

## Pipe Fittings

These fittings are suitable for interconnecting piping, valves and other components in both wet and dry automatic sprinkler systems. Installation should be according to applicable sprinkler system fabrication rules. These rules limit the minimum size of sprinkler piping to 1 in., nominal. FM Approved pipe fittings of smaller sizes are intended for use as valve trim, gauge connections, and for other peripheral service. The water flow path of the sprinkler system cannot be designed using smaller sizes than 1 in., nominal. Unless otherwise noted in the listing, these fittings have 175 psi (1205 kPa) rated working pressure.

Threaded connections on fittings can be made to FM Approved threadable thinwall pipe or to Schedule 40 pipe. Refer to the "Steel Pipe" listings for a summary of the various types of FM Approved steel pipe suitable for threading or grooving."

The fittings manufacturer's installation instructions must be observed in all cases. When connections are made to FM Approved pipe, the pipe manufacturer's installation instructions must also be followed.

Unless otherwise stated below, the maximum ambient temperature to which these fittings should be subjected is 225°F (107°C).

## Pipe Fittings

### ATUSA GRUPO, Pipe Fittings

Product Designation	Fitting Description	Nominal Pipe Size, in.	Max Working Pressure, psi (kPa)	Remarks
1	Long Sweep Bend, M/F	1/8, 1/4, 3/8, 1/2, 3/4, 1, 1-1/4, 1-1/2, 2, 2-1/2	450 (3100)	-
1A	Short Bend, M/F	1/4, 3/8, 1/2, 3/4, 1, 1-1/4, 1-1/2, 2, 2-1/2	450 (3100)	-
2	Long Sweep Bend, F/F	1/4, 3/8, 1/2, 3/4, 1, 1-1/4, 1-1/2, 2, 2-1/2	450 (3100)	-
2A	Short Bend, F/F	3/8, 1/2, 3/4, 1, 1-1/4, 1-1/2, 2, 2-1/2	450 (3100)	-
3	Long Sweep Bend, M/M	1/4, 3/8, 1/2, 3/4, 1, 1-1/4, 1-1/2, 2, 2-1/2	450 (3100)	-
40	45° Long Sweep Bend, M/F	1/4, 3/8, 1/2, 3/4, 1, 1-1/4, 1-1/2, 2, 2-1/2	450 (3100)	-
41	45° Long Sweep Bend, F/F	1/4, 3/8, 1/2, 3/4, 1, 1-1/4, 1-1/2, 2, 2-1/2	450 (3100)	-
90	Elbow, F/F	1/8, 3/8, 1/2, 3/4, 1, 1-1/4, 1-1/2, 2, 2-1/2	450 (3100)	-
90R	Reducing Elbow, F/F	3/8 × 1/4, 1/2 × 1/4, 3/8 3/4 × 3/8, 1/2 1 × 1/2, 3/4 1-1/4 × 1/2, 3/4, 1 1-1/2 × 3/4, 1, 1-1/4 2 × 1, 1-1/4, 1-1/2 2-1/2 × 2	450 (3100)	-
90S	90° Short Radius Elbow Grooved	2, 2-1/2, 3, 4, 6, 8 76, 139.7, 165 mm	300 (2070)	a
92	Street Elbow, M/F	1/8, 3/8, 1/2, 3/4, 1, 1-1/4, 1-1/2, 2, 2-1/2	450 (3100)	-
92R	Reducing Street Elbow, M/F	1/2 × 3/8, 3/4 × 1/2, 1 × 3/4, 1-1/4 × 1, 1-1/2 × 1, 1-1/2 × 1-1/4, 3/8 × 1/2, 1/2 × 3/4, 3/4 × 1, 1 × 1-1/4	450 (3100)	-

95	Union Elbow, Flat Seat, F/F	3/8, 1/2, 3/4, 1, 1-1/4, 1-1/2, 2	450 (3100)	-	
96	Union Elbow, Taper Seat, F/F	1/4, 3/8, 1/2, 3/4, 1, 1-1/4, 1-1/2, 2, 2-1/2	450 (3100)	-	
97	Union Elbow, Flat Seat, M/F	3/8, 1/2, 3/4, 1, 1-1/4, 1-1/2, 2	450 (3100)	-	
98	Union Elbow, Taper Seat, M/F	1/4, 3/8, 1/2, 3/4, 1, 1-1/4, 1-1/2, 2, 2-1/2	450 (3100)	-	
120	45° Elbow, F/F	3/8, 1/2, 3/4, 1, 1-1/4, 1-1/2, 2, 2-1/2	450 (3100)	-	
121	45° Elbow, M/F	3/8, 1/2, 3/4, 1, 1-1/4, 1-1/2, 2, 2-1/2	450 (3100)	-	
130	Equal Tee, F	1/8, 3/8, 1/2, 3/4, 1, 1-1/4, 1-1/2, 2, 2-1/2	450 (3100)	-	
130R	Tee, Branch Reducing, F	3/8 x 1/4, 1/2 x 1/4, 3/8 3/4 x 1/4, 3/8, 1/2 1 x 1/4, 3/8, 1/2, 3/4 1-1/4 x 3/8, 1/2, 3/4, 1 1-1/2 x 3/8, 1/2, 3/4, 1, 1-1/4 2 x 3/4, 1, 1-1/4, 1-1/2 2-1/2 x 1/2, 3/4, 1, 1-1/4, 1-1/2, 2	450 (3100)	-	
130R	Bullhead Tee, F	3/8 x 1/2, 3/4 1/2 x 3/4, 1 3/4 x 1, 1-1/4 1 x 1-1/4, 1-1/2 1-1/4 x 1-1/2, 2 1-1/2 x 2 2 x 2-1/2	450 (3100)	-	
130R	Tee, Branch Reducing, Run Reducing, F	1/2 x 3/8 x 3/8 3/4 x 3/8 x 1/2, 3/4 x 1/2 x 3/8, 3/4 x 1/2 x 1/2, 1 x 3/8 x 3/4, 1 x 1/2 x 3/8, 1 x 1/2 x 1/2, 1 x 1/2 x 3/4, 1 x 3/4 x 1/2, 1 x 3/4 x 3/4, 1-1/4 x 1/2 x 1, 1-1/4 x 3/4 x 1/2, 1-1/4 x 3/4 x 3/4, 1-1/4 x 3/4 x 1, 1-1/4 x 1 x 3/8, 1-1/4 x 1 x 1/2, 1-1/4 x 1 x 3/4, 1-1/4 x 1 x 1, 1-1/2 x 1/2 x 1-1/4, 1-1/2 x 3/4 x 1-1/4, 1-1/2 x 1 x 1, 1-1/2 x 1 x 1-1/4, 1-1/2 x 1-1/4 x 1, 1-1/2 x 1-1/4 x 1-1/4 2 x 1/2 x 1-1/2, 2 x 1/2 x 2, 2 x 3/4 x 1-1/2, 2 x 1 x 1-1/2, 2 x 1-1/4 x 1, 2 x 1-1/4 x 1-1/4, 2 x 1-1/4 x 1-1/2, 2 x 1-1/2 x 1, 2 x 1-1/2 x 1-1/2, 2-1/2 x 2 x 2	450 (3100)	-	
130R	Tee, Branch Increasing, Run Reducing, F	1/2 x 3/4 x 3/8, 3/4 x 1 x 1/2, 1 x 1-1/4 x 3/4, 1-1/4 x 1-1/2 x 1, 1-1/2 x 2 x 1-1/4	450 (3100)	-	

130R	Tee, Run Reducing, F	1/2 × 1/2 × 3/8, 3/4 × 3/4 × 3/8, 1/2 1 × 1 × 3/8, 1/2, 3/4 1-1/4 × 1-1/4 × 1/2, 3/4, 1 1-1/2 × 1-1/2 × 1/2, 3/4, 1, 1-1/4 2 × 2 × 1/2, 3/4, 1, 1-1/4, 1-1/2 2 1/2 × 2-1/2 × 1-1/2	450 (3100)	-
130S	Short Radius Tees Grooved Ends	2, 2-1/2, 3, 4, 6, 8 76, 139.7, 165 mm	300 (2070)	a
180	Equal Cross, F	1/4, 3/8, 1/2, 3/4, 1, 1-1/4, 1-1/2, 2, 2-1/2	450 (3100)	-
221	Side Outlet Elbow, F	3/8, 1/2, 3/4, 1, 1-1/4, 1-1/2, 2	450 (3100)	-
240	Reducing Socket, F/F	1/4 × 1/8 3/8 × 1/8 1/2 × 1/4, 3/8 3/4 × 3/8, 1/2 1 × 3/8, 1/2, 3/4 1-1/4 × 3/8, 1/2, 3/4, 1 1-1/2 × 1/2, 3/4, 1, 1-1/4 2 × 1/2, 3/4, 1, 1-1/4, 1-1/2 2-1/2 × 1, 1-1/4, 1-1/2, 2	450 (3100)	-
241	Reducing Bushing, F/F	1/4 × 1/8 3/8 × 1/8, 1/4 1/2 × 1/8, 1/4, 3/8 3/4 × 1/4, 3/8, 1/2 1 × 3/8, 1/2, 3/4 1-1/4 × 3/8, 1/2, 3/4, 1 1-1/2 × 1/2, 3/4, 1, 1-1/4 2 × 1/2, 3/4, 1, 1-1/4, 1-1/2 2-1/2 × 1, 1-1/4, 1-1/2, 2	450 (3100)	-
245	Reducing Hex Nipple, M/M	1/4 × 1/8 3/8 × 1/8, 1/4 1/2 × 1/4, 3/8 3/4 × 3/8, 1/2 1 × 1/2, 3/4 1-1/4 × 1/2, 3/4, 1 1-1/2 × 3/4, 1, 1-1/4 2 × 1, 1-1/4, 1-1/2 2-1/2 × 2	450 (3100)	-
246	Reducing Socket F/M	1/4 × 1/8 3/8 × 1/4 1/2 × 1/4, 3/8 3/4 × 3/8, 1/2 1 × 1/2, 3/4 1-1/4 × 1/2, 3/4, 1 1-1/2 × 3/4, 1, 1-1/4 2 × 1, 1-1/4, 1-1/2 2-1/2 × 1-1/2, 2	450 (3100)	-
270	Socket, F/F	3/8, 1/2, 3/4, 1, 1-1/4, 1-1/2, 2, 2-1/2	450 (3100)	-
271	Right and Left Socket, F/F	3/8, 1/2, 3/4, 1, 1-1/4, 1-1/2, 2	450 (3100)	-
280	Hex Nipple, M/M	3/8, 1/2, 3/4, 1, 1-1/4, 1-1/2, 2, 2-1/2	450 (3100)	-
281	Right and Left Hex Nipple, M/M	3/8, 1/2, 3/4, 1, 1-1/4, 1-1/2, 2	450 (3100)	-

290	Plug, M	3/8, 1/2, 3/4, 1, 1-1/4, 1-1/2, 2, 2-1/2	450 (3100)	-
291	Plain Plug, M	3/8, 1/2, 3/4, 1, 1-1/4, 1-1/2, 2, 2-1/2	450 (3100)	-
294	Plug, M	1/2, 3/4, 1, 1-1/4, 1-1/2, 2	450 (3100)	-
300	Cap, F	1/2, 3/4, 1, 1-1/4, 1-1/2, 2, 2-1/2	450 (3100)	-
330	Union, Flat Seat, F/F	1/2, 3/4, 1, 1-1/4, 1-1/2, 2, 2-1/2	450 (3100)	-
331	Union, Flat Seat, M/F	3/8, 1/2, 3/4, 1, 1-1/4, 1-1/2, 2	450 (3100)	-
340	Union, Taper Seat, F/F	1/8, 1/4, 3/8, 1/2, 3/4, 1, 1-1/4, 1-1/2, 2, 2-1/2	450 (3100)	-
341	Union, Taper Seat, M/F	1/4, 3/8, 1/2, 3/4, 1, 1-1/4, 1-1/2, 2, 2-1/2	450 (3100)	-
344	Union, Taper Seat, M/M	1/4, 3/8, 1/2, 3/4, 1, 1-1/4, 1-1/2, 2	450 (3100)	-
526	Extension Tube, M/F	3/8 × 30, 1/2 × 30, 3/8 × 40, 1/2 × 50, 3/4 × 50	450 (3100)	-
529A	Extension Tube, M/F	3/8, 1/2, 3/4, 1, 1-1/4, 1-1/2, 2	450 (3100)	-
531	Internal Nipple, M/M	3/8, 1/2, 3/4, 1, 1-1/4, 1-1/2, 2, 2-1/2	450 (3100)	-
EO Model 90	90° Elbow, Grooved	1-1/4, 1-1/2, 2, 2-1/2, 3, 4, 5, 6, 8	500 (3450)	-
EO Model 120	45° Elbow, Grooved	1-1/4, 1-1/2, 2, 2-1/2, 3, 4, 5, 6, 8, 10, 12	500 (3450)	-
EO Model 120	45° Elbow, Grooved	76.1, 165 mm	500 (3450)	-
EO Model 130	Equal Tee, Grooved	1-1/4, 1-1/2, 2, 2-1/2, 3, 4, 5, 6, 8, 10, 12	500 (3450)	-
EO Model 130	Equal Tee, Grooved	76.1, 165 mm	500 (3450)	-
EO Model 130R	Reducing Tee, Grooved	2×1-1/2, 3×1, 1-1/2, 2, 2-1/2, 4×1, 2, 2-1/2, 3, 5×2, 3, 4, 6×2, 2-1/2, 3, 4, 5, 8×2, 3, 4, 5, 6	500 (3450)	-
EO Model 180	Equal Cross, Grooved	1-1/4, 1-1/2, 2, 2-1/2, 3, 4, 5, 6, 8, 10, 12	500 (3450)	-
EO Model 180	Equal Cross, Grooved	76.1, 165 mm	500 (3450)	-

EO Model 240	Concentric Reducer, Grooved	2×3/4, 1, 1-1/4, 1-1/2, 2-1/2×1, 1-1/4, 1-1/2, 2, 3×3/4, 1, 1-1/2, 2, 2-1/2, 4×1, 1-1/2, 2, 2-1/2, 3, 5×3, 4, 6×1, 2, 2-1/2, 3, 4, 5, 8×2-1/2, 3, 4, 5, 6	500 (3450)	-
EO Model 240	Concentric Reducer, Groove×Female NPT	2×3/4, 1, 1-1/4, 1-1/2, 2-1/2×1, 1-1/4, 1-1/2, 2, 3×3/4, 1, 1-1/2, 2, 2-1/2, 4×1, 1-1/2, 2, 2-1/2, 3, 5×3, 4, 6×2, 2-1/2, 3, 4, 5, 8×2-1/2, 3, 4, 5, 6	500 (3450)	-
EO Model 246	Concentric Reducer, Groove×Male NPT	2×3/4, 1, 1-1/4, 1-1/2, 2-1/2×1, 1-1/4, 1-1/2, 2, 3×3/4, 1, 1-1/2, 2, 2-1/2, 4×1, 1-1/2, 2, 2-1/2, 3, 5×3, 4, 6×2, 2-1/2, 3, 4, 5, 8×2-1/2, 3, 4, 5, 6	500 (3450)	-
EO Model 300	End Cap, Grooved	1-1/4, 1-1/2, 2, 2-1/2, 3, 4, 5, 6, 8, 10, 12	500 (3450)	-
EO Model 300	End Cap, Grooved	76.1, 165 mm	500 (3450)	-
EO Model 321	Adapter, Flange×Groove	2, 2-1/2, 3, 4, 5, 6, 8	500 (3450)	-
EO Model 321	Adapter, Flange×Groove	76.1, 165 mm	500 (3450)	-

**Remarks:**

a. Malleable Iron Fittings

Product Designation	Fitting Description	End Connection	Nominal Pipe Size, in.	Max Working Pressure, psi (kPa)	Remarks
90	90° Elbow	Grooved	1, 1-1/4, 1-1/2, 2, 2-1/2, 3, 4, 5, 6, 8, 10, 12 76.1, 133, 139.7, 165.1 mm	500 (3450)	-
90S	90° Short Radius Elbow	Grooved	2, 2-1/2, 3, 4, 6, 8 76, 139.1, 165.1mm	300 (2070)	-

120	45° Elbow	Grooved	1, 1-1/4, 1-1/2, 2, 2-1/2, 3, 4, 5, 6, 8, 10, 12 76.1, 108, 139.7, 159, 165.1 mm	500 (3450)	-
130	Equal Tee	Grooved	1, 1-1/4, 1-1/2, 2, 2-1/2, 3, 4, 5, 6, 8, 10, 12 76.1, 133, 139.7, 165.1 mm	500 (3450)	-
			2 x 1-1/2 3 x 1, 1-1/2, 2, 2-1/2 4 x 1, 2, 2-1/2, 3 5 x 2, 3, 4 6 x 2, 2-1/2, 3, 4, 5	500 (3450)	-
130R	Reducing Tee	Grooved	2 x 1 2-1/2 x 1-1/2, 2 3 x 1-1/4 4 x 1-1/2 60 x 48 mm 76.1 x 42.4, 48.3, 60.3 mm 88.9 x 48, 60, 73, 76.1 mm 108 x 60.3, 73, 88.9 mm 114.3 x 34, 60, 73, 76.1, 88.9 mm 133 x 60.3, 76.1, 108, 114.3 mm 139.7 x 48.3.	500 (3445)	-

			60.3, 76.1, 88.9, 114.3 141 x 114.3 mm 159 x 60.3, 76.1, 88.9, 114.3, 133 mm 168 x 60, 73, 89, 114, 141 mm		
			165.1 x 60.3, 76.1, 88.9, 114.3, 133, 139.7, 159 mm 168.3 x 76.1, 139.7 mm	300 (2070)	-
130S	Short Radius Tee	Grooved	2, 2-1/2, 3, 4, 6, 8 76, 139.7, 165 mm	300 (2070)	-
	Concentric Reducer	Grooved	2 x 3/4, 1, 1-1/4, 1-1/2 2-1/2 x 1, 1-1/4, 1-1/2, 2 3 x 3/4, 1, 1-1/2, 2, 2-1/2 4 x 1, 1-1/2, 2, 2-1/2, 3 5 x 3, 4 6 x 1, 2, 2-1/2, 3, 4, 5 8 x 2-1/2, 3, 4, 5, 6	500 (3450)	-
			1-1/4 x 1 1-1/2 x 1, 1-1/4 4 x 1-1/4 5 x 2-1/2 76 x 42, 48, 60 mm 89 x 42, 76 mm 108 x		

240	Concentric Reducer	Grooved	60.3, 73, 76 mm 114.3 x 76.1 mm 133 x 108, 114.3 mm 139.7 x 60.3, 76.1, 88.9, 114.3 mm 141 x 89, 114 mm 159 x 60.3, 76.1, 88.9, 108, 114.3, 133 mm 165.1 x 60.3, 76.1, 88.9, 114.3, 139.7 mm 168.3 x 76.1, 139.7 mm	500 (3450)	-
300	End Cap	Grooved	1-1/4, 1-1/2, 2, 2-1/2, 3, 4, 5, 6, 8, 10, 12 76.1, 114.3, 139.7, 165.1 mm	500 (3450)	-
315	End Cap	Grooved x BSP	88.9 x 60.3 114.3 x 60.3 139.7 x 60.3 168.3 x 60.3	500 (3450)	-
316	End Cap	Grooved x BSP	89 x 48, 60 mm 114 x 48, 60 mm 140 x 48, 60 mm 165 x 48 mm	500 (3450)	-



			168 x 48, 60 mm		
			219 x 48, 60 mm	300 (2070)	-
321	Flange Adapter	Flanged x Grooved	2, 2-1/2, 3, 4, 5, 6, 8 76.1, 165 mm	500 (3450)	-
			1, 1-1/4, 1-1/2, 10, 12 108, 133, 139.7, 159 mm	300 (2070)	-

<b>Company Name:</b>	ATUSA GRUPO EMPRESARIAL, S.A.
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<b>Company Website:</b>	<a href="http://www.atusa.es">http://www.atusa.es</a>
<b>New/Updated Product Listing:</b>	No
<b>Listing Country:</b>	Spain
<b>Certification Type:</b>	FM Approved
<b>Class of Work:</b>	1920-Coupling & Fitting, All Type