

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

Victaulic Company, Pipe Fittings

Product Designation	Fitting Description	Nominal Pipe Size, in.	Max Working Pressure, psi (kPa)	Remarks
10	90° Elbow Grooved	3/4, 1, 1-1/4, 1-1/2, 2, 2-1/2, 3, 3-1/2, 4, 5, 6, 8, 76.1, 108, 133, 139.7, 159, 165.1 mm	500 (3445)	a
		10, 12 216.3, 267.4, 318.5 mm, 200A JIS	300 (2070)	a
10DR	90° Drain Elbow Grooved	2-1/2, 3, 4, 6	500 (3445)	a
11	45° Elbow Grooved	3/4, 1, 1-1/4, 1-1/2, 2, 2-1/2, 3, 3-1/2, 4, 5, 6, 8, 76.1, 108, 133, 139.7, 159, 165.1 mm	500 (3445)	a
		10, 12 216.3, 267.4, 318.5 mm, 200A JIS	300 (2070)	a
12	22-1/2° Elbow Grooved	3/4, 1, 1-1/4, 1-1/2, 2, 2-1/2, 3, 3-1/2, 4, 5, 6, 8	300 (2070)	a
13	11-1/4° Elbow Grooved	3/4, 1-1/4, 1-1/2, 2, 2-1/2, 3, 3-1/2, 4, 5, 6, 8, 10, 12	500 (3445)	a
18	90° Adapter Elbow Grooved x NPT	3/4, 1, 1-1/4, 1-1/2, 2, 2-1/2, 3, 3-1/2, 4, 5, 6	500 (3445)	a
18	90° Adapter Elbow Grooved x BSP	3/4, 1, 1-1/4, 1-1/2, 2, 2-1/2, 3, 3-1/2, 4, 5, 6	500 (3445)	a
19	45° Adapter Elbow NPT	3/4, 1, 1-1/4, 1-1/2, 2, 2-1/2, 3, 3-1/2, 4, 5, 6	500 (3445)	a
19	45° Adapter Elbow BSP	3/4, 1, 1-1/4, 1-1/2, 2, 2-1/2, 3, 3-1/2, 4, 5, 6	500 (3445)	a
20	Tee Grooved	3/4, 1, 1-1/4, 1-1/2, 2, 2-1/2, 3, 3-1/2, 4, 5, 6, 8, 10, 12, 76.1, 108, 133, 139.7, 159, 165.1, 267.4 mm, 200A JIS, 250A JIS, 300A JIS	500 (3445)	a
21	Bullhead Tee Grooved	5 x 8 6 x 8	500 (3445)	a
25	Reducing Tee Grooved	2 x 3/4, 1, 1-1/2 2-1/2 x 1 76.1 mm x 2 3 x 1, 2, 76.1 mm, 65A JIS 4 x 1, 1-1/2, 2, 2-1/2, 3, 76.1 mm 5 x 2-1/2 159 mm x 4 6 x 2, 2-1/2, 3, 4 165.1 mm x 3, 4, 76.1 mm, 139.7 mm 219.1 mm x 4, 108 mm, 159 mm 273 mm x 165.1 mm, 8 12 x 6, 8, 10 65A JIS x 2 125A JIS x 2 150A JIS x 65A JIS, 3, 2 200A JIS x 150A JIS, 65A JIS 250A JIS x 200A JIS, 150A JIS, 125A JIS 300A JIS x 250A JIS, 200A JIS, 150A JIS	500 (3445)	a

25SO	Reducing Tee w/ Side Outlet Grooved x NPT Side Outlet	2 x 1-1/2 x 1 (S.O.)	500 (3445)	a
27	Standpipe Tee NPT Branch	4 x 2-1/2 6 x 2-1/2	500 (3445)	a
29	Adapter Tee NPT Branch	2 x 3/4, 1 2-1/2 x 1 3 x 1, 2 4 x 1, 1-1/2, 2, 2-1/2, 3 5 x 2-1/2 6 x 2, 2-1/2, 3	300 (2070)	a
29	Adapter Tee NPT Branch	65A JIS x 2 150A JIS x 1-1/4, 1-1/2, 2	500 (3445)	a
29	Adapter Tee BSP Branch	2 x 3/4, 1 2-1/2 x 1 3 x 1, 2 4 x 1, 1-1/2, 2, 2-1/2, 3 5 x 2-1/2 6 x 2, 2-1/2, 3	300 (2070)	a
30	Lateral Grooved	2, 3, 4, 8	500 (3445)	a
35	Cross Grooved	2, 2-1/2, 3, 4 76.1, 165.1 mm	500 (3445)	a
50	Reducer Grooved	1-1/2 x 1, 1-1/4 2 x 3/4, 1, 1-1/4, 1-1/2 2-1/2 x 1-1/4, 1-1/2, 2 3 x 1, 1-1/2, 2, 2-1/2, 76.1 mm, 65A JIS 3-1/2 x 3 4 x 1, 2, 2-1/2, 3, 3-1/2, 76.1 mm, 65A JIS 5 x 3, 4 6 x 1, 2, 2-1/2, 3, 4, 5, 165.1 mm 8 x 3, 4, 5, 6, 165.1 mm 10 x 4, 6, 8 12 x 6, 8, 10 76.1 mm x 2 108 mm x 2-1/2, 3 159 mm x 108 mm 165.1 mm x 4, 76.1 mm, 139.7 mm 216.3 mm x 165.1 mm 267.4 mm x 216.3 mm 65A JIS x 1-1/2, 2 125A JIS x 4 150A JIS x 3 200A JIS x 150A JIS, 4 250A JIS x 200A JIS, 150A JIS 300A JIS x 250A JIS, 200A JIS	500 (3445)	a
51	Eccentric Reducer Grooved	2-1/2 x 2 3 x 2, 2-1/2 4 x 2, 2-1/2, 3 6 x 3, 4, 5 8 x 6 10 x 8	500 (3445)	a
52	Reducer Grooved x Thread Male	1-1/2 x 1, 1-1/4 2 x 3/4, 1, 1-1/4, 1-1/2 2-1/2 x 1-1/4, 2 3 x 1, 1-1/2, 2, 2-1/2, 76.1 mm 4 x 1, 2, 2-1/2, 3, 76.1 mm 6 x 1, 2, 2-1/2, 3 76.1 mm x 2 108 mm x 2, 2-1/2, 3 133 mm x 3 159 mm x 76.1 mm 165.1 mm x 3 65A JIS x 2 125A JIS x 2 150A JIS x 2	500 (3445)	a
52F	Reducer Grooved x Thread Female	6 x 2-1/2 65A JIS x 2	500 (3445)	a

60	End Cap Grooved	3/4, 1, 1-1/4, 1-1/2, 2, 2-1/2, 3, 3-1/2, 4, 5, 6, 8, 10, 12 76.1, 108, 133, 139.7, 159, 165.1 mm 200A JIS	500 (3445)	a
67	Outlet Reducing Elbow Grooved x NPT	1-1/4 x 1/2, 3/4, 1 1-1/2 x 1/2, 3/4, 1 2 x 1/2, 3/4, 1 2-1/2 x 1/2, 3/4, 1	500 (3445)	a
67	Outlet Reducing Elbow Grooved x BSP	2 x 1 2-1/2 x 1	300 (2070)	a
80	Female Adapter Grooved x BSP	2, 2-1/2, 3, 4	300 (2070)	a
No. 140	Pipe Nipple Mini AGS Grooved x Female Thread	1	363 (2505)	b, c
No. 141	Adapter Fitting – Female Thread x Mini AGS Grooved	1	363 (2505)	b, c, d
No. 142	Welded Outlet Fitting	1-1/4 – 1-1/2 x 1 1-1/2 – 2 x 1 2 – 2-1/2 x 1 2-1/2 – 3 x 1	363 (2505)	b
No. 145	Mini AGS Groove x Threaded 90 Degree Elbow	1	363 (2505)	b, c
No. 146	Mini AGS Grooved End Cap	1	363 (2505)	b

Remarks:

- a. Standard grooved-end fittings for use with Victaulic FM Approved grooved couplings.
- b. For use with products that are available with the Mini AGS groove
- c. Available with NPT Female Threads
- d. Available with BSPT Female Threads

Product Designation	Fitting Description	Nominal Pipe Size, in.	Max Working Pressure, psi (kPa)	Remarks
002	Tee Grooved	2, 2-1/2, 3, 4, 5 76.1, 108, 159, 165.1 mm	500 (3445)	b
		6, 8	365 (2515)	b
		10, 12	300 (2070)	b
003	45° Elbow Grooved	2, 2-1/2, 3, 4, 5 76.1, 108, 139.7, 159, 165.1 mm	500 (5445)	b
		6, 8	365 (2515)	b
		10, 12	300 (2070)	b
001	90° Elbow Grooved	2, 2-1/2, 3, 4, 5 76.1, 108, 139.7, 159, 165.1 mm	500 (3445)	b
		6, 8	365 (2515)	b
		10, 12	300 (2070)	b
006	End Cap Grooved	1-1/4, 1-1/2, 2, 2-1/2, 3, 4, 5 76.1, 139.7, 159, 165.1 mm	500 (3445)	b
		6, 8	365 (2515)	b
		10, 12	300 (2070)	b

Remarks:

b. Firelock grooved-end fittings for use with Victaulic FM Approved grooved couplings.

Product Designation	Fitting Description	Nominal Pipe Size, in.	Max Working Pressure, psi (kPa)	Remarks
Style 410 SS	90° Stainless Steel Elbow	3, 4, 5, 6, 8 108, 139.7, 159, 165, 216 mm 65A JIS, 250A JIS, 300A JIS	250 (1725)	c
Style 411 SS	45° Stainless Steel Elbow	3, 4, 5, 6, 8 108, 139.7, 159, 165, 216 mm 65A JIS, 250A JIS, 300A JIS	250 (1725)	c
Style 420 SS	Stainless Steel Tee	3, 4, 5, 6, 8, 108, 139.7, 159, 165, 216 mm 65A JIS, 250A JIS, 300A JIS	250 (2070)	c
Style 425 SS	Stainless Steel Reducing Tee	3 x 76, 2 1/2 4 x 3, 2 1/2 139 x 4, 3 165 x 4, 3 6 x 4, 3 216 x 165, 4 8 x 6, 4 65A JIS x 2 125A JIS x 3 150A JIS x 125A JIS 200A JIS x 125A JIS 250A JIS x 125A JIS, 150A JIS, 200A JIS 300A JIS x 150A JIS, 200A JIS, 250A JIS	250 (1725)	c
Style 450 SS	Stainless Steel Concentric Reducer	65A JIS x 2 125A JIS x 3, 4, 65A JIS 150A JIS x 3, 4, 125A JIS 200A JIS x 4, 125A JIS, 150A JIS 250A JIS x 125A JIS, 150A JIS, 200A JIS 300A JIS x 150A JIS, 200A JIS, 250A JIS	250 (1725)	c
Style 460 SS	Stainless Steel Cap	65A JIS, 125A JIS, 150A JIS, 200A JIS 250A JIS, 300A JIS	250 (1725)	c

Remarks:

c. Segmentally Welded Fittings

Product Designation	Fitting Description	Nominal Pipe Size, Inch	Rated Working Pressure, psi (kPa)	Remarks
410SS	Stainless Steel 90° Elbow	1-1/2, 2, 2-1/2, 3, 4, 5, 6, 8	300 (2070)	d
411SS	Stainless Steel 90° Elbow	1-1/2, 2, 2-1/2, 3, 4, 5, 6, 8	300 (2070)	d
420SS	Stainless Steel Straight Tee	1-1/2, 2, 2-1/2, 3, 4, 5, 6, 8	300 (2070)	d
425SS	Stainless Steel Reducing Tee	2 x 1-1/2 2-1/2 x 2 3 x 2, 2-1/2 4 x 3, 76.1 mm 6 x 3, 4 8 x 4, 6	300 (2070)	d
450SS	Stainless Steel Concentric Reducer	2 x 1-1/2 2-1/2 x 2 4 x 2, 2-1/2, 3, 76 mm 6 x 3, 4, 139.7 mm 8 x 4, 6, 139.7 mm	300 (2070)	d
460SS	Stainless Steel End Cap	1-1/2, 2, 2-1/2, 3, 4, 5, 6, 8	300 (2070)	d

Remarks:

d. Standard grooved-end fittings for use with Schedule 10S pipe and Victaulic FM Approved stainless steel grooved couplings.

Product Designation	Fitting Description	Nominal Pipe Size, inch	Max. Working Pressure, psi (kPa)	Remarks
W10 AGS	Elbow, 90° Deg Grooved	14, 16, 18	200 (1380)	a
W11 AGS	Elbow, 45° Deg Grooved	14, 16, 18	200 (1380)	a
W12 AGS	Elbow, 22.5° Deg Grooved	14, 16, 18	200 (1380)	a
W20 AGS	Tee, Equal Grooved	14, 16, 18	200 (1380)	a
W25 AGS	Tee, Grooved Reducing Branch Grooved	18 x 1, 4, 6, 12, 14, 16	200 (1380)	a
W35 AGS	Cross, Equal Grooved	14, 16, 18	200 (1380)	a
W50 AGS	Reducer, Concentric Grooved	14 x 10 18 x 12, 14	200 (1380)	a
W60 AGS	End Cap Grooved	14, 16, 18	200 (1380)	a
W33 AGS	Wye Grooved	14, 16, 18	200 (1380)	a
W741 AGS	Flange Adapter	14	200 (1380)	b

Remarks

- a. Available with Cut Grooves
- b. Supplied with Class 150 Flanges

Installation Ready Fittings

Product Designation	Fitting Description	Nominal Pipe Size, in.	Remarks	Max Rated Working Pressure, psi (kPa)
Style 101	90° Elbow Gasketed	1-1/4, 1-1/2, 2, 2-1/2 76.1 mm	a, b, c, d, e, f	365 (2512)
		1-1/4, 1-1/2, 2, 2-1/2	c, d, e, f, g, h, i, j, k, l, m, n, o	300 (2070)
		1-1/2, 2, 2-1.2	c, d, e, f, p	300 (2070)
Style 102	Equal Tee Gasketed	1-1/4, 1-1/2, 2, 2-1/2 76.1 mm	a, b, c, d, e, f	365 (2512)
		1-1/4, 1-1/2, 2, 2-1/2	c, d, e, f, g, h, i, j, k, l, m, n, o	300 (2070)
		1-1/2, 2, 2-1.2	c, d, e, f, p	300 (2070)
Style 103	45° Elbow Gasketed	1-1/4, 1-1/2, 2, 2-1/2 76.1 mm	a, b, c, d, e, f	365 (2512)
		1-1/4, 1-1/2, 2, 2-1/2	c, d, e, f, g, h, i, j, k, l, m, n, o	300 (2070)
		1-1/2, 2, 2-1.2	c, d, e, f, p	300 (2070)

Remarks:

- a. Min schedule cut groove pipe to be joined: 6 in. or smaller - Schedule 40; 8 in. or larger - Schedule 30
- b. Min schedule rolled groove pipe to be joined: 6 in. or smaller - Schedule 10; 8 or 10 in. - 0.188 in. (5 mm) wall; 12 in. 0.250 in. (6.35 mm) wall
- c. With EPDM gasket
- d. Includes Victaulic Co. Installation Ready™ technology which allows grooved pipe ends to be inserted directly into fitting.
- e. Use of fittings does not require a standard grooved coupling to complete joint.
- f. Victaulic Co. Installation Instructions must be followed to ensure joint adequately sealed.
- g. FM Approved for Use with Bull Moose Tube EDDY-Thread Threadable Thinwall Sprinkler Pipe
- h. FM Approved for Use with Wheatland Tube Mega-Thread Threadable Thinwall Sprinkler Pipe
- i. FM Approved for Use with Wheatland Tube GL Threadable Thinwall Sprinkler Pipe
- j. FM Approved for use with Wheatland Tube MLT Threadable Thinwall Sprinkler Pipe
- k. FM Approved for use with Wheatland Tube WLS Threadable Thinwall Sprinkler Pipe
- l. FM Approved for use with Youngstown Tube EZ-Thread Threadable Thinwall Sprinkler Pipe
- m. FM Approved for use with Bull Moose Tube EDDY-Flow Non-Threadable Lightwall Sprinkler Pipe
- n. FM Approved for use with Tex-Tube Tex Flow Non-Threadable Lightwall Sprinkler Pipe
- o. FM Approved for use with Wheatland Tube Mega-Flow Non-Threadable Lightwall Sprinkler Pipe
- p. FM Approved for use with Youngstown Tube Fire-Flo Non-Threadable Lightwall Sprinkler Pipe

Product Designation	Fitting Description	Nominal Pipe Size, in.	Max Rated Working Pressure, Size, in. psi (kPa)	Remarks
Style C01	90 Degree Elbow	3, 4, 8 108, 159, 165.1 mm	365 (2515)	a
Style C02	Equal Tee	3, 4, 8 108 mm, 159 mm, 165.1 mm	365 (2515)	a
Style C03	45° Elbow	3, 4, 8 108 mm, 159 mm, 165.1 mm	365 (2515)	a
Style C25	Reducing Tee (Grooved Outlet)	3 x 76.1 mm 108 mm x 3 4 x 3 159 x 108 mm 165.1 mm x 3, 4 8 x 4	365 (2515)	a
Style C29	Reducing Tee (Threaded Outlet)	3 x 76.1 mm 108 x 76.1 mm, 3 4 x 2, 76.1 mm, 3 159 mm x 3 165.1 mm x 3	365 (2515)	a, c
Style C45	Flange Adapter (Grooved Outlet)	3, 4, 8 108 mm, 159 mm	232 (1600)	a, b

Remarks:

- a. Available with Cut Grooves
- b. Available with Class 125 Flanges according to ASME/ANSI B16.1 specifications
- c. Available with BSPT threads

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Company Website:	http://victaulic.com
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