



# MULTILAYER SYSTEM

ULTIMATE DURABILITY  
AND FLEXIBILITY FOR  
HIGH-PRESSURE  
APPLICATIONS

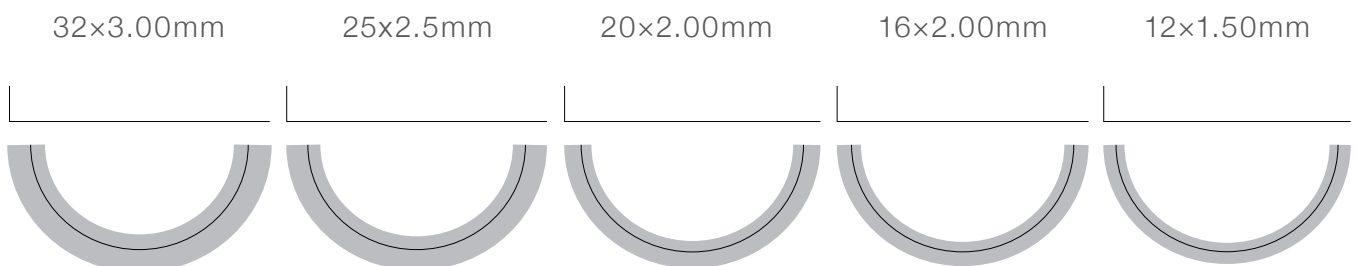


**25 YEAR**  
WARRANTY



# Technical data and delivery dimensions

Nominal size(D x e)		12×1.5	16×2.0	18×2.0	20×2.0	25×2.5	32×3.0	
Outside diameter (mm)		12	16	18	20	25	32	
Tolerance of Outer diameter (mm)	Min	12.00	16.00	18.00	20.00	25.00	32.00	
	Max	12.25	16.20	18.20	20.20	25.20	32.20	
Pipe thickness (mm)		1.7	2	2	2	2.5	3	
Tolerance of pipe thickness (mm)	Min	1.7	2.00	2.00	2.00	2.40	2.90	
	Max	2.0	2.25	2.25	2.25	2.70	3.20	
Roughness(mm)							0.0007	
Density(g/cm <sup>3</sup> )							0.926~0.959	
Modulus of elasticity(MPa)							7200	
Thermal conductivity(w/mK)							0.45	
Coefficient of thermal expansion(mm/mK)							0.025	



## Applications

The STH 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 separately 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 mediums.

## 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)
	20 plus cumulative	2,5					
4b	40 plus cumulative	20	70	2,5	100	100	Underfloor heating and low-temperature radiators
	60	25					
	20 plus cumulative	14					
5b	60 plus cumulative	25	90	1	100	100	High-temperature radiators
	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 100 h).

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
	Elongation	≥400%
	Vicat soft point	Vicat soft point≥105°C
	Cross-linking degree	≥65%
	ESCR	≥165h
	Moisture content	≤0.15%
Colour masterbatch	Appearance	Uniform granual
	Volatile content	≤0.5%
	Density	≥0.93 g/cm3
Catalyst	Melt flow index	≥0.9 g/10min (190°C, 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°C, 2.16kg)
	Vicat soft point	Vicat soft point≥105°C
	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

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Plastic are becoming increasingly popular in construction materials because they have many advantages that traditional construction materials lack. 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.

# PLUMBING & HEATING SOLUTIONS

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Apartments



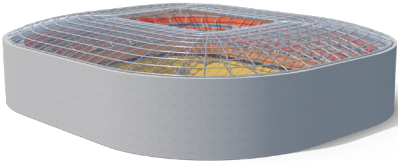
Commercial



Healthcare



Industrial



Stadium



Hotel



Residential Buildings



Education



## B1 PEX-AL-PEX Multilayer Piping System

### B1 PEX/AL/PEX Pipes



Maximum working pressure 10 bar  
Maximum working temperature 95°C

Part/Article Number	Specification	Pack Qty	RRP
76001	12x1.5mm	80	£161.27*
76002	16x2.0mm	50	£180.95*
76003	16x2.0mm	100	£318.00
76004	16x2.0mm	150	£477.00*
76005	16x2.0mm	200	£636.00*
76006	16x2.0mm	500	£1590.00*
76007	20x2.0mm	50	£222.53*
76008	20x2.0mm	100	£492.57*
76009	25x2.5mm	50	£311.63
76010	32x3.0mm	50	£450.19*

## B1 PEX/AL/PEX Pipes Pre-Insulated



Maximum working pressure 10 bar  
Maximum working temperature 95°C

Part/Article Number	Specification	Pack Qty	RRP
76011	16x2.0mm Red	100	£813.73*
76012	16x2.0mm Blue	100	£813.68*
76013	20x2.0mm Red	50	£497.25*
76014	20x2.0mm Blue	50	£497.25*
76015	25x2.5mm Red	50	£634.92*
76016	25x2.5mm Blue	50	£634.92*
76017	32x3.0mm Red	25	£583.38*
76018	32x3.0mm Blue	25	£583.38*

## B1 - PIPE/PEX/AL/PEX



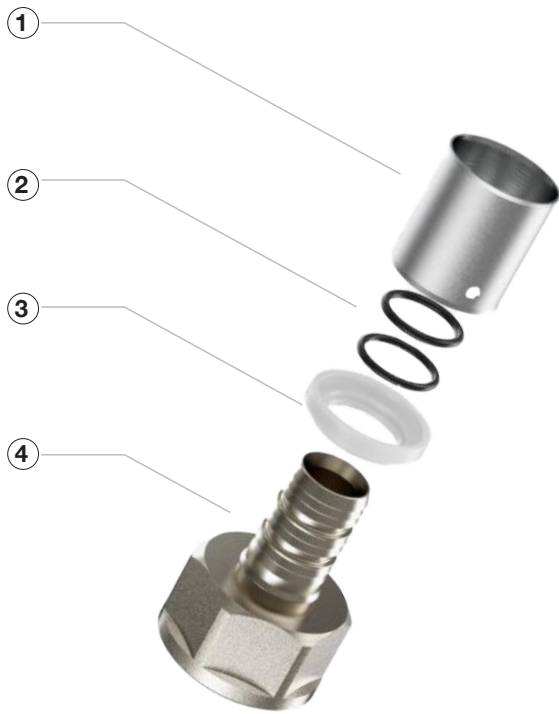
Maximum working pressure 10 bar  
Maximum working temperature 95°C

Part/Article Number	Specification	Pack Qty	RRP
76019	16x2.0mm (3mx30)	90	£271.75*
76020	20x2.0mm (3mx20)	60	£247.62*
76021	25x2.5mm (3mx10)	30	£196.40*
76022	32x3.0mm (3mx7)	21	£203.41*
76023	40x4.0mm (5mx5)	25	£418.04*
76024	50x5.0mm (5mx3)	15	£382.73*
76025	63x6.0mm (5mx3)	15	£795.74*
76026	75x7.5mm (5mx3)	15	£1405.05*

\*Please be advised that we do not hold stock of this product. However, it is available for order, upon placing the order, delivery can be arranged within 3-4 working days.



# F5 Press-Fit System



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

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- 2** **O ring**  
Material: EPDM

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- 3** **Collar**  
Material: PE

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- 4** **Fitting main body**  
Material: Brass

## Advantages



U pressing profile



Excellent sealing performance with double O-ring



The stress and risk of cracking is eliminated by the annealing process



Ease and security of installation



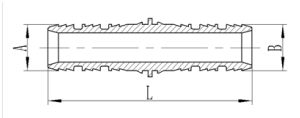
Nickel plated contributes to good corrosion resistance



Machined by special horizontal machining centre, with surface finish degree of no more than Ra3.2µm

## F5 Couplers

U Profile Press Fitting

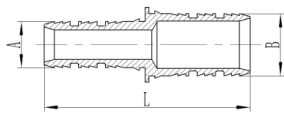


SAP Code	Specification	Quantity	A	B	L	RRP
76027	12mm	45	8.4	8.4	53	£120.57*
76028	16mm	5	11.8	11.8	53	£17.30
76029	20mm	28	15.8	15.8	53	£118.22*
76030	25mm	5	19.8	19.8	66.2	£36.92
76031	32mm	1	25.8	25.8	66.2	£8.39*

Maximum working pressure 10 bar  
Maximum working temperature 95°C

## F5 Reducing Couplers

U Profile Press Fitting

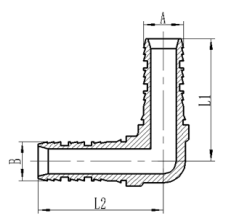


SAP Code	Specification	Quantity	A	B	L	RRP
76036	16x12mm	40	8.4	11.8	53	£130.03*
76037	20x16mm	35	11.8	15.8	53	£128.00*
76038	25x16mm	5	11.8	19.8	59.6	£27.62
76039	25x20mm	15	15.8	19.8	59.6	£86.29*
76040	32x16mm	10	11.8	25.8	59.6	£59.62*
76041	32x20mm	10	15.8	25.8	59.6	£82.54*
76042	32x25mm	10	19.8	25.8	66.2	£86.98*

Maximum working pressure 10 bar  
Maximum working temperature 95°C

## F5 90° Elbows

U Profile Press Fitting



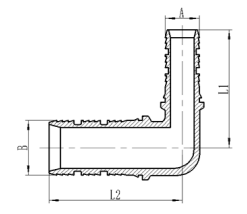
SAP Code	Specification	Quantity	A	B	L1	L2	RRP
76054	16mm	4	11.8	11.8	37	37	£17.40
76055	20mm	18	15.8	15.8	40.5	40.5	£97.14*
76056	25mm	5	19.8	19.8	49	49	£45.27
76057	32mm	1	25.8	25.8	52	52	£14.41*

Maximum working pressure 10 bar  
Maximum working temperature 95°C

\*Please be advised that we do not hold stock of this product. However, it is available for order, upon placing the order, delivery can be arranged within 3-4 working days.

## F5 Reducing 90° Elbows

U Profile Press Fitting

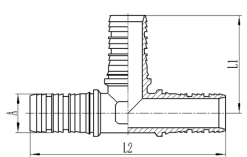


SAP Code	Specification	Quantity	A	B	L1	L2	RRP
76062	20x16mm	18	15.8	11.8	38.5	40.5	£103.54*
76064	25x16mm	12	19.8	11.8	42.5	45.5	£97.52*
76063	25x20mm	10	19.8	15.8	42.5	47.5	£96.38*
76065	32x20mm	1	25.8	15.8	46	47.5	£111.11*

Maximum working pressure 10 bar  
Maximum working temperature 95°C

## F5 Tees

U Profile Press Fitting

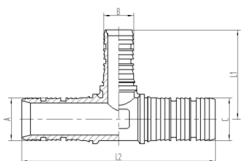


SAP Code	Specification	Quantity	A	L1	L2	RRP
76066	16mm	5	11.8	37	74	£36.51
76067	20mm	15	15.8	40	80	£130.57*
76068	25mm	1	20.8	47.5	95	£12.61
76069	32mm	1	25.8	50.5	101	£19.54*

Maximum working pressure 10 bar  
Maximum working temperature 95°C

## F5 Reducing Tees

U Profile Press Fitting

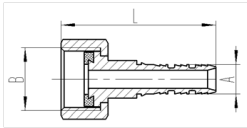


SAP Code	Specification	Quantity	A	B	C	L1	L2	RRP
76074	16x20x16mm	15	11.8	15.8	11.8	39	78	£89.52*
76075	16x25x16mm	1	11.8	19.8	11.8	45	83	£7.94*
76076	20x16x16mm	15	15.8	11.8	11.8	40	76	£89.43*
76077	20x16x20mm	15	15.8	11.8	15.8	40	76	£95.24*
76078	20x20x16mm	15	15.8	15.8	11.8	40	80	£100.38*
76079	20x25x20mm	1	15.8	19.8	15.8	45.5	83	£9.42*
76080	25x16x16mm	1	19.8	11.8	11.8	41.5	80.5	£9.69
76081	25x16x20mm	1	19.8	11.8	15.8	45.5	83	£10.22*
76082	25x16x25mm	1	19.8	11.8	19.8	41.5	87	£11.12
76083	25x20x16mm	1	19.8	15.8	11.8	41.5	84.5	£10.91*
76084	25x20x20mm	1	19.8	15.8	15.8	41.5	84.5	£9.61*
76085	25x20x25mm	1	19.8	15.8	19.8	41.5	91	£11.89*
76086	25x25x16mm	1	19.8	19.8	11.8	49.5	92.5	£11.50*
76087	25x25x20mm	1	19.8	19.8	15.8	49	91	£11.63*
76088	32x16x32mm	1	25.8	11.8	25.8	44.5	87	£15.24*
76089	32x20x32mm	1	25.8	15.8	25.8	44.5	91	£15.60*
76090	32x25x25mm	1	25.8	19.8	19.8	50	97	£16.51*
76091	32x25x32mm	1	25.8	19.8	25.8	50	97	£20.58*

Maximum working pressure 10 bar  
Maximum working temperature 95°C

## F5 Female Couplers (Swivel)

U Profile Press Fitting

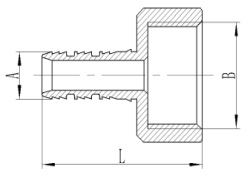


SAP Code	Specification	Quantity	A	B	L	L1	RRP
76138	16mm x 1/2"	5	11.8	G1/2	51	31.5	£22.61
76139	16mm x 3/4"	5	11.8	G3/4	52	33.5	£27.94
76140	20mm x 1/2"	30	15.8	G1/2	52	33.5	£146.71*
76141	20mm x 3/4"	20	15.8	G3/4	52.5	35.5	£116.42*
76142	25mm x 3/4"	5	19.8	G3/4	58.5	36	£40.11
76143	25mm x 1"	4	19.8	G1	61	37	£40.50
76144	32mm x 1"	1	25.8	G1	61	39	£11.03*

Maximum working pressure 10 bar  
Maximum working temperature 95°C

## F5 Female Couplers

U Profile Press Fitting

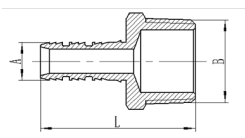


SAP Code	Specification	Quantity	A	B	L	RRP
76124	16mm x 1/2"	5	11.8	G1/2	42.5	£18.13
76125	16mm x 3/4"	5	11.8	G3/4	44	£25.94
76126	20mm x 1/2"	30	15.8	G1/2	42.5	£136.57*
76127	20mm x 3/4"	20	15.8	G3/4	44	£108.32*
76129	25mm x 3/4"	5	19.8	G3/4	50.5	£40.86
76130	25mm x 1"	4	19.8	G1	52	£37.36
76131	32mm x 1"	12	25.8	G1	52	£122.13*
76132	32mm x 1 1/4"	1	25.8	G1 1/4	54.5	£13.49*

Maximum working pressure 10 bar  
Maximum working temperature 95°C

## F5 Male Couplers

U Profile Press Fitting



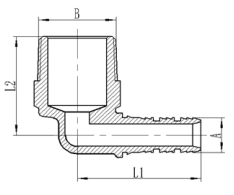
SAP Code	Specification	Quantity	A	B	L	RRP
76107	16mm x 1/2"	5	11.8	R1/2	46	£17.17
76108	16mm x 3/4"	5	11.8	R3/4	47	£21.49
76110	20mm x 1/2"	35	15.8	R1/2	46	£134.00*
76111	20mm x 3/4"	25	15.8	R3/4	47	£118.89*
76112	25mm x 1/2"	5	19.8	R1/2	52.6	£34.13
76113	25mm x 3/4"	5	19.8	R3/4	54	£31.21
76114	25mm x 1"	5	19.8	R1	55	£45.97
76115	32mm x 3/4"	12	25.8	R3/4	54	£102.93*
76116	32mm x 1"	12	25.8	R1	55	£108.04*
76117	32mm x 1 1/4"	1	25.8	R1 1/4	58.5	£14.32*

Maximum working pressure 10 bar  
Maximum working temperature 95°C

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## F5 Male Elbows

U Profile Press Fitting

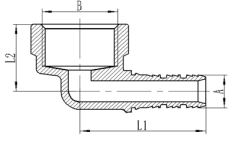


SAP Code	Specification	Quantity	A	B	L	L1	RRP
76151	16mm x 1/2"	3	11.8	R1/2	38.5	31.5	£12.95
76152	16mm x 3/4"	5	11.8	R3/4	41	33.5	£31.11
76153	20mm x 1/2"	24	15.8	R1/2	38.5	33.5	£124.95*
76154	20mm x 3/4"	15	15.8	R3/4	41	35.5	£95.24*
76156	25mm x 3/4"	5	19.8	R3/4	48	37	£45.43
76157	25mm x 1"	1	19.8	R1	52	39	£10.60
76158	32mm x 1"	1	25.8	R1	52	43	£12.99*

Maximum working pressure 10 bar  
Maximum working temperature 95°C

## F5 Female Elbows

U Profile Press Fitting

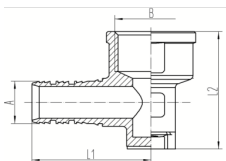


SAP Code	Specification	Quantity	A	B	L	L1	RRP
76159	16mm x 1/2"	5	11.8	G1/2	41	23	£31.90
76160	16mm x 3/4"	5	11.8	G3/4	44	24	£31.71
76161	20mm x 1/2"	20	15.8	G1/2	41	25	£131.81*
76162	20mm x 3/4"	15	15.8	G3/4	44	26	£107.24*
76163	25mm x 1/2"	5	19.8	G1/2	48	26	£40.79
76164	25mm x 3/4"	5	19.8	G3/4	51	27	£44.79
76165	25mm x 1"	1	19.8	G1	55	28	£12.70*
76166	32mm x 1"	1	25.8	G1	55	30.5	£13.77*

Maximum working pressure 10 bar  
Maximum working temperature 95°C

## F5 Wall Plate Elbows

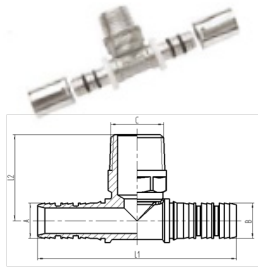
U Profile Press Fitting



SAP Code	Specification	Quantity	A	B	L	L1	RRP
76172	16mm x 1/2"(2 feet)	2	11.8	G1/2	41.5	38.5	£12.91
76173	20mm x 1/2"(2 feet)	12	15.8	G1/2	41.5	43	£89.45*
76174	20mm x 3/4"(2 feet)	12	15.8	G3/4	44	44	£120.76*

Maximum working pressure 10 bar  
Maximum working temperature 95°C

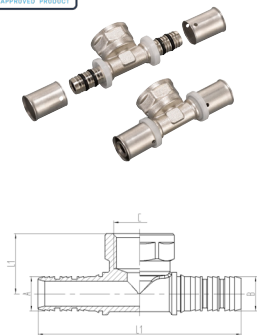
**F5 Male Tees**  
U Profile Press Fitting



SAP Code	Specification	Quantity	A	B	C	D	L1	L2	RRP
76179	16x1/2"x16mm	15	11.8	11.8	R1/2	77	32.5	35	£109.65*
76180	20x1/2"x20mm	15	15.8	15.8	R1/2	77	34.5	39	£130.54*

Maximum working pressure 10 bar  
Maximum working temperature 95°C

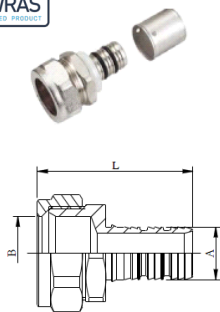
**F5 Female Tees**  
U Profile Press Fitting



SAP Code	Specification	Quantity	A	B	L	L1	L2	RRP
76193	20x1/2"x20mm	10	15.8	15.8	G1/2	82	25	£76.08*
76194	20x3/4"x20mm	1	15.8	15.8	G3/4	88	26	£10.38*
76195	25x1/2"x25mm	1	19.8	19.8	G1/2	96	26	£11.39
76196	25x3/4"x25mm	1	19.8	19.8	G3/4	102	27	£14.55*
76197	32x1/2"x32mm	1	25.8	25.8	G1/2	96	30	£22.34*
76198	32x3/4"x32mm	1	25.8	25.8	G3/4	102	30	£19.95*
76199	32x1"x32mm	1	25.8	25.8	G1	110	31	£20.62*

Maximum working pressure 10 bar  
Maximum working temperature 95°C

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



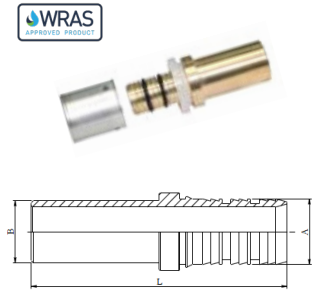
SAP Code	Specification	Quantity	A	B	L	RRP
76219	16x15mm Cu	36	11.8	15.1	42.5	£206.83*
76220	20x22mm Cu	18	16.8	22.1	43	£140.91*
76221	25x22mm Cu	15	19.8	22.1	50	£158.10*
76222	32x28mm Cu	12	25.8	28.1	51.1	£162.29*

Maximum working pressure 10 bar  
Maximum working temperature 95°C

\*Please be advised that we do not hold stock of this product. However, it is available for order, upon placing the order, delivery can be arranged within 3-4 working days.

## F5 MLCP with Brass Tail to Copper Adaptors

U Profile Press Fitting

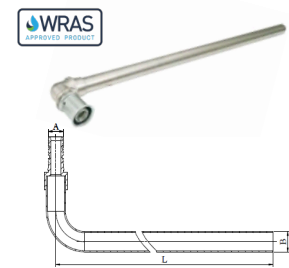


SAP Code	Specification	Quantity	A	B	L	RRP
76213	16x15mm Cu	5	11.8	15	62	£19.67
76214	20x15mm Cu	35	15.8	15	62	£137.56*
76215	20x22mm Cu	18	15.8	22	71	£106.86*
76216	25x22mm Cu	4	19.8	22	77.6	£32.66
76217	25x28mm Cu	4	19.8	28	82.6	£47.03
76218	32x28mm Cu	12	25.8	28	82.6	£118.10*

Maximum working pressure 10 bar  
Maximum working temperature 95°C

## F5 Chromed Radiator Tail Elbows

U Profile Press Fitting

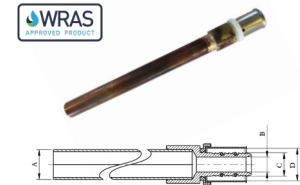


SAP Code	Specification	Quantity	A	B	L	RRP
76225	16x15Cu x310mm	50	11.8	15	310	£32.28

Maximum working pressure 10 bar  
Maximum working temperature 95°C

## F5 MLCP to 150mm Copper Tails

U Profile Press Fitting



SAP Code	Specification	Quantity	RRP
76223	16x15Cux150mm	1	£11.17
76224	20x22Cux150mm	1	£14.80*

Maximum working pressure 10 bar  
Maximum working temperature 95°C

\*Please be advised that we do not hold stock of this product. However, it is available for order, upon placing the order, delivery can be arranged within 3-4 working days.



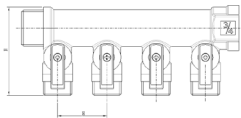
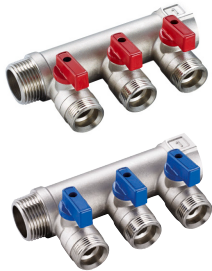




## MANIFOLDS

## FS5 Plumbing Manifolds with 1" Inlet

Nickled Brass



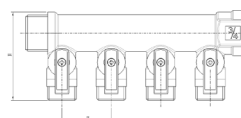
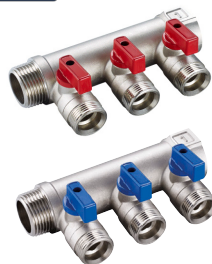
Part/Article Number	Specification	Quantity	H	L	RRP
76226	2 Port 1"x3/4" Blue	1	56.5	43	£32.28*
76227	2 Port 1"x3/4" Red	7	56.5	43	£226.68*
76228	3 Port 1"x3/4" Blue	4	56.5	43	£186.35*
76229	3 Port 1"x3/4" Red	4	56.5	43	£186.35*
76230	4 Port 1"x3/4" Blue	3	56.5	43	£181.58*
76231	4 Port 1"x3/4" Red	3	56.5	43	£181.58*

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

Maximum working pressure 10 bar  
Maximum working temperature 95°C

## FS5 Plumbing Manifolds with 3/4" Inlet

Nickled Brass



Part/Article Number	Specification	Quantity	H	L	RRP
76232	2 Port 3/4"x1/2" Blue	10	49	36	£262.00*
76233	2 Port 3/4"x1/2" Red	10	49	36	£262.00*
76234	3 Port 3/4"x1/2" Blue	8	49	36	£269.24*
76235	3 Port 3/4"x1/2" Red	8	49	36	£269.24*
76236	4 Port 3/4"x1/2" Blue	5	49	36	£209.62*
76237	4 Port 3/4"x1/2" Red	5	49	36	£209.62*

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

Maximum working pressure 10 bar  
Maximum working temperature 95°C

\*Please be advised that we do not hold stock of this product. However, it is available for order, upon placing the order, delivery can be arranged within 3-4 working days.

## F5 Manifolds Outlet Adaptors

U Profile Press Fitting



Part/Article Number	Specification	Quantity	RRP
76238	16mm x 1/2"	42	£219.66*
76239	20mm x 1/2"	42	£228.72*
76240	16mm x 3/4"	28	£174.72*
76241	20mm x 3/4"	24	£167.04*
76242	25mm x 3/4"	15	£134.40*

Maximum working pressure 10 bar  
Maximum working temperature 95°C

## F1 Manifolds Outlet Adaptors

Compression Fitting



Part/Article Number	Specification	Quantity	RRP
76244	16mm x 1/2"	72	£345.60*
76245	20mm x 1/2"	40	£336.00*
76246	12mm x 3/4"	42	£223.02*
76247	16mm x 3/4"	1	£5.76*
76248	20mm x 3/4"	1	£5.12*
76249	25mm x 3/4"	20	£238.40*
76251	20mmxW11/8(14)A	40	£284.80*

Maximum working pressure 10 bar  
Maximum 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	Quantity	RRP
76253	Pipe Cutting Tool III	1	£16.40
76252	Pipe Cutting Tool IV	1	£23.00*

## 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	Quantity	RRP
76254	16mm	25	£100.00*
76255	20mm	15	£100.80*
76256	25mm	9	£70.56*
76257	32mm	4	£49.80*

## 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	Quantity	RRP
76258	16mm	1	£9.98
76259	20mm	4	£60.40*
76260	25mm	1	£17.98
76261	32mm	1	£28.92*

\*Please be advised that we do not hold stock of this product. However, it is available for order, upon placing the order, delivery can be arranged within 3-4 working days.

## Integral Manual Pressing Tools



Part/Article Number	Specification	Quantity	RRP
76265	16mm	1	£152.00
76266	20mm	1	£157.92*

U profile - Non-replaceable inserts.

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



Part/Article Number	Specification	Quantity	RRP
76267	Lengthened Manual Pressing Tool 14-32	1	£162.47
76268	insert 12mm	1	£17.97*
76269	insert 16mm	1	£16.01
76270	insert 20mm	12	£191.76*
76271	insert 25mm	1	£15.98
76272	insert 32mm	12	£190.56*

Separate orders are required for pressing tool and inserts.

## Bevelling Tools



Part/Article Number	Specification	Quantity	RRP
76262	12/16/20mm	1	£7.31
76264	16/20/25mm	1	£7.08
76263	20/25/32mm	1	£8.46*

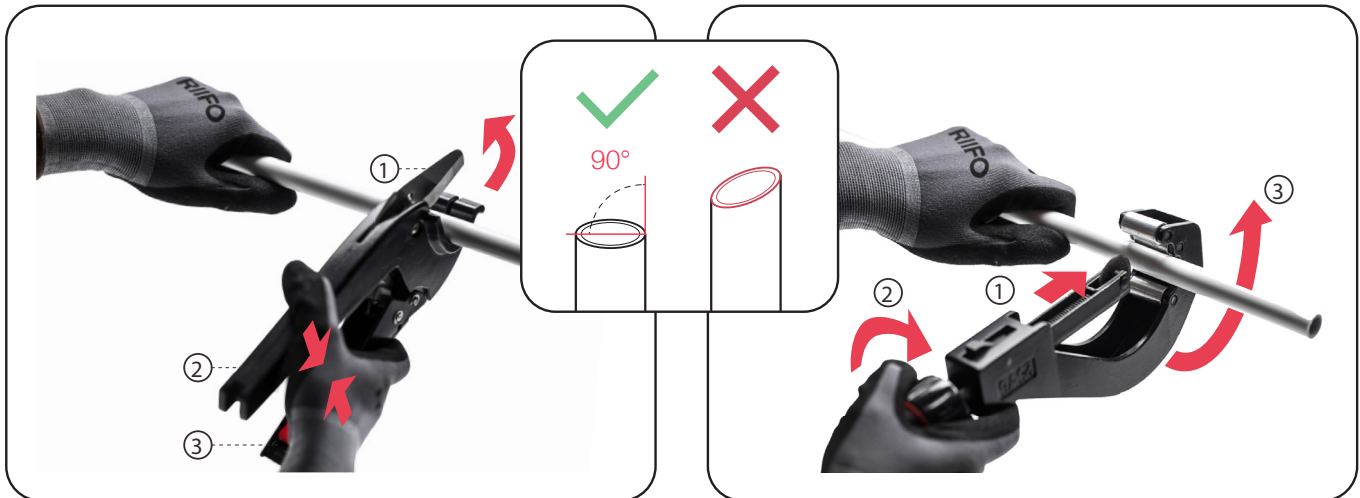
Used to ensure that the tube is round and free of burrs before inserting into the fitting and will not damage the O-ring of the fitting.

\*Please be advised that we do not hold stock of this product. However, it is available for order, upon placing the order, delivery can be arranged within 3-4 working days.

# INSTALLATION

## Pipe Cutting

### NOTICE!



### WARNING!

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

### NOTE!

Incorrect cutting causes leakage in connection

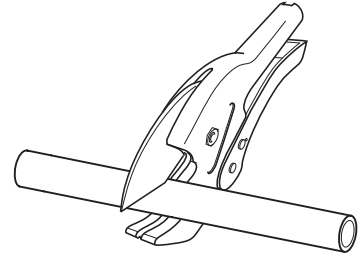
- The end of the pipe shall be cut vertically.
- The end of the pipe shall not be damaged or distorted.

# INSTALLATION

## Press Fitting

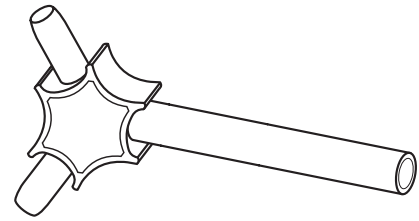
### Step1:

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



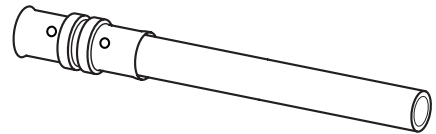
### Step2:

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



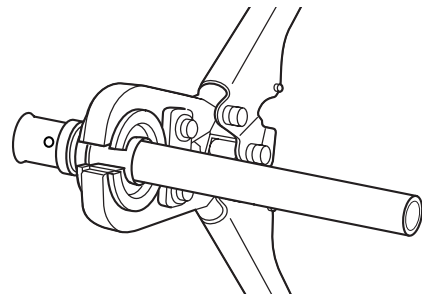
### Step3:

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.



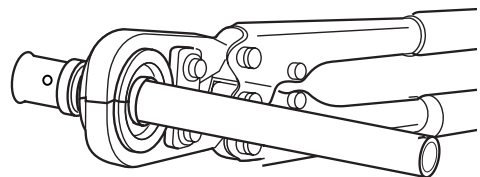
### Step4:

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



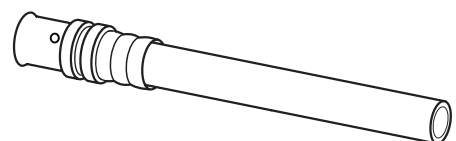
### Step5:

The margin of the block must be placed into the groove of the pressing section.



### Step6:

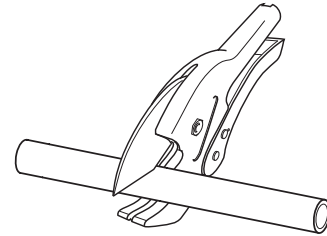
While the jaw is completely closed, the handles will be locked. Open the handles and remove the pressing tool from the fitting and the installation is complete.



## Compression Fitting

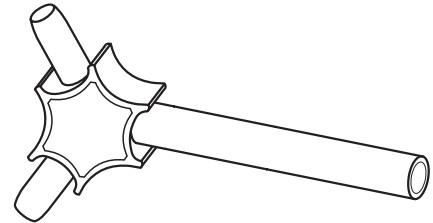
### Step1:

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



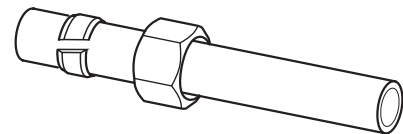
### Step2:

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



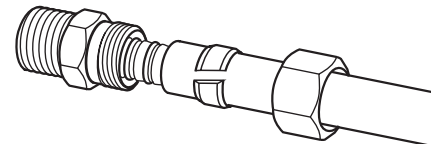
### Step3:

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.



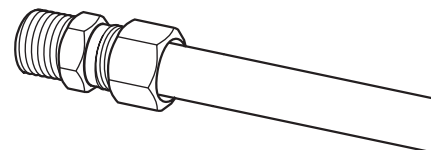
### Step4:

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.



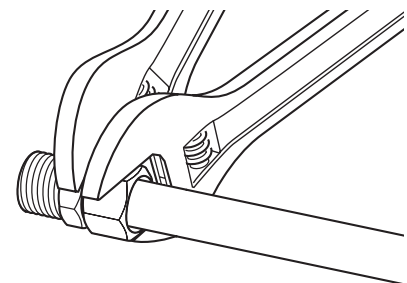
### Step5:

Tighten the nut with your finger.



### Step6:

Tighten the nut with a spanner.



## WARRANTY

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To fulfill the manufacturer duty on supplying high quality and reliable solutions, STH 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

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Subject to the conditions and limitations of this Limited Warranty, STH Multilayer, warrants to the property owner (“Owner”) that the components in its STH Multilayer 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 STH Multilayer Product fails during the applicable warranty period due to a manufacturing defect as determined by STH Multilayer 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 STH Westco'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, STH Westco 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 STH Multilayer 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. STH WESTCO 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 STH Westco;
- (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 STH Multilayer's design manuals and installation guides;
- (viii) exposure to ultraviolet lights or other high-energy radiation;
- (ix) failure to adhere to STH Multilayer 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 STH Westco authorized service agent) not listed above or damage caused by the fault or negligence of anyone other than STH Westco.

**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 STH WESTCO 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 STH WESTCO WITH RESPECT TO ANY CLAIMS FOR BREACH OF THIS LIMITED WARRANTY, SHALL BE AS SET FORTH ABOVE. IN NO EVENT SHALL STH WESTCO 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 STH Westco, 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 STH Westco address indicated in [www.westco.co.uk](http://www.westco.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, STH Westco 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 STH Westco's request and expense, ship the Product(s) to STH Westco 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. STH Westco shall also have the right, but not the obligation, to inspect the site of installation/damage. Upon receipt of a complete warranty claim, STH Westco will diligently perform an investigation to determine if a manufacturing defect is present.

If STH Westco determines warranty coverage applies, it will promptly notify Owner and provide the remedy set forth in this Limited Warranty. No action by STH Westco 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 STH Multilayer pipe/fittings) or 10 years if otherwise (subject to written technical approval by STH Westco)	Must comply with ISO 15875
PEX-AL-PEX pipe	25 years (if connected and used with STH Multilayer pipe/fittings) or 10 years if otherwise (subject to written technical approval by STH Westco)	Must comply with ISO 21003
PE-AL-PE pipe	25 years (if connected and used with STH Multilayer pipe/fittings) or 10 years if otherwise (subject to written technical approval by STH Westco)	Must comply with ISO 21003
PERT-AL-PERT pipe	25 years (if connected and used with STH Multilayer pipe/fittings) or 10 years if otherwise (subject to written technical approval by STH Westco)	Must comply with ISO 21003
PPR pipe	25 years (if connected and used with STH Multilayer pipe/fittings) or 10 years if otherwise (subject to written technical approval by STH Westco)	Must comply with ISO 15874
PF5/PF15 fitting	10 years (if connected and used with STH Multilayer pipe/fittings) or 5 years if otherwise (subject to written technical approval by STH Westco)	Must comply with ISO 15875
F5 / F8/ F9 /F18 /F6 fitting	10 years (if connected and used with STH Multilayer pipe/fittings) or 5 years if otherwise (subject to written technical approval by STH Westco)	Must comply with ISO 21003
F1 fitting	2 years	Must comply with ISO 21003
PPR fitting	5 years (if used together with STH Multilayer 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

