

PLUMBING &  
HEATING SYSTEM



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PROFESSIONAL  
INSTALLATION LIMITED  
WARRANTY



## ABOUT RIIFO

RIIFO is a leading multinational corporation, providing one-stop piping solutions applied in residential, commercial, agricultural, industrial, and infrastructural sectors. Persistently reinventing since 1996, with over 8,000 employees, 70 branches & subsidiaries, and 300,000 distributors, we have served customers in more than 100 countries and regions.

With an integrated value chain, from R&D to manufacturing and retail distribution, we strive to fulfill our mission of offering ideal piping products and services to everyone.

**8,000**

Employees

**300,000**

Distributors worldwide

**100+**

Serving over 100 countries & regions

**70**

Branches & Subsidiaries



## INNOVATION

Believing that innovation is the key to go beyond the ordinary, RIIFO has founded world-class labs recognised and certified by CNAS. Over 600 innovation talents are sparing no effort to challenge industrial boundaries, achieving 923 patents and 20 technology awards.

This passion for innovation shows in our high quality products and our ability to offer ideal piping solutions across all sectors.

## SCALE

We adopt highly automated production lines with the most rigorous and comprehensive production control and management systems to facilitate such large scale capacity.

### Facility

**11**

global production bases

**5,200+**

production staffs

**200**

hectares area totally

**4,000+**

automated production lines

### Capacity

#### Production Capacity

- Pipe: **3.2 billion** m/yr
- Fitting: **1.3 billion** pcs/yr

#### Storage Capacity

- **1,735,000 m<sup>3</sup>** ≈ 61,950 TEU (20 GP Containers)

## RIIFO APPROVALS

RIIFO products are produced under rigorous quality control. To date, we have gained over 50 certificates such as NSF, DVGW, AENOR, WRAS etc. These international standards underline our technical and quality know-how and we provide a 25-year system warranty backed by an international insurance schem.

### Company Accreditations



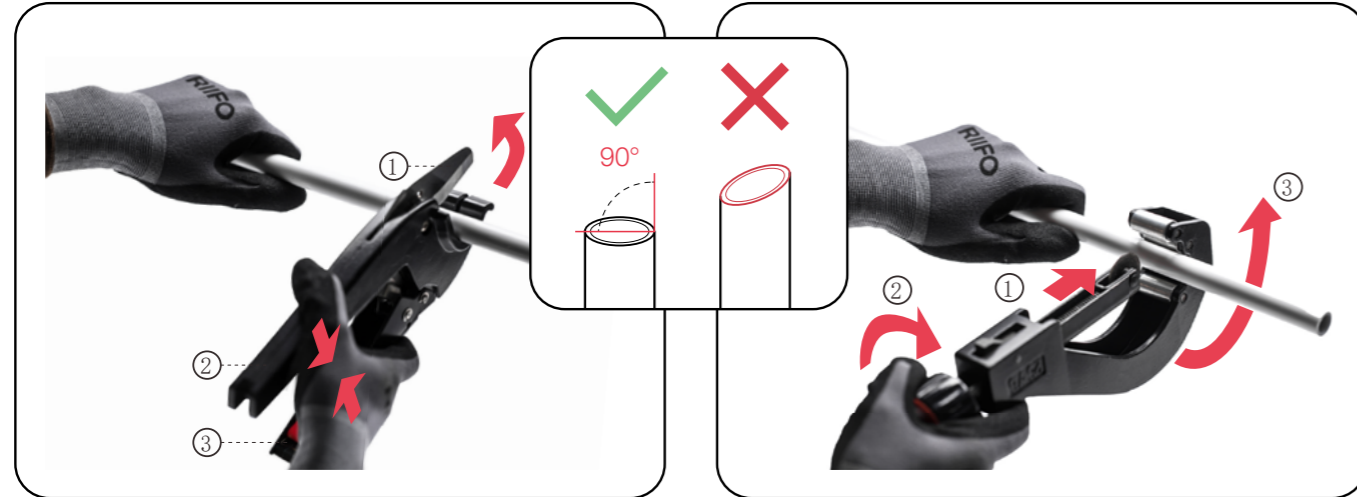
### Piping Systems



# INSTALLATION

## Pipe Cutting

### NOTICE!



### WARNING!

Risk of injury might occur in the end stop area of the shears if operated incorrectly.  
Only use the tool as described in the operating instructions.

### NOTE!

Incorrect cutting causes leakage in connection  
- The end of the pipe shall be cut vertically.  
- The end of the pipe shall not be damaged or distorted.

## VIDEO TUTORIALS

Scan the QR codes to watch the multilayer pipe installation tutorials.



F5 Press Fitting  
16-32mm Installation Guide



F18 Press Fitting  
40-75mm Installation Guide

## Press Fitting

### Step1:

Cut the pipe vertically by RIIFO pipe cutter. Make sure to cut it quickly and precisely.

### Step2:

Use a plastic reamer to round and bevel the end holes of the pipe.

### Step3:

Choose the right size sleeved-fitting for the pipe and aim the pipe end at the ring-shape hole of the fitting integrated with stainless steel sleeve. Push the pipe into the fitting up to the shoulder. Check the inserting depth by looking through the inspection holes on the sleeve shoulder, to ensure that the pipe is completely inserted.

### Step4:

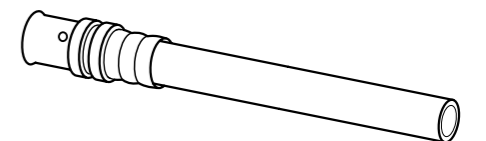
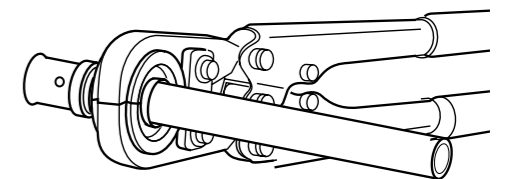
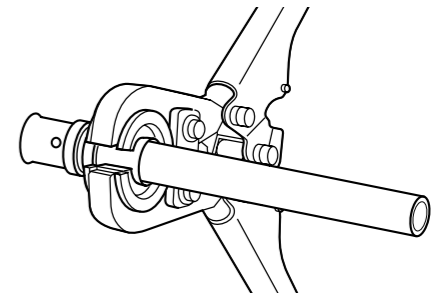
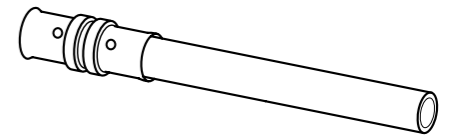
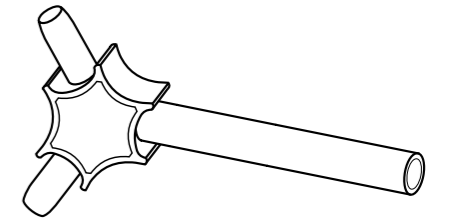
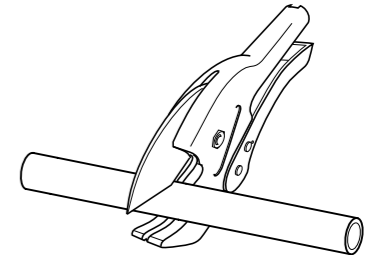
Open the pressing tool and position the tool directly onto the stainless steel sleeve.

### Step5:

The margin of the block must be placed against the press section.

### Step6:

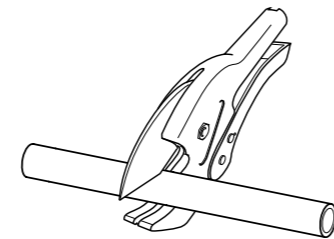
While the jaw is completely closed, the handles will be locked. Open the handles and remove the pressing tool from the fitting and the installation is complete.



# Compression Fitting

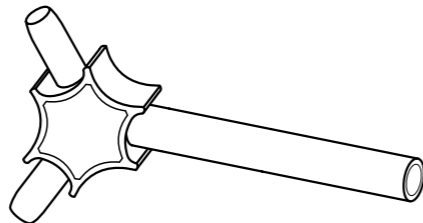
## Step1:

Cut the pipe vertically by RIIFO pipe cutter. Make sure to cut it quickly and precisely.



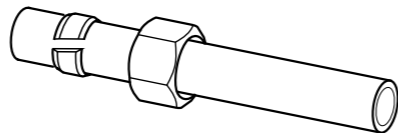
## Step2:

Use a plastic reamer to round and bevel the end holes of the pipe.



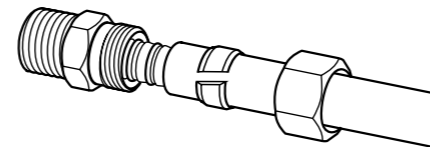
## Step3:

Insert the nut and the compression ring into the pipe in turn, and note that the end of the threaded opening faces the end face of the pipe.



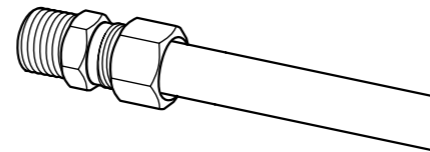
## Step4:

Insert the fitting core into the tube bore along the tube axis to ensure complete insertion. During the insertion process, care must be taken not to damage the O-ring on the core.



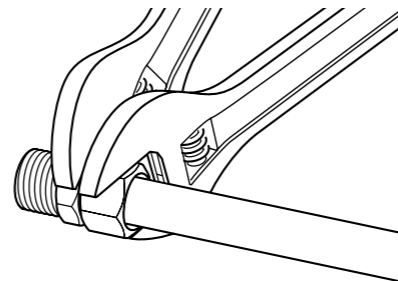
## Step5:

Tighten the nut with your finger.



## Step6:

Tighten the nut with a spanner.



SYSTEM OVERVIEW



# SYSTEM OVERVIEW

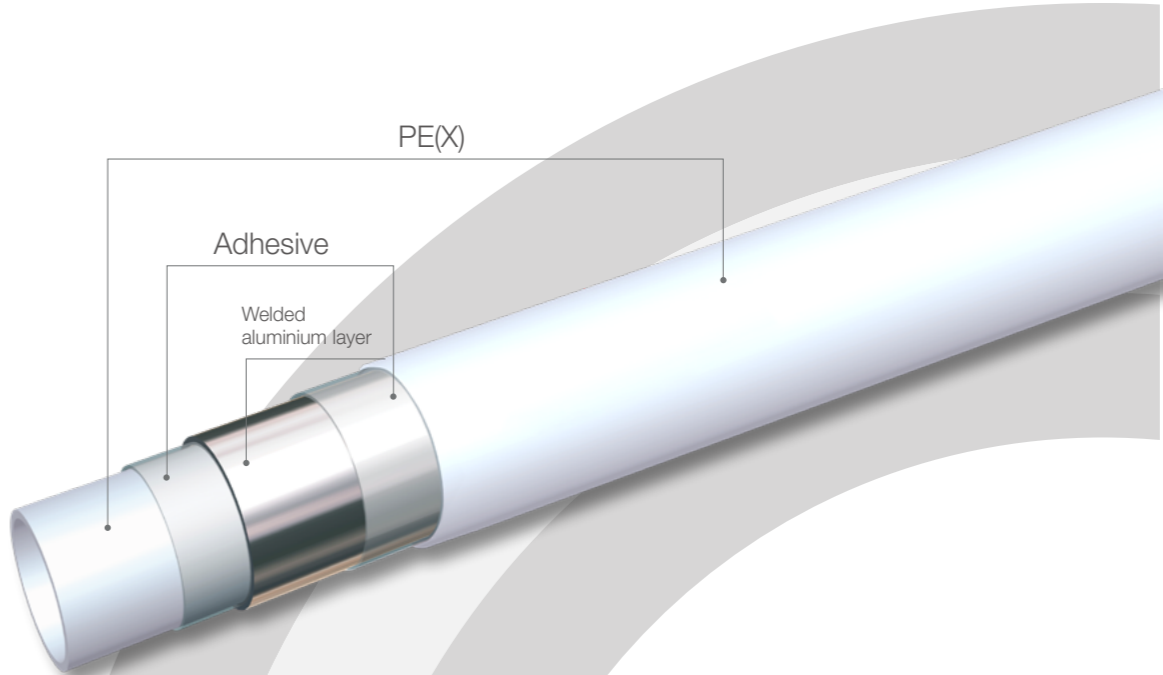
RIIFO provides multilayer pipe that unites the advantages of a plastic and metal pipe and offers a high degree of flexibility and toughness, coupled with high pressure and temperature resistance. The RIIFO multilayer pipe consists of an inner and outer layer in between which there is a layer of overlap welded or butt welded aluminum, and the three layers are made to form a permanent structure by means of special bonding layers. The aluminum layer ensures that the pipe maintains its shape and prevents the oxygen penetration from the atmosphere and gives the pipe sufficient strength and shape retention. This construction has good thermal shock resistance (due to its very low coefficient of linear expansion) and can be adapted to harsh working environments with large temperature variations, comparable to copper tubes.

The RIIFO multilayer pipes satisfy the highest demands. All pipes are food-safe and completely free of physiological risks. To ensure safe in drinking water installations, the pipes are delivered with end caps to protect against










contamination during transport, storage or on site. The pipes are 100% impermeable to oxygen, which is particularly important for heating installations. The RIIFO multilayer pipes can be delivered as coils or as straight lengths.

The RIIFO PEX/AL/PEX pipe consists of a longitudinal welded aluminium pipe, to which an inner and outer layer of crosslinked polyethylene (PEX) is applied.

Crosslinked means 'bound together' or 'interconnected'. Polyethylene consists of polymer chains and crosslinking is the process of formings bonds to join these polymer chains together. RIIFO applies the silane crosslinking technology to connect the polymer chains. This results in a superior mechanical performance and an increased temperature and pressure resistance.

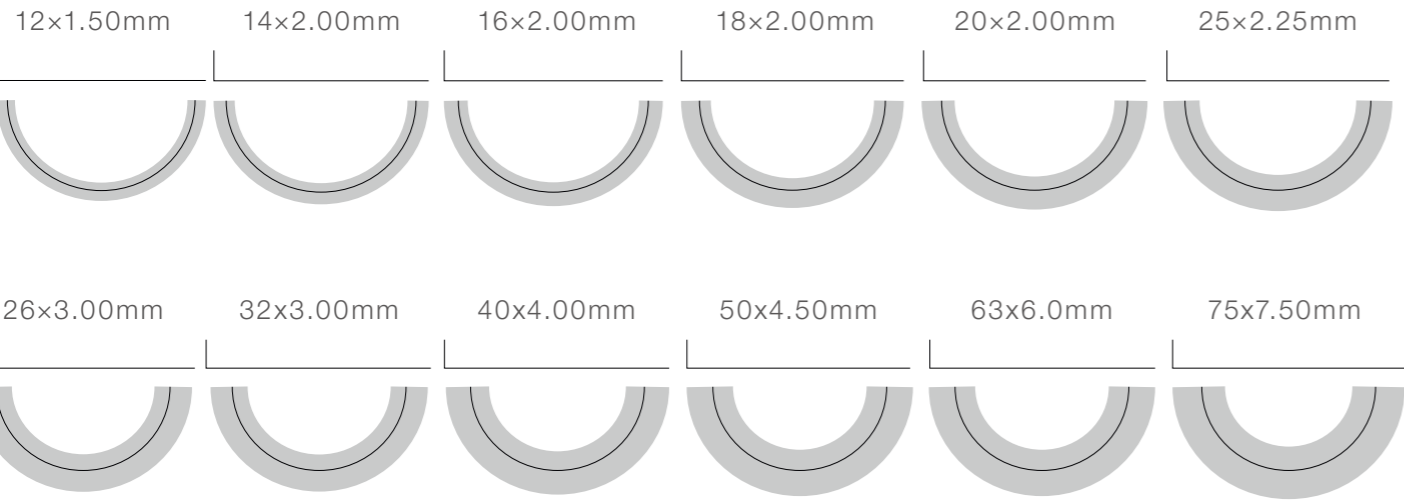


## Advantages

-  Corrosion resistance
-  Resistent to temperature and pressure (95°C/10bar)
-  Impermeable to oxygen and light
-  Very flexible yet dimensionally stable
-  Life expectancy of 50 years
-  Light in weight, easy to install, time saving
-  Low thermal expansion, similar to metals
-  Smooth inner pipe ensures low pressure loss
-  Hygienic

# Technical Data and Delivery Dimensions

| Nominal size (D x e)                     |             | 12x1.5 | 14x2.0 | 16x2.0 | 18x2.0 | 20x2.0 | 25x2.5 | 26x3.0 | 32x3.0 | 40x4.0 | 50x4.5 | 63x6.0 | 75x7.5 |
|--|-------------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|
| Outside diameter (mm)                    |             | 12     | 14     | 16     | 18     | 20     | 25     | 26     | 32     | 40     | 50     | 63     | 75     |
|  |             |        |        |        |        |        |        |        |        |        |        |        |        |
| Tolerance of outer diameter (mm)         | Min.        | 12     | 14     | 16     | 18     | 20     | 25     | 26     | 32     | 40     | 50     | 63     | 75     |
|  | Max.        | 12.25  | 14.2   | 16.2   | 18.2   | 20.2   | 25.2   | 26.2   | 32.2   | 40.3   | 50.3   | 63.4   | 75.6   |
| Pipe thickness (mm)                      |             | 1.7    | 2      | 2      | 2      | 2      | 2.5    | 3      | 3      | 4      | 4.5    | 6      | 7.5    |
| Tolerance of pipe thickness (mm)         | Min.        | 1.7    | 2      | 2      | 2      | 2      | 2.4    | 2.9    | 2.9    | 4      | 4.5    | 6      | 7.5    |
|  | Max.        | 2      | 2.25   | 2.25   | 2.25   | 2.3    | 2.7    | 3.2    | 3.25   | 4.6    | 5.2    | 6.8    | 8.5    |
| Roughness (mm)                           | 0.0007      |        |        |        |        |        |        |        |        |        |        |        |        |
| Density (g/cm³)                          | 0.926~0.959 |        |        |        |        |        |        |        |        |        |        |        |        |
| Modulus of elasticity (MPa)              | 7200        |        |        |        |        |        |        |        |        |        |        |        |        |
| Thermal conductivity (w/mK)              | 0.45        |        |        |        |        |        |        |        |        |        |        |        |        |
| Coefficient of thermal expansion (mm/mK) | 0.025       |        |        |        |        |        |        |        |        |        |        |        |        |
| Max. working temperature (°C)            | 95          |        |        |        |        |        |        |        |        |        |        |        |        |
| Max. working pressure (bar)              | 10          |        |        |        |        |        |        |        |        |        |        |        |        |



## Applications

The RIIFO multilayer pipes can be used for different applications. Key applications include plumbing and heating systems for residential, commercial or industrial building:



**Drinking water:**  
As a pipe for hot and cold water distribution of potable and food-safe water.



**Compressed air:**  
As a compressed air pipe in systems with preceding oil filter (oil-free).



**Heating:**  
As a pipe for radiator-fed high temperature heating systems within the prescribed load values. System separation is required for specific systems such as solar and district heating.



**Rain water:**  
As a rain water piping system inside buildings and seperately installed from the drinking water installation. The pH-value of the water must be higher than 6.



**Radiant heating and cooling systems:**  
As a pipe for low temperature heating and cooling systems.



**Other applications:**  
The pipe can be used for many other applications and with other media.

## Classification of Service Conditions

The performance requirements for multilayer piping systems conforming to ISO 21003 are specified for four different application classes.

The selection of the applicable class conforming to the table shall be agreed upon by the parties concerned for any application. Each application class shall be combined with a design pressure,  $P_D$ , of 4 bar, 6 bar, 8 bar or 10 bar, as applicable (1 bar = 0,1 MPa).

| Application class | Design temperature $T_D$ °C | Time <sup>b</sup> at $T_D$ | $T_{max}$ | Time at $T_{max}$ | $T_{mal}$ | Time at $T_{mal}$ | Typical field of application                     |
|-------------------|-----------------------------|----------------------------|-----------|-------------------|-----------|-------------------|--|
| 1a                | 60                          | 49                         | 80        | 1                 | 95        | 100               | Hot water supply(60°C )                          |
| 2a                | 70                          | 49                         | 80        | 1                 | 95        | 100               | Hot water supply(70°C )                          |
| 4b                | 20 plus cumulative          | 2,5                        | 70        | 2,5               | 100       | 100               | Underfloor heating and low-temperature radiators |
|                   | 40 plus cumulative          | 20                         |           |                   |           |                   |  |
|                   | 60                          | 25                         |           |                   |           |                   |  |
| 5b                | 20 plus cumulative          | 14                         | 90        | 1                 | 100       | 100               | High-temperature radiators                       |
|                   | 60 plus cumulative          | 20                         |           |                   |           |                   |  |
|                   | 80                          | 10                         |           |                   |           |                   |  |

- A.** A country may select either class 1 or class 2 in conformity with its national regulations.
- B.** Where more than one design temperature for time and associated temperature appears for any class, they should be aggregated. "Plus cumulative" in the table implies a temperature profile of the mentioned temperature over time (e.g. the design temperature profile for 50 years for class 5 is 20°C for 14 years followed by 60°C for 25 years, 80°C for 10 years, 90°C for 1 year and 100°C for 100h).

NOTE - For values of  $T_D$ ,  $T_{max}$  and  $T_{mal}$  in excess of those in the table, this International Standard does not apply.

Technical Data and Raw Material

| Material           | Test item            | Requirement                         |
|--------------------|----------------------|-------------------------------------|
| PEX                | Melt flow index      | HDPE, MDPE≥0.1 g/10min (190,2.16kg) |
|                    | Tensile strength     | HDPE≥21MPa; MDPE≥14MPa              |
|                    | Enlongation          | ≥400%                               |
|                    | Vicat soft point     | Vicat soft point≥105℃               |
|                    | Cross-linking degree | ≥65%                                |
|                    | ESCR                 | ≥165h                               |
| Colour masterbatch | Moisture content     | ≤0.15%                              |
|                    | Appearance           | Uniform granual                     |
|                    | Volatile content     | ≤0.5%                               |
| Catalyst           | Density              | ≥0.93 g/cm3                         |
|                    | Melt flow index      | ≥0.9 g/10min (190℃ , 5.00kg)        |
|                    | Volatile content     | ≤0.35%                              |
| Adhesive resin     | Appearance           | Uniform granual                     |
|                    | Density              | ≥0.926 g/cm3;                       |
|                    | Melt flow index      | 2.0~6.0 g/10min (190℃ , 2.16kg)     |
|                    | Vicat soft point     | Vicat soft point≥105℃               |
|                    | T peeling strength   | ≥70N/25mm                           |
|                    | Surface quality      | Water brush test≥class              |
| Aluminum           | Tensile strength     | 105MPa ~ 125MPa                     |
|                    | Appearance           | Without oil on surface              |
|                    | Hardness (HV)        | 28 ~ 33                             |
|                    | T peeling strength   | Minimum value≥60N/25mm              |

SUSTAINABILITY OF PLASTICS IN CONSTRUCTION

Plastic are becoming increasingly popular in construction materials because they have many advantages that traditional construction materials do not have. These properties make plastics an ideal building product and an important component of a sustainable built environment.

Materials in buildings are often expected to last 30 to 50 years without replacement, with plastic materials lasting even longer. PVC drainage pipes, for example, will still work well after 60 years of use. Longer building life, low maintenance costs and the assurance that the overall structural and thermal properties will remain unchanged over time ensure low energy requirements and therefore lower CO<sub>2</sub> emissions. Plastic building materials are also easy to install and have stable physical properties and high chemical stability, reducing the risk of failure.

Light Weight

Lightweight plastic building materials can significantly reduce energy consumption for transport.

Performance

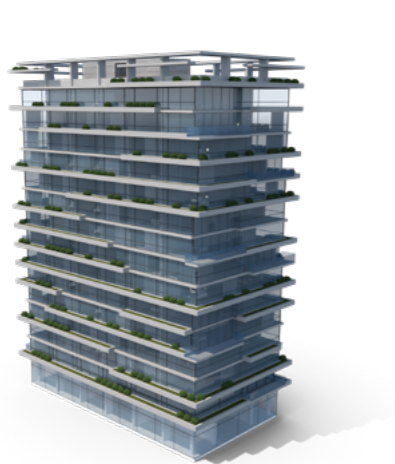
Plastics are generally highly weather resistant. Modern plastic insulation materials, offer better insulation properties than traditional materials, which can create space and save material when using plastics. In addition, plastic waterproofing materials are widely used to seal buildings. Plastic is a good material to stop the movement of moisture and water.

Flexible Installation Performance

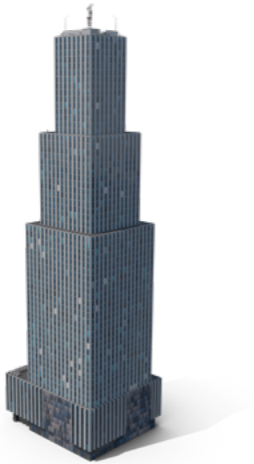
Plastic pipes offer unparalleled ease of installation due to their flexibility; they can also be adapted to a wide range of housing designs.

# RIIFO PLUMBING & HEATING SOLUTIONS

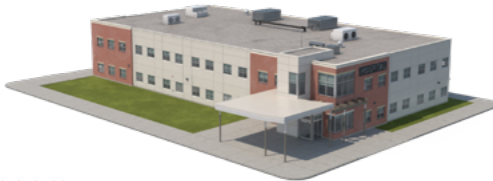
Apartments



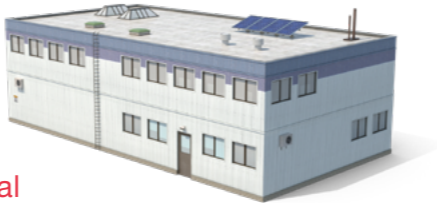
Commecial



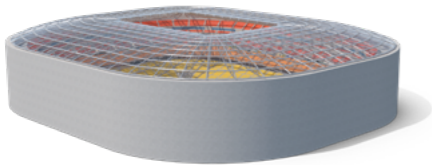
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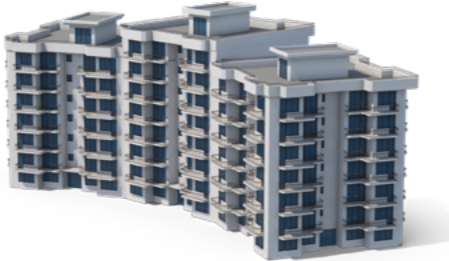
Industrial



Stadium



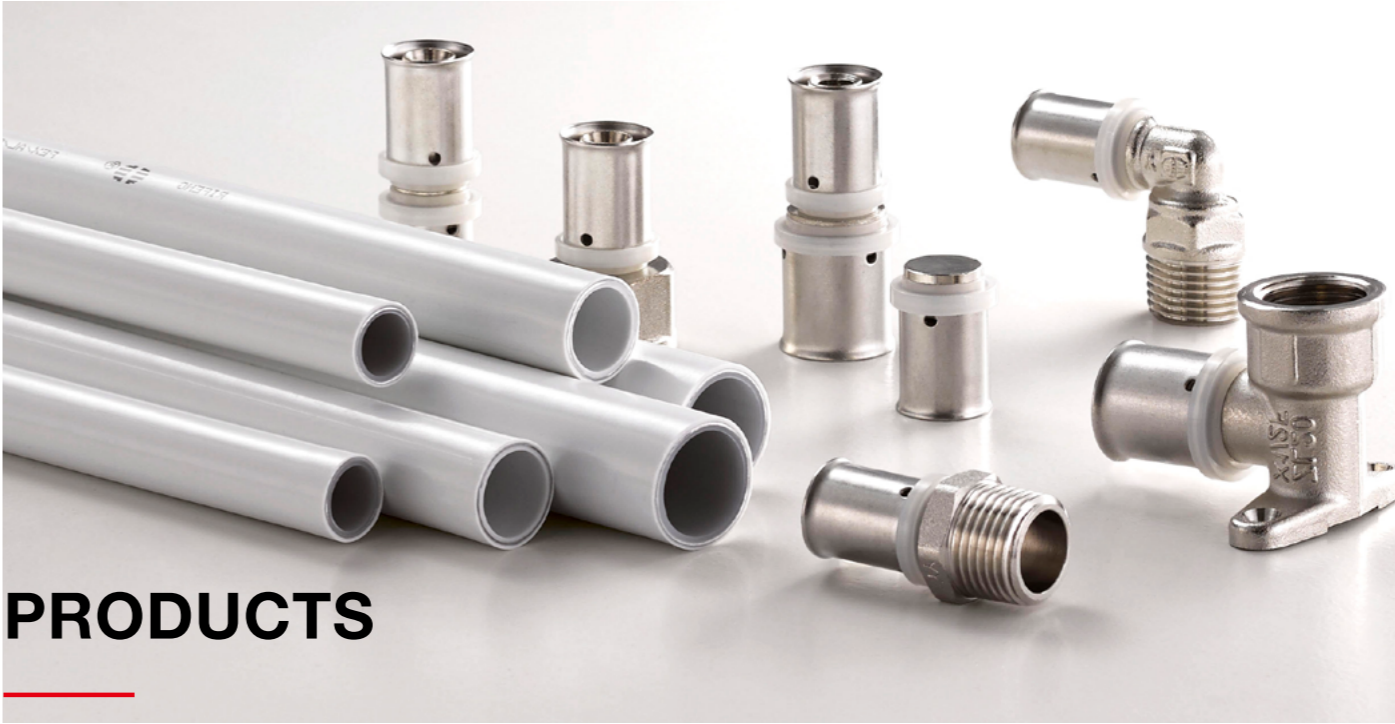
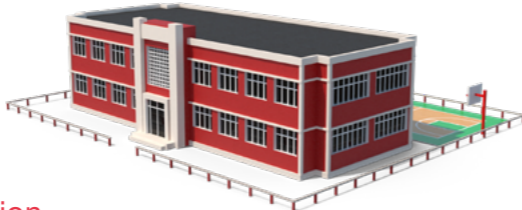
Hotel



Residential Buildings



Education



## PRODUCTS

### B1 PEX-AL-PEX Multilayer Piping System

B1 PEX/AL/PEX Pipes



Maiximun working pressure 10 bar  
Maiximun working temperature 95°C

| Part/Article Number | Specification | Length | Pack Qty |
|---------------------|---------------|--------|----------|
| 1100060668          | 16x2.0mm      | 3m     | 90       |
| 1100060669          | 20x2.0mm      | 3m     | 60       |
| 1100060670          | 25x2.5mm      | 3m     | 30       |
| 1100060671          | 32x3.0mm      | 3m     | 21       |
| 1100058537          | 40x4.0mm      | 5m     | 25       |
| 1100058536          | 50x5.0mm      | 5m     | 15       |
| 1100058538          | 63x6.0mm      | 5m     | 15       |
| 1100058539          | 75x7.5mm      | 5m     | 15       |

B1 PEX/AL/PEX Pipes



Maiximun working pressure 10 bar  
Maiximun working temperature 95°C

| Part/Article Number | Specification | Pack Qty |
|---------------------|---------------|----------|
| 1100042672          | 12x1.5mm      | 160m     |
| 1100044543          | 16x2.0mm      | 50m      |
| 1100042673          | 16x2.0mm      | 100m     |
| 1100042676          | 20x2.0mm      | 50m      |
| 1100044545          | 20x2.0mm      | 100m     |
| 1100042678          | 25x2.5mm      | 50m      |
| 1100044547          | 32x3.0mm      | 50m      |

B1 PEX/AL/PEX Pipes Pre-Insulated



Maiximun working pressure 10 bar  
Maiximun working temperature 95°C

| Part/Article Number | Specification | Pack Qty |
|---------------------|---------------|----------|
| 1100044442          | 16x2.0mm Red  | 100m     |
| 1100044443          | 16x2.0mm Blue | 100m     |
| 1100044444          | 20x2.0mm Red  | 50m      |
| 1100044445          | 20x2.0mm Blue | 50m      |
| 1100044954          | 25x2.5mm Red  | 50m      |
| 1100044985          | 25x2.5mm Blue | 50m      |
| 1100052100          | 25x2.5mm Red  | 80m      |
| 1100052101          | 25x2.5mm Blue | 80m      |
| 1100044446          | 32x3.0mm Red  | 25m      |
| 1100044447          | 32x3.0mm Blue | 25m      |

8mm Pre-Insulated Class B Fire Rated B1 Pipe



Maiximun working pressure 10 bar  
Maiximun working temperature 95°C

| Part/Article Number | Specification | Pack Qty |
|---------------------|---------------|----------|
| 1100060779          | 16x2.0mm Red  | 100m     |
| 1100060778          | 16x2.0mm Blue | 100m     |
| 1100063249          | 20x2.0mm Red  | 100m     |
| 1100063248          | 20x2.0mm Blue | 100m     |

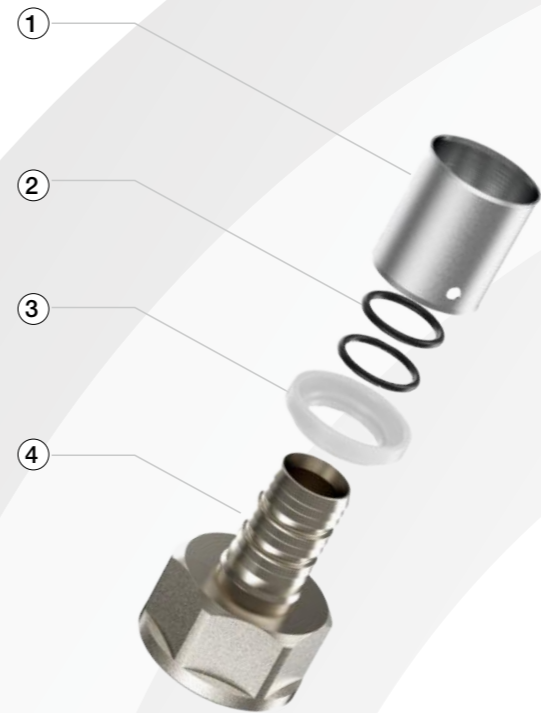
13mm Pre-Insulated Class B Fire Rated B1 Pipe



Maiximun working pressure 10 bar  
Maiximun working temperature 95°C

| Part/Article Number | Specification | Pack Qty |
|---------------------|---------------|----------|
| 1100058801          | 16x2.0mm Red  | 100m     |
| 1100058800          | 16x2.0mm Blue | 100m     |
| 1100058805          | 20x2.0mm Red  | 50m      |
| 1100058804          | 20x2.0mm Blue | 50m      |
| 1100059238          | 25x2.5mm Red  | 50m      |
| 1100059237          | 25x2.5mm Blue | 50m      |
| 1100058813          | 32x3.0mm Blue | 25m      |
| 1100058812          | 32x3.0mm Red  | 25m      |

F5 Press-Fit System



- 1

**Sleeve**  
Material: Stainless steel 304
- 2

**O ring**  
Material: EPDM
- 3

**Collar**  
Material: PE
- 4

**Fitting main body**  
Material: Brass

Advantages

- U pressing profile
- Ease and security of installation
- Excellent sealing performance with double O-ring
- Nickel plated contributes to good corrosion resistance
- The stress and risk of cracking is eliminated by the annealing process
- Machined by special horizontal machining centre, with surface finish degree of no more than Ra3.2µm

F5 Couplers

U Profile Press Fitting



| SAP Code   | Specification | Carton Qty | A    | B    | L    |
|------------|---------------|------------|------|------|------|
| 1100047876 | 12mm          | 360        | 8.4  | 8.4  | 53   |
| 1100041649 | 16mm          | 320        | 11.8 | 11.8 | 53   |
| 1100041650 | 20mm          | 224        | 15.8 | 15.8 | 53   |
| 1100042294 | 25mm          | 120        | 19.8 | 19.8 | 66.2 |
| 1100044456 | 32mm          | 90         | 25.8 | 25.8 | 66.2 |

Maiximun working pressure 10 bar  
Maiximun working temperature 95°C

F5 Reducing Couplers

U Profile Press Fitting

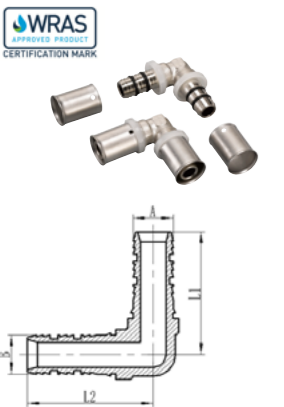


| SAP Code   | Specification | Carton Qty | A    | B    | L    |
|------------|---------------|------------|------|------|------|
| 1100044457 | 16x12mm       | 320        | 8.4  | 11.8 | 53   |
| 1100041895 | 20x16mm       | 280        | 11.8 | 15.8 | 53   |
| 1100042293 | 25x16mm       | 120        | 11.8 | 19.8 | 59.6 |
| 1100044458 | 25x20mm       | 120        | 15.8 | 19.8 | 59.6 |
| 1100044459 | 32x16mm       | 80         | 11.8 | 25.8 | 59.6 |
| 1100044460 | 32x20mm       | 80         | 15.8 | 25.8 | 59.6 |
| 1100044461 | 32x25mm       | 80         | 19.8 | 25.8 | 66.2 |

Maiximun working pressure 10 bar  
Maiximun working temperature 95°C

F5 90° Elbows

U Profile Press Fitting

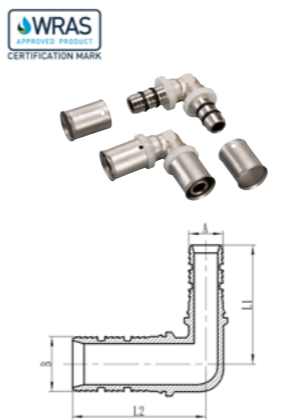


| SAP Code   | Specification | Carton Qty | A    | B    | L1   | L2   |
|------------|---------------|------------|------|------|------|------|
| 1100044462 | 16mm          | 192        | 11.8 | 11.8 | 37   | 37   |
| 1100044463 | 20mm          | 144        | 15.8 | 15.8 | 40.5 | 40.5 |
| 1100042298 | 25mm          | 80         | 19.8 | 19.8 | 49   | 49   |
| 1100042299 | 32mm          | 45         | 25.8 | 25.8 | 52   | 52   |

Maiximun working pressure 10 bar  
Maiximun working temperature 95°C

F5 Reducing 90° Elbows

U Profile Press Fitting

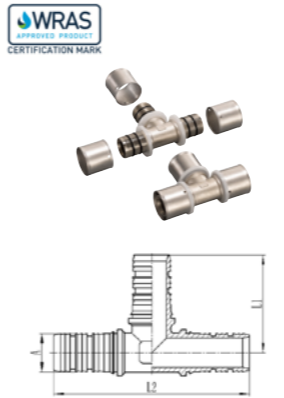


| SAP Code   | Specification | Carton Qty | A    | B    | L1   | L2   |
|------------|---------------|------------|------|------|------|------|
| 1100044468 | 20x16mm       | 144        | 15.8 | 11.8 | 38.5 | 40.5 |
| 1100044470 | 25x16mm       | 96         | 19.8 | 11.8 | 42.5 | 45.5 |
| 1100044469 | 25x20mm       | 80         | 19.8 | 15.8 | 42.5 | 47.5 |
| 1100044471 | 32x20mm       | 80         | 25.8 | 15.8 | 46   | 47.5 |

Maiximun working pressure 10 bar  
Maiximun working temperature 95°C

F5 Tees

U Profile Press Fitting

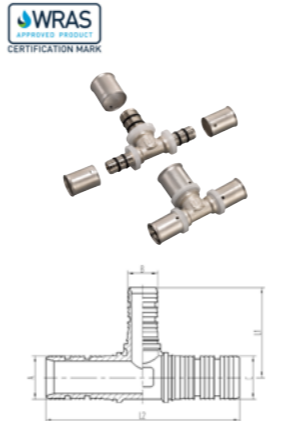


| SAP Code   | Specification | Carton Qty | A    | L1   | L2  |
|------------|---------------|------------|------|------|-----|
| 1100044472 | 16mm          | 120        | 11.8 | 37   | 74  |
| 1100044473 | 20mm          | 120        | 15.8 | 40   | 80  |
| 1100044982 | 25mm          | 64         | 20.8 | 47.5 | 95  |
| 1100044475 | 32mm          | 30         | 25.8 | 50.5 | 101 |

Maiximun working pressure 10 bar  
Maiximun working temperature 95°C

F5 Reducing Tees

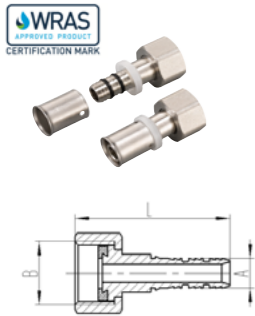
U Profile Press Fitting



Maiximun working pressure 10 bar  
Maiximun working temperature 95°C

| SAP Code   | Specification | Carton Qty | A    | B    | C    | L1   | L2   |
|------------|---------------|------------|------|------|------|------|------|
| 1100044476 | 16x20x16mm    | 120        | 11.8 | 15.8 | 11.8 | 39   | 78   |
| 1100044983 | 16x25x16mm    | 96         | 11.8 | 19.8 | 11.8 | 45   | 83   |
| 1100044478 | 20x16x16mm    | 120        | 15.8 | 11.8 | 11.8 | 40   | 76   |
| 1100044480 | 20x16x20mm    | 120        | 15.8 | 11.8 | 15.8 | 40   | 76   |
| 1100044481 | 20x20x16mm    | 120        | 15.8 | 15.8 | 11.8 | 40   | 80   |
| 1100044984 | 20x25x20mm    | 96         | 15.8 | 19.8 | 15.8 | 45.5 | 83   |
| 1100042301 | 25x16x16mm    | 96         | 19.8 | 11.8 | 11.8 | 41.5 | 80.5 |
| 1100044483 | 25x16x20mm    | 96         | 19.8 | 11.8 | 15.8 | 45.5 | 83   |
| 1100042302 | 25x16x25mm    | 70         | 19.8 | 11.8 | 19.8 | 41.5 | 87   |
| 1100044484 | 25x20x16mm    | 70         | 19.8 | 15.8 | 11.8 | 41.5 | 84.5 |
| 1100042303 | 25x20x20mm    | 70         | 19.8 | 15.8 | 15.8 | 41.5 | 84.5 |
| 1100042304 | 25x20x25mm    | 70         | 19.8 | 15.8 | 19.8 | 41.5 | 91   |
| 1100042305 | 25x25x16mm    | 70         | 19.8 | 19.8 | 11.8 | 49.5 | 92.5 |
| 1100042306 | 25x25x20mm    | 70         | 19.8 | 19.8 | 15.8 | 49   | 91   |
| 1100044485 | 32x16x32mm    | 48         | 25.8 | 11.8 | 25.8 | 44.5 | 87   |
| 1100042307 | 32x20x32mm    | 48         | 25.8 | 15.8 | 25.8 | 44.5 | 91   |
| 1100044486 | 32x25x25mm    | 40         | 25.8 | 19.8 | 19.8 | 50   | 97   |
| 1100042308 | 32x25x32mm    | 36         | 25.8 | 19.8 | 25.8 | 50   | 97   |

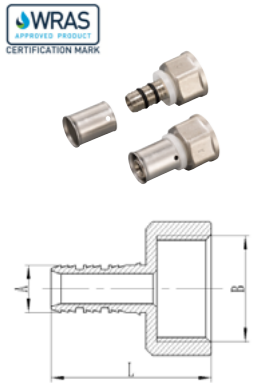
F5 Female Couplers (Swivel)  
U Profile Press Fitting



| SAP Code   | Specification | Carton Qty | A    | B    | L    | L1   |
|------------|---------------|------------|------|------|------|------|
| 1100041656 | 16mm x 1/2"   | 320        | 11.8 | G1/2 | 51   | 31.5 |
| 1100044496 | 16mm x 3/4"   | 200        | 11.8 | G3/4 | 52   | 33.5 |
| 1100044497 | 20mm x 1/2"   | 240        | 15.8 | G1/2 | 52   | 33.5 |
| 1100041658 | 20mm x 3/4"   | 160        | 15.8 | G3/4 | 52.5 | 35.5 |
| 1100044498 | 25mm x 3/4"   | 120        | 19.8 | G3/4 | 58.5 | 36   |
| 1100044499 | 25mm x 1"     | 96         | 19.8 | G1   | 61   | 37   |
| 1100044500 | 32mm x 1"     | 90         | 25.8 | G1   | 61   | 39   |

Maiximun working pressure 10 bar  
Maiximun working temperature 95°C

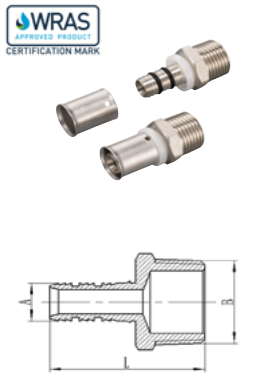
F5 Female Couplers  
U Profile Press Fitting



| SAP Code   | Specification | Carton Qty | A    | B      | L    |
|------------|---------------|------------|------|--------|------|
| 1100041897 | 16mm x 1/2"   | 280        | 11.8 | G1/2   | 42.5 |
| 1100044491 | 16mm x 3/4"   | 160        | 11.8 | G3/4   | 44   |
| 1100041898 | 20mm x 1/2"   | 240        | 15.8 | G1/2   | 42.5 |
| 1100041666 | 20mm x 3/4"   | 160        | 15.8 | G3/4   | 44   |
| 1100044492 | 25mm x 1/2"   | 120        | 19.8 | G1/2   | 49   |
| 1100042295 | 25mm x 3/4"   | 120        | 19.8 | G3/4   | 50.5 |
| 1100044493 | 25mm x 1"     | 96         | 19.8 | G1     | 52   |
| 1100044494 | 32mm x 1"     | 96         | 25.8 | G1     | 52   |
| 1100044495 | 32mm x 1 1/4" | 84         | 25.8 | G1 1/4 | 54.5 |

Maiximun working pressure 10 bar  
Maiximun working temperature 95°C

F5 Male Couplers  
U Profile Press Fitting



| SAP Code   | Specification | Carton Qty | A    | B      | L    |
|------------|---------------|------------|------|--------|------|
| 1100041651 | 16mm x 1/2"   | 360        | 11.8 | R1/2   | 46   |
| 1100042296 | 16mm x 3/4"   | 200        | 11.8 | R3/4   | 47   |
| 1100041899 | 20mm x 1/2"   | 280        | 15.8 | R1/2   | 46   |
| 1100041663 | 20mm x 3/4"   | 200        | 15.8 | R3/4   | 47   |
| 1100044487 | 25mm x 1/2"   | 120        | 19.8 | R1/2   | 52.6 |
| 1100044488 | 25mm x 3/4"   | 120        | 19.8 | R3/4   | 54   |
| 1100044489 | 25mm x 1"     | 120        | 19.8 | R1     | 55   |
| 1100043774 | 32mm x 3/4"   | 96         | 25.8 | R3/4   | 54   |
| 1100044490 | 32mm x 1"     | 96         | 25.8 | R1     | 55   |
| 1100042297 | 32mm x 1 1/4" | 90         | 25.8 | R1 1/4 | 58.5 |

Maiximun working pressure 10 bar  
Maiximun working temperature 95°C

F5 Manifolds Outlet Adaptors  
U Profile Press Fitting



| SAP Code   | Specification | Carton Qty | A    | B    | L    |
|------------|---------------|------------|------|------|------|
| 1100044530 | 16x1/2"       | 336        | 11.8 | G1/2 | 44.5 |
| 1100044531 | 20x1/2"       | 336        | 15.8 | G1/2 | 44.5 |
| 1100440532 | 16X3/4"       | 224        | 11.8 | G3/4 | 44.5 |
| 1100044533 | 20X3/4"       | 192        | 15.8 | G3/4 | 44.5 |
| 1100044534 | 25X3/4"       | 120        | 19.8 | G3/4 |      |

Maiximun working pressure 10 bar  
Maiximun working temperature 95°C

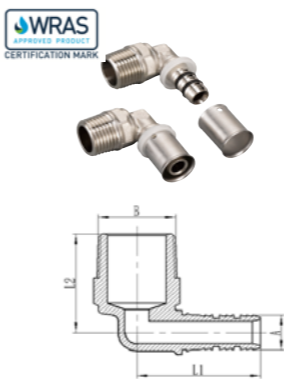
F1 Manifolds Outlet Adaptors  
Compression Fitting



| SAP Code   | Specification   | Carton Qty | A    | B     | L    |
|------------|-----------------|------------|------|-------|------|
| 1100041679 | 16x1/2"         | 576        | 11.8 | G1/2  | 22.5 |
| 1100044438 | 20x1//2"        | 320        | 15.8 | G1/2  | 24   |
| 1100042668 | 16X3/4"         | 384        | 11.8 | G3/4  | 21.5 |
| 1100044439 | 20X3/4"         | 288        | 15.8 | G3/4  | 24   |
| 1100044440 | 25X3/4"         | 160        | 19.8 | G3/4  | 26   |
| 1100049891 | 16x1/2" A MTA   | 576        | 11.8 | G1/2  | 22.5 |
| 1100044441 | 20XW11/8 (14) A | 320        | 15.8 | W11/8 | 22   |

Maiximun working pressure 10 bar  
Maiximun working temperature 95°C

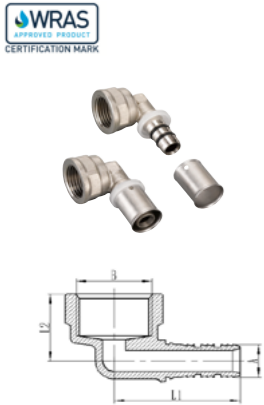
F5 Male Elbows  
U Profile Press Fitting



| SAP Code   | Specification | Carton Qty | A    | B    | L    | L1   |
|------------|---------------|------------|------|------|------|------|
| 1100044501 | 16mm x 1/2"   | 192        | 11.8 | R1/2 | 38.5 | 31.5 |
| 1100044502 | 16mm x 3/4"   | 120        | 11.8 | R3/4 | 41   | 33.5 |
| 1100041904 | 20mm x 1/2"   | 192        | 15.8 | R1/2 | 38.5 | 33.5 |
| 1100044503 | 20mm x 3/4"   | 120        | 15.8 | R3/4 | 41   | 35.5 |
| 1100044504 | 25mm x 1/2"   | 80         | 19.8 | R1/2 | 45   | 36   |
| 1100044505 | 25mm x 3/4"   | 80         | 19.8 | R3/4 | 48   | 37   |
| 1100044506 | 25mm x 1"     | 96         | 19.8 | R1   | 52   | 39   |
| 1100044507 | 32mm x 1"     | 60         | 25.8 | R1   | 52   | 43   |

Maiximun working pressure 10 bar  
Maiximun working temperature 95°C

F5 Female Elbows  
U Profile Press Fitting



| SAP Code   | Specification | Carton Qty | A    | B    | L  | L1   |
|------------|---------------|------------|------|------|----|------|
| 1100044508 | 16mm x 1/2"   | 200        | 11.8 | G1/2 | 41 | 23   |
| 1100044509 | 16mm x 3/4"   | 120        | 11.8 | G3/4 | 44 | 24   |
| 1100041903 | 20mm x 1/2"   | 160        | 15.8 | G1/2 | 41 | 25   |
| 1100044510 | 20mm x 3/4"   | 120        | 15.8 | G3/4 | 44 | 26   |
| 1100044511 | 25mm x 1/2"   | 80         | 19.8 | G1/2 | 48 | 26   |
| 1100044512 | 25mm x 3/4"   | 80         | 19.8 | G3/4 | 51 | 27   |
| 1100044513 | 25mm x 1"     | 72         | 19.8 | G1   | 55 | 28   |
| 1100044514 | 32mm x 1"     | 60         | 25.8 | G1   | 55 | 30.5 |

Maiximun working pressure 10 bar  
Maiximun working temperature 95°C

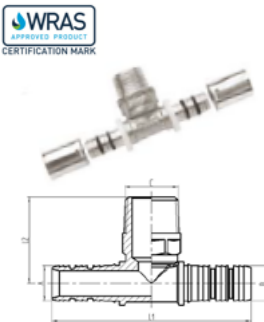
F5 Wall Plate Elbows  
U Profile Press Fitting



| SAP Code   | Specification       | Carton Qty | A    | B    | L    | L1   |
|------------|---------------------|------------|------|------|------|------|
| 1100042300 | 16mm x 1/2"(2 feet) | 112        | 11.8 | G1/2 | 41.5 | 38.5 |
| 1100044515 | 20mm x 1/2"(2 feet) | 96         | 15.8 | G1/2 | 41.5 | 43   |
| 1100044516 | 20mm x 3/4"(2 feet) | 96         | 15.8 | G3/4 | 44   | 44   |
| 1100044517 | 16mm x 1/2"(3 feet) | 80         | 11.8 | G1/2 | 41.5 | 39   |
| 1100044518 | 20mm x 1/2"(3 feet) | 64         | 15.8 | G1/2 | 41.5 | 43   |
| 1100044519 | 20mm x 3/4"(3 feet) | 96         | 15.8 | G3/4 | 44   | 44   |

Maiximun working pressure 10 bar  
Maiximun working temperature 95°C

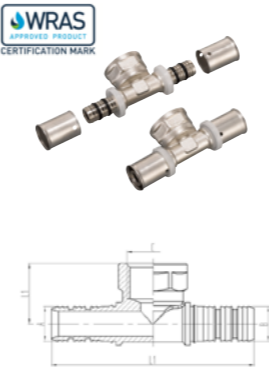
F5 Male Tees  
U Profile Press Fitting



| SAP Code   | Specification | Carton Qty | A    | B    | C    | D  | L1   | L2 |
|------------|---------------|------------|------|------|------|----|------|----|
| 1100044520 | 16x1/2"x16mm  | 120        | 11.8 | 11.8 | R1/2 | 77 | 32.5 | 35 |
| 1100044521 | 20x1/2"x20mm  | 120        | 15.8 | 15.8 | R1/2 | 77 | 34.5 | 39 |

Maiximun working pressure 10 bar  
Maiximun working temperature 95°C

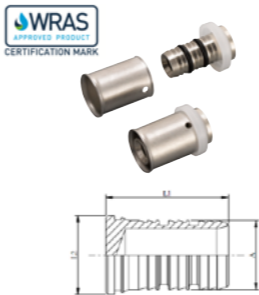
F5 Female Tees  
U Profile Press Fitting



| SAP Code   | Specification | Carton Qty | A    | B    | L    | L1  | L2 |
|------------|---------------|------------|------|------|------|-----|----|
| 1100044522 | 20x1/2"x20mm  | 80         | 15.8 | 15.8 | G1/2 | 82  | 25 |
| 1100044523 | 20x3/4"x20mm  | 96         | 15.8 | 15.8 | G3/4 | 88  | 26 |
| 1100044524 | 25x1/2"x25mm  | 72         | 19.8 | 19.8 | G1/2 | 96  | 26 |
| 1100044525 | 25x3/4"x25mm  | 64         | 19.8 | 19.8 | G3/4 | 102 | 27 |
| 1100044526 | 32x1/2"x32mm  | 48         | 25.8 | 25.8 | G1/2 | 96  | 30 |
| 1100044527 | 32x3/4"x32mm  | 40         | 25.8 | 25.8 | G3/4 | 102 | 30 |
| 1100044528 | 32x1"x32mm    | 36         | 25.8 | 25.8 | G1   | 110 | 31 |

Maiximun working pressure 10 bar  
Maiximun working temperature 95°C

F5 Stop Ends  
U Profile Press Fitting



| SAP Code   | Specification | Carton Qty | A    | B    | L    |
|------------|---------------|------------|------|------|------|
| 1100041900 | 16mm          | 600        | 11.8 | 15   | 28   |
| 1100041901 | 20mm          | 480        | 15.8 | 18   | 28   |
| 1100044529 | 25mm          | 192        | 19.8 | 22   | 34.6 |
| 1100049890 | 32mm          | 128        | 25.8 | 34.6 | 28   |

Maiximun working pressure 10 bar  
Maiximun working temperature 95°C

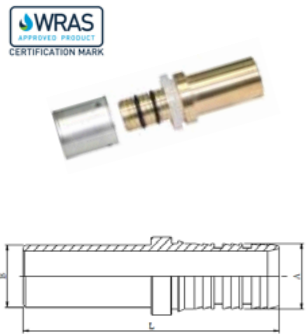
F5 MLCP with Compression Union to Copper Adaptors  
U Profile Press Fitting



| SAP Code   | Specification | Carton Qty | A    | B    | L    |
|------------|---------------|------------|------|------|------|
| 1100042663 | 16x15mm Cu    | 288        | 11.8 | 15.1 | 42.5 |
| 1100044537 | 20x22mm Cu    | 144        | 16.8 | 22.1 | 43   |
| 1100042664 | 25x22mm Cu    | 120        | 19.8 | 22.1 | 50   |
| 1100044538 | 32x28mm Cu    | 96         | 25.8 | 28.1 | 51.1 |

Maiximun working pressure 10 bar  
Maiximun working temperature 95°C

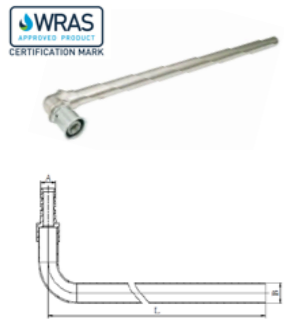
F5 MLCP with Brass Tail to Copper Adaptors  
U Profile Press Fitting



| SAP Code   | Specification | Carton Qty | A    | B  | L    |
|------------|---------------|------------|------|----|------|
| 1100042659 | 16x15mm Cu    | 360        | 11.8 | 15 | 62   |
| 1100044535 | 20x15mm Cu    | 280        | 15.8 | 15 | 62   |
| 1100042660 | 20x22mm Cu    | 144        | 15.8 | 22 | 71   |
| 1100042661 | 25x22mm Cu    | 96         | 19.8 | 22 | 77.6 |
| 1100044536 | 25x28mm Cu    | 96         | 19.8 | 28 | 82.6 |
| 1100042662 | 32x28mm Cu    | 96         | 25.8 | 28 | 82.6 |

Maiximun working pressure 10 bar  
Maiximun working temperature 95°C

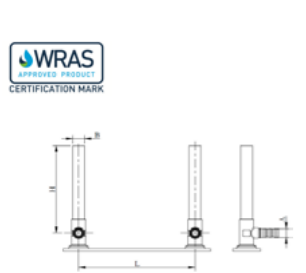
F5 Chromed Radiator Tail Elbows  
U Profile Press Fitting



| SAP Code   | Specification  | Carton Qty | A    | B  | L   |
|------------|----------------|------------|------|----|-----|
| 1100042666 | 16x15Cu x310mm | 50         | 11.8 | 15 | 310 |

Maiximun working pressure 10 bar  
Maiximun working temperature 95°C

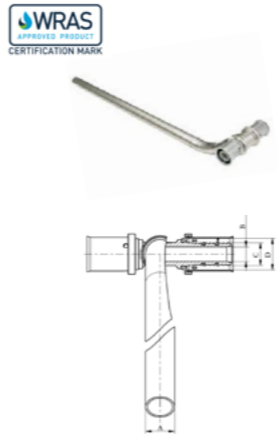
F5 Chromed Radiator Tail Elbows - Two ways out  
U Profile Press Fitting



| SAP Code   | Specification     | Carton Qty | A    | B  | H   | L   |
|------------|-------------------|------------|------|----|-----|-----|
| 1100042667 | 16x16x15Cu x150mm | 15         | 11.8 | 15 | 119 | 150 |

Maiximun working pressure 10 bar  
Maiximun working temperature 95°C

F5 Chromed Radiator Tail Tees  
U Profile Press Fitting



| SAP Code   | Specification | Carton Qty | A  | B   | H    | L    |
|------------|---------------|------------|----|-----|------|------|
| 1100050465 | 16xφ15Sx16mm  | 30         | 15 | 7.5 | 11.8 | 16.4 |

Maiximun working pressure 10 bar  
Maiximun working temperature 95°C

F5 MLCP to 150mm Copper Tails  
U Profile Press Fitting



| SAP Code   | Specification | Carton Qty | A    | B  | L1    | L2  |
|------------|---------------|------------|------|----|-------|-----|
| 1100052346 | 16mmx15mm     | 160        | 11.8 | 15 | 180   | 150 |
| 1100052347 | 20mmx22mm     | 98         | 15.8 | 22 | 178.5 | 150 |

Maiximun working pressure 10 bar  
Maiximun working temperature 95°C

F1 Stop Ends  
Compression Fitting



| SAP Code   | Specification | Carton Qty | A    | B    | L  |
|------------|---------------|------------|------|------|----|
| 1100044424 | 16mm          | 384        | 11.8 | 8    | 27 |
| 1100044425 | 20mm          | 288        | 15.8 | 11.9 | 27 |
| 1100044426 | 25mm          | 192        | 19.8 | 14.8 | 27 |
| 1100044427 | 32mm          | 96         | 25.8 | 20.5 | 28 |

Maiximun working pressure 10 bar  
Maiximun working temperature 95°C

# F18 Large Diameter Press Fit Fittings

## Composition

- 1

**Plastic collar**  
Material: PE
- 2

**Sleeve**  
Material: stainless steel 304
- 3

**Body**  
Material: RFH59-2
- 4

**O-rings**  
Material: EPDM

## Advantages

- M

TH - U pressing profiles
- The fitting is LBP and can still be adjusted after pressing
- Leak before press (LBP)
- Three/Four O-rings for excellent sealing performance

## Couplers



| SAP Code   | Specification | Carton Qty | A     | B    | L1   | L     |
|------------|---------------|------------|-------|------|------|-------|
| 1100058407 | 3240x3240     | 45         | 31.75 | 43.5 | 43.2 | 96    |
| 1100058408 | 4150x4150     | 38         | 40.75 | 53.5 | 43.5 | 96.7  |
| 1100058409 | 5163x5163     | 15         | 50.7  | 67.4 | 66.2 | 143.4 |
| 1100058410 | 6075x6075     | 10         | 59.6  | 79.6 | 66.8 | 143.9 |

## Reducing Couplers



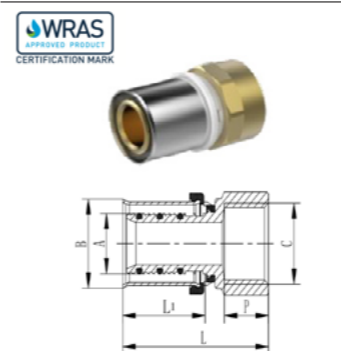
| SAP Code   | Specification | Carton Qty | A     | B    | L1   | C     | D    | L2   | L     |
|------------|---------------|------------|-------|------|------|-------|------|------|-------|
| 1100058487 | 3240x1620     | 60         | 31.75 | 43.5 | 43.2 | 15.75 | 24.2 | 26.1 | 78.2  |
| 1100058478 | 3240x2025     | 60         | 31.75 | 43.5 | 43.2 | 19.75 | 29.4 | 33.3 | 85.5  |
| 1100058399 | 3240x2632     | 60         | 31.75 | 43.5 | 43.2 | 25.75 | 36.4 | 33.3 | 85.5  |
| 1100058479 | 4150x2025     | 40         | 40.75 | 53.5 | 43.5 | 19.75 | 29.4 | 33.3 | 86.2  |
| 1100058400 | 4150x2632     | 40         | 40.75 | 53.5 | 43.5 | 25.75 | 36.4 | 33.3 | 86.2  |
| 1100058401 | 4150x3240     | 40         | 40.75 | 53.5 | 43.5 | 31.75 | 43.5 | 43.2 | 97.7  |
| 1100058480 | 5163x2632     | 18         | 50.7  | 67.4 | 66.2 | 25.75 | 36.4 | 33.3 | 109.2 |
| 1100058402 | 5163x3240     | 18         | 50.7  | 67.4 | 66.2 | 31.75 | 43.5 | 43.2 | 119.7 |
| 1100058403 | 5163x4150     | 18         | 50.7  | 67.4 | 66.2 | 40.75 | 53.5 | 43.5 | 120.4 |

## Male Couplers



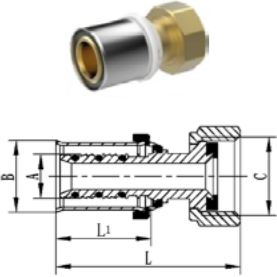
| SAP Code   | Specification | Carton Qty | A     | B    | C      | L1   | L     | P    |
|------------|---------------|------------|-------|------|--------|------|-------|------|
| 1100058496 | 3240x1        | 60         | 31.75 | 43.5 | R1     | 43.2 | 77.5  | 16   |
| 1100058495 | 3240x1 1/2    | 60         | 31.75 | 43.5 | R1 1/2 | 43.2 | 81    | 19.5 |
| 1100058406 | 3240x1 1/4    | 60         | 40.75 | 53.5 | R1 1/2 | 43.5 | 81.7  | 19.5 |
| 1100058411 | 4150x1 1/2    | 48         | 40.75 | 53.5 | R1 1/2 | 43.5 | 81.7  | 19.5 |
| 1100058497 | 4150x2        | 30         | 40.75 | 53.5 | R2     | 43.5 | 86.7  | 24   |
| 1100058412 | 5163x2        | 20         | 50.7  | 67.4 | R2     | 66.2 | 109.7 | 24   |
| 1100058413 | 6075x2 1/2    | 14         | 59.6  | 79.6 | R2     | 66.8 | 113.7 | 19.5 |

## Female Couplers



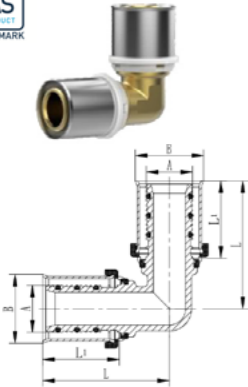
| SAP Code   | Specification | Carton Qty | A     | B    | C      | L1   | L     | P    |
|------------|---------------|------------|-------|------|--------|------|-------|------|
| 1100058499 | 3240x1 1/2F   | 63         | 31.75 | 43.5 | G1 1/2 | 43.2 | 70.5  | 19.5 |
| 1100058414 | 3240x1 1/4F   | 72         | 31.75 | 43.5 | G1 1/4 | 43.2 | 72    | 19.5 |
| 1100058415 | 4150x1 1/2F   | 48         | 40.75 | 53.5 | G1 1/2 | 43.5 | 72.2  | 19.5 |
| 1100058416 | 5163x2F       | 20         | 50.7  | 67.4 | G2     | 66.2 | 99.7  | 23.5 |
| 1100058417 | 6075x2 1/2F   | 14         | 59.6  | 79.6 | G2 1/2 | 66.8 | 105.7 | 27   |

Female Couplers (Swivel)



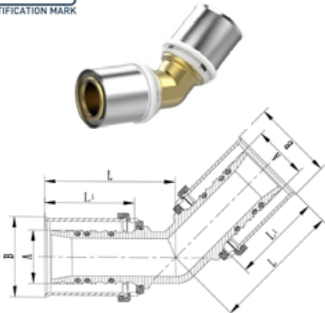
| SAP Code   | Specification   | Carton Qty | A     | B    | L1   | C      | L     |
|------------|-----------------|------------|-------|------|------|--------|-------|
| 1100058473 | 3240x1 1/2F (H) | 60         | 31.75 | 43.5 | 43.2 | G1 1/2 | 84.2  |
| 1100058474 | 3240x1 1/4F (H) | 60         | 31.75 | 43.5 | 43.2 | G1 1/4 | 80.2  |
| 1100058475 | 4150x1 1/2F (H) | 44         | 40.75 | 53.5 | 43.5 | G1 1/2 | 86.5  |
| 1100058507 | 4150x2F (H)     | 30         | 40.75 | 53.5 | 43.5 | G2     | 90.2  |
| 1100058476 | 5163x2F (H)     | 20         | 50.7  | 67.4 | 66.2 | G2     | 112.2 |
| 1100058477 | 6075x2 1/2F (H) | 14         | 59.6  | 79.6 | 66.8 | G2 1/2 | 113.7 |

90° Elbows



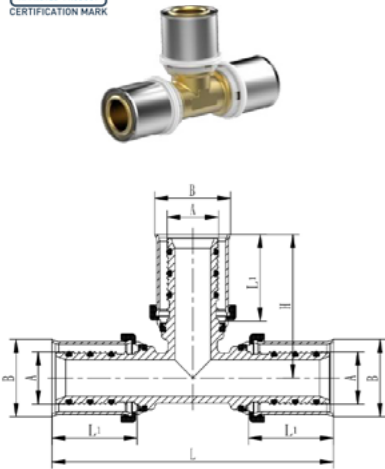
| SAP Code   | Specification | Carton Qty | A     | B    | L1   | L     |
|------------|---------------|------------|-------|------|------|-------|
| 1100058439 | 3240x3240     | 36         | 31.75 | 43.5 | 43.2 | 72    |
| 1100058419 | 4150x4150     | 24         | 40.75 | 53.5 | 43.5 | 78.3  |
| 1100058421 | 5163x5163     | 10         | 50.7  | 67.4 | 66.2 | 107.7 |
| 1100058423 | 6075x6075     | 6          | 59.6  | 79.6 | 66.8 | 110.7 |

45° Elbows



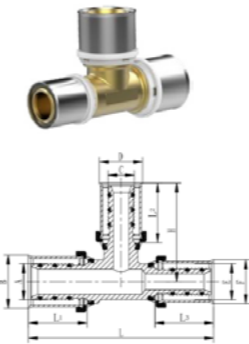
| SAP Code   | Specification | Carton Qty | A     | B    | L1   | L    |
|------------|---------------|------------|-------|------|------|------|
| 1100058418 | 3240x3240     | 30         | 31.75 | 43.5 | 43.2 | 67   |
| 1100058420 | 4150x4150     | 18         | 40.75 | 53.5 | 43.5 | 70.7 |
| 1100058422 | 5163x5163     | 10         | 50.7  | 67.4 | 66.2 | 96.7 |
| 1100058424 | 6075x6075     | 6          | 59.6  | 79.6 | 66.8 | 96.7 |

Tees



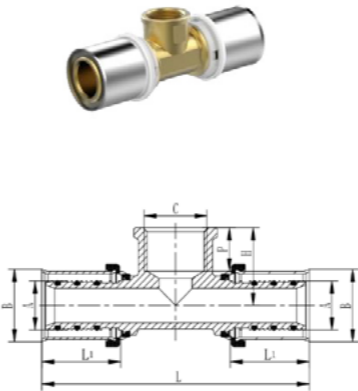
| SAP Code   | Specification  | Carton Qty | A     | B    | L1   | L     | H     |
|------------|----------------|------------|-------|------|------|-------|-------|
| 1100058434 | 3240x3240x3240 | 24         | 31.75 | 43.5 | 43.2 | 144   | 72    |
| 1100058435 | 4150x4150x4150 | 18         | 42.8  | 53.5 | 43.5 | 156.4 | 78.2  |
| 1100058436 | 5163x5163x5163 | 6          | 50.7  | 67.4 | 66.2 | 215.4 | 107.7 |
| 1100058437 | 6075x6075x6075 | 3          | 59.6  | 79.6 | 66.8 | 221.4 | 110.7 |

Reducing Tees



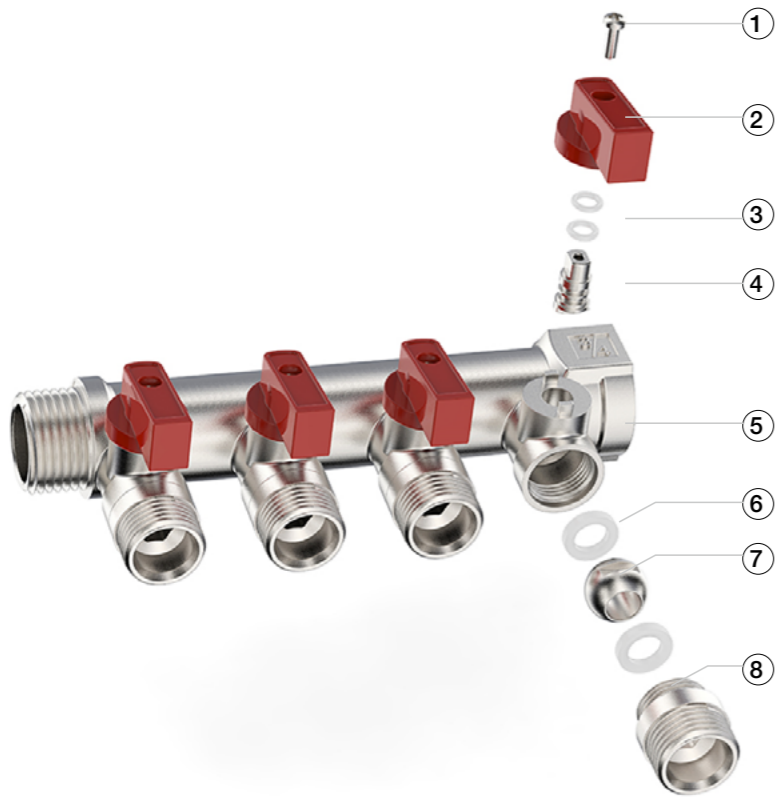
| SAP Code   | Specification  | Carton Qty | A     | B    | L1   | C     | D    | L2   | E     | F    | L3   | H     | L     |
|------------|----------------|------------|-------|------|------|-------|------|------|-------|------|------|-------|-------|
| 1100058489 | 3240x1216x3240 | 40         | 31.75 | 43.5 | 43.2 | 11.75 | 20.2 | 26.1 | 31.75 | 43.5 | 43.2 | 52.2  | 120   |
| 1100058438 | 3240x1620x3240 | 36         | 31.75 | 43.5 | 43.2 | 15.75 | 24.2 | 26.1 | 31.75 | 43.5 | 43.2 | 52.2  | 124   |
| 1100058481 | 3240x2025x2632 | 32         | 31.75 | 43.5 | 43.2 | 19.75 | 30.4 | 33.3 | 25.75 | 36.4 | 33.3 | 61.5  | 116.5 |
| 1100058490 | 3240x2025x3240 | 24         | 31.75 | 43.5 | 43.2 | 19.75 | 30.4 | 33.3 | 31.75 | 43.5 | 43.2 | 61.5  | 127   |
| 1100058440 | 3240x2632x2632 | 32         | 31.75 | 43.5 | 43.2 | 25.75 | 36.4 | 33.3 | 25.75 | 36.4 | 33.3 | 61.5  | 123.5 |
| 1100058441 | 3240x2632x3240 | 24         | 31.75 | 43.5 | 43.2 | 25.75 | 36.4 | 33.3 | 31.75 | 43.5 | 43.2 | 61.5  | 134   |
| 1100058491 | 3240x4150x3240 | 18         | 31.75 | 43.5 | 43.2 | 43.8  | 53.5 | 43.5 | 31.75 | 43.5 | 43.2 | 70.2  | 155   |
| 1100058492 | 4150x1620x4150 | 22         | 40.75 | 53.5 | 43.5 | 15.75 | 24.2 | 26.1 | 43.8  | 53.5 | 43.5 | 58.2  | 129.4 |
| 1100058482 | 4150x2025x3240 | 18         | 40.75 | 53.5 | 43.5 | 19.75 | 29.4 | 33.3 | 31.75 | 43.5 | 43.2 | 65.5  | 128.7 |
| 1100058493 | 4150x2025x4150 | 18         | 40.75 | 53.5 | 43.5 | 19.75 | 30.4 | 33.3 | 43.8  | 53.5 | 43.5 | 65.5  | 129.4 |
| 1100058442 | 4150x2632x4150 | 18         | 40.75 | 53.5 | 43.5 | 25.75 | 36.4 | 36.4 | 43.8  | 53.5 | 43.5 | 65.5  | 138.4 |
| 1100058443 | 4150x3240x4150 | 18         | 40.75 | 53.5 | 43.5 | 31.75 | 43.5 | 43.5 | 43.8  | 53.5 | 43.5 | 77.5  | 145.4 |
| 1100058484 | 5163x2025x5163 | 10         | 50.7  | 67.4 | 66.2 | 19.75 | 29.4 | 33.3 | 50.7  | 67.4 | 66.2 | 73.5  | 178.4 |
| 1100058444 | 5163x2632x5163 | 10         | 50.7  | 67.4 | 66.2 | 25.75 | 36.4 | 33.3 | 50.7  | 67.4 | 66.2 | 73.5  | 181.4 |
| 1100058445 | 5163x3240x5163 | 8          | 50.7  | 67.4 | 66.2 | 31.75 | 43.5 | 43.2 | 50.7  | 67.4 | 66.2 | 84    | 191.4 |
| 1100058446 | 5163x4150x5163 | 8          | 50.7  | 67.4 | 66.2 | 43.8  | 53.5 | 43.5 | 50.7  | 67.4 | 66.2 | 84.7  | 201.4 |
| 1100058485 | 6075x2632x6075 | 5          | 59.6  | 79.6 | 66.8 | 25.75 | 36.4 | 33.3 | 59.6  | 79.6 | 66.8 | 78.5  | 183.4 |
| 1100058467 | 6075x3240x6075 | 18         | 59.6  | 79.6 | 66.8 | 31.75 | 43.5 | 43.2 | 59.6  | 79.6 | 66.8 | 88    | 194.4 |
| 1100058448 | 6075x4150x6075 | 5          | 59.6  | 79.6 | 66.8 | 43.8  | 53.5 | 43.5 | 59.6  | 79.6 | 66.8 | 88.7  | 199.4 |
| 1100058494 | 6075x5163x6075 | 4          | 59.6  | 79.6 | 66.8 | 50.7  | 67.4 | 66.2 | 59.6  | 79.6 | 66.8 | 110.7 | 211.4 |

Female Tees



| SAP Code   | Specification    | Carton Qty | A     | B    | L1   | L     | P    | C      | H  |
|------------|------------------|------------|-------|------|------|-------|------|--------|----|
| 1100058449 | 3240x1/2Fx3240   | 36         | 31.75 | 43.5 | 43.2 | 126   | 14   | G1/2   | 31 |
| 1100058472 | 3240x3/4Fx3240   | 36         | 31.75 | 43.5 | 43.2 | 131   | 15   | G3/4   | 31 |
| 1100058450 | 3240x1Fx3240     | 30         | 31.75 | 43.5 | 43.2 | 138   | 16   | G1     | 36 |
| 1100058451 | 3240x1 1/4Fx3240 | 24         | 31.75 | 43.5 | 43.2 | 138   | 19.5 | G1 1/4 | 48 |
| 1100058452 | 4150x1/2Fx4150   | 22         | 40.75 | 53.5 | 43.5 | 128.4 | 14   | G1/2   | 36 |
| 1100058453 | 4150x3/4Fx4150   | 22         | 40.75 | 53.5 | 43.5 | 133.4 | 15   | G3/4   | 36 |
| 1100058454 | 4150x1Fx4150     | 22         | 40.75 | 53.5 | 43.5 | 139.4 | 16   | G1     | 40 |
| 1100058455 | 4150x1 1/2Fx4150 | 18         | 40.75 | 53.5 | 43.5 | 155.4 | 19.5 | G1 1/2 | 42 |
| 1100058456 | 5163x1/2Fx5163   | 10         | 50.7  | 67.4 | 66.2 | 174.4 | 14   | G1/2   | 42 |
| 1100058457 | 5163x3/4Fx5163   | 10         | 50.7  | 67.4 | 66.2 | 178.4 | 15   | G3/4   | 43 |
| 1100058458 | 5163x1Fx5163     | 10         | 50.7  | 67.4 | 66.2 | 185.4 | 16   | G1     | 45 |
| 1100058459 | 5163x2Fx5163     | 9          | 50.7  | 67.4 | 66.2 | 214.4 | 24   | G2     | 51 |
| 1100058500 | 6075x1Fx6075     | 7          | 59.6  | 79.6 | 66.8 | 187.4 | 16   | G1     | 48 |
| 1100058483 | 6075x1 1/2Fx6075 | 7          | 59.6  | 79.6 | 66.8 | 205.4 | 19.5 | G1 1/2 | 50 |
| 1100058501 | 6075x2Fx6075     | 7          | 59.6  | 79.6 | 66.8 | 215.4 | 24   | G2     | 56 |
| 1100058502 | 6075x2 1/2Fx6075 | 3          | 59.6  | 79.6 | 66.8 | 234.4 | 27   | G2 1/2 | 60 |

FS5 Manifolds



- 1

**Screw**  
Material: Stainless steel 304
- 2

**Handle**  
Material:ZA1Si7Mg
- 3

**O-rings**  
Material:NBR
- 4

**Valve rod**  
Material:C37700
- 5

**Body**  
Material:RFH59-2
- 6

**Collar**  
Material:PTFE
- 7

**Valve ball**  
Material:RFH59-4
- 8

**Valve cover**  
Material:RFH59-2

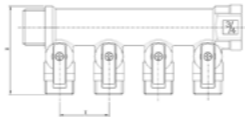
Specifications

| Item          | Connections  | N.W. G | Loops | L,/mm |
|---------------|--------------|--------|-------|-------|
| FS5-1-3/4x2   | G1" × 3/4"   | 531    | 2     | 101   |
| FS5-1-3/4x3   | G1" × 3/4"   | 813    | 3     | 144   |
| FS5-1-3/4x4   | G1" × 3/4"   | 1039   | 4     | 187   |
| FS5-3/4-1/2x2 | G3/4" × 1/2" | 385    | 2     | 87    |
| FS5-3/4-1/2x3 | G3/4" × 1/2" | 550    | 3     | 123   |
| FS5-3/4-1/2x4 | G3/4" × 1/2" | 699    | 4     | 159   |

Technical Data

|                     |                           |                     |
|---------------------|---------------------------|---------------------|
| Materials           | Mainfold                  | Nickel Plated Brass |
|                     | Valve                     | Aluminium Alloy     |
| Working Performance | Max. Working Pressure     | 10 bar              |
|                     | Cont. Working Temperature | 5°C ~ 60°C          |
|                     | Max. Working Temperature  | 95°C                |
| Working Media       | Water                     |                     |

FS5 Plumbing Manifolds with 1" Inlet  
Nickled Brass

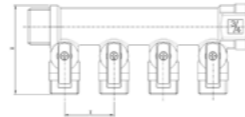


| Part/Article Number | Specification       | Carton Qty | H    | L  |
|---------------------|---------------------|------------|------|----|
| 1100044367          | 2 Port 1"x3/4" Blue | 42         | 56.5 | 43 |
| 1100044368          | 2 Port 1"x3/4" Red  | 42         | 56.5 | 43 |
| 1100044369          | 3 Port 1"x3/4" Blue | 24         | 56.5 | 43 |
| 1100044370          | 3 Port 1"x3/4" Red  | 24         | 56.5 | 43 |
| 1100044371          | 4 Port 1"x3/4" Blue | 18         | 56.5 | 43 |
| 1100044372          | 4 Port 1"x3/4" Red  | 18         | 56.5 | 43 |

Nickel plated brass water supply manifold with 1" connection at the inlet end and 3/4" outlet connection.

Maiximun working pressure 10 bar  
Maiximun working temperature 95°C

FS5 Plumbing Manifolds with 3/4" Inlet  
Nickled Brass



| Part/Article Number | Specification         | Carton Qty | H  | L  |
|---------------------|-----------------------|------------|----|----|
| 1100044373          | 2 Port 3/4"x1/2" Blue | 60         | 49 | 36 |
| 1100044374          | 2 Port 3/4"x1/2" Red  | 60         | 49 | 36 |
| 1100044375          | 3 Port 3/4"x1/2" Blue | 48         | 49 | 36 |
| 1100044376          | 3 Port 3/4"x1/2" Red  | 48         | 49 | 36 |
| 1100044377          | 4 Port 3/4"x1/2" Blue | 30         | 49 | 36 |
| 1100044378          | 4 Port 3/4"x1/2" Red  | 30         | 49 | 36 |

Nickel plated brass water supply manifold with 3/4" connection at the inlet end and 1/2" outlet connection.

Maiximun working pressure 10 bar  
Maiximun working temperature 95°C

# Tools

## Pipe Cutting Tools



Used to cut plastic pipe and multilayer composite pipes (pipe size less than DN32).

| Part/Article Number | Specification         | Carton Qty |
|---------------------|-----------------------|------------|
| 1100015650          | Pipe Cutting Tool III | 50         |
| 1100018777          | Pipe Cutting Tool IV  | 40         |

## Internal Bending Springs



The bending radius of the direct bend, centered on the pipe axis, should not be less than 5 times the size of the pipe.

| Part/Article Number | Specification | Carton Qty |
|---------------------|---------------|------------|
| 1100033464          | 16mm          | 150        |
| 1100033487          | 20mm          | 90         |
| 1100033489          | 25mm          | 54         |
| 1100033490          | 32mm          | 24         |

## External Bending Springs



The bending radius of the direct bend, centered on the pipe axis, should not be less than 5 times the size of the pipe.

| Part/Article Number | Specification | Carton Qty |
|---------------------|---------------|------------|
| 1100033492          | 16mm          | 36         |
| 1100033494          | 20mm          | 24         |
| 1100033495          | 25mm          | 12         |
| 1100033497          | 32mm          | 6          |

## Integral Manual Pressing Tools



U profile - Non-replaceable inserts.

| Part/Article Number | Specification | Carton Qty |
|---------------------|---------------|------------|
| 1100018780          | 16mm          | 5          |
| 1100018779          | 20mm          | 5          |

## Lengthened Manual Pressing Tools & Inserts for Manual Pressing Tools



Separate orders are required for pressing tool and inserts.

| Part/Article Number | Specification                         | Carton Qty |
|---------------------|---------------------------------------|------------|
| 1100015725          | Lengthened Manual Pressing Tool 14-32 | 5          |
| 1100015629          | insert 12mm                           | 100        |
| 1100015743          | insert 16mm                           | 96         |
| 1100015745          | insert 20mm                           | 96         |
| 1100015746          | insert 25mm                           | 96         |
| 1100015748          | insert 32mm                           | 96         |

## Bevelling Tools



Used to ensure that the tube is round and free of burrs before inserting into the fitting and will not damage the O-ring of the fitting.

| Part/Article Number | Specification | Carton Qty |
|---------------------|---------------|------------|
| 1100015706          | 12/16/20mm    | 200        |
| 1100018270          | 16/20/25mm    | 180        |
| 1100018272          | 20/25/32mm    | 100        |

Wheel Cutter



| Part/Article Number | Specifications | Carton (pc.) |
|---------------------|----------------|--------------|
| 1100044112          | WC-1275        | 28           |

Handle of Calibrating and Chamfering Tool



| Part/Article Number | Specifications | Carton (pc.) |
|---------------------|----------------|--------------|
| 1100018254          | T-handle       | 50           |

Calibrating and Chamfering Tool for Handle or Drill



| Part/Article Number | Specifications | Bag (pcs) | Box (pcs) | Carton (pc.) |
|---------------------|----------------|-----------|-----------|--------------|
| 1100018264          | CCT-40         | 1         | 1         | 12           |
| 1100018265          | CCT-50         | 1         | 1         | 12           |
| 1100018266          | CCT-63         | 1         | 1         | 12           |
| 1100018267          | CCT-75         | 1         | 1         | 12           |

# WARRANTY

To fulfill the manufacturer duty on supplying high quality and reliable solutions, RIIFO multilayer pipes and fittings are warranted against defects from manufacturing side for a period starting at the manufacturing date printed on product. For detailed documentations of product warranty, kindly contact our company.

# PROFESSIONAL INSTALLATION LIMITED WARRANTY

Subject to the conditions and limitations of this Limited Warranty, RIIFO UK Ltd (“RIIFO”), warrants to the property owner (“Owner”) that the components in its RIIFO Piping Systems as described below (the “Products”), when properly installed by licensed plumbers in potable water and radiant heating systems and subject to normal conditions of use, shall be free from failure caused by manufacturing defects for the respective periods set forth below, each of which periods shall commence on the date of original purchase of the Product (whether or not by Owner).

In the event that a RIIFO Product fails during the applicable warranty period due to a manufacturing defect as determined by RIIFO and all conditions for coverage under his Limited Warranty are met, the Owner shall be entitled to the following as his or her exclusive remedy: (i) at RIIFO’s sole election, either (a) the replacement of the same type, size and like quantity of non-defective Product at the original point of delivery, at no cost to Owner or (b) credits, offsets, refunds or a combination thereof, for the purchase price of the defective Product; and (ii) if the Product in question is covered by either the 10-year or 25-year limited warranty and the failure occurred during the first ten (10) years of such warranty period and was the direct cause of a leak at the Owner’s property, RIIFO will reimburse the Owner for all reasonable and necessary costs of repair or replacement for physical damage to the property, including drywall, flooring and painting costs, as well as damages to personal property, resulting from the failure or leak.

**Installation:** This Limited Warranty applies only if the applicable Product is configured and installed by a licensed professional plumbing contractor in accordance with RIIFO’s instructions, good plumbing practices, and applicable code requirements and industry standards.

FAILURE TO INSTALL THE PRODUCTS IN COMPLIANCE WITH THESE REQUIREMENTS WILL VOID THIS WARRANTY AND MAY RESULT IN SEVERE WATER DAMAGE. RIIFO DOES NOT GUARANTEE OR IN ANY WAY WARRANT THE INSTALLATION OF ITS PRODUCTS.

**Exclusions From Coverage:** This Limited Warranty excludes defects or failures caused after shipment of the Product by: (i) components not manufactured or sold by RIIFO; (ii) improper installation (as set forth above); (iii) use in improper applications or conditions or in conjunction with improper materials (including, without limitation, improper lubricants, pastes, solvents or sealants); (iv) exposure to damaging physical or chemical conditions, including, but not limited to, chemically corrosive or aggressive water conditions, abnormal operating conditions, accident, abuse, and misuse; (v) freezing or overheating of liquids within the Product, or unusual pressure surges or pulsation; (vi) vibration;

- (vii) exposure to temperatures and/or pressures exceeding the ranges for the Product as specified in RIIFO’s design manuals and installation guides;
- (viii) exposure to ultraviolet lights or other high-energy radiation;
- (ix) failure to adhere to RIIFO instructions and/or specifications concerning the proper handling, installation, testing and use of the Product;
- (x) failure to adhere to applicable standards set forth by local laws, codes, or regulations and the applicable industry standards;
- (xi) abuse, misuse, alteration, accidental damage, Acts of God (such as flood, hurricanes, tornadoes or fire) or any other improper activities(including but not limited to repairing or attempt by anyone other than RIIFO authorized service agent) not listed above or damage caused by the fault or negligence of anyone other than RIIFO.

**DISCLAIMER OF OTHER WARRANTIES:** THIS LIMITED WARRANTY IS THE ONLY WARRANTY APPLICABLE TO THE PRODUCTS, WHICH ARE OTHERWISE SOLD “AS IS.” THERE ARE NO OTHER WARRANTIES OF ANY KIND, EXPRESS OR IMPLIED, STATUTORY OR OTHERWISE, INCLUDING, WITHOUT LIMITATION, ANY IMPLIED WARRANTIES OF MERCHANTABILITY OR FITNESS FOR A PARTICULAR PURPOSE. ALL SUCH WARRANTIES ARE SPECIFICALLY DISCLAIMED. NO STATEMENT, CONDUCT OR DESCRIPTION BY RIIFO OR ITS REPRESENTATIVES, IN ADDITION TO OR BEYOND THIS LIMITED WARRANTY, SHALL CONSTITUTE A WARRANTY.

**SOLE REMEDY/LIMITATION OF LIABILITY:** THE SOLE AND EXCLUSIVE REMEDY FOR BREACH OF THIS LIMITED WARRANTY AND THE SOLE AND EXCLUSIVE OBLIGATION OF RIIFO WITH RESPECT TO ANY CLAIMS FOR BREACH OF THIS LIMITED WARRANTY, SHALL BE AS SET FORTH ABOVE. IN NO EVENT SHALL RIIFO BE LIABLE FOR ANY SPECIAL, CONSEQUENTIAL, INCIDENTAL, PUNITIVE, OR INDIRECT DAMAGES, LOST PROFITS, LOSS OF GOODWILL, LOSS OF BUSINESS OPPORTUNITIES, OR DAMAGE TO REPUTATION.

**Warranty Claim Process:** Any warranty claim by Owner regarding an alleged defective Product shall be made in writing to RIIFO, postmarked within the applicable warranty period and no later than ten (10) days after the date the defect is discovered, or in the exercise of ordinary care should have been discovered. Such notification should be sent to the RIIFO address indicated in [www.riifo.co.uk](http://www.riifo.co.uk) , and must include a description of the Product (with model number, if available), date of purchase and/or date of installation (with proof of purchase, if available), and a description of alleged defect. If the Owner cannot determine the date of purchase, RIIFO will deem the production date to be the date of purchase for purposes of this Limited Warranty. Owner shall keep all Products alleged to be defective and, at RIIFO’s request and expense, ship the Product(s) to RIIFO for inspection. In the event Owner is seeking the reimbursement of property damages as set forth above, Owner must detailed documentation of the claimed damages, including photographs, estimates, and invoices. RIIFO shall also have the right, but not the obligation, to inspect the site of installation/damage. Upon receipt of a complete warranty claim, RIIFO will diligently perform an investigation to determine if a manufacturing defect is present.

If RIIFO determines warranty coverage applies, it will promptly notify Owner and provide the remedy set forth in this Limited Warranty. No action by RIIFO under this warranty shall be construed as an admission of liability. Transferability: This Limited Warranty shall apply for the full applicable warranty period with respect to the original Owner of the real property at which the Product is installed and to any subsequent owner(s) of such property, provided such ownership transfer(s) occur within 10 years of the Product purchase date. Any change in ownership of the property after such 10-year period will void any remaining warranty coverage.

**Transferability:** This Limited Warranty shall apply for the full applicable warranty period with respect to the original Owner of the real property at which the Product is installed and to any subsequent owner(s) of such property, provided such ownership transfer(s) occur within 10 years of the Product purchase date. Any change in ownership of the property after such 10-year period will void any remaining warranty coverage.

Product Warranty Periods

| PRODCUT NAME/TYPE       | WARRANTY PERIOD (FROM DATE OF PURCHASE)  | CONDITIONS                                      |
|-------------------------|--|---|
| PEXa/PEX-b pipe         | 25 years (if connected and used with RIIFO pipe/fittings) or 10 years if otherwise (subject to written technical approval by RIIFO UK Ltd) | Must comply with ISO 15875                      |
| PEX-AL-PEX pipe         | 25 years (if connected and used with RIIFO pipe/fittings) or 10 years if otherwise (subject to written technical approval by RIIFO UK Ltd) | Must comply with ISO 21003                      |
| PE-AL-PE pipe           | 25 years (if connected and used with RIIFO pipe/fittings) or 10 years if otherwise (subject to written technical approval by RIIFO UK Ltd) | Must comply with ISO 21003                      |
| PERT-AL-PERT pipe       | 25 years (if connected and used with RIIFO pipe/fittings) or 10 years if otherwise (subject to written technical approval by RIIFO UK Ltd) | Must comply with ISO 21003                      |
| PPR pipe                | 25 years (if connected and used with RIIFO pipe/fittings) or 10 years if otherwise (subject to written technical approval by RIIFO UK Ltd) | Must comply with ISO 15874                      |
| PF5/PF15 fitting        | 10 years (if connected and used with RIIFO pipe/fittings) or 5 years if otherwise (subject to written technical approval by RIIFO UK Ltd)  | Must comply with ISO 15875                      |
| F5/F8/F9/F18/F6 fitting | 10 years (if connected and used with RIIFO pipe/fittings) or 5 years if otherwise (subject to written technical approval by RIIFO UK Ltd)  | Must comply with ISO 21003                      |
| F1 fitting              | 2 years  | Must comply with ISO 21003                      |
| PPR fitting             | 5 years (if used together with RIIFO pipe)   | Must comply with ISO 15874                      |
| VALVE                   | 3 years  | Must be installed per installation instructions |
| Water Manifold          | 3 years  | Must be installed per installation instructions |
| Heating Manifold        | 3 years  | Must be installed per installation instructions |