOX10	

TABLE OF SELECTION OF BOXES SUITABLE FOR STAINLESS STEEL COLLECTOR AND POLYMERIC + REF SAL01- SAL02 - SALI01

Dimensions in mm.

2 tracks	3 tracks	4 tracks	5 tracks	6 tracks	7 tracks	8 tracks	9 tracks	10 tracks	11 tracks	12 tracks
BOX6	BOX7		BOX8		BOX10			BOX12		BOX13



BASIC COMPONENTS
FOR UNDER FLOOR HEATING

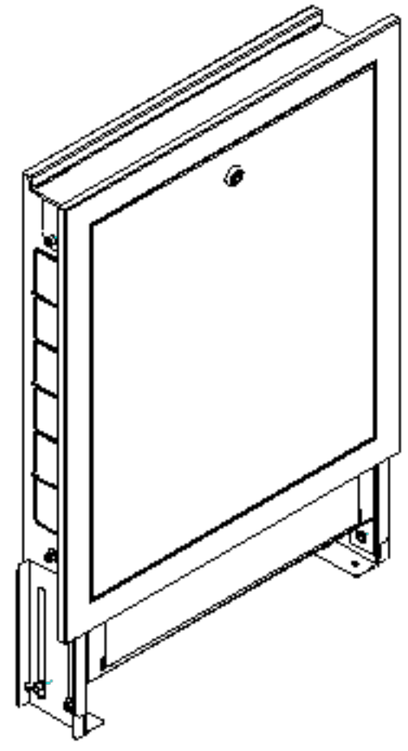
METAL BOX FOR MANIFOLD

Available in 8 different sizes

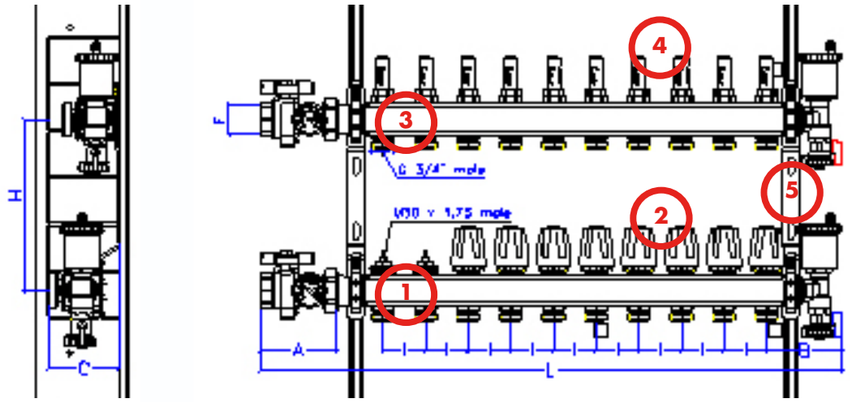
Benefits:
With white lacquered door and frame
RAL: 9010

Adjustable in height (+ 100mm)
Adjustable in depth (+ 50mm)
Not valid for industrial manifolds

Pre-cut sides allowing the pipes of the primary circuit to be incorporated at any height.
2 adjustable rails
2 adjustable feet in height
Steel mesh in front panel and panel back to facilitate the adherence of the plaster.
Door frame adjustable in depth by sliding elements.
Door with radial lock with slot for flat head screwdriver.
Packed in cardboard box.



DETAIL - SCHEME OF THE MANIFOLD



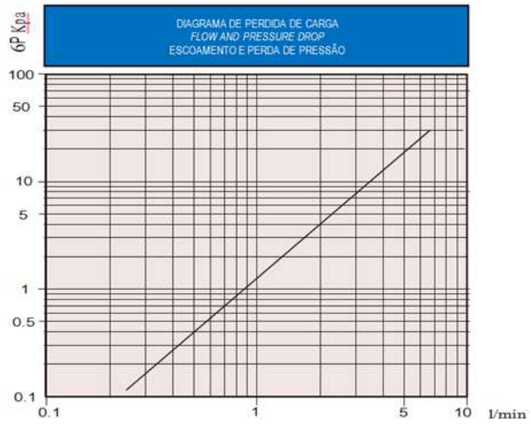
Dimensions in mm.

A	B	C	F	H	I	L									
						2 tracks	3 tracks	4 tracks	5 tracks	6 tracks	7 tracks	8 tracks	9 tracks	10 tracks	11 tracks	12 tracks
90	90	83	1"	200	50	290	340	390	440	490	540	590	660	690	740	790

N°	DENOMINATION	MATERIALS	FINISHED
1	Manifold with valves	Steel AISI 304	-
2	Regulation valves	ABS	Ral 9010
3	Manifold with Flow regulators	Steel AISI 304	
4	Flow regulators (Flowmeter)		
5	Bracket	Steel	Zinc plated steel- Galvanized

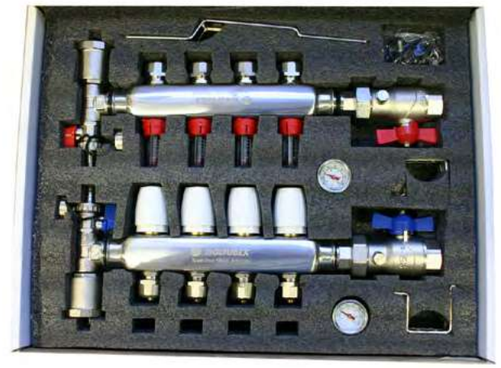
FLOWMETER

MATERIAL
Brass body, heat-resistant plastics and steel stainless.
GasKets EPDM.



Manifolds
STAINLESS STEEL AISI-304

Range from 2 to 12 circuits



TECHNICAL DATE	
Maximum ejercise pressure	10 bar.
Maximum working temperature	100ºC
Maximum differential pressure	1 bar.

It includes:
- Automatic air vents
- Charge and discharge tap
- 1 "ball valves with built-in thermometers
- Flow regulators
- Mounting brackets to metal box

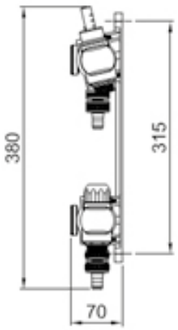
EUROCONECTORES DE 3/4" for pipe Ø16

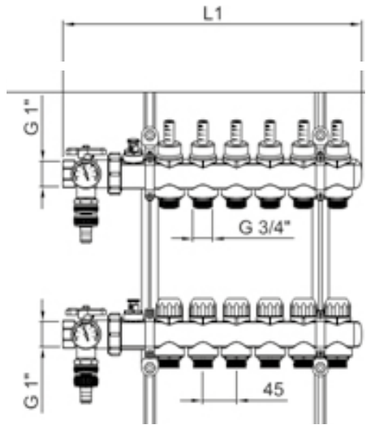
EUROCONECTOR
FOR PIPES WITH THREAD 3/4"

INCLUDED IN THE COLLECTOR
Euroconector with 3/4 "thread for ø16 tubes

Other options
Euroconector with 3/4 "thread for ø18 tubes
Euroconector with 3/4 "thread for ø20 tubes

DETAIL SCHEME OF THE MANIFOLD





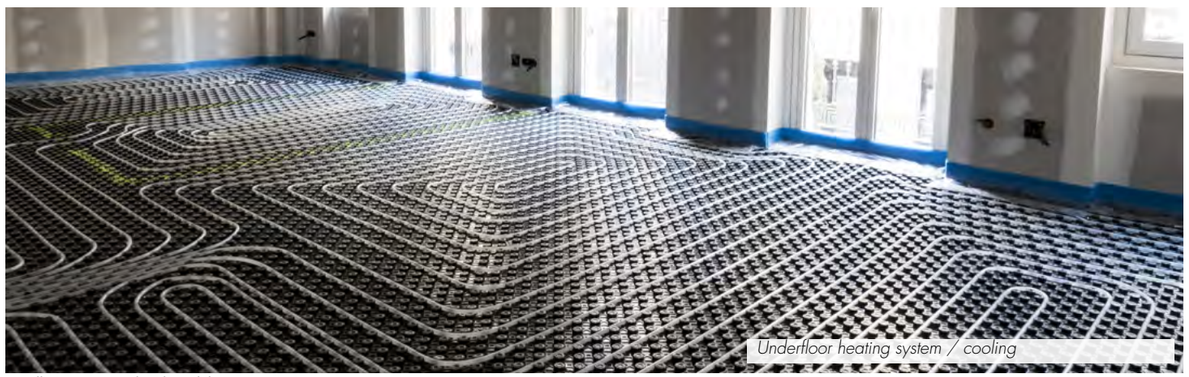
Dimensions in mm.

L1									
2 WAYS	3 WAYS	4 WAYS	5 WAYS	6 WAYS	7 WAYS	8 WAYS	9 WAYS	10 WAYS	11 WAYS	12 WAYS
290	340	390	440	490	540	590	660	690	740	790

INLET MANIFOLD COLLECTOR:	
Manifold Body:	PAS 777
Flowmeter body:	PES
Indicator Body:	POM
Spring:	AISI 302
Flowmeter viewer:	ABS
O-rings:	NBR70
Connection ¾":	CW614N

OUTLET MANIFOLD	
Manifold Body:	PAS 777
Thermostatic block:	CW614N
Stem:	AISI 303
Spring:	AISI 302
Manual head:	ABS
O-rings:	NBR70
Connection ¾":	CW614N

ACCESSORIES	
Cutting valve 1":	CW617N
Bracket	PP
Screws:	C15
Brass parts:	CW617N
O-rings:	NBR70



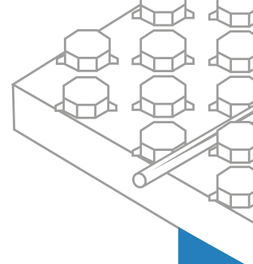
Underfloor heating system / cooling

Installation executed with Multilayer 16x2 pipe

BASIC COMPONENTS

FOR UNDER HEATING FLOOR

MANIFOLD PLÁSTIC MULTICAL

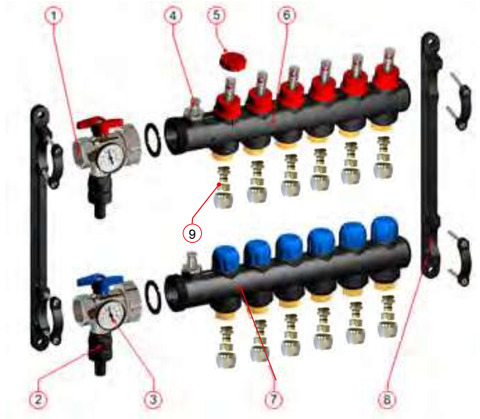


Range from 2 to 12 circuits

Characteristics:
The new Multical manifold is specially designed and produced for installations of underflour heating/ or cooling surfaces.
It is a compact manifold and is made of polyamide reinforced with fiberglass. This combination allows to obtain a physical and mechanical resistance very similar to light metal alloys but with a resistance to atmospheric agents superior to these.
It is resistant to calcareous incrustations as well as chemical products, UV rays and ozone.

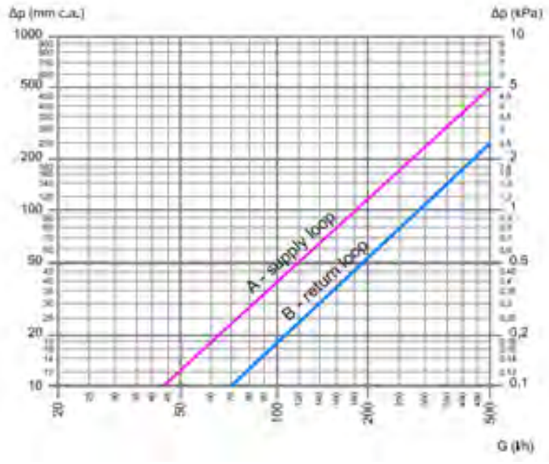
Benefits:
Max. glycol percentage: 50%
Working pressure: 1.5 ~ 2.5 bar
Max. Working pressure: 4 bar
Max. Pressure test: 7 bar
Temperature range: -10 ~ 82 ° C
Manifold connections: 1 "x 1"
Circuit output: 3/4 "
Distance between circuits: 45 mm

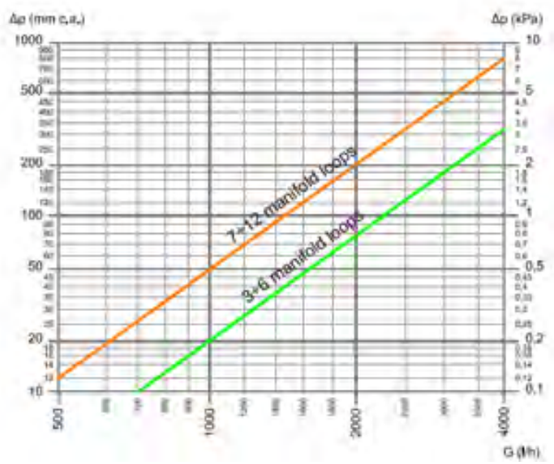
It includes:
- Manual airvent
- Filling and discharge valve
- 1 "ball valves with thermometers
- Flow regulators
- Connections for 3/4 "threaded euroconnector
- Mounting brackets to metal box
- Key to regulate the flow meters
3/4 "EUROCONECTORS FOR Ø16 TUBE



Nº	DESCRIPTION
1	Ball Valve1"
2	Filling and discharge valve
3	Thermometer
4	Manual airvent
5	Steering wheel for flowmeters
6	Impulsion manifold
7	Return manifold
8	Support

HYDRAULIC CHARACTERISTICS OF THE FLOWMETERS





	Kv
A - ONE WAY – completely open	2
B - RETURN – completely closed	2,9

Kv = m³ / h flow / 1 bar pressure loss

	Kv
3-6 way manifold - fully open	20
7-12 way manifold - fully closed	16

Kv = m³ / h flow / 1 bar pressure loss

DETAILS OF MANIFOLD ELEMENTS

open closed

open closed

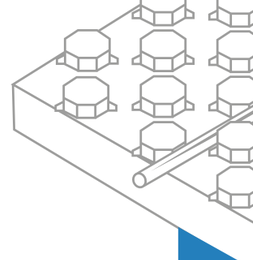
INPUT MANIFOLD

The inlet manifold is equipped with a flow regulating valve, normally called a flow meter.
By means of the handwheel for flowmeters, the flowmeters are actuated to regulate the flow rate of each circuit, the flow rate can be read directly on the flowmeter and when necessary, allows the hermetic sealing of each circuit individually.

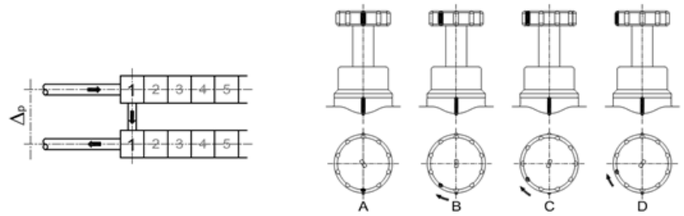
OUTPUT MANIFOLD

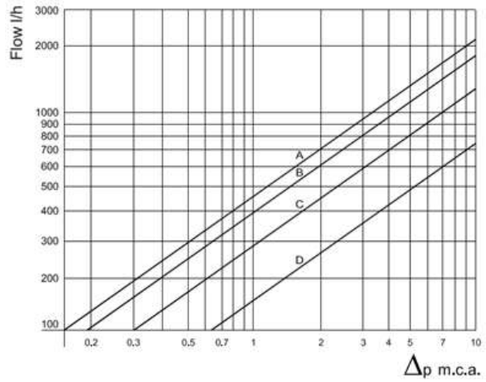
The return manifold is equipped with manual shut-off valves for each circuit. The valves have been specially manufactured to reduce the pressure drop and the noise of fluid passage.

Electrothermal heads (REF: NC ACTUATOR) can be inserted into these valves to be automatic through a room thermostat signal.



FLOWMETERS
FOR MULTICAL PLASTIC MANIFOLD





EUROCONECTOR
FOR MULTICAL PLASTIC MANIFOLD

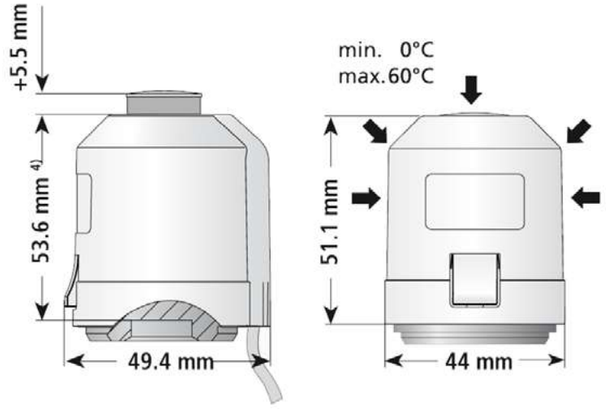
INCLUDED IN THE MANIFOLD
Euroconector with 3/4 "thread for ø16 pipe

Other options
Euroconector with 3/4 "thread for ø20 tubes

Euroconector of press with thread of 3/4 "for tubes of ø16

TECHNICAL INFORMATION

Operating voltage	230 V AC, +10%...–10%, 50/60 Hz
Max. input current	**< 300 mA during 200 ms max.**
Service power	**2 W**
Actuator stroke	**4.0 mm**
Actuator force	**100 N ±5%**
Fluid temperature range	**0 a +100°C**
Storage temperature	**-25°C a +60°C**
Ambient temperature	**0 a +60°C**
Type of protection	**IP 54 / II**
CE conformity according to	**EN 60730**
Material and exterior	**Polyamide / Light Gray (RAL 7035)**
Connection cable	**2 x 0.75 mm2 PVC / Light Gray (RAL 7035)**
Lenght cable connection	**1 m**
Weight	**100 g**
Protection against overvoltages according to EN 60730-1 min. 2.5 kV	**min. 2.5 kV**



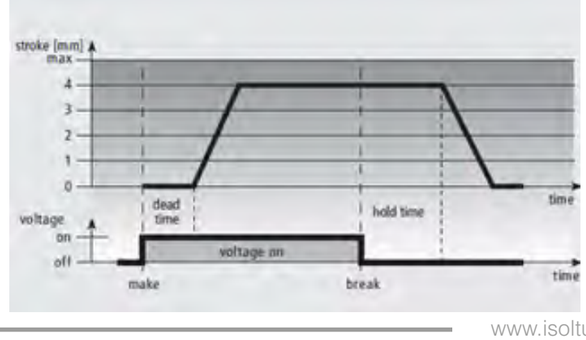
REGULATION AND CONROL
CONNECTION BY CABLES

ACTUATOR
TERMOELECTRIC BY UNDER FLOOR HEATING

Ref. ACTUADOR NC

Thermoelectric valve for the opening and closing of valves in the circuits of heating and cooling systems embedded in the ground. The main field of application is the control of the individual ambient temperature with high energy efficiency in heating surfaces.

The thermoelectric actuator is characterized by:
- Modern design
- Normally closed (NC)
- Compact size
- Silent and maintenance-free
- High functional safety and long expected life
- Protection against overvoltages
- Certified by TÜV



The actuator uses a PTC thermistor and a compression spring. This thermistor is heated by applying the voltage to 230V of operation and moves an integrated plunger. The force generated by the piston is transferred on the valve, after a few seconds have elapsed (Dead time)

After the operating voltage is cut off and after the hold time has elapsed, the valve is closed evenly by the closing force of the compression spring.

REGULATION AND CONTROL

CONNECTION BY CABLES

ELECTRONIC CENTRAL FOR HEATING SYSTEMS BY UNDERFLOOR HEATING

Ref. SAL 01

The control unit offers the possibility of connecting up to **8 themostats and 8 actuators** for each thermostat, with 230V ~ or 24V ~ power supply.

- It has one outlet for pump and another for boiler.

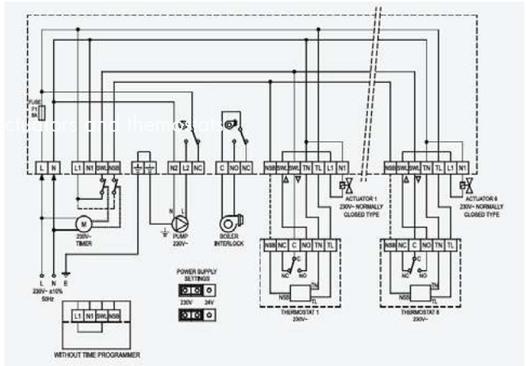
- It also has an entry for each external programmer clock to activate or not the section

TECHNICAL CHARACTERISTICS

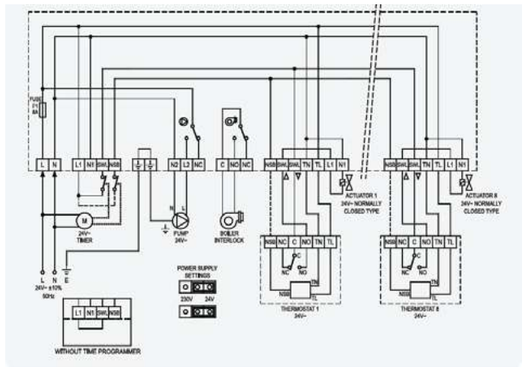
Power supply:	**230V ± 10% 50Hz** **24V ± 10% 50Hz**
Absorbed power:	
Central:	**Depends on the connected**
Pump (powered):	**5A @ 250V ~ SPDT**
Boiler (voltage free):	**1A @ 250V ~ SPDT**
Actuators and thermostats:	**8x1A @ 250V**
Green LED:	**Power**
Red LED:	**Active pump**
Degree of protection:	**IP30**
Protection box:	**ABS V0 self-extinguishing**

Class Reg.2013 / 811 / ce I = 1.0%

INSTALLATION SCHEME 230 V



INSTALLATION SCHEME 24 V



REGULATION AND CONTROL

CONNECTION BY CABLES

ELECTRONIC CENTRAL FOR HEATING SYSTEMS BY UNDERFLOOR HEATING

Ref. SAL 02

- The control unit offers the possibility of connecting up to **8 thermostats and 5 actuators** for each thermostat, with 230V ~ or 24V ~ power supply.

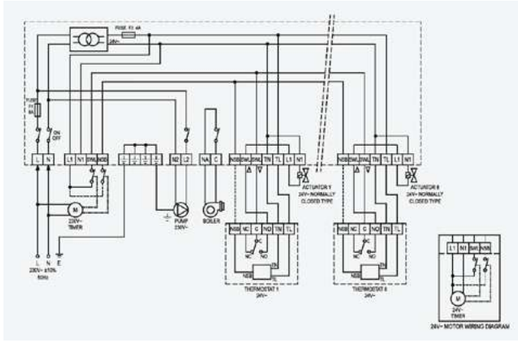
- It has an output for pump with delay time set at 2.5 minutes, and boiler command output and input for each external programmer clock to activate or not the actuators and thermostats section.

TECHNICAL CHARACTERISTICS

Power:	**230V~ ±10% 50Hz** **24V ±10% 50Hz**
Absorbed power:	
Central:	**Depends on the connected**
Pump (fed):	**5A @ 250V~SPST**
Boiler (voltage free):	**5A @ 250V~SPST**
Illuminated switch:	**On/Off**
LED indicatión:	**For each chanel**
Actuators and thermost. (max. applicable load)	**1A por cchanel** **2A totales**
Degree of protection:	**IP44**
Actuators and thermostats: (max. applicable load)	**1A for chanel** **2A totals**
Protection box:	**ABS V0 self-extinguishing**

Class Reg.2013/811/ce I = 1,0%

INSTALLATION SCHEME



REGULATION AND CONTROL

CONNECTION BY CABLES

THERMOSTAT

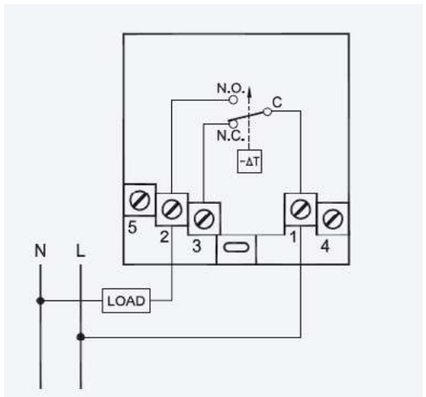
Ref. STAM

- **Electromechanical room thermostat.**
- **Mechanical blocking for limiting the temperature** scale.

TECHNICAL CHARACTERISTICS

Working interval:	**8 ... 30 ° C**
Sensor:	**to gas expansion.**
Differential:	**<1 ° K**
Contact capacity:	**16A @ 250V ~ SPDT**
Degree of Protection:	**IP30**
Class Reg.2013 / 811 / ce I = 1.0%v	

INSTALLATIO SCHEME



REGULATION AND CONTROL

CONNECTION BY CABLES

LCD THERMOSTAT
A BATTERIES (NOT INCLUDED)

Ref. STAD

- Digital thermostat for the control of the room temperature with the possibility of choosing between several regulation modes and temperatures: Comfort, Eco, Anti-freeze etc.
- Suitable for use in heating / cooling installations.
- It offers the possibility of installing an external temperature probe on the pavement and therefore controlling the temperature.

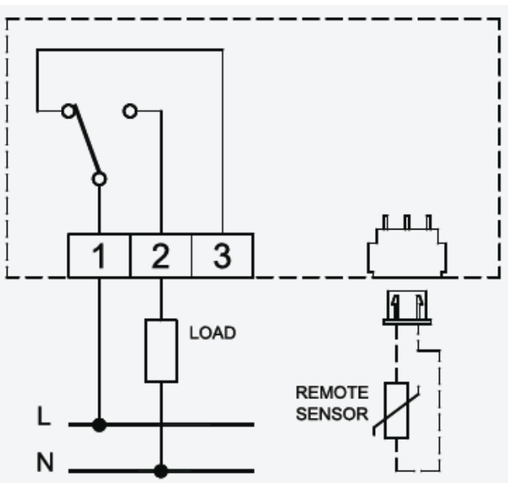
TECHNICAL CHARACTERISTICS

Battery power:	**2 x 1.5V AA**
Ambient temperature	**(internal sensor)**
Regulation field	**5°C ... 35°C**
Anti-freeze field	**Off / 0.5°C**
Sensor	**NTC (10k Ohm @ 25°C ± 1%**
Output (relay)	**5 (1) A @ 250V ~ SPDT**
Degree of protection	**IP30**

POSSIBILITY OF CONFIGURATION

- Temporary activation of the Comfort mode.
- Modification of room temperature.
- Setpoint limit lower / upper in heating and cooling.
- Disabling user intervention.
- External temperature sensor.
- Lower / upper Setpoint limit for soil temperature.
- Hysteresis (tolerance)

INSTALLATIO SCHEME



REGULATION AND CONTROL

CONNECTION BY CABLES

DIGITAL CHRONOTHERMOSTAT WEEKLY TO BATTERIES (NOT INCLUDED)

Ref. SCTSD

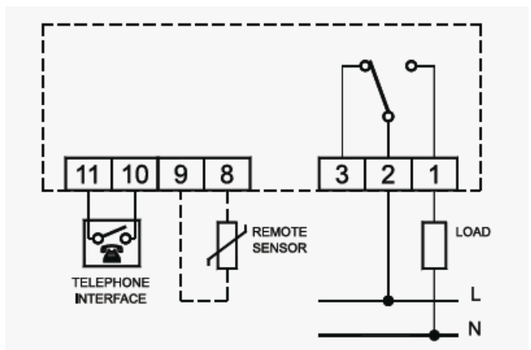
- Weekly digital chrono-thermostat powered by batteries for heat / cool regulation.
- It has up to 7 different programs, one for each day of the week, with a minimum intervention time of 1/2 hour in 48 time slots for each day.
- Temperatures in 3 levels (Comfort, Eco, Off / Anti-freeze)
- Backlit LCD screen
- Holiday function (1 to 99 days) and cleaning function

TECHNICAL CHARACTERISTICS

Battery power:	**2 x 1.5V AA**
Battery life:	**> 1 years**
Programming:	**Daily / Weekly**
Operation:	**On / Off or proportional time**
Working range:	**5 ..... .35 ° C**
Anti-ice function:	**0.5 ° C**
Offset:	**-5.0°C ... + 5.0°C**

Class Reg.2013 / 811 / ce I = 1.0%

INSTALLATION SCHEME



Note; for the command via telephone use ITP F22

or ITR 011

REGULATION AND CONTROL

CONNECTION BY CABLES

DIGITAL HYGROSTAT WEEKLY TO BATTERIES (NOT INCLUDED)

Ref. SCHSD

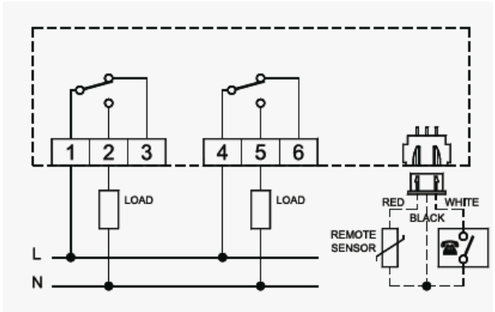
- Digital chrono-thermohydrostat powered by batteries for heat / cool regulation, humidification and dehumidification.
- It has up to 7 different programs, one for each day of the week, with a minimum intervention time of 1/2 hour in 48 time slots for each day.
- Temperatures / humidity in 3 levels (Comfort, Eco, Off / Anti-freeze).
- Holiday function (1 to 99 days).
- Possibility via telephone and predisposition for remote probe

TECHNICAL CHARACTERISTICS

Battery power:	**2 x 1.5V AA**
TEMPERATURE	
Adjustable temperatures:	**3 (Comfort, Eco, Off / Anti-freeze)**
Working range:	**5 .. 40°C**
Antifreeze:	**0.5 .. 25°C**
Output:	**5 (1) A @ 250V ~ SPDT**
Working range:	**5 ..... .35 ° C**
Degree of protection:	**IP30**
Regulation field:	**3 (Comfort, Eco, Off / Anti-freeze)**
Working range:	**10 .. 95°C HR**
3rd regulation levels:	**Off .. 20 .. 90% RH**
Internal sensor:	**SHT - 21**
Output:	**5 (1) A @ 250V ~ SPDT**
Working range:	**5 ..... .35 ° C**
Degree of protection:	**IP30**

Class Reg.2013 / 811 / ce I = 1.0%

INSTALLATION SCHEME



Note; for the command via telephone use ITP F22

or ITR 011

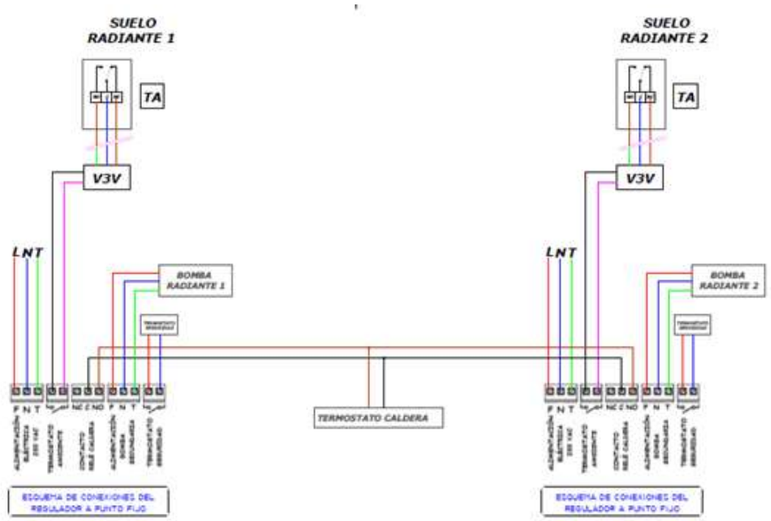
UNDERFLOOR HEATING SYSTEM - REGULATION AND CONTROL

FIXED POINT REGULATOR

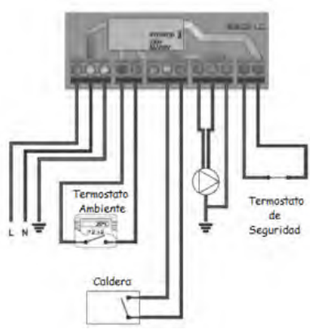
Examples

- Below you can see some examples of wiring. All operations must be carried out exclusively by qualified personal.

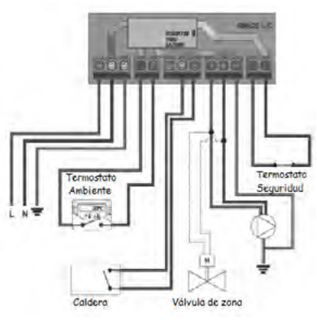
Assembly 1:
Electric scheme



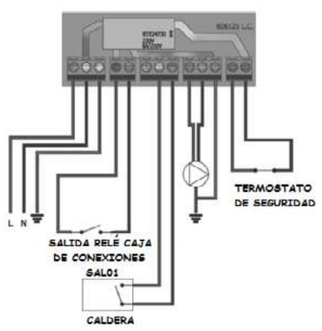
Assembly 1:
Underfloor heating circuit / cooling at low temperature, with a thermostat and without electro-thermal heads:



Assembly 2:
Underfloor heating circuit / cooling at low temperature with zone valve, a single thermostat and without electro-thermal heads. The zone valve opens at the request of the thermostat.



Assembly 3:
Underfloor heating circuit / cooling at low temperature, with several thermostats and electro-thermal heads

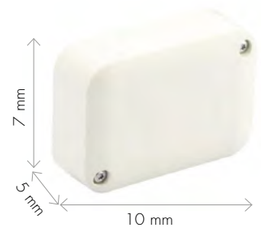


REGULATION AND CONTROL

CONNECTION BY CABLES

REGULATOR A FIXED POINT

Ref. REG FIXED POINT

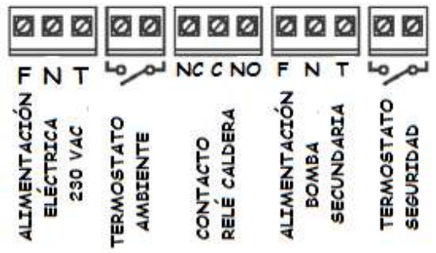


- This device is equipped with a printed circuit board and relay that allows the integration of some basic functions for mixing systems at a fixed point.

- The PLATE is characterized by five terminals that allow:

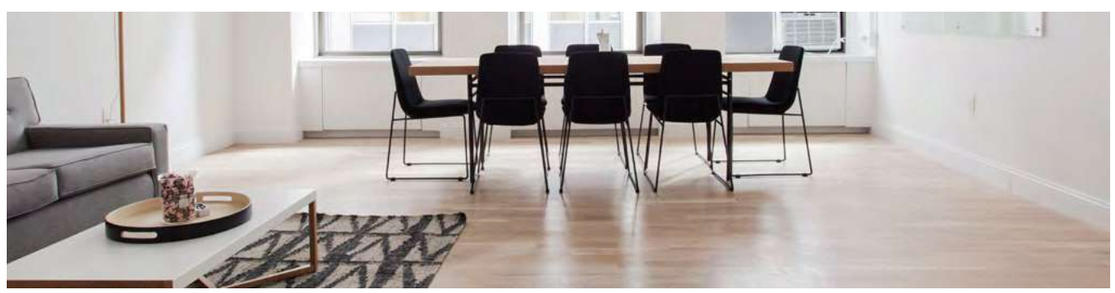
1. The power supply of the board at 230 V AC.
2. Connection to a room thermostat.
3. Boiler ignition contact.
4. Secondary pump power of the radiant system.
5. Connection of a safety thermostat

SCHEME OF THE 5 TERMINALS



FUNCTIONING: The board receives an input signal from the room thermostat; such signal results in the starting of the secondary pump and the ignition switch of the boiler.

- In the event of a fault that causes an overheating in the flow of the heating system, the safety thermostat opens the contact, stopping the secondary pump. However, the boiler would not be disconnected to allow the correct operation of possible high temperature circuits (radiators or towel racks).



REGULATION AND CONTROLL

RADIO VIA CONNECTION WIRELESS

ELECTRONIC CENTRAL FOR HEATING SYSTEMS BY UNDERFLOOR HEATING

Ref. SALI 01

Relay module for 8 actuators for heating / cooling systems via radio.

- The control unit offers the possibility of connecting up to **8 themostats and 8 actuators** for each thermostat, with 230V or 24V ~ power supply.

- It has an auxiliary relay for the control of the circulation pump or the boiler.

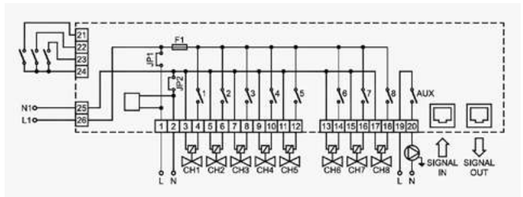
- The module is able to control both normally closed and normally open actuators

- Up to 10 modules can be connected in cascade to form a multichannel system connected to a single antenna

TECHNICAL CHARACTERISTICS

Power:	**230V ~ -15% + 10% 50Hz**
Absorbed power:	**4W**
Relay capacity:	8x3A @ 250V ~ cosϕ = 1
Max current total:	8A
Pump relay capacity:	3A @ 250V ~ cosϕ = **1 SPST**
Degree of protection:	**IP30**
Class Reg.2013 / 811 / ce IV = 2.0%	

INSTALLATION SCHEME



POSSIBILITY OF CONFIGURATION

– Each thermostat transmits periodically via radio a command that contains the temperature and setpoint detected in the room.
- The commands are received by the active SANI antenna which sends information by cable to the SALI 01 module.
- The SALI 01 module is responsible for regulating and activating or deactivating the output relay for the actuator connected to the thermostat.
- The configuration and testing of the system is simple thanks to the self-learning function of the thermostat code.

REGULATIONANDCONTROL

RADIO VIA CONNECTION WIRELESS

THERMOSTAT BATTERY MANUAL (INCLUDED)

Ref. STAM RADI

- Radio-thermostat via radio to control the temperature in the receiver systems.

- Internal sensor and arrangement for remote probe.

- Manual mechanical locking for the limitation of the temperature scale.

- Transmission of commands via radio with selectable transmission time.

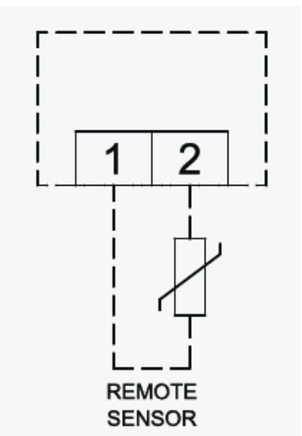
- Selection of the internal Summer / Winter state or manageable in the receiver.

- Possibility of controlled economic regulation in the receiver.

TECHNICAL CHARACTERISTICS

Power supply to batteries:	**2 x 1.5V AAA**
Working range:	**6 .. 30°C**
Transmission frequency:	**868,150 MHz**
Red LED indicator:	**Battery discharged**
Max. dist. of the receiver:	**50 m (inside buildings)**
Transmission time:	**3-10 min.**
Type of antenna:	**Internal**
Degree of protection:	**IP30**

INSTALLATION SCHEME



Note; For the command vía telephone do not use ITP F22 o ITR 011

REGULATION AND CONTROL

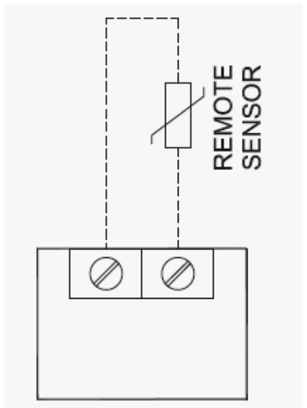
RADIO VIA CONNECTION WIRELESS

THERMOSTAT DIGITAL A BATTERIES (NOT INCLUDED)

Ref. STADI

- Radio-thermostat via radio for temperature control
- Blue backlit LCD screen.
- Operating modes:
Comfort. Eco, Off / Anti-freeze
- Configurable by adjusting the parameters:
Offset, hysteresis, Setpoint min. max, etc.
- Internal temperature sensor and possibility for the external sensor.
- Summer / Winter selection manual or adjustable from the receiver ..
- Limitation of intervention by the user.

INSTALLATION SCHEME



TECHNICAL CHARACTERISTICS

Battery powered:	2 x 1.5V AA
Working range:	5 .. 35ºC Configurable
Transmission frequency:	868,150 MHz
Internal / external sensor:	NTC (4k7 @ 25ºC)
Max. dist. of the receiver:	50 m (inside buildings)
Transmission time:	3-10 min.
Type of antenna:	Internal
-Degree of protection:	IP30

REGULATION AND CONTROL

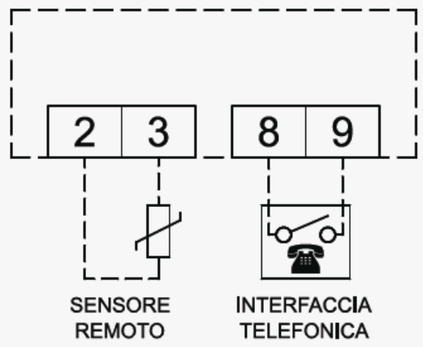
RADIO VIA CONNECTION WIRELESS

DIGITAL CHRONOTHERMOSTAT WEEKLY TO BATTERIES (NOT INCLUDED)

Ref. SCTSDI

- Weekly digital chrono-thermostat via radio powered by batteries for heat / cool regulation.
- It has up to 7 different programs, one for each day of the week, with a minimum intervention time of 1/2 hour in 48 time slots for each day
- Temperatures in 3 levels (Comfort, Eco, Off / Anti-freeze)
- Transmission of commands every 3 minutes.
- Function for the control of pellet stoves and for radiant floor systems.
- Holiday function (1 - 99 days) and cleaning.
- Internal temperature sensor and possibility for the remote sensor.
- Possibility of control via telephone.

INSTALLATION SCHEME



TECHNICAL CHARACTERISTICS

Battery power:	**2 x 1.5V AA**
Operation:	**On / Off, PWM**
Working range:	**10 .. 30°C**
Adjustable hysteresis:	**0.1 .. 5.0°C**
Internal Sensor:	**NTC (10k Ohm @ 25°C)**
Max. dist. of the receiver:	**50 m (inside buildings)**
Transmission frequency:	**868,150 MHz**
Type of antenna:	**Internal**

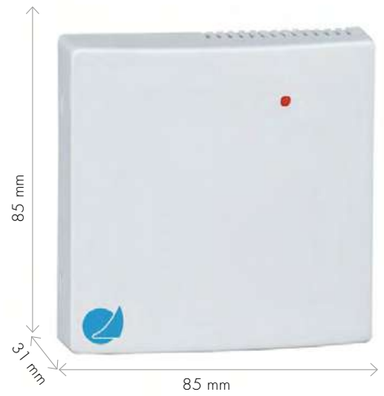
Class Reg.2013 / 811 / ce IV = 2.0%

REGULATION AND CONTROL

RADIO VIA CONNECTION WIRELESS

ACTIVE ANTENNA FOR ELECTRONIC CONTROL UNIT

Ref. SANI



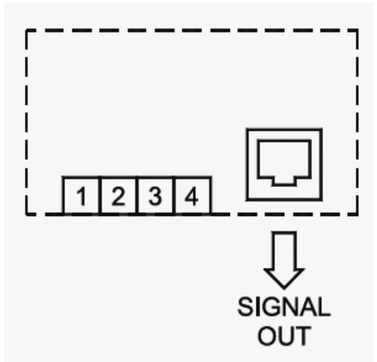
- 868,150 MHz receiver active antenna for the DLP relay modules, includes a 5 meter connection cable. It can be configured to perform a diverse operation:

Repeater: The radio command received by one or more devices is retransmitted in order to reach even the most distant places.

Receiver for home automation: Connected to a computer or a home automation center. Through RS485 Bus it is possible to receive all the commands of the radio thermostats in the domotic central by means of a proprietary protocol or MODBUS R RTU protocol.

If the device is used as a repeater or receiver without being connected to a DLP module, an external 12VDC power supply is necessary:

INSTALLATION SCHEME



TECHNICAL CHARACTERISTICS

Transmission frequency:	868,150 MHz
Two-color LED indicator:	Active module / status
Degree of protection:	IP30
Food:	6 .. 14 Vdc
Absorbed consumption:	80 mA max

REGULATION AND CONTROL

RADIO VIA CONNECTION WIRELESS

1 CHANNEL RECEIVER OUTPUT

Ref. SRE-CALDI

- Radio receiver with 1 channel, equipped with integrated antenna and a relay output SPDT, can operate an actuator, a circulation pump, or directly the boiler.

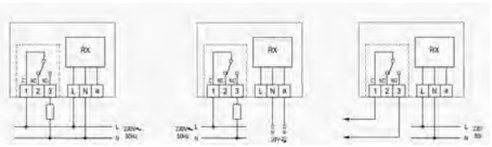
- It incorporates a bicolor LED for the indication of the status of the output relay and the quality of the radio connection with the corresponding transmitter.
Automatic transmission code.

- Solution for all types of buildings when it is not possible to carry the cables of the thermal central heating thermostats

TECHNICAL CHARACTERISTICS

Power:	230V ~ ± 10% 50Hz
	24V ± 10% 50Hz
Absorbed power:	2W
Output (relay):	6A @ 250V ~ cosϕ = 1
Transmission frequency:	868,150 MHz
Type of antenna:	Interna
ITwo-color LED indicator:	Active module / status

INSTALLATION SCHEME



DRISTRIBUTION GROUP WITH VALVE THERMOSTATIC MANUAL A FIXED POINT

TECHMICAL CHARACTERISTICS

-Maximum use temperature: 90 ° C

-Maximum working pressure: 10 bar

-Rosca female: UNE EN 10226-1

-Rose male: UNE-EN ISO 228-1

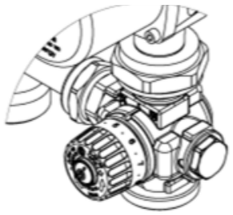
-Bomb: Grundfos ALPHA2 25-60 180

-Range of Tª thermostatic valve: 30-60 ° C

-Liquids: water, glycol water (max 30%)

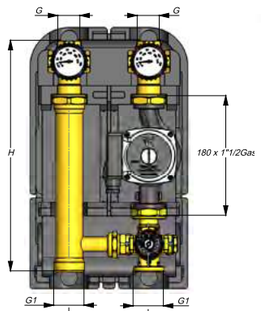
-Range of measurement of thermometers: 0-120 ° C

Ref.	G	G1	L mm.	H mm.	Bomb	Weight Kg
02G	G 1" F	G 1 ½" M	125	363	Without bomb	4,05
02G/B	G 1" F	G 1 ½" M	125	363	Grundfos UPM3	6,70

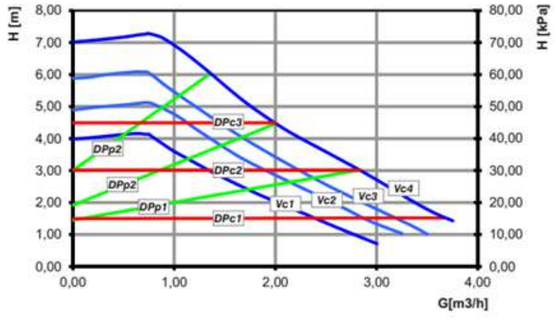


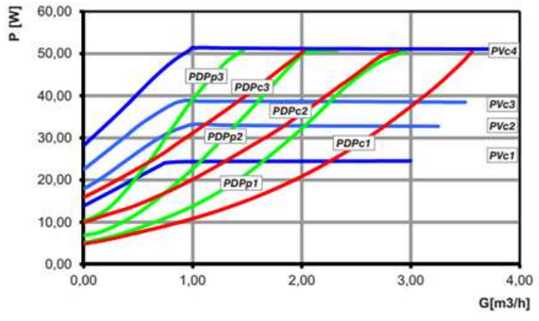
Range of Tª Thermostatic valve temperature:

Pos.	ºC
Min.	30
1	34
2	38
3	41
4	43
5	45
6	47
7	50
8	54
Max.	60



CHARACTERISTIC CURVE OF HYDRAULIC PUMP





Vci: Constant velocity

DPpi: Proportional pressure

DPci: Constant pressure

PVci: Power absorbed at constant speed.

PDPpi: Power absorbed at proportional pressure.

PDPci: Power absorbed at constant pressure

PRECONFIGURED SYSTEM

FOR CENTRAL THERMAL

DISTRIBUTION GROUP WITH THERMOSTATIC VALVE MANUAL A FIXED POINT

Ref. 02G
Ref. 02G/B

- Distribution group that allows the circulation of the heat transfer fluid from the primary circuit to the secondary circuit, keeping the temperature constant by means of a thermostatic valve at a fixed point.

- It is optimal to be used in heating systems by radiant / cooling surfaces.

- The product incorporates a recirculation pump, shut-off valves, thermostatic valve, thermometers in flow / return, check valve and thermal insulation.

TECHNICAL CHARACTERISTICS

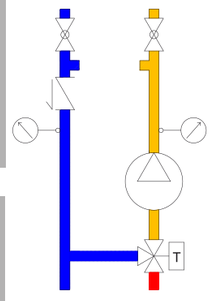
- **Ball and retention valve:**
  - **Body: Brass UNE EN 12164**
  - **Sealing gaskets: PTFE, EPDM**
- **Thermostatic valve:**
  - **Body: Brass UNE EN 12164**
  - **Seals: EPDM**
  - **Spring: Stainless steel AISI 302**
- **Bomb**
  - **Grundfos UPM3 AUTO L 25-70 180**
  - **Body: Cast iron**
- **Thermal isolation:**
  - **Body: EPP**
  - **Density: 60 kg / m3**
  - **Conduct Thermal: 0.039 W / m · K (20 ° C)**
  - **Conduct Thermal: 0.041W / m · K (40 ° C)**

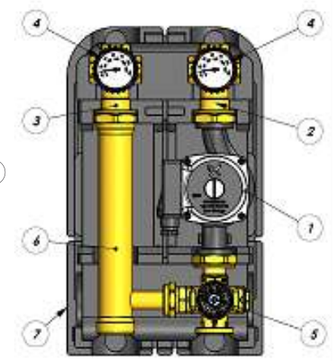
Ref. 02G

Without a pump

Ref. 02G/B

With pump





COMPONENTS

1	Recirculation pump: Grundfos UPM3 AUTO L 25-70 180
2	Spherical valve
3	Ball valve with check valve
4	Thermometer
5	Thermostatic mixing valve 30-60 ° C
6	Extension with bypass
7	Thermal isolation

DRISTRIBUTION GROUP WITH MIXING VALVE MOTORIZED FOR CLIMATIC REGULATION

TECHNICAL CHARACTERISTICS

-Maximum use temperature: 90 ° C

-Maximum working pressure: 10 bar

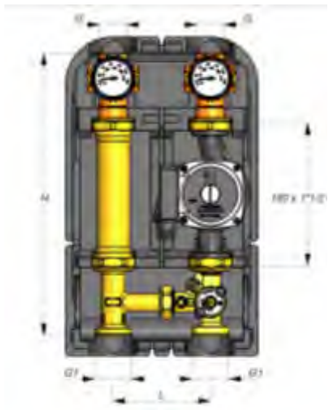
-Rosca female: UNE EN 10226-1

-Rose male: UNE-EN ISO 228-1

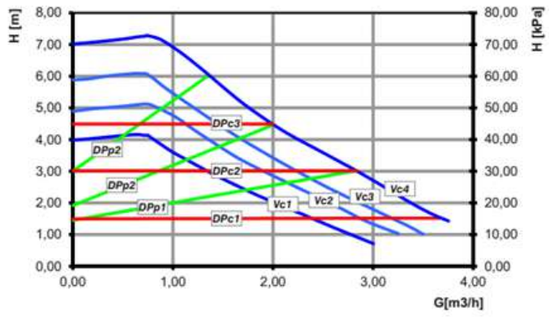
-Liquids: water, glycol water (max 30%)

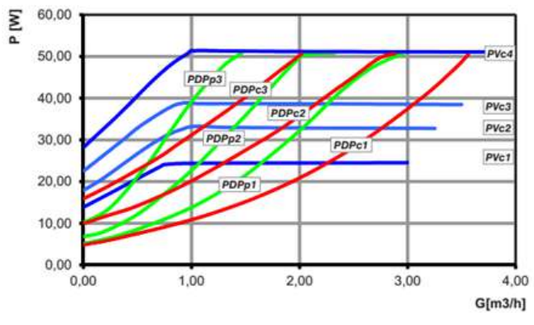
-Range of measurement of thermometers: 0-120 ° C

Ref.	G	G1	L mm.	H mm.	Bomba	Weight Kg
03G	G 1" F	G 1 ½" M	125	363	With Bomb	4,05
03G/B	G 1" F	G 1 ½" M	125	363	Grundfos UPM3	6,70



CURVE PUMP CHARACTERISTIC GRUNDFOS UPM3 L 25 70





Vci: Constant velocity

DPpi: Proportional pressure

DPci: Constant pressure

PVci: Power absorbed at constant speed.

PDPpi: Power absorbed at proportional pressure.

PDPci: Power absorbed at constant pressure

PRECONFIGURED SYSTEM

FOR CENTRAL THERMAL

DISTRIBUTION GROUP WITH MIXING VALVE MOTORIZED FOR CLIMATIC REGULATION

Ref. 03G
Ref. 03G/B

- Drive group that allows the circulation of the heat transfer fluid from the primary circuit, making the adjustment of the temperature of the heat transfer fluid through the help of a motorized mixing valve.

- This distribution group is optimal for serving underfloor heating / cooling systems whose flow temperature varies depending on the internal temperature or the outside temperature (climate regulation).

TECHNICAL CHARACTERISTICS

- Ball and retention valve:
  - Body: Brass UNE EN 12164
  - Sealing gaskets: PTFE, EPDM
- Motorized mixing valve:
  - Body: Brass UNE EN 12164

Seals: EPDM

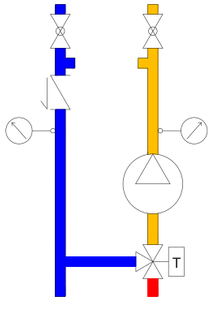
- Bomb:
  - Grundfos UPM3 AUTO L 25-70 180
  - Body: Cast iron
- Thermal isolation:
  - Body: EPP
  - Density: 60 kg / m3,
  - Conduct Thermal: 0.039 W / m · K (20 ° C)
  - Conduct Thermal: 0.041W / m · K (40 ° C)

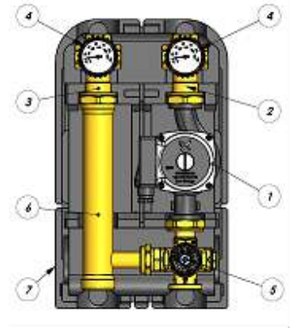
Ref. 03G

Without pump

Ref. 03G/B

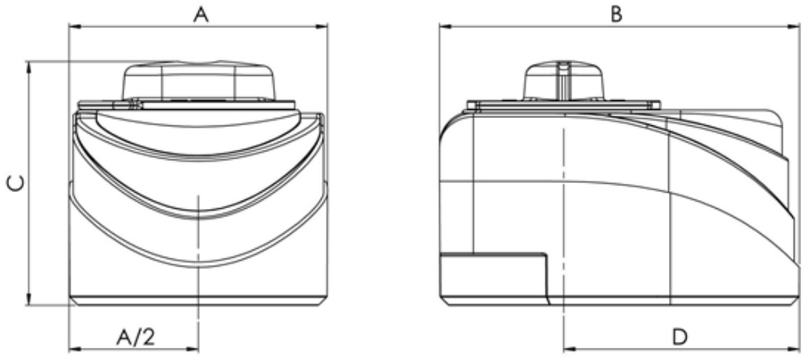
With pump



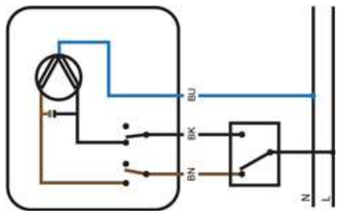


COMPONENTS

1	**Recirculation pump: Grundfos UPM3 AUTO L 25 70 180**
2	Spherical valve
3	Ball valve with check valve
4	Thermometer
5	**Motorized mixing valve.**
6	Extension with bypass
7	Thermal isolation

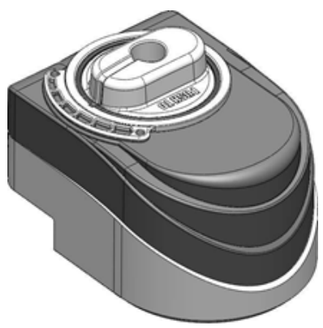


Article	A mm.	B mm.	C mm.	D mm.	Weight gr.
M03	76	106	73	69,5	480



Connection to 3 points:

Color	indication
BN	Rotation to the right**(schedule)**
BU	Comon
BK	Rotate to the left (Anti-clockwise)



PRECONFIGURED SYSTEM

FOR CENTRAL THERMAL

SERVOMOTOR
FOR MOTORIZED MIXING VALVE

Ref. M03

- The M03 servo motor is used to motorize the mixing valve of the hydraulic group 03G / B. The angle of rotation is limited to 90 °. Once the limit is reached, an electrical disconnection occurs.

- In the case of regulation operations or in case of failure, the actuator can be brought to the manual position by pressing the handle, this causes the transmission to be unblocked and can be operated manually.

Technical information and material

Rotation time	60 - 120 sec.
Rotation angle	90°
Pair	10 N/m
Feeding	230 Vac - 50Hz
Absorbed power	4VA
Commands	2 - 3 points
Number of poles	3
Cable length	1,5m
Degree of protection	IP44
Electrical protection	class II
Operation temperature	-10° ; +50°
	-5° ; +50°C
Degree of humidity	-95%
Certification	CE
Case	PC + ABS
Axis	Polyamide - Zinc alloy

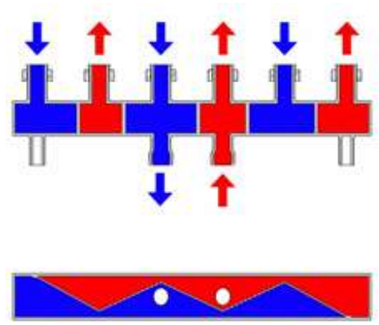
COMPONENTS

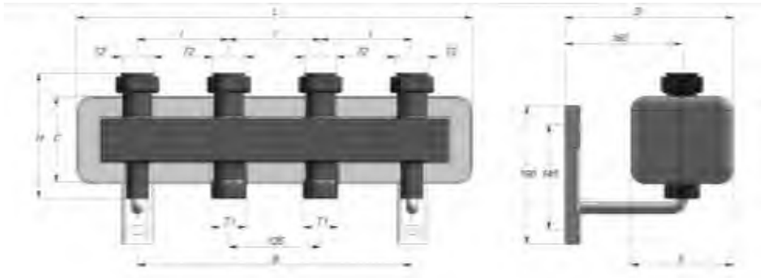
M03	
1	Servomotor / actuator
2	Lock screw set
3	Adapter for mixing valve
4	Anti rotation bolt

MANIFOLD REF. P72

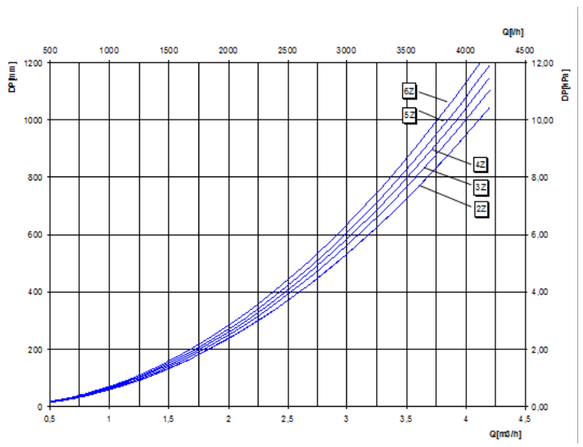
FUNCTIONING

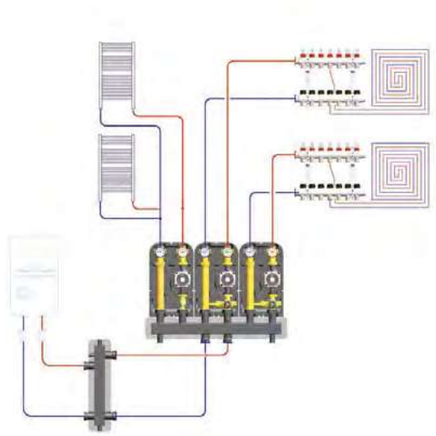
The manifold ref. P72 allows the distribution of thermal fluid from a generator (primary circuit). The circuits of return and return are separated from each other by a vertical wall in sinusoidal form. This form allows obtaining large suction spaces and avoids malfunctions between the pumps of the secondary circuits. This manifold must be installed after a hydraulic compensator to avoid the influence of the pump of the primary pumps of the secondary and vice versa.





Reference	T1	T2	L mm.	H mm.	D mm.	I mm.	C mm.	B mm.	E mm.	Departures	PowerkW.	Flow m3 / h.
P72-2	G 1 ½" M	G 1 ½"	540	172	238	125	135	375	156	2	70	3
P72-3	G 1 ½" M	G 1 ½"	790	363	238	125	135	375	156	3	70	3



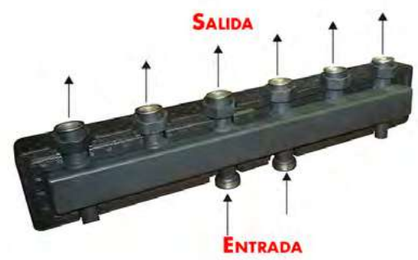


PRECONFIGURED SYSTEM

FOR CENTRAL THERMAL

DISTRIBUTION MANIFOLD FOR DISTRIBUTION GROUP

Ref. P72-2
Ref. P72-3



- The distribution manifolds are coplanar with a resistant and reduced structure.
- The heat losses are limited by a cover of insulating material.
- They are constructed with profiled steel parts welded and coated with a black protective varnish.
- The distribution manifolds, in combination with the drive units, comply with traditional installations.
- All manifolds are supplied with brackets for wall mounting.

TECHNICAL CHARACTERISTICS

Maximum temperature of use: 110 ° C
-Maximum working pressure: 4 bar
-Rosca female according to standard: UNE EN 10226-1
-Rose male according to standard: UNE-EN ISO 228-1
-Liquids allowed: water, glycol water (max 30%)

MATERIALS

- **Collector body**
  Body: S235 steel
  Connections: S235 steel
- **Insulating housing: Body: EPP**
  Density of 38 kg / m3
  0.022W thermal conductivity / mK (10 ° C)

COMPONENTS

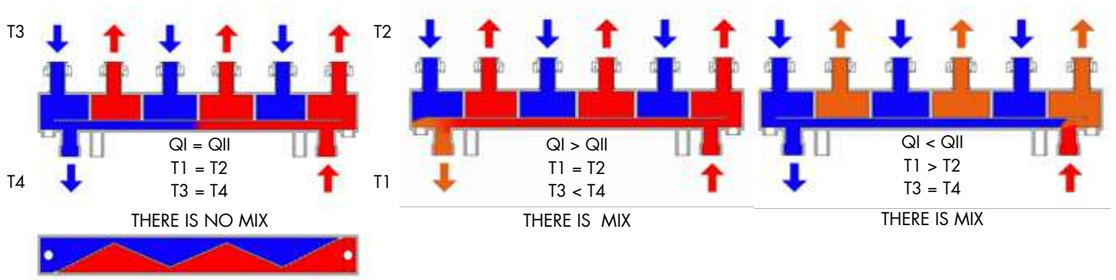
MANIFOLD P72	
1	Manifold
2	Insulating cover
3	Supports

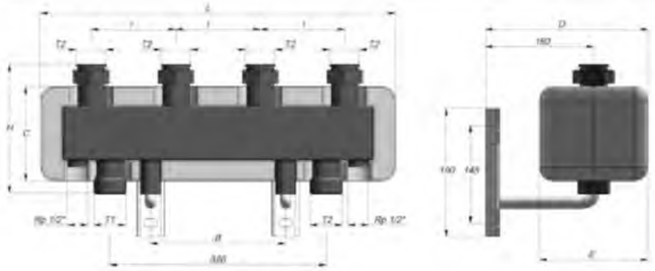
MANIFOLD REF. P74

FUNCTIONING

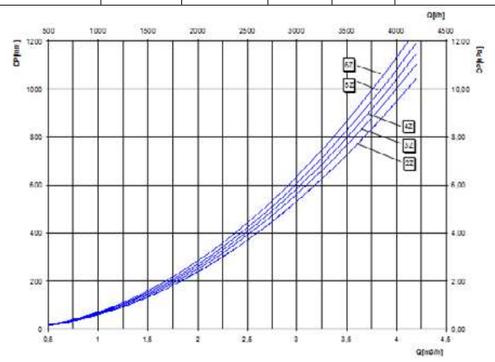
The distribution manifold ref. P74 adds to the advantages present in the distribution manifold ref. P72 the integration of a hydraulic compensator. This solution provides the ability to be installed in small spaces.
The hydraulic compensator allows the pumps of the primary and secondary circuits to work independently and prolong their useful life.

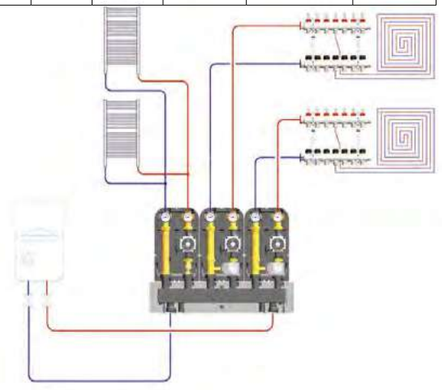
The three figures show the possible situations that can occur depending on the primary and secondary flows.





Reference	T1	T2	L mm.	H mm.	D mm.	I mm.	C mm.	B mm.	E mm.	Departures	Power kW.	Flow $m^3/h.$
P74-2	G 1 ½" M	G 1 ½"	525	205	245	125	170	200	170	2	70	3
P74-3	G 1 ½" M	G 1 ½"	790	205	245	125	170	450	170	3	70	3





PRECONFIGURED SYSTEM

FOR CENTRAL THERMAL

DISTRIBUTION MANIFOLD FOR DISTRIBUTION GROUP WITH HYDRAULIC COMPENSATOR

Ref. P74-2
Ref. P74-3

- The distribution manifolds are coplanar with a resistant and reduced structure.

- The heat losses are limited by a cover of insulating material.

- They are constructed with profiled steel parts welded and coated with a black protective varnish.

- The distribution manifolds, in combination with the drive units, comply with traditional installations.

- All collectors are supplied with brackets for wall mounting.

- It integrates a hydraulic compensator that allows to obtain the hydraulic disconnection between the primatio and secondary circuit.

TECHNICAL CHARACTERISTICS

Maximum temperature of use: 110 ° C
-Maximum working pressure: 4 bar
-Rosca female according to standard: UNE EN 10226-1
-Rose male according to standard: UNE-EN ISO 228-1
-Liquids allowed: water, glycol water (max 30%)

MATERIALS

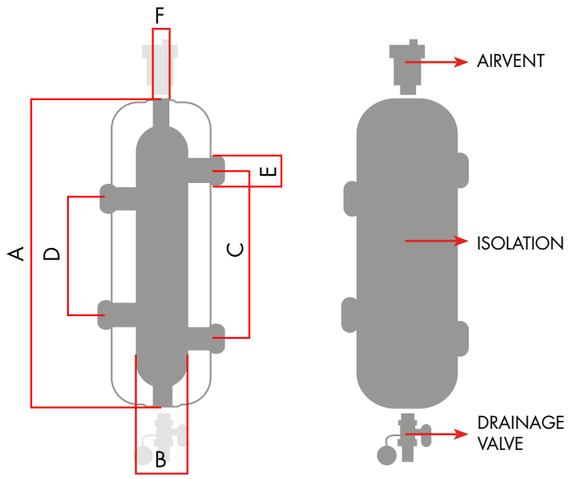
- **Collector body**
  Body: S235 steel
  Connections: S235 steel
- **Insulating housing: Body: EPP**
  Density of 38 kg / m3
  0.022W thermal conductivity / mK (10 ° C)

COMPONENTS

MANIFOLD P74	
1	Manifold
2	Insulating cover
3	Supports
4	Hydraulic compensator
5	Socket for expansion vessel

TECHNICAL CHARACTERISTICS	
Material	Stainless Steel 304
Maximum working pressure:	10 bar
Maximum working temperature:	110ºC
Usable Fluid: Glicolated	Water / Watera
Insulation thickness:	20 mm
Insulation Material: Polypropylene (PP)	Polypropylene (PP)

REFERENCE	CONNECTIONS	MAX FLOW	AREA RECOMMENDED
COMH1	1"	89 l/min	100-300 m²
COMH114	1 ¼"	120 l/min	300-600 m²



REFERENCIA	A mm.	B mm.	C mm.	D mm.	E mm.	F
COMH1	355	76	210	145	1"M	½"H
COMH114	475	90	290	180	1 ¼"M	½"H

PRECONFIGURED SYSTEM

FOR CENTRAL THERMAL

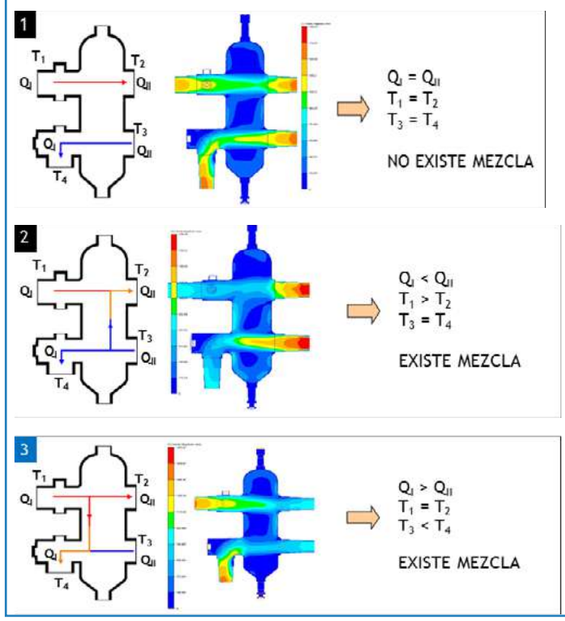
HYDRAULIC COMPENSATOR WITH INSULATION

Ref. COMH 1
Ref. COMH 114

A good hydraulic balance is of great importance for heating and air conditioning systems with various circuits and pumps.

SIMULTANEOUS FUNCTIONS

- **Primary circuit and secondary circuit separation.**
- **Purge the installation eliminating air bubbles.**
- **Elimination of sludge generated by gravity.**

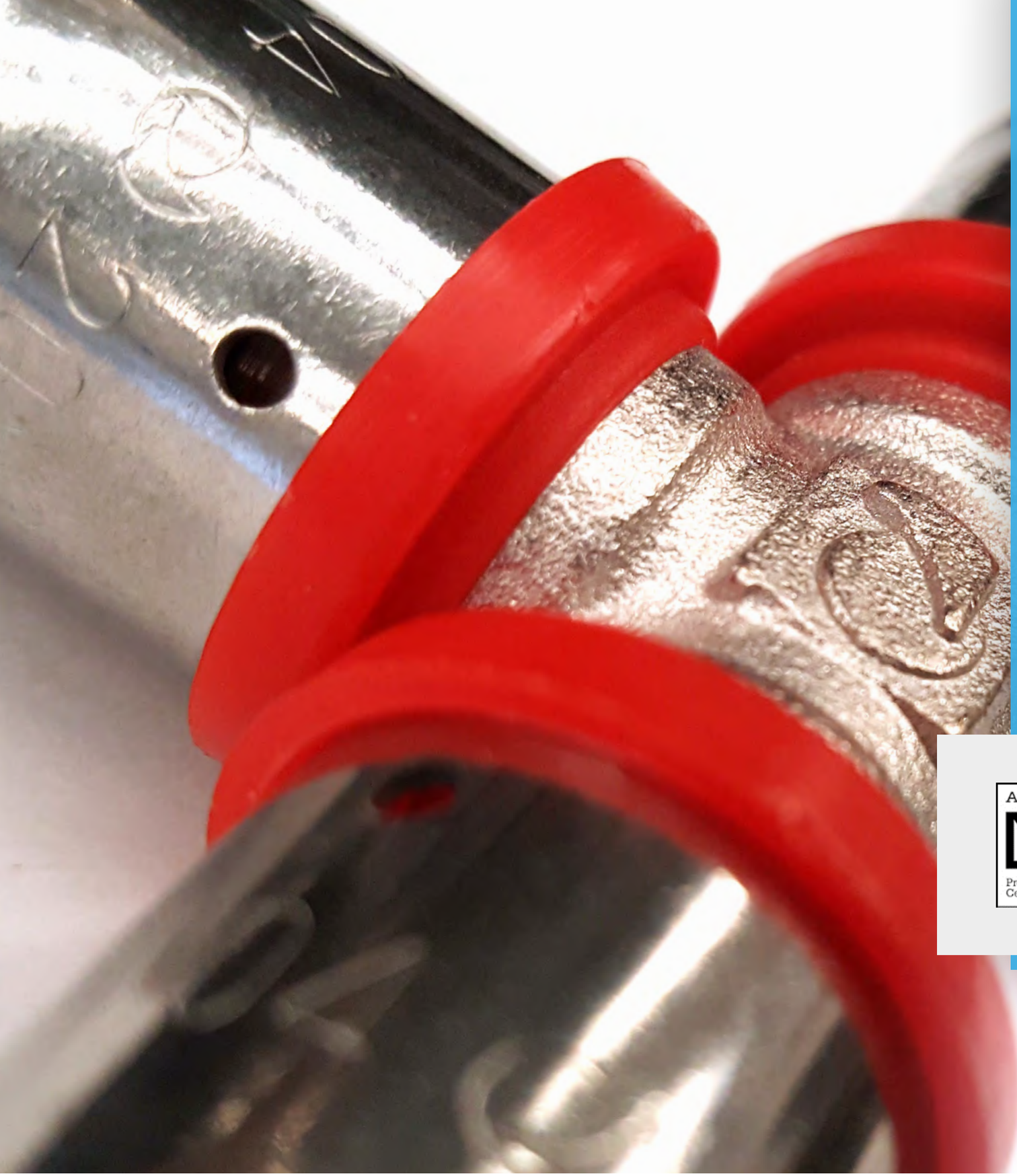


COMPONENTS

	COMH
1	Compensator 1 "or 11/4"
2	Automatic drain 1/2 "
3	Drain tap 1/2 "
4	Insulation 20 mm

FUNCTIONING

The hydraulic compensator is designed and performs the function of absorbing the volumetric flow difference between the primary circuit and the secondary circuit. In a system where it is installed and where the temperature is the controlled variable, three cases of operation can occur:



MULTILAYER SYSTEM

MULTILAYER PIPE
+
PRESS FITTING ACCESSORIES

CERTIFIED BY AENOR FOR

SCOPE

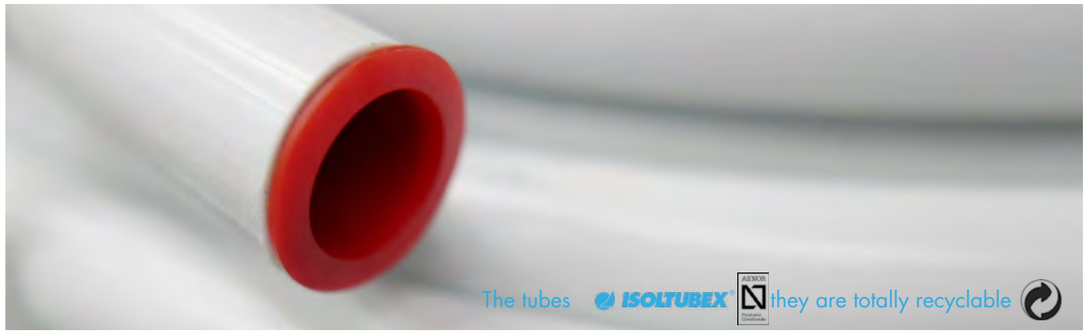
CLASS 1: Hot water 60° C.
CLASS 2: Hot Water 70° C.
CLASS 4: Underfloor heating / cooling and radiators at low temperature.
CLASS 5: Heating by radiators at high temperature

DESIGN PRESSURE 1/10; 2/10; 4; 10; 5/10

OUR MULTILAYER PIPES

CHARACTERISTICS:

Today, technological research has definitively solved the uncertainty about the choice of metal tubes or thermoplastic materials for the installation of plumbing or heating systems with the creation of a tube capable of uniting the advantages of both materials. The result has been multi-layer ISOLTUBEX tubes.



The Multilayer Tube has been the result of a modern construction technique that has allowed the perfect union of an aluminum tube with two polyethylene tubes; such a solution decisively reduces the problems of purely metallic tubes (rigidity, toxicity, corrosion, incrustations, weight, noise transmission, pressure drops, galvanic currents, etc.), or exclusively plastic tubes (winter fragility, high expansion thermal, impermeability to oxygen and ultraviolet rays, thermal memory, little or no malleability, etc.). Our multilayer pipes achieve the advantages of the two materials, united by mutual collaboration.

Our tubes are manufactured in accordance with the UNE EN ISO-21003 standard and as measures in accordance with ISO-161.

CURVATURE

To bend the tubes we will use:
- Spring bend tubes
- Manual bending

You have to take into account the radii of the curvature to avoid Strangulation of the pipe.

Diameter DN	Radius bend (mm)		
	Manual	With spring	With Curved
16	80	64	48
20	100	80	60
25	130	100	80
32	200	160	150

The minimum bending radius specified in the table must always be respected in order to avoid pipe throttling.

ACCESSORIES PRESS FITTING FOR MULTILAYER PIPES

CHARACTERISTICS:

The **ISOLTUBEX** press fittings have been designed up to Ø63, developed with the aim of obtaining the maximum performance of resistance and safety in the hydraulic or heating installations. The operation of joining **ISOLTUBEX** press fittings with an **ISOLTUBEX** multilayer pipe must **necessarily** be carried out with an electric press that, by deforming the stainless steel bushing (AISI 304), will irreversibly bind the pipe with the fitting.
Our accessories are made with high quality brass; CW617N, according to **UNE-EN-12165 standard.**

The inspection holes located at one end of the stainless steel bushing allow us to verify that the tube has indeed been inserted until the end of the fitting and that it has been in contact with the anti-electrolysis plastic gasket, whose function is to preserve the aluminum of possible galvanic currents in all the installations where the **ISOLTUBEX** system is used. The two O-rings ensure a perfect seal in the hydraulic or heating system.

The range of our PRESS FITTING accessories is very complete (Ø16 to Ø63).

The **ISOLTUBEX** PRESS-FITTING accessories are designed to build together with our pipes the Multilayer System Certified by AENOR in accordance with the **UNE EN ISO-21003 standard.**

The PRESS-FITTING accessories are easily identifiable, our logo or our brand **ISOLTUBEX** is indelibly marked, both in the body of the accessory, and in the stainless steel ferrules.

ADVANTAGE

1. Accessory of high quality brass, CW617N manufactured with calibrated bar for straight figures (union, reduction, etc.) or hot forging process for other figures (elbows, tees, etc.), ensuring a compact structure.
2. Very easy to install.
3. Perfect sealing, ensuring a long service life.
4. Double O-ring, providing greater security.
5. Anti-electrolysis ring of maximum efficiency.
6. Attractive appearance exterior design.
7. Valid for cold water installations, A.C.S. and heating systems.

ASSEMBLY INSTRUCTIONS FOR MULTILAYER SYSTEM

Before starting the assembly check that the tubes are not broken, bent, damaged or apparently not suitable for installation. It is also necessary to check that the accessories to be used appear without any dirt residues in any of their components or present any anomaly or deterioration that prevents their correct use.

VERY IMPORTANT: THE USE OF DETERIORATED TUBES AND / OR ACCESSORIES, IN BAD CONDITION OR IN CONDITIONS OF CONSERVATION OR MAINTENANCE NOT SUITABLE FOR INSTALLATION, EXCLUDES THE WARRANTY.
(see warranty page and general conditions)

All assembly processes on our YouTube channel

1.

Cut the tube perpendicular to its length, using a tool that guarantees a clean and precise cut.

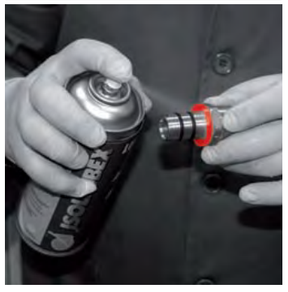
2.

When it comes to getting a very tight curve, it is advisable to use an internal or external spring, adapted to the diameter of the tube that we are going to bend (see page 43).

3.

It is mandatory to insert the calibrator / reamer ref. AE inside the tube, turning until filing the inside and outside edge of it. Such operation is essential to facilitate the insertion of the fitting into the tube and prevent the o-rings from being damaged, or displaced from their housing.

4.



Lubricate the part of the accessory that is inserted.
Lubricant ref. L-400

5.

Insert the stainless steel cap into the tube, in the position that the inspection holes are located at the end of the tube.

6.

The fitting must be inserted in the tube to its base so that the stainless steel cap is attached to the anti-electrolysis plastic gasket.

7.

Position the pliers, of the measure corresponding to the tube, in the stainless steel cap, as close as possible to the electrolysis joint.
USE RFz and RFlz JAWS for measurements 16x2,20x2, 25x2,5, 32x3 and 40x4.
USE U JAWS for measurements 18x2, 50x4,5 and 63x6

8.

ATENCIÓN Isoltubex no se hace responsable de los problemas que puedan surgir por la utilización de mordazas inadecuadas o en mal estado.

9.

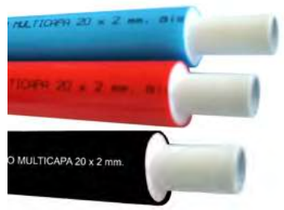
Proceed to the pressing: It is very important to use electric or battery presses, which guarantee a thrust force of 32 Kn / cm2. It is advisable to use only approved tools.
Remember, the machines and jaws have a limited life, check that your pressing equipment is in perfect working order and that the jaws have not suffered wear and tear due to use.
After pressing, remove the pliers, the connection has already been made.
Consult technical manual of your machine and jaws. Follow the manufacturer's instructions.

AENOR Producto Certificado

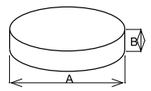
THESE TUBES ALONG WITH PRESS FITTING ACCESSORIES, CONFORM THE ISOLTUBEX MULTI-LAYER SYSTEM, CERTIFICATE ISSUED BY AENOR FOR THE APPLICATION CLASSES 1/10, 2/10, 4/10 and 5/10 AND FOR THE SUPPLY OF COLD WATER AT 20ºC - 25 BARS OF PRESSURE.

MULTILAYER PIPE

MULTILAYER PIPE IN ROLL **ISOLATED**

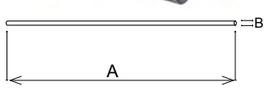


WITH UV PROTECTION FOR EXTERIOR INSTALLATIONS BLACK COLOR

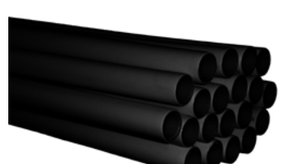


Reference	∅ Tube	Thickness Aislam.	Meters Roll	Measurements Roll A	Measurements Roll B	Weight Roll	PALET 120x80 nº Roll	PALET 120x80 Weight
MC16AIS6-R	16 x 2	6	**50**	71	18	7,77	24	186,48
MC16AIS6-A	16 x 2	6	**50**	71	18	7,77	24	186,48
MC16AIS-N	16 x 2	6	**50**	71	18	7,77	24	186,48
MC18AIS6-R	18 x 2	6	**50**	75	19	10,95	24	262,80
MC18AIS6-A	18 x 2	6	**50**	75	19	10,95	24	262,80
MC18AIS6-N	18 x 2	6	**50**	75	19	10,95	24	262,80
MC20AIS6-R	20 x 2	6	**50**	75	19	10,72	22	235,84
MC20AIS6-A	20 x 2	6	**50**	75	19	10,72	22	235,84
MC20AIS6-N	20 x 2	6	**50**	75	19	10,72	22	235,84
MC25AIS10-R	25 x 2,5	10	**25**	73	30	7,52	16	120,32
MC25AIS10-A	25 x 2,5	10	**25**	73	30	7,52	16	120,32
MC25AIS10-N	25 x 2,5	10	**25**	73	30	7,52	16	120,32
MC32AIS10-R	32 x 3	10	**25**	84	33	12,50	16	200,00
MC32AIS10-A	32 x 3	10	**25**	84	33	12,50	16	200,00
MC32AIS10-N	32 x 3	10	**25**	84	33	12,50	16	200,00
		mm	mts.	cm	cm	kg	units.	kg

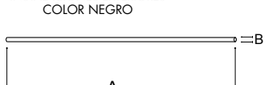
MULTILAYER PIPE BAR - 4 meters



Reference	∅ Tube	Meters A	Meters B	Weight	PAQUETE nº Bars	PAQUETE Meters	PAQUETE Weight	PALET 410x100x80 cm nº Barras	PALET 410x100x80 cm Peso
MC16-B	16 x 2	400	1,6	0,42	**50**	200	21,00	1000	420,00
MC18-B	18 x 2	400	1,8	0,61	**40**	160	24,40	800	488,00
MC20-B	20 x 2	400	2,0	0,54	**35**	140	18,90	700	378,00
MC25-B	25 x 2,5	400	2,5	0,86	**20**	80	17,20	400	344,00
MC32-B	32 x 3	400	3,2	0,86	**14**	56	12,04	280	240,80
MC40-B	40 x 4	400	4,0	2,20	**16**	64	35,20	288	633,60
MC50-B	50 x 4,5	400	5,0	3,00	**4**	16	12,00	144	432,00
MC63-B	63 x 6	400	6,3	5,00	**3**	12	15,00	108	540,00



CON PROTECCIÓN UV PARA INSTALACIONES EXTERIORES COLOR NEGRO

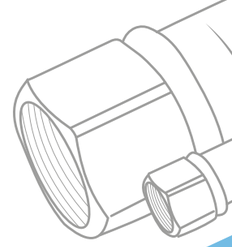


MCN16-B	16 x 2	400	1,6	0,42	**50**	200	21,00	1000	420,00
MCN20-B	20 x 2	400	2,0	0,54	**35**	140	18,90	700	378,00
MCN25-B	25 x 2,5	400	2,5	0,86	**20**	80	17,20	400	344,00
MCN32-B	32 x 3	400	3,2	0,86	**14**	56	12,04	280	240,80
		cm	cm	kg	units.	mts.	kg	units.	kg

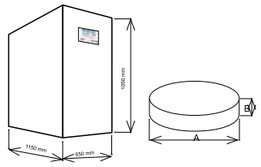
AENOR Producto Certificado

THESE TUBES ALONG WITH PRESS FITTING ACCESSORIES, CONFORM THE ISOLTUBEX MULTI-LAYER SYSTEM, CERTIFICATE ISSUED BY AENOR FOR THE APPLICATION CLASSES 1/10, 2/10, 4/10 and 5/10 AND FOR THE SUPPLY OF COLD WATER AT 20ºC - 25 BARS OF PRESSURE.

MULTILAYER PIPE



MULTILAYER PIPE IN ROLL - Box -

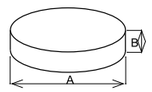


WITH UV PROTECTION FOR EXTERIOR INSTALLATIONS BLACK COLOR

Reference	∅ Tube	Meters Roll	Measurements Roll A	Measurements Roll B	Weight Roll	BOX nº Roll	BOX Meters	BOX Weight	PALET 120x120x210 cm nº Roll	PALET 120x120x210 cm Weight
MC16-R5	16 x 2	**5**	44,0	6,5	0,69	**42**	210	28,98	168	115,92
MC16-R10	16 x 2	**10**	47,5	6,5	1,05	**42**	420	48,00	168	176,40
MC16-R25	16 x 2	**25**	49,0	12,0	2,65	**20**	500	53,00	80	212,00
MC20-R5	20 x 2	**5**	44,5	8,0	0,88	**32**	160	28,16	128	112,64
MC20-R10	20 x 2	**10**	48,5	8,0	1,35	**32**	320	43,20	128	172,80
MC20-R25	20 x 2	**25**	57,5	17,0	3,40	**12**	300	40,80	48	163,20
MC25-R25	25 x 2,5	**25**	63,0	15,0	5,38	**12**	300	64,56	48	258,24

MCN16-R25	16 x 2	**25**	49,0	12,0	2,65	**20**	500	53,00	80	212,00
MCN20-R25	20 x 2	**25**	57,5	17,0	3,40	**12**	300	40,80	48	163,20
MCN25-R25	25 x 2,5	**25**	63,0	15,0	5,38	**12**	300	64,56	48	258,24
		mts.	cm	cm	kg	units.	mts.	kg	units.	kg

MULTILAYER PIPE IN ROLL



WITH UV PROTECTION FOR EXTERIOR INSTALLATIONS BLACK COLOR

Reference	∅ Tube	Meters Roll	Measurements Roll A	Measurements Roll B	Weight	PALET nº Roll	PALET Weight
MC16-R100	16 x 2	**100**	57	18,5	10,60	24	254,40
MC16-R120	16 x 2	**120**	69	18,5	12,60	20	252,00
MC16-R200	16 x 2	**200**	75	19	21,20	18	381,60
MC16-R450	16 x 2	**450**	86	26	47,70	7	333,90
MC18-R100	18 x 2	**100**	65	20	12,00	48	576,00
MC20-R100	20 x 2	**100**	67	21,5	13,60	22	299,20
MC20-R200	20 x 2	**200**	77	25	27,20	16	435,20
MC25-R50	25 x 2,5	**50**	83	20	10,75	16	172,00
MC32-R50	32 x 3	**50**	93	17	16,75	16	268,00

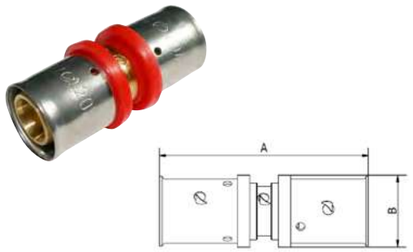
MCN16-R100	16 x 2	**100**	63	17,5	10,60	24	254,40
MCN20-R100	20 x 2	**100**	67	21,5	13,60	22	299,20
MCN25-R50	25 x 2,5	**50**	83	20	10,75	16	172,00
MCN32-R50	32 x 3	**50**	93	17	16,75	16	268,00
		mts.	cm	cm	kg	units.	kg

THESE ACCESSORIES, JOINED TO OUR MULTILAYER PIPES, CONFORM THE MULTILAYER SYSTEM, CERTIFIED AND ISSUED BY AENOR IN ACCORDANCE WITH THE UNE EN ISO 21003 STANDARD.

MULTILAYER ACCESSORIES

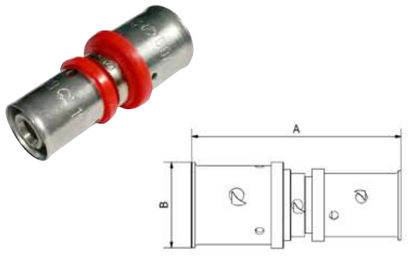
For 16x2, 18x2, 20x2, 25x2.5, 32x3, 40x4, 50x4.5, 63x6 tubes

UNION



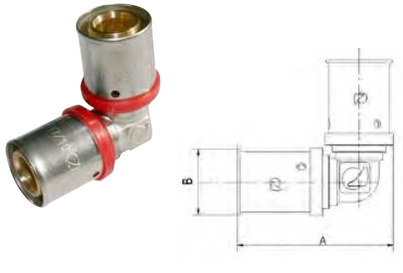
Reference	Measure	A	B	Weight		
U16	16	58,76	20,30	44	45	360
U18	18	57,20	22,30	39	40	320
U20	20	60,00	24,30	61	30	240
U25	25	73,00	30,28	106	15	120
U32	32	73,40	37,30	149	10	80
U40	40	100,80	43,00	324	-	55
U50	50	101,00	53,00	410	-	40
U63	63	148,00	66,50	1012	-	15
	∅	mm	mm	g	units.	units.

REDUCER



Reference	Measure	A	B	Weight		
R1816	18 - 16	57,20	22,30	37	40	320
R2016	20 - 16	57,20	24,30	55	37	296
R2018	20 - 18	57,20	24,30	57	35	280
R2516	25 - 16	65,10	30,28	80	20	160
R2518	25 - 18	65,10	30,28	72	20	160
R2520	25 - 20	65,10	30,28	86	20	160
R3216	32 - 16	65,30	37,30	104	15	120
R3218	32 - 18	65,30	37,30	100	14	112
R3220	32 - 20	65,30	37,30	114	12	96
R3225	32 - 25	73,20	37,30	132	12	96
R4025	40 - 25	88,10	43,00	234	-	60
R4032	40 - 32	88,30	43,00	248	-	60
R5032	50 - 32	88,10	53,00	309	-	36
R5040	50 - 40	101,20	53,00	386	-	40
R6340	63 - 40	124,60	66,50	715	-	20
R6350	63 - 50	124,60	66,50	729	-	15
	∅	mm	mm	g	units.	units.

ELBOW



Reference	Measure	A	B	Weight		
C16	16	46,40	20,30	53	32	256
C18	18	47,75	22,30	63	25	200
C20	20	49,85	24,30	74	22	176
C25	25	64,15	30,28	134	11	88
C32	32	71,35	37,30	194	6	48
C40	40	95,53	43,00	406	-	40
C50	50	106,60	53,00	566	-	24
C63	63	142,25	66,50	1264	-	10
	∅	mm	mm	g	units.	units.

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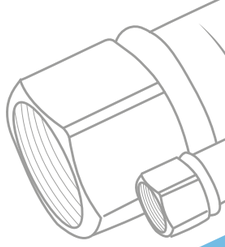
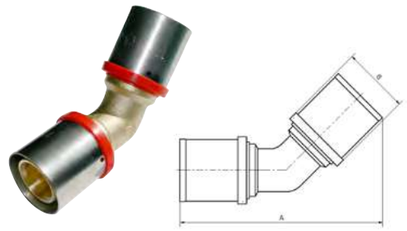
MULTILAYER ACCESSORIES

For 16x2, 18x2, 20x2, 25x2.5, 32x3, 40x4, 50x4.5, 63x6 tubes

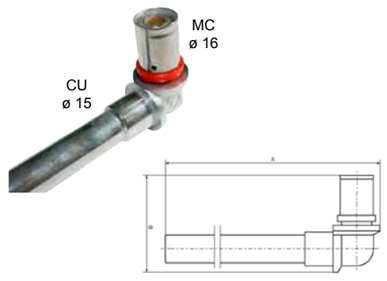


ELBOW 45ª



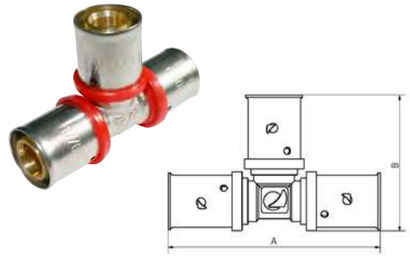
Reference	Measure	A	B	Weight		
C4540	40	139,14	43,00	401	-	40
C4550	50	153,00	53,00	442	-	24
C4563	63	207,35	66,50	1113	-	10
	∅	mm	mm	g	units.	units.

RADIATOR ELBOW



Reference	Measure	A	B	Weight		
CR1615	16 - 15	230,00	51,57	130	6	108
	∅	mm	mm	g	units.	units.

TEE



Reference	Measure	A	B	Weight		
T16	16	71,20	45,75	75	20	160
T18	18	73,20	47,75	91	20	160
T20	20	75,20	49,75	107	14	112
T25	25	98,00	64,14	192	6	48
T32	32	105,40	71,05	273	4	32
T40	40	145,20	95,52	568	-	24
T50	50	157,20	106,55	778	-	12
T63	63	216,00	142,25	1766	-	6
	∅	mm	mm	g	units.	units.

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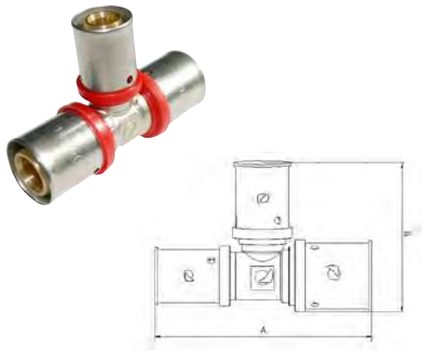
MULTILAYER ACCESSORIES

For 16x2, 18x2, 20x2, 25x2.5, 32x3, 40x4, 50x4.5, 63x6 tubes

REDUCER TEE



Reference	Measure	A	B	Weight		
TR162016	16-20-16	73,20	46,75	91	18	144
TR162516	16-25-16	81,20	55,15	110	10	80
TR181616	18-16-16	73,20	47,75	81	20	160
TR181618	18-16-18	73,20	47,75	87	20	160
TR201616	20-16-16	71,20	49,75	89	20	160
TR201620	20-16-20	71,20	49,75	96	14	112
TR201816	20-18-16	73,20	49,75	85	20	160
TR201820	20-18-20	73,20	49,75	106	14	112
TR202016	20-20-16	76,20	49,75	102	18	144
TR202520	20-25-20	80,20	64,62	152	8	64
TR251616	25-16-16	84,10	54,80	110	10	80
TR251620	25-16-20	84,10	54,80	127	10	80
TR251625	25-16-25	91,00	54,80	150	9	72
TR251825	25-18-25	91,00	55,75	146	9	72
TR252016	25-20-16	85,10	55,15	132	9	72
TR252020	25-20-20	84,10	54,75	134	10	80
TR252025	25-20-25	92,00	55,25	160	8	64
TR252520	25-25-20	88,60	64,15	165	7	56
TR253225	25-32-25	101,00	67,35	234	5	40
TR321632	32-16-32	96,40	62,25	204	5	40
TR321832	32-18-32	96,40	60,65	208	5	40
TR322032	32-20-32	96,40	62,25	220	5	40
TR322520	32-25-20	89,80	69,15	182	5	40
TR322525	32-25-25	98,70	69,15	225	5	40
TR322532	32-25-32	98,40	71,15	240	5	40
TR323225	32-32-25	102,70	89,85	249	5	40
TR402540	40-25-40	124,70	100,92	430	-	32
TR403240	40-32-40	130,70	102,72	460	-	32
TR503250	50-32-50	135,60	118,00	597	-	20
TR504050	50-40-50	138,00	130,00	689	-	18
TR634063	63-40-63	185,00	149,25	1330	-	10
TR635063	63-50-63	196,00	147,25	1409	-	10
	Ø	mm	mm	g	units.	units.

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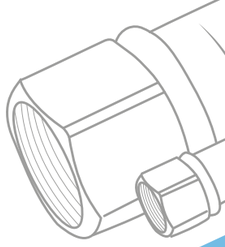
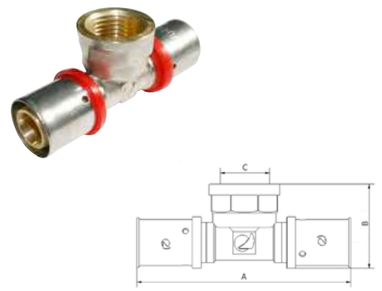
MULTILAYER ACCESSORIES

For 16x2, 18x2, 20x2, 25x2.5, 32x3, 40x4, 50x4.5, 63x6 tubes

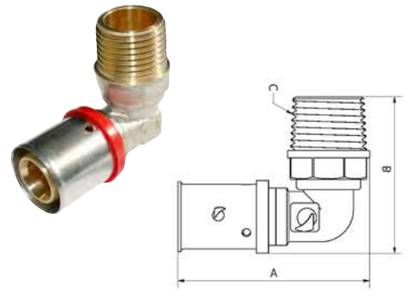


FEMALE TEE



Reference	Measure	A	B	C	Weight		
TH1612	16 - 1/2"	83,20	33,15	G1/2	104	16	128
TH1812	18 - 1/2"	83,20	36,15	G1/2	102	14	112
TH2012	20 - 1/2"	83,20	37,15	G1/2	120	12	96
TH2034	20 - 3/4"	89,20	37,15	G3/4	155	10	80
TH2512	25 - 1/2"	99,00	41,64	G1/2	171	8	64
TH2534	25 - 3/4"	105,00	41,64	G3/4	205	7	56
TH251	25 - 1"	113,00	41,64	G1	167	5	40
TH3234	32 - 3/4"	105,40	48,15	G3/4	256	4	32
TH321	32 - 1"	113,40	49,15	G1	227	3	24
TH40114	40 - 1 1/4"	151,20	63,00	G11/4	528	-	20
TH50112	50 - 1 1/2"	157,20	73,00	G11/2	693	-	16
TH632	63 - 2"	220,00	87,25	G2	1473	-	6
	Ø	mm	mm		g	units.	units.

MALE ELBOW



Reference	Measure	A	B	C	Weight		
CM1612	16 - 1/2''	53,10	43,65	R1/2	73	25	200
CM1634	16 - 3/4''	57,04	42,15	R3/4	102	20	160
CM1812	18 - 1/2''	56,60	44,65	R1/2	75	25	200
CM2012	20 - 1/2''	52,60	46,99	R1/2	85	20	160
CM2034	20 - 3/4''	57,10	47,65	R3/4	91	14	112
CM2512	25 - 1/2''	60,50	50,15	R1/2	121	12	96
CM2534	25 - 3/4''	65,00	53,15	R3/4	128	12	96
CM251	25 - 1''	70,00	58,15	R1	154	8	64
CM321	32 - 1''	70,20	64,15	R1	196	8	64
	∅	mm	mm		g	units.	units.

FEMALE ELBOW

Reference	Measure	A	B	C	Weight		
CH1612	16 - 1/2"	55,60	29,50	G1/2	71	30	240
CH1634	16 - 3/4"	61,10	32,00	G3/4	83	18	144
CH1812	18 - 1/2"	55,60	30,00	G1/2	73	25	200
CH1834	18 - 3/4"	60,10	32,10	G3/4	103	18	144
CH2012	20 - 1/2"	55,60	33,00	G1/2	86	22	176
CH2034	20 - 3/4"	60,00	33,00	G3/4	91	15	120
CH2512	25 - 1/2"	63,50	36,50	G1/2	109	12	96
CH2534	25 - 3/4"	69,00	36,50	G3/4	127	10	80
CH251	25 - 1"	75,00	37,50	G1	145	8	64
CH3234	32 - 3/4"	69,70	41,50	G3/4	153	8	64
CH321	32 - 1"	76,50	43,00	G1	187	8	64
CH40114	40 - 1 1/4"	100,60	54,75	G11/4	351	-	32
CH50112	50 - 1 1/2"	107,60	64,25	G11/2	464	-	20
CH632	63 - 2"	145,50	76,75	G2	991	-	12
	∅	mm	mm		g	units.	units.

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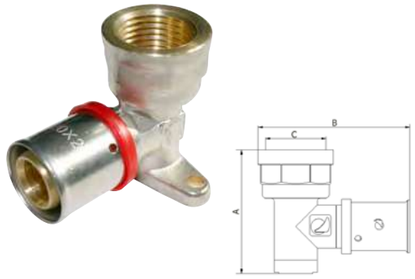
MULTILAYER ACCESSORIES

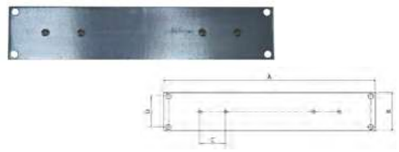
For 16x2, 18x2, 20x2, 25x2.5, 32x3, 40x4, 50x4.5, 63x6 tubes

WALL PLATED FEMALE ELBOW



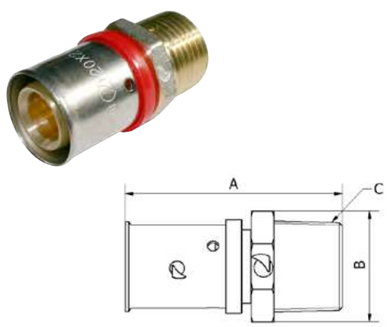
Reference	Measure	A	B	C	Weight		
CSH1612	16 - 1/2''	46,00	55,60	G1/2	107	14	112
CSH1812	18 - 1/2''	46,00	55,60	G1/2	100	14	112
CSH2012	20 - 1/2''	46,00	55,60	G1/2	120	12	96
CSH2034	20 - 3/4''	47,50	61,60	G3/4	148	10	80
CH2534	25 - 3/4''	47,50	69,50	G3/4	152	10	80
	∅	mm	mm		g	units.	units.

PLATE FOR WALL PLATED FEMALE ELBOW



Reference	A	B	C	D	Weight		
PLACA	255,00	50,00	34,00	40,00	236	10	100
	mm	mm	mm	mm	g	units.	units.

MALE UNION



Reference	Measure	A	B	C	Weight		
EM1638	16 - 3/8''	44,60	21,50	R3/8	39	50	400
EM1612	16 - 1/2''	46,60	26,00	R1/2	50	50	400
EM1634	16 - 3/4''	47,60	31,00	R3/4	64	40	320
EM1812	18 - 1/2''	46,60	26,00	R1/2	53	40	320
EM1834	18 - 3/4''	47,60	31,00	R3/4	60	35	280
EM2012	20 - 1/2''	46,60	26,00	R1/2	57	40	320
EM2034	20 - 3/4''	47,60	31,00	R3/4	70	35	280
EM201	20 - 1''	48,60	39,00	R1	97	24	192
EM2512	25 - 1/2''	54,50	26,00	R1/2	75	20	160
EM2534	25 - 3/4''	55,50	31,00	R3/4	93	18	144
EM251	25 - 1''	56,50	39,00	R1	114	16	128
EM3234	32 - 3/4''	55,70	31,00	R3/4	105	12	96
EM321	32 - 1''	56,70	39,00	R1	129	14	112
EM32114	40 - 1''	72,10	40,00	R1	177	8	64
EM40114	40 - 1''1/4''	74,10	50,00	R11/4	251	-	60
EM50114	50 - 1''1/4''	76,60	51,00	R11/4	345	-	40
EM50112	50 - 1''1/2''	76,60	56,50	R11/2	343	-	45
EM63114	63 - 1''1/4''	100,00	65,00	R11/4	656	-	24
EM63112	63 - 1''1/2''	106,00	88,00	R11/2	687	-	24
EM632	63 - 2''	102,00	69,50	R2	699	-	20
	∅	mm	mm		g	units.	units.

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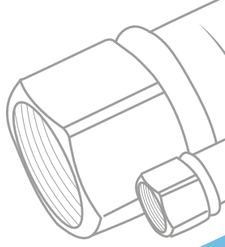
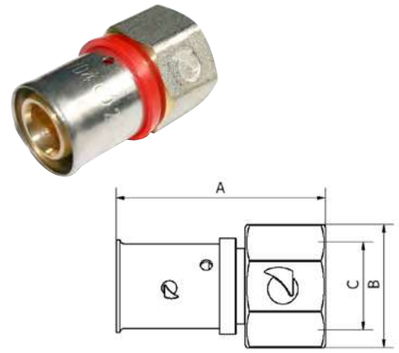
MULTILAYER ACCESSORIES

For 16x2, 18x2, 20x2, 25x2.5, 32x3, 40x4, 50x4.5, 63x6 tubes

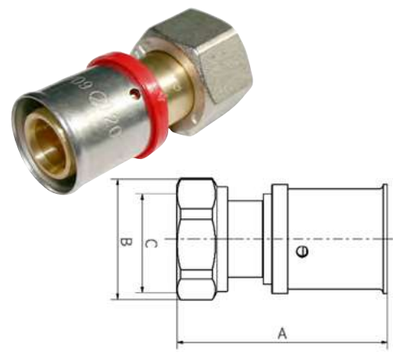


FEMALE UNION



Reference	Measure	A	B	C	Weight		
EH1612	16-1/2''	43,60	28,00	G1/2	54	40	320
EH1634	16-3/4''	43,60	33,00	G3/4	60	30	240
EH1812	18-1/2''	43,60	28,00	G1/2	59	40	320
EH1834	18-3/4''	43,60	33,00	G3/4	84	30	240
EH2012	20-1/2''	43,60	28,00	G1/2	61	35	280
EH2034	20-3/4''	43,60	33,00	G3/4	67	30	240
EH201	20-1''	44,60	41,00	G1	119	20	160
EH2512	25-1/2''	51,50	28,00	G1/2	82	20	160
EH2534	25-3/4''	51,50	33,00	G3/4	95	20	160
EH251	25-1''	52,50	41,00	G1	117	12	96
EH3234	32-3/4''	51,70	33,00	G3/4	107	16	128
EH321	32-1''	52,70	41,00	G1	131	12	96
EH401	40-1''	65,60	41,00	G1	207	-	80
EH40114	40-1''1/4''	67,10	51,00	G11/4	250	-	65
EH40112	40-1''-1/2''	67,10	58,00	G11/2	275	-	36
EH50114	50-1''1/4''	67,10	51,00	G11/4	277	-	36
EH50112	50-1''1/2''	67,10	58,00	G11/2	316	-	36
EH502	50-2''	69,60	72,00	G2	404	-	20
EH632	63-2''	93,00	72,00	G2	690	-	20
	∅	mm	mm		g	units.	units.

DESMOUNTABLE FEMALE UNION



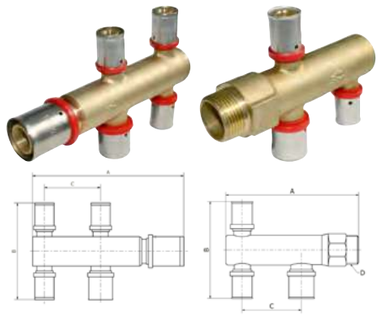
Reference	Measure	A	B	C	Weight		
RM1612	16 - 1/2''	52,60	28,00	G1/2	68	48	384
RM1634	16 - 3/4''	50,00	33,00	G3/4	75	30	240
RM1812	18 - 1/2''	52,60	28,00	G1/2	72	42	336
RM1834	18 - 3/4''	53,60	33,00	G3/4	83	24	192
RM2012	20 - 1/2''	52,60	28,00	G1/2	76	30	240
RM2034	20 - 3/4''	53,60	33,00	G3/4	88	24	192
RM201	20 - 1''	56,60	41,00	G1	123	20	160
RM2512	25 - 1/2''	61,00	28,00	G1/2	100	20	160
RM2534	25 - 3/4''	61,50	33,00	G3/4	160	18	144
RM251	25 - 1''	68,00	41,00	G1	113	14	112
RM321	32 - 1''	68,20	41,00	G1	184	14	112
	∅	mm	mm		g	units.	units.

THESE ACCESSORIES, JOINED TO OUR MULTILAYER PIPES, CONFORM THE MULTILAYER SYSTEM, CERTIFIED AND ISSUED BY AENOR IN ACCORDANCE WITH THE UNE EN ISO 21003 STANDARD.

MULTILAYER ACCESSORIES

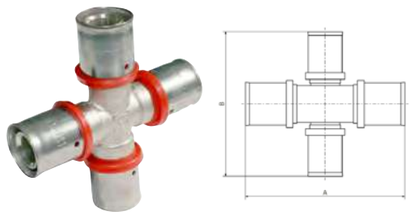
For 16x2, 18x2, 20x2, 25x2.5, 32x3, 40x4, 50x4.5, 63x6 tubes

DISTRIBUTOR



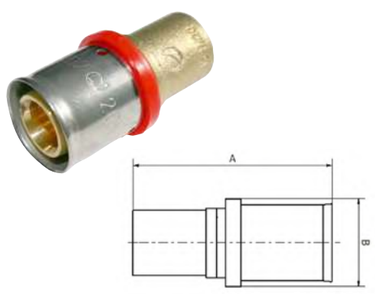
Reference	Measure	A	B	C	D	Weight		
D2520161616	25 20-16-16-16	140	89,20	52	-	389	5	40
D34M201616	3/4 20-16-16	116	90,40	52	G3/4	313	5	40
	∅	mm	mm			g	units.	units.

CROSS



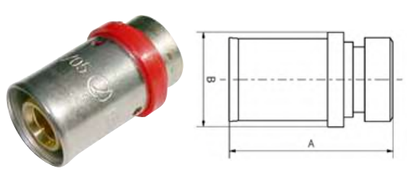
Reference	Measure	A	B	Weight		
DC25202020	25-20-20-20	90,40	82,50	196	6	48
DC25201616	25-20-16-16	86,48	78,55	164	5	40
DC20201616	20-20-16-16	78,55	78,55	128	10	80
DC20202020	20-20-20-20	82,50	82,50	147	5	40
DC20162016	20-16-20-16	82,50	74,60	119	5	40
	∅	mm	mm	g	units.	units.

COPPER-MULTILAYER ADAPTER



Reference	Measure	A	B	Weight		
ADC12M16	CU12 - MC16	46,10	20,30	29	50	400
ADC15M16	CU15 - MC16	46,10	20,30	32	50	400
ADC18M16	CU18 - MC16	46,60	20,30	45	45	360
ADC18M18	CU18 - MC18	46,60	22,30	37	30	240
ADC15M20	CU15 - MC20	46,60	24,30	43	30	240
ADC18M20	CU18 - MC20	46,60	24,30	52	30	240
ADC22M20	CU22 - MC20	46,60	24,30	58	20	160
ADC22M25	CU22 - MC25	54,50	30,30	75	20	160
ADC28M25	CU28 - MC25	54,50	30,38	77	20	160
ADC28M32	CU28 - MC32	54,70	37,30	98	16	128
	∅	mm	mm	g	units.	units.

PLUG PRESS

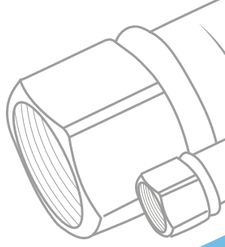


Reference	Measure	A	B	Weight		
TAPP16	16	31,52	20,30	28	48	384
TAPP18	18	30,50	22,30	27	50	400
	∅	mm	mm	g	units.	units.

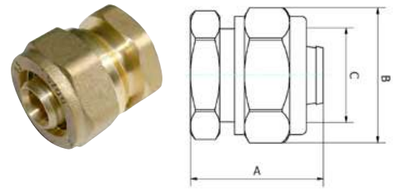
THESE ACCESSORIES, JOINED TO OUR MULTILAYER PIPES, CONFORM THE MULTILAYER SYSTEM, CERTIFIED AND ISSUED BY AENOR IN ACCORDANCE WITH THE UNE EN ISO 21003 STANDARD.

MULTILAYER ACCESSORIES

For 16x2, 18x2, 20x2, 25x2.5, 32x3, 40x4, 50x4.5, 63x6 tubes

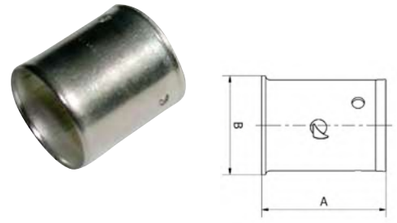


PLUG RECOVERABLE



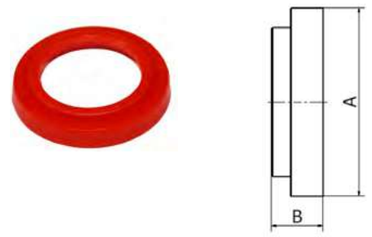
Reference	Measure	A	B	C	Weight		
TAP16R	16	27,00	25,00	G3/4	65	48	384
	∅	mm	mm	mm	g	units.	units.

INOX RING



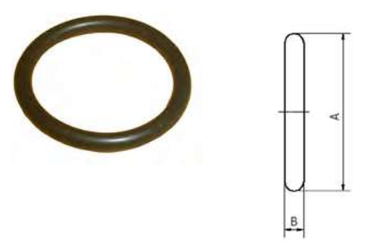
Reference	Measure	A	B	Weight		
CI16	16	24,14	18,17	7	-	100
CI18	18	24,00	20,60	8	-	100
CI20	20	23,90	22,70	10	-	100
CI25	25	31,60	28,12	17	-	50
CI32	32	31,70	34,80	22	-	30
CI40	40	43,60	43,00	46	-	10
CI50	50	43,35	52,74	59	-	10
CI63	63	66,30	66,40	137	-	10
	∅	mm	mm	g	units.	units.

ELECTROLYSIS JOINT



Reference	Measure	A	B	Weight		
JE16	16	20,40	5,50	0,50	-	100
JE18	18	22,30	5,50	0,50	-	100
JE20	20	24,30	5,50	0,50	-	100
JE25	25	30,30	5,50	0,50	-	100
JE32	32	37,30	6,00	1,00	-	100
JE40	40	45,85	8,00	2,00	-	100
JE50	50	55,90	8,00	2,00	-	100
JE63	63	68,50	9,00	6,00	-	100
	∅	mm	mm	g	units.	units.

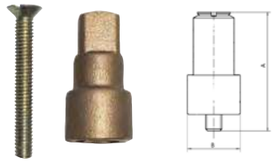
EPDM O-RING



Reference	Measure	A	B	Weight		
JG16	16	12,1	1,6	0,50	-	100
JG18	18	14,1	1,6	0,50	-	100
JG20	20	16,1	1,6	0,50	-	100
JG25	25	20,1	2,1	0,50	-	100
JG32	32	26,1	2,1	1,00	-	100
JG40	40	32,0	2,0	2,00	-	100
JG50	50	41,0	2,0	2,00	-	100
JG63	63	51,0	2,2	6,00	-	100
	∅	mm	mm	g	units.	units.

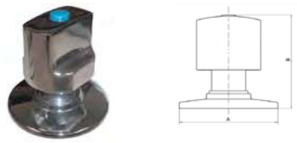
MULTILAYER ACCESSORIES
For 16x2, 18x2, 20x2, 25x2.5, 32x3, 40x4, 50x4.5, 63x6 tubes

EXTENSION



Reference	Measure	A	B	Weight		
ALAR	20	30,00	13,00	18	125	1000
	mm	mm	mm	g	units.	units.

ROUND HANDLE AND SHIELD FOR VALVES Ref. VAL / VR / VALU

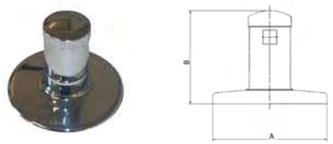


Reference	A	B	Weight		
MR	70,00	68,00	122	5	150
	mm	mm	g	units.	units.

LEVER HANDLE AND SHIELD FOR VALVES Ref. VAL / VR / VALU

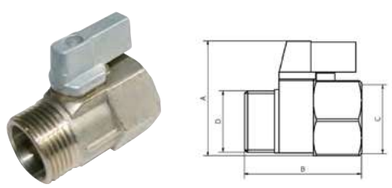
Reference	A	B	C	Weight		
MP	70,00	57,00	62,00	126	5	150
	mm	mm	mm	g	units.	units.

OCCULT HANDLE AND SHIELD FOR VALVES Ref. VAL / VR / VALU



Reference	A	B	Weight		
MO	69,00	52,50	98	5	150
	mm	mm	g	units.	units.

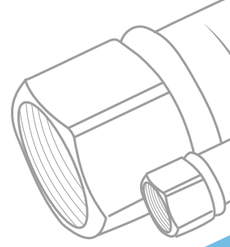
MINI VALVE ADAPTABLE TO MANIFOLD



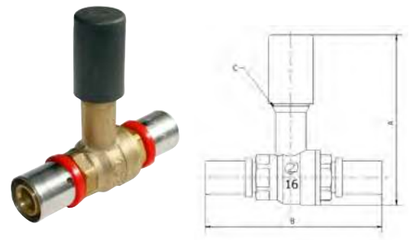
Reference	Measure	A	B	C	D	Weight		
VM12	1/2''	44,00	45,00	G1/2	G1/2	105	10	80
VM34	3/4''	49,00	49,50	G3/4	G3/4	138	10	80
	∅	mm	mm	mm	mm	g	units.	units.

VALVES AND HANDLESFOR VALVES

MULTILAYER ACCESSORIES
For 16x2, 18x2, 20x2, 25x2.5, 32x3, 40x4, 50x4.5, 63x6 tubes

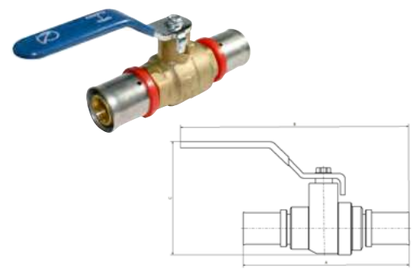


BALL VALVE



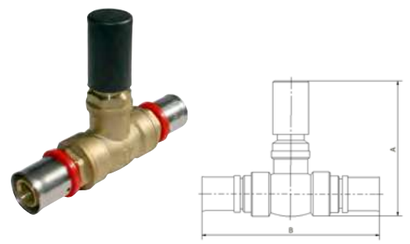
Reference	Measure	A	B	C	Weight		
VAL16	16	90,00	93,20	M20 X 1,25	249	5	40
VAL20	20	90,00	93,20	M20 X 1,25	276	5	40
VAL25	25	93,00	115,00	M20 X 1,25	380	5	40
VAL32	32	97,50	117,40	M20 X 1,25	468	4	32
	∅	mm	mm	mm	g	units.	units.

LINE BALL VALVE



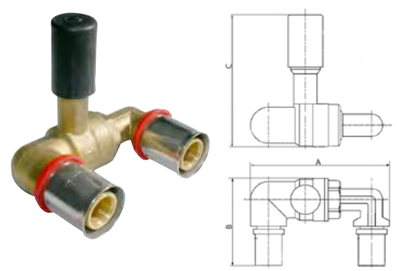
Reference	Measure	A	B	C	Weight		
VALLIN16	16	93,20	128,10	63,32	209	5	40
VALLIN20	20	93,40	128,20	63,31	223	5	40
VALLIN25	25	115,00	157,00	72,00	360	5	40
VALLIN32	32	117,40	159,20	72,00	439	4	32
	∅	mm	mm	mm	g	units.	units.

REGULATION VALVE



Reference	Measure	A	B	Weight		
VR16	16	114,00	89,90	333	5	40
VR20	20	117,40	90,30	356	5	40
VR25	25	129,90	93,88	444	5	40
	∅	mm	mm	g	units.	units.

U-BALL VALVE



Reference	Measure	A	B	C	Weight		
VALU16	16	94,45	59,50	89,20	388	4	32
VALU20	20	95,50	59,70	89,40	380	4	32
VALU25	25	99,80	67,80	90,24	445	4	32
	∅	mm	mm	mm	g	units.	units.

DRILL

Reference	Characteristics	Long Brief-case	Width Suitca-se	Prof. Brief-case	Weight Brief-case		
TALADRO	Drilling machine with adjustment for tightening.	31,0	28,0	10,0	3751	-	5
		cm	cm	cm	g	units.	units.

Technical characteristics	
Inactivity rotation speed	0-350 / 0-900 rpm
Rotation coupling level	19 + 1
Chuck tightening capacity	max. 10 mm
Charge voltage, accumulator	18V d.c
Charge current, accumulator	400 mA
Mains voltage, charger	230V - 50Hz
Loading time	3 - 5 h
Battery Type	NI - CD
Machine weight	1,7 Kg

REAMER

Adaptable to any type
of domestic electric drill

Reference	Measure	Long	Width	Deep	Weight		
AE16	16	6,50	3,50	3,50	51	-	1
AE18	18	6,50	2,50	3,50	52	-	1
AE20	20	6,50	3,50	3,50	64	-	1
AE25	25	6,50	4,00	4,00	83	-	1
AE32	32	6,50	4,00	4,00	102	-	1
AE40	40	6,50	5,00	5,00	152	-	1
AE50	50	6,50	6,25	6,25	483	-	1
AE63	63	6,50	7,50	7,50	703	-	1
	Ø	cm	cm	cm	g	units.	units.

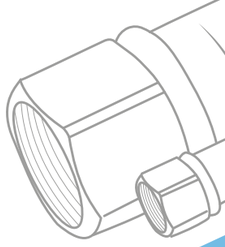
REAMER HANDLE

Reference	Long	Width	Deep	Weight		
MAN	13	5	5	156	-	1
	cm	cm		g	units.	units.

KIT REAMER

Includes Knob and flares Ø16, Ø20 and Ø25

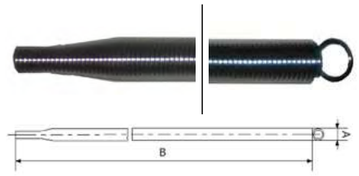
Reference	Measure	Long	Width	Deep	Weight		
KITA	16 -20 - 25	24	20	5	551	-	1
	Ø	cm	cm	cm	g	units.	units.



CALIBRATOR REAMER

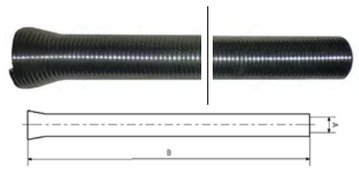
Reference	Measure	Long	Width	Deep	Weight		
A161820	16 - 18 - 20	10	9	2,5	56	9	72
A202532	20 - 25 - 32	12	11	2,5	85	10	100
	Ø	cm	cm	cm	g	units.	units.

INTERIOR SPRING



Reference	Measure	A	B	Weight		
MUELLINT16	16	11,00	800	186	-	90
MUELLINT20	20	16,50	800	290	-	80
MUELLINT25	25	17,00	800	490	-	40
MUELLINT32	32	22,50	800	645	-	20
	Ø	mm	mm	g	units.	units.

EXTERIOR SPRING



Reference	Measure	A	B	Weight		
MUELLEX16	16	18,00	500	318	-	60
MUELLEX18	18	20,00	500	497	-	43
MUELLEX20	20	22,00	500	478	-	25
MUELLEX25	25	28,00	500	724	-	25
MUELLEX32	32	34,00	500	1009	-	25
	Ø	mm	mm	g	units.	units.

LUBRICANT

Reference	Characteristics	High	Ø	Weight		
L-400		21,0	6,00	375	4	24
		cm	cm	g	units.	units.

Transparent fluid of extreme quality. Ist optimal results do not take long to manifest themselves in its aplication between contact surfaces protecting and eliminating moisture, it is anticorrosive and highly lubricant. Specific protector for joints and seals. Volume 400 ml

SCISSORS

Reference	For tubes	Long	Width	Deep	Weight		
TIJ1632	Ø16 hasta Ø32	10,5	23,0	2,5	544	-	1
		cm	cm	cm	g	units.	units.

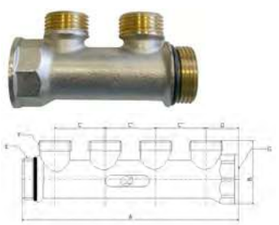
MULTILAYER ACCESSORIES

For 16x2, 18x2, 20x2, 25x2.5, 32x3, 40x4, 50x4.5, 63x6 tubes

MANIFOLD WITH REGULATION VALVES 3/4 “1/2” - 1 “1/2” DOES NOT INCLUDE EURO-CONNECTORS

Reference	Measure	A	B	C	D	E	F	G	Weight		
COVS34212	3/4’’ - 2 - 1/2’’	87,66	76,60	G3/4	G1/2	G3/4	35,00	31,40	342	1	20
COVS34312	3/4’’ - 3 - 1/2’’	123,22	72,17	G3/4	G1/2	G3/4	35,00	31,40	463	1	10
COVS34412	3/4’’ - 4 - 1/2’’	153,85	72,30	G3/4	G1/2	G3/4	35,00	31,40	519	1	10
COVS1212	1’’ - 2 - 1/2’’	99,84	78,60	G1	G1/2	G1	35,00	31,40	397	1	20
COVS1312	1’’ - 3 - 1/2’’	128,76	84,20	G1	G1/2	G1	35,00	31,40	623	1	10
COVS1412	1’’ - 4 - 1/2’’	164,70	84,05	G1	G1/2	G1	35,00	31,40	797	1	10
COVS1512	1’’ - 5 - 1/2’’	200,75	84,80	G1	G1/2	G1	35,00	31,40	950	1	4
	∅	mm	mm	mm	mm	mm	mm	mm	g	units.	units.

MANIFOLD 1 “3/4” - 1 “1/2” - 3/4 “1/2” DOES NOT INCLUDE EUROCONNECTORS



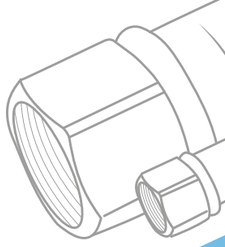
Reference	Measure	A	B	C	D	E	F	G	Weight		
COSE1234	1’’- 2 - 3/4’’	92,00	50,00	40,00	26,00	G1	G3/4	G1	219	6	48
COSE1334	1’’- 3 - 3/4’’	130,00	50,00	40,00	26,00	G1	G3/4	G1	306	3	24
COSE1434	1’’ - 4 - 3/4’’	134,00	50,00	40,00	26,00	G1	G3/4	G1	383	3	24
COSE1212	1’’ -2 – 1/2’’	83,00	49,83	35,00	24,40	G1/2	G1	G1	185	6	48
COSE1312	1’’ -3 – 1/2’’	118,00	49,83	35,00	24,40	G1/2	G1	G1	245	3	24
COSE1412	1’’ – 4 – 1/2’’	153,00	49,83	35,00	24,40	G1/2	G1	G1	282	3	24
COSE34212	3/4’’ - 2 – 1/2’’	81,20	41,50	35,00	23,45	R1/2	R3/4	G3/4	141	10	80
COSE34312	3/4’’ - 3 – 1/2’’	115,95	41,50	34,75	23,45	R1/2	R3/4	G3/4	194	4	32
COSE34412	3/4’’ - 4 – 1/2’’	150,70	41,33	34,75	23,45	R1/2	R3/4	G3/4	194	4	32
	∅	mm	mm	mm	mm	mm	mm	mm	g	unt.	unt.

EUROCONNECTOR FOR MULTILAYER PIPE / I-PERT 3/4 “- 1/2” valid for ref .: COVS and COSE

Reference	Measure	A	B	C	Weight		
EURMC1634	16 - 3/4’’	27,40	33,00	G3/4	77	40	320
EURMC1834	18 – 3/4’’	28,20	33,00	G3/4	78	40	320
EURMC2034	20 – 3/4’’	27,40	33,00	G3/4	69	40	320
EURMC1612	16 – 1/2’’	22,00	27,00	G1/2	45	50	400
EURPEX1612	16 – 1/2’’	22,40	26,00	G1/2	41	50	400
	∅	mm	mm	mm	g	units.	units.

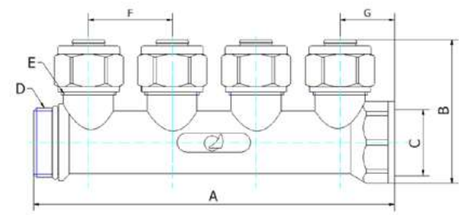
MANIFOLDS
PLUMBING / HEATING

MULTILAYER ACCESSORIES
For 16x2, 18x2, 20x2, 25x2.5, 32x3, 40x4, 50x4.5, 63x6 tubes

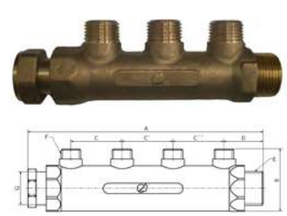


MANIFOLD 1 “1/2” - 3/4 “1/2” INCLUDES EUROCONNECTORS

Reference	Measure	A	B	C	D	E	F	G	Weight		
CO1212	1’’ - 2 - 1/2’’	83,00	66,84	G1	G1	G1/2	35,00	24,40	261	6	48
CO1312	1’’ - 3 - 1/2’’	118,00	65,27	G1	G1	G1/2	35,00	24,40	380	3	24
CO1412	1’’ - 4 - 1/2’’	153,00	65,00	G1	G1	G1/2	35,00	24,40	465	3	24
CO34212	3/4’’ - 2 - 1/2’’	81,20	59,50	R3/4	G3/4	R1/2	35,00	23,45	235	10	80
CO34312	3/4’’ - 3 - 1/2’’	115,95	59,50	R3/4	G3/4	R1/2	35,00	23,45	331	4	32
CO34412	3/4’’ - 4 - 1/2’’	150,70	59,50	R3/4	G3/4	R1/2	35,00	23,45	416	4	32
CO34512	3/4’’ - 5 - 1/2’’	185,45	59,50	R3/4	G3/4	R1/2	35,00	23,45	501	4	32
	∅	mm	mm	mm	mm	mm	mm	mm	g	units.	units.



MANIFOLD WITH MOBILE NUT 3/4 “1/2” DOES NOT INCLUDE EUROCONNECTORS



Reference	Measure	A	B	C	D	E	F	G	Weight		
COTM34412	3/4’’ - 4 - 1/2’’	185,80	44,26	36,00	31,80	G3/4	G1/2	G3/4	508	5	40
	∅	mm	mm	mm	mm	mm	mm	mm	g	units.	units.

MULTILAYER ACCESSORIES
For 16x2, 18x2, 20x2, 25x2.5, 32x3, 40x4, 50x4.5, 63x6 tubes

JAWS "RFIz" and "U"

Clamps "RFIz"

Clamps "U"

Adaptable to the majority of radial presses existing in the market

Reference	Measure	Long	Width	Deep	Weight		
RFIz 16	16	9,5	14,5	4,5	1834	-	1
RFIz 20	20	9,5	14,5	4,5	1818	-	1
RFIz 25	25	10	15,5	4,5	2112	-	1
RFIz 32	32	10	14,4	4,5	1824	-	1
RFIz 40	40	10	16,5	4,5	2256	-	1
U 18	18	9,5	14,5	4,5	1818	-	1
U 50	50	10	18	4,5	2355	-	1
U 63	63	17	22	5,5	4856	-	1
	ø	cm	cm	cm	g		units.

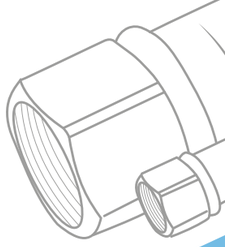
POWER PRESS

Reference	Characteristics		
572111	Electro-mechanical actuating machine with maintenance-free gear with sliding clutch for safety. Proven universal motor, 230V, 50-60Hz, 500W. The pressing tongs remain closed until the recoil connection, therefore, possibility of visually checking the correct pressing. Packed in tough metal case The machine does not include jaws. Thrust force 32kN.	-	1
			units.

AKKU PRESS

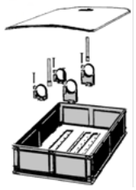
Reference	Characteristics		
571014	Electro-hydraulic actuating machine with gear. Optimal weight distribution for one-handed operation. Rotating press holder. Piston pump with robust planetary gear. Powerful motor by accumulation of 12V 12V, 2Ah accumulator. Fast charger 230V, 50W. Automatic Circuit Control (ACC): Automatic recoil after completing the pressing process. Optical indicator after 10,000 pressings. Packed in tough metal case The machine does not include jaws. Thrust force 32kN	-	1
			units.

MULTILAYER ACCESSORIES
For 16x2, 18x2, 20x2, 25x2.5, 32x3, 40x4, 50x4.5, 63x6 tubes

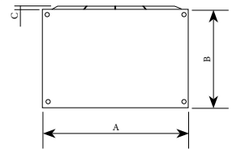


MANIFOLD HEATING FOLDING BOX INCLUDES CLAMPS FOR 3/4 "AND 1" MANIFOLD


Clamp KIT



Reference	A	B	C	Weight		
CAJAPLAST320	320	265	95	1200	-	1
CAJAPLAST420	400	265	95	1430	-	1
CAJAPLAST500	500	265	95	1750	-	1
	mm	mm	mm	g		units.



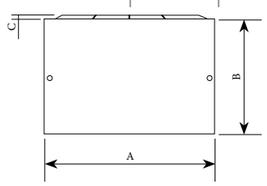
DEPLOYMENT PROCESS

MANIFOLD HEATING BOX INCLUDES 6 CLAMPS FOR 3/4 "MANIFOLD


CLAMP HIGHER 3 pcs.

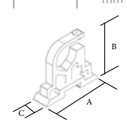
CLAMP HIGHER 3 pcs.

Reference	A	B	C	Weight		
COCAL500	320	300	95	627	-	1
COCAL602	470	300	95	836	-	1
COCAL700	570	300	95	1125	-	1
	mm	mm	mm	g		units.



Clamp 3/4"

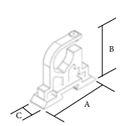
Model	A	B	C	Peso
Higher	70	60	15	16
Lower	70	45	15	12
	mm	mm	mm	g



CLAMPS FOR 1 "MANIFOLD


TOP CLAMP 3 pcs.


TOP CLAMP 3 pcs.



Reference	Measure	Model	A	B	C	Weight		
ACOCAL1	1"	Higher	70	60	15	16	-	6
		Lower	70	45	15	12		
	∅		mm	mm	mm	g		units.

COMPRESSION SYSTEM

MULTILAYER PIPE
+
COMPRESSION ACCESSORIES

CERTIFIED BY AENOR FOR

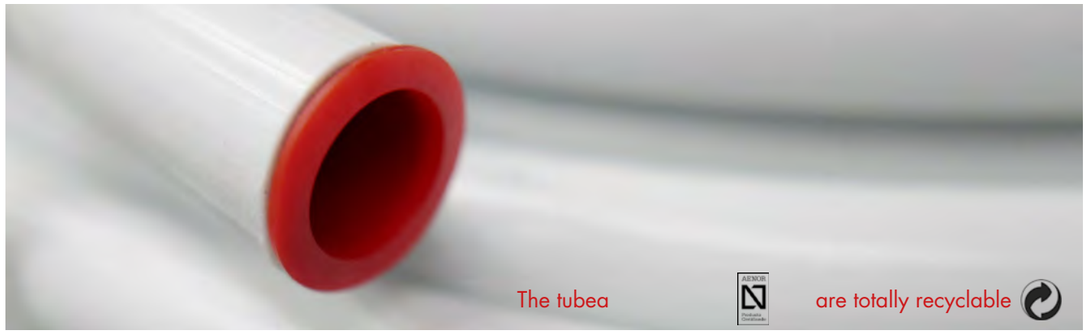
SCOPE
CLASS 1: Hot water 60° C.
CLASS 2: Hot Water 70° C.
CLASS 4: Underfloor heating / cooling and radiators at low temperature.
CLASS 5: Heating by radiators at high temperature.

DESIGN PRESSURE 1/10; 2/10; 4; 10; 5/10

OUR MULTILAYER PIPES

CHARACTERISTICS:

Today, technological research has definitively solved the uncertainty about the choice of metal tubes or thermoplastic materials for the installation of plumbing or heating systems with the creation of a tube capable of uniting the advantages of both materials. The result has been multi-layer ISOLTUBEX tubes.



The Multilayer Tube has been the result of a modern construction technique that has allowed the perfect union of an aluminum tube with two polyethylene tubes; such a solution decisively reduces the problems of purely metallic tubes (rigidity, toxicity, corrosion, incrustations, weight, noise transmission, pressure drops, galvanic currents, etc.), or exclusively plastic tubes (winter fragility, high expansion thermal, impermeability to oxygen and ultraviolet rays, thermal memory, little or no malleability, etc.). Our multilayer pipes achieve the advantages of the two materials, united by mutual collaboration.

Our tubes are manufactured in accordance with the UNE EN ISO-21003 standard and as measures in accordance with ISO-161.

CURVATURE

To bend the tubes we will use:
- Spring bend tubes
- Manual bending

You have to take into account the radii of the curvature to avoid Strangulation of the pipe.

Diameter DN (mm)	Radius bend(mm)		
	With manual	With spring	Curved
16	80	64	48
20	100	80	60
25	130	100	80
32	200	160	150

The minimum bending radius specified in the table must always be respected in order to avoid pipe throttling

COMPRESSION ACCESSORIES FOR MULTILAYER PIPES

CHARACTERISTICS:

The ISOLTUBEX compression fittings have been designed up to Ø40, developed with the aim of obtaining the maximum performance of resistance and safety in the hydraulic or heating installations. The operation of joining **ISOLTUBEX** compression fittings with an **ISOLTUBEX** multilayer pipe is very simple and does not need heavy machines, the connection is made with two fine or English keys.

Our accessories are made with high quality brass; CW617N, according to **UNE-EN-12165 standard.**

The range of our COMPRESSION accessories is very complete (Ø16 to Ø40).

The **ISOLTUBEX** COMPRESSION accessories are designed to build together with our pipes the Compression System Certified by AENOR in accordance with the **UNE EN ISO-21003 standard.**

The COMPRESSION accessories, are easily identifiable, our logo or our **ISOLTUBEX** brand is indelibly marked, both in the body of the accessory, as in the stainless steel caps.

ADVANTAGE

1. Accessory of high quality brass, CW617N manufactured with calibrated bar for straight figures (union, reduction, etc.) or hot forging process for other figures (elbows, tees, etc.), ensuring a compact structure.
2. Very easy to install.
3. Perfect sealing, ensuring a long service life.
4. Double O-ring, providing greater security.
5. Anti-electrolysis ring of maximum efficiency.
6. Attractive appearance exterior design.
7. Valid for cold water installations, A.C.S. and heating systems.

ASSEMBLY INSTRUCTIONS FOR COMPRESSION SYSTEM

Before starting the assembly check that the tubes are not broken, bent, damaged or apparently not suitable for installation. It is also necessary to check that the accessories to be used appear without any dirt residues in any of their components or present any anomaly or deterioration that prevents their correct use.

VERY IMPORTANT: THE USE OF DETERIORATED TUBES AND / OR ACCESSORIES, IN BAD CONDITION OR IN CONDITIONS OF CONSERVATION OR MAINTENANCE NOT SUITABLE FOR INSTALLATION, EXCLUDES THE WARRANTY.
(see warranty page and general conditions)

1.

Cut the tube perpendicular to its length, using a tool that guarantees a clean and precise cut.

2.

It is mandatory to insert the calibrator / reamer ref. AE inside the tube, turning until filing the inside and outside edge of it. Such operation is essential to facilitate the insertion of the fitting into the tube and prevent the o-rings from being damaged, or displaced from their housing.

3.

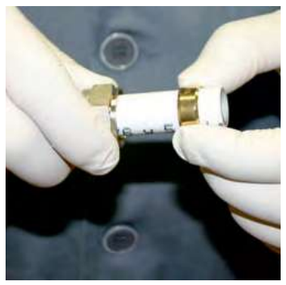
Lubricate the part of the accessory that is inserted.
Lubricant ref. L-400

4.

Place the accessory nut on the tube.

All assembly processes on our YouTube channel

5.



Place the accessory retaining ring on the tube.

6.

Insert the accessory inside the tube.

7.

Place the retaining ring in place and screw the nut to the accessory body.

8.

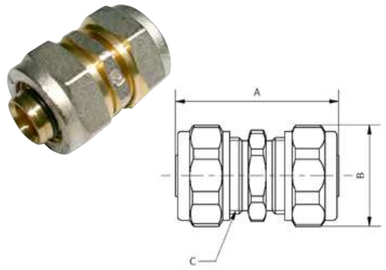
Tighten the accessory nut as much as possible with a fixed or English key.

THESE ACCESSORIES, JOINED TO OUR MULTILAYER PIPES, CONFORM THE SYSTEM COMPRESSION, CERTIFIED AND ISSUED BY AENOR IN ACCORDANCE WITH NORMA UNE EN ISO 21003.

COMPRESSION ACCESSORIES

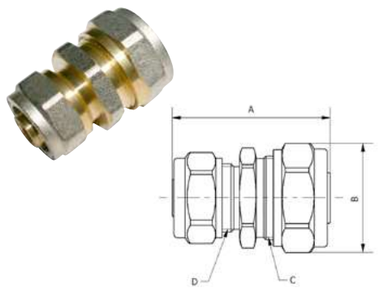
For 16x2, 18x2, 20x2, 25x2.5, 32x3, 40x4, 50x4.5, 63x6 tubes

UNION



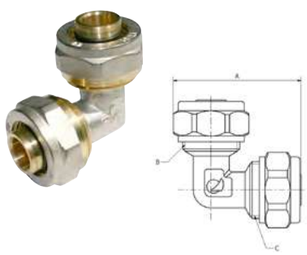
Reference	Measure	A	B	C	Weight		
UCO16	**16**	45,00	27,00	G1/2	98	30	240
UCO18	**18**	47,00	33,00	M23 x 1,5	151	20	160
UCO20	**20**	49,80	32,90	G3/4	144	18	144
UCO25	**25**	55,00	40,00	G1	276	11	88
UCO32	**32**	56,50	45,00	M39 x 1,5	384	7	56
UCO40	**40**	68,00	54,00	M42 x 2	591	8	64
	∅	mm	mm	mm	g	units.	units.

REDUCER



Reference	Measure	A	B	C	D	Weight		
RCO2016	**20 - 16**	47,70	32,90	G3/4	G1/2	136	20	160
RCO2018	**20 - 18**	48,30	32,90	G3/4	M23 X 1,5	155	18	144
RCO2520	**25 - 20**	52,90	39,80	G3/4	G1	207	12	96
RCO3225	**32 - 25**	55,24	45,00	G1	M39 X 1,5	350	6	48
	∅	mm	mm	mm	mm	g	units.	units.

ELBOW



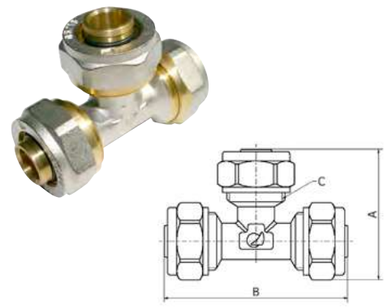
Reference	Measure	A	B - C	Weight		
CCO16	**16**	46,27	G1/2	102	25	200
CCO18	**18**	50,10	M23 X 1,5	134	20	160
CCO20	**20**	51,55	G3/4	157	15	120
CCO25	**25**	63,10	G1	257	10	80
CCO32	**32**	73,40	M39 x 1,5	415	6	48
CCO40	**40**	84,45	M42 x 2	552	3	24
	∅	mm	mm	g	units.	units.

THESE ACCESSORIES, JOINED TO OUR MULTILAYER PIPES, CONFORM THE SYSTEM COMPRESSION, CERTIFIED AND ISSUED BY AENOR IN ACCORDANCE WITH NORMA UNE EN ISO 21003.

COMPRESSION ACCESSORIES

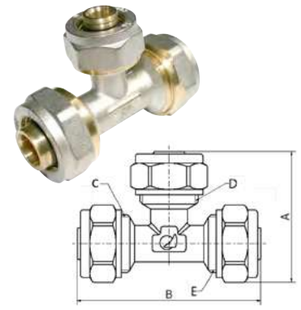
For 16x2, 18x2, 20x2, 25x2.5, 32x3, 40x4, 50x4.5, 63x6 tubes

TEE



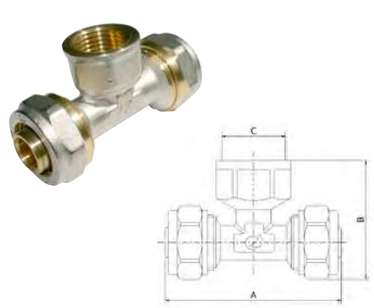
Reference	Measure	A	B	C	Weight		
TCO16	**16**	46,00	65,20	G1/2	152	16	128
TCO18	**18**	52,00	74,00	M23x1,5	216	14	112
TCO20	**20**	51,50	70,00	G3/2	210	11	88
TCO25	**25**	63,40	86,40	G1	378	7	56
TCO32	**32**	70,00	94,00	M39 x 1,5	537	5	40
TCO40	**40**	85,00	116,00	M47 x 2	974	2	16
	∅	mm	mm	mm	g	units.	units.

REDUCER TEE



Reference	Measure	A	B	C	D	E	Weight		
TRCO162016	**16 - 20 - 16**	47,30	65,20	G1/2	G3/4	G1/2	196	15	120
TRCO201620	**20 - 16 - 20**	50,55	70,20	G3/4	G1/2	G3/4	191	12	96
TRCO202016	**20 - 20 - 16**	48,77	68,24	G3/4	G3/4	G1/2	192	11	88
TRCO251625	**25 - 16 - 25**	55,75	86,40	G1	G1/2	G1	327	8	64
TRCO252020	**25 - 20 - 20**	56,75	83,77	G1	G3/4	G3/4	330	8	64
TRCO252025	**25 - 20 - 25**	56,75	86,40	G1	G3/4	G1	360	8	64
TRCO321632	**32 - 16 - 32**	62,66	81,67	M39 x 1,5	G1/2	M39 x 1,5	432	6	48
TRCO322032	**32 - 20 - 32**	63,66	88,67	M39 x 1,5	G3/4	M39 x 1,5	458	6	48
TRCO322532	**32 - 25 - 32**	70,00	100,00	M39 x 1,5	G1	M39 x 1,5	498	5	40
	∅	mm	mm	mm	mm	mm	g	unts.	unt.

FEMALE TEE



Reference	Measure	A	B	C	Weight		
THCO1612	**16 - 1/2"**	65,20	44,30	G1/2	140	18	144
THCO1812	**18 - 1/2"**	67,30	45,90	G1/2	184	14	112
THCO2012	**20 - 1/2"**	70,20	47,70	G1/2	196	12	96
THCO2034	**20 - 3/4"**	80,20	50,20	G3/4	207	9	72
THCO2534	**25 - 3/4"**	86,40	58,70	G3/4	325	9	72
THCO321	**32 - 1"**	101,67	67,87	G1	497	5	40
	∅	mm	mm	mm	g	unts.	unt.

THESE ACCESSORIES, JOINED TO OUR MULTILAYER PIPES, CONFORM THE SYSTEM COMPRESSION, CERTIFIED AND ISSUED BY AENOR IN ACCORDANCE WITH NORMA UNE EN ISO 21003.

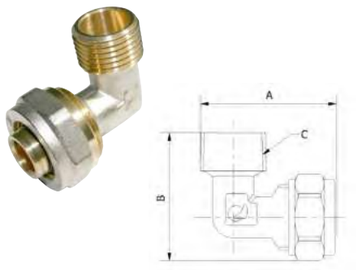
COMPRESSION ACCESSORIES

For 16x2, 18x2, 20x2, 25x2.5, 32x3, 40x4, 50x4.5, 63x6 tubes

FEMALE ELBOW

Reference	Measure	A	B	C	D	Weight		
CHCO1612	**16 - 1/2"**	42,30	46,60	G1/2	G1/2	86	25	200
CHCO1634	**16 - 3/4"**	44,80	49,30	G3/4	G1/2	104	25	200
CHCO1812	**18 - 1/2"**	45,90	47,60	G1/2	M23 x 1,5	115	25	200
CHCO2012	**20 - 1/2"**	45,90	49,10	G1/2	G3/4	111	18	144
CHCO2034	**20 - 3/4"**	50,20	51,80	G3/4	G3/4	127	18	144
CHCO2534	**25 - 3/4"**	56,90	59,90	G3/4	G1	198	15	120
CHCO251	**25 - 1"**	61,20	63,80	G1	G1	234	12	96
CHCO321	**32 - 1"**	63,30	70,80	G1	M39 x 1,5	285	10	80
	∅	mm	mm	mm	mm	g	units.	units.

MALE ELBOW



Reference	Measure	A	B	C	Weight		
CMCO1612	**16 - 1/2"**	42,70	40,20	G1/2	69	25	200
CMCO2012	**20 - 1/2"**	48,00	47,00	G1/2	111	18	144
CMCO2534	**25 - 3/4"**	55,70	51,70	G3/4	181	15	120
	∅	mm	mm	mm	g	units.	units.

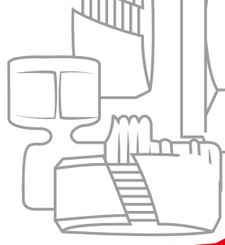
WALL PLATED FEMALE ELBOW

Reference	Measure	A	B	C	D	Weight		
CSHCO1612	**16 - 1/2''**	45,45	48,08	G1/2	34,00	118	18	144
CSHCO2012	**20 - 1/2''**	46,00	50,00	G1/2	34,00	139	12	96
	∅	mm	mm	mm	mm	g	unt.	unt.

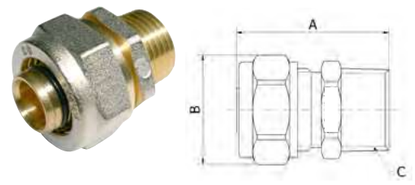
THESE ACCESSORIES, JOINED TO OUR MULTILAYER PIPES, CONFORM THE SYSTEM COMPRESSION, CERTIFIED AND ISSUED BY AENOR IN ACCORDANCE WITH NORMA UNE EN ISO 21003.

COMPRESSION ACCESSORIES

For 16x2, 18x2, 20x2, 25x2.5, 32x3, 40x4, 50x4.5, 63x6 tubes

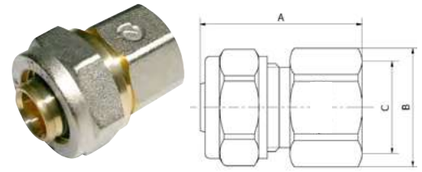


MALE UNION



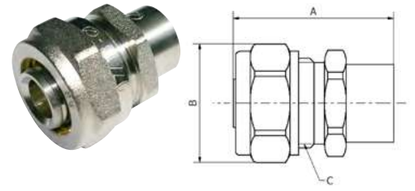
Reference	Measure	A	B	C	Weight		
EMCO1612	**16 - 1/2"**	38,10	27,35	G1/2	61	45	360
EMCO1634	**16 - 3/4"**	37,30	27,35	G3/4	78	35	280
EMCO1812	**18 - 1/2"**	37,90	32,90	G1/2	99	30	240
EMCO2012	**20 - 1/2"**	39,40	32,90	G1/2	95	30	240
EMCO2034	**20 - 3/4"**	39,40	32,90	G3/4	96	25	200
EMCO2534	**25 - 3/4"**	42,54	39,80	G3/4	167	18	144
EMCO251	**25 - 1"**	45,90	39,80	G1	165	16	128
EMCO3234	**32 - 3/4"**	44,35	45,10	G3/4	274	8	64
EMCO321	**32 - 1"**	47,80	45,10	G1	280	8	64
EMCO40114	**40 - 1" 1/4"**	54,00	53,90	G1-1/4''	378	5	40
	∅	mm	mm	mm	g	units.	units.

FEMALE UNION



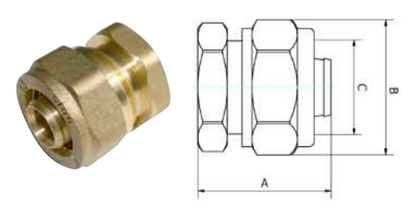
Reference	Measure	A	B	C	Weight		
EHCO1612	**16 - 1/2"**	38,00	27,85	G1/2	66	40	320
EHCO1634	**16 - 3/4"**	38,10	33,40	G3/4	81	25	200
EHCO1812	**18 - 1/2"**	37,90	27,80	G1/2	90	25	200
EHCO2012	**20 - 1/2"**	39,40	32,90	G1/2	97	25	200
EHCO2034	**20 - 3/4"**	39,40	33,40	G3/4	96	25	200
EHCO2534	**25 - 3/4"**	41,50	39,80	G3/4	175	15	120
EHCO251	**25 - 1"**	42,50	41,20	G1	129	15	120
EHCO3234	**32 - 3/4"**	45,10	45,10	G3/4	280	14	112
EHCO321	**32 - 1"**	44,40	45,10	G1	231	10	80
EHCO40114	**40 - 1" 1/4"**	51,50	53,00	G1-1/4''	338	6	48
	∅	mm	mm	mm	g	units.	units.

ADAPTER CU - PEX / PERT / MC



Reference	Measure	A	B	C	Weight		
ADC15CO16	**CU15 - CO16**	37,10	27,35	G1/2	85	35	280
ADC15CO20	**CU15 - CO20**	37,45	32,50	G3/4	91	30	240
ADC18CO16	**CU18 - CO16**	39,50	27,00	G1/2	71	30	240
ADC18CO20	**CU18 - CO20**	39,50	32,90	G3/4	84	25	200
ADC22CO20	**CU22 - CO20**	42,70	32,50	G3/4	96	25	200
	∅	mm	mm	mm	g	units.	units.

RECOVERABLE CAP

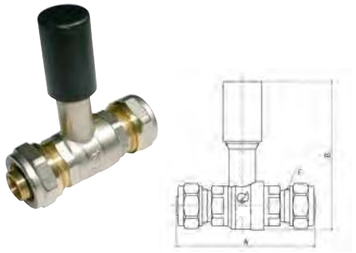


Reference	Measure	A	B	C	Weight		
TAP16R	16	27,00	25,00	G3/4	65	48	384
	∅	mm	mm	mm	g	units.	units.

VALVES AND HANDLES FOR VALVES

COMPRESSION ACCESSORIES
For 16x2, 18x2, 20x2, 25x2.5, 32x3, 40x4, 50x4.5, 63x6 tubes

BALL VALVE

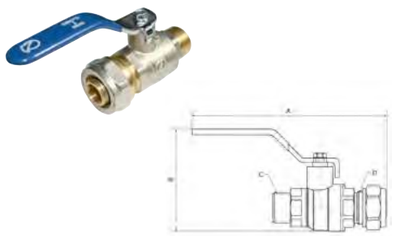


Reference	Measure	A	B	C	Weight		
VALCO16	16	81,00	90,00	G1/2	290	5	40
VALCO20	20	85,00	90,00	G3/4	346	5	40
VALCO25	25	98,00	92,50	G1	514	5	40
VALCO32	32	100,00	97,00	M39 x 1,5	616	5	40
	∅	mm	mm	mm	g	unt.	unt.

LINE BALL VALVE

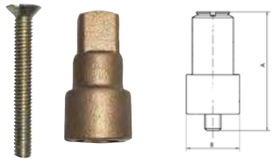
Reference	Measure	A	B	C	Weight		
VALLINCO16	16	122,00	63,00	G1/2	260	5	40
VALLINCO20	20	126,00	62,00	G3/4	338	5	40
VALLINCO25	25	147,50	76,00	G1	475	5	40
VALLINCO32	32	150,50	81,00	M39 x 1,5	596	5	40
	∅	mm	mm	mm	g	unt.	unt.

LINE BALL VALVE WITH MALE THREAD



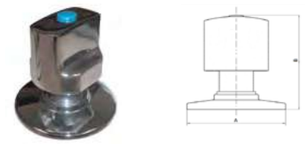
Reference	Measure	A	B	C	D	Weight		
VAL -LINCO16M12	16M12	116,50	60,00	G1/2	G1/2	217	5	40
VAL -LINCO20M12	20M12	117,00	62,00	G1/2	G3/4	245	5	40
VAL -LINCO25M34	25M34	138,00	75,00	G3/4	G1	392	5	40
VAL -LINCO32M1	32M1	146,00	80,00	G1	M39X1,5	508	5	40
	∅	mm	mm	mm	mm	g	uns.	uns.

EXTENSION



Reference	Measure	A	B	Weight		
ALAR	20	30,00	13,00	18	125	1000
	mm	mm	mm	g	units.	units.

ROUND HANDLE AND SHIELD FOR VALVES Ref. VAL / VR / VALU

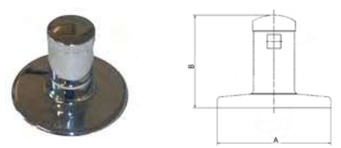


Reference	A	B	Weight		
MR	70,00	68,00	122	5	150
	mm	mm	g	units.	units.

LEVER HANDLE AND SHIELD FOR VALVES Ref. VAL / VR / VALU

Reference	A	B	C	Weight		
MP	70,00	57,00	62,00	126	5	150
	mm	mm	mm	g	units.	units.

OCCULT HANDLE AND SHIELD FOR VALVES Ref. VAL / VR / VALU



Reference	A	B	Weight		
MO	69,00	52,50	98	5	150
	mm	mm	g	units.	units.

MULTILAYER GAS SYSTEM

MULTILAYER GAS PIPE
+
ACCESSORIES PRESS FITTING GAS

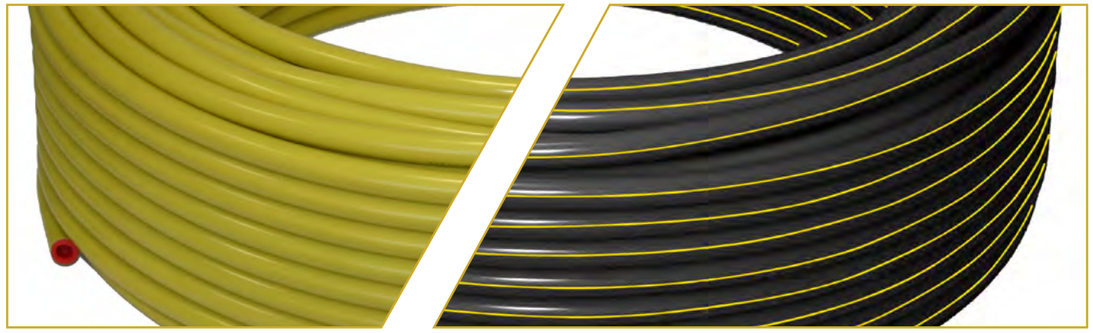
CERTIFIED BY AENOR

In accordance with the UNE 53008-1: 2014 standard:
"Multilayer pipeline systems for gas receiving installations with a maximum operating pressure (MOP) less than or equal to 5 bar (500 kPa)"

OUR MULTILAYER GAS TUBES

CHARACTERISTICS:

Today, technological research has definitively solved the uncertainty about the choice of metal tubes or thermoplastic materials for the installation of plumbing or heating systems with the creation of a tube capable of uniting the advantages of both materials. The result has been multi-layer pipes ISOLTUBEX.

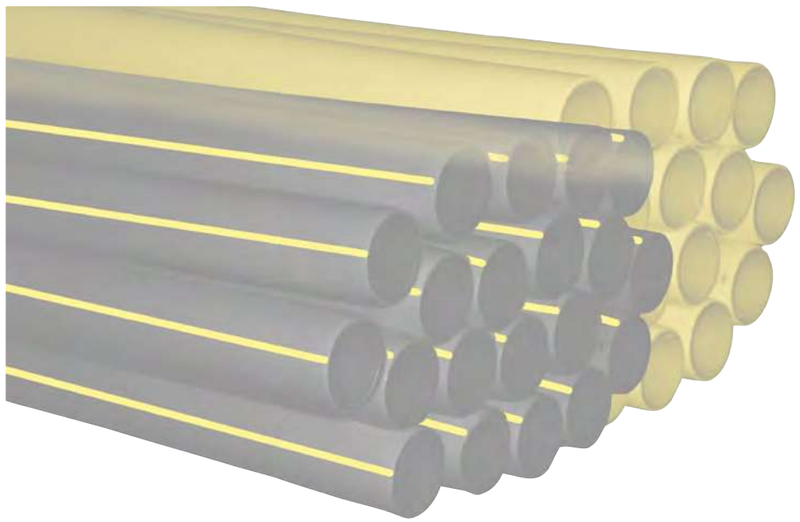


The tubes ISOLTUBEX are totally recyclable

The Multilayer Tube has been the result of a modern construction technique that has allowed the perfect union of an aluminum tube with two polyethylene tubes; such a solution decisively reduces the problems of purely metallic tubes (rigidity, toxicity, corrosion, incrustations, weight, noise transmission, pressure drops, galvanic currents, etc.), or exclusively plastic tubes (winter fragility, high expansion thermal, impermeability to oxygen and ultraviolet rays, thermal memory, little or no malleability, etc.). Our multilayer pipes achieve the advantages of the two materials, united by mutual collaboration.

Our pipes are manufactured in accordance with the UNE 53008 standard: "Sewer systems in plastic materials. Multi-layer pipeline systems for gas receiving installations with a maximum operating pressure (MOP) of less than or equal to 5 bar (500 kPa), published in September 2014.

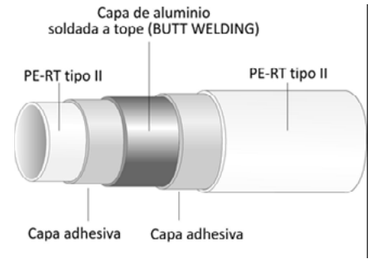
The UNE 53008 standard is included in the UNE 60670-3: 2014 standard: "Gas receiving installations supplied at a maximum operating pressure (MOP) of less than or equal to 5 bars. Part 3: Pipes, elements, accessories and their connections ", which marks the references of piping materials and accessories suitable for the realization of the gas reception facilities specified in the standard.



OUR MULTILAYER GAS TUBES

PROPERTIES:

The Isoltubex Multilayer pipe combines metallic and polymeric layers improving the properties of the pipe. The composition of the layers of the Isoltubex pipe is as follows:



- PERT TYPE II

The polymeric resin used for the manufacture of the inner and outer layers is composed of a copolymer of ethylene and octene of last generation that provides the pipe with an increase in its long-term hydrostatic resistance. The use of PE-RT in multilayer pipes also provides the pipeline with the following properties:

Resistance to corrosion: The fact of manufacturing the internal and external walls of the pipe in PE-RT gives the pipe a great resistance to corrosion both against external attack (protection against the environment, contact with building materials, etc), as to the internal attack produced by gas condensates.

- ALUMINUM

The butt-welded aluminum layer gives the pipe improved mechanical properties.

Diameter DN (mm)	Aluminum Thickness (mm)	Total thickness (mm)	Internal diameter (mm)
16	0,20	2	12
20	0,25	2	16
25	0,30	2,5	20
32	0,45	3	26

Oxygen anti-diffusion barrier: The aluminum layer inside the pipe prevents the diffusion of gases through it.

Low coefficient of expansion: (0.025 mm / m K) The aluminum layer gives it greater dimensional stability, improving its properties compared to other types of pipes.

Greater stability during and after assembly: In multilayer pipes, the elasticity of polyethylene joins the mechanical stability provided by aluminum, which allows the shape of the pipe to be maintained once adapted to the course. Due to this special composition, the handling and assembly of the installations is carried out with total comfort. The following tables specify both the minimum distance between supports and the minimum radii of bending.

Diámeter DN (mm)	16	20	25	32
Minimum distance between supports (m)	1.2	1.5	1.5	1.5

Diámeter DN (mm)	Minimum radii of curvature (mm)		
	Manual	With spring	With bending machine
16	80	64	48
20	100	80	60
25	130	100	80
32	200	160	150
The minimum bending radius specified in the table must always be respected to avoid pipeline constriction			

ACCESSORIES PRESS FITTING GAS FOR MULTILAYER GAS PIPES

CHARACTERISTICS:

The Press Fitting Gas fittings have been designed with the purpose of obtaining the maximum performance of resistance and safety in gas receiving installations. In conjunction with the multi-layer gas pipe, they form the Gas Multilayer System **certified by AENOR according to the UNE 53008 standard.**

The union of the Press Fitting attachment with the multilayer tube must necessarily be carried out with an electric press that guarantees a pushing force of 32 kN / cm2, using RFlz or RFz jaws when pressing.

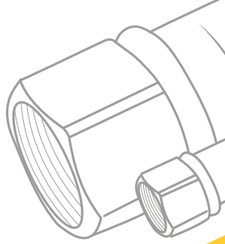
The holes located at one end of the stainless steel bushing (AISI 304) make it possible to verify that the tube has been inserted until the end of the fitting and that it has remained in contact with the yellow anti-electrolysis gasket. The anti-electrolysis joint has the function of preserving aluminum from possible galvanic currents. The accessory is completed with a central body made of brass CW617N with a surface treatment of nickel plating. Two certified O-rings are added in accordance with the UNE-EN 549 standard in order to guarantee tightness.

The range of our Press Fitting Gas accessories is very wide (Ø16 to Ø32) and they are designed to be used together with our Gas Multilayer pipe.

The accessories ISOLTUBEX Press Fitting Gas, are easily identifiable, our logo or our brand is indelibly marked, both in the body of the accessory and in the stainless steel ferrules.

ADVANTAGE

1. Accessory made of high quality brass, CW617N manufactured with calibrated bar for straight figures (union, reduction, etc.) or hot forging process for other figures (elbows, tees, etc.), ensuring a compact structure.
2. Perfect sealing thanks to the double O-ring, NBR, ensuring a long service life.
3. Installation: easy, simple, fast and safe.
4. High quality anti electrolysis ring.
5. The tube can be curved as many times as necessary, preserving the desired shape.
6. Resistant to corrosion
7. Impermeability to gases.
8. Low coefficient of expansion.



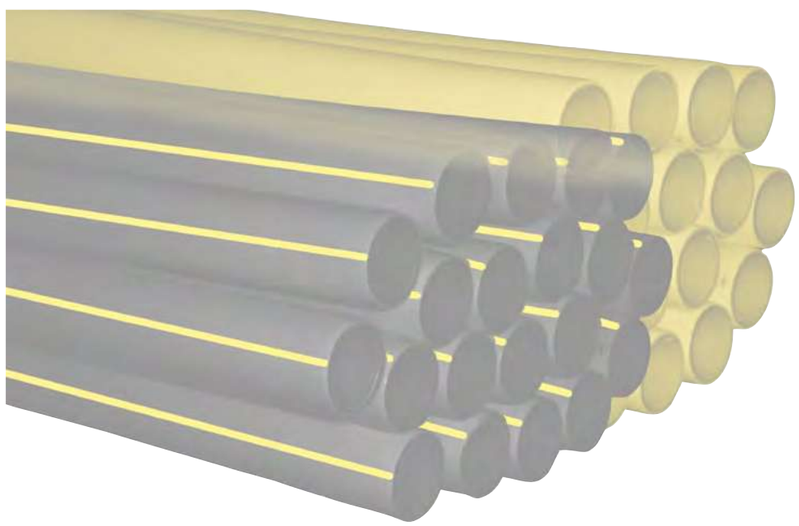
APPLICATION OF THE MULTILAYER PIPE GAS

The multi-layer gas pipeline is applied to gas receiving installations with a maximum operating pressure of 5 bar and temperatures between - 20 ° C to 60 ° C.

According to rule 53008-1:

For **interior applications** we manufacture the multilayer pipe in yellow color that comply with all the necessary tests to guarantee its use in the interior.

For outdoor applications we manufacture the black pipe with three yellow bands that comply with all the necessary tests to guarantee its use outdoors.



ASSEMBLY INSTRUCTIONS FOR GAS MULTILAYER SYSTEM

Before starting the assembly check that the tubes are not broken, bent, damaged or apparently not suitable for installation. It is also necessary to check that the accessories to be used appear without any dirt residues in any of their components or present any anomaly or deterioration that prevents their correct use.

VERY IMPORTANT: THE USE OF DETERIORATED TUBES AND / OR ACCESSORIES, IN BAD CONDITION OR IN CONDITIONS OF CONSERVATION OR MAINTENANCE NOT SUITABLE FOR INSTALLATION, EXCLUDES THE WARRANTY.
(see warranty page and general conditions).

All assembly processes on our YouTube channel

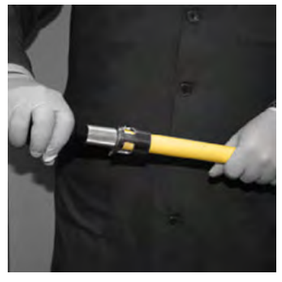
1.

Cut the tube perpendicular to its length, using a tool that guarantees a clean and precise cut.

2.

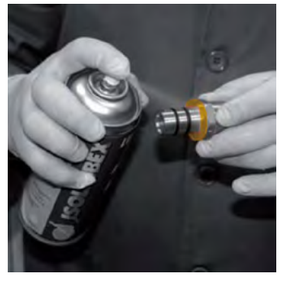
When it comes to getting a very tight curve, it is advisable to use an internal or external spring, adapted to the diameter of the tube that we are going to bend (see page 43).

3.



It is mandatory to insert the calibrator / reamer ref. AE inside the tube, turning until filing the inside and outside edge of it. Such operation is essential to facilitate the insertion of the fitting into the tube and prevent the O-rings from being damaged, or displaced from their housing.

4.



Lubricate the part of the accessory that is inserted.
Lubricant ref. L-400

5.

Insert the stainless steel cap into the tube, in the position that the inspection holes are located at the end of the tube.

6.

The fitting must be inserted in the tube to its base so that the stainless steel cap is attached to the anti-electrolysis plastic gasket.

7.

Position the pliers, of the measure corresponding to the tube, in the stainless steel cap, as close as possible to the electrolysis joint.
USE RFz and RFlz JAWS for measurements 16x2, 20x2, 25x2, 5 and 32x3.

8.

ATTENTION Isoltubex is not responsible for the problems that may arise from the use of inadequate jaws or in poor condition.

9.

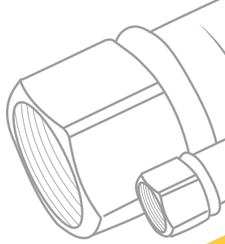
Proceed to the pressing: It is very important to use electric or battery presses, which guarantee a thrust force of 32 Kn / cm2. It is advisable to use only approved tools.
Remember, the machines and jaws have a limited life, check that your pressing equipment is in perfect working order and that the jaws have not suffered wear and tear due to use.
After pressing, remove the pliers, the connection has already been made.
Consult technical manual of your machine and jaws. Follow the manufacturer's instructions.

THESE TUBES, ALONG WITH THE PRESS FITTING ACCESSORIES, CONFORM THE ISOLTUBEX GAS MULTILAYER SYSTEM, CERTIFICATE ISSUED BY AENOR OF ACUERSO WITH THE UNE 53008 NORM.

MULTILAYER GAS PIPES

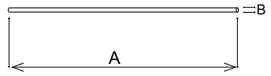
THESE TUBES, ALONG WITH THE PRESS FITTING ACCESSORIES, CONFORM THE ISOLTUBEX GAS MULTILAYER SYSTEM, CERTIFICATE ISSUED BY AENOR OF ACUERSO WITH THE UNE 53008 NORM.

MULTILAYER GAS PIPES



MULTILAYER GAS BAR PIPE - 4 meters - INTERIOR USE

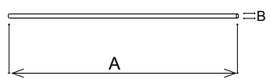
SUITABLE FOR INTERIOR INSTALLATIONS.
NOT SUITABLE FOR WEATHER USE
WITHOUT ADDITIONAL PROTECTION



Reference	∅ Tube	Measurements Bar		Weight Bar	PACKAGE			PALET 410x100x80 cm	
		A	B		n° Bars	Meters	Weight	n° Bars	Weight
MCGAS16-B4	16 x 2	400	1,6	0,42	50	200	21,00	1000	420,00
MCGAS20-B4	20 x 2	400	2,0	0,54	35	140	18,90	700	378,00
MCGAS25-B4	25 x 2,5	400	2,5	0,86	20	80	17,20	400	344,00
MCGAS32-B4	32 x 3	400	3,2	0,86	14	56	12,04	280	240,80
		cm	cm	kg	**uns.**	mts.	kg	**uns.**	kg

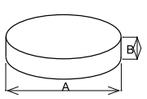
MULTILAYER GAS BAR PIPE - 4 meters - EXTERIOR USE

SUITABLE FOR EXTERIOR
INSTALLATIONS
BLACK WITH YELLOW BANDS



Reference	∅ Tube	Measurements Bar		Weight Bar	PACKAGE			PALET	
		A	B		n° Bars	Meters	Weight	n° Bars..	Weight
MCNGAS16-B4	16 x 2	400	1,6	0,42	50	200	21,00	1000	420,00
MCNGAS20-B4	20 x 2	400	2,0	0,54	35	140	18,90	700	378,00
MCNGAS25-B4	25 x 2,5	400	2,5	0,86	20	80	17,20	400	344,00
MCNGAS32-B4	32 x 3	400	3,2	0,86	14	56	12,04	280	240,80
		cm	cm	kg	**uns.**	mts.	kg	**uns.**	kg

CORRUGATED PIPE IN ROLL

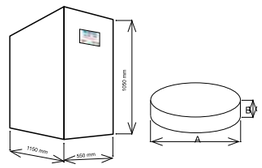


Reference	∅ Tube	Meters Roll	Measurements Roll		Weight Roll	PALET	
			A	B		n° Rolls	Weight
COGAS16	DN 19,4 mm	50	20	40	1,54	72	110,88
COGAS20	DN 24,0 mm	50	20	58	2,30	48	110,40
COGAS25	DN 29,5 mm	50	22	72	3,50	30	105,00
COGAS32	DN 36,4 mm	25	20	63	2,10	44	92,40
		mts.	cm	cm	kg	**uns.**	kg

MULTILAYER GAS PIPE IN ROLL - Box -

SUITABLE FOR INTERIOR INSTALLATIONS.
NOT SUITABLE FOR WEATHER USE WITHOUT
ADDITIONAL PROTECTION

SUITABLE FOR BLACK OUTER
FACILITIES WITH YELLOW BANDS



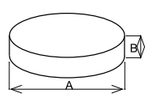
Reference	∅ Tube	Meters Roll	Meters Roll		Weight	BOX			PALET	
			A	B		n° Rolls	Meters	Weight	n° Rolls	Weight
MCGAS16-R25	16 x 2	**25**	55,0	14,0	2,65	**20**	500	53,00	80	212,00
MCGAS20-R25	20 x 2	**25**	57,5	17,0	3,40	**12**	300	40,80	48	163,20
MCGAS25-R25	25 x 2,5	**25**	63,0	15,0	5,38	**12**	300	64,56	48	258,24

MCNGAS16-R25	16 x 2	**25**	55,0	14,0	2,65	**20**	500	53,00	80	212,00
MCNGAS20-R25	20 x 2	**25**	57,5	17,0	3,40	**12**	300	40,80	48	163,20
MCNGAS25-R25	25 x 2,5	**25**	63,0	15,0	5,38	**12**	300	64,56	48	258,24
		mts.	cm	cm	kg	**uns.**	mts.	kg	**uns.**	kg

MULTILAYER GAS PIPE IN ROLL

SUITABLE FOR INTERIOR INSTALLATIONS.
NOT SUITABLE FOR WEATHER USE
WITHOUT ADDITIONAL PROTECTION

SUITABLE FOR BLACK OUTER
FACILITIES WITH YELLOW
BANDS



Reference	∅ Tube	Meters Roll	Meters Roll		Weight	PALET	
			A	B		n° Rolls	Weight
MCGAS16-R100	16 x 2	100	63,0	17,5	10,60	24	254,40
MCGAS20-R100	20 x 2	100	67,0	21,5	13,60	22	299,20
MCGAS25-R50	25 x 2,5	50	83,0	20,0	10,75	16	172,00
MCGAS32-R50	32 x 3	50	93,0	17,0	16,75	16	268,00

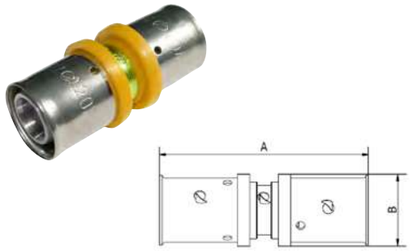
MCNGAS16-R100	16 x 2	100	63,0	17,5	10,60	24	254,40
MCNGAS20-R100	20 x 2	100	67,0	21,5	13,60	22	299,20
MCNGAS25-R50	25 x 2,5	50	83,0	20,0	10,75	16	172,00
MCNGAS32-R50	32 x 3	50	93,0	17,0	16,75	16	268,00
		mts.	cm	cm	kg	**uns.**	kg

THESE ACCESSORIES, JOINED TO OUR MULTILAYER PIPES, CONFORM THE GAS MULTILAYER SYSTEM, CERTIFIED AND ISSUED BY AENOR IN ACCORDANCE WITH STANDARD UNE EN ISO 53008.

GAS MULTILAYER ACCESSORIES

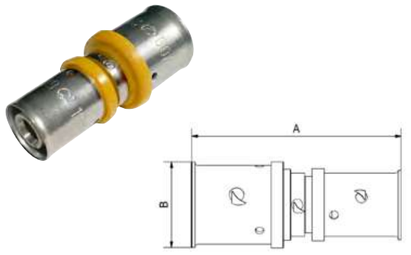
For 16x2, 18x2, 20x2, 25x2.5, 32x3 tubes

UNIÓN



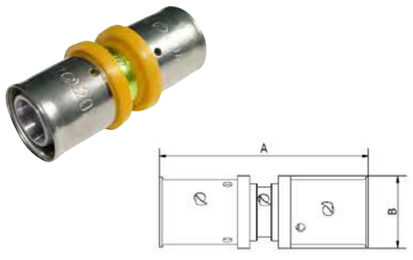
Reference	Measure	A	B	Weight		
GU16	16	58,76	20,30	44	45	360
GU20	20	60,00	24,30	61	30	240
GU25	25	73,00	30,28	106	15	120
GU32	32	73,40	37,30	149	10	80
	∅	mm	mm	g	uns.	uns.

REDUCER



Reference	Measure	A	B	Weight		
GR2016	20 - 16	57,20	24,30	55	37	296
GR2520	25 - 20	65,10	30,28	86	20	160
GR3225	32 - 25	73,20	37,30	132	12	96
	∅	mm	mm	g	uns.	uns.

TRANSITION



Reference	Measure	A	B	Weight		
GTRAN32	32	73,40	37,30	149	10	80
	∅	mm	mm	g	uns.	uns.

ELBOW

Reference	Measure	A	B	Weight		
GC16	16	46,40	20,30	53	32	256
GC20	20	49,85	24,30	74	22	176
GC25	25	64,15	30,28	134	11	88
GC32	32	71,35	37,30	194	6	48
	∅	mm	mm	g	uns.	uns.

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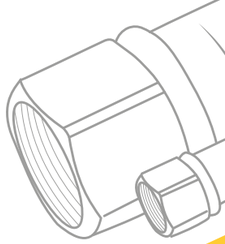
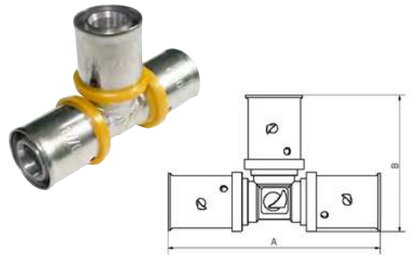
GAS MULTILAYER ACCESSORIES

For 16x2, 18x2, 20x2, 25x2.5, 32x3 tubes

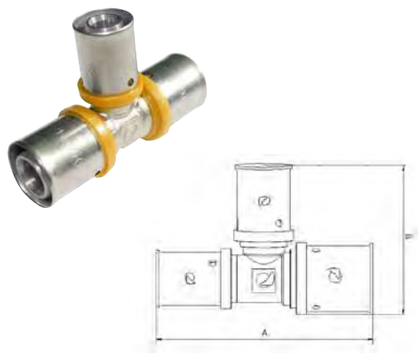


TEE



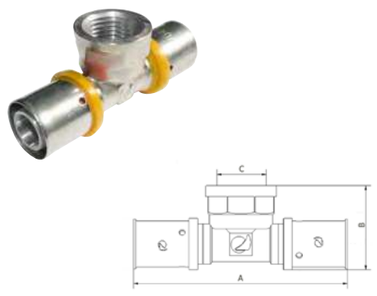
Reference	Measure	A	B	Weight		
GT16	16	71,20	45,75	75	20	160
GT20	20	75,20	49,75	107	14	112
GT25	25	98,00	64,14	192	6	48
GT32	32	105,40	71,05	273	4	32
	∅	mm	mm	g	uns.	uns.

REDUCER TEE



Reference	Measure	A	B	Weight		
GTR201616	20-16-16	71,20	49,75	89	20	160
GTR201620	20-16-20	71,20	49,75	96	14	112
GTR202016	20-20-16	76,20	49,75	102	18	144
GTR251616	25-16-16	84,10	54,80	110	10	80
GTR251625	25-16-25	91,00	54,80	150	9	72
GTR252020	25-20-20	84,10	54,75	134	10	80
GTR252025	25-20-25	92,00	55,25	160	8	64
GTR252516	25-25-16	91,00	54,80	150	9	72
GTR252520	25-25-20	88,60	64,15	165	7	56
GTR322525	32-25-25	98,70	69,15	225	5	40
GTR322532	32-25-32	98,40	71,15	240	5	40
	Ø	mm	mm	g	uns.	uns.

FEMALE TEE



Reference	Measure	A	B	C	Weight		
GTH1612	16 - 1/2"	83,20	33,15	G1/2	104	16	128
GTH2012	20 - 1/2"	83,20	37,15	G1/2	120	12	96
GTH2034	20 - 3/4"	89,20	37,15	G3/4	155	10	80
GTH2534	25 - 3/4"	105,00	41,64	G3/4	205	7	56
	Ø	mm	mm		g	uns.	uns.

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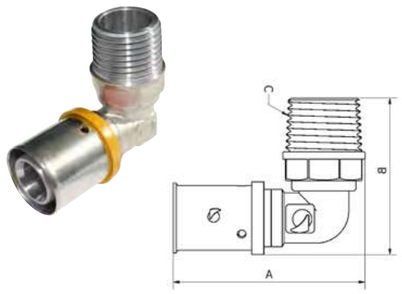
GAS MULTILAYER ACCESSORIES
For 16x2, 18x2, 20x2, 25x2.5, 32x3 tubes

MALE ELBOW



Reference	Measure	A	B	C	Weight		
GCM1612	16 - 1/2"	53,10	43,65	R1/2	73	25	200
GCM2012	20 - 1/2"	52,60	46,99	R1/2	85	20	160
GCM2034	20 - 3/4"	57,10	47,65	R3/4	91	14	112
GCM2534	25 - 3/4"	65,00	53,15	R3/4	128	12	96
	∅	mm	mm		g	uns.	uns.

FEMALE ELBOW

Reference	Measure	A	B	C	Weight		
GCH1612	16 - 1/2"	55,60	29,50	G1/2	71	30	240
GCH2012	20 - 1/2"	55,60	33,00	G1/2	86	22	176
GCH2034	20 - 3/4"	60,00	33,00	G3/4	91	15	120
GCH2534	25 - 3/4"	69,00	36,50	G3/4	127	10	80
	∅	mm	mm		g	uns.	uns.

WALL PLATED FEMALE ELBOW

Reference	Measure	A	B	C	Weight		
GCSH1612	16 - 1/2"	46,00	55,60	G1/2	107	14	112
GCSH2012	20 - 1/2"	46,00	55,60	G1/2	120	12	96
	∅	mm	mm		g	uns.	uns.

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GAS MULTILAYER ACCESSORIES
For 16x2, 18x2, 20x2, 25x2.5, 32x3 tubes

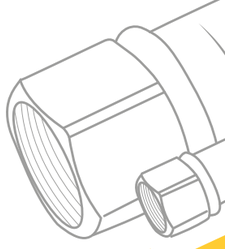
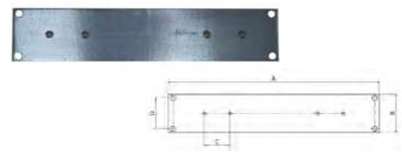
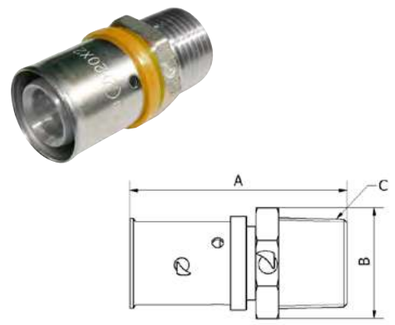


PLATE
FOR WALL PLATED FEMALE ELBOW



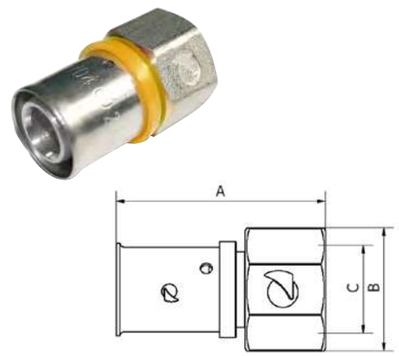
Reference	A	B	C	D	Weight		
PLACA	255,00	50,00	34,00	40,00	236	10	100
	mm	mm	mm	mm	g	uns.	uns.

MALE UNION



Reference	Measure	A	B	C	Weight		
GEM1612	16 - 1/2"	46,60	26,00	R1/2	50	50	400
GEM2012	20 - 1/2"	46,60	26,00	R1/2	57	40	320
GEM2034	20 - 3/4"	47,60	31,00	R3/4	70	35	280
GEM2534	25 - 3/4"	55,50	31,00	R3/4	93	18	144
GEM251	25 - 1"	56,50	39,00	R1	114	16	128
GEM321	32 - 1"	56,70	39,00	R1	129	14	112
	∅	mm	mm		g	uns.	uns.

FEMALE UNION



Reference	Measure	A	B	C	Weight		
EH1612	16-1/2"	43,60	28,00	G1/2	54	40	320
EH2012	20-1/2"	43,60	28,00	G1/2	61	35	280
EH2034	20-3/4"	43,60	33,00	G3/4	67	30	240
EH251	25-1"	52,50	41,00	G1	117	12	96
EH321	32-1"	52,70	41,00	G1	131	12	96
	∅	mm	mm		g	uns.	uns.

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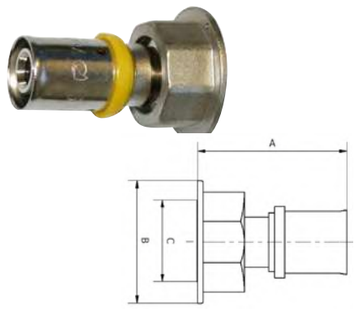
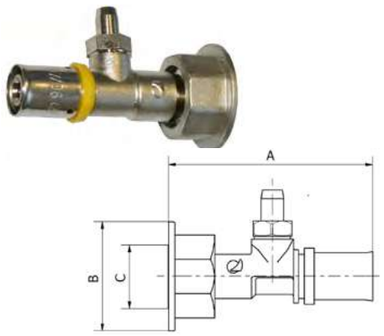
GAS MULTILAYER ACCESSORIES
For 16x2, 18x2, 20x2, 25x2.5, 32x3 tubes

DESMOUNTABLE FEMALE UNION WITH SEAL



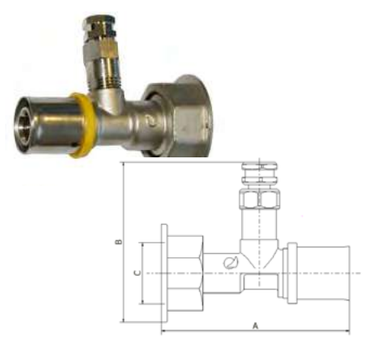
Reference	Measure	A	B	C	Weight		
GRM1612	16 - 1/2''	51,40	31,50	G1/2	68	48	384
GRM1634	16 - 3/4''	50,00	39,20	G3/4	75	30	240
GRM2020150	20 - 20/150	52,60	28,00	M20 X 1,5	100	24	192
GRM2034	20 - 3/4''	53,60	33,00	G3/4	88	24	192
GRM2078	20 - 7/8''	51,00	41,50	G7/8	100	20	160
GRM2534	25 - 3/4''	60,63	39,20	G3/4	160	18	144
GRM2578	25 - 7/8''	61,60	41,50	G7/8	129	14	112
GRM321	32 - 1''	68,20	45,50	G1	184	14	112
	∅	mm	mm		g	uns.	uns.

DESMOUNTABLE FEMALE UNION WITH PRESSURE WEAK CALIBER INLET WITH SEAL



Reference	Measure	A	B	C	Weight		
GRMTDC1634	16 - 3/4''	73,45	39,20	G3/4	125	18	144
GRMTDC1678	16 - 7/8''	73,50	41,50	G7/8	126	18	144
GRMTDC2012	20 - 1/2''	72,10	31,50	G1/2	113	20	160
GRMTDC2034	20 - 3/4''	74,45	39,25	G3/4	135	15	120
GRMTDC2078	20 - 7/8''	73,50	41,50	G7/8	136	15	120
GRMTDC2578	25 - 7/8''	80,00	41,50	G7/8	163	14	112
	∅	mm	mm		g	uns.	uns.

DESMOUNTABLE FEMALE UNION WITH PETERSON INLET WITH SEAL



Reference	Measure	A	B	C	Weight		
GRMTP2034	20 - 3/4''	75,15	64,16	G3/4	144	15	120
GRMTP2078	20 - 7/8''	73,50	66,65	G7/8	145	12	96
GRMTP2578	25 - 7/8''	80,00	66,65	G7/8	171	12	96
	∅	mm	mm		g	uns.	uns.

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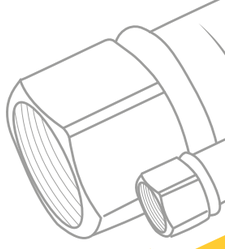
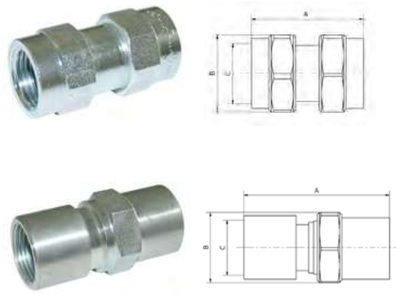
GAS MULTILAYER ACCESSORIES
For 16x2, 18x2, 20x2, 25x2.5, 32x3 tubes

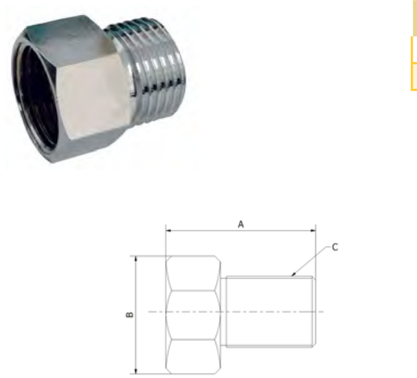


THERMAL SAFETY DEVICE FEMALE-FEMALE



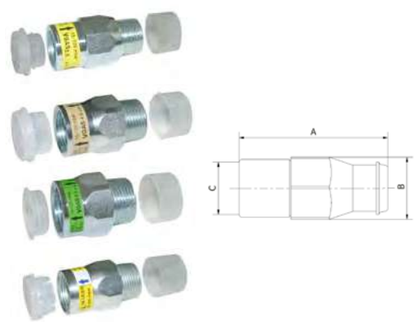
Reference	Measure	A	B	C	Weight		
GDSTHH12	1/2''	54,5	29,2	G1/2	125	1	15
GDSTHH34	3/4''	70,0	36,9	G3/4	198	1	15
	∅	mm	mm		g	uns.	uns.

FLOW LIMITER MALE FEMALE



Reference	Measure	Flow	A	B	C	Weight		
GLC12	1/2''	1,5 m3/h	29,14	27,88	G1/2	51	-	1
GLC20150	20/150	1,5 m3/h	29,14	27,88	M20x1,5	52	-	1
	∅		mm	mm		g	uns.	uns.

FLOW LIMITER MALE FEMALE



Reference	Measure	Flow	A	B	C	Weight		
GLC25-1/2	1/2''	2,5 m3/h	59,00	29,00	G1/2	117	-	25
GLC25-3/4	3/4''	2,5 m3/h	60,00	35,10	G3/4	186	-	15
GLC4-3/4	3/4''	4,0 m3/h	59,30	35,10	G3/4	149	-	10
GLC6-1	1''	6,0 m3/h	56,00	45,00	G1	260	-	10
	∅		mm	mm		g	uns.	uns.

AENOR Producto Certificado

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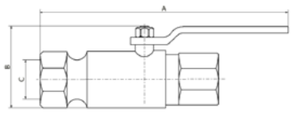
GAS MULTILAYER ACCESSORIES
For 16x2, 18x2, 20x2, 25x2.5, 32x3 tubes

SAFETY VALVE

Reference	Measure	A	B	C	Weight		
GVAL-S12	1/2'' X 1/2''	75,5	60,61	G1/2	217	-	1
GVAL-S20150	20/150 X 20/150	75,5	60,61	M20X1,50	217	-	1
	∅	mm	mm		g	uns.	uns.

BALL VALVE + THERMAL DEVICE



Reference	Measure	A	B	C	Weight		
GVAL12	1/2''	147,9	59,60	G1/2	332	-	1
GVAL34	3/4''	160,25	62,20	G3/4	337	-	1
GVAL1	1''	205,20	80,96	G1	975	-	1
	∅	mm	mm		g	uns.	uns.

It consists of a thermal fuse that a temperature higher than + 95ºC closes the gas supply.

SEALANT

Reference	Measure	A	B	C	Weight		
GSELLANTE	100 ML	177	48	28	76	1	1
		mm	mm		g	uns.	uns.

Anaerobic adhesive, suitable for sealing threaded metal connections. Suitable for the sealing of gas, LPG, compressed air, oils, fuels, CFC, drinking water and other chemical products. Its low coefficient of friction ensures easy assembly and its thixotropic properties prevent the migration of the product into the thread before and during curing. Replace the tow and PTFE tapes. The hardened product forms a tenacious film with medium resistance to disassembly. Resistant to impacts, vibrations, thermal shock and maintains its sealing properties in the temperature range between -55 ° C / + 150 ° C, with peaks up to + 230 ° C **.

AENOR Producto Certificado

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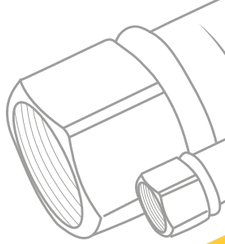
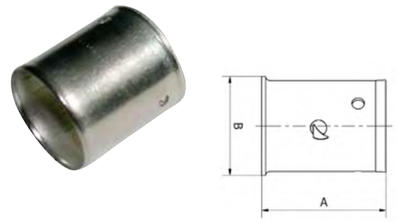
GAS MULTILAYER ACCESSORIES
For 16x2, 18x2, 20x2, 25x2.5, 32x3 tubes

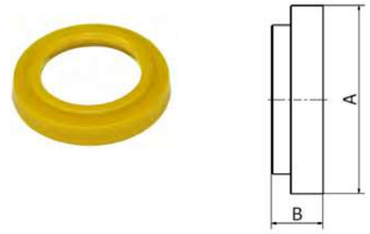


INOX RING



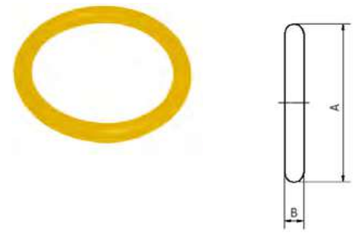
Reference	Measure	A	B	Weight		
CI16	16	24,14	18,17	7	-	100
CI20	20	23,90	22,70	10	-	100
CI25	25	31,60	28,12	17	-	50
CI32	32	31,70	34,80	22	-	30
	∅	mm	mm	g	uns.	uns.

GAS ELECTROLYSIS JOINT



Reference	Measure	A	B	Weight		
GJE16	16	20,40	5,50	0,50	-	100
GJE20	20	24,30	5,50	0,50	-	100
GJE25	25	30,30	5,50	0,50	-	100
GJE32	32	37,30	6,00	1,00	-	100
	∅	mm	mm	g	uns.	uns.

EPDM O-RING



Reference	Measure	A	B	Weight		
JG16	16	12,1	1,6	0,50	-	100
JG20	20	16,1	1,6	0,50	-	100
JG25	25	20,1	2,1	0,50	-	100
JG32	32	26,1	2,1	1,00	-	100
	∅	mm	mm	g	uns.	uns.

IMPLEMENTS AND TOOLS

GAS MULTILAYER ACCESSORIES
For 16x2, 18x2, 20x2, 25x2.5, 32x3 tubes

DRILL

Reference	Characteristics	Long Briefcase	Width Suitcase	Prof. Briefcase	Weight Suitcase		
DRILL	Drilling machine with adjustment for tightening.	31,0	28,0	10,0	3751	-	5
		cm	cm	cm	g	uns.	uns.

Technical characteristics	
Inactivity rotation speed	0-350 / 0-900 rpm
Rotation coupling level	19 + 1
Chuck tightening capacity	max. 10 mm
Charge voltage, accumulator	18V d.c
Charge current, accumulator	400 mA
Mains voltage, charger	230V - 50Hz
Loading time	3 - 5 h
Battery Type	NI - CD
Machine weight	1,7 Kg

REAMER

Adaptable to any type of domestic electric drill

Reference	Measure	Long	Width	Deep	Weight		
AE16	16	6,50	3,50	3,50	51	-	1
AE20	20	6,50	3,50	3,50	64	-	1
AE25	25	6,50	4,00	4,00	83	-	1
AE32	32	6,50	4,00	4,00	102	-	1
	Ø	cm	cm		g	uns.	uns.

HANDLE FOR REAMER

Reference	Long	Width	Deep	Weight		
MAN	13	5	5	156	-	1
	cm	cm		g	uns.	uns.

KIT REAMER

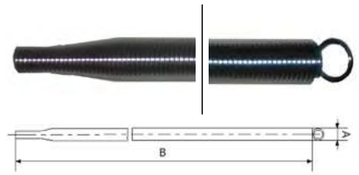
Includes Knob and flares Ø16, Ø20 and Ø25

Reference	Measure	Long Briefcase	Width Suitcase	Prof. Briefcase	Weight		
KITA	16 -20 - 25	24	20	5	551	-	1
	Ø	cm	cm		g	uns.	uns.

CALIBRATOR REAMER

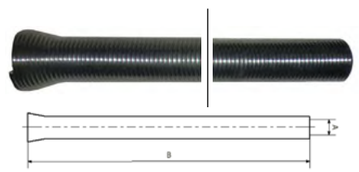
Reference	Measure	Long	Width	Deep	Weight		
A161820	16 - 18 - 20	10	9	2,5	56	9	72
A202532	20 - 25 - 32	12	11	2,5	85	10	100
	Ø	cm	cm	cm	g	uns.	uns.

INTERIOR SPRING



Reference	Measure	A	B	Weight		
MUELLINT16	16	11,00	800	186	-	90
MUELLINT20	20	16,50	800	290	-	80
MUELLINT25	25	17,00	800	490	-	40
MUELLINT32	32	22,50	800	645	-	20
	Ø	mm	mm	g	uns.	uns.

EXTERIOR SPRING



Reference	Measure	A	B	Weight		
MUELLEX16	16	18,00	500	318	-	60
MUELLEX20	20	22,00	500	478	-	25
MUELLEX25	25	28,00	500	724	-	25
MUELLEX32	32	34,00	500	1009	-	25
	Ø	mm	mm	g	uns.	uns.

LUBRICANT

Reference	Characteristics	Height	Ø	Weight		
L-400		21,0	6,00	375	4	24
		cm	cm	g	uns.	uns.

Transparent fluid of extreme quality. its optimal results do not take long to manifest themselves in its application between contact surfaces protecting and eliminating moisture, it is anticorrosive and highly lubricant. Specific

SCISSORS

Reference	For tubes	Long	Width	Deep	Weight		
TIJ1632	Ø16 until Ø32	10,5	23,0	2,5	544	-	1
		cm	cm	cm	g	uns.	uns.

MULTILAYER ACCESSORIES

For 16x2, 18x2, 20x2, 25x2.5, 32x3, 40x4, 50x4.5, 63x6 tubes

JAWS "RFz" and "U"

Gag "RFz"

Reference	Measure	Long	Width	Deep	Weight		
RFIz 16	16	9,5	14,5	4,5	1834	-	1
RFIz 20	20	9,5	14,5	4,5	1818	-	1
RFIz 25	25	10,0	15,5	4,5	2112	-	1
RFIz 32	32	10,0	14,4	4,5	1824	-	1
	Ø	mm	mm	mm	g		uns.

Adaptable to the majority of radial presses existing in the market

POWER PRESS

Reference	Characteristics		
572111	Electro-mechanical actuating machine with maintenance-free gear with sliding clutch for safety. Proven universal motor, 230V, 50-60Hz, 500W. The pressing tongs remain closed until the recoil connection, therefore, possibility of visually checking the correct pressing. Packed in tough metal case The machine does not include jaws. Thrust force 32kN.	-	1
			uns.

AKKU PRESS

Reference	Characteristics		
571014	Electro-hydraulic actuating machine with gear. Optimal weight distribution for one-handed operation. Rotating press holder. Piston pump with robust planetary gear. Powerful motor by accumulation of 12V 12V, 2Ah accumulator. Fast charger 230V, 50W. Automatic Circuit Control (ACC): Automatic recoil after completing the pressing process. Optical indicator after 10,000 pressings. Packed in tough metal case The machine does not include jaws. Thrust force 32kN.	-	1
			uns.

SYSTEM I-PERT

PIPE PE-RT Type II
+
ACCESSORIES I-PERT

CERTIFIED BY AENOR

CLASS / FIELD OF APPLICATION

CLASS 1: Hot water 60° C.
CLASS 2: Hot water 70° C.
CLASS 4: Underfloor heating / cooling and radiators at low temperature.
CLASS 5: Heating by radiators at high temperature.

DESIGN PRESSURE

Ø 16 :	1/8; 2/8; 4/8; 5/6
Ø 20, Ø 25, Ø 32, :	1/6; 2/6; 4/6; 5/4

In accordance with the UNE-EN ISO 22391 standard

OUR PE-RT TUBES Type II

CHARACTERISTICS:

Our PE-RT pipes are manufactured using PE-RT Type II (temperature resistant polyethylene), according to the UNE-EN-ISO 22391 standard and are intended for use in hot and cold water installations inside inhabited buildings.

PERT (Polyethylene resistant to temperature):
The polymeric resin used for the manufacture of our tubes is composed of a copolymer of ethylene and octene of last generation that provides the pipeline with an increase in its long-term hydrostatic resistance. The use of PE-RT Type II (temperature resistant polyethylene) in the pipes also gives them the following properties:

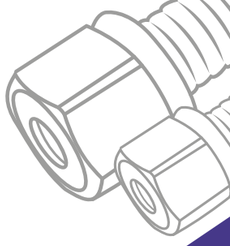
- Resistance to corrosion:
The fact of manufacturing the pipe with PE-RT Type II (Polyethylene resistant to temperature) gives it great resistance to corrosion, both against external attack (protection against the environment, contact with building materials, etc.), as well as internal attack produced by corrosive waters.

- Roughness:
The low coefficient of Roughness that the pipe presents (0.0004 mm), decreases the loss of load in the installation achieving a reduction of the costs of pumping of the fluids transported in the same. It also helps to reduce the formation of scale.

- Environment:
ISOLTUBEX pipes manufactured with PE-RT Type II (Polyethylene resistant to temperature) are fully recyclable.

APPLICATIONS:

The applications of the pipeline I-PE-RT Type II are especially indicated for the distribution of sanitary water in indoor installations, of sanitary hot water both at a centralized and individual level.



CHARACTERISTICS:

The PRESS FITTING ISOLTUBEX accessories for PE-RT Type II pipes (temperature resistant polyethylene) have been designed from Ø16 to Ø32, developed with the aim of obtaining the maximum performance of resistance and safety in the hydraulic or heating installations.

The operation of joining PRESS FITTING ISOLTUBEX fittings with a PE-RT Type II (Temperature Resistant Polyethylene) tube must necessarily be carried out with an electric press that guarantees a thrust force of 32 Kn / cm2 and adopts "RFz" type clamps or "RFlz", which will deform the stainless steel cap (AISI 304), irreversibly joined tube and accessory.

Our accessories are made with high quality brass; CW617N, according to UNE-EN-1254 standard.

The inspection holes located at one end of the stainless steel bushing allow us to verify that the tube has indeed been inserted to the end of the fitting.

The range of our PRESS FITTING accessories is very complete (Ø16 to Ø32).

The PRESS FITTING accessories are designed to build together with our PE-RT Type II pipes (temperature resistant polyethylene) the "I-PERT System".

System certified by AENOR in accordance with the UNE-EN ISO-22391 standard.

PRESS FITTING accessories, are easily identifiable, our logo or our brand is indelibly marked, both in the body of the accessory, as in the stainless steel ferrules.

ADVANTAGE

1. Accessory of high quality brass CW617N, manufactured with calibrated bar for straight figures (union, reduction, etc.) or hot forging process for other figures (elbows, tees, etc.), ensuring a compact structure.
2. Very easy to install.
3. Perfect sealing, ensuring a long service life.
4. Plastic seal (holds the stainless steel cap to the brass body).
5. Attractive exterior appearance design.
6. Valid for cold water installations, A.C.S. and underfloor heating or radiators.

ASSEMBLY INSTRUCTIONS FOR Y-PERT SYSTEM

Before starting the assembly check that the tubes are not broken, bent, damaged or apparently not suitable for installation. It is also necessary to check that the accessories to be used appear without any dirt residues in any of their components or present any anomaly or deterioration that prevents their correct use.

VERY IMPORTANT: THE USE OF DETERIORATED TUBES AND / OR ACCESSORIES, IN BAD CONDITION OR IN CONDITIONS OF CONSERVATION OR MAINTENANCE NOT SUITABLE FOR INSTALLATION, EXCLUDES THE WARRANTY. *(see warranty page and general conditions)*

All assembly processes in our channel YouTube

1.

Cut the tube perpendicular to its length, using for it a tool that guarantees a clean and precise cut.

2.

Insert the stainless steel cap into the tube, in the position that the inspection holes are located at the end of the tube.

3.

The fitting must be inserted in the tube to its base so that the stainless steel cap is attached to the anti-electrolysis plastic gasket.

4.

Position the pliers, of the measure corresponding to the tube, in the stainless steel cap, as close as possible to the electrolysis joint.
USE RFz and RFz JAWS.

5.

ATTENTION. Isoltubex is not responsible for the problems that may arise from the use of inadequate jaws or in poor condition.

6.

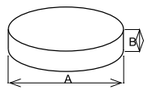
Proceed to the pressing: It is very important to use electric or battery presses, which guarantee a thrust force of 32 KN / cm2. It is advisable to use only approved tools.
Remember, the machines and jaws have a limited life, check that your pressing equipment is in perfect working order and that the jaws have not suffered wear and tear due to use.
After pressing, remove the pliers, the connection has already been made.
Consult technical manual of your machine and jaws. Follow the manufacturer's instructions.

THESE TUBES TOGETHER WITH THE I-PERT ACCESSORIES, CONFORM THE ISOLTUBEX I-PERT SYSTEM, CERTIFICATE ISSUED BY AENOR ACCORDING TO THE UNE-EN ISO 22391 STANDARD.

PIPE PE-RT Type II

PE-RT PIPE ISOLATED IN ROLL

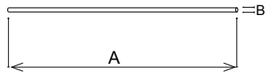
WITH UV PROTECTION FOR EXTERIOR INSTALLATIONS BLACK COLOR



Reference	∅ Tube	Thickness Aislam.	Meters Roll	Measurements A	Measurements B	Weight Roll	PALET 140x180x210 cm n° Roll	PALET 140x180x210 cm Weight
PERT16AIS6-**R**	16 x 1,8	6	**50**	71	18	7,77	24	186,48
PERT16AIS6-**A**	16 x 1,8	6	**50**	71	18	7,77	24	186,48
PERT16AIS6-**N**	16 x 1,8	6	**50**	71	18	7,77	24	186,48
PERT20AIS6-**R**	20 x 1,9	6	**50**	75	19	10,72	22	235,84
PERT20AIS6-**A**	20 x 1,9	6	**50**	75	19	10,72	22	235,84
PERT20AIS6-**N**	20 x 1,9	6	**50**	75	19	10,72	22	235,84
		mm	mts.	cm	cm	kg	uns.	kg

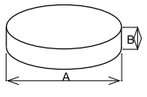
PE-RT PIPE BAR - 4 meters -

POLYETHYLENE TUBE RESISTANT TO THE TEMPERATURE -NATURAL-



Reference	∅ Tube	Measurements A	Measurements B	Weight Bar	PACKAGE n° Bars	PACKAGE Meters	PACKAGE Weight	PALET 410x100x80 cm n° Bars..	PALET 410x100x80 cm Weight
PERT16-B	16 x 1,8	400	1,6	0,42	**50**	200	21,00	1000	420,00
PERT20-B	20 x 1,9	400	2,0	0,54	**35**	140	18,90	700	378,00
PERT25-B	25 x 2,3	400	2,5	0,86	**20**	80	17,20	400	344,00
PERT32-B	32 x 2,9	400	3,2	0,86	**14**	56	12,04	280	240,80
		cm	cm	kg	**uns.**	mts.	kg	uns.	kg

PE-RT PIPE IN ROLL

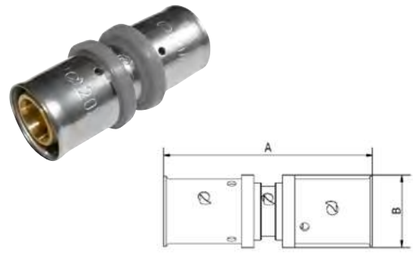


Reference	∅ Tube	Meters Rolls	Meters Roll A	Meters Roll B	Weight Roll	PALET n° Rolls	PALET Weight
PERT16-R25	16 x 1,8	**25**	55,0	14,0	1,90	20	38,0
PERT16-R100	16 x 1,8	**100**	63,0	17,5	7,60	24	182,4
PERT16-R200	16 x 1,8	**200**	75,0	19,0	15,20	18	273,6
PERT20-R25	20 x 1,9	**25**	57,5	17,0	2,55	12	30,6
PERT20-R100	20 x 1,9	**100**	67,0	21,5	10,20	22	224,4
PERT20-R200	20 x 1,9	**200**	77,0	25,0	20,40	16	326,4
PERT25-R50	25 x 2,3	**50**	83,0	20,0	7,70	16	123,2
PERT32-R50	32 x 2,9	**50**	93,0	17,0	12,45	16	199,2
		mts.	cm	cm	kg	uns.	kg

THESE TUBES TOGETHER WITH THE I-PERT ACCESSORIES, CONFORM THE ISOLTUBEX I-PERT SYSTEM, CERTIFICATE ISSUED BY AENOR ACCORDING TO THE UNE-EN ISO 22391 STANDARD.

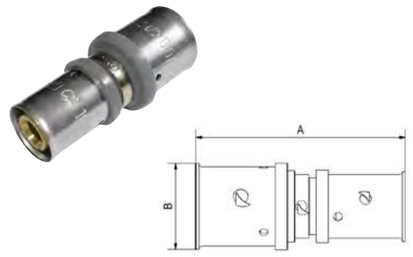
ACCESSORIES I-PERT
For tube 16x1.8, 20x1.9, 25x2.3, 32x2.9

UNION



Reference	Measure	A	B	Weight		
PU16	16	57,20	20,30	44	45	360
PU20	20	57,20	24,30	61	30	240
PU25	25	73,00	30,28	106	15	120
PU32	32	73,40	37,30	149	10	80
	∅	mm	mm	g	uns.	uns.

REDUCER



Reference	Measure	A	B	Weight		
PR2016	20 - 16	57,20	24,30	55	37	296
PR2516	25 - 16	65,10	30,28	80	20	160
PR2520	25 - 20	65,10	30,28	86	20	160
PR3216	32 - 16	65,30	37,30	104	12	96
PR3220	32 - 20	65,30	37,30	114	12	96
PR3225	32 - 25	73,20	37,30	132	12	96
	∅	mm	mm	g	uns.	uns.

ELBOW

Reference	Measure	A	B	Weight		
PC16	16	46,40	20,40	50	32	256
PC20	20	49,85	24,50	81	22	176
PC25	25	64,15	30,30	136	11	88
PC32	32	71,35	37,30	196	6	48
	∅	mm	mm	g	uns.	uns.

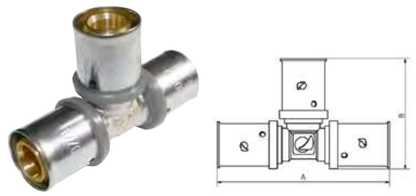
RADIATOR ELBOW

Reference	Measure	A	B	Weight		
PCR1615	16 - 15	230,00	51,57	130	6	108
	∅	mm	mm	g	uns.	uns.

THESE TUBES TOGETHER WITH THE I-PERT ACCESSORIES, CONFORM THE ISOLTUBEX I-PERT SYSTEM, CERTIFICATE ISSUED BY AENOR ACCORDING TO THE UNE-EN ISO 22391 STANDARD.

ACCESSORIES I-PERT
For tube 16x1.8, 20x1.9, 25x2.3, 32x2.9

TEE



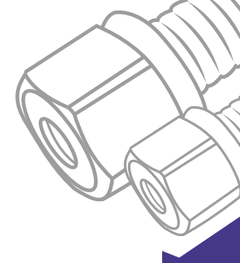
Reference	Measure	A	B	Weight		
PT16	16	71,20	45,75	75	20	160
PT20	20	75,20	49,75	107	14	112
PT25	25	98,00	64,14	192	6	48
PT32	32	105,40	71,05	273	4	32
	∅	mm	mm	g	uns.	uns.

REDUCER TEE

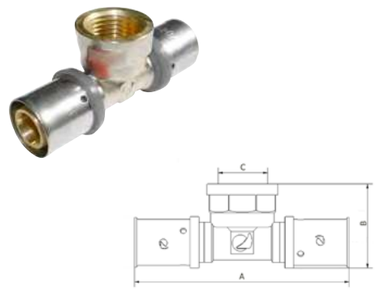
Reference	Measure	A	B	Weight		
PTR162016	16 – 20 - 16	73,20	46,75	91	18	144
PTR162516	16 – 25 - 16	81,20	55,15	110	10	80
PTR201616	20 – 16 - 16	71,20	49,75	89	18	144
PTR201620	20 – 16 - 20	71,20	49,75	96	14	112
PTR202016	20 – 20 - 16	76,20	49,75	102	18	144
PTR202520	20 – 25 - 20	80,20	64,62	152	8	64
PTR251616	25 – 16 - 16	84,10	54,80	110	8	64
PTR251620	25 – 16 - 20	84,10	54,80	127	10	80
PTR251625	25 – 16 - 25	91,00	54,80	150	10	80
PTR252016	25 – 20 - 16	85,10	55,15	132	9	72
PTR252020	25 – 20 - 20	84,10	54,75	134	9	72
PTR252025	25 – 20 - 25	92,00	55,25	160	10	80
PTR252520	25 – 25 - 20	88,60	64,15	165	8	64
PTR253225	25 – 32 - 25	101,00	67,35	234	8	64
PTR321632	32 – 16 - 32	96,40	62,25	204	7	56
PTR322032	32 – 20 - 32	96,40	62,25	220	5	40
PTR322520	32 – 25 - 20	89,80	69,15	182	5	40
PTR322525	32 – 25 - 25	98,70	69,15	225	5	40
PTR322532	32 – 25 - 32	98,40	71,15	240	5	40
PTR323225	32 – 32 - 25	102,70	89,85	249	5	40
	Ø	mm	mm	g	uns.	uns.

THESE TUBES TOGETHER WITH THE I-PERT ACCESSORIES, CONFORM THE ISOLTUBEX I-PERT SYSTEM, CERTIFICATE ISSUED BY AENOR ACCORDING TO THE UNE-EN ISO 22391 STANDARD.

ACCESSORIES I-PERT
For tube 16x1.8, 20x1.9, 25x2.3, 32x2.9

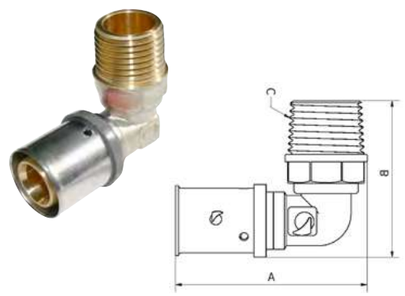


FEMALE TEE



Reference	Measure	A	B	C	Weight		
PTH1612	16 - 1/2"	83,20	33,15	G1/2	104	16	128
PTH2012	20 - 1/2"	83,20	37,15	G1/2	120	12	96
PTH2034	20 - 3/4"	89,20	37,15	G3/4	155	10	80
PTH2512	25 - 1/2"	99,00	41,64	G1/2	171	8	64
PTH2534	25 - 3/4"	105,00	41,64	G3/4	205	7	56
PTH251	25 - 1"	113,00	41,64	G1	167	5	40
PTH321	32 - 1"	113,40	49,15	G1	227	3	24
	Ø	mm	mm		g	uns.	uns.

MALE ELBOW



Reference	Measure	A	B	C	Weight		
PCM1612	16 - 1/2"	53,10	43,65	R1/2	73	25	200
PCM2012	20 - 1/2"	52,60	46,99	R1/2	85	20	160
PCM2512	25 - 1/2"	60,50	50,15	R1/2	121	14	112
PCM2534	25 - 3/4"	65,00	53,15	R3/4	128	12	96
PCM321	32 - 1"	70,20	64,15	R1	196	6	48
	∅	mm	mm		g	uns.	uns.

FEMALE ELBOW

Reference	Measure	A	B	C	Weight		
PCH1612	16 - 1/2"	55,60	29,50	G1/2	71	30	240
PCH1634	16 - 3/4"	61,10	32,00	G3/4	83	18	144
PCH2012	20 - 1/2"	55,60	33,00	G1/2	86	22	176
PCH2034	20 - 3/4"	60,00	33,00	G3/4	91	15	120
PCH2512	25 - 1/2"	63,50	36,50	G1/2	109	12	96
PCH2534	25 - 3/4"	69,00	36,50	G3/4	127	10	80
PCH251	25 - 1"	75,00	37,50	G1	145	8	64
PCH321	32 - 1"	76,50	43,00	G1	187	8	64
	∅	mm	mm		g	uns.	uns.

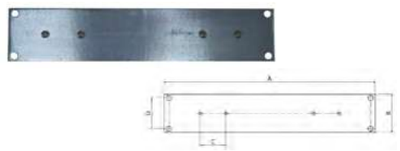
THESE TUBES TOGETHER WITH THE I-PERT ACCESSORIES, CONFORM THE ISOLTUBEX I-PERT SYSTEM, CERTIFICATE ISSUED BY AENOR ACCORDING TO THE UNE-EN ISO 22391 STANDARD.

ACCESSORIES I-PERT
For tube 16x1.8, 20x1.9, 25x2.3, 32x2.9

WALL PLATED FEMALE ELBOW

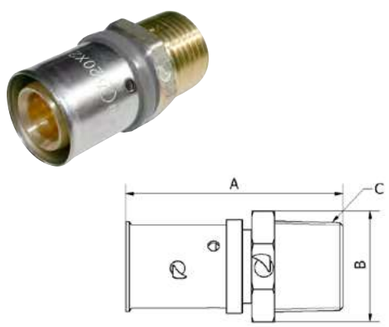
Reference	Measure	A	B	C	Weight		
PCSH1612	16 - 1/2''	46,00	55,60	G1/2	107	14	112
PCSH2012	20 - 1/2''	46,00	55,60	G1/2	120	12	96
PCH2534	25 - 3/4''	47,50	69,50	G3/4	152	10	80
	∅	mm	mm		g	uns.	uns.

PLATE
FOR WALL PLATED FEMALE ELBOW



Reference	A	B	C	D	Weight		
PLACA	255,00	50,00	34,00	40,00	236	10	100
	mm	mm	mm	mm	g	uns.	uns.

MALE UNION

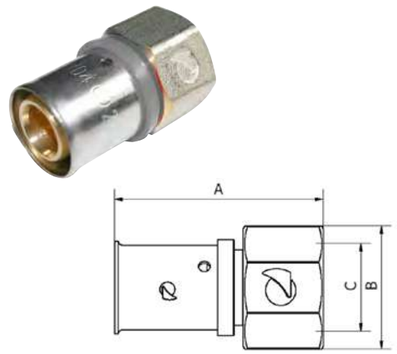


Reference	Measure	A	B	C	Weight		
PEM1612	16 - 1/2''	46,60	26,00	R1/2	50	50	400
PEM1634	16 - 3/4''	47,60	31,00	R3/4	64	40	320
PEM2012	20 - 1/2''	46,60	26,00	R1/2	57	40	320
PEM2034	20 - 3/4''	47,60	31,00	R3/4	70	35	280
PEM2512	25 - 1/2''	54,50	26,00	R1/2	75	16	128
PEM2534	25 - 3/4''	55,50	31,00	R3/4	93	18	144
PEM251	25 - 1''	56,50	39,00	R1	114	16	128
PEM3234	32 - 3/4''	55,70	31,00	R3/4	105	12	96
PEM321	32 - 1''	56,70	39,00	R1	129	14	112
	∅	mm	mm		g	uns.	uns.

THESE TUBES TOGETHER WITH THE I-PERT ACCESSORIES, CONFORM THE ISOLTUBEX I-PERT SYSTEM, CERTIFICATE ISSUED BY AENOR ACCORDING TO THE UNE-EN ISO 22391 STANDARD.

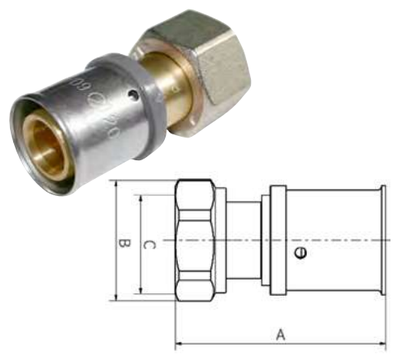
ACCESSORIES I-PERT
For tube 16x1.8, 20x1.9, 25x2.3, 32x2.9

FEMALE UNION



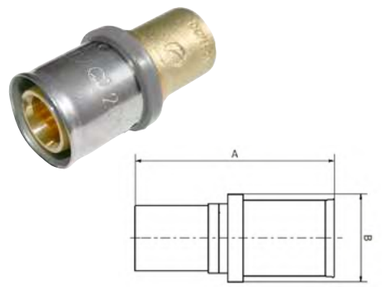
Reference	Measure	A	B	C	Weight		
PEH1612	16-1/2''	43,60	28,00	G1/2	54	40	320
PEH2012	20-1/2''	43,60	28,00	G1/2	61	35	280
PEH2034	20-3/4''	43,60	33,00	G3/4	67	30	240
PEH2512	25-1/2''	51,50	28,00	G1/2	82	20	160
PEH2534	25-3/4''	51,50	33,00	G3/4	95	20	160
PEH251	25-1''	52,50	41,00	G1	117	12	96
PEH3234	32-3/4''	51,70	33,00	G3/4	107	16	128
PEH321	32-1''	52,70	41,00	G1	131	12	96
	∅	mm	mm		g	uns.	uns.

DESMOUNTABLE FEMALE UNION



Reference	Measure	A	B	C	Weight		
RM1612	16 - 1/2''	52,60	28,00	G1/2	68	48	384
RM1634	16 - 3/4''	50,00	33,00	G3/4	75	30	240
RM2012	20 - 1/2''	52,60	28,00	G1/2	76	30	240
RM2034	20 - 3/4''	53,60	33,00	G3/4	88	24	192
RM2534	25 - 3/4''	61,50	33,00	G3/4	160	18	144
RM251	25 - 1''	68,00	41,00	G1	113	14	112
RM321	32 - 1''	68,20	41,00	G1	184	14	112
RM32114	32 - 1 1/4''	68,70	51,10	G11/4	228	10	80
	∅	mm	mm		g	uns.	uns.

ADAPTER COPPER - PERT

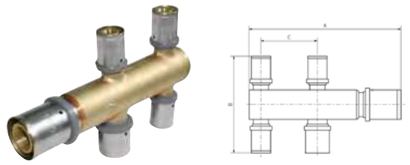


Reference	Measure	A	B	Weight		
PADC12P16	CU12 - MC16	46,10	20,30	29	50	400
PADC15P16	CU15 - MC16	46,10	20,30	32	50	400
PADC18P16	CU18 - MC16	46,60	20,30	45	50	400
PADC15P20	CU15 - MC20	46,60	24,30	43	20	160
PADC18P20	CU18 - MC20	46,60	24,30	52	45	360
PADC18P25	CU18 - MC25	54,50	30,30	66	20	160
PADC22P20	CU22 - MC20	46,60	24,30	58	20	160
PADC22P25	CU22 - MC25	54,50	30,30	75	20	160
PADC28P25	CU28 - MC25	54,50	30,38	77	18	144
PADC28P32	CU28 - MC32	54,70	37,30	98	16	128
	∅	mm	mm	g	uns.	uns.

THESE TUBES TOGETHER WITH THE I-PERT ACCESSORIES, CONFORM THE ISOLTUBEX I-PERT SYSTEM, CERTIFICATE ISSUED BY AENOR ACCORDING TO THE UNE-EN ISO 22391 STANDARD.

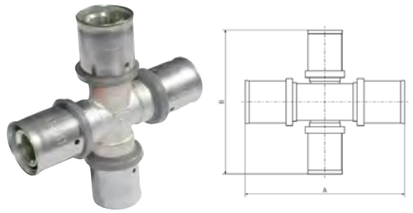
ACCESSORIES I-PERT
For tube 16x1.8, 20x1.9, 25x2.3, 32x2.9

DISTRIBUTOR



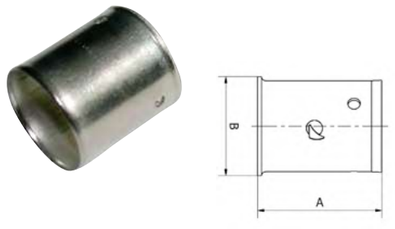
Reference	Measure	A	B	C	Weight		
D2020161616	20 20-16-16-16	136	89,20	52	343	3	24
D2520161616	25 20-16-16-16	140	89,20	52	389	3	24
	∅	mm	mm		g	uns.	uns.

CROSS



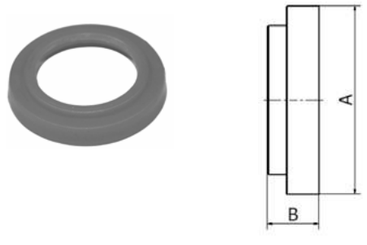
Reference	Measure	A	B	Weight		
PDC25202020	25-20-20-20	90,40	82,50	196	5	40
PDC25201616	25-20-16-16	86,48	78,55	164	5	40
PDC20201616	20-20-16-16	78,55	78,55	128	10	80
PDC20202020	20-20-20-20	82,50	82,50	147	10	80
PDC20162016	20-16-20-16	82,50	74,60	119	10	80
	∅	mm	mm	g	uns.	uns.

INOX RING



Reference	Measure	A	B	Weight		
CI16	16	24,14	18,17	7	-	100
CI20	20	23,90	22,70	10	-	100
CI25	25	31,60	28,12	17	-	50
CI32	32	31,70	34,80	22	-	30
	∅	mm	mm	g	uns.	uns.

ELECTROLYSIS JOINT

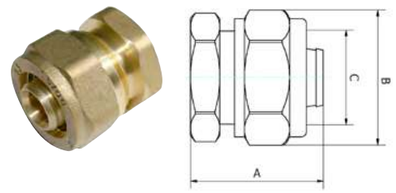


Reference	Measure	A	B	Weight		
JE16	16	20,40	5,50	0,50	-	100
JE20	20	24,30	5,50	0,50	-	100
JE25	25	30,30	5,50	0,50	-	100
JE32	32	37,30	6,00	1,00	-	100
	∅	mm	mm	g	uns.	uns.

VALVES AND HANDLES FOR VALVES

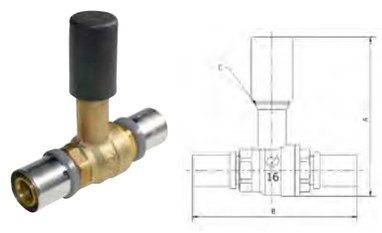
ACCESSORIES I-PERT
For tube 16x1.8, 20x1.9, 25x2.3, 32x2.9

RECOVERABLE PLUG



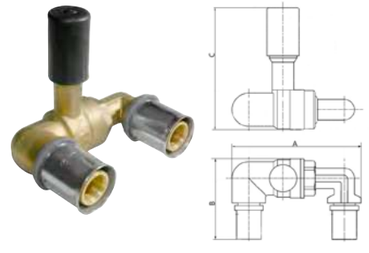
Reference	Measure	A	B	C	Weight		
TAP16R	16	27,00	25,00	G3/4	65	48	384
	∅	mm	mm	mm	g	uns.	uns.

BALL VALVE



Reference	Measure	A	B	C	Weight		
PVAL16	16	90,00	93,20	M20 X 1,25	249	5	40
PVAL20	20	90,00	93,20	M20 X 1,25	276	5	40
PVAL25	25	93,00	115,00	M20 X 1,25	380	5	40
PVAL32	32	97,50	117,40	M20 X 1,25	468	4	32
	∅	mm	mm	mm	g	uns.	uns.

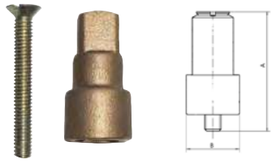
U-BALL VALVE



Reference	Measure	A	B	C	Weight		
VALU16	16	94,45	59,50	89,20	388	4	32
VALU20	20	95,50	59,70	89,40	380	4	32
VALU25	25	99,80	67,80	90,24	445	4	32
	∅	mm	mm	mm	g	uns.	uns.

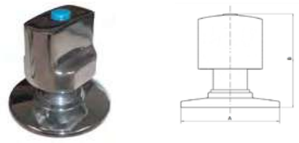
ACCESSORIES I-PERT
For tube 16x1.8, 20x1.9, 25x2.3, 32x2.9

EXTENSION



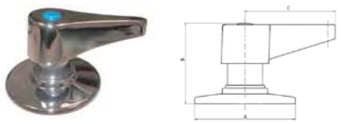
Reference	Measure	A	B	Weight		
ALAR	20	30,00	13,00	18	125	1000
	mm	mm	mm	g	uns.	uns.

ROUND HANDLE AND SHIELD FOR VALVES Ref. PVAL / PVALU



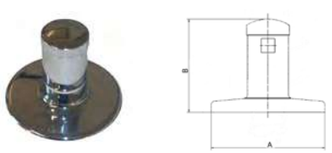
Reference	A	B	Weight		
MR	70,00	68,00	122	5	150
	mm	mm	g	uns.	uns.

LEVER HANDLE AND SHIELD FOR VALVES Ref. PVAL / PVALU



Reference	A	B	C	Weight		
MP	70,00	57,00	62,00	126	5	150
	mm	mm	mm	g	uns.	uns.

OCCULT HANDLE AND SHIELD FOR VALVES Ref. PVAL / PVALU



Reference	A	B	Weight		
MO	69,00	52,50	98	5	150
	mm	mm	g	uns.	uns.

ACCESSORIES I-PERT
For tube 16x1.8, 20x1.9, 25x2.3, 32x2.9

SCISSORS

Reference	For tubes	Long	Width	Deep	Weight		
TIJ1632	Ø16 until Ø32	10,5	23,0	2,5	544	-	1
		cm	cm	cm	g	uns.	uns.

JAWS "RFIz" and "U"

Clamps "RFIz"

Adaptable to the majority of radial presses existing in the market

Reference	Measure	Long	Width	Deep	Weight		
RFIz 16	16	9,5	14,5	4,5	1834	-	1
RFIz 20	20	9,5	14,5	4,5	1818	-	1
RFIz 25	25	10	15,5	4,5	2112	-	1
RFIz 32	32	10	14,4	4,5	1824	-	1
	Ø	mm	mm	mm	g		uns.

POWER PRESS

Reference	Characteristics	
572111	Electro-mechanical actuating machine with maintenance-free gear with sliding clutch for safety. Proven universal motor, 230V, 50-60Hz, 500W. The pressing tongs remain closed until the recoil connection, therefore, possibility of visually checking the correct pressing. Packed in tough metal case. The machine does not include jaws. Thrust force 32kN.	1
		uns.

AKKU PRESS

Reference	Characteristics	
571014	Electro-hydraulic actuating machine with gear. Optimal weight distribution for one-handed operation. Rotating press holder. Piston pump with robust planetary gear. Powerful motor by accumulation of 12V 12V, 2Ah accumulator. Fast charger 230V, 50W. Automatic Circuit Control (ACC): Automatic recoil after completing the pressing process. Optical indicator after 10,000 pressings. Packed in tough metal case. The machine does not include jaws. Thrust force 32kN	1
		uns.

SLIDING FITTINGS

FOR PEX PIPE * - a

* PEX: Reticulated Polyethylene

CLASS / FIELD OF APPLICATION
CLASS 1: Hot water 60° C.
CLASS2: Hot water 70° C.
CLASS 4: Underfloor heating / cooling and radiators at low temperature.
CLASS 5: Heating by radiators at high temperature.

DESIGN PRESSURE

Ø 16 :	1/8; 2/8; 4/10; 5/8
Ø 20, Ø 25, Ø 32, :	1/6; 2/6; 4/8; 5/6

According to the norm UNE-EN ISO 15875

PEX-a PIPE FOR SLIDING FITTINGS

CHARACTERISTICS:

Pex-a pipe is manufactured according to ISO 15875.

This pipe is manufactured by the peroxide Xa system that provides great flexibility and perfect homogenization of the crosslinking.

Corrosion resistant, excellent thermal memory, lightweight and flexible.
Use in plumbing and heating installations.

Tª Max. 95ºC - Max. Pressure 8 bar

SLIDING FITTINGS FOR PEX TUBES

CHARACTERISTICS:

The ISOLTUBEX sliding fittings have been designed from Ø16 to Ø32, developed with the aim of obtaining the maximum performance of resistance and safety in the hydraulic or heating installations. The operation of joining ISOLTUBEX sliding fittings with a PEX tube must necessarily be done with a sliding machine. The process consists of inserting the socket in the tube, then inserting the piece in the pipe and then sliding the socket using the appropriate tool, with this process will be irreversibly joined pipe and accessory.

Our fittings are made with high quality brass; CW617N, according to UNE-EN ISO15875-3 standard.

The range of our sliding fittings is very complete (Ø16 to Ø32).

The sliding fittings, are easily identifiable, our logo or our brand ISOLTUBEX is indelibly marked, both in the body of the fitting, as in the brass sockets.

ASSEMBLY INSTRUCTIONS FOR SLIDING FITTINGS

Before starting the assembly check that the tubes are not broken, bent, damaged or apparently not suitable for installation. It is also necessary to check that the fittings to be used appear without any dirt residues in any of their components or present any anomaly or deterioration that prevents their correct use.

VERY IMPORTANT: THE USE OF DETERIORATED TUBES AND / OR FITTINGS, IN POOR CONDITION OR IN CONDITIONS OF CONSERVATION OR MAINTENANCE NOT SUITABLE FOR INSTALLATION, EXCLUDES THE WARRANTY. *(see warranty page and general conditions)*

All assembly processes on our YouTube channel

1.

Cut the tube perpendicular to its length, using a tool that guarantees a clean and precise cut.

2.

Slide the socket into the tube.

3.

Expand the end of the tube where we want to insert the accessory. We will use the reamer for this.
Ref.ABOCARDADOR

4.

Insert the tip of the fitting into the tube, approximately until its last ring.

5.

Place the tube and fitting between the cribs of the press.

6.

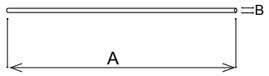
Press the lever of the press until the base of the socket is joined to the fitting.

THE PEX-a PIPE (crosslinked by peroxide) IS CERTIFIED BY AENOR ACCORDING TO NORMA UNE-EN-ISO 15875

PEX-a PIPE

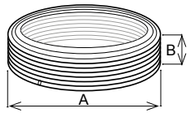
PEX-a PIPE BAR - 4 meters -

RETICULATED POLYETHYLENE TUBE
-NATURAL-



Reference	∅ Tube	Measurements Bar A	Measurements Bar B	Weight Bar	PACKAGE n° Bars	PACKAGE Meters	PACKAGE Weight	PALET 410x100x80 cm n° Bars	PALET 410x100x80 cm Weight
PEX16-B	16 x 1,8	400	1,6	0,42	**50**	200	21,00	1000	420,00
PEX20-B	20 x 1,9	400	2,0	0,54	**35**	140	18,90	700	378,00
PEX25-B	25 x 2,3	400	2,5	0,86	**20**	80	17,20	400	344,00
PEX32-B	32 x 2,9	400	3,2	0,86	**14**	56	12,04	280	240,80
		cm	cm	kg	**uns.**	mts.	kg	uns.	kg

PEX-a PIPE IN ROLL



Reference	∅ Tube	Meters Roll	Measurements Roll A	Measurements Roll B	Weight Roll	PALET n° Rolls	PALET Weight
PEX16-R100	16 x 1,8	**100**	63,0	17,5	7,60	24	182,4
PEX20-R100	20 x 1,9	**100**	67,0	21,5	10,20	22	224,4
PEX20-R200	20 x 1,9	**200**	77,0	25,0	20,40	16	326,4
PEX25-R50	25 x 2,3	**50**	83,0	20,0	7,70	16	123,2
PEX32-R50	32 x 2,9	**50**	93,0	17,0	12,45	16	199,2
		mts.	cm	cm	kg	uns.	kg

SLIDING FITTINGS
For PEX tube 16x1.8 20x1.9 25x2.3 32x2.9

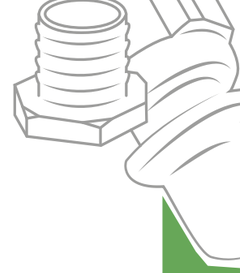
UNION

Reference	Measure		
UCC16	16	50	400
UCC20	20	30	240
UCC25	25	25	200
UCC32	32	15	120
	∅	uns.	uns.

REDUCER

Reference	Measure		
RCC2016	20 - 16	40	320
RCC2516	25 - 16	30	240
RCC2520	25 - 20	20	160
RCC3225	32 - 25	15	120
	∅	uns.	uns.

SLIDING FITTINGS
For tube PEX-a 16x1.8, 20x1.9, 25x2.3, 32x2.9



ELBOW

Reference	Measure		
CCC16	16	32	256
CCC20	20	22	176
CCC25	25	11	88
CCC32	32	10	80
	∅	uns.	uns.

TEE

Reference	Measure		
TCC16	16	20	160
TCC20	20	15	120
TCC25	25	15	120
TCC32	32	7	56
	∅	uns.	uns.

REDUCER TEE

Reference	Measure		
TRCC162016	16 - 20 - 16	25	200
TRCC162516	16 - 25 - 16	15	120
TRCC201616	20 - 16 - 16	25	200
TRCC201620	20 - 16 - 20	14	112
TRCC202016	20 - 20 - 16	18	144
TRCC202520	20 - 25 - 20	15	120
TRCC251616	25 - 16 - 16	15	120
TRCC251620	25 - 16 - 20	15	120
TRCC251625	25 - 16 - 25	15	120
TRCC252016	25 - 20 - 16	15	120
TRCC252020	25 - 20 - 20	15	120
TRCC252025	25 - 20 - 25	8	64
TRCC252516	25 - 25 - 16	9	72
TRCC252520	25 - 25 - 20	15	120
TRCC253225	25 - 32 - 25	8	64
TRCC322525	32 - 25 - 25	7	56
TRCC322532	32 - 25 - 32	7	56
TRCC323225	32 - 32 - 25	7	56
	∅	uns.	uns.

SLIDING FITTINGS
For tube PEX-a 16x1.8, 20x1.9, 25x2.3, 32x2.9

FEMALE ELBOW

Reference	Measure		
CHCC1612	16 - 1/2”	30	240
CHCC2012	20 - 1/2”	22	176
CHCC2034	20 - 3/4”	15	120
CHCC2534	25 - 3/4”	20	160
CHCC321	32 - 1”	10	80
	∅	uns.	uns.

DESMOUNTABLE FEMALE ELBOW

Reference	Measure		
CTMCC1612	16 - 1/2”	30	240
CTMCC2012	20 - 1/2”	22	176
CTMCC2034	20 - 3/4”	15	120
CTMCC2534	25 - 3/4”	15	120
	∅	uns.	uns.

MALE ELBOW

Reference	Measure		
CMCC1612	16 - 1/2”	40	320
CMCC2012	20 - 1/2”	20	160
CMCC2534	25 - 3/4”	10	80
	∅	uns.	uns.

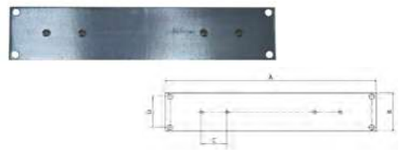
WALL PLATED FEMALE ELBOW

Reference	Measure		
CBCCC1612	16 - 1/2”	14	112
CBCCC2012	20 - 1/2”	12	96
CBCCC2534	25 - 3/4”	15	120
	∅	uns.	uns.

WALL PLATED FEMALE ELBOW LONG

Reference	Measure		
CBLCC1612	16 - 1/2”	15	120
CBLCC2012	20 - 1/2”	12	96
	∅	uns.	uns.

PLATE
FOR WALL PLATED FEMALE ELBOW



Reference	A	B	C	D	Peso		
PLACA	255,00	50,00	34,00	40,00	236,00	10	100
	mm	mm	mm	mm	g	uns.	uns.

MALE UNION

Reference	Measure		
EMCC1612	16 - 1/2”	50	400
EMCC1634	16 - 3/4”	40	320
EMCC2012	20 - 1/2”	40	320
EMCC2034	20 - 3/4”	35	280
EMCC2534	25 - 3/4”	18	144
EMCC251	25 - 1”	20	160
EMCC321	32 - 1”	20	160
	∅	uns.	uns.

FEMALE UNION

Reference	Measure		
EHCC1612	16 - 1/2”	45	360
EHCC2012	20 - 1/2”	40	320
EHCC2034	20 - 3/4”	30	240
EHCC2534	25 - 3/4”	25	200
EHCC251	25 - 1”	20	160
EHCC321	32 - 1”	15	120
	∅	uns.	uns.

DESMOUNTABLE FEMALE UNION

Reference	Measure		
RMCC1612	16 - 1/2”	45	360
RMCC1634	16 - 3/4”	40	320
RMCC2012	20 - 1/2”	40	320
RMCC2034	20 - 3/4”	30	240
RMCC2534	25 - 3/4”	25	200
RMCC251	25 - 1”	25	200
RMCC321	32 - 1”	15	120
	∅	uns.	uns.

TE THREAD FEMALE

Reference	Measure		
THCC1612	16 - 1/2"	16	128
THCC2012	20 - 1/2"	12	96
THCC2534	25 - 3/4"	12	96
THCC321	32 - 1"	10	80
THCC3234	32 -3/4"	10	80
	∅	uns.	uns.

COPPER ADAPTER

Reference	Measure		
ADCC1216	CU12 - PE16	50	400
ADCC1516	CU15 - PE16	50	400
ADCC1816	CU18 - PE16	40	320
ADCC1820	CU18 - PE20	40	320
	∅	uns.	uns.

DISTRIBUTOR 4 OUTPUTS

Reference	Measure		
DCC2020161616	20-16-16-16	10	80
DCC2520161616	20-16-16-16	10	80
	∅	uns.	uns.

DISTRIBUTOR IN CROSS

Reference	Measure		
DCCC20201616	20-20-16-16	15	120
DCCC25201616	25-20-16-16	10	80
	∅	uns.	uns.

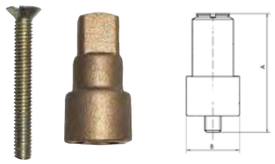
CAP

Reference	Measure		
CC16	16	80	640
CC20	20	80	640
CC25	25	50	400
CC32	32	25	200
	∅	uns.	uns.

BALL VALVE

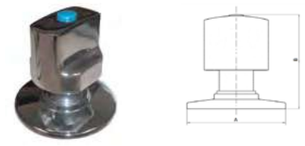
Reference	Measure		
VALCC16	16	5	40
VALCC20	20	5	40
VALCC25	25	5	40
	∅	uns.	uns.

EXTENSION



Reference	Measure	A	B	Weight		
ALAR	20	30,00	13,00	18	125	1000
	mm	mm	mm	g	uns.	uns.

ROUND HANDLE AND SHIELD FOR VALVES Ref. VALCC

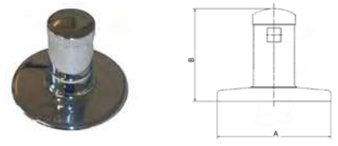


Reference	A	B	Weight		
MR	70,00	68,00	122	5	150
	mm	mm	g	uns.	uns.

LEVER HANDLE AND SHIELD FOR VALVES Ref. VALCC

Reference	A	B	C	Weight		
MP	70,00	57,00	62,00	126	5	150
	mm	mm	mm	g	uns.	uns.

OCCULT HANDLE AND SHIELD FOR VALVES Ref. VALCC



Reference	A	B	Weight		
MO	69,00	52,50	98	5	150
	mm	mm	g	uns.	uns

PRESS ASSEMBLY KIT

Reference	Characteristics		
KPM-2-CC	Sliding machine for bushings Accessory clamp (16-20-25) Pusher clamp for accessories Elbow adjuster	1	4
		uns.	uns.

"ECO" ASSEMBLY PRESS KIT

Reference	Characteristics		
KHMCC	Sliding machine for bushing Gag for accessories (12-16-20) Flaker / expander	1	5
		uns.	uns.

REAMER / EXPANDER

Reference	Characteristics		
AM	For Ø16 to Ø32 tube	1	40
		uns.	uns.

SCISSORS

Reference	For tubes	Long	Width	Deep	Weight		
TIJ1632	Ø16 until Ø32	10,5	23,0	2,5	544	-	1
		cm	cm	cm	g	uns.	uns.

F & R EXPANSION SYSTEM

PEX-a PIPE
+
EXPANSION ACCESSORIES

CLASS / FIELD OF APPLICATION
CLASS 1: Hot water 60° C.
CLASS 2: Hot water 70° C.
CLASS 4: Underfloor heating / cooling and radiators at low temperature.
CLASS 5: Heating by radiators at high temperature.

DESIGN PRESSURE

Ø 16 :	1/8; 2/8; 4/10; 5/8
Ø 20, Ø 25, Ø 32, :	1/6; 2/6; 4/8; 5/6

According to the norm UNE-EN ISO 15875

EXPANSION F & R SYSTEM

CHARACTERISTICS:

The Expansion F & R system is formed by Pex-a Pipe and Brass or PPSU fitting . This system is designed exclusively for the conduction of cold and hot water in installations of plumbing, heating and air conditioning.

The Expansion F & R System is based on the great elasticity of the Pex-a pipes that, after their expansion, and thanks to their thermal memory, contract to recover their initial dimensions, pressing on the body of the accessory getting a safe and lasting union.

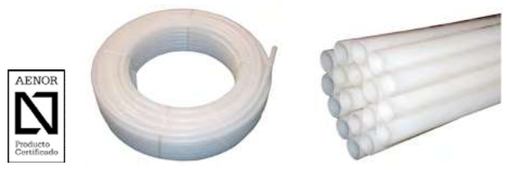
ADVANTAGES :

1. Maximum profitability due to its speed of installation and simplicity of assembly, which provides a reduced labor cost.
2. Greater flow and less pressure drop since these accessories have an upper internal diameter, achieving a water flow of up to 20% more than most systems and guaranteeing minimum pressure drops.
3. Perfect sealing without the need for O-rings, ensuring a long and secure connection.
4. The compression force is applied equally to the entire surface of the fitting.
5. For the installation it is not necessary to calibrate / ream the pipe.
6. These accessories support in a safety way the modifications of pipe dimension that may suffer both for their manufacturing tolerances and for the temperature differences of the liquids they transport.
7. Absence of incrustations and resistance to corrosion.

SYSTEM COMPONENTS:

Pex-a pipe

The Pex-a pipe is manufactured with high quality polyethylene and crosslinked by the PERÓXIDO Xa system. They are manufactured according to Standard UNE-EN-ISO 15875. Especially recommended for hydraulic and heating installations.



Plastic Rings

These rings are made of high quality polymers and injection molded. The design of these rings that in turn include a system of stops allows a greater dimensional accuracy and ease in assembly. They can be found in three colors (red, blue and white) to more easily identify the networks of the pipes.

Brass and PPSU Accessories

The F & R brass expansion fittings are manufactured according to the UNE-ISO-15875 standard and made with high quality brass CW617N.

The F & R brass expansion fittings are manufactured according to the UNE-ISO-15875 standard and made with high quality brass CW617N.

The main advantages of these PPSU accessories compared to brass accessories are:

1. Less weight, which makes them lighter.
2. Better thermal and acoustic insulation
3. Better resistance to contact with chemical products.
4. They do not rust or corrode and are resistant to water.
5. Less pressure drop due to its low internal roughness.
6. Does not add metallic oxides to water.
7. Resistant to impacts, at high pressures as they can raise their length before breaking.

These accessories are compatible with Pex-a tubes of the following dimensions:

External diameter(mm)	Thickness (mm)
16	1,8
20	1,9
25	2,3
32	2,9

These accessories are supplied protected with a protective cap to prevent them from being damaged before installation.

ASSEMBLY INSTRUCTIONS FOR EXPANSION F & R SYSTEM

Before starting the assembly check that the tubes are not broken, bent, damaged or apparently not suitable for installation. It is also necessary to check that the accessories to be used appear without any dirt residues in any of their components or present any anomaly or deterioration that prevents their correct use.

VERY IMPORTANT: THE USE OF DETERIORATED TUBES AND / OR ACCESSORIES, IN POOR CONDITION OR IN CONDITIONS OF CONSERVATION OR MAINTENANCE NOT SUITABLE FOR INSTALLATION, EXCLUDES THE WARRANTY. *(see warranty page and general conditions)*

All assembly processes in our channel YouTube

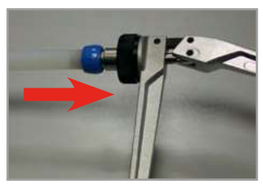
1.

Cut the tube perpendicular to its length, using a tool that guarantees a clean and precise cut.

2.

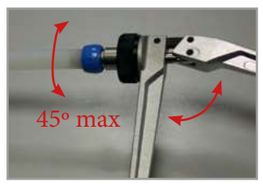
Insert the ring into the tube, until it reaches the inner stops.

3.



Open the expander levers in their entirety and insert the head as far as possible into the pipe.

4.



Slowly press the levers until they are joined and wait for 3 seconds. Open the levers, bring the tool back a few millimeters, rotate the tool with a maximum of 45° and reinsert the segments of the expander head in the pipe. Repeat until the expander head is completely inside the pipe.

5.

Remove the tool and insert the accessory without delay maintaining the pressure for a few seconds until the pipe contracts and adequately holds the accessory.

NUMBER OF RECOMMENDED EXPANSIONS:

Dimensions	16x1,8	20x1,9	25x2,3	32x2,9
N° Expansions	4	5	7	13

PRESSURE TEST:

In accordance with current regulations, a leakproofness test of the installations must be carried out before embedding and commissioning. To perform this test it is necessary to wait for the pipe to contract and properly hold the fitting as the expansion joint is based on the plastic memory of the pipe.

MINIMUM WAITING TIMES:

Temperature	+10°C	+6°C a 10°C	+1°C a +5°C	-4°C a 0°C	-9°C a 5°C	-15°C a -10°C
Wait time	30 min.	45 min.	2 hours	3 hours	4 hours	12 hours

FIELDS OF APPLICATION:

These accessories are suitable for use with PEX-a pipes in the following applications defined in the UNE-EN-ISO 15875 standard

Class of application	Design Temperature (TD) °C	Time to TD Years	Maximum temperature (Tmax) °C	Time to Tmax Years	Malfunction temperature (Tmail) °C	Time to Tmail Years	Field of typical use
1	60	49	80	1	95	100	Hot water supply (60°)
2	70	49	80	1	95	100	Hot water supply (70°)
4	20	2,5	70	2,5	100	100	Underfloor heating and radiators at low temperature
	more accumulated						
	40	20					
	more accumulated						
	60	25					
5	20	14	90	1	100	100	High temperature radiators
	more accumulated						
	60	25					
	more accumulated						
	80	10					

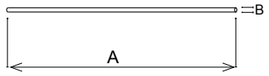
DESIGN PRESSURE
Series4 Ø16x1,8: 1/8 bar; 2/8 bar; 4/10 bar; 5/8 bar
Series 5 Ø20x1,9 Ø25x2,3, Ø32x2,9: 1/6 bar; 2/6 bar; 4/8 bar; 5/6 bar

THE PEX-A PIPE (Crosslinked by Peroxide) IS CERTIFIED BY AENOR ACCORDING TO NORMA UNE-EN-ISO 15875

PEX-a PIPE

PEX-a PIPE BAR- 4 meters -

RETICULATED POLYETHYLENE TUBE
-NATURAL-



Reference	∅ Tube	Measurements Bar		Wei-ght Bar	PACKAGE			PALET 410x100x80 cm	
		A	B		n° Bars	Meters	Weight	n° Bars..	Weight
PEX16-B	16 x 1,8	400	1,6	0,42	**50**	200	21,00	1000	420,00
PEX20-B	20 x 1,9	400	2,0	0,54	**35**	140	18,90	700	378,00
PEX25-B	25 x 2,3	400	2,5	0,86	**20**	80	17,20	400	344,00
PEX32-B	32 x 2,9	400	3,2	0,86	**14**	56	12,04	280	240,80
		cm	cm	kg	**uns.**	mts.	kg	uns.	kg

PEX-a PIPE IN ROLL

Reference	∅ Tube	Meters Roll	Measurements Roll		Weight Roll	PALET	
			A	B		n° Rolls	Weight
PEX16-R100	16 x 1,8	**100**	63,0	17,5	7,60	24	182,4
PEX20-R100	20 x 1,9	**100**	67,0	21,5	10,20	22	224,4
PEX20-R200	20 x 1,9	**200**	77,0	25,0	20,40	16	326,4
PEX25-R50	25 x 2,3	**50**	83,0	20,0	7,70	16	123,2
PEX32-R50	32 x 2,9	**50**	93,0	17,0	12,45	16	199,2
		mts.	cm	cm	kg	uns.	kg

EXPANSION ACCESSORIES
For tube PEX-a 16x1.8, 20x1.9, 25x2.3, 32x2.9

BRASS UNION

Reference	Measure		
FRU16	16	45	360
FRU20	20	30	240
FRU25	25	15	120
FRU32	32	10	80
	∅	uns.	uns.

PPSU UNION

Reference	Measure		
FRPU16	16	45	360
FRPU20	20	30	240
FRPU25	25	15	120
FRPU32	32	10	80
	∅	uns.	uns.

EXPANSION ACCESSORIES
For tube PEX-a 16x1.8, 20x1.9, 25x2.3, 32x2.9

BRASS REDUCER

Reference	Measure		
FRR2016	20 - 16	37	296
FRR2516	25 - 16	20	160
FRR2520	25 - 20	20	160
FRR3225	32 - 25	12	96
	∅	uns.	uns.

PPSU REDUCER

Reference	Measure		
FRPR2016	20 - 16	37	296
FRPR2516	25 - 16	20	160
FRPR2520	25 - 20	20	160
FRPR3225	32 - 25	12	96
	∅	uns.	uns.

BRASS ELBOW

Reference	Measure		
FRC16	16	32	256
FRC20	20	22	176
FRC25	25	11	88
FRC32	32	6	48
	∅	uns.	uns.

PPSU ELBOW

Reference	Measure		
FRPC16	16	32	256
FRPC20	20	22	176
FRPC25	25	11	88
FRPC32	32	6	48
	∅	uns.	uns.

EXPANSION ACCESSORIES
For tube PEX-a 16x1.8, 20x1.9, 25x2.3, 32x2.9

BRASS TEE

Reference	Measure		
FRT16	16	20	160
FRT20	20	14	112
FRT25	25	6	48
FRT32	32	4	32
	∅	uns.	uns.

PPSU TEE

Reference	Measure		
FRPT16	16	20	160
FRPT20	20	14	112
FRPT25	25	6	48
FRPT32	32	4	32
	∅	uns.	uns.

BRASS REDUCER TEE

Reference	Measure		
FRTR201616	20-16-16	20	160
FRTR201620	20-16-20	14	112
FRTR202016	20-20-16	18	144
FRTR251625	25-16-25	9	72
FRTR252020	25-20-20	10	80
FRTR252025	25-20-25	8	64
FRTR252520	25-25-20	7	56
FRTR322532	32-25-32	5	40
	∅	uns.	uns.

PPSU REDUCER TEE

Reference	Measure		
FRPTR201616	20-16-16	20	160
FRPTR201620	20-16-20	14	112
FRPTR202016	20-20-16	18	144
FRPTR251625	25-16-25	9	72
FRPTR252020	25-20-20	10	80
FRPTR252025	25-20-25	8	64
FRPTR252520	25-25-20	7	56
FRPTR322532	32-25-32	5	40
	∅	uns.	uns.

BRASS FEMALE ELBOW

Reference	Measure		
FRCH1612	16X1/2	14	112
FRCH2012	20X1/2	12	96
FRCH2034	20X3/4	10	80
FRCH2534	25X3/4	10	80
	∅	uns.	uns.

BRASS MALE ELBOW

Reference	Measure		
FRCM1612	16X1/2	25	200
FRCM2012	20X1/2	20	160
FRCM2534	25X3/4	12	96
	∅	uns.	uns.

BRASS WALL PLATED FEMALE ELBOW

Reference	Measure		
FRCSH1612	16X1/2	14	112
FRCSH2012	20X1/2	12	96
FRCSH2534	25X3/4	10	80
	∅	uns.	uns.

BRASS WALL PLATED FEMALE ELBOW LONG

Reference	Measure		
FRCSHL1612	16X1/2	14	112
FRCSHL2012	20X1/2	12	96
	∅	uns.	uns.

EXPANSION ACCESSORIES
For tube PEX-a 16x1.8, 20x1.9, 25x2.3, 32x2.9

BRASS FEMALE TEE

Reference	Measure		
FRTH1612	16X1/2	16	128
FRTH2012	20X1/2	12	96
	∅	uns.	uns.

BRASS MALE UNION

Reference	Measure		
FREM1612	16X1/2	40	320
FREM2012	20X1/2	35	280
FREM2034	20X3/4	30	240
FREM2534	25X3/4	20	160
FREM321	32X1	12	96
	∅	uns.	uns.

BRASS FEMALE UNION

Reference	Measure		
FREH1612	16X1/2	40	320
FREH2012	20X1/2	35	280
FREH2034	20X3/4	20	160
FREH2534	25X3/4	20	160
FREH321	32X1	12	96
	∅	uns.	uns.

DESMOUNTABLE FEMALE UNION

Reference	Measure		
FRRM1612	16X1/2	48	384
FRRM2012	20X1/2	30	240
FRRM2034	20X3/4	24	192
FRRM2534	25X3/4	18	144
	∅	uns.	uns.

BRASS ADAPTER

Reference	Measure		
FRAD1516	15-16	50	400
FRAD1816	18-16	45	360
FRAD2220	22-20	20	160
FRAD1820	18-20	30	240
	∅	uns.	uns.

EXPANSION ACCESSORIES
For tube PEX-a 16x1.8, 20x1.9, 25x2.3, 32x2.9

BRASS BALL VALVE

Reference	Measure		
FRVAL16	16	5	40
FRVAL20	20	5	40
FRVAL25	25	5	40
FRVAL32	32	4	32
	∅	uns.	uns.

BRASS LINE VALVE

Reference	Measure		
FRVALLIN16	16	5	40
FRVALLIN20	20	5	40
FRVALLIN25	25	5	40
FRVALLIN32	32	4	32
	∅	uns.	uns.

"U" BRASS BALL VALVE

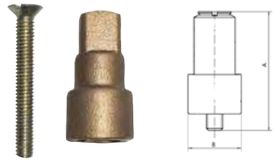
Reference	Measure		
FRVALU20	20	4	32
FRVALU25	25	4	32
	∅	uns.	uns.

PLASTIC RING

Reference	Measure	Colour		
FRCR16	16	Red	25	-
FRCA16	16	Blue	25	-
FRCB16	16	White	25	-
FRCR20	20	Red	25	-
FRCA20	20	Blue	25	-
FRCB20	20	White	25	-
FRCR25	25	Red	25	-
FRCA25	25	Blue	25	-
FRCB25	25	White	25	-
FRCR32	32	Red	25	-
FRCA32	32	Blue	25	-
FRCB32	32	White	25	-
	∅		uns.	uns.

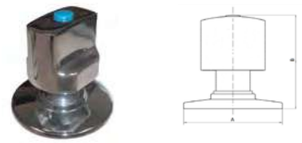
EXPANSION ACCESSORIES
For tube PEX-a 16x1.8, 20x1.9, 25x2.3, 32x2.9

EXTENSION



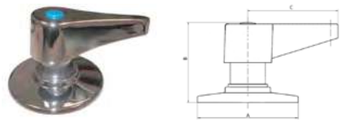
Reference	Measure	A	B	Weight		
ALAR	20	30,00	13,00	18	125	1000
	mm	mm	mm	g	uns.	uns.

ROUND HANDLE AND SHIELD FOR VALVES Ref. FRVAL / FRVALU



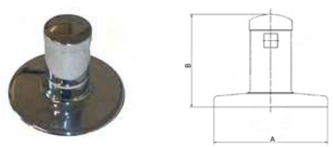
Reference	A	B	Weight		
MR	70,00	68,00	122	5	150
	mm	mm	g	uns.	uns.

LEVER HANDLE AND SHIELD FOR VALVES Ref. FRVAL / FRVALU



Reference	A	B	C	Weight		
MP	70,00	57,00	62,00	126	5	150
	mm	mm	mm	g	uns.	uns.

OCCULT HANDLE AND SHIELD FOR VALVES Ref. FRVAL / FRVALUE



Reference	A	B	Weight		
MO	69,00	52,50	98	5	150
	mm	mm	g	uns.	uns.

EXPANDER

Reference	Measure		
FREXPAN	16-20-25-32	-	1
	∅	uds.	uds.

EXPANDER WITH BATTERY

Referencia	Medida		
KEF&R	16-20-25-32	-	1
	∅	uds.	uds.

COMPRESSION ACCESORIES

COPPER AND STAINLESS STEEL PIPE

COMPRESSION ACCESSORIES for COPPER / INOX pipes

The ISOLTUBEX Compression accessoriess for copper / stainless pipe have been designed from Ø12 to Ø28, developed with the aim of obtaining the maximum performance of resistance and safety in the hydraulic or heating installations. The operation of joining ISOLTUBEX compression accessories with a copper / stainless steel pipe does not require heavy machinery, besides of the corresponding economic saving, it facilitates speed and comfort in the installations.

The Compression accessories are made of reinforced brass and are compatible with copper pipes according to the UNE-EN1057 Standard.
Manufactured according to EN 1254-2 and connection threads according to EN 1254-4.

Suitable for cold union installation and PTFE (Teflon) is not required in the installation.

The range of our Compression accessories is very complete (Ø12 to Ø28).

Compression accessories for copper / stainless pipe, are easily identifiable, our logo or our brand ISOLTUBEX is indelibly marked, both in the body of the accessory, and in the brass sockets.

ASSEMBLY INSTRUCTIONS FOR COMPRESSION ACCESSORIES

Before starting the assembly check that the tubes are not broken, bent, damaged or apparently not suitable for installation. It is also necessary to check that the accessories to be used appear without any dirt residues in any of their components or present any anomaly or deterioration that prevents their correct use.

VERY IMPORTANT: THE USE OF DETERIORATED TUBES AND / OR ACCESSORIES, IN POOR CONDITION OR IN CONDITIONS OF CONSERVATION OR MAINTENANCE NOT SUITABLE FOR INSTALLATION, EXCLUDES THE WARRANTY. *(see warranty page and general conditions)*

All assembly processes in our channel YouTube

1.

Select the measurement of the pipe and fitting that we are going to use.

2.

Remove the nut from the body of the fitting.

3.

Insert the nut into the tube first.

4.

Once the nut is inserted into the tube, insert the retaining ring.

5.

Once both parts are in place, screw the nut into the body of the accessory.

6.

Finally tighten the nut with two wrenches to get a perfect pressure.

ATTENTION. Isoltubex is not responsible for problems that may arise due to the use of inadequate tools or in poor condition.

COMPRESSION ACCESSORIES
For COPPER / INOX pipe

UNION

Reference	Measure		
UCUC012	12	45	360
UCUC015	15	40	320
UCUC018	18	35	280
UCUC022	22	25	200
UCUC028	28	15	120
	∅	uns.	uns.

REDUCER

Reference	Measure		
RCUC01512	15-12	45	360
RCUC01812	18-12	40	320
RCUC01815	18-15	35	280
RCUC02218	22-18	30	240
RCUC02822	28-22	25	200
	∅	uns.	uns.

ELBOW

Reference	Measure		
CCUC012	12	30	240
CCUC015	15	25	200
CCUC018	18	20	160
CCUC022	22	15	120
CCUC028	28	10	80
	∅	uns.	uns.

TEE

Reference	Measure		
TCUC012	12	30	240
TCUC015	15	20	160
TCUC018	18	15	120
TCUC022	22	10	80
TCUC028	28	5	40
	∅	uns.	uns.

COMPRESSION ACCESSORIES
For COPPER / INOX pipe

REDUCER TEE

Reference	Measure		
TRCUC0151215	15-12-15	20	160
TRCUC0181518	18-15-18	15	120
TRCUC0221522	22-15-22	12	96
TRCUC0221822	22-18-22	10	80
TRCUC0282228	28-22-28	8	64
	∅	uns.	uns.

FEMALE TEE

Reference	Measure		
THCUC01212	12-1/2"	20	160
THCUC01512	15-1/2"	15	120
THCUC01534	15-3/4"	15	120
THCUC01834	18-3/4"	15	120
THCUC02234	22-3/4"	10	80
THCUC0221	22-1"	10	80
THCUC0281	28-1"	8	64
	∅	uns.	uns.

FEMALE ELBOW

Reference	Measure		
CHCUC01212	12 - 1/2"	35	280
CHCUC01512	15 - 1/2"	30	240
CHCUC01534	15 - 3/4"	20	160
CHCUC01812	18 - 1/2"	25	200
CHCUC01834	18 - 3/4"	20	160
CHCUC0221	22 - 1"	15	120
	∅	uns.	uns.

MALE ELBOW

Reference	Measure		
CMCUC01212	12 - 1/2"	35	280
CMCUC01512	15 - 1/2"	30	240
CMCUC01534	15 - 3/4"	20	160
CMCUC01812	18 - 1/2"	25	200
CMCUC01834	18 - 3/4"	20	160
CMCUC0221	22 - 1"	15	120
	∅	uns.	uns.

COMPRESSION ACCESSORIES
For COPPER / INOX pipe

WALL PLATED FEMALE ELBOW

Reference	Measure		
CSHCUC01212	12 - 1/2"	25	200
CSHCUC01512	15 - 1/2"	20	160
	∅	uns.	uns.

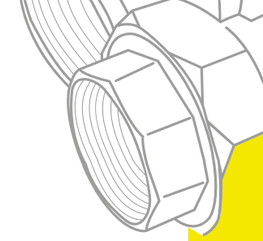
FEMALE UNION

Reference	Measure		
EHCUC01212	12 - 1/2"	45	360
EHCUC01512	15 - 1/2"	40	320
EHCUC01534	15 - 3/4"	30	240
EHCUC01812	18 - 1/2"	25	200
EHCUC01834	18 - 3/4"	25	200
EHCUC0181	18 - 1"	25	200
EHCUC02212	22 - 1/2"	25	200
EHCUC02234	22 - 3/4"	25	200
EHCUC0221	22 - 1"	20	160
EHCUC02834	28 - 3/4"	20	160
EHCUC0281	28 - 1"	16	128
EHCUC028114	28 - 1"1/4"	10	80
	∅	uns.	uns.

MALE UNION

Reference	Measure		
EMCUC01212	12 - 1/2"	45	360
EMCUC01512	15 - 1/2"	45	360
EMCUC01534	15 - 3/4"	35	280
EMCUC01812	18 - 1/2"	30	240
EMCUC01834	18 - 3/4"	35	280
EMCUC0181	18 - 1"	30	240
EMCUC02212	22 - 1/2"	20	160
EMCUC022-34	22 - 3/4"	18	144
EMCUC0221	22 - 1"	10	80
EMCUC02834	28 - 3/4"	10	80
EMCUC0281	28 - 1"	10	80
EMCUC028114	28 - 1"1/4"	10	80
	∅	uns.	uns.

THREADED BRASS FITTINGS



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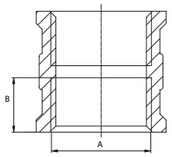
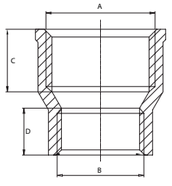


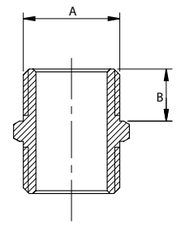
Reference	A	B	Weight	Bag		
MU38	G3/8”	9,0	20	25	50	400
MU12	G1/2”	10,0	31	25	30	240
MU34	G3/4”	12,0	45	10	25	200
MU1	G1”	14,5	90	10	20	160
MU114	G1-1/4”	18,0	155	1	8	64
MU112	G1-1/2”	18,0	230	1	6	48
MU2	G2”	22,0	265	1	-	40
MU212	G2-1/2”	29,5	409	1	-	30
MU3	G3”	32,3	560	1	-	20
	∅	mm	g.	uns.	uns.	uns.

FEMALE REDUCER UNION



Reference	A		B	C	D	Weight	Bag		
MUR1238	G1/2”	-	G3/8”	12,2	10,0	47	25	50	400
MUR3412	G3/4”	-	G1/2”	13,5	12,2	62	10	25	200
MUR112	G1”	-	G1/2”	16,0	12,2	71	10	20	160
MUR134	G1”	-	G3/4”	16,0	13,5	87	10	20	160
MUR1141	G1-1/4”	-	G1”	18,0	16,0	135	1	10	80
MUR112114	G1-1/2”	-	G1-1/4”	18,0	18,0	152	1	8	64
MUR21	G2”	-	G1”	20,0	16,0	233	1	8	64
MUR2114	G2”	-	G1-1/4”	20,0	18,0	227	1	8	64
MUR2112	G2”	-	G1-1/2”	20,0	19,0	268	1	8	64
MUR212112	G2-1/2”	-	G1-1/2”	24,0	19,0	400	1	-	40
MUR2122	G2-1/2”	-	G2”	24,0	21,0	390	1	-	25
MUR3114	G3”	-	G1-1/4”	26,0	18,0	483	1	-	20
MUR3112	G3”	-	G1-1/2”	26,0	19,0	457	1	-	20
MUR32	G3”	-	G2”	26,0	21,0	382	1	-	20
MUR3212	G3”	-	G2-1/2”	26,0	25,0	618	1	-	20
	∅		∅	mm	mm	g.	uns.	uns.	uns.

MALE UNION

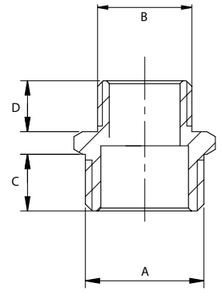


● CHROME

Reference	A	B	Weight	Bag		
MA38	G3/8”	9,0	18	25	100	800
MA12	G1/2”	10,0	30	25	100	800
MA34	G3/4”	11,0	41	25	50	400
MA1	G1”	14,2	78	10	25	200
MA114	G1-1/ 4”	16,0	149	1	15	120
MA112	G1-1/2”	17,0	169	1	8	64
MA2	G2”	20,0	323	1	6	48
MA212	G2-1/2”	20,0	397	1	-	35
MA3	G3”	24,0	648	1	-	30
● MA38CR	G3/8”	9,0	16	25	100	800
● MA12CR	G1/2”	10,0	30	25	80	640
● MA34CR	G3/4”	11,0	41	25	50	400
	∅	mm	g.	uns.	uns.	uns.

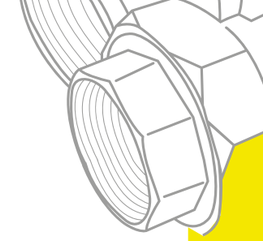
MALE REDUCER UNION

● CHROME



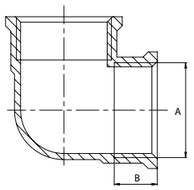
Reference	A		B	C	D	Weight	Bag		
MAR1238	G1/2 “	-	G3/8”	10,0	9,0	21	25	100	800
MAR3412	G3/4”	-	G1/2”	11,0	10,0	65	25	50	400
MAR112	G1”	-	G1/2”	14,2	10,0	64	10	25	200
MAR134	G1”	-	G3/4”	14,2	11,0	56	10	25	200
MAR1141	G1-1/4”	-	G1”	16,0	14,2	95	1	15	120
MAR1121	G1-1/2”	-	G1”	17,0	14,2	125	1	10	80
MAR112114	G1-1/2”	-	G1-1/4”	17,0	16,0	154	1	10	80
MAR21	G2”	-	G1”	20,0	14,2	204	1	10	80
MAR2114	G2”	-	G1-1/4”	20,0	16,0	321	1	6	48
MAR2112	G2”	-	G1-1/2”	20,0	17,0	212	1	6	48
MAR2121	G2-1/2”	-	G1”	20,0	16,0	351	1	6	48
MAR212114	G2-1/2”	-	G1-1/4”	20,0	17,0	326	1	5	40
MAR212112	G2-1/2”	-	G1-1/2”	20,0	17,0	393	1	5	40
MAR2122	G2-1/2”	-	G2”	20,0	20,0	362	1	-	40
MAR31	G3”	-	G1”	24,0	14,2	562	1	-	30
MAR3114	G3”	-	G1-1/4”	24,0	16,0	440	1	-	30
MAR3112	G3”	-	G1-1/2”	24,0	17,0	460	1	-	30
MAR32	G3”	-	G2”	24,0	20,0	490	1	-	30
MAR3212	G3”	-	G2-1/2”	24,0	20,0	464	1	-	30
● MAR1238CR	1/2”	-	G3/8”	10,0	9,0	21	25	50	400
● MAR3412CR	3/4”	-	G1/2”	11,0	10,0	65	25	50	400
	∅		∅	mm	mm	g.	uns.	uns.	uns.

BRASS ACCESSORIES
TO THREAD



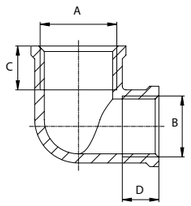
FEMALE ELBOW

● CHROME



Reference	A	B	Weight	Bag		
CH38	3/8"	9,0	35	25	50	400
CH12	1/2"	10,0	39	10	30	240
CH34	3/4"	12,0	79	10	25	200
CH1	1"	14,5	136	10	15	120
CH114	1 1/ 4"	17,0	207	1	6	48
CH112	1 1/2"	18,0	293	1	-	50
CH2	2"	20,5	400	1	-	15
CH212	2 1/2"	18,0	736	1	-	15
CH3	3"	23,0	1240	1	-	6
● CH12CR	1/2"	10,0	39	10	30	240
	∅	mm	g.	uns.	uns.	uns.

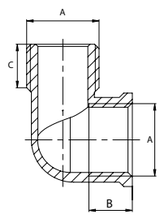
FEMALE REDUCER ELBOW



Reference	A		B	C	D	Weight	Bag		
CHR1238	1/2"	-	3/8"	11,5	10,0	58	10	30	240
CHR3412	3/4"	-	1/2"	12,0	11,5	82	10	20	160
CHR121	1"	-	1/2"	14,5	11,5	100	10	15	120
CHR134	1"	-	3/4"	14,5	12,0	112	10	15	120
	∅		∅	mm	mm	g.	uns.	uns.	uns.

ELBOW MALE / FEMALE

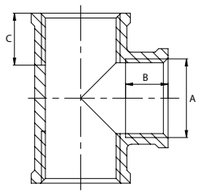
● CHROME



Reference	A	B	C	Weight	Bag		
CMH38	3/8"	10,0	10,0	31	25	50	400
CMH12	1/2"	11,0	11,0	48	10	30	240
CMH34	3/4"	12,0	12,0	74	10	25	200
CMH1	1"	14,5	13,0	124	10	10	80
CMH114	1 1/ 4"	16,0	16,0	221	1	6	48
CMH112	1 1/ 2"	17,0	17,0	296	1	5	40
CMH2	2"	20,5	20,0	450	1	-	25
CMH212	2 1/2"	24,0	20,0	752	1	-	15
CMH3	3"	24,5	22,0	1600	1	-	8
● CMH38CR	3/8"	10,0	10,0	31	25	50	400
● CMH12CR	1/2"	11,0	11,0	48	10	30	240
	∅	mm	mm	g.	uns.	uns.	uns.

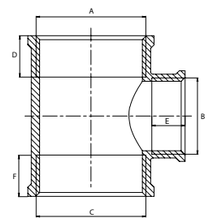
FEMALE TEE

● CHROME



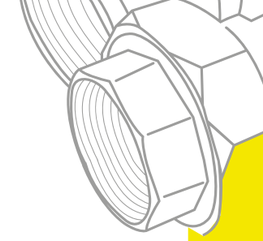
Reference	A	B	C	Weight	Bag		
TE38	3/8"	9,0	11,0	43	25	25	200
TE12	1/2"	10,0	14,0	60	10	20	160
TE34	3/4"	11,0	14,0	106	10	10	80
TE1	1"	14,5	14,5	184	10	10	80
TE114	1 1/ 4"	16,0	16,0	309	1	-	40
TE112	1 1/2"	18,0	18,0	412	1	-	30
TE2	2"	18,0	18,0	508	1	-	20
TE212	2 1/2"	18,5	18,5	924	1	-	12
TE3	3"	22,5	22,5	1638	1	-	6
● TE12CR	1/2"	10,0	14,0	60	1	25	200
	∅	mm	mm	g.		uns.	uns.

FEMALE REDUCER TEE



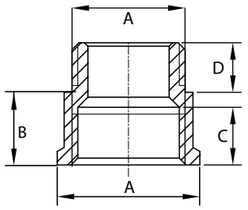
Reference	A		B		C	D	E	F	Weight	Bag		
TER123812	1/2"	-	3/8"	-	1/2"	14,0	9,0	14,0	75	10	20	160
TER341234	3/4"	-	1/2"	-	3/4"	14,0	10,0	14,0	131	10	15	120
TER343412	3/4"	-	3/4"	-	1/2"	14,0	11,0	10,0	237	10	10	80
TER1121	1"	-	1/2"	-	1"	14,5	10,0	14,5	195	5	10	80
TER1341	1"	-	3/4"	-	1"	14,5	11,0	14,5	211	5	8	64
TER11412114	1 1/4"	-	1/2"	-	1 1/4"	16,0	10,0	16,0	220	1	5	40
TER11434114	1 1/4"	-	3/4"	-	1 1/4"	16,0	11,0	16,0	215	1	5	40
TER1141114	1 1/4"	-	1"	-	1 1/4"	16,0	14,5	16,0	238	1	5	40
TER11212112	1 1/2"	-	1/2"	-	1 1/2"	18,0	10,0	18,0	257	1	5	40
TER11234112	1 1/2"	-	3/4"	-	1 1/2"	18,0	11,0	18,0	250	1	5	40
TER1121112	1 1/2"	-	1"	-	1 1/2"	18,0	14,5	18,0	257	1	-	40
TER11211412	1 1/2"	-	1 1/4"	-	1 1/2"	18,0	16,0	18,0	275	1	-	30
TER2122	2"	-	1/2"	-	2"	18,0	10,0	18,0	378	1	-	20
TER2342	2"	-	3/4"	-	2"	18,0	11,0	18,0	421	1	-	20
TER212	2"	-	1"	-	2"	18,0	14,5	18,0	367	1	-	20
TER21142	2"	-	1 1/4"	-	2"	18,0	16,0	18,0	373	1	-	20
TER21122	2"	-	1 1/2"	-	2"	18,0	18,0	18,0	410	1	-	20
TER21234212	2 1/2"	-	3/4"	-	2 1/2"	18,5	11,0	18,5	1023	1	-	12
TER2121212	2 1/2"	-	1"	-	2 1/2"	18,5	14,5	18,5	958	1	-	12
TER212114212	2 1/2"	-	1 1/4"	-	2 1/2"	18,5	11,0	18,5	887	1	-	12
TER212112212	2 1/2"	-	1 1/2"	-	2 1/2"	18,5	18,0	18,5	1023	1	-	12
TER2122212	2 1/2"	-	2"	-	2 1/2"	18,5	18,0	18,5	850	1	-	10
TER313	3"	-	1"	-	3"	22,5	14,5	22,5	1436	1	-	6
TER31143	3"	-	1 1/4"	-	3"	22,5	11,0	22,5	1402	1	-	6
TER31123	3"	-	1 1/2"	-	3"	22,5	18,0	22,5	1341	1	-	6
TER323	3"	-	2"	-	3"	22,5	18,0	22,5	1177	1	-	6
			∅			mm	mm	mm	g.	uns.	uns.	uns.

THREADED BRASS FITTINGS



HEXAGONAL UNION MALE / FEMALE

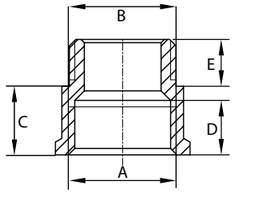
● CHROME



Reference	A	B	C	D	Weight	Bag		
RM38	G3/8"	10,7	8,5	7,3	18	25	75	600
RM12	G1/2"	12,0	10,0	9,5	28	25	80	640
RM122	G1/2"	21,5	19,0	9,5	47	25	50	400
RM123	G1/2"	30,0	28,0	10,0	60	25	40	320
RM34	G3/4"	14,5	12,0	11,5	47	25	40	320
RM1	G1"	17,0	14,5	12,5	76	10	25	200
RM114	G1-1/ 4"	19,0	16,0	17,0	153	1	10	80
RM112	G1-1/ 2"	21,0	18,0	19,0	195	1	8	64
RM2	G2"	23,5	20,5	20,0	302	1	6	48
● RM38CR	G3/8"	10,7	8,5	7,3	18	25	75	600
● RM12CR	G1/2"	12,0	10,0	9,5	28	25	80	640
● RM34CR	G3/4"	14,5	12,0	11,5	47	25	40	320
● RM1CR	G1"	17,0	14,5	12,5	76	10	25	200
	∅	mm	mm	mm	g.	uns.	uns.	uns.

REDUCER HEXAGONAL MALE / FEMALE

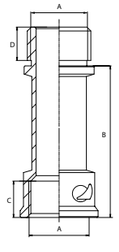
● CHROME



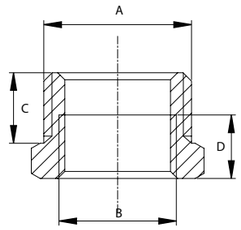
Reference	A	B	C	D	E	Weight	Bag		
RMR3812	G3/8 "	G1/2	12,0	10,0	11,0	40	25	50	400
● RMR3812CR	G3/8 "	G1/2	12,0	10,0	11,0	40	25	50	400
● RMR1234CR	G1/2 "	G3/4	13,0	11,5	12,0	51	25	40	320
RMRH12M38	G1/2 "	G3/8	13,0	11,5	9,0	28	25	60	480
RMRH34M12	G3/4 "	G1/2	13,5	12,0	10,5	47	25	40	320
RMRH1M34	G1 "	G3/4	16,0	14,5	12,0	69	10	20	160
	∅	∅	mm	mm	mm	g.	uns.		uns.

EXTENSION MALE / FEMALE

● CHROME



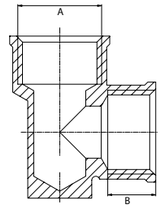
Reference	A	B	C	D	Weight		
ALA12	1/2"	50	12,0	11,0	60	30	240
ALA34	3/4"	50	13,0	12,0	80	15	120
● ALA12CR	1/2"	50	12,0	11,0	60	30	240
● ALA34CR	3/4"	50	13,0	12,0	80	15	120
ALA1012	1/2"	100	10,5	9,0	81	15	120
ALA1034	3/4"	100	13,0	12,5	120	15	120
● ALA1012CR	1/2"	100	10,5	9,0	81	15	120
● ALA1034CR	3/4"	100	13,0	12,5	120	15	120
	∅	mm	mm	mm	g.	uns.	uns.



REDUCER HEXAGONAL BUSH MALE/ FEMALE

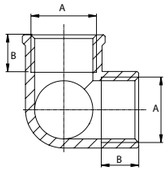
Reference	A		B	C	D	Weight	Bag		
TRM12H38	1/2"	-	3/8"	10,0	9,0	19,5	25	50	400
TRM34H12	3/4"	-	1/2"	9,5	11,5	22,0	25	100	800
TRM1H12	1"	-	1/2"	12,0	11,5	72	10	50	400
TRM1H34	1"	-	3/4"	12,0	11,5	46,5	10	50	400
TRM114H12	1 1/4"	-	1/2"	17,0	11,5	100	1	25	200
TRM114H34	11/4"	-	3/4"	17,0	11,5	97	1	25	200
TRM114H1	1 1/4"	-	1"	17,0	14,5	93	1	25	200
TRM112H12	1 1/2"	-	1/2"	17,0	11,5	148	1	20	160
TRM112H34	1 1/2"	-	3/4"	17,0	11,5	133	1	20	160
TRM112H1	1 1/2"	-	1"	17,0	14,5	149	1	20	160
TRM112H114	1 1/2"	-	1 1/4"	17,0	16,0	89	1	20	160
TRM2H12	2"	-	1/2"	20,0	11,5	210	1	10	80
TRM2H34	2"	-	3/4"	20,0	11,5	199	1	10	80
TRM2H1	2"	-	1"	20,0	14,5	208	1	10	80
TRM2H114	2"	-	1 1/4"	20,0	16,0	208	1	10	80
TRM2H112	2"	-	1 1/2"	20,0	18,0	211	1	10	80
TRM212H34	2 1/2"	-	3/4"	20,0	11,5	341	1	8	64
TRM212H1	2 1/2"	-	1"	20,0	14,5	376	1	8	64
TRM212H114	2 1/2"	-	1 1/4"	20,0	16,0	369	1	8	64
TRM212H112	2 1/2"	-	1 1/2"	20,0	18,0	311	1	8	64
TRM212H2	2 1/2"	-	2"	20,0	19,0	317	1	8	64
TRM3H1	3"	-	1"	23,0	14,5	514	1	-	45
TRM3H114	3"	-	1 1/4"	23,0	16,0	464	1	-	40
TRM3H112	3"	-	1 1/2"	23,0	18,0	502	1	-	40
TRM3H2	3"	-	2"	23,0	19,0	437	1	-	40
TRM3H212	3"	-	2 1/2"	23,0	20,0	392	1	-	40
	∅		∅	mm	mm	g.	uns.	uns.	uns.

WALL PLATED FEMALE ELBOW



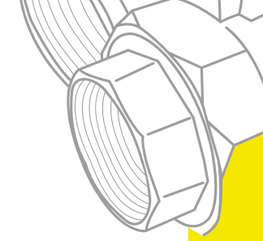
Reference	A	B	Weight	Bag		
CSH12	1/2"	14	72	10	20	160
	∅	mm	g.	uns.	uns.	uns.

ELBOW THREE-WAY FEMALE

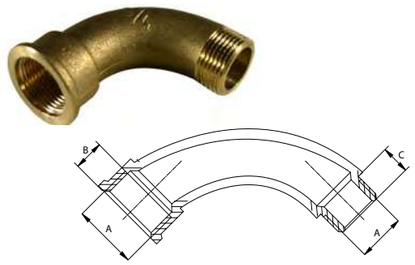


Reference	A	B	Weight	Bag		
C3V12	1/2"	12	88	10	15	120
C3V34	3/4"	12	121	10	8	64
	∅	mm	g	uns.	uns.	uns.

THREADED BRASS FITTINGS

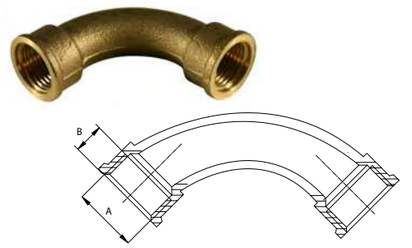


MALE / FEMALE CURVE



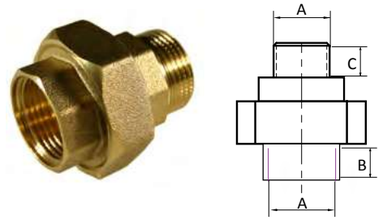
Reference	A	B	C	Weight		
CUMH12	1/2"	12,0	12,0	118	15	120
CUMH34	3/4"	14,5	12,5	180	10	80
CUMH1	1"	19,0	15,5	319	5	40
CUMH114	1 1/ 4"	23,0	20,5	483	1	1
CUMH112	1 1/ 2"	18,5	22,0	646	1	1
CUMH2	2"	25,0	28,5	1212	1	1
CUMH212	2 1/2"	26,0	28,0	2038	1	4
CUMH3	3"	27,0	28,0	2981	1	2
	∅	mm	mm	g.	uns.	uns.

FEMALE CURVE



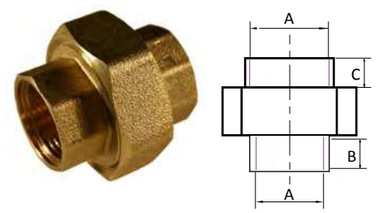
Reference	A	B	Weight		
CUH12	1/2"	12,0	133	15	120
CUH34	3/4"	14,5	254	10	80
CUH1	1"	19,0	325	5	40
CUH114	1 1/4"	23,0	600	1	10
CUH112	1 1/2"	18,5	729	1	10
CUH2	2"	25,0	1158	1	10
CUH212	2 1/2"	26,0	1881	1	4
CUH3	3"	27,0	3009	1	2
	∅	mm	g.	uns.	uns.

NUT UNION 3 PIECES MALE / FEMALE



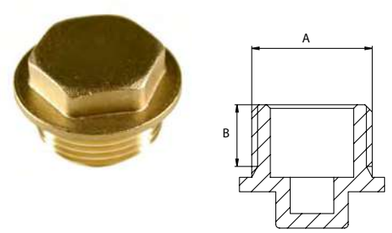
Reference	A	B	C	Weight	Bag		
TU3MH12	1/2"	12,0	10,0	138	10	20	160
TU3MH34	3/4"	16,0	12,0	207	1	10	80
TU3MH1	1"	15,0	12,0	246	1	6	48
TU3MH114	1 1/ 4"	18,0	14,0	428	1	-	30
TU3MH112	1 1/ 2"	18,5	16,5	544	1	-	30
TU3MH2	2"	18,0	18,0	796	1	-	20
	∅	mm	mm	g.		uns.	uns.

NUT UNION 3 PIECES FEMALE



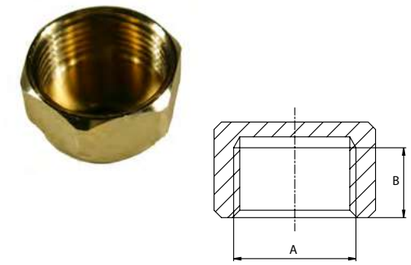
Reference	A	B	C	D	Bag		
TU3HH12	1/2"	12,0	11,0	121	10	20	160
TU3HH34	3/4"	16,0	11,0	194	-	10	80
TU3HH1	1"	17,0	10,0	205	-	8	48
TU3HH114	1 1/4"	17,0	12,0	385	-	5	30
TU3HH112	1 1/2"	19,0	17,0	480	-	1	30
TU3HH2	2"	20,0	19,0	687	-	1	20
	∅	mm	mm	g.	uns.	uns.	uns.

MALE PLUG



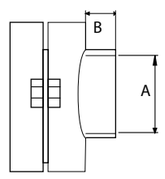
Reference	A	B	Weight	Bag		
TAPM38	3/8"	10,0	17	25	100	800
TAPM12	1/2"	9,0	20	25	100	800
TAPM34	3/4"	13,0	35	25	50	400
TAPM1	1"	14,0	57	10	30	240
TAPM114	1 1/ 4"	16,0	88	-	25	200
TAPM112	1 1/2"	17,0	116	-	20	160
TAPM2	2"	20,0	190	-	10	80
TAPM212	2 1/2"	20,0	329	-	8	64
TAPM3	3"	20,0	438	-	1	50
	∅	mm	g.	uns.	uns.	uns.

FEMALE PLUG



Reference	Medida	B	Weight	Bag		
TAPH38	3/8"	11,0	19	25	100	800
TAPH12	1/2"	12,0	21	25	80	640
TAPH34	3/4"	13,0	39	25	50	400
TAPH1	1"	14,5	68	10	50	400
TAPH114	1 1/ 4"	16,0	94	-	25	200
TAPH112	1 1/2"	18,0	112	-	20	160
TAPH2	2"	20,5	182	-	10	80
TAPH212	2 1/2"	20,5	301	-	8	64
TAPH3	3"	20,5	412	-	1	50
	∅	mm	g.		uns.	uns.

COLLAR



Reference	For	A	B	Weight	Bag		
COLL2012	20	1/2"	11,0	151	10	15	120
COLL2512	25	1/2"	11,0	201	10	10	80
COLL3212	32	1/2"	11,0	250	-	8	64
COLL3234	32	3/4"	14,0	300	-	8	64
COLL4012	40	1/2"	11,0	349	-	5	40
COLL4034	40	3/4"	14,0	343	-	5	40
COLL5012	50	1/2"	11,0	349	-	5	40
COLL5034	50	3/4"	14,0	353	-	5	40
COLL501	50	1"	16,0	361	-	5	40
	∅	∅				uns.	uns.

THREADED BRASS FITTINGS

SEDIMENT FILTER

Reference	Measure	Characteristics		
HSL341	3/4" -1"	**Filter measurement: 27 x 11.2 x 6.6 cm Packing measure: 32 x 13 x 19 cm Weight N .: 1,230 Kg Weight B .: 1,414 Kg**	1	10
	∅		uns.	uns.

PRESSURE REDUCER WITH MANOMETER

Reference	Measure	Characteristics		
RPM	3/8" -1/2"	Filter measure-ment: 16.5 x 4.5 x 7.5 cm Packing measure: 17 x 5 x 8 cm Weight N .: 620.6 g Weight B .: 597.6 g	1	10
	∅		uns.	uns.

WASHER TAP

Reference	Measure		
GL12X34	1/2" - 3/4"	1	15
	∅	uns.	uns.

ANGLE VALVE

Reference	Measure	Characteristics		
A-16	1/2" - 3/8"	Box 2 units	2	100
	∅		uns.	uns.

ISOLFASER-CT SYSTEM

PP-R FASER CT PIPE
+
ACCESSORIES PP-R

APPLICATION CLASS
CLASS1: Hot water 60° C.
CLASS2: Hot water 70° C.
CLASS 4: Underfloor heating / cooling and radiators at low temperature.
CLASS 5: Heating by radiators at high temperature.

DESIGN PRESSURE:
DIAMETERS 20/25: 1/10; 2/10; 4/10; 5/6
DIAMETERS 32/40/50/63/75/90/110: 1/8; 2/8; 4/8; 5/6
In accordance with Regulation RP 01.78

MAIN ADVANTAGES OF THE ISOLFASER - CT SYSTEM

The polypropylene RCT is a new generation of polypropylene based on the modification of its molecular structure, which consists of moving from a monoclinic crystalline structure (PP-R) to a hexagonal, improving its resistance to pressure and temperature according to ISO 1043- 1 (PPR-CT), resulting in more solid, reliable pipelines with greater long-term durability, working in the most demanding conditions.

Below we detail some of the most relevant advantages of the PP-R FASER CT.

• ABSENCE OF CORROSION
The pipes of PP-R FASER CT resist any type of water hardness and support chemicals with PH values between 1 and 14. This means great resistance to acid or alkaline substances within a large concentration and temperature range.

• ABSENCE OF INCRUSTATIONS
The internal walls of the tubes, perfectly smooth, prevent the formation of incrustations.

• LOW THERMAL DISPERSION
The PP-R FASER CT like all plastic materials is a bad conductor of heat, and therefore it means little dispersion of heat with the consequent energy saving.

• ICE RESISTANCE
Given the elasticity of the PP-R FASER CT, in case of freezing the tube increases its section, assuming the volume increase of the frozen liquid inside it.

•IDEAL IN SEISMIC HAZARD ZONES
There is agreement among international experts that plastic materials are not rigid materials inside structures.

• RESISTANCE TO ELECTROLYSIS
Polypropylene, like most plastics, is a poor electrical conductor and as a consequence, no perforations will occur in the tubes and fittings due to electrolysis.

• LOWER PRESSURE DROPS
The ISOLTUBEX tubes, thanks to their extremely smooth surface and free of incrustations, experience a lower loss of load.

• LESS NOISE FACILITIES
The elasticity and sound absorption of polypropylene prevent the propagation of noise and vibrations due to the water flow and water hammer.

• DURATION IN TIME

More than 50 years depending on the temperature and pressure.

• ABRASION RESISTANCE
The good resistance to abrasion of the ISOLTUBEX tube allows high speeds of water flow without suffering erosion problems.

• REDUCED INSTALLATION TIMES
One of the most relevant characteristics of the PP-R FASER CT is the union of all the elements by thermofusion. It is a safe method, easy to execute on site and fast against traditional products.

• ECONOMY IN THE INSTALLATION
The possibility of reducing diameters while maintaining the flow allows the realization of more economical installations by reducing the diameter of the pipeline, in addition to the pieces, complements, insulators, etc.

• PIPING PP-R FASER CT WITH UV PROTECTION
We manufacture PPR Faser CT pipe in black with UV protection for outdoor installations.

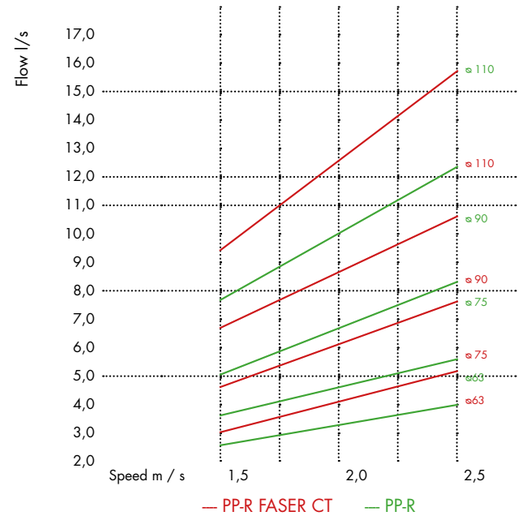
• GREATER RESISTANCE TO THE Tª
Thanks to the manufacturing process of the system, by multilayer extrusion, the fibers are incorporated longitudinally and transversely, forming a net in compact mesh that achieves a considerable increase in the resistance of the pipe as the working temperature increases. The PP-R FASER CT offers 60% more long-term strength compared to the standard PP-R.

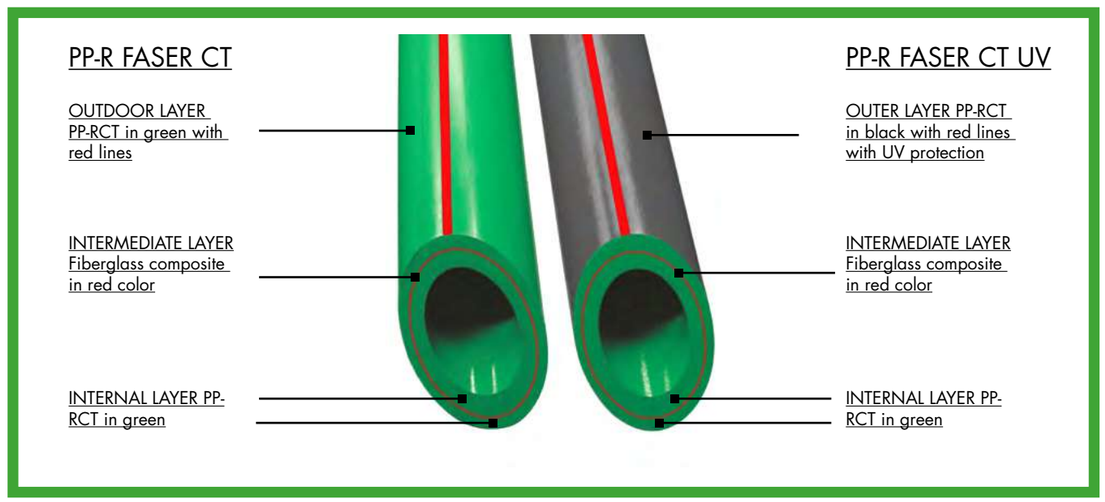
Pressure PP-R FASER CT

		PP-R FASER CT series 4	PP-R FASER CT series 3,2
T. (°C)	Durability. (years)	bar	bar
20°C	50	23,1	24,5
60°C	50	12,2	12,1
70°C	50	10,2	8,1
80°C	25	8,6	6,2
90°C	5	7,4	6

• GREATER FLOW
The system in the new series 4, of thinner wall, allows the reduction of diameters in the installation, in comparison with the traditional PP-R, maintaining the same flow without a relevant increase in speed. In addition, the system has a lower linear expansion than other systems (0.040 mm / m).

Flow comparison between PP-R FASER CT and PP-R





FASER TUBES

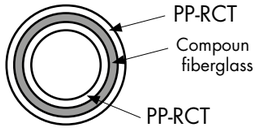
The FASER tubes of ISOLFASER-CT are the result of a long experience in the manufacture of PP-RCT tubes that has given rise to one of the most modern and technologically advanced tubes in the current market.

The reasons that led the manufacturers to create the FASER - type tubes was to look for a tube that would significantly reduce dilatations and simultaneously simplify the welding process, thus reducing the set - up times with consequent cost savings.

ADVANTAGES OF THE FASER TUBE

In general it is considered that the FAZER tubes dilate between 7 and 8 times less than a conventional PP-RCT tube.

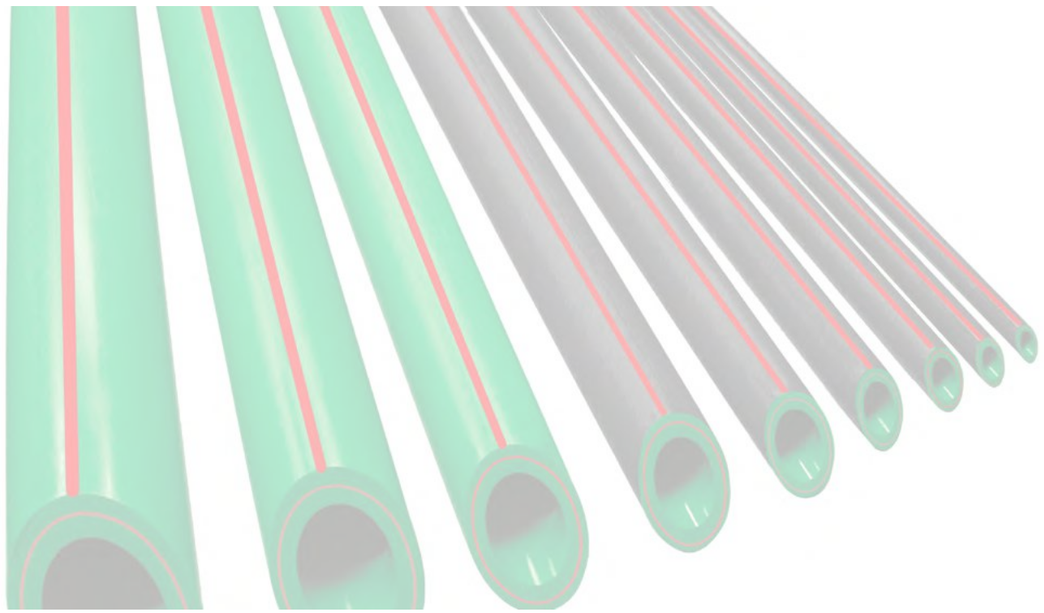
The expansion control of the FASER tube is produced from the center of its own mass, through the supply of molten glass fiber microparticles in the PP-RCT material itself. In this way, if the dilation is controlled from the same center of the tube wall, with the additional advantage that in this way undesired tensions are avoided.

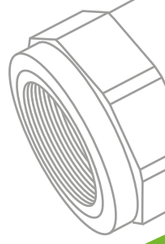


The intermediate layer with the glass fiber composite is fused with the PP-RCT material of the tube wall.

In the case of the FASER tube, the tube and the corresponding accessory are introduced directly into the poly - fuser as if it were a conventional PP-RCT tube.

Other advantages of the FASER tube are an increase in the effective flow rate of the tube due to the decrease in the thickness of the tube wall. Reduction of the weight of the tubes, facilitating their handling. Finally, a low coefficient of expansion, allows to extend the distance between clamps, decreasing execution time and costs.





TIPS FOR USE

- The tubes and fittings must be installed following the instructions, warnings and recommendations. The use of materials, obviously defective, as well as not following the assembly instructions, invalidates the guarantee.
- The conditions of use, as well as temperature and pressure should be within the technical limits of the material. The union of the tube and the union with a heat source, with a limit of temperature and pressure, not compatible with the characteristics of the material, even if accidental, invalidates the guarantee.
- The pipes and accessories must be exclusively of the ISOLTUBEX brand.
- Blows and excessive loads should be avoided in working conditions equal to or less than 0 °. Also avoid the installation of tubes with obvious incisions or breaks.
- Before covering races, always check the installation with pressurized water.

RECOMMENDATIONS

- Cut the tube perpendicularly with a suitable scissors and make a good cleaning before proceeding to the polifusión.
- Check that the polifusor reaches the correct working temperature.
- Insert simultaneously and with a light pressure, the tube and the accessory in the matrix of the correct diameter.
- At the time of the fusion the welder must be kept perpendicular to the pipe and the fitting in order to avoid partial polyfusions.
- After the polyfusion it is advisable not to turn the tubes or fittings more than 20 °.
- Absolutely avoid fitting to the female terminals conical plugs of cast iron or uncalibrated cylindrical threads. We recommend using TPFE for the tightness of the threaded joints. If hemp is used it should be done carefully and only in the indispensable amount.
- Use levels to leave the water points aligned at the exact distance.
- During the welding operations of diameters greater than Ø 32 it is advisable to avoid air currents, to prevent stresses in the welds. However, if the temperature is very low, it is advisable to use electric hoses.

WORK TABLE

External diameter tubeØ	Warm up time Seconds	Assembly time Seconds	Cooling time Minutes	Tube insertion m / m
20	5	4	2	14
25	7	4	3	16,5
32	8	6	4	18
40	12	6	4	20
50	18	6	4	24
63	25	8	6	26
75	30	8	8	28
90	40	10	8	30
110	50	10	8	32,5

It is essential to comply with the heating time as indicated in the table. At a temperature below +5 ° C, the heating time must be increased by 50%

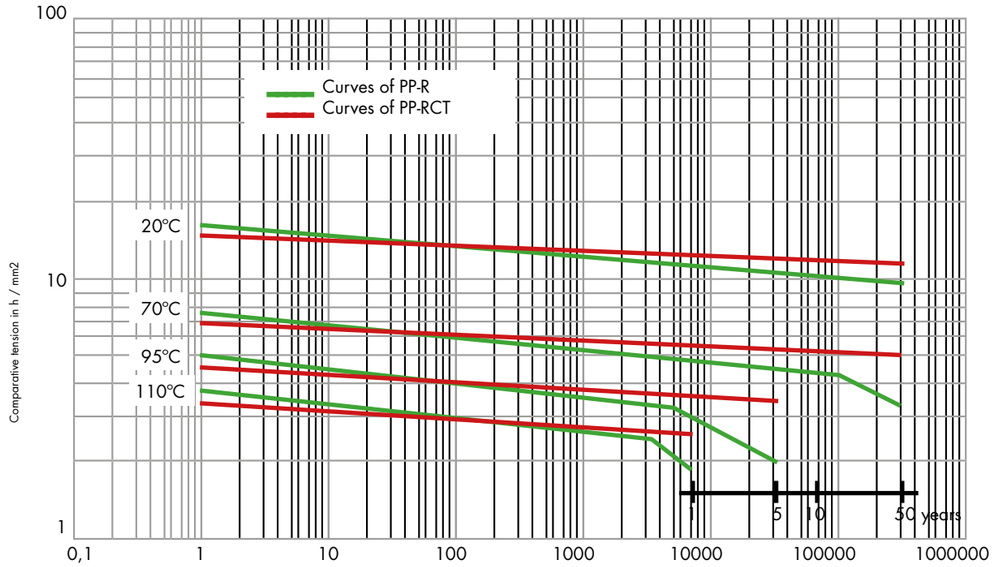
REGRESSION CURVES

The regression curve predicts the behavior of the tube against pressure as a function of temperature. This curve determines the useful life of a tube as a function of the tangential tension to its inner wall resulting from this pressure. The tangential tension is linked to the internal pressure by the following formula:

$$\sigma = p \frac{d - e}{2e}$$

where:
σ = comparative tension in h / mm2
p = constant pressure in bar
d = outer diameter of the tube
e =thickness of the tube wall

Comparison of regression curves between PPR-CT and PP-R



APPLICATION FIELDS PP-R FASER CT

Polypropylene has been designed for the transport of hot and cold water under pressure and given its physical and chemical characteristics it is suitable for use in the following fields:

- **PLUMBING INSTALLATIONS.**
- **HEATING AND AIR CONDITIONING INSTALLATIONS.**
- **COMPRESSED AIR INSTALLATIONS.**
- **TRANSPORT OF FOOD LIQUIDS.**
- **INDUSTRIAL APPLICATIONS.**

THERMAL DILATION

For the installation of pipes of PP-R FASER CT to the exterior it is necessary to take into account that a longitudinal expansion will take place that will be in function of the temperature of the liquids transported and of the coefficient of thermal expansion of the PP-R FASER CT.

The longitudinal dilation can be calculated in a simplified way according to the following formula:

$$DL = \varepsilon t \times \Delta t \times Lt$$

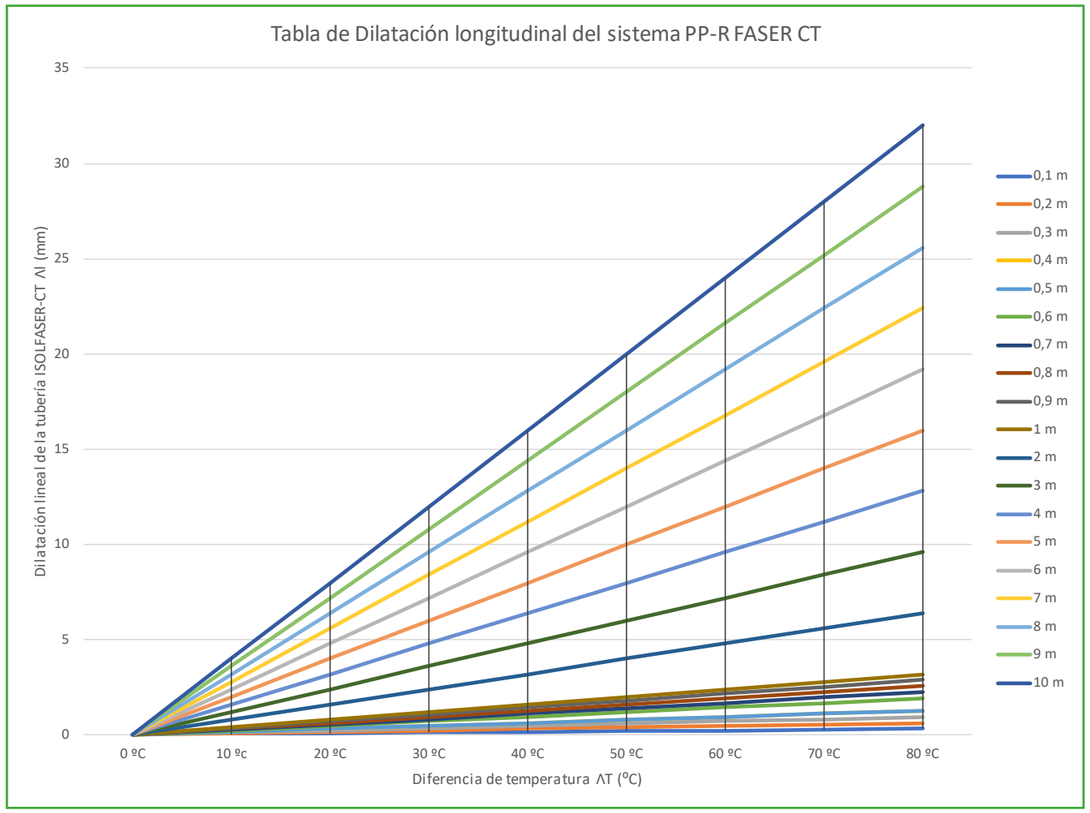
DL = longitudinal expansion
εt = coefficient of thermal expansion
Δt = temperature increase in °C
Lt = tube length in mm

The linear coefficient of thermal expansion εt for PP-RCT FASER tubes is:

$\varepsilon t = 0{,}40 \times 10^{-4}$ 0,040 mm/mt °C

Longitudinal dilatation table of the PPR FASER CT system

λ = 0,04 mm/m°C								
Length of the pipe (m)	Temperature difference ΛT (°C)							
	10 ºc	20 ºC	30 ºC	40 ºC	50 ºC	60 ºC	70 ºC	80 ºC
	Linear dilation of the pipeISOLFASER-CT Λl (mm)							
0,1 m	0,04	0,08	0,12	0,16	0,20	0,24	0,28	0,32
0,2 m	0,08	0,16	0,24	0,32	0,40	0,48	0,56	0,64
0,3 m	0,12	0,24	0,36	0,48	0,60	0,72	0,84	0,96
0,4 m	0,16	0,32	0,48	0,64	0,80	0,96	1,12	1,28
0,5 m	0,20	0,40	0,60	0,80	1,00	1,20	1,40	1,60
0,6 m	0,24	0,48	0,72	0,96	1,20	1,44	1,68	1,92
0,7 m	0,28	0,56	0,84	1,12	1,40	1,68	1,96	2,24
0,8 m	0,32	0,64	0,96	1,28	1,60	1,92	2,24	2,56
0,9 m	0,36	0,72	1,08	1,44	1,80	2,16	2,52	2,88
1 m	0,40	0,80	1,20	1,60	2,00	2,40	2,80	3,20
2 m	0,80	1,60	2,40	3,20	4,00	4,80	5,60	6,40
3 m	1,20	2,40	3,60	4,80	6,00	7,20	8,40	9,60
4 m	1,60	3,20	4,80	6,40	8,00	9,60	11,20	12,80
5 m	2,00	4,00	6,00	8,00	10,00	12,00	14,00	16,00
6 m	2,40	4,80	7,20	9,60	12,00	14,40	16,80	19,20
7 m	2,80	5,60	8,40	11,20	14,00	16,80	19,60	22,40
8 m	3,20	6,40	9,60	12,80	16,00	19,20	22,40	25,60
9 m	3,60	7,20	10,80	14,40	18,00	21,60	25,20	28,80
10 m	4,00	8,00	12,00	16,00	20,00	24,00	28,00	32,00



FLEX ARMS

In most cases, changes of direction can be taken advantage of in the path the pipe follows to absorb linear expansion. The length of the bending arm is obtained based on the following calculation example. The length of the bending arm is calculated according to the following formula:

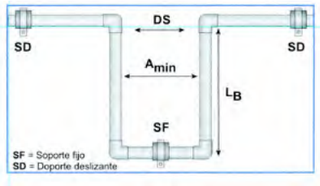
$$L_B = C \times \sqrt{(d \times \Delta l)}$$

L_B = bending arm length
C = specific constant of the pipe
d = outside diameter of the pipe
ΔI = linear dilation

LILIES OF DILATION

If it is not possible to compensate for the linear expansion by varying the direction, it will be necessary to install an expansion strip. To do this, it is necessary, in addition to the necessary pipe, 4 elbow 90°:
In addition to the length of the bending arm LB, when placing an expansion wire, its width Amin must also be taken into account.

$$A_{min} = 2 \times \Delta l + DS$$



A_{min} = Expansion lira width
ΔI = Linear dilatation
DS = Safety distance

CLAMPS FOR UNDEMBLED FACILITIES

In external horizontal installations, if it is not possible to install gutters according to the temperatures of the transported fluids, it is necessary to place clamps to support the pipes.

Distance ratio between clamps (in cm)

Outside diameter (mm)	Without half rods	
	Cold T=20°C	Hot T=70°C
16	75	50
20	80	50
25	85	70
32	100	80
40	110	90
50	125	100
63	140	120
75	155	130
90	165	145
110	175	145

We also recommend placing rigid clamps in the following cases:

- To absorb hydraulic thrusts in changes of directions (tees or elbows) and in the reductions.

- In proximity of valves, meters, etc.

COEFFICIENT OF LOSS DUE TO ACCESSORIES

Description	Symbol	Coefficient of loss
Union		0,25
Elbow 90°		2,0
Elbow thread male		2,2
Elbow 45°		0,6
Accessories in T		1,8
Accessories T reduced		3,6
Accessories in T		1,3
Accessories in T reduced		2,6
Accessories in T		4,2
Accessories in T reduced		9,0
Accessories in T		2,2
Accessories in T reduced		5,0
Accessories in T screwed		0,8
Reduction up to 2 dimensions		0,55

The table indicates the loss of load z as a function of a coefficient r = 1, for the water conduction at 10°C and for the different value of the displacement speed V (m / s)

Velocity of displacement V m / s	0,1	0,2	0,3	0,4	0,5	0,6	0,7	0,8	0,9	1,0	1,1	1,2	1,3	1,4	1,5	1,6	1,7	1,8	1,9	2,0	2,1	2,2	2,3	2,4	2,5
Loss of charge z for r 1 mbar = 10.1 mm	0,1	0,2	0,5	0,8	1,3	1,8	2,5	3,2	4,1	5,0	6,1	7,2	8,5	9,8	11,3	12,8	14,5	16,2	18,1	20,0	22,1	24,2	26,5	28,8	31,3

Velocity of displacement V m / s	2,6	2,7	2,8	2,9	3,0	3,1	3,2	3,3	3,4	3,5	3,6	3,7	3,8	3,9	4,0	4,1	4,2	4,3	4,4	4,5	4,6	4,7	4,8	4,9	5,0
Loss of charge z for r 1 mbar = 10.1 mm	33,8	36,5	39,2	42,1	45	48	51	55	58	61	65	68	72	76	80	84	88	92	97	101	106	110	115	120	125

The localized charge loss z has the following formula z = 5v2 x Σr
And the total load loss of the impact will be the total sum of the distributed head loss r and the total localized head loss z.

THERMAL ISOLATION FOR HEATING INSTALLATIONS

The tables indicate the thickness of the insulation required for a reference insulation material 0.040 W / m°, at 10° for pipe networks in cold and hot water installations:

Hot Fluids in INSIDE of Buildings			
Outside diameter (mm)	Maximum fluid temperature (°C)		
	40 ... 60	> 60 ... 100	> 100 ... 180
D ≤ 35	25	25	30
35 < D ≤ 60	30	30	40
60 < D ≤ 90	30	30	40
90 < D ≤ 140	30	40	50
140 < D	35	40	50

Hot Fluids in EXTERIOR Buildings			
Outside diameter (mm)	Maximum fluid temperature(°C)		
	40 ... 60	> 60 ... 100	> 100 ... 180
D ≤ 35	35	35	40
35 < D ≤ 60	40	40	50
60 < D ≤ 90	40	40	50
90 < D ≤ 140	40	50	60
140 < D	45	50	60

Cold Fluids in INSIDE of Buildings			
Outside diameter (mm)	Maximum fluid temperature (°C)		
	> -10 ... 0	> 0 ... 10	> 10
D ≤ 35	30	25	20
35 < D ≤ 60	40	30	20
60 < D ≤ 90	40	30	30
90 < D ≤ 140	50	40	30
140 < D	50	40	30

Cold Fluids in EXTERIOR Buildings			
Outside diameter (mm)(mm)	Maximum fluid temperature (°C)		
	> -10 ... 0	> 0 ... 10	> 10
D ≤ 35	50	45	40
35 < D ≤ 60	60	50	40
60 < D ≤ 90	60	50	50
90 < D ≤ 140	70	60	50
140 < D	70	60	50

The data that appear in the aforementioned tables are informative, extracted directly from the Regulation of Thermal Installations (Rite).

DIMENSIONED

Diameter of the derivations of the devices according to the interior water supply installations "BASIC NORMS" 2nd edition (Spain).

Feeding point	Flow l/s	Speed m/s	Pressure bar	⌀ Tube
Sink	0,10	1,1	1	16
Bidet	0,10	1,1	1	16
Sanitary ware with deposit	,010	1,1	1	16
Bath	0,30	0,85	1	25
Shower	0,20	1,49	1	20
Sink	0,20	1,49	1	20
"Office"	0,15	1,20	1	20
Laundry	0,20	0,94	1	25
Fluxers	1,25 ÷ 2	3 (by 1,6)	1,2	32

Diameter of the derivations of the devices according to the norm DIN 1988

The content of this catalog is purely informative and aims to provide general information. In any case, the user of our products must refer to the regulations of current techniques.

ADMISSIBLE WORKING PRESSURES

In the following tables are related, working temperature, pressure and time (years).

Temperature	Years of service	Pressure (bar)	
		PP-RCT FASER S4 SDR9	PP-RCT FASER S3,2 SDR7,4
10°C	1	28,8	30,2
	5	27,9	28,2
	10	27,5	27,7
	25	27,1	26,9
	50	26,7	26,1
	100	26,3	25,2
20 °C	1	25	28,6
	5	24,2	26,8
	10	23,9	26,1
	25	23,5	25,3
	50	23,1	24,5
	100	22,8	23,7
30 °C	1	21,7	24,3
	5	20,9	22,8
	10	20,6	22
	25	20,2	21,3
	50	19,9	20,7
	100	19,7	20
40 °C	1	18,6	20,5
	5	18	19,2
	10	17,7	18,7
	25	17,3	18
	50	17,1	17,5
	100	16,8	16,8
50 °C	1	15,9	17,5
	5	15,3	16,2
	10	15,1	15,7
	25	14,7	15,2
	50	14,5	14,7
	100	14,3	14,1
60 °C	1	13,5	14,7
	5	13	13,7
	10	12,7	13,2
	25	12,4	12,6
	50	12,2	12,1
70 °C	1	11,3	12,4
	5	10,9	11,4
	10	10,7	11,1
	25	10,4	9,6
	50	10,2	8,1
80 °C	1	9,5	10,4
	5	9	9,2
	10	8,9	7,8
	25	8,6	6,2
90 °C	1	7,8	8,7
	5	7,4	6
	10	7,3	5,1

SDR = Standard Dimension Ratio (Ratio Diameter-Thickness) = DN / Wall Thickness T
SDR = 2xS ~d/s
S = Tube series according to ISO 4065

Temperature		Years of service	Pressure (bar)	
			PP-RCT FASER S4 SDR9	PP-RCT FASER S3,2 SDR7,4
Constant temperature 70°C exceeding 30 days / year of...	75 °C	5	12,9	14,27
		10	12,6	13,79
		25	12,2	11,74
		45	12	10,18
	80 °C	5	11,7	13,5
		10	11,4	12,8
		25	11,1	11,14
		45	10,9	9,79
	85 °C	5	10,7	12,42
		10	10,4	11,87
		25	10,1	10,14
		37,5	10	9,18
	90 °C	5	9,8	11,39
		10	9,5	10,94
		25	9,2	8,86
		35	9,1	8,16
Constant temperature 70°C exceeding 60 days / year of....	75 °C	5	12,3	14,11
		10	12,1	13,57
		25	11,7	11,58
		45	11,5	10,05
	80 °C	5	11,4	13,12
		10	11,2	12,54
		25	10,8	10,56
		40	10,7	9,41
	85 °C	5	10,4	12,03
		10	10,2	11,52
		25	9,9	9,22
		35	9,8	8,48
	90 °C	5	9,5	11,04
		10	9,3	9,76
		25	9,1	7,81
		30	9	7,46
Constant temperature 70°C exceeding 90 days / year of..	75 °C	5	12,2	14,02
		10	12	13,38
		25	11,6	11,33
		45	11,4	9,82
	80 °C	5	11,3	12,9
		10	11	12,35
		25	10,7	10,05
		37,5	10,6	9,09
	85 °C	5	10,3	11,81
		10	10,1	10,72
		25	9,8	5,58
		32,5	9,7	8,03
	90 °C	5	9,4	10,59
		10	9,2	8,96
		25	8,9	7,17

SDR = Standard Dimension Ratio (Ratio Diameter-Thickness) = DN / wall thickness T
SDR = 2xS ~d/s
S = Tube Series according to ISO 4065

BEHAVIOR OF PPR and PP-RCT FRONT OF SOME MORE COMMON CHEMICALS (ORIENTATIONAL DATA)

Substance	Concentration (%)	Operating temperature	
		20 ºC	60 ºC
Acetate Ammonium	s / to all	+	+
Butyl Acetate	100	+/-	
Sodium Acetate	Sun. sat	+	+
Acetone	100	+	
Acetic acid	s/a 50	+	
Acetic acid	s/a 10	+	+
Anhydrous acid	100	+	
Benzoic acid	100	+	
Benzoic acid	s / sat cool	+	+
Boric acid	100	+	
Boric acid	s / sat cool	+	+
Citric acid	s / sat cool	+	+
Formic acid	s/a 98	+	
Formic acid	s/a 85	+	
Formic acid	s/a 50	+	
Formic acid	s/a 10	+	
Formic acid	85	+	
Phosphoric acid	50	+	
Phosphoric acid	10	+	+
Lactic acid	s/a 90	+	
Lactic acid	s/a 50	+	
Lactic acid	s/a 10	+	+
Nitric acid	68	-	
Nitric acid	50	-	
Nitric acid	25	+/-	
Nitric acid	10	+	
Sulfuric acid	98	+	
Sulfuric acid	50	+	+
Fructose	s / sat cool	+	+
Glucose	s / sat cool	+	+
Glycerin	100%	+	
Glycerin	s / to all	+	
Sodium hydroxide	100%	+	
Calcium hypochlorite	s / to all	+	
Menthol	100%	+	
Mercury	100%	+	
Ammonium nitrate	s / to all	+	+
Calcium nitrate	s / sat cool	+	+
Potassium nitrate	s / sat cool	+	+
Sodium nitrate	s / sat cool	+	+
Nitrobenzene	100%	+	
Potassium permanganate	s / sat cool	+	
Hydrogen peroxide	30%	+/-	
Aluminum Salts	s / to all	+	+

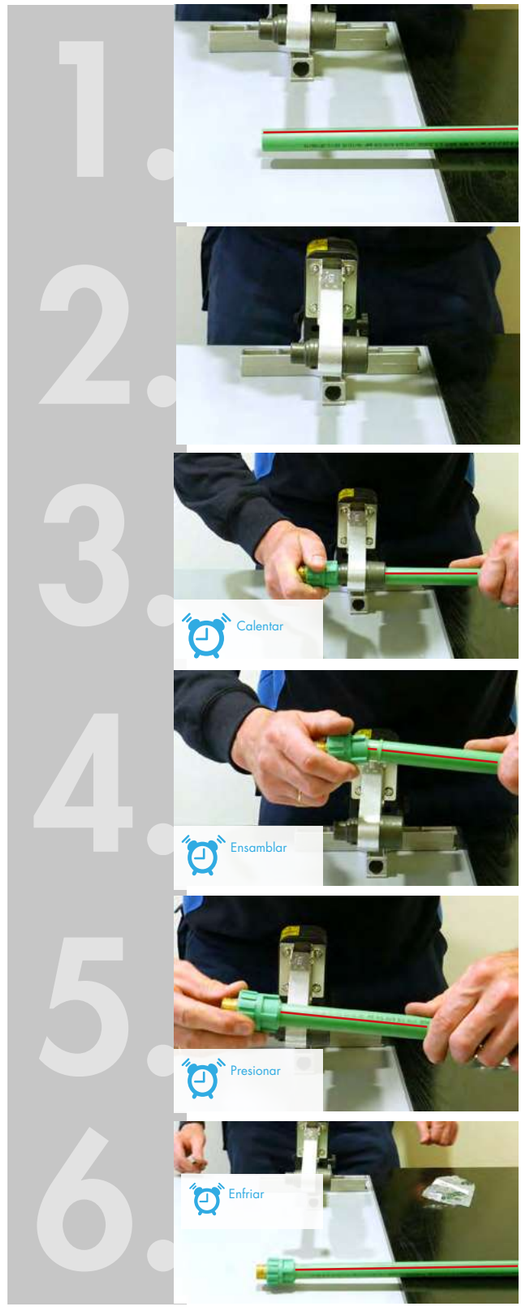
Substance	Concentration (%)	Operating temperature	
		20 ºC	60 ºC
Sulfuric acid	10	+/-	
Tartaric acid	s / sat cool	+	+
Water	100	+	+
Ethyl alcohol	100	+	
Ethyl alcohol	s/a 96	+	
Ethyl alcohol	s/a 50	+	
Ethyl alcohol	s/a 10	+	
Ammonium	s/a 30	+	
Ammonium	s/a 10	+	+
Aniline	100	+	
Benzaldehyde	100	+	
Benzaldehyde	s / sat cool	+	
Benzene	100	-	
Sodium bisulfite	s / sat cool	+	
Borax	s / sat cool	+	+
1,4 - Butanediol	100	+	
Carbonate Ammonium	s / to all	+	+
Calcium carbonate	s / sat cool	+	+
Carbonate Potassium	s / sat cool	+	+
Sodium carbonate	s / sat cool	+	+
Sodium carbonate	s/a 10	+	+
Chlorate Potassium	s / sat cool	+	
Chloroform	100	-	
Dichromate Potassium	s / sat cool	+	
Formaldehyde	s/a 40	+	
Formaldehyde	s/a 30	+	
Formaldehyde	s/a 10	+	
Phosphate Ammonium	s / to all	+	+
Sales of Zinc Sol.	s / sat cool	+	+
Potassium hydroxide	50	+	+
Sun. Potassium hydroxide	25	+	+
Sun. Potassium hydroxide	10	+	+
Sun. Potassium hydroxide	50	+	+
Sun. Potassium hydroxide	25	+	+
Sun. Potassium hydroxide	10	+	
Ammonium sulphate	s / to all	+	+
Sodium sulfate	s / sat cool	+	+
Urea	s / sat cool	+	+
Xylene	100	-	
Sales of Bario	s / to all	+	+
Chrome salts	s / sat cool	+	+
Sales of Mercury	s / sat cool	+	+
Nickel salts	s / sat cool	+	+

Abbreviations: s / a 0 aqueous solution: s / sat. cold = cold saturated solution; + Resistant: +/- Limited resistance; - Not resistant
In this table we will find the most known chemical products.

ASSEMBLY INSTRUCTIONS PIPES AND ACCESSORIES

Before starting the assembly check that the tubes are not broken, bent, damaged or apparently not suitable for installation. It is also necessary to check that the accessories to be used appear without any dirt residues in any of their components or present any anomaly or deterioration that prevents their correct use.

VERY IMPORTANT: THE USE OF DETERIORATED TUBES AND / OR ACCESSORIES, IN BAD CONDITION OR IN CONDITIONS OF CONSERVATION OR MAINTENANCE NOT SUITABLE FOR YOUR INSTALLATION EXCLUDES THE WARRANTY (see page of advice of use and recommendations)



All assembly processes on our YouTube channel

Cut the tube perpendicular to its length, using a tool that guarantees a clean and precise cut.

Select the appropriate matrix to the diameter of the tube, place it in the multipurpose and connect it to the network. Allow to warm up until the matrix reaches the working temperature.

Once the matrix is warm, place the accessory and the tube on both ends. Heat according to the time indicated in the work table. You must avoid excessive heating.

After the necessary heating time, quickly insert the accessory into the pipeline by pressing lightly and wait for the time indicated in the working table for cooling.

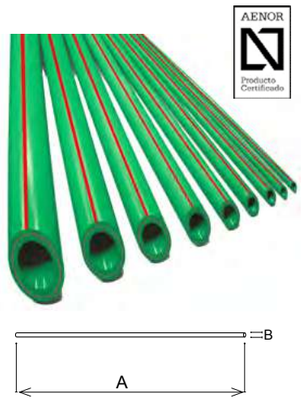
ATTENTION. Isoltubex is not responsible for problems that may arise due to the use of inadequate matrices or in poor condition.

THESE TUBES ARE MANUFACTURED REGARDING THE UNE-EN ISO 15874 STANDARD AND CERTIFIED BY AENOR ACCORDING TO THE RPO 1.7 REGULATIONS

PIPE PP-R FASER CT

PIPE PPR-CT FASER

SDR7,4 SERIES3,2 (Ø20 y Ø25)
SDR9 SERIES4 (Ø32 Ø40 Ø50 Ø63 Ø75 Ø90 Ø110)



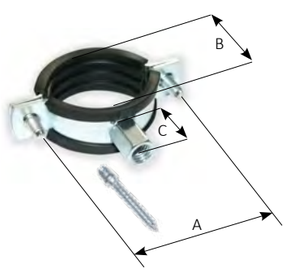
Reference	Ø Tube	Measurements Bar		Weight Bar	PACKAGE			CAGE	
		A	B		n° Bar	Meters	Weight	n° Bars	Weight
I2200F20-B4	20 x 2,8	400	2,8	0,60	40	160	24,0	1200	720,0
I2200F25-B4	25 x 3,5	400	3,5	0,90	25	100	22,5	750	675,0
I2200F32-B4	32 x 3,6	400	3,6	1,50	20	80	30,0	600	900,0
I2200F40-B4	40 x 4,5	400	4,5	2,00	15	60	30,0	315	630,0
I2200F50-B4	50 x 5,6	400	5,6	3,00	10	40	30,0	180	540,0
I2200F63-B4	63 x 7,1	400	7,1	4,80	5	20	24,0	120	576,0
I2200F75-B4	75 x 8,4	400	8,4	6,80	3	12	20,4	90	612,0
I2200F90-B4	90 x 10,1	400	10,1	9,80	2	8	19,6	56	548,8
I2200F110-B4	110 x 12,3	400	12,3	14,60	2	8	29,2	36	525,6
		cm	cm	kg	**uns.**	mts.	kg	uns.	kg

PIPE PPR FASER CT UV

SDR7,4 SERIES3,2 (Ø20 y Ø25)
SDR9 SERIES4 (Ø32 Ø40 Ø50 Ø63 Ø75 Ø90 Ø110)

Reference	Ø Tube	Measurements Bar		Weight Bar	PACKAGE			CAGE	
		A	B		n° Bars	Meters	Weight	n° Bars	Weight
I2200FUV20	20 x 2,8	400	2,8	0,60	40	160	24,0	1200	720,0
I2200FUV25	25 x 3,5	400	3,5	0,90	25	100	22,5	750	675,0
I2200FUV32	32 x 3,6	400	3,6	1,50	20	80	30,0	600	900,0
I2200FUV40	40 x 4,5	400	4,5	2,00	15	60	30,0	315	630,0
I2200FUV50	50 x 5,6	400	5,6	3,00	10	40	30,0	180	540,0
I2200FUV63	63 x 7,1	400	7,1	4,80	5	20	24,0	120	576,0
I2200FUV75	75 x 8,4	400	8,4	6,80	3	12	20,4	90	612,0
I2200FUV90	90 x 10,1	400	10,1	9,80	2	8	19,6	56	548,8
I2200FUV110	110 x 12,3	400	12,3	14,60	2	8	29,2	36	525,6
		cm	cm	kg	**uns.**	mts.	kg	uns.	kg

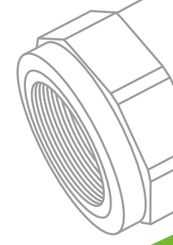
ISOPHONIC CLAMP



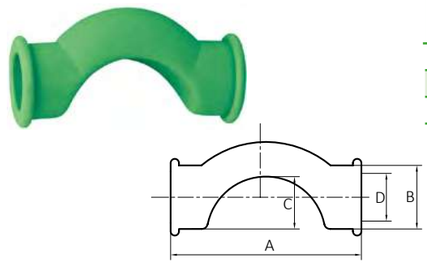
Reference	Measure	A	B	C	Weight	
AI20	20 - M8	60	18	7,5	64,00	150
AI25	25 - M8	65	25	7,5	74,00	120
AI32	32 - M8	75	30	7,5	77,00	100
AI40	40 - M8	85	35	7,7	83,00	100
AI50	50 - M8	100	45	7,5	95,00	100
AI63	63 - M10	105	55	15	105,00	50
AI75	75 - M10	125	70	15	112,00	50
AI90	90 - M10	130	85	15	132,00	50
AI110	110 - M10	160	100	15	167,00	50
	Ø	mm	mm		g	uns.

THE PP-R ACCESSORIES ARE MANUFACTURED REGARDING THE STANDARD UNE-EN ISO 15874

POLYPROPYLENE ACCESSORIES (PP-R)

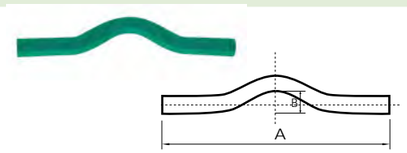


CROSS PIPE



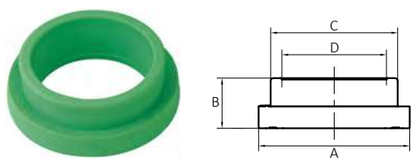
Reference	Measure	A	B	C	D	Weight	
I228520	20	84,00	26,60	21,40	19,30	26,2	100
I228525	25	96,00	32,00	26,40	24,30	44,2	50
I228532	32	107,80	39,70	34,10	31,30	70,2	30
	Ø	mm	mm	mm	mm	g	uns.

CROSS PIPE



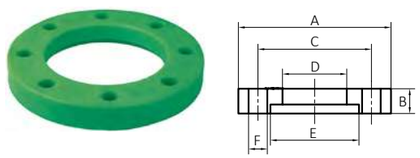
Reference	Measure	A	B	Weight	
I228725	25	27,5	32,0	78	50
I228732	32	43,0	16,5	157	30
	Ø	mm	mm	g	uns.

FLANGE SOCKET



Reference	Measure	A	B	C	D	Weight	
I279050	50	86,30	29,40	60,50	49,30	59,00	45
I279063	63	87,80	34,70	73,10	62,20	65,50	35
I279075	75	105,00	35,30	88,30	74,00	88,00	26
I279090	90	122,30	39,40	106,60	88,80	138,50	19
I2790110	110	149,50	43,00	130,80	108,50	219,00	12
	Ø	mm	mm	mm	mm	g	uns.

FLANGE

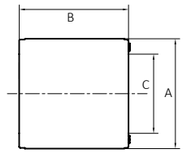


Reference	Measure	A	B	C	D	E	F	Weight	
I62050	50	147,7	24,2	110,7	62,5	86,5	4 - 17,8	242,5	18
I62063	63	162,4	27,0	124,2	76,5	88,0	4 - 17,8	292,0	15
I62075	75	178,2	25,9	138,0	91,3	107,0	4 - 17,8	348,0	12
I62090	90	198,2	29,7	160,0	110,0	124,8	8 - 17,8	467,5	6
I620110	110	216,0	29,6	177,8	134,9	151,5	8 - 17,8	501,5	6
	Ø	mm	mm	mm	mm	mm	mm	g	uns.

THE PP-R ACCESSORIES ARE MANUFACTURED REGARDING THE STANDARD UNE-EN ISO 15874

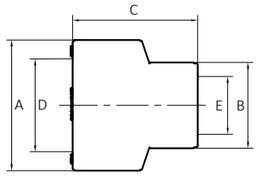
POLYPROPYLENE ACCESSORIES (PP-R)

UNION



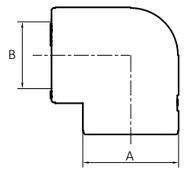
Reference	Measure	A	B	C	Weight	
I227020	20	27,50	34,10	18,90	9,40	220
I227025	25	33,70	38,30	23,90	15,90	150
I227032	32	41,80	42,20	31,00	24,70	100
I227040	40	52,10	49,10	38,80	42,40	70
I227050	50	65,60	54,60	48,50	75,00	30
I227063	63	81,30	62,20	61,40	122,50	24
I227075	75	96,00	70,00	73,30	194,20	16
I227090	90	116,00	70,70	87,40	325,00	12
I2270110	110	142,00	88,70	107,20	535,00	5
	∅	mm	mm	mm	g	uns.

REDUCER



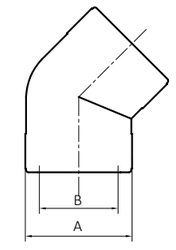
Reference	Measure	A	B	C	D	Weight	
I22432520	25 - 20	33,80	28,00	39,00	24,30	14,50	180
I22433220	32 - 20	42,20	28,00	41,00	31,00	20,00	100
I22433225	32 - 25	42,20	33,80	41,90	31,00	22,50	100
I22434020	40 - 20	52,30	28,00	44,50	39,30	31,50	60
I22434025	40 - 25	52,30	33,80	45,60	39,30	32,50	60
I22434032	40 - 32	52,30	42,60	46,30	39,30	36,00	60
I22435020	50 - 20	65,40	28,00	50,40	49,30	56,00	50
I22435025	50 - 25	65,40	33,80	50,90	49,30	57,00	50
I22435032	50 - 32	65,40	42,20	51,60	49,30	58,00	50
I22435040	50 - 40	65,40	52,30	51,80	49,30	62,70	50
I22436325	63 - 25	81,50	34,30	57,90	62,20	93,50	35
I22436332	63 - 32	81,50	42,60	57,80	62,20	103,00	35
I22436340	63 - 40	81,50	52,30	57,40	62,20	104,00	35
I22436350	63 - 50	81,50	65,40	59,10	62,20	106,00	30
I22437550	75 - 50	96,50	64,00	65,00	72,70	167,80	18
I22437563	75 - 63	96,50	80,00	67,00	72,70	172,80	18
I22439063	90 - 63	116,90	80,50	71,90	87,40	289,60	14
I22439075	90 - 75	116,90	96,00	74,40	87,40	296,00	12
I224311063	110 - 63	142,50	80,50	81,10	107,60	478,50	8
I224311075	110 - 75	142,50	96,00	84,10	107,60	493,00	7
I224311090	110 - 90	142,50	116,90	84,80	107,60	504,00	7
	∅	mm	mm	mm	mm	g	uns.

ELBOW 90°



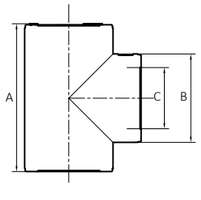
Reference	Measure	A	B	Weight	
I209020	20	27,60	19,30	15,60	200
I209025	25	34,20	24,30	26,30	130
I209032	32	42,00	31,00	42,70	70
I209040	40	52,50	39,00	76,60	30
I209050	50	66,00	48,50	138,10	24
I209063	63	82,00	61,40	242,66	12
I209075	75	96,50	73,30	367,00	6
I209090	90	116,00	87,50	621,00	4
I2090110	110	142,50	107,6	1072,00	2
	∅	mm	mm	g	uns.

ELBOW 45°



Reference	Measure	A	B	Weight	
I204120	20	27,60	19,30	12,30	180
I204125	25	33,50	24,00	21,10	110
I204132	32	42,50	31,00	35,60	80
I204140	40	52,50	39,00	59,00	50
I204150	50	64,50	48.90	95,10	25
I204163	63	82,50	61,70	176,00	12
I204175	75	96,50	73,30	296,00	8
I204190	90	116,20	87,50	468,50	6
I2041110	110	142,50	107,60	858,00	2
	∅	mm	mm	g	uns.

TEE

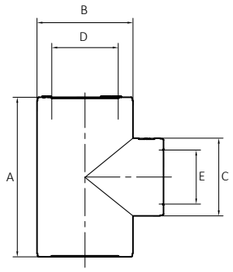


Reference	Measure	A	B	C	Weight	
I213020	20	52,90	27,40	19,30	19,00	110
I213025	25	61,40	33,50	24,20	31,10	90
I213032	32	71,00	42,10	31,00	52,90	40
I213040	40	87,50	52,20	39,30	93,10	36
I213050	50	103,00	66,10	49,30	168,80	20
I213063	63	123,30	81,20	62,20	285,70	12
I213075	75	138,40	96,80	73,30	444,80	6
I213090	90	157,30	116,20	87,50	703,00	4
I2130110	110	185,40	142,50	107,60	1226,50	2
	∅	mm		mm	g	uns.

THE PP-R ACCESSORIES ARE MANUFACTURED REGARDING THE STANDARD UNE-EN ISO 15874

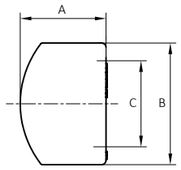
POLYPROPYLENE ACCESSORIES (PP-R)

REDUCER TEE



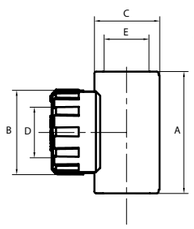
Reference	Measure	A	B	C	D	Weight	
I2130R252025	25 - 20 - 25	58,70	33.80	27,50	24,30	27,50	90
I2130R322032	32 - 20 - 32	66,40	42,50	28,00	31,00	41,00	60
I2130R322532	32 - 25 - 32	70,30	42,50	34,00	31,00	45,00	60
I2130R402040	40 - 20 - 40	68,40	52,30	27,50	39,30	63,50	40
I2130R402540	40 - 25 - 40	73,20	52,30	34,40	39,30	68,50	40
I2130R403240	40 - 32 - 40	79,70	52,30	42,00	39,30	79,00	35
I2130R502050	50 - 20 - 50	74,00	65,40	27,80	49,00	105,00	30
I2130R502550	50 - 25 - 50	78,70	65,40	33,80	49,00	113,00	30
I2130R503250	50 - 32 - 50	86,10	65,40	42,20	49,00	125,50	25
I2130R504050	50 - 40 - 50	93,60	65,40	52,30	49,00	137,00	25
I2130R632563	63 - 25 - 63	86,20	81,50	34,00	62,20	179,50	16
I2130R633263	63 - 32 - 63	92,80	81,50	42,60	62,20	192,00	16
I2130R634063	63 - 40 - 63	101,00	81,50	52,30	62,20	215,00	12
I2130R635063	63 - 50 - 63	110,80	81,50	65,80	62,20	243,00	10
I2130R753275	75 - 32 - 75	102,70	96,50	42,30	73,20	297,00	7
I2130R754075	75 - 40 - 75	112,00	96,50	50,50	73,20	340,00	7
I2130R755075	75 - 50 - 75	122,00	96,50	64,30	73,20	353,00	6
I2130R756375	75 - 63 - 75	131,20	96,50	81,30	73,20	421,00	6
I2130R906390	90 - 63 - 90	137,90	115,60	80,50	87,80	599,00	5
I2130R907590	90 - 75 - 90	146,00	115,60	96,80	87,80	644,00	5
I2130R11063110	110 - 63 - 110	154,20	142,50	80,50	107,60	960,50	2
I2130R11075110	110 - 75 - 110	164,40	142,50	97,00	107,60	1007,50	2
I2130R11090110	110 - 90 - 110	175,00	142,50	117,50	107,60	1090,00	2
	∅	mm	mm	mm	mm	g	uns.

PLUG



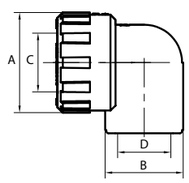
Reference	Measure	A	B	C	Weight	
I230120	20	24,90	27,10	19,30	6,50	250
I230125	25	27,50	33,30	24,30	11,00	180
I230132	32	31,90	42,30	31,00	20,40	120
I230140	40	38,30	54,60	39,30	37,10	70
I230150	50	42,90	64,60	49,30	51,10	65
I230163	63	52,90	82,30	62,20	106,50	35
I230175	75	58,60	96,50	73,30	159,00	20
I230190	90	64,00	116,00	87,80	268,50	14
I2301110	110	78,60	142,50	107,60	491,00	7
	∅	mm	mm	mm	g	uns.

FEMALE TEE



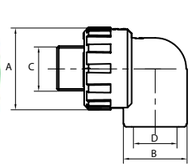
Reference	Measure	A	B	C	D	E	Weight	
I2130G2012	20 - 1/2"	57,80	38,50	27,80	H 1/2"	19,30	56,50	85
I2130G2034	20 - 3/4"	60,40	44,70	34,20	H 3/4"	19,30	76,00	85
I2130G2512	25 - 1/2"	61,60	38,80	27,80	H 1/2"	24,20	65,00	80
I2130G2534	25 - 3/4"	65,10	44,50	34,20	H 3/4"	24,20	81,00	70
I2130G3234	32 - 3/4"	64,50	45,00	34,20	H 3/4"	30,80	90,50	40
I2130G321	32 - 1"	70,60	55,10	42,00	H 1"	31,80	170,00	35
	∅	mm	mm	mm	mm	mm	g	uns.

FEMALE ELBOW



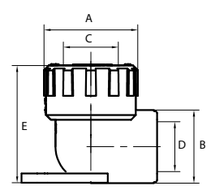
Reference	Measure	A	B	C	D	Weight	
I2090G2012	20 - 1/2"	38,50	28,00	H 1/2"	19,30	53,00	100
I2090G2034	20 - 3/4"	44,70	28,00	H 3/4"	19,30	65,50	60
I2090G2512	25 - 1/2"	38,80	34,30	H 1/2"	24,20	60,50	80
I2090G2534	25 - 3/4"	44,50	34,20	H 3/4"	24,20	78,50	70
I2090G3234	32 - 3/4"	45,00	42,30	H 3/4"	30,80	70,00	40
I2090G321	32 - 1"	55,10	42,30	H 1"	31,80	164,00	30
	∅	mm	mm	mm	mm	g	uns.

MALE ELBOW



Reference	Measure	A	B	C	D	Weight	
I2092G2012	20 - 1/2"	38,50	28,00	M 1/2"	19,30	60,00	60
I2092G2034	20 - 3/4"	44,70	28,00	M 3/4"	19,30	77,00	50
I2092G2512	25 - 1/2"	38,80	34,30	M 1/2"	24,20	67,00	50
I2092G2534	25 - 3/4"	44,50	34,20	M 3/4"	24,20	85,00	40
I2092G3234	32 - 3/4"	45,00	42,30	M 3/4"	30,80	93,00	30
I2092G321	32 - 1"	55,10	42,30	M 1"	31,80	193,00	20
	∅	mm	mm	mm	mm	g	uns.

WALL PLATED FEMALE ELBOW

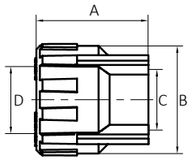


Reference	Measure	A	B	C	D	E	Weight	
I2472G2012	20 - 1/2"	39,00	27,80	H 1/2"	19,30	63,50	56,00	50
I2472G2512	25 - 1/2"	44,80	34,20	H 1/2"	24,20	67,00	75,50	35
	∅	mm	mm	mm	mm	mm	g	uns.

THE PP-R ACCESSORIES ARE MANUFACTURED REGARDING THE STANDARD UNE-EN ISO 15874

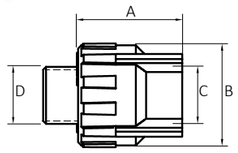
POLYPROPYLENE ACCESSORIES (PP-R)

FEMALE UNION



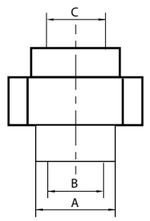
Reference	Measure	A	B	C	D	Weight	
I2270G2012	20 - 1/2"	41,5	41,5	19,0	H 1/2"	50,0	100
I2270G2034	20 - 3/4"	42,5	47,0	19,0	H 3/4"	66,0	80
I2270G2512	25 - 1/2"	42,5	41,5	24,2	H 1/2"	50,0	100
I2270G2534	25 - 3/4"	44,8	47,0	24,2	H 3/4"	66,0	50
I2270G3234	32 - 3/4"	44,8	47,0	31,0	H 3/4"	70,5	35
I2270G0321	32 - 1"	44,8	58,0	31,0	H 1"	144,0	30
I2270G40114	40 - 1 1/4"	51,5	71,8	39,0	H 1 1/4"	243,5	18
I2270G50112	50 - 1 1/2"	55,0	83,3	49,0	H 1 1/2"	331,5	12
I2270G632	63 - 2"	62,5	97,5	61,8	H 2"	480,0	8
I2270G75212	75 - 2 1/2"	66,5	116,8	74,0	H 2 1/2"	785,5	4
I2270G903	90 - 3"	77,5	119,5	87,8	H 3"	735,0	4
	∅	mm	mm	mm	mm	g	uns.

MALE UNION



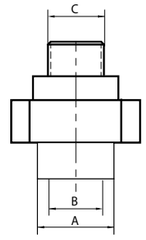
Reference	Measure	A	B	C	D	Weight	
I2243G2012	20 - 1/2"	41,50	38,80	19,30	M 1/2"	55,50	100
I2243G2034	20 - 3/4"	42,50	47,00	19,30	M 3/4"	74,00	70
I2243G2512	25 - 1/2"	42,50	41,50	24,20	M 1/2"	57,00	90
I2243G2534	25 - 3/4"	44,80	47,00	24,20	M 3/4"	75,50	50
I2243G3234	32 - 3/4"	44,80	47,00	31,00	M 3/4"	78,00	35
I2243G321	32 - 1"	44,80	58,00	31,00	M 1"	171,50	30
I2243G40114	40 - 1" 1/4"	51,50	71,80	39,00	M 1" 1/4"	259,00	18
I2243G50112	50 - 1" 1/2"	55,00	83,30	49,00	M 1" 1/2"	340,00	12
I2243G632	63 - 2"	62,50	97,50	61,80	M 2"	546,50	8
I2243G75212	75 - 2" 1/2"	66,50	116,80	73,80	M 2" 1/2"	910,00	4
I2243G903	90 - 3"	77,50	119,50	88,80	M 3"	977,00	4
	∅	mm	mm	mm	mm	g	uns.

DESMOUNTABLE FEMALE UNION



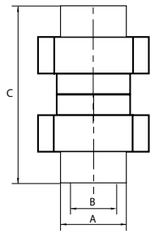
Reference	Measure	A	B	C	Weight	
I23322012	20 - 1/ 2"	27,60	18,90	1/2"	93,30	120
I23322034	20 - 3/4"	27,60	18,90	3/4""	86,3	100
I23322512	25 - 1/2"	34,10	23,80	1/2"	135,00	100
I23322534	25 - 3/4"	34,10	23,80	3/4"	128,00	80
I2332251	25 - 1"	34,10	23,80	1"	159,00	50
I2332321	32 - 1"	43,20	30,9	1"	199,50	50
I233240114	40 - 1 1/4"	53,80	38,6	1 1/4"	337,00	30
I233250112	50 - 1 1/2"	67,00	48,40	1 1/2"	612,00	12
I2332632	63 - 2"	82,90	61,30	2"	1004,3	8
	∅	mm	mm	mm	g	uns.

DESMOUNTABLE MALE UNION



Reference	Measure	A	B	C	Weight	
I2333G2012	20 - 1/2"	27,60	18,90	1/2"	93,30	100
I2333G2034	20 - 3/4"	27,60	18,90	3/4""	115,00	100
I2333G2512	25 - 1/2"	34,10	23,80	1/2"	145,00	100
I2333G2534	25 - 3/4"	34,10	23,80	3/4"	128,00	60
I2333G251	25 - 1"	34,10	23,80	1"	195,00	50
I2333G321	32 - 1"	43,20	30,90	1"	199,50	40
I2333G40114	40 - 1 1/4"	53,80	38,60	1 1/4"	337,00	24
I2333G50112	50 - 1 1/2"	67,00	48,40	1 1/2"	612,00	12
I2333G632	63 - 2"	82,90	61,30	2"	1004,30	6
	∅	mm	mm	mm	g	uns.

DESMOUNTABLE 2 PIECES UNION



Reference	Measure	A	B	C	Weight	
I233020	20	37,60	18,90	77,00	190,60	50
I233025	25	34,10	23,80	91,00	268,00	36
I233032	32	43,20	30,90	101,10	416,00	24
I233040	40	53,80	38,60	110,00	723,00	15
I233050	50	67,00	48,40	126,00	1263,00	8
I233063	63	82,90	61,30	149,00	2038,60	4
	∅	mm	mm	mm	g	uns.

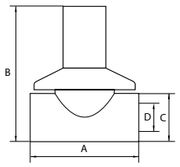
BATH / SHOWER COLLECTOR

Reference	Measure	A	B	C	D	Weight	
CGBD2012	20 - 1/2"	38,50	28,00	H 1/2"	19,30	130,0	20
	∅	mm	mm	mm	mm	g	uns.

THE PP-R ACCESSORIES ARE MANUFACTURED REGARDING THE STANDARD UNE-EN ISO 15874

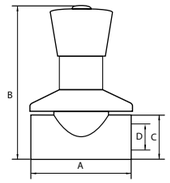
POLYPROPYLENE ACCESSORIES (PP-R)

VALVE WITH OCCULT HANDLE



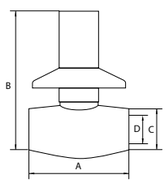
Reference	Measure	A	B	C	D	Peso	
IVM020	20	66,30	84,90	28,00	18,80	190,00	50
IVM025	25	77,80	93,90	34,00	23,80	235,00	40
IVM032	32	82,00	99,65	42,50	30,80	271,00	35
	∅	mm	mm	mm	mm	g	uns.

VALVE WITH TRIANGULAR HANDLE



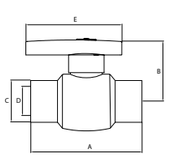
Reference	Measure	A	B	C	D	Peso	
IVMC20	20	66,30	107,40	28,00	18,80	269,00	35
IVMC25	25	77,80	115,90	34,00	23,80	312,00	30
IVMC32	32	82,00	121,65	42,50	30,80	334,60	25
	∅	mm	mm	mm	mm	g	uns.

BALL VALVE WITH OCCULT HANDLE



Reference	Measure	A	B	C	D	Peso	
IV50020	20	66,46	104,00	37,00	19,00	251,00	20
IV50025	25	70,50	108,00	42,00	24,00	275,00	15
	∅	mm	mm	mm	mm	g	uns.

BALL VALVE



Reference	Mea-sure	A	B	C	D	E	Peso	
I885020	20	74,50	46,50	28,30	18,90	80,00	55,70	70
I885025	25	78,00	50,20	35,60	23,80	85,00	85,30	50
I885032	32	87,50	58,50	44,00	30,80	100,00	129,00	30
I885040	40	104,00	65,60	53,60	38,80	115,00	201,60	18
I885050	50	124,00	79,00	65,60	48,80	150,00	368,40	10
I885063	63	145,00	90,00	83,00	61,70	170,00	1431,00	5
I885075	75	147,00	99,50	98,50	73,40	181,00	1757,00	4
	∅	mm	mm	mm	mm	mm	g	uns.

SCISSORS

Reference	For tubes	Long	Width	Deep	Wei-ght		
TIJ1632	Ø16 until Ø40	10,50	23,00	2,50	544	-	1
	∅	cm	cm	cm	g	uns.	uns.

WELDING MACHINE 63 WITH METAL BOX 600 Watt - NO WELDING ADAPTERS

Reference	For tubes	Long box	Width box	Deep box	Wei-ght box		
I29801663	Ø16 until Ø63	28,00	45,00	15,00	6,80	-	1
	∅	cm	cm	cm	g	uns.	uns.

WELDING MACHINE 110 WITH METAL BOX 900 Watt - NO WELDING ADPATERS

Reference	For tubes	Long box	Width box	Deep box	Wei-ght box		
I298020110	Ø20 until Ø110	28,00	45,00	15,00	6,80	-	1
	∅	cm	cm	cm	g	uns.	uns.

WELDING ADAPTERS

Reference	Measure	Long	Width	Weight	
I298220	20	43,00	25,00	37,00	1
I298225	25	34,00	40,00	96,00	1
I298232	32	54,00	49,50	180,00	1
I298240	40	56,00	60,00	286,00	1
I298250	50	62,00	69,70	381,00	1
I298263	63	72,00	79,50	526,00	1
I298275	75	64,00	82,00	289,00	1
I298290	90	69,00	97,00	394,00	1
I2982110	110	-	-	-	1
	∅	mm	mm	g	uns.

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www.isoltubex.net

WARRANTY

ISOLTUBEX pipes and fittings are manufactured according to the requirements and criteria of the standards that are applicable, checking their quality continuously by carrying out the tests indicated in said regulations.

ISOLTUBEX guarantees the quality of its products through a Civil Liability Policy, signed with an international presence insurance company, against possible manufacturing defects, during the first FIFTEEN YEARS from the date of manufacture, being covered the damages that are caused exclusively for this reason.

The guarantee will only be applicable in the following cases:

Products that have manufacturing defects, as long as they have not previously been manipulated wrongly.

Products (tube and accessories) that have been originally manufactured and / or distributed by ISOLTUBEX S.L. and have printed or the ISOLTUBEX brand.

The guarantee will not be applicable when any of the following circumstances:

When the installation of our products is carried out in an incorrect way or when mixed with other materials which are not from us.

For the use of deteriorated materials before installation.

For not observing the recommended assembly instructions.

The lack of collaboration or obstruction on the part of the client in the work of inspection and / or review of the products (installed or not) to be carried out by the technician designated by the company.

ISOLTUBEX, S.L. is not responsible for defects in installation or improper storage, as well as negligence in the preservation of products.

Our company will designate a technician who will carry out the recognition of the materials and will rule on the causes or reasons of the claim, communicating in its case,to the Insurance Company with which we have a civil liability policy; in these cases, the client can designate a technician to be present at the realization of the appropriate verifications and contributes their collaboration to the definitive decision. In case of detecting anomalies or defects in our productive process, we will proceed to process the corresponding documentation to the Insurance Company.

GENERAL CONDITIONS

PACKAGING The units of packaging that appear correspond to units per bag or box (the first number) and units per box (the second figure). The orders that you entrust to us must adapt to the indicated packaging models. Packaging units may be modified as a result of production processes.
ISOLTUBEX, S.L., reserves the right to make technical modifications motivated by the improvement of the product or its production.

TECHNICAL DATA. The technical data, plans and measures reflected in each product are indicative, ISOLTUBEX, S.L. reserves the right to make modifications motivated by the improvement of the product or its production.

DELIVERY OF ORDERS. It is considered for all purposes, as the date of delivery of the goods, the reception by the transport agency.
All shipments always travel at the buyer's risk, even if ISOLTUBEX, S.L., had managed the shipment of the goods.
No claims will be accepted after 48 hours have passed from the date of shipment.
ISOLTUBEX, SL, has arranged the shipment of their products by certain transport agencies, being sent to PAID PORTES when the net amount before VAT is greater than € 500 in accessories, € 2,000 in accessories + pipes (provided the value of the accessories represents a minimum of € 500 Net), € 2,500 only pipes, underfloor heating / cooling plate for shipments to Peninsular Spain, Canary Islands, Portugal, Balearic Islands and other destinations, consult. If the client wants the shipment of their orders to be made by a different transport agency or the value of their orders does not reach the indicated figure, these will travel to DEBID CARRIAGE or PAID PORTES, the amount of which will be charged to the corresponding invoice.

PAYMENT METHODS. The form of payment of invoices by our customers, will be agreed by the parties and confirmed in writing. In the case of delay in the fulfillment of the established agreement, the client will admit a charge, not only for the expenses incurred, but also the legal interest of the money, from the date in which the payment should have been made, until the date that effectively make.

PRODUCT RETURNS. Only those that previously ISOLTUBEX, S.L., through fax or email admits will be accepted.
It is imperative that the returned product is in perfect condition for subsequent sale, keep the original packaging and are products included in the current price rate.
All shipping costs of these returns will be made at the customer's risk.
The value of the refund will be discounted 15% for inspection and review.

RESERVATION OF DOMAIN. The supplies of our products are made under the express pact of reservation of title in favor of ISOLTUBEX, S.L., until the client has not made cash the total payment of the amount of the corresponding invoice.

JURISDICTION. The parties submit to the courts of VALENCIA, expressly waiving any other.

ISOLTUBEX

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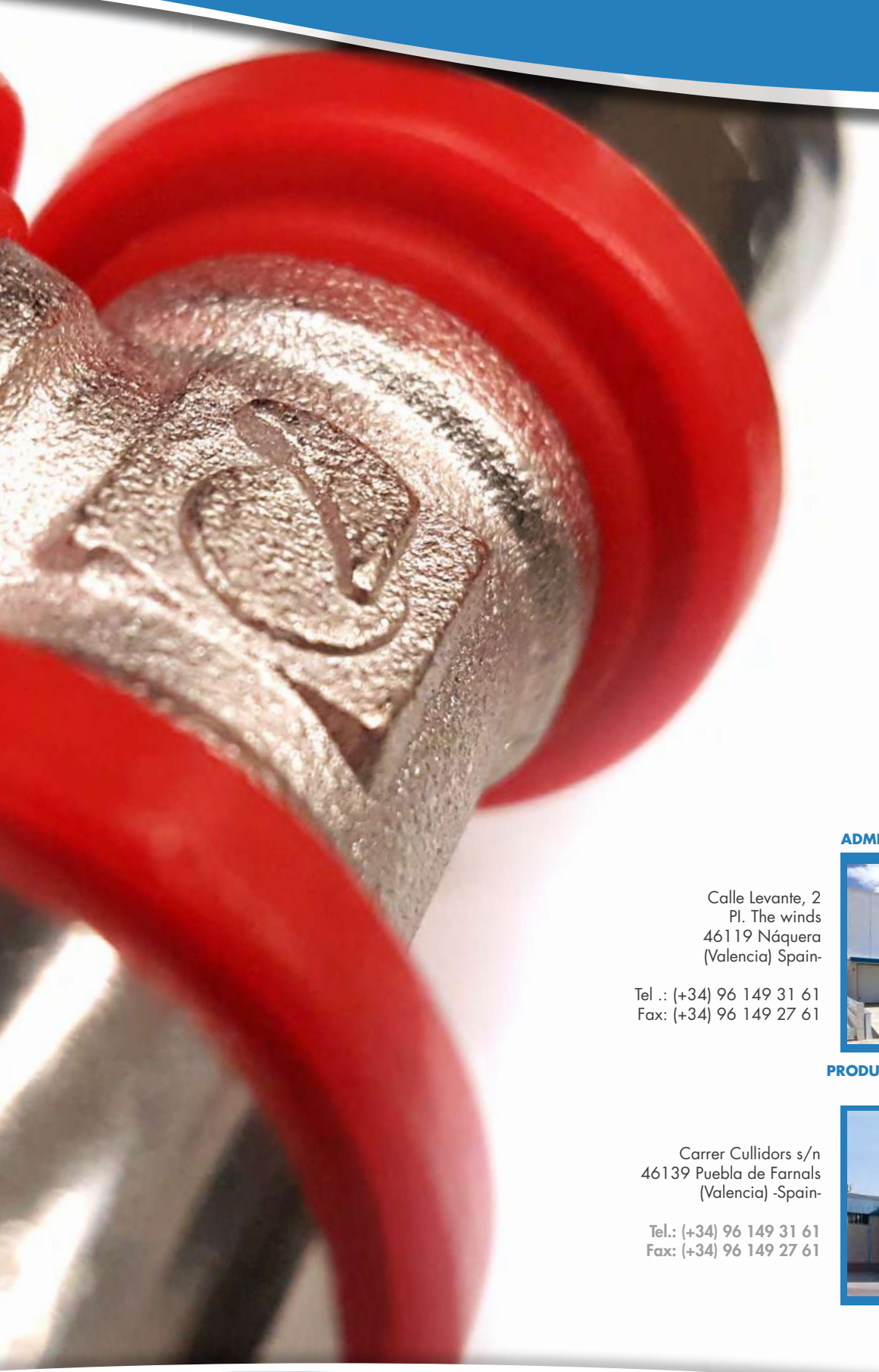
INSTALLATIONS OF PUEBLA DE FARNALS

NÁQUERA FACILITIES



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