GIACOFLEX®

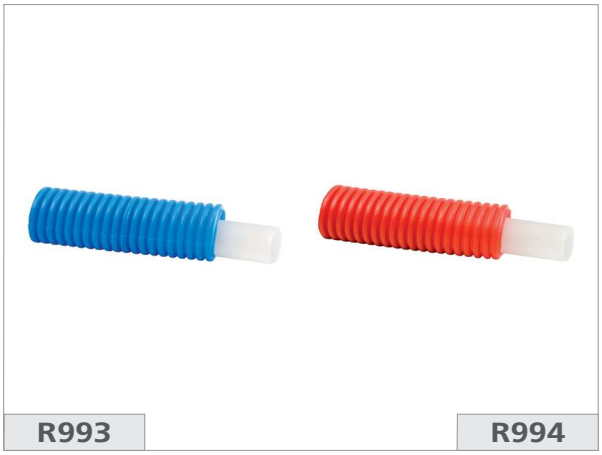
Cross link polyethylene pipe for sanitary distribution

GIACOMINI

Complete systems for heating, cooling and sanitary distribution

GIACOMINI s.p.a.•28017 S.Maurizio d'Opaglio (Novara)•Tel. 0322-923111•Fax 0322-96256•Telex 200035•www.giacomini.com

PIPES IN PEX-b FOR DOMESTIC WATER DISTRIBUTION - R993, R994 (GIACOFLEX)



Description

The pipe in high-density cross-linked polyethylene, R993 and R994 (Giacoflex) range, is used for the distribution of pressurised hot and cold water for domestic use.

Water distribution via PEX pipes is a modern technique that offers notable advantages compared with traditional distribution systems using iron or copper pipes - not least the quick, easy laying with clear labour savings, the lack of welding or mechanical joints and chasing that can develop leaks with the passing of time, the long lifespan of the material that is not subject to encrustations and various electro-chemical phenomena.

Other factors that cannot be ignored include the low degree of thermal conductibility (about 100 times lower than that of iron and 700 times lower compared with copper), and the low noise level of distribution thanks to the excellent acoustic insulation of the cross-linked polyethylene. The PEX pipe is particularly advantageous in distribution systems with low water flow pressure levels, because its limited roughness ensures limited pressure drops and hence minimum flow rates in the devices.

Systems that use the Giacoflex pipe up to DN16 are called "removable" because, if the pipe is obstructed or perforated for accidental reasons, it can be quickly and easily replaced with a new one without damaging the floors or walls.

Versions and product codes

Blue pipe + blue sleeve

Series	Product code	Size	Packaging
R993	R993Y003	15 x 2,5	50 m
	R993Y009	18 x 2,5	50 m

Neutral pipe + blue sleeve

Series	Product code	Size	Packaging
R993	R993Y026	16 x 2,2	50 m
	R993Y032	20 x 2,8	50 m

Blue pipe + red sleeve

Series	Product code	Size	Packaging
R994	R994Y003	15 x 2,5	50 m
	R994Y009	18 x 2,5	50 m

Neutral pipe + red sleeve

Series	Product code	Size	Packaging
R994	R994Y026	16 x 2,2	50 m
	R994Y032	20 x 2,8	50 m

Technical data

- Application range: class 1, 2, 4 and class 5 (EN ISO 15875)
- Density: 0,948 g/cm^3
- Cross-linking degree > 65 %
- Linear dilation coefficient ... at 20 °C: (1,4 x 10^{-4})/K
  ... at 100 °C: (2,0 x 10^{-4})/K
- Thermal conductibility of the pipe: 0,35 W/(m K)
- Linear dispersion of the sleeved pipe in the air (sleeve 25 mm): 0,23 W/(m K)
- Linear dispersion of the sleeved pipe in the air (sleeve 30 mm): 0,21 W/(m K)

The Giacoflex pipe is made of polyethylene cross-linked via the silane method (PEX-b) and verified on the basis of Standard EN ISO 15875. The chemical cross-linking process provides mechanical, chemical and thermal characteristics that make it suitable for use, with an optimum level of quality and reliability. Furthermore, this method creates a product that is entirely non-toxic, making it ideal for domestic water distribution as required by Ministerial Decree 174 of 06/04/2004 (for Italy) and the other European regulations.

Installation

The Giacoflex pipe allows you to create domestic water systems with the greatest ease and simplicity. During the laying process, some simple precautions must be observed with regards the connection of the pipe via special adapters, pipe bends, protection against solar rays and against any possible damage involving the crushing of the pipe or its protective sleeve. The connection to distribution manifolds or elbows for tap coupling must be made using adapters of the right size for that specific pipe. To ensure a good connection, it is essential to accurately cut the pipe perpendicular to its axis, using special shears.

The "removability" of the pipe is only guaranteed if the bends have a minimum radius more than 8 times the external pipe diameter. The bend can be applied with the cold or hot method, with the aid of hot air. The pipe must not be heated with naked flames or heat sources of a high temperature, that could provoke areas of fusion on it.

After laying the pipes, it is a good idea to carry out a pressure test on the system to highlight any fluid leaks immediately. Following the pressure test, the sheaths must be protected by covering them with cement so that the pipes cannot be crushed or moved. In visible installations, the pipe must always be protected from ultraviolet rays that could alter its chemical/physical properties. Make sure the pipe is not exposed to solar radiation or fluorescent lamps for long periods.

If the pipe is chased without a protection sleeve, it must be covered with a layer of mortar at least 1,5 cm thick to avoid any cracking of the plaster due to pipe dilation. If a pipe is accidentally damaged and needs to be replaced, use the specific joint of the R576 range (observing the relevant written instructions).

Precautions

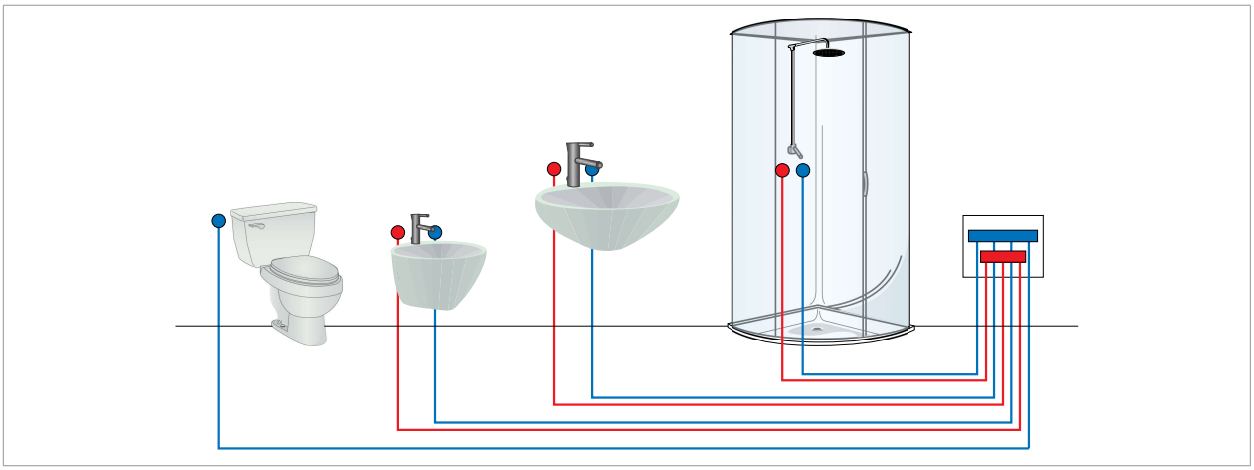
The main rules to follow are:

1) Keep the pipe in its packaging, avoiding any exposure to direct sunlight.
2) Store the pipe in a dry, protected place to avoid any damage caused by dampness.
3) Make sure the pipe cannot come into contact with sharp elements that could scratch it and thereby trigger incision problems. Pay special attention during the transport and installation phases.
4) Make the cut on the pipe perpendicular to its axis, using special shears that can make a clean cut without any burr.
5) Do not allow ice to form, as the dilations caused by the change of status could damage the pipe.
6) Under no circumstances must the pipe come into contact with naked flames.
7) Fix the pipe with the aid of the plastic ties.
Do not use metal ties that could damage the pipe.
8) Contact with chemical solvents or paints could damage the pipe.

Types of system

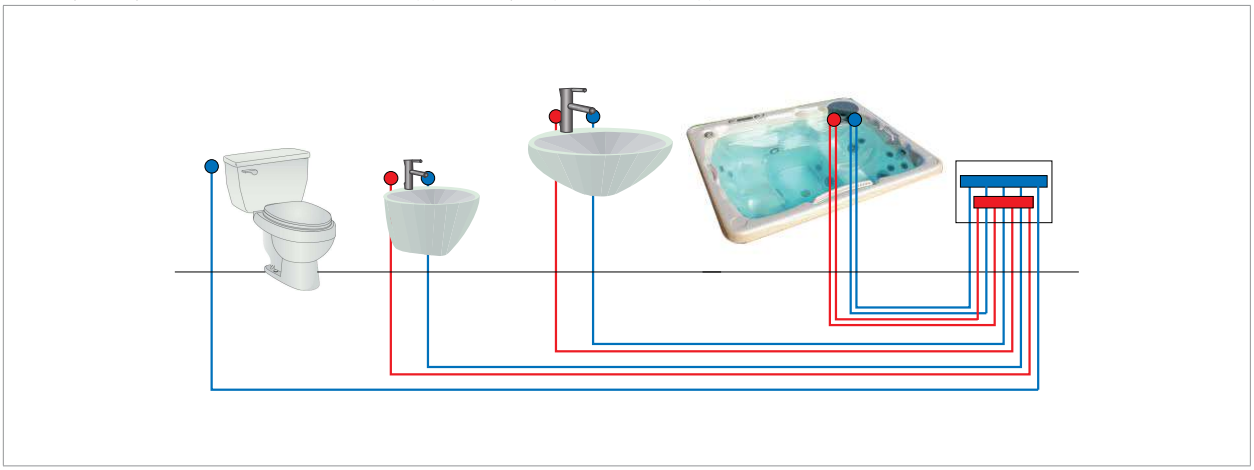
Distribution to individual connection points

This system uses distribution manifolds fitted with a number of connections equal to the number of dispensing points.
Each tap is connected, via two pipes (one for hot water and the other for cold water), directly to the manifolds located in a specific box.



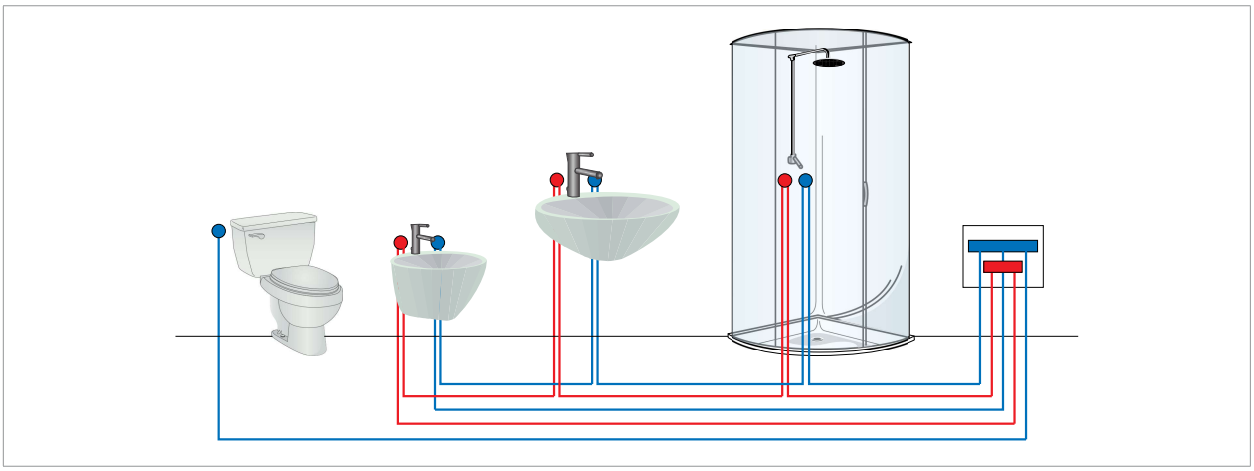
Large capacity distribution

This type of solution is widely adopted with dispensing points needing considerable water flow rates, such as jacuzzi bath-tubs, garden taps, connections for hotel kitchens or canteens.
It is handy when you want to use the small-diameter pipes already adopted in the usual applications.



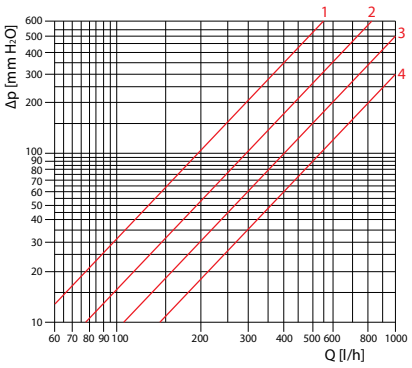
Closed ring distribution

In this case, rather than an individual connection pipe on the manifold for each dispensing point, there is one single pipe for hot water and another for cold water. They pass through all the dispensing points, forming a closed ring.
This type of distribution requires the minimum amount of pipes, so it is ideal in the case of renovations or where there is limited underfloor laying space.

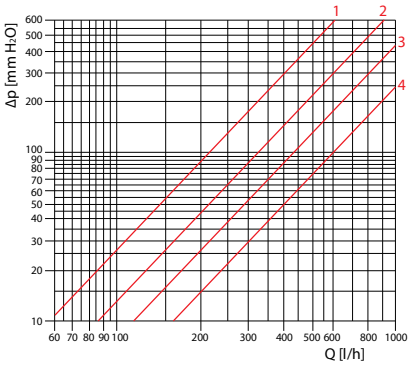


Losses of pressure

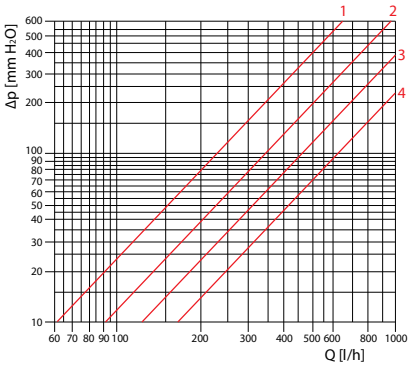
The following diagrams show the pressure drops of the Giacoflex in relation to the various diameters.



Water temperature 10 °C	
1	pipe 15 x 2,5
2	pipe 16 x 2,2
3	pipe 18 x 2,5
4	pipe 20 x 2,8



Water temperature 50 °C	
1	pipe 15 x 2,5
2	pipe 16 x 2,2
3	pipe 18 x 2,5
4	pipe 20 x 2,8



Water temperature 80 °C	
1	pipe 15 x 2,5
2	pipe 16 x 2,2
3	pipe 18 x 2,5
4	pipe 20 x 2,8

Guarantee

The guarantee is not valid in the following cases:
1) if the operating conditions differ from those indicated.
2) if the pipes are used to distribute fluids that are not compatible with the material.
3) if the installation instructions are not respected.
4) if the pipe already shows defects at the time of installation, due to accidental factors and visually perceptible at the laying stage or during the pressure test.
5) if the pipe is installed using components not produced by Giacomini S.p.A., or in any case different from those permitted.

Normative References

• DIN 16892

Cross-linked high-density polyethylene (PEX) pipes. General quality requisites and testing.

• EN ISO 15875

Plastic pipes for hot and cold water installation – Cross-linked polyethylene (PEX).

Product specifications

R993

Giacoflex pipe in cross-linked polyethylene PEX-b, supplied in blue PE-HD sleeve, for domestic water distribution. Pipe available in blue or neutral colour. Both are ideal for domestic water distribution and are used for Classes 1, 2, 4 and 5. Systems that use the Giacoflex pipe up to DN16 are called "removable" because, if the pipe is obstructed or perforated for accidental reasons, it can be quickly and easily replaced with a new one without damaging the floors or walls.

R994

Giacoflex pipe in cross-linked polyethylene PEX-b, supplied in red PE-HD sleeve, for domestic water distribution. Pipe available in red or neutral colour. Both are ideal for domestic water distribution and are used for Classes 1, 2, 4 and 5. Systems that use the Giacoflex pipe up to DN16 are called "removable" because, if the pipe is obstructed or perforated for accidental reasons, it can be quickly and easily replaced with a new one without damaging the floors or walls.

ANNEX

EN ISO 15875

Table 1 – Classification of operating conditions

The behaviour requisites for pipe systems complying with EN ISO 15875 are specified for an operating lifespan of 50 years.

Application field	T_{oper} [°C]	Time at T_{oper} [years]	T_{max} [°C]	Time at T_{max} [years]	T_{mal} [°C]	Time at T_{mal} [h]
CLASS 1 Domestic hot water (60 °C)	60	49	80	1	95	100
CLASS 2 Domestic hot water (70 °C)	70	49	80	1	95	100
CLASS 4 Underfloor heating and radiators at a low temperature	20 plus 40 plus 60	2.5 20 25	70	2,5	100	100
CLASS 5 Radiator heating at a high temperature	20 plus 60 plus 80	14 25 10	90	1	100	100

Operating temperature (T_{oper}): operating temperature envisaged for the application field, expressed in °C.

Maximum working temperature (T_{max}): the highest value of the working temperature, only allowed for a short period of time.

Malfunctioning temperature (T_{mal}): the highest temperature value that can occur when the control systems are not working (the time period possible and allowed for this value is 100 h over a continuous operating period of 50 years).

For each application class, the maximum usage pressure can be obtained from the following table:

Measurement	CLASS 1	CLASS 2	CLASS 4	CLASS 5
15 x 2,5	10 bar	10 bar	10 bar	10 bar
16 x 2,2	10 bar	10 bar	10 bar	10 bar
18 x 2,5	10 bar	10 bar	10 bar	10 bar
20 x 2,8	10 bar	10 bar	10 bar	10 bar

All the pipes are suitable for transporting water for a period of 50 years at a temperature of 20 °C and an operating pressure of 10 bar.

Additional information
For further information, visit the website www.giacomini.com or contact the technical service:
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Cross link polyethylene pipe for sanitary distribution

Use

The high density GIACOFLEX PE-X pipe allows pressurized hot and cold water to be distributed for both sanitary and heating systems.
Distribution of water with PE-X pipe is a modern technique presenting many advantages when compared to traditional distribution using iron or copper pipe.
Using this material provides a number of benefits such as easy and quick installation with obvious money saving, lack of soldering or mechanical connections which, over a period of time may cause leakages, and high durability of the material which is not subject to scale and chemical phenomenons.
Not to forget the low thermal conductivity , about 100 times lower than that of iron and 700 times lower than that of brass, together with reduced noise in the system due to high acoustic insulation of the cross link polyethylene.
PE-X pipe is very advantageous where water distribution is performed at low pressures because its smoothness gives modest losses of pressure, allowing minimum flow to the control equipment.
Systems installed with GIACOFLEX pipes are identified as pliable because in the case of perforation or obstruction of the pipe due to accidental causes, it is possible to replace the damaged pipe simply and quickly without disturbing the floors or walls.
With traditional installations using iron or copper pipe, this method of replacement is not possible.

Technical features

GIACOFLEX pipe is produced to UNI 9338 Standard, and technically verified as prescribed by the UNI Standard 9349.
The process of chemical cross-linking, with its mechanical, chemical and thermal features ensures high quality and reliability.
High quality production guarantees a product completely suitable for distribution of sanitary water, as confirmed by the Presidio Multinazionale di Igiene e Prevenzione PMIP with Analysis Certifcate no. 72564 dated 28/11/1993.

Cross link polyethylene pipe for sanitary distribution

Commercial features

GIACOFLEX pipe with sleeve is supplied in 50 m rolls and the GIACOFLEX pipe without sleeve is supplied in 100 m rolls.

The outer sleeve only is available in 100 metre rolls. Pipe rolls are contained in cartons to ensure protection and ease of stocking.
GIACOFLEX pipe is supplied in the following sizes:

article	diameter of pipe	diameter of sleeve	sleeve colour	length
R993	15 x 2,5 mm	25 x 20 mm	blue	50 m
R993	16 x 2,2 mm	25 x 20 mm	blue	50 m
R993	18 x 2,5 mm	30 x 25 mm	blue	50 m
R994	15 x 2,5 mm	25 x 20 mm	red	50 m
R994	16 x 2,2 mm	25 x 20 mm	red	50 m
R994	18 x 2,5 mm	30 x 25 mm	red	50 m
R996	15 X 2,5 mm	-	-	100 m
R996	16 x 2,2 mm	-	-	100 m
R996	18 x 2,5 mm	-	-	100 m
R985R	-	25 x 20 mm	red	100 m
R985R	-	30 x 25 mm	red	100 m
R985B	-	25 x 20 mm	blue	100 m
R985B	-	30 x 25 mm	blue	100 m

Working conditions

Cross link GIACOFLEX pipe is included in the regression curve established by the UNI Standard 9338.
Based on those curves, the following table is printed, stating the years of durability following temperature and working pressure. The data refers to continuous working conditions, for lower pressure and temperature, durability increases.

Working temperature	Max. working pressure	Durability in continuous working condition
up to 60°C	16 bar	50 years
from 60°C to 80°C	10 bar	50 years
from 80°C to 95°C	10 bar	10 years

315 18 X 2.5 PN 16 PE MAX 10 A 95C 16FM 1200M

Cross link polyethylene pipe for sanitary distribution

Technical data

Range	-100°C +100°C
Max. working temperature	95°C
Softening temperature	130°C
Density	0.946 g/cm³
Cross link degree	> 65%
Tracting resistance at 23°C	20÷25 N/mm²
Break lengthening at 23°C	300-500 %
Elasticity at 23°C	1070 N/mm²
Resilience	no break
Coefficent of linear expansion at 20°C	1.4 E-4 1/K
at 100°C	2.0 E-4 1/K
Thermal conductivity of pipe	0.35 w/mK
Linear dispersion of pipe with Sleeve in air (Sleeve of 25 mm)	0.23 w/mK
Linear dispersion of pipe with Sleeve in air (Sleeve of 30 mm)	0.21 w/mK

Guarantee

Before being launched on the market, the **PE-X** pipe produced by Giacomini is subjected to continuous tests in order to guarantee high quality.
The production cycle checks the chemical-physical features, dimensional and hydraulic controls, identifying all possible defects, which could, over a period of time create malfunctioning or fluid leakages.
GIACOFLEX pipes are covered by a company guarantee up to 2.000.000.000 lire for perspective damages caused to persons or things if it is established as pipe defects.

The guarantee is not applicable under the following conditions:

1. If working conditions are different than those prescribed
2. If the pipe is used in systems where the fluid is not compatible with the material
3. If the installation instructions are not strictly followed
4. If the pipe presents defects when installed, due to incidental factors easily recognizable at the time of installation or when the system is submitted to pressure test
5. If the pipe is installed with components which are not manufactured by Giacomini, or different from those recommended.

Complete range

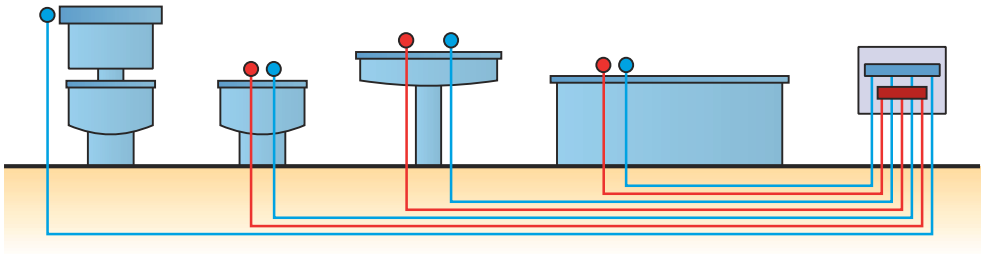
GIACOFLEX pipes are part of the pliable sanitary system range of products.

The systems and the relative accessories are on display in the Giacomini Technical Training Centre.

Cross link polyethylene pipe for sanitary distribution

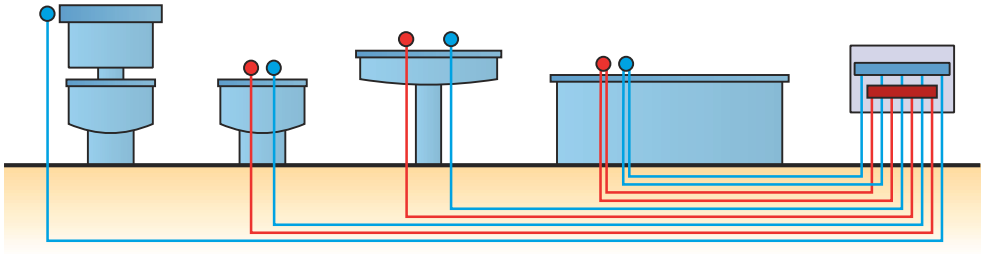
Types of installation

DISTRIBUTION WITH SINGLE CONNECTIONS



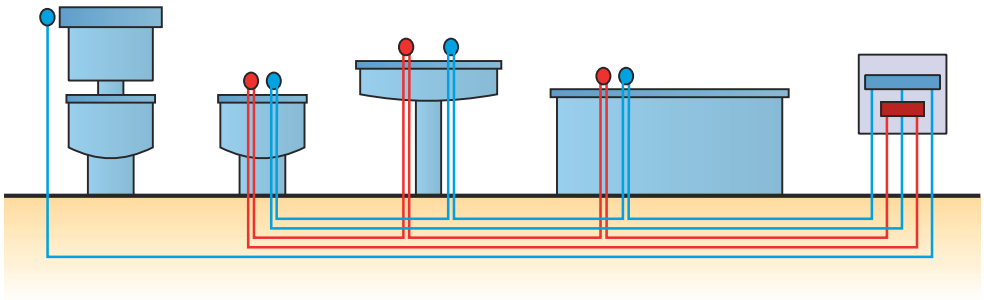
This distribution is made by distribution manifolds equipped with the same number of connections as the connections to be used.
Each tap is fitted to two pipes, one for hot and the other for cold water, directly to the manifold placed in the cabinet.

LARGE FLOW DISTRIBUTION



This kind of solution is widely used when the supply taps require large flows, i.e. hydro-massage basins, garden valves, connections for hotel kitchens or dining-rooms.
It is carried out when pipes of small diameter have been used.

DISTRIBUTION WITH CLOSED CIRCUIT



In this case the supply pipes are not individually connected to the manifold. There is only one pipe for hot water and one for cold water going through all the connections creating a closed circuit.
This kind of distribution has the advantage of requiring a low amount of pipe, the best solution where retrofit installations are concerned, or when the available space on the wall is limited.

Cross link polyethylene pipe for sanitary distribution

GIACOFLEX pipe allows easy and quick installation of sanitary and heating systems.
When installing it is necessary to follow the simple instructions referring to the connections of the pipes with the proper adaptors, bending of the pipes, protection from sun rays, and possible damages of the pipe or the protective sleeve by cracking.

The connection to manifolds or to sanitary connections for the taps must be done using Giacomini adaptors in the correct size R179 or R179A supplied with O'Ring on the body.
In order to make a correct connection, it is necessary to cut the pipe precisely and perpendicularly to its axis by the proper scissors article R990.

Pliability of the pipe is only guaranteed when the bends have a minimum radius eight times more than the outside diameter of the pipe.

Do not heat the pipe with naked flame or any other heating sources with high temperatures, as this will cause the pipes to melt.

Installation

Following installation of the pipe it is recommended that the system be pressure tested to ensure there are no leakages.

Following the pressure test, the sleeves must be protected by covering them with concrete, to avoid cracking the pipes and movement of the installation.

Where the pipes are visible they must be protected against ultra violet rays, capable of altering the chemical-physical features.

When the pipe is installed without the protective sleeving, it must be covered by a screed of at least 1,5 cm, to avoid fissures due to expansion of the pipe.

In case the pipe is damaged due to incidental causes and must be replaced, Giacomini traction fitting article R576 must be used, following the instructions indicated in the leaflet of the Giacomini sanitary system.

GIACOFLEX UNI 9338 PE-X 315 18 X 2.5 PN 16 PE MAX

Cross link polyethylene pipe for sanitary distribution

GIACOFLEX as with all **Cross Link pipes**, requires some precautions to guarantee durability and functioning.
Main rules are:

1 Keep the pipe in its packing avoiding direct exposure to the sun.

2 Store the pipe in protected and dry places, to avoid humidity damaging the packaging.

3 Avoid the pipe coming into contact with sharp objects, paying particular attention during transportation and installation.

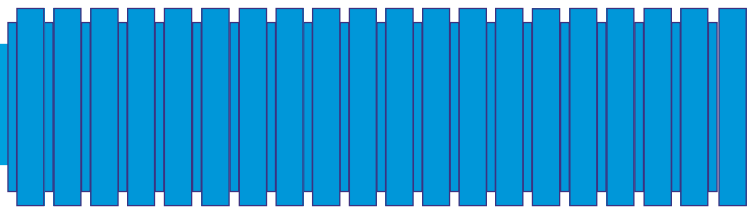
4 Always use the correct scissors, Giacomini article R990 and cut perpendicular to the pipe axis.

5 Protect the pipe from freezing.

6 Do not allow the pipe to come into contact with naked flames.

Cautions

10 A 95C 16FM 1200M

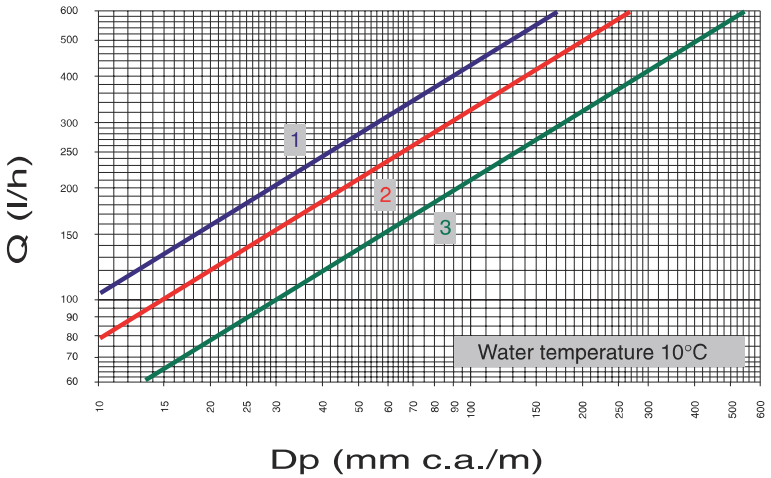


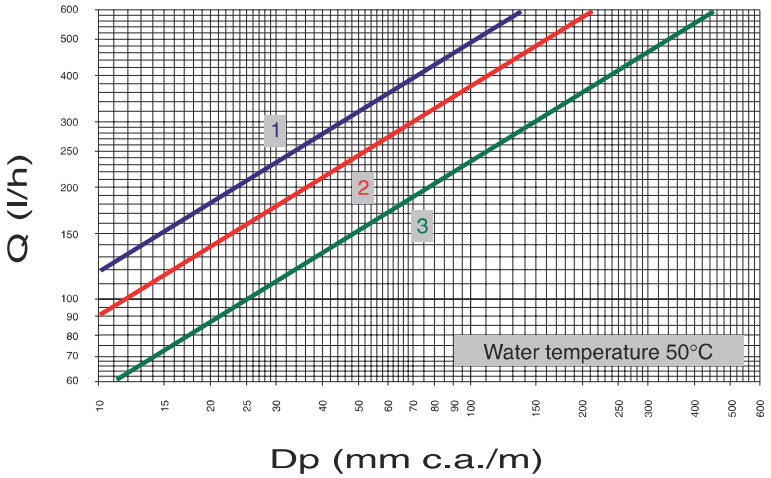
Cross link polyethylene pipe for sanitary distribution

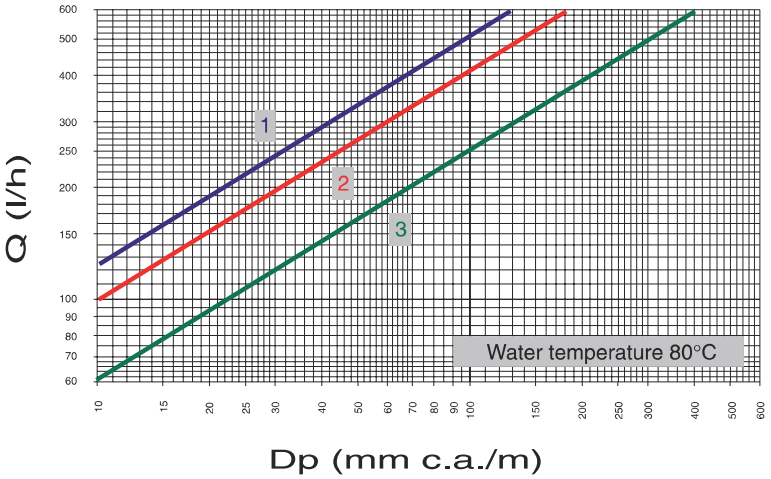
In the diagrams you will find the GIACOFLEX loss of pressure graphs for the different diameters.

1 = pipe 18 x 2,5
2 = pipe 16 x 2,2
3 = pipe 15 x 2,5

Loss of pressure







ADAPTOR FOR PLASTIC OR MULTILAYER PIPES FOR PLUMBING SYSTEMS
R179AM

R179AM

Description

Adaptor for plastic or multilayer pipes, complying with EN 1254-3. For use in plumbing systems.

Versions and product codes

Note.
It is advisable to refer to the current price list catalog or contact the Giacomini technical service, to locate the suitable adaptor intended use.

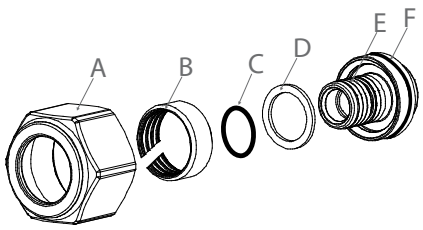
Technical data

- Temperature range: 5÷110 °C
- Max. working pressure: 10 bar

Materials

- Nut, compression ring and pipe-holder: brass
- Separation ring: plastic material
- Black O-Ring for hydraulic seal: EPDM complying with EN 681-1 standard

Components



Legend	
A	Nut
B	Compression ring for mechanical seal
C	Internal O-Ring
D	Separation ring
E	Adaptor and probe-holder
F	External O-Ring

Installation

1) The pipe must be cut perpendicularly to its axis using the R990 pipe cutter (to make the cut easier, it is recommended to rotate slightly the pipe cutter during the operation) or in case of multilayer pipes, use the RP204 roller pipe cutter to limit the ovality.
2) Deburr the pipe inlet with RP205 tool.
3) Calibrate the pipe with RP209 tool (only in case of multilayer pipes).
4) Lubricate either the hydraulic sealing elements or the internal surface of the pipe in contact with the internal o-ring with lubricants suitable for use with the system material and the intended application of the system.
5) Fit the nut on the pipe.
6) Fit the compression ring on the pipe.
7) Fit the separation ring (only in case of multilayer pipes).
8) Insert the pipe-holder into the pipe, till the end.
9) Fit the adaptor in the terminal of the thermo-hydraulic distribution/regulation system.
10) Proceed with the tightening of the nut to the terminal of the thermo-hydraulic distribution/regulation system.

Warning.
In the joint of the multilayer pipes to the thermo-hydraulic distribution/regulation systems, the interposition of the plastic separation ring between the uncovered surface of the metallic pipe layer and the adaptor body, prevents the arising of electro-corrosive phenomenon that could compromise the joint reliability.

An excessive torque value to the terminal of the thermo-hydraulic distribution/regulation system risks to compromise either the mechanical or the hydraulic behaviour of the fitting.

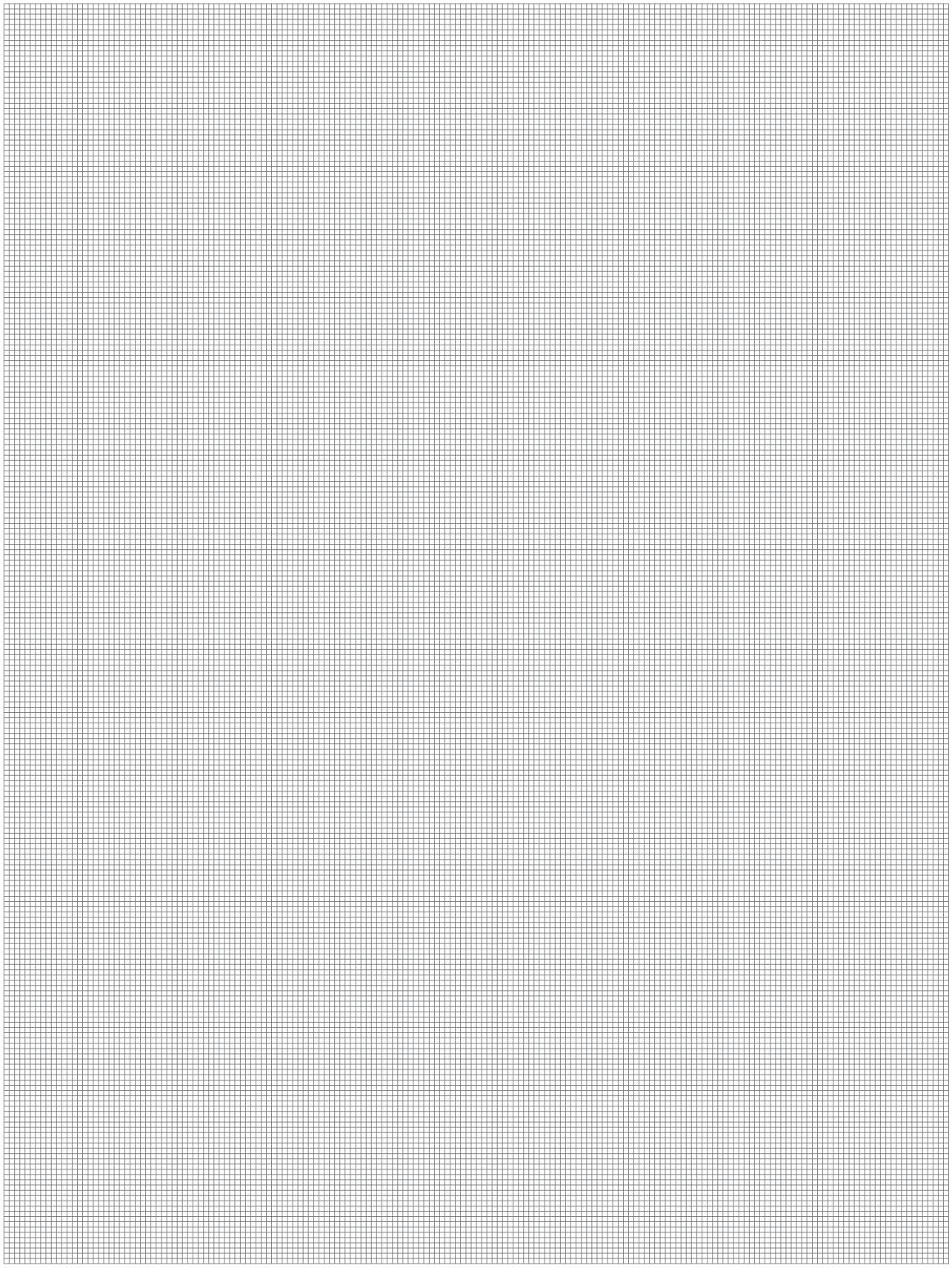
Standard references

- **EN 1254–3:** copper and copper alloys. Plumbing fittings. Fittings with compression ends for use with plastics pipes.
- **EN 1254–4:** copper and copper alloys. Plumbing fittings. Fittings combining other end connections with capillary or compression ends.

Product specifications

R179AM

Adaptor for plastic or multilayer pipes, complying with EN 1254-3. Black sealing O-Ring in EPDM, complying with EN 681-1. For plumbing systems. Temperature range 5÷110°C. Maximum working pressure 10 bar.



Additional information
For additional information please check the website www.giacomini.com or contact the technical service: ☏ +39 0322 923372 🖷 +39 0322 923255 ✉ consulenza.prodotti@giacomini.com

R572R

BRASS FINISH

PRODUCT CODE	SIZE		
R572RY002	1/2" x 16	10	100
R572RY003	1/2" x 18	10	100

CHROME PLATED

PRODUCT CODE	SIZE		
R572RX002	1/2" x 16	10	100

90° elbow fitting with wall support, female thread and base adaptor connections.

R573R

PRODUCT CODE	SIZE		
R573RY002	1/2" x 16	5	50

Angled fitting for domestic water systems, to be embedded just beneath the wall, with connection for copper, plastic or multilayer pipe. Plastic protection for the fitting.
Piping connection with base 16 adaptors.

R573D

PRODUCT CODE	SIZE		
R573DY002	1/2" x 16	5	50
R573DY003	1/2" x 18	5	50

Angle fitting for domestic water systems, to be embedded just beneath the wall, with connection for copper, plastic or multilayer pipe. Plastic protection for the fitting.
Piping connection with base 16 or base 18 adaptors.

R544

PRODUCT CODE	SIZE		
R544Y002	1/2" x 16	5	30
R544Y003	1/2" x 18	5	30

Angle fitting for domestic water systems, to be embedded just beneath the wall, with double connection for copper, plastic or multilayer pipe. Plastic protection for the fitting.
Piping connection with base 16 or base 18 adaptors.

R573D-1

PRODUCT CODE	SIZE		
R573DY102	1/2" x 16	5	50

Angled fitting for domestic water systems, to be embedded just beneath the wall, with connection for copper, plastic or multilayer pipe. Plastic protection for the fitting. To be use together with R541N copper pipe.
Piping connection with base 16 18 adaptors.

Fittings for multilayer and plastic pipes

R187M

PRODUCT CODE	SIZE		
R187MX048	1/2" x (16 x 2)	10	100
R187MX046	1/2" x (16 x 2,2)	10	100
R187MX057	1/2" x (18 x 2)	25	150
R187MX062	1/2" x (20 x 2)	10	100
R187MX061	1/2" x (20 x 2,5)	10	100
R187MX082	3/4" x (16 x 2)	10	100
R187MX089	3/4" x (18 x 2)	10	100
R187MX096	3/4" x (20 x 2)	10	100
R187MX105	3/4" x (26 x 3)	10	100
R187MX115	1" x (26 x 3)	10	100
R187MX126	1" x (32 x 3)	5	50
R187MX130	1 1/4" x (32 x 3)	5	50

Straight fitting, chrome plated brass, male thread and plastic or multilayer pipes connections. For plumbing systems.

R187F

PRODUCT CODE	SIZE		
R187FX048	1/2" x (16 x 2)	10	100
R187FX046	1/2" x (16 x 2,2)	10	100
R187FX052	1/2" x (18 x 2)	10	100
R187FX062	1/2" x (20 x 2)	10	100
R187FX061	1/2" x (20 x 2,5)	10	100
R187FX082	3/4" x (16 x 2)	25	250
R187FX092	3/4" x (18 x 2)	25	150
R187FX096	3/4" x (20 x 2)	10	100
R187FX105	3/4" x (26 x 3)	10	100
R187FX115	1" x (26 x 3)	10	100
R187FX126	1" x (32 x 3)	10	100

Straight fitting, chrome plated brass, female thread and plastic or multilayer pipes connections. For plumbing systems.

R186M

PRODUCT CODE	SIZE		
R186MY046	1/2" x (16 x 2,2)	10	100
R186MY048	1/2" x (16 x 2)	25	150
R186MY060	1/2" x (20 x 2,8)	10	100
R186MY064	1/2" x (20 x 1,9)	10	100
R186MY102	3/4" x (25 x 3,5)	10	100
R186MY104	3/4" x (25 x 2,3)	10	100

Straight fitting, brass finish, male thread and plastic or multilayer pipes connections. For plumbing systems.

R560AM

PRODUCT CODE	SIZE		
R560MX048	16 x 2	10	100
R560MX052	18 x 2	10	100
R560MX057	20 x 2	10	100
R560MX062	26 x 3	5	50
R560MX126	32 x 3	5	50

Straight fitting, chrome plated brass, plastic or multilayer pipes connections. For plumbing systems.

R561AM

PRODUCT CODE	SIZE		
R561MX048	16 x 2	10	100
R561MX052	18 x 2	10	100
R561MX057	20 x 2	10	100
R561MX062	26 x 3	5	50
R561MX126	32 x 3	5	25

90° elbow fitting, chrome plated brass, plastic or multilayer pipes connections. For plumbing systems.

R562AM

PRODUCT CODE	SIZE		
R562MX048	1/2" x (16 x 2)	10	100
R562MX052	1/2" x (18 x 2)	10	100
R562MX057	1/2" x (20 x 2)	10	100
R562MX060	3/4" x (16 x 2)	10	100
R562MX061	3/4" x (20 x 2)	10	100
R562MX062	3/4" x (26 x 3)	10	100
R562MX120	1" x (26 x 3)	5	50
R562MX126	1" x (32 x 3)	5	50

90° elbow fitting, chrome plated brass, male thread and plastic or multilayer pipes connections. For plumbing systems.

R572AM

PRODUCT CODE	SIZE		
R572MX048	1/2" x (16 x 2)	10	100
R572MX057	1/2" x (20 x 2)	10	100

90° elbow with wall support, chrome plated brass, female thread and plastic or multilayer pipes connections. For plumbing systems.

R563AM

PRODUCT CODE	SIZE		
R563MX048	1/2" x (16 x 2)	10	100
R563MX052	1/2" x (18 x 2)	10	100
R563MX057	1/2" x (20 x 2)	10	100
R563MX060	3/4" x (16 x 2)	10	100
R563MX061	3/4" x (20 x 2)	10	100
R563MX062	3/4" x (26 x 3)	10	100
R563MX120	1" x (26 x 3)	5	50
R563MX126	1" x (32 x 3)	5	50

90° elbow fitting, chrome plated brass, female thread and plastic or multilayer pipes connections. For plumbing systems.

R564AM

PRODUCT CODE	SIZE		
R564MX048	16 x 2	5	50
R564MX052	18 x 2	5	50
R564MX057	20 x 2	10	100
R564MX062	26 x 3	5	50
R564MX126	32 x 3	5	25

Tee fitting, chrome plated brass, plastic or multilayer pipes connections. For plumbing systems.

R566AM

PRODUCT CODE	SIZE		
R566MX053	(20 x 2) x (16 x 2)	10	100
R566MX060	(26 x 3) x (20 x 2)	5	50
R566MX076	(32 x 3) x (26 x 3)	5	50

Reducer straight fitting, chrome plated brass, plastic or multilayer pipes connections. For plumbing systems.

R568AM

PRODUCT CODE	SIZE		
R568MX048	(16 x 2) x 1/2" x (16 x 2)	10	100
R568MX057	(20 x 2) x 1/2" x (20 x 2)	10	100
R568MX061	(20 x 2) x 3/4" x (20 x 2)	5	50
R568MX062	(26 x 3) x 3/4" x (26 x 3)	5	50
R568MX126	(32 x 3) x 1" x (32 x 3)	5	25

Tee fitting, chrome plated brass, male thread and plastic or multilayer pipes connections. For plumbing systems.

CERTIFICATIONS AND SYMBOLS

R569AM

PRODUCT CODE	SIZE		
R569MX048	(16 x 2) x 1/2" x (16 x 2)	10	100
R569MX052	(18 x 2) x 1/2" x (18 x 2)	10	100
R569MX057	(20 x 2) x 1/2" x (20 x 2)	10	100
R569MX061	(20 x 2) x 3/4" x (20 x 2)	5	50
R569MX062	(26 x 3) x 3/4" x (26 x 3)	5	50
R569MX120	(26 x 3) x 1" x (26 x 3)	5	50
R569MX126	(32 x 3) x 1" x (32 x 3)	5	25

Tee fitting, chrome plated brass, female thread and plastic or multilayer pipes connections. For plumbing systems.

CERTIFICATIONS AND SYMBOLS