

STAR™ High Pressure Threaded Fittings

NOV Fiber Glass Systems provides a broad range of high pressure fiberglass fittings and accessories to accompany our high pressure line pipe. This allows for a complete corrosion free piping system. All of these fittings are manufactured using the filament winding method of fabrication, using premium glass fibers, and quality epoxy resins. This ensures maximum pressure capabilities of these composite elements.

Features for these fiberglass pipe fittings include:

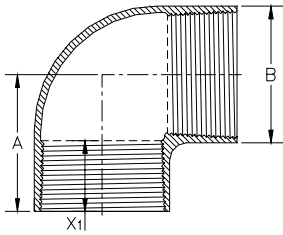
- Pressure ratings are per STAR Standard Design. For API 15HR pressure ratings, refer to table below.
- Multiple pressure classes at design temperature
- Design temperature of 200°F (93°C)
- API 5B EUE or OD 8rd or 10rd threaded connections
- Multiple sizes to match all of the manufactured pipe sizes and pressure classes
- Mill tested to 1.25 times Design Pressure Rating
- Cyclo-aliphatic amine cured epoxy resin system (all fittings unless otherwise shown)

General Notes:

1. All fittings center line to face dimensions are nominal $\pm \frac{1}{4}$ inch (6.4 mm).
2. All fittings are filament wound fiberglass reinforced epoxy.
3. Thread sizes correspond to thread types listed in product specifications. All 1½" EUE 10rd and 2⅝" - 4½" EUE 8rd API threads conform to API 5B Table 2.6a (L4 is minimum) and all 5½" - 9⅝" OD 8rd casing threads conform to API 5B Table 2.3 (L4 is minimum). The 2"-12" Star Super Seal is a proprietary connection.
4. The insertion depth or make-up length loss is listed by size under (X₁ or X₂) as inches (mm) per connection.
5. Typical dimensions are listed one time per section.
6. Weights are approximate.
7. Dimensions are U.S. Customary converted to metric.
8. API 15HR fittings require higher rated fittings according to the following table.
9. All fittings are designated by thread size based on pressure class of the pipe.
10. When ordering flanged valves, the ANSI bolt pattern should match the bolt pattern of the fiberglass flange. Some high pressure (>3000 psi) line pipe use a larger thread size, requiring a different ANSI bolt pattern.

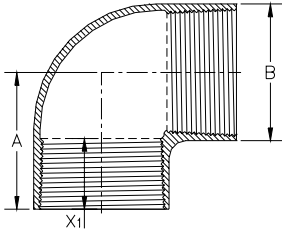
API 15HR Pressure Rating With Factor psi	Equivalent Standard Design Rating psi	Available Standard Design Fitting Rating psi
500 x 1.20 =	600	800
750 x 1.20 =	900	1000
1000 x 1.20 =	1200	1250
1250 x 1.20 =	1500	1500
1500 x 1.20 =	1800	2000
1750 x 1.20 =	2100	2500
2000 x 1.20 =	2400	2500
2250 x 1.20 =	2700	3000
2500 x 1.20 =	3000	3000
2750 x 1.20 =	3300	3500
3000 x 1.20 =	3600	4000
3250 x 1.20 =	3900	4000

90° Elbow
Female x Female



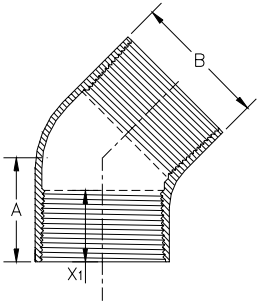
Thread Size Inches	Pressure Rating psi (MPa)	A		B		X ₁ In (mm)	Wt	
		In	(mm)	In	(mm)		Lbs	(kg)
1.90	2000 (13,8)	4.25	(108,0)	3.0	(76,2)	2.06	(52,4)	4 (1,81)
	2500 (17,2)			3.2	(81,3)			4.5 (2,04)
	3000 (20,7)			3.4	(86,4)			5 (2,27)
	4000 (27,6)			3.8	(96,5)			6 (2,72)
2 3/8	1250 (8,6)	5.00	(127,0)	3.2	(81,3)	2.56	(65,1)	5 (2,27)
	2000 (13,8)			3.6	(91,4)			6 (2,72)
	2500 (17,2)			3.9	(99,1)			7.5 (3,40)
	3000 (20,7)			4.2	(106,7)			9.5 (4,31)
	4000 (27,6)			4.7	(119,4)			13 (5,90)
2 7/8	1250 (8,6)	5.75	(146,1)	3.9	(99,1)	2.88	(73,0)	6.5 (2,95)
	2000 (13,8)			4.3	(109,2)			8 (3,63)
	2500 (17,2)			4.6	(116,8)			10 (4,54)
	3000 (20,7)			5.0	(127,0)			12 (5,44)
	4000 (27,6)			5.8	(147,3)			15 (6,80)
3 1/2	1250 (8,6)	6.50	(165,1)	4.7	(119,4)	3.13	(79,4)	8 (3,63)
	2000 (13,8)			5.2	(132,1)			12.5 (5,67)
	2500 (17,2)			5.6	(142,2)			17 (7,71)
	3000 (20,7)			6.0	(152,4)			28 (12,7)
	4000 (27,6)			7.0	(177,8)			40 (18,14)
4 1/2	1250 (8,6)	8.00	(203,2)	5.9	(149,9)	3.50	(88,9)	20 (9,07)
	2000 (13,8)			6.7	(170,2)			29 (13,15)
	2500 (17,2)			7.2	(182,9)			37 (16,78)
	3000 (20,7)			7.7	(195,6)			35 (15,88)
	4000 (27,6)			8.6	(218,4)			45 (20,41)
5 1/2	800 (5,5)	10.00	(254,0)	6.3	(160,0)	4.38	(111,1)	28 (12,70)
	1250 (8,6)			6.8	(172,7)			36 (16,33)
	2000 (13,8)			7.7	(195,6)			40 (18,14)
	3000 (20,7)			8.8	(223,5)			52 (23,59)
	4000 (27,6)			9.9	(251,5)			70 (31,75)
6 5/8	800 (5,5)	8.75	(222,3)	7.6	(193,0)	3.88	(98,4)	30 (13,61)
	1000 (6,9)			7.9	(200,7)			33 (14,97)
	1250 (8,6)			8.2	(208,3)			40 (18,14)
	1500 (10,3)			8.6	(218,4)			45 (20,41)
	2000 (13,8)			9.2	(233,7)			67 (30,39)
7	800 (5,5)	9.75	(247,7)	8.1	(205,7)	4.50	(114,3)	38 (17,24)
	1250 (8,6)			8.7	(221,0)			48 (21,77)
	2000 (13,8)			9.8	(248,9)			57 (25,85)
	2500 (17,2)			10.5	(266,7)			67 (30,39)
8 5/8	800 (5,5)	10.00	(254,0)	9.9	(251,5)	4.5	(114,3)	35 (15,88)
	1000 (6,9)			10.2	(259,1)			40 (18,14)
	1250 (8,6)			10.7	(271,8)			47 (21,32)
	1500 (10,3)			11.1	(281,9)			57 (25,85)
	2000 (13,8)			12.0	(304,8)			73 (33,11)
9 5/8	1500 (10,3)	11.75	(298,5)	12.3	(311,2)	4.75	(120,7)	75 (34,02)
	2000 (13,8)			13.3	(337,8)			85 (38,56)

90° Elbow
Female x Female
(continued)



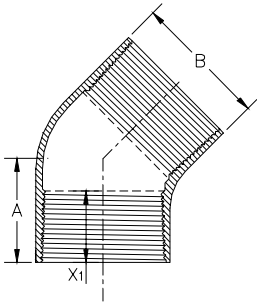
Thread Size Inches	Pressure Rating psi (MPa)	In A (mm)	In B (mm)	In X ₁ (mm)	Wt Lbs (kg)
8 SSS	800 (5,5)	10.50 (266,7)	10.0 (254,0)	4.75 (120,7)	37 (16,78)
	1000 (6,9)		10.3 (261,6)		45 (20,41)
	1250 (8,6)		10.8 (274,3)		45 (20,41)
10 SSS	500 (3,4)	10.00 (254,0)	12.6 (320,0)	5.40 (137,2)	62 (28,12)
	800 (5,5)		13.3 (337,8)		75 (34,02)
	1000 (6,9)		13.8 (350,5)		87 (39,46)
	1250 (8,6)		14.4 (365,8)		105 (47,63)
12 SSS	500 (3,4)	13.25 (336,6)	14.6 (370,8)	6.10 (154,9)	74 (33,57)
	800 (5,5)		15.4 (391,2)		95 (43,09)
	1000 (6,9)		16.0 (406,4)		104 (47,17)
	1250 (8,6)		16.6 (421,6)		125 (56,7)

45° Elbow
Female x Female



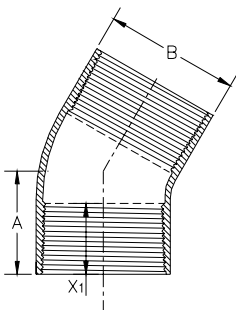
Thread Size Inches	Pressure Rating psi (MPa)	In A (mm)	In B (mm)	In X ₁ (mm)	Wt Lbs (kg)
1.90	2000 (13,8)	3.125 (79,4)	2.9 (73,7)	2.06 (52,4)	3.5 (1,59)
	2500 (17,2)		3.1 (78,7)		4 (1,81)
	3000 (20,7)		3.3 (83,8)		5 (2,27)
	4000 (27,6)		3.7 (94,0)		6 (2,72)
2 3/8	1250 (8,6)	4.250 (108,0)	3.2 (81,3)	2.56 (65,1)	3.5 (1,59)
	2000 (13,8)		3.6 (91,4)		5 (2,27)
	2500 (17,2)		3.8 (96,5)		6.2 (2,81)
	3000 (20,7)		4.0 (101,6)		7.5 (3,40)
	4000 (27,6)		4.5 (114,3)		11 (4,99)
2 7/8	1250 (8,6)	4.625 (117,5)	3.8 (96,5)	2.88 (73,0)	6 (2,72)
	2000 (13,8)		4.2 (106,7)		7 (3,18)
	2500 (17,2)		4.5 (114,3)		9 (4,08)
	3000 (20,7)		4.8 (121,9)		11 (4,99)
	4000 (27,6)		5.4 (137,2)		12 (5,44)
3 1/2	1250 (8,6)	5.00 (127,0)	4.6 (116,8)	3.13 (79,4)	8 (3,63)
	2000 (13,8)		5.1 (129,5)		13 (5,90)
	2500 (17,2)		5.5 (139,7)		15 (6,80)
	3000 (20,7)		5.8 (147,3)		25 (11,34)
	4000 (27,6)		6.6 (167,6)		38 (17,24)
4 1/2	1250 (8,6)	6.00 (152,4)	5.8 (147,3)	3.50 (88,9)	16 (7,26)
	2000 (13,8)		6.5 (165,1)		21 (9,53)
	2500 (17,2)		7.0 (177,8)		25 (11,34)
	3000 (20,7)		7.5 (190,5)		30 (13,61)
	4000 (27,6)		8.3 (210,8)		40 (18,14)

45° Elbow
Female x Female
(continued)



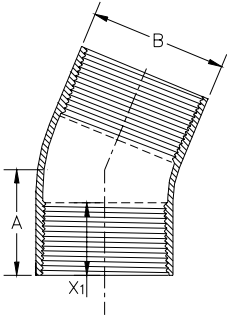
Thread Size Inches	Pressure Rating psi (MPa)	A In (mm)	B In (mm)	X ₁ In (mm)	Wt Lbs (kg)
5 ½	800 (5,5)	8.25 (209,6)	6.2 (157,6)	4.38 (111,1)	22 (9,98)
	1250 (8,6)		6.7 (170,2)		30 (13,61)
	2000 (13,8)		7.5 (190,5)		34 (15,42)
	2500 (17,2)		8.0 (203,2)		40 (18,14)
	3000 (20,7)		8.5 (215,9)		50 (22,68)
	4000 (27,6)		9.6 (243,8)		65 (29,48)
6 ⅝	800 (5,5)	6.625 (168,3)	7.6 (193,0)	3.88 (98,4)	25 (11,34)
	1000 (6,9)		7.8 (197,1)		28 (12,70)
	1250 (8,6)		8.1 (205,7)		34 (15,42)
	1500 (10,3)		8.5 (215,9)		38 (17,24)
	2000 (13,8)		9.1 (231,1)		43 (19,50)
7	800 (5,5)	7.625 (193,7)	8.0 (203,2)	4.50 (114,3)	32 (14,51)
	1250 (8,6)		8.6 (218,4)		30 (13,61)
	2000 (13,8)		9.6 (243,8)		42 (19,05)
	2500 (17,2)		10.2 (259,1)		55 (24,95)
8 ⅝	800 (5,5)	7.250 (184,2)	9.9 (251,5)	4.50 (114,3)	33 (14,97)
	1000 (6,9)		10.2 (259,1)		37 (16,78)
	1250 (8,6)		10.6 (269,2)		45 (20,41)
	1500 (10,3)		11.0 (279,4)		50 (22,68)
	2000 (13,8)		12.0 (304,8)		67 (30,39)
9 ⅝	1500 (10,3)	7.375 (187,3)	12.3 (312,4)	4.75 (120,7)	62 (28,12)
	2000 (13,8)		13.2 (335,3)		80 (36,29)
8 SSS	800 (10,3)	8.75 (222,25)	10.0 (254,0)	4.75 (120,7)	34 (15,42)
	1000 (6,9)		10.3 (261,6)		42 (19,05)
	1250 (8,6)		10.8 (274,3)		48 (21,77)
10 SSS	500 (3,4)	10.0 (254,0)	12.4 (315,0)	5.40 (137,2)	38 (17,24)
	800 (5,5)		13.0 (330,2)		51 (23,13)
	1000 (6,9)		13.5 (342,9)		75 (34,02)
	1250 (8,6)		14.1 (358,1)		100 (45,36)
12 SSS	500 (3,4)	11.5 (292,1)	14.6 (370,8)	6.10 (154,9)	55 (24,95)
	800 (5,5)		15.3 (388,6)		66 (29,94)
	1000 (6,9)		16.0 (406,4)		114 (51,71)
	1250 (8,6)		16.6 (421,6)		129 (58,51)

30° Elbow
Female x Female



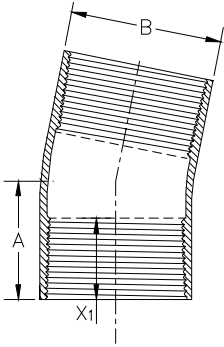
Thread Size Inches	Pressure Rating psi (MPa)	A In (mm)	B In (mm)	X ₁ In (mm)	Wt Lbs (kg)
2 ⅝	1250 (8,6)	4.25 (108,0)	3.2 (81,3)	2.56 (65,1)	3.5 (1,59)
	2000 (13,8)		3.6 (91,4)		4.5 (2,04)
	2500 (17,2)		3.8 (96,5)		6 (2,72)
	3000 (20,7)		4.0 (101,6)		8 (3,63)
	4000 (27,6)		4.5 (114,3)		9 (4,08)
8 ⅝	800 (5,5)	7.250 (184,2)	9.9 (251,5)	4.50 (114,3)	22 (9,98)
	1000 (6,9)		10.2 (259,8)		28 (12,70)
	1250 (8,6)		10.6 (269,2)		34 (15,42)
	1500 (10,3)		11.0 (279,4)		44 (19,96)
9 ⅝	1500 (10,3)	7.375 (187,3)	12.1 (307,3)	4.75 (120,7)	53 (24,04)
	2000 (13,8)		13.0 (330,2)		61 (27,66)

**22.5° Elbow
Female x Female**



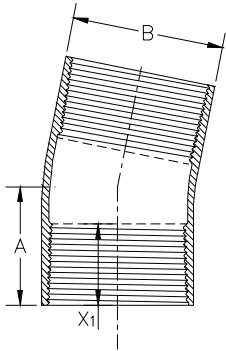
Thread Size Inches	Pressure Rating psi (MPa)	A In (mm)	B In (mm)	X ₁ In (mm)	Wt Lbs (kg)
2 5/8	1250 (8,6)	4.000 (101,6)	3.2 (81,3)	2.56 (68,3)	3 (1,36)
	2000 (13,8)		3.5 (88,9)		4 (1,81)
	2500 (17,2)		3.8 (96,5)		5 (2,27)
	3000 (20,7)		4.0 (101,6)		7 (3,18)
	4000 (27,6)		4.5 (114,3)		8.5 (3,86)
3 1/2	1250 (8,6)	4.500 (114,3)	4.6 (116,8)	3.13 (79,4)	5.5 (2,49)
	2000 (13,8)		5.1 (129,5)		9 (4,08)
	2500 (17,2)		5.4 (137,2)		11 (4,99)
	3000 (20,7)		5.7 (144,8)		13.5 (6,12)
	4000 (27,6)		6.4 (162,5)		19 (8,62)
4 1/2	1250 (8,6)	5.000 (127,0)	5.8 (147,3)	3.50 (88,9)	10 (4,54)
	2000 (13,8)		6.4 (162,6)		16.5 (7,48)
	2500 (17,2)		6.8 (172,7)		21 (9,53)
	3000 (20,7)		7.3 (185,4)		25.5 (11,57)
	4000 (27,6)		8.1 (205,7)		36.5 (16,56)
5 1/2	800 (5,5)	8.250 (209,6)	6.2 (157,5)	4.38 (111,1)	9 (4,08)
	1250 (8,6)		6.6 (167,6)		13.5 (6,12)
	2000 (13,8)		7.4 (188,0)		23.4 (10,61)
	3000 (20,7)		8.4 (213,4)		36.5 (16,56)
	4000 (27,6)		9.3 (236,2)		52 (23,59)
6 5/8	800 (5,5)	5.75 (146,1)	7.5 (190,5)	3.88 (98,4)	11 (4,99)
	1000 (6,9)		7.8 (198,1)		15 (6,80)
	1250 (8,6)		8.0 (203,2)		18 (8,16)
	2000 (13,8)		8.9 (226,1)		30 (13,61)
7	1250 (8,6)	6.50 (165,1)	8.5 (215,9)	4.50 (114,3)	21 (9,53)
	2000 (13,8)		9.5 (241,3)		36.5 (16,56)
	2500 (17,2)		10.1 (256,5)		47.5 (21,55)
8 5/8	800 (5,5)	5.875 (149,2)	9.8 (248,9)	4.50 (114,3)	20 (9,07)
	1000 (6,9)		10.1 (256,9)		26 (11,79)
	1250 (8,6)		10.5 (266,7)		32 (14,51)
	1500 (10,3)		10.9 (276,9)		40 (18,14)
9 5/8	1500 (10,3)	7.375 (187,3)	12.1 (307,3)	4.75 (120,7)	50 (22,68)
	2000 (13,8)		13.0 (330,2)		60.5 (27,44)
8 SSS	800 (5,5)	8.75 (222,25)	9.8 (249,0)	4.75 (120,7)	30 (13,60)
	1000 (6,9)		10.2 (259,1)		38 (17,24)
	1250 (8,5)		10.5 (266,7)		42 (19,05)
10 SSS	500 (3,4)	8.187 (208,0)	12.5 (317,5)	5.40 (137,2)	25.5 (11,57)
	800 (5,5)		13.0 (330,2)		43 (19,5)
	1000 (6,9)		13.5 (342,9)		50 (22,68)
	1250 (8,5)		14.1 (358,1)		60 (27,22)
12 SSS	500 (3,4)	11.375 (288,9)	14.5 (368,3)	6.10 (154,9)	30.5 (13,83)
	800 (5,5)		15.1 (383,5)		45.8 (20,77)
	1000 (6,9)		15.7 (398,8)		63.2 (28,66)
	1250 (8,5)		16.3 (414,0)		70 (31,75)

**11.25° Elbow
Female x Female**



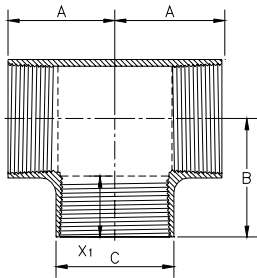
Thread Size Inches	Pressure Rating psi (MPa)	A In (mm)	B In (mm)	X ₁ In (mm)	Wt Lbs (kg)
2 3/8	1250 (8,6)		3.2 (81,3)	2.56 (65,1)	3 (1,36)
	2000 (13,8)		3.5 (88,9)		4 (1,81)
	2500 (17,2)		3.8 (96,5)		5 (2,27)
	3000 (20,7)		4.0 (101,6)		7 (10,4)
	4000 (27,6)		4.5 (114,3)		8.5 (12,7)
3 1/2	1250 (8,6)	5.500 (139,7)	4.5 (114,3)	3.13 (79,4)	5 (2,27)
	2000 (13,8)		5.0 (127,0)		8 (3,63)
	2500 (17,2)		5.3 (134,6)		10 (4,54)
	3000 (20,7)		5.7 (144,8)		12 (5,44)
	4000 (27,6)		6.3 (160,0)		17 (7,71)
4 1/2	1250 (8,6)	6.000 (152,4)	5.7 (144,8)	3.50 (88,9)	9 (4,08)
	2000 (13,8)		6.4 (162,6)		15 (6,80)
	2500 (17,2)		6.8 (172,7)		19 (8,62)
	3000 (20,7)		7.2 (182,9)		23 (10,43)
	4000 (27,6)		8.1 (205,7)		33 (14,97)
5 1/2	800 (5,5)	8.250 (209,6)	6.2 (157,5)	4.38 (111,1)	8 (3,63)
	1250 (8,6)		6.6 (167,6)		12 (5,44)
	2000 (13,8)		7.3 (185,4)		21 (9,53)
	3000 (20,7)		8.3 (210,8)		33 (14,97)
	4000 (27,6)		9.3 (236,2)		47 (21,32)
6 5/8	800 (5,5)	6.625 (168,3)	7.5 (190,5)	3.88 (98,4)	10 (4,54)
	1000 (6,9)		7.7 (195,6)		13 (19,3)
	1250 (8,6)		8.0 (203,2)		16 (7,26)
	2000 (13,8)		8.9 (226,1)		27 (12,25)
7	1250 (8,6)	7.625 (193,7)	8.5 (215,9)	4.50 (114,3)	19 (8,62)
	2000 (13,8)		9.4 (238,8)		33 (14,97)
	2500 (17,2)		10.0 (254,0)		43 (19,50)
8 5/8	800 (5,5)	7.250 (184,2)	9.8 (248,9)	4.50 (114,3)	18 (8,16)
	1000 (6,9)		10.1 (256,5)		24 (10,89)
	1250 (8,6)		10.5 (266,7)		29 (13,15)
	1500 (10,3)		10.8 (274,3)		36 (16,33)
9 5/8	1500 (10,3)	7.375 (187,3)	12.1 (307,3)	4.75 (120,7)	39 (17,69)
	2000 (13,8)		13.0 (330,2)		55 (24,95)

11.25° Elbow
Female x Female
(continued)



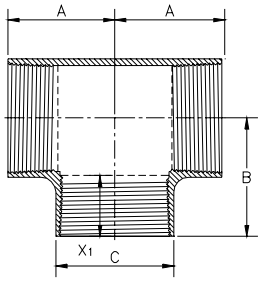
Thread Size Inches	Pressure Rating psi (MPa)	A		B		X ₁ In (mm)	Wt	
		In	(mm)	In	(mm)		Lbs	(kg)
8 SSS	800 (5,5)	8.75	(222,25)	9.8	(248,9)	4.75 (120,7)	27	(12,24)
	1000 (6,9)			10.1	(256,5)		35	(15,87)
	1250 (8,6)			10.5	(248,9)		35	(15,88)
10 SSS	500 (3,4)	8.186	(208,0)	12.5	(317,5)	5.40 (137,2)	22	(9,98)
	800 (5,5)			13.2	(335,3)		39	(17,69)
	1000 (6,9)			13.5	(342,9)		46	(20,87)
	1250 (8,6)			14.0	(355,6)		58	(26,31)
12 SSS	500 (3,4)	11.25	(285,8)	14.4	(365,8)	6.10 (154,9)	38	(17,24)
	800 (5,5)			15.2	(386,1)		66	(29,94)
	1000 (6,9)			15.6	(396,2)		83	(37,65)
	1250 (8,6)			16.2	(411,48)		106	(48,08)

Tee
Female x Female



Thread Size Inches	Pressure Rating psi (MPa)	A		B		C		X ₁ In (mm)	Wt	
		In	(mm)	In	(mm)	In	(mm)		Lbs	(kg)
1.90	2000 (13,8)	4.375	(111,1)	4.875	(123,8)	3.0	(76,2)	2.06 (52,4)	5.5	(2,49)
	2500 (17,2)					3.2	(81,3)		6.5	(2,95)
	3000 (20,7)					3.4	(86,4)		7.5	(3,40)
	4000 (27,6)					3.9	(99,1)		10	(4,54)
2 3/8	1250 (8,6)	5.250	(133,4)	5.75	(146,1)	3.3	(83,8)	2.56 (65,1)	8	(3,63)
	2000 (13,8)					3.7	(94,0)		10	(4,54)
	2500 (17,2)					4.0	(101,6)		11	(4,99)
	3000 (20,7)					4.2	(106,7)		12	(5,44)
2 7/8	4000 (27,6)					4.8	(121,9)	2.88 (73,0)	17	(7,71)
	1250 (8,6)	5.75	(146,4)	6.50	(165,1)	3.9	(99,1)		10	(4,54)
	2000 (13,8)					4.4	(111,8)		12	(5,44)
	2500 (17,2)					4.8	(121,9)		14	(6,35)
3 1/2	3000 (20,7)					5.2	(132,1)	3.13 (79,4)	18	(8,16)
	4000 (27,6)					5.9	(149,9)		28	(12,7)
	1250 (8,6)	6.50	(165,1)	7.25	(184,2)	4.8	(121,9)		14	(6,35)
	2000 (13,8)					5.4	(137,2)		21	(9,53)
4 1/2	2500 (17,2)					5.9	(149,9)	3.50 (88,9)	26	(11,79)
	3000 (20,7)					6.3	(160,0)		50	(22,68)
	4000 (27,6)					7.2	(182,9)		65	(29,48)
	1250 (6,9)	7.50	(190,5)	8.25	(209,6)	6.0	(152,4)		25	(11,34)
5 1/2	2000 (13,8)					6.8	(172,7)	4.38 (111,1)	39	(17,69)
	2500 (17,2)					7.3	(185,4)		48	(21,77)
	3000 (20,7)					7.9	(200,7)		75	(34,02)
	4000 (27,6)					8.9	(226,1)		85	(38,56)
800 (5,5)	9.00	(228,6)	9.75	(247,7)	6.4	(162,7)	32	(14,51)		
	1250 (8,6)			6.9	(175,3)	43			(19,5)	
	2000 (13,8)			7.8	(198,1)	70			(31,75)	
	3000 (20,7)			9.1	(231,1)	100			(45,36)	
	4000 (27,6)			10.2	(259,1)	115			(52,16)	

Tee
Female x Female
(continued)

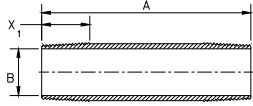


Thread Size Inches	Pressure Rating psi (MPa)	A In (mm)	B In (mm)	C In (mm)	X ₁ In (mm)	Wt Lbs (kg)
6 5/8	800 (5,5)	8.50 (215,9)	9.25 (235,0)	7.7 (195,6)	3.88 (98,4)	36 (16,33)
	1000 (6,9)			8.0 (203,2)		42 (19,05)
	1250 (8,6)			8.4 (213,4)		60 (27,22)
	1500 (10,3)			8.7 (221,0)		70 (31,75)
	2000 (13,8)			9.5 (241,3)		80 (36,29)
7	800 (5,5)	9.75 (247,7)	10.5 (266,7)	8.2 (208,3)	4.50 (114,3)	45 (20,41)
	1250 (8,6)			8.9 (226,1)		65 (29,48)
	2000 (13,8)			10.1 (255,3)		75 (34,02)
	2500 (17,2)			10.9 (275,6)		100 (45,36)
8 5/8	800 (5,5)	10.00 (254,0)	10.75 (273,1)	10.1 (261,6)	4.50 (114,3)	50 (22,68)
	1000 (6,9)			10.5 (266,7)		60 (27,22)
	1250 (8,6)			10.9 (276,9)		70 (31,75)
	1500 (10,3)			11.4 (289,6)		95 (43,09)
	2000 (13,8)			12.0 (304,8)		100 (45,36)
9 5/8	1500 (10,3)	10.50 (266,7)	11.25 (285,8)	12.7 (322,6)	4.75 (120,7)	95 (43,1)
	2000 (13,8)			13.7 (348,0)		110 (49,9)
8 SSS	800 (5,5)	11.5 (292,1)	12.5 (317,5)	10.1 (256,5)	4.75 (120,7)	50 (22,7)
	1000 (6,9)			10.5 (266,7)		65 (19,5)
	1250 (8,6)			10.9 (276,9)		65 (19,5)
10 SSS	500 (3,4)	12.0 (304,8)	12.75 (323,9)	12.7 (322,6)	5.40 (137,2)	76 (34,5)
	800 (5,5)			13.5 (342,9)		90 (40,8)
	1000 (6,9)			14.0 (355,6)		122 (55,3)
	1250 (8,6)			14.6 (370,8)		160 (72,6)
12 SSS	500 (3,4)	14.75 (374,7)	14.75 (374,7)	14.8 (375,9)	6.10 (154,9)	102 (46,3)
	800 (5,5)			15.6 (396,2)		145 (65,8)
	1000 (6,9)			16.2 (411,5)		210 (95,3)
	1250 (8,6)			16.9 (429,3)		240 (108,9)

Threaded Nipples*

Male x Male

* ALIPHATIC AMINE
CURED EPOXY
PRODUCTS
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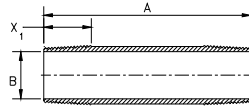


Thread Size Inches	B Nominal Size In (mm)	Pressure psi (MPa)	X ₁ In (mm)	A - Standard Lengths Ft. (m)		
				1 (.305)	1.5 (.457)	2 (.610)
Weight Lbs (KGS)						
1.90	1.44 (36,6)	4000 (27,6)	2.06 (52,4)	1.7 (0,77)	2.5 (1,13)	3.4 (1,54)
2 3/8	1.94 (49,3)	4000 (27,6)	2.56 (65,1)	2.0 (0,91)	3.1 (1,41)	4.1 (1,86)
2 7/8	2.37 (60,2)	3500 (24,1)	2.88 (73,0)	2.8 (1,27)	4.1 (1,86)	5.5 (2,49)
3 1/2	2.37 (60,2)	4000 (27,6)	3.13 (79,4)	5.8 (2,63)	8.6 (3,90)	11.5 (5,22)
3 1/2	2.94 (74,7)	3000 (20,7)	3.13 (79,4)	3.6 (1,63)	5.4 (2,45)	7.2 (3,27)
4	3.33 (85,6)	3000 (20,7)	3.88 (98,4)	---	---	9.4 (4,26)
4 1/2	2.94 (74,7)	4000 (27,6)	3.50 (88,9)	---	14.7 (6,67)	19.6 (8,89)
4 1/2	3.33 (84,6)	4000 (27,6)	3.50 (88,9)	---	12.1 (5,49)	16.1 (7,30)
4 1/2	3.85 (97,8)	2500 (17,2)	3.50 (88,9)	---	7.7 (3,49)	10.3 (4,67)
5 1/2	3.85 (97,8)	4000 (27,6)	4.38 (111,1)	---	15.6 (7,08)	20.8 (9,43)
5 1/2	4.74 (120,4)	2000 (13,8)	4.38 (111,1)	---	8.3 (3,76)	11.1 (5,03)
6 5/8	5.50 (139,7)	2250 (15,5)	3.88 (98,4)	---	13.8 (6,26)	18.4 (8,35)
6 5/8	5.93 (150,6)	1000 (6,9)	3.88 (98,4)	---	11.2 (5,08)	14.9 (6,76)
7	5.50 (139,7)	2500 (17,2)	4.50 (114,3)	---	20.7 (9,39)	27.6 (12,52)
7	5.93 (150,6)	2000 (13,8)	4.50 (114,3)	---	14.4 (6,53)	19.2 (8,71)
8 5/8	5.93 (150,6)	2000 (13,8)	4.50 (114,3)	---	---	19.4 (8,80)
8 5/8	7.74 (196,6)	1250 (8,6)	4.50 (114,3)	---	---	19.4 (8,80)
9 5/8	7.74 (196,6)	2000 (13,8)	4.75 (120,7)	---	---	42.5 (19,28)
8 SSS	7.74 (196,6)	1250 (8,6)	4.75 (120,7)	---	20.2 (6,17)	27.0 (8,23)
10 SSS	9.84 (249,9)	1250 (8,6)	5.40 (137,2)	---	30.5 (9,27)	40.6 (12,37)
12 SSS	11.81 (300,0)	1250 (8,6)	6.10 (154,9)	---	---	51.5 (53,4)

Threaded Nipples*

Male x Male

* ALIPHATIC AMINE
CURED EPOXY
PRODUCTS
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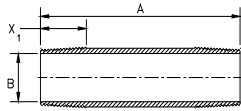


Thread Size Inches	B Nominal Size In (mm)	Pressure psi (MPa)	A - Standard Lengths Ft. (m)					Repair Nipples
			3 (.914)	4 (1.219)	6 (1.829)	8 (2.438)	10 (3.048)	
Weight Lbs (KGS)								
1.90	1.44 (36,6)	4000 (27,6)	5.1 (2,31)	6.8 (3,08)	10.1 (4,58)	13.5 (6,12)	16.9 (7,67)	49.5 (22,5)
2 3/8	1.94 (49,3)	4000 (27,6)	6.1 (2,77)	8.2 (3,72)	12.2 (5,53)	16.3 (7,39)	20.4 (9,25)	60.5 (27,4)
2 7/8	2.37 (60,2)	3500 (24,1)	8.3 (3,76)	11.0 (4,99)	16.5 (7,48)	22.0 (9,98)	27.5 (12,47)	81.8 (37,1)
3 1/2	2.37 (60,2)	4000 (27,6)	17.3 (7,85)	23.0 (10,43)	34.5 (15,65)	46.0 (20,87)	57.5 (26,08)	168.9 (76,6)
3 1/2	2.94 (74,7)	3000 (20,7)	10.8 (4,90)	14.4 (6,53)	21.5 (9,75)	28.7 (13,02)	35.9 (16,28)	106.3 (48,2)
4	3.33 (85,6)	3000 (20,7)	14.1 (6,40)	18.8 (8,53)	28.3 (12,84)	37.7 (17,10)	47.1 (21,36)	140.8 (63,9)
4 1/2	2.94 (74,7)	4000 (27,6)	29.4 (13,34)	39.2 (17,78)	58.7 (26,63)	78.3 (35,52)	97.9 (44,41)	287.2 (130,3)
4 1/2	3.33 (84,6)	4000 (27,6)	24.2 (10,98)	32.2 (14,61)	48.4 (21,95)	64.5 (29,26)	80.6 (36,56)	238.2 (108,0)
4 1/2	3.85 (97,8)	2500 (17,2)	15.5 (7,03)	20.6 (9,34)	31.0 (14,06)	41.3 (18,73)	51.6 (23,41)	158.5 (71,9)
5 1/2	3.85 (97,8)	4000 (27,6)	31.2 (14,15)	41.6 (18,87)	62.4 (28,30)	83.2 (37,74)	104.0 (47,17)	317.1 (143,8)
5 1/2	4.74 (120,4)	2000 (13,8)	16.6 (7,53)	22.2 (10,07)	33.2 (15,06)	44.3 (20,09)	55.4 (25,13)	162.9 (73,9)
6 5/8	5.50 (139,7)	2250 (15,5)	27.6 (12,52)	36.8 (16,69)	55.2 (25,04)	73.6 (33,38)	92.0 (41,73)	273.2 (123,9)
6 5/8	5.93 (150,6)	1000 (6,9)	22.4 (10,16)	29.8 (13,52)	44.7 (20,28)	59.6 (27,03)	74.5 (33,79)	185.1 (84,0)
7	5.50 (139,7)	2500 (17,2)	41.5 (18,82)	55.3 (25,08)	82.9 (37,60)	96.7 (43,86)	138.2 (62,69)	383.9 (174,1)
7	5.93 (150,6)	2000 (13,8)	28.8 (13,06)	38.4 (17,42)	57.6 (26,13)	76.8 (34,84)	96.0 (43,54)	283.2 (128,5)
8 5/8	7.43 (188,7)	2000 (13,8)	29.1 (13,20)	38.8 (17,60)	58.3 (26,44)	77.7 (35,24)	97.1 (44,04)	297.1 (134,8)
8 5/8	7.74 (196,6)	1250 (8,6)	29.1 (13,20)	38.8 (17,60)	58.3 (26,44)	77.7 (35,24)	97.1 (44,04)	297.1 (134,8)
9 5/8	7.74 (196,6)	2000 (13,8)	63.7 (28,89)	85.0 (38,56)	127.4 (57,79)	169.9 (77,07)	212.4 (96,34)	630.9 (286,2)
8 SSS	7.74 (196,6)	1250 (8,6)	40.4 (18,3)	53.9 (24,4)	80.9 (36,7)	107.8 (48,9)	134.8 (61,1)	395.1 (179,2)
10 SSS	9.84 (249,9)	1250 (8,6)	61.0 (27,7)	81.3 (36,9)	121.9 (55,3)	163.0 (73,9)	203.2 (92,2)	609.6 (276,5)
12 SSS	1.81 (300,0)	1250 (8,6)	74.9 (34,0)	99.8 (45,3)	149.7 (67,9)	199.6 (90,5)	249.5 (113,2)	745.9 (338,3)

Threaded Nipples*

Male x Male

* ANHYDRIDE EPOXY PRODUCTS ONLY

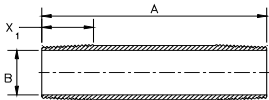


Thread Size Inches	B Nominal Size In (mm)	Pressure psi (MPa)	X ₁ In (mm)	A - Standard Lengths Ft. (m)		
				1 (.305)	1.5 (.457)	2 (.610)
				Weight Lbs (KGS)		
1 1/2	1.50 (38,1)	3000 (20,7)	2.06 (52,4)	1.3 (0,59)	1.9 (0,89)	2.6 (1,18)
2 3/8	2.00 (50,8)	3000 (20,7)	2.56 (65,1)	1.6 (0,73)	2.4 (1,10)	3.2 (1,46)
2 7/8	2.43 (61,7)	3000 (20,7)	2.88 (73,0)	2.2 (0,99)	3.3 (1,48)	4.4 (1,98)
3 1/2	3.00 (76,2)	2900 (20,7)	3.13 (79,4)	2.9 (1,32)	4.4 (1,98)	5.8 (2,64)
4 1/2	3.91 (99,3)	2500 (17,2)	3.50 (88,9)	3.9 (1,77)	5.8 (2,66)	7.8 (3,54)
4 1/2	3.75 (95,3)	3000 (19,3)	3.50 (88,9)	5.1 (2,31)	7.6 (3,47)	10.2 (4,62)
5 1/2	4.74 (120,4)	2000 (13,8)	4.38 (98,4)	---	8.3 (3,76)	11.1 (5,03)
6 5/8	5.85 (148,6)	1500 (10,3)	3.88 (98,4)	---	8.7 (3,95)	11.6 (5,26)
6 5/8	5.50 (139,7)	2000 (13,8)	3.88 (98,4)	---	8.8 (4,01)	11.8 (5,35)
8 5/8	7.50 (196,6)	2000 (13,7)	4.50 (114,3)	---	---	23.4 (10,6)

Threaded Nipples*

Male x Male

* AROMATIC AMINE PRODUCTS ONLY



Thread Size Inches	B Nominal Size In (mm)	Pressure psi (MPa)	X ₁ In (mm)	A - Standard Lengths Ft. (m)		
				1 (.305)	1.5 (.457)	2 (.610)
				Weight Lbs (KGS)		
1 1/2	1.50 (38,1)	2500 (19,0)	2.06 (52,4)	1.3 (0,6)	1.9 (0,6)	2.6 (1,2)
2 3/8	2.00 (50,8)	2250 (19,0)	2.56 (65,1)	1.6 (0,7)	2.4 (1,1)	3.2 (1,5)
2 7/8	2.43 (61,7)	2000 (17,2)	2.88 (73,0)	2.2 (1,0)	3.3 (1,5)	4.4 (2,0)
3 1/2	3.00 (76,2)	2000 (17,2)	3.13 (79,4)	2.9 (1,3)	4.4 (2,0)	5.8 (2,6)
4 1/2	3.91 (76,2)	1750 (15,5)	3.50 (88,9)	3.9 (1,8)	5.8 (2,7)	7.8 (3,5)
4 1/2	3.75 (95,2)	2250 (15,5)	3.50 (88,9)	3.9 (1,77)	5.8 (2,66)	7.8 (3,54)
5 1/2	4.74 (120,4)	1500 (10,3)	4.38 (111,1)	---	8.3 (3,76)	11.1 (5,03)
6 5/8	5.85 (139,7)	1000 (10,3)	3.88 (98,4)	---	8.7 (4,0)	11.6 (5,3)
6 5/8	5.50 (139,7)	1750 (12,1)	3.88 (98,4)	---	8.8 (4,01)	11.8 (5,35)
8 5/8	7.50 (196,6)	1250 (10,3)	4.50 (114,3)	---	---	23.4 (10,6)

Threaded Nipples* Male x Male

***ANHYDRIDE EPOXY PRODUCTS ONLY**

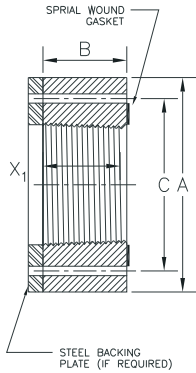
Thread Size Inches	B Nominal Size In (mm)	Pressure psi (MPa)	A - Standard Lengths Ft. (m)					Repair Nipples
			3 (.914)	4 (1.219)	6 (1.829)	8 (2.438)	10 (3.048)	
			Weight Lbs (KGS)					
1 1/2	1.50 (38,1)	3000 (20,7)	3.9 (1,78)	5.2 (2,36)	7.8 (3,56)	10.4 (4,72)	13.0 (5,9)	14.7 (18,9)
2 3/8	2.00 (50,8)	3000 (20,7)	4.8 (2,19)	6.4 (2,92)	9.6 (4,38)	12.8 (5,84)	16.0 (7,3)	52.8 (23,9)
2 7/8	2.43 (61,7)	3000 (20,7)	6.6 (2,96)	8.8 (3,96)	13.2 (5,92)	17.6 (7,92)	22.0 (9,9)	83.8 (38,0)
3 1/2	3.00 (76,2)	2900 (20,7)	8.7 (3,96)	11.6 (5,28)	17.4 (7,92)	23.2 (10,6)	29.0 (13,2)	109.4 (49,6)
4 1/2	3.91 (99,3)	2500 (17,2)	11.7 (5,31)	15.6 (7,08)	23.4 (10,6)	31.2 (14,2)	39.0 (17,7)	158.4 (71,8)
4 1/2	3.75 (95,3)	3000 (19,3)	15.3 (6,94)	20.4 (9,24)	30.6 (13,8)	40.8 (18,5)	51.0 (23,1)	173.1 (78,5)
5 1/2	4.74 (120,4)	2000 (13,8)	16.6 (7,53)	22.2 (10,07)	33.2 (15,06)	44.3 (20,09)	55.4 (25,13)	198.4 (89,9)
6 5/8	5.85 (148,6)	1500 (10,3)	17.7 (8,03)	23.2 (10,5)	34.8 (15,8)	46.4 (21,0)	58.0 (26,3)	252.8 (114,7)
6 5/8	5.50 (139,7)	2000 (13,8)	17.7 (8,03)	23.6 (10,7)	35.3 (16,0)	47.1 (21,4)	58.9 (26,7)	295.7 (134,1)
8 5/8	7.50 (196,6)	2000 (13,7)	35.2 (15,9)	46.8 (21,2)	70.4 (31,9)	93.6 (42,5)	117.0 (79,7)	450.6 (204,4)

Threaded Nipples* Male x Male

***AROMATIC AMINE PRODUCTS ONLY**

Thread Size Inches	B Nominal Size In (mm)	Pressure psi (MPa)	A - Standard Lengths Ft. (m)					Repair Nipples
			3 (.914)	4 (1.219)	6 (1.829)	8 (2.438)	10 (3.048)	
			Weight Lbs (KGS)					
1 1/2	1.50 (38,1)	2500 (19,0)	3.9 (1,8)	5.2 (2,4)	7.8 (3,6)	10.4 (4,7)	13.0 (5,9)	44.4 (20,1)
2 3/8	2.00 (50,8)	2250 (19,0)	4.8 (2,2)	6.4 (2,9)	9.6 (4,4)	12.8 (5,8)	16.0 (7,3)	61.1 (27,7)
2 7/8	2.43 (61,7)	2000 (17,2)	6.6 (3,0)	8.8 (4,0)	13.2 (5,9)	17.6 (7,9)	22.0 (9,9)	85.8 (38,9)
3 1/2	3.00 (76,2)	2000 (17,2)	8.7 (4,0)	11.6 (5,3)	17.4 (7,9)	23.2 (10,6)	29.0 (13,2)	113.5 (51,4)
4 1/2	3.91 (76,2)	1750 (15,5)	11.7 (5,3)	15.6 (7,1)	23.4 (10,6)	31.2 (14,2)	39.0 (17,7)	173.0 (78,5)
4 1/2	3.75 (95,2)	2250 (15,5)	15.3 (6,94)	20.4 (9,24)	30.6 (13,8)	40.8 (18,5)	51.0 (23,1)	174.0 (78,9)
5 1/2	4.74 (120,4)	1500 (10,3)	16.6 (7,53)	22.2 (10,07)	33.2 (15,06)	44.3 (20,09)	55.4 (25,13)	213.1 (96,6)
6 5/8	5.85 (139,7)	1000 (10,3)	17.4 (7,9)	23.2 (10,5)	34.8 (15,8)	46.4 (21,0)	58.0 (26,3)	223.7 (104,4)
6 5/8	5.50 (139,7)	1750 (12,1)	17.7 (8,03)	23.6 (10,7)	35.3 (16,0)	47.1 (21,4)	58.9 (26,7)	313.6 (142,2)
8 5/8	7.50 (196,6)	1250 (10,3)	35.2 (15,9)	46.8 (21,2)	70.4 (31,9)	93.6 (42,5)	117.0 (79,76)	403.8 (183,1)

Flanges⁽²⁾ Female

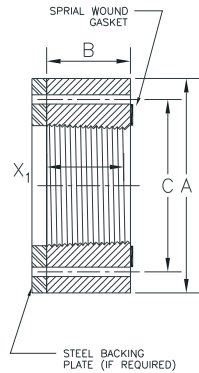


Thread Size In	Pressure Rating psi (MPa) 100°F	Pressure Rating psi (MPa) 200°F	A Flange O.D. In (mm)	B Flange Width In (mm)	C Bolt Circle In (mm)	X ₁ In (mm)	No. of Bolts	Bolt Size Length In (mm) ⁽¹⁾	Bolt Hole Size In (mm)	Wt Lbs (kg)
ANSI 150										
2 3/8	285 (1,9)	260 (1,8)	6.0 (152,4)	3.06 (77,7)	4.75 (120,7)	2.53 (64,3)	4	.625 x 10 (15,9 x 254,0)	.750 (19,1)	4.6 (2,09)
2 7/8	285 (1,9)	260 (1,8)	7.0 (177,8)	3.38 (85,9)	5.50 (139,7)	2.88 (73,0)	4	.625 x 12 (15,9 x 304,8)	.750 (19,1)	7 (3,18)
3 1/2	285 (1,9)	260 (1,8)	7.5 (190,5)	3.63 (92,2)	6.00 (152,4)	3.13 (79,4)	4	.625 x 10 (15,9 x 254,0)	.750 (19,1)	8.1 (3,67)
4 1/2	285 (1,9)	260 (1,8)	9.0 (228,6)	4.00 (101,6)	7.50 (190,5)	3.50 (88,9)	8	.625 x 14 (15,9 x 355,6)	.750 (19,1)	12.0 (5,44)
6 5/8	285 (1,9)	260 (1,8)	11.0 (279,4)	4.375 (111,1)	9.50 (241,3)	3.88 (98,4)	8	.75 x 14 (19,1 x 355,6)	.875 (22,2)	17.5 (7,94)
7	285 (1,9)	260 (1,8)	11.0 (279,4)	5.00 (127,0)	9.50 (241,3)	4.50 (114,3)	8	.75 x 14 (19,1 x 355,6)	.875 (22,2)	18.4 (8,35)
8 5/8	285 (1,9)	260 (1,8)	13.5 (342,9)	5.00 (127,0)	11.75 (298,5)	4.50 (114,3)	8	.75 x 14 (19,1 x 355,6)	.875 (22,2)	28.5 (12,93)
9 5/8	285 (1,9)	260 (1,8)	13.5 (342,9)	5.25 (133,4)	11.75 (298,5)	4.75 (120,7)	8	.75 x 14 (19,1 x 355,6)	.875 (22,2)	24.8 (11,25)
8 SSS	285 (1,9)	260 (1,8)	13.5 (342,9)	5.00 (127,0)	11.75 (298,5)	4.75 (120,7)	8	.75 x 14 (19,1 x 355,6)	.875 (22,2)	28.2 (12,79)
10 SSS	285 (1,9)	260 (1,8)	16.0 (406,4)	5.75 (146,1)	14.25 (362,0)	5.40 (137,2)	12	.875 x 15 (22,2 x 381,0)	1.00 (25,4)	37.2 (16,87)
12 SSS	285 (1,9)	260 (1,8)	19.0 (482,6)	6.43 (163,3)	17.0 (431,8)	6.10 (154,9)	12	.875 x 16 (22,2 x 381,0)	1.00 (25,4)	61.1 (27,71)
ANSI 300										
4 1/2	740 (5,1)	675 (4,7)	10.0 (254,0)	4.00 (101,6)	7.875 (200,0)	3.50 (88,9)	8	.75 x 14 (19,1 x 355,6)	.875 (22,2)	15.8 (7,17)
5 1/2	740 (5,1)	675 (4,7)	11.0 (279,4)	4.88 (124,0)	9.25 (235,0)	4.38 (111,1)	8	.75 x 14 (19,1 x 355,6)	.875 (22,2)	22.6 (10,25)
6 5/8	740 (5,1)	675 (4,7)	12.5 (317,5)	4.375 (111,1)	10.625 (269,9)	3.88 (98,4)	12	.75 x 14 (19,1 x 355,6)	.875 (22,2)	25.2 (11,43)
7	740 (5,1)	675 (4,7)	12.5 (317,5)	5.00 (127,0)	10.625 (269,9)	4.50 (114,3)	12	.75 x 14 (19,1 x 355,6)	.875 (22,2)	27.2 (12,34)
8 5/8	740 (5,1)	675 (4,7)	15.0 (381,0)	5.00 (127,0)	13.00 (330,2)	4.50 (114,3)	12	.875 x 14 (22,2 x 355,6)	1.00 (25,4)	38.7 (17,55)
9 5/8	740 (5,1)	675 (4,7)	15.0 (381,0)	5.25 (133,4)	13.00 (330,2)	4.75 (120,7)	12	.875 x 14 (22,2 x 355,6)	1.00 (25,4)	35.4 (16,06)
8 SSS	740 (5,1)	675 (4,7)	15.0 (381,0)	5.00 (127,0)	13.00 (330,2)	4.75 (120,7)	12	.875 x 14 (22,2 x 355,6)	1.00 (25,4)	38.3 (17,375)
10 SSS	740 (5,1)	675 (4,7)	17.5 (444,5)	5.75 (146,1)	15.25 (387,4)	5.40 (137,2)	16	1 x 15 (25,4 x 381,0)	1.125 (28,6)	50.4 (22,86)
12 SSS	740 (5,1)	675 (4,7)	20.5 (520,7)	6.43 (163,3)	17.75 (450,9)	6.10 (154,9)	16	1.125 x 16 (28,6 x 406,4)	1.25 (31,8)	77.4 (35,10)

⁽¹⁾ Bolt lengths in table are for fiberglass-to-fiberglass flange connections. Fiberglass-to-steel bolt lengths are provided in INS8000.

⁽²⁾ Spiral wound gaskets (Flexitalic®) are required in all flange joints

Flanges⁽²⁾
Female
(continued)



Thread Size In	Pressure Rating	Pressure Rating	A	B	C	X ₁ In (mm)	No. of Bolts	Bolt ⁽¹⁾	Bolt Hole Size In (mm)	Wt Lbs (kg)
	psi (MPa) 100°F	psi (MPa) 200°F	Flange O.D. In (mm)	Flange Width In (mm)	Flange Bolt Circle In (mm)			Size Length In (mm)		
ANSI 300/600⁽³⁾										
1.90	1480 (10,2)	1350 (9,3)	6.125 (155,6)	2.56 (66,0)	4.50 (114,3)	2.06 (52,4)	4	.75 x 10 (19,1 x 254,0)	.875 (22,2)	4.3 (1,95)
2 3/8	1480 (10,2)	1350 (9,3)	6.5 (165,1)	3.06 (77,7)	5.00 (127,0)	2.56 (65,1)	8	.625 x 10 (15,9 x 254,0)	.750 (19,1)	5.3 (2,40)
2 7/8	1480 (10,2)	1350 (9,3)	7.5 (190,5)	3.38 (85,9)	5.875 (149,2)	2.88 (73,0)	8	.75 x 12 (19,1 x 304,8)	.875 (22,2)	7.6 (3,45)
3 1/2	1480 (10,2)	1350 (9,3)	8.25 (209,6)	3.63 (92,2)	6.625 (168,3)	3.13 (79,4)	8	.75 x 10 (19,1 x 254,0)	.875 (22,2)	9.7 (4,40)
ANSI 600⁽³⁾										
4 1/2	1480 (10,2)	1350 (9,3)	10.75 (273,1)	4.00 (101,6)	8.50 (215,9)	3.50 (88,9)	8	.875 x 14 (22,2 x 355,6)	1.00 (25,4)	18.8 (8,53)
5 1/2	1480 (10,2)	1350 (9,3)	13.0 (330,2)	4.88 (124,0)	10.50 (266,7)	4.38 (111,1)	8	1 x 14 (25,4 x 355,6)	1.125 (28,6)	34.9 (15,83)
6 5/8	1480 (10,2)	1350 (9,3)	14.0 (355,6)	4.375 (111,1)	11.50 (292,1)	3.88 (98,4)	12	1 x 14 (25,4 x 355,6)	1.125 (28,6)	33.3 (15,10)
7	1480 (10,2)	1350 (9,3)	14.0 (355,6)	5.00 (127,0)	11.50 (292,1)	4.50 (114,3)	12	1 x 14 (25,4 x 355,6)	1.125 (28,6)	36.5 (16,56)
8 5/8	1480 (10,2)	1350 (9,3)	16.5 (419,1)	5.00 (127,0)	13.75 (349,3)	4.50 (114,3)	12	1.125 x 14 (28,6 x 355,6)	1.25 (31,8)	49.8 (22,59)
9 5/8	1480 (10,2)	1350 (9,3)	16.5 (419,1)	5.25 (133,4)	13.75 (349,3)	4.75 (120,7)	12	1.375 x 14 (34,9 x 355,6)	1.25 (31,8)	47.1 (21,36)
8 SSS	1480 (10,2)	1350 (9,3)	16.5 (419,1)	5.00 (127,0)	13.75 (349,3)	4.75 (120,7)	12	1.125 x 24 (28,575 x 609,6)	1.25 (31,8)	49.4 (22,41)
10 SSS	1480 (10,2)	1350 (9,3)	20 (508,0)	5.75 (146,1)	17 (431,8)	5.40 (137,2)	16	1.25 x 24 (31,75 x 609,6)	1.375 (34,9)	76.9 (34,88)
12 SSS	1480 (10,2)	1350 (9,3)	22 (558,8)	6.43 (163,3)	19.25 (489,0)	6.10 (154,9)	20	1.25 x 24 (31,75 x 609,6)	1.375 (34,9)	95.4 (43,27)
ANSI 900⁽³⁾										
3 1/2	2220 (15,3)	2025 (14,0)	9.5 (241,3)	3.63 (92,2)	7.50 (190,5)	3.13 (79,4)	8	.875 x 10 (22,2 x 254,0)	1.00 (25,4)	13.7 (6,21)
4 1/2	2220 (15,3)	2025 (14,0)	11.5 (292,1)	4.00 (101,6)	9.25 (235,0)	3.50 (88,9)	8	1.125 x 14 (28,6 x 355,6)	1.25 (31,8)	21.5 (7,75)
5 1/2 ⁽⁴⁾	2220 (15,3)	2025 (14,0)	13.75 (349,3)	4.88 (124,0)	11.00 (279,4)	4.38 (111,1)	8	1.25 x 14 (31,8 x 355,6)	1.375 (34,9)	38.9 (17,64)
6 5/8 ⁽⁴⁾	2220 (15,3)	2025 (14,0)	15.0 (381,0)	4.375 (111,1)	12.50 (317,5)	4.88 (98,4)	12	1.125 x 14 (28,6 x 355,6)	1.25 (31,8)	39.4 (17,87)
7 ⁽⁴⁾	2220 (15,3)	2025 (14,0)	15.0 (381,0)	5.00 (127,0)	12.50 (317,5)	4.50 (114,3)	12	1.125 x 14 (28,6 x 355,6)	1.25 (31,8)	43.5 (19,73)
9 5/8 ⁽⁴⁾	2220 (15,3)	2025 (14,0)	18.5 (469,9)	5.25 (133,4)	15.50 (393,7)	4.75 (120,7)	12	1.375 x 14 (34,9 x 355,6)	1.50 (38,1)	64.9 (29,44)

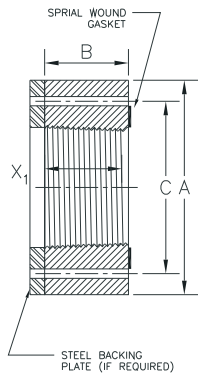
⁽¹⁾ Bolt lengths in table are for fiberglass-to-fiberglass flange connections. Fiberglass-to-steel bolt lengths are provided in INS8000.

⁽²⁾ Spiral wound gaskets (Flexitalic[®]) are required in all flange joints

⁽⁴⁾ Steel backing plates are required.

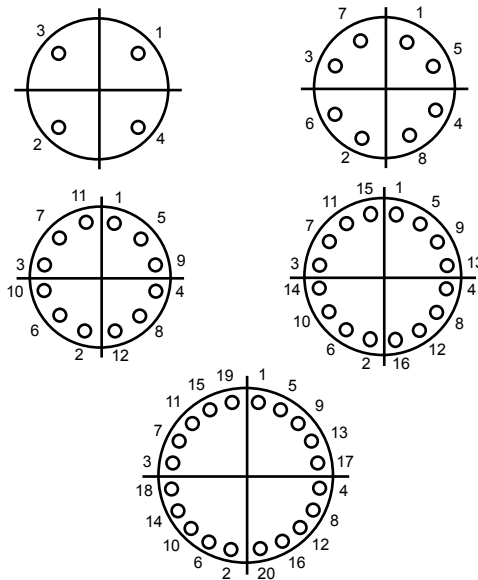
⁽³⁾ Spacer rings are required for make-up of ANSI 600-1500 when mated to steel raised face flanges.

Flanges⁽²⁾
Female
(continued)



Thread Size In	Pressure Rating	Pressure Rating	A	B	C	X ₁ In (mm)	No. of Bolts	Bolt ⁽¹⁾ Size	Bolt Hole Size In (mm)	Wt Lbs (kg)
	psi (MPa) 100°F	psi (MPa) 200°F	Flange O.D. In (mm)	Flange Width In (mm)	Flange Bolt Circle In (mm)			Length In (mm)		
ANSI 900/1500⁽³⁾										
1.90	3705 (25,6)	3375 (23,3)	7.00 (177,8)	2.56 (65,0)	4.875 (123,8)	2.05 (52,1)	4	1 x 10 (25,4 x 254,0)	1.125 (28,6)	5.6 (2,54)
2 3/8	3705 (25,6)	3375 (23,3)	8.50 (215,9)	3.06 (77,7)	6.50 (165,1)	2.56 (65,1)	8	.875 x 10 (22,2 x 254,0)	1.00 (25,4)	9.7 (4,40)
2 7/8	3705 (25,6)	3375 (23,3)	9.625 (244,5)	3.38 (85,9)	7.50 (190,5)	2.88 (73,0)	8	1 x 12 (25,4 x 304,8)	1.125 (28,6)	13.6 (6,17)
ANSI 1500⁽³⁾										
3 1/2	3705 (25,6)	3375 (23,3)	10.5 (266,7)	3.63 (92,2)	8.00 (203,2)	3.13 (79,4)	8	1.125 x 12 (25,4 x 304,8)	1.25 (31,8)	16.8 (7,62)
4 1/2	3705 (25,6)	3375 (23,3)	10.5 (266,7)	4.00 (101,6)	8.00 (203,2)	3.50 (88,9)	8	1.125 x 12 (25,4 x 304,8)	1.25 (31,8)	18.8 (8,53)
4 1/2 ⁽⁴⁾	3705 (25,6)	3375 (23,3)	12.25 (311,2)	4.00 (101,6)	9.50 (241,3)	3.50 (88,9)	8	1.25 x 14 (31,8 x 355,6)	1.375 (34,9)	24.9 (11,29)
5 1/2 ⁽⁴⁾	3705 (25,6)	3375 (23,3)	12.25 (311,2)	4.88 (124,0)	9.50 (241,3)	4.38 (111,1)	8	1.25 x 14 (31,8 x 355,6)	1.375 (34,9)	28.5 (12,93)
5 1/2 ⁽⁴⁾	3705 (25,6)	3375 (23,3)	14.75 (374,7)	4.88 (124,0)	11.50 (292,1)	4.38 (111,1)	8	1.5 x 14 (38,1 x 355,6)	1.625 (41,3)	44.9 (20,37)
6 5/8 ⁽⁴⁾	3705 (25,6)	3375 (23,3)	15.5 (393,7)	4.375 (111,1)	12.5 (317,5)	3.88 (98,4)	12	1.375 x 14 (34,9 x 355,6)	1.50 (38,1)	41.1 (18,64)
7 ⁽⁴⁾	3705 (25,6)	3375 (23,3)	15.5 (393,7)	5.00 (127,0)	12.5 (317,5)	4.50 (114,3)	12	1.375 x 14 (34,9 x 355,6)	1.50 (38,1)	45.4 (20,59)
9 5/8 ⁽⁴⁾	3705 (25,6)	3375 (23,3)	19.0 (482,6)	5.25 (133,4)	15.5 (393,7)	4.75 (120,7)	12	1.625 x 14 (41,3 x 355,6)	1.75 (44,5)	72.0 (32,66)

Bolt Torquing Sequence



⁽¹⁾ Bolt lengths in table are for fiberglass-to-fiberglass flange connections. Fiberglass-to-steel bolt lengths are provided in INS8000.

⁽²⁾ Spiral wound gaskets (Flexitalic®) are required in all flange joints

⁽³⁾ Spacer rings are required for make-up of ANSI 600-1500 when mated to steel raised face flanges.

⁽⁴⁾ Steel backing plates are required.

Bolt Torque vs. Bolt Size

Bolt Size (inch)	Torque			
	Grade 2		Grade 5	
	ft/lb	N/m	ft/lb	N/m
5/8"	54	73	89	120
3/4"	96	130	160	216
7/8"	155	210	258	349
1"	230	311	386	523
1 1/8"	324	439	544	737
1 1/4"	460	623	776	1052
1 3/8"	595	806	1006	1363
1 1/2"	795	1077	1347	1826

Multiply by 0.9 for plating

NOTE: Regardless of bolting material, do not exceed Grade 5 torque.

Changeover Couplings

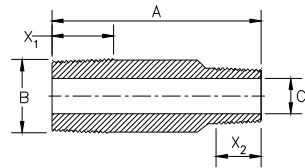
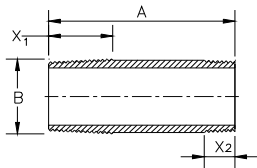
Female x NPT Female

Thread Size Inches	Pressure Rating psi (MPa)	A In (mm)	B In (mm)	X ₁ In (mm)	X ₂ In (mm)	Wt Lbs (kg)
1.90 x 1.50 NPT	2000 (13,8)	5.0 (127,0)	3.0 (76,2)	2.06 (52,4)	1.02 (25,9)	1.5 (0,68)
2 3/8 x 2 NPT	2000 (13,8)	4.625 (117,5)	3.7 (94,0)	2.56 (65,1)	1.05 (26,7)	2.5 (1,13)
2 7/8 x 2 1/2 NPT	1500 (10,3)	5.5 (139,7)	4.4 (111,6)	2.88 (73,0)	1.57 (39,9)	4.5 (2,04)
3 1/2 x 3 NPT	1500 (10,3)	6.0 (152,4)	5.3 (134,6)	3.13 (79,4)	1.63 (41,4)	6 (2,72)
4 1/2 x 4 NPT	1500 (10,3)	6.875 (174,8)	6.8 (172,7)	3.50 (88,9)	1.73 (43,9)	14 (6,35)
4 1/2 x 2 NPT	2000 (13,8)	13.0 (330,2)	4.80 (121,9)	3.50 (88,9)	1.06 (26,9)	14.0 (20,8)
5 1/2 x 5 NPT	1500 (10,3)	7.75 (196,9)	7.2 (182,9)	4.38 (111,1)	1.94 (49,3)	16 (7,26)
6 5/8 x 6 NPT	1000 (6,9)	8.0 (203,2)	8.3 (210,8)	3.88 (98,4)	1.95 (49,5)	20 (9,07)
7 x 6 NPT	1000 (6,9)	8.0 (203,2)	8.9 (226,1)	4.50 (114,3)	1.95 (49,5)	25 (11,34)
8 5/8 x 8 NPT	1000 (6,9)	8.5 (215,9)	10.8 (274,3)	4.50 (114,3)	2.15 (54,6)	30 (13,61)
9 5/8 x 8 NPT	1000 (6,9)	8.5 (215,9)	11.4 (289,6)	4.75 (120,7)	2.15 (54,6)	42 (19,05)

Changeover Nipples

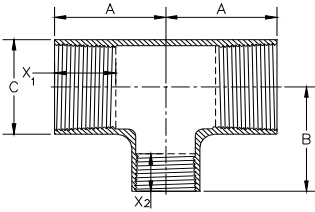
and Swages

Male x NPT Male



Thread Size Inches	Pressure Rating psi (MPa)	A In (mm)	B In (mm)	X ₁ In (mm)	X ₂ In (mm)	Wt Lbs (kg)
1.90 x 1.50 NPT	2000 (13,8)	9.0 (228,6)	2.15 (54,6)	2.06 (52,4)	1.02 (25,9)	1.1 (0,50)
2 3/8 x 2 NPT	2000 (13,8)	10.0 (254,0)	2.60 (66,0)	2.56 (65,1)	1.05 (26,7)	1.7 (0,77)
2 7/8 x 2 NPT	2000 (13,8)	11.0 (279,4)	3.10 (78,7)	2.88 (73,0)	1.06 (26,9)	3.5 (5,21)
2 7/8 x 2 1/2 NPT	1500 (10,3)	11.0 (279,4)	3.10 (78,7)	2.88 (73,0)	1.57 (39,9)	2.5 (1,13)
3 NPT x 2 3/8	1500 (10,3)	11.0 (279,4)	3.75 (95,3)	1.63 (41,4)	2.56 (65,1)	5.5 (8,18)
3 NPT x 2 7/8	1500 (10,3)	11.0 (279,4)	3.75 (95,3)	1.63 (41,4)	2.88 (73,0)	7.0 (10,4)
3 1/2 x 2 NPT	2000 (13,8)	11.0 (279,4)	3.75 (95,3)	3.13 (79,4)	1.06 (26,9)	5.5 (8,18)
3 1/2 x 2 1/2 NPT	1500 (10,3)	11.0 (279,4)	3.75 (95,3)	3.13 (79,4)	1.57 (39,9)	7.0 (10,4)
3 1/2 x 3 NPT	1500 (10,3)	11.0 (279,4)	3.75 (95,3)	3.13 (79,4)	1.63 (41,4)	3.2 (1,45)
4 NPT x 2 3/8	1500 (10,3)	13.0 (330,2)	4.80 (121,9)	1.73 (43,9)	2.56 (65,1)	12.0 (17,9)
4 NPT x 3 1/2	1500 (10,3)	13.0 (330,2)	4.71 (119,6)	1.73 (43,9)	3.13 (79,4)	10.6 (15,8)
4 1/2 x 4 NPT	1500 (10,3)	12.0 (304,8)	4.80 (121,9)	3.50 (88,9)	1.94 (49,3)	5.2 (2,36)
4 1/2 x 2 NPT	2000 (13,8)	13.0 (330,2)	4.80 (121,9)	3.50 (88,9)	1.06 (26,9)	14.0 (20,8)
4 1/2 x 2 1/2 NPT	1500 (10,3)	13.0 (330,2)	4.80 (121,9)	3.50 (88,9)	1.57 (39,9)	12.0 (17,9)
4 1/2 x 3 NPT	1500 (10,3)	13.0 (330,2)	4.71 (119,6)	3.50 (88,9)	1.63 (41,4)	10.6 (15,8)
5 1/2 x 5 NPT	1500 (10,3)	13.0 (330,2)	5.55 (141,0)	4.38 (111,1)	1.73 (43,9)	6.0 (2,72)
6 5/8 x 6 NPT	1000 (6,9)	13.0 (330,2)	6.65 (168,9)	3.88 (98,4)	1.95 (49,5)	8.1 (3,67)
7 x 6 NPT	1000 (6,9)	13.0 (330,2)	7.05 (179,1)	4.50 (114,3)	1.95 (49,5)	9.8 (4,45)
8 5/8 x 8 NPT	1000 (6,9)	13.0 (330,2)	8.85 (224,8)	4.50 (114,3)	2.15 (54,6)	11.1 (5,03)
9 5/8 x 8 NPT	1000 (6,9)	13.0 (330,2)	9.65 (245,1)	4.75 (120,7)	2.15 (54,6)	20.2 (9,16)

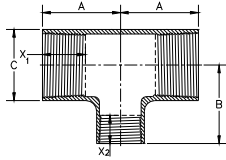
Reducing Tee Female



Thread Size Inches	Pressure Rating		A In (mm)	B In (mm)	C In (mm)	X ₁ In (mm)	X ₂ In (mm)	Wt Lbs (kg)
	psi (MPa)							
2 3/8 x 1.90	1500 (10,3)		5.25 (133,4)	5.75 (146,1)	3.4 (86,4)	2.56 (65,1)	2.06 (52,4)	11 (4,99)
	2500 (17,2)				4.0 (101,6)			12 (5,44)
3 1/2 x 2 3/8	1250 (8,6)		6.50 (165,1)	7.00 (177,8)	4.8 (121,9)	3.13 (79,4)	2.56 (65,1)	14 (6,35)
	2000 (13,8)				5.5 (139,7)			21 (9,53)
	2500 (17,2)				5.95 (151,1)			26 (11,79)
	3000 (20,7)				6.4 (162,6)			50 (22,68)
	4000 (27,6)				7.3 (185,4)			65 (29,48)
4 1/2 x 2 3/8	1250 (8,6)		7.50 (190,5)	7.50 (190,5)	6.2 (157,5)	3.50 (88,9)	2.56 (65,1)	25 (11,34)
	2000 (13,8)				7.0 (177,8)			39 (17,69)
	2500 (17,2)				7.6 (193,0)			48 (21,77)
	3000 (20,7)				8.1 (205,7)			75 (34,02)
	4000 (27,6)				9.0 (228,6)			85 (38,56)
4 1/2 x 3 1/2	1250 (8,6)		7.50 (190,5)	8.50 (215,9)	6.2 (157,5)	3.50 (88,9)	3.13 (79,4)	25 (11,34)
	2000 (13,8)				7.0 (177,8)			39 (17,69)
	2500 (17,2)				7.6 (193,0)			48 (21,77)
	3000 (20,7)				8.1 (205,7)			75 (34,02)
	4000 (27,6)				9.0 (228,6)			85 (38,56)
6 5/8 x 3 1/2	1250 (8,6)		8.50 (215,9)	9.75 (247,7)	8.5 (215,9)	3.88 (98,4)	3.13 (79,4)	60 (27,22)
	2000 (13,8)				9.5 (241,3)			80 (36,29)
6 5/8 x 4 1/2	1250 (8,6)		8.50 (215,9)	9.75 (247,7)	8.5 (215,9)	3.88 (98,4)	3.50 (88,9)	60 (27,22)
	2000 (13,2)				9.5 (241,3)			80 (36,29)
	2250 (15,5)				10 (254,0)			100 (148,8)
7 x 3 1/2	2000 (13,2)		9.625 (244,5)	9.50 (241,3)	10.1 (256,5)	4.50 (114,3)	3.13 (79,4)	75 (34,02)
7 x 4 1/2	2000 (13,2)			10.00 (254,0)	10.1 (256,5)		3.50 (88,9)	75 (34,02)
8 5/8 x 3 1/2	1250 (8,6)		10.00 (254,0)	11.75 (298,5)	11.0 (279,4)	4.50 (114,3)	3.13 (79,4)	70 (31,75)
8 5/8 x 4 1/2	1250 (8,6)				11.0 (279,4)		3.50 (88,9)	70 (31,75)
8 5/8 x 6 5/8	1250 (8,6)				11.0 (279,4)		3.88 (98,4)	55 (24,95)
10 SSS x 6 5/8	800 (5,5)		12.00 (304,8)	12.00 (304,8)	13.5 (342,9)	5.40 (137,2)	3.88 (98,4)	85 (38,56)
	1000 (6,9)				14.0 (355,6)			103 (46,723)
	1250 (8,6)				14.6 (370,8)			120 (54,4)

Reducing Tee

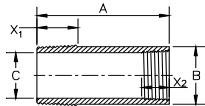
Female
(continued)



Thread Size Inches	Pressure Rating psi (MPa)	A In (mm)	B In (mm)	C In (mm)	X ₁ In (mm)	X ₂ In (mm)	Wt Lbs (kg)
10 SSS x 8 5/8	800 (5,5)	12.00 (304,8)	12.00 (304,8)	13.5 (342,9)	5.4 (137,2)	4.50 (114,3)	90 (40,82)
	1000 (6,9)			14.0 (355,6)			125 (56,70)
	1250 (8,6)			14.6 (370,8)			160 (72,58)
10 SSS x 8 SSS	800 (5,5)	12.00 (304,8)	13.50 (342,9)	13.5 (342,9)	5.40 (137,2)	4.75 (120,7)	98 (44,45)
	1000 (6,9)			14.0 (355,6)			125 (56,70)
	1250 (8,6)			14.6 (370,8)			160 (72,58)
12 SSS x 8 5/8	1250 (8,6)	14.75 (374,7)	14.75 (374,7)	17.1 (434,3)	6.10 (154,9)	4.50 (114,3)	230 (104,33)
12 SSS x 8 SSS	1250 (8,6)					4.75 (120,7)	225 (102,06)
12 SSS x 10 SSS	1250 (8,6)					5.40 (137,2)	245 (111,13)

Reducing Bushing

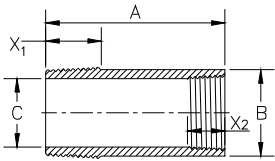
Male x Female



Thread Size Inches	Pressure Rating psi (MPa)	A In (mm)	B In (mm)	C In (mm)	X ₁ In (mm)	X ₂ In (mm)	Wt Lbs (kg)
2 7/8 x 1.90	2500 (17,2)	10.0 (254,0)	3.1 (78,7)	1.44 (36,6)	2.88 (73,0)	2.06 (52,4)	2.5 (1,13)
3 1/2 x 1.90	3500 (24,1)	10.0 (254,0)	3.75 (95,3)	1.44 (36,6)	3.13 (79,4)	2.06 (52,4)	6 (2,72)
3 1/2 x 2 3/8	2500 (17,2)	10.88 (276,4)		1.94 (49,3)		2.56 (65,1)	4 (1,81)
4 1/2 x 1.90	3500 (24,1)	10.0 (254,0)	4.80 (121,9)	1.44 (36,6)	3.50 (88,9)	2.06 (52,4)	11 (4,99)
4 1/2 x 2 3/8	4000 (27,6)	10.88 (276,4)		1.94 (49,3)		2.56 (65,1)	10 (4,54)
4 1/2 x 2 7/8	3000 (20,7)			2.36 (59,9)		2.88 (73,0)	8.5 (3,86)
4 1/2 x 3 1/2	1000 (13,8)	10.88 (276,4)	4.80 (121,9)	2.95 (74,9)	3.50 (88,9)	3.13 (79,4)	6.0 (2,72)
5 1/2 x 2-3/8	4000 (27,6)	10.88 (276,4)	5.55 (141,0)	1.94 (49,3)	4.38 (111,1)	2.56 (65,1)	16 (7,26)
5 1/2 x 2 7/8	4000 (27,6)			2.36 (59,9)		2.88 (73,0)	14 (6,35)
5 1/2 x 3 1/2	4000 (27,6)	11.13 (282,7)		2.95 (74,9)		3.13 (79,4)	11.5 (5,22)
6 5/8 x 2 3/8	2000 (13,8)	10.88 (276,4)	6.65 (168,9)	1.95 (49,5)	3.88 (98,4)	2.56 (65,1)	27 (12,25)
6 5/8 x 2 7/8	2000 (13,8)			2.36 (59,9)		2.88 (73,0)	25 (11,34)
6 5/8 x 3 1/2	2000 (13,8)	11.13 (282,7)		2.94 (74,7)		3.13 (79,4)	22 (9,98)
6 5/8 x 4 1/2	2000 (13,8)			3.95 (100,3)		3.50 (88,9)	16 (7,26)
7 x 3 1/2	2500 (17,2)	11.13 (282,7)	7.10 (180,3)	2.95 (74,9)	4.50 (114,3)	3.13 (79,4)	24 (10,89)
7 x 4 1/2	2500 (17,2)			3.95 (100,3)		3.50 (88,9)	21 (9,53)
8 5/8 x 4 1/2	1500 (10,3)			3.95 (100,3)		3.50 (88,9)	44 (19,96)

Reducing Bushing

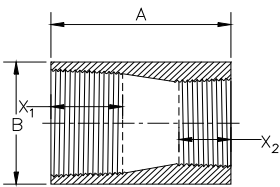
Male x Female
(continued)



Thread Size Inches	Pressure Rating psi (MPa)	A In (mm)	B In (mm)	C In (mm)	X ₁ In (mm)	X ₂ In (mm)	Wt Lbs (kg)
8 5/8 x 6 5/8	1500 (10,3)	12.0 (304,8)		5.95 (151,1)		3.88 (98,4)	30 (13,61)
9 5/8 x 6 5/8	2000 (13,8)	11.98 (304,3)	9.65 (245,1)				38 (17,24)
10 SSS x 6 5/8	1000 (13,8)	12.0 (304,8)	11.25 (285,8)	5.95 (151,1)	5.40 (137,2)	3.88 (98,4)	65 (29,48)
10 SSS x 8 5/8	1000 (13,8)			7.74 (196,6)		4.50 (114,3)	50 (22,68)
10 SSS x 8SS	1000 (13,8)			7.74 (196,6)		4.75 (120,7)	50 (22,68)
12 SSS x 8 5/8	1000 (13,8)	12.0 (304,8)	14.4 (365,8)	7.74 (196,6)	6.10 (154,9)	4.50 (114,3)	80 (36,28)
12 SSS x 8 SSS	1000 (13,8)			7.74 (196,6)		4.75 (120,7)	80 (36,28)
12 SSS x 10 SSS	1000 (13,8)			11.81 (300,0)		5.40 (137,2)	70 (31,77)

Reducing Coupling

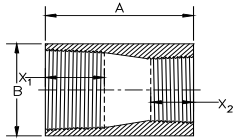
Female x Female



Thread Size Inches	Pressure Rating psi (MPa)	A In (mm)	B In (mm)	X ₁ In (mm)	X ₂ In (mm)	Wt Lbs (kg)
2 3/8 x 1.90	4000 (27,6)	6.625 (168,3)	4.25 (108,0)	2.56 (65,1)	2.06 (52,4)	4 (1,81)
2 7/8 x 1.90	4000 (27,6)	6.8 (172,7)	5.25 (133,4)	2.88 (73,0)	2.06 (52,4)	7 (3,18)
2 7/8 x 2 3/8	2000 (13,8)	4.2 (106,7)				6.0 (8,93)
2 7/8 x 2 3/8	4000 (27,6)	7.2 (182,9)			2.56 (65,1)	8.5 (3,86)
3 1/2 x 1.90	4000 (27,6)	8.0 (203,2)	6.0 (152,4)	3.13 (79,4)	2.06 (52,4)	18 (8,16)
3 1/2 x 2 3/8	4000 (27,6)				2.56 (65,1)	13 (5,90)
3 1/2 x 2 7/8	4000 (27,6)				2.88 (73,0)	12 (5,44)
4 1/2 x 1.90	4000 (27,6)	10.125 (257,2)	7.45 (189,2)	3.50 (88,9)	2.06 (52,4)	28 (12,70)
4 1/2 x 2 3/8	4000 (27,6)				2.56 (65,1)	24 (10,89)
4 1/2 x 2 7/8	4000 (27,6)	10.375 (263,5)			2.88 (73,0)	26 (11,79)
4 1/2 x 3 1/2	4000 (27,6)	10.125 (257,2)			3.13 (79,4)	20 (9,07)
5 1/2 x 2 3/8	4000 (27,6)	10.375 (263,5)	8.7 (221,0)	4.38 (111,1)	2.56 (65,1)	38 (17,24)
5 1/2 x 2 7/8	4000 (27,6)		8.5 (215,9)		2.88 (73,0)	30 (13,61)
5 1/2 x 3 1/2	4000 (27,6)				3.13 (79,4)	34 (15,42)
5 1/2 x 4 1/2	4000 (27,6)				3.50 (88,9)	30 (13,61)
6 5/8 x 3 1/2	2000 (13,8)	15.0 (381,0)	8.5 (215,9)	3.88 (98,4)	3.13 (79,4)	37 (16,78)
6 5/8 x 4 1/2	2000 (13,8)				3.50 (88,9)	34 (15,42)

Reducing Coupling

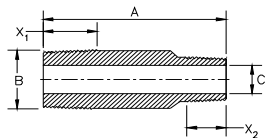
Female x Female
(continued)



Thread Size Inches	Pressure Rating psi (MPa)	A In (mm)	B In (mm)	X ₁ In (mm)	X ₂ In (mm)	Wt Lbs (kg)
7 x 4 1/2	2500 (17,2)	15.0 (381,0)	9.5 (241,3)	4.50 (114,3)	3.50 (88,9)	44 (19,96)
7 x 5 1/2	2500 (17,2)				4.38 (111,1)	40 (18,14)
8 5/8 x 4 1/2	1500 (10,3)	15.0 (381,0)	10.3 (261,6)	4.50 (114,3)	3.50 (88,9)	55 (24,95)
8 5/8 x 6 5/8	1500 (10,3)	13.0 (330,2)			3.88 (98,4)	45 (20,41)
8 5/8 x 7	1500 (10,3)	15.0 (381,0)			4.50 (114,3)	39 (17,69)
9 5/8 x 4 1/2	2000 (13,8)	15.0 (381,0)	12.2 (309,9)	4.75 (120,7)	3.50 (88,9)	88 (39,92)
9 5/8 x 7	2000 (13,8)				4.50 (114,3)	76 (34,47)
9 5/8 x 8 5/8	1500 (10,3)				4.50 (114,3)	58 (26,31)
8SS x 4 1/2	1250 (8,6)	16.5 (419,1)	10.0 (254,0)	6.10 (154,9)	3.50 (88,9)	57 (84,8)
8SS x 6 5/8	1250 (8,6)	14.5 (368,3)			3.88 (98,4)	47 (69,8)
10 SSS x 6 5/8	1250 (8,6)	19.5 (495,3)	13.8 (350,5)	5.40 (137,2)	3.88 (98,4)	68 (30,84)
10 SSS x 8 5/8	1250 (8,6)				4.50 (114,3)	63 (28,58)
10 SSS x 8SS	1250 (8,6)	15.0 (381,0)			4.75 (120,7)	50 (22,68)
12 SSS x 8 5/8	1250 (8,6)	18.3 (464,8)	16.0 (406,4)	6.10 (154,9)	4.50 (114,3)	90 (40,82)
12 SSS x 9 5/8	1250 (8,6)	20.5 (520,7)				90 (40,82)
12 SSS x 8 SSS	1250 (8,6)	19.5 (495,3)			4.75 (120,7)	90 (40,82)
12 SSS x 10 SSS	1250 (8,6)	16.0 (406,4)			5.40 (137,2)	75 (34,02)

Swage Nipples

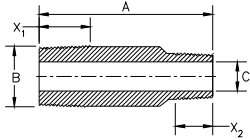
Male x Male



Thread Size Inches	Pressure Rating psi (MPa)	A In (mm)	B In (mm)	C In (mm)	X ₁ In (mm)	X ₂ In (mm)	Wt Lbs (kg)
2 3/8 x 1.90	2500 (17,2)	12.0 (304,8)	2.60 (66,0)	1.50 (38,1)	2.56 (65,1)	2.06 (52,4)	3.0 (1,36)
2 7/8 x 1.90	3500 (24,1)	12.0 (304,8)	3.10 (78,7)	1.50 (38,1)	2.88 (73,0)	2.06 (52,4)	4.5 (2,04)
2 7/8 x 2 3/8	2500 (17,2)			2.00 (50,8)		2.56 (65,1)	3.5 (1,59)
2 7/8 x 2 3/8	3500 (24,1)						3.5 (1,59)
3 1/2 x 1.90	3500 (24,1)	12.0 (304,8)	3.75 (95,3)	1.50 (38,1)	3.13 (79,4)	2.06 (52,4)	8.0 (3,63)
3 1/2 x 2 3/8	3500 (24,1)			2.00 (50,8)		2.56 (65,1)	5.5 (2,49)
3 1/2 x 2 7/8	3000 (20,7)			2.43 (61,7)		2.88 (73,0)	4.5 (2,04)

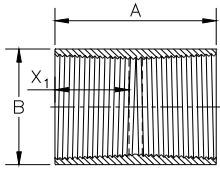
Swage Nipples

Male x Male
(continued)



Thread Size Inches	Pressure Rating		A In (mm)	B In (mm)	C In (mm)	X ₁ In (mm)	X ₂ In (mm)	Wt Lbs (kg)
	psi (MPa)							
4 1/2 x 2 3/8	3500 (24,1)		14.0 (355,6)	4.8 (121,9)	2.00 (50,8)	3.50 (88,9)	2.56 (65,1)	14.0 (6,35)
4 1/2 x 2 7/8	3500 (24,1)				2.43 (61,7)		2.88 (73,0)	12.0 (5,44)
4 1/2 x 3 1/2	3000 (20,7)			4.71 (119,6)	3.00 (76,2)		3.13 (79,4)	10.0 (4,54)
5 1/2 x 3 1/2	3000 (20,7)		16 (406,4)	5.55 (140,8)	3.00 (76,2)	4.38 (111,1)	3.13 (79,4)	18.0 (8,16)
5 1/2 x 4 1/2	2000 (13,8)				3.90 (99,1)		3.50 (88,9)	12.0 (5,44)
6 5/8 x 3 1/2	2000 (13,8)		16 (406,4)	6.65 (168,9)	3.00 (76,2)	3.88 (98,4)	3.13 (79,4)	28 (12,70)
6 5/8 x 4 1/2	2000 (13,8)				3.90 (99,1)		3.50 (88,9)	26 (11,79)
6 5/8 x 5 1/2	2000 (13,8)				4.74 (120,4)		4.38 (111,1)	20 (9,07)
7 x 4 1/2	2000 (13,8)		16.0 (406,4)	7.05 (179,1)	3.90 (99,1)	4.50 (114,3)	3.50 (88,9)	28 (12,70)
7 x 5 1/2	2000 (13,8)				4.74 (120,4)		4.38 (111,1)	21 (9,53)
7 x 6 5/8	1000 (6,9)				5.85 (148,6)		3.88 (98,4)	15 (6,80)
7 x 6 5/8	2000 (13,8)				5.85 (148,6)		3.88 (98,4)	18.5 (8,39)
8 5/8 x 5 1/2	1500 (10,3)		17.0 (431,8)	8.65 (219,7)	4.74 (120,4)	4.50 (114,3)	4.38 (111,1)	45 (20,41)
8 5/8 x 6 5/8	1000 (6,9)				5.85 (148,6)		3.88 (98,4)	40 (18,14)
8 5/8 x 6 5/8	2000 (13,8)				5.50 (139,7)		3.88 (98,4)	44 (19,96)
8 5/8 x 7	1500 (10,3)				5.85 (148,6)		4.50 (114,3)	40 (18,14)
9 5/8 x 6 5/8	1000 (6,9)		16.0 (406,4)	9.65 (245,1)	5.85 (148,6)	4.75 (120,7)	3.88 (98,4)	35 (15,88)
9 5/8 x 6 5/8	2000 (13,8)				5.50 (139,7)		3.88 (98,4)	41 (18,60)
9 5/8 x 7	2000 (13,8)		17.0 (431,8)		5.85 (148,6)		4.50 (114,3)	50 (22,68)
9 5/8 x 8 5/8	1250 (8,6)		18.0 (457,2)	9.44 (239,8)	7.50 (190,5)		4.50 (114,3)	31 (14,06)
10 SSS x 6 5/8	1200 (8,2)		17.0 (431,8)	11.25 (285,8)	5.93 (150,6)	5.40 (137,2)	3.88 (98,4)	80 (36,29)
10 SSS x 8 5/8	1200 (8,2)				7.74 (196,6)		4.50 (114,3)	55 (24,95)
10 SSS x 8 SSS	1200 (8,2)						4.75 (120,7)	55 (24,95)
12 SSS x 8 5/8	1200 (8,2)		18.0 (457,2)	13.25 (336,6)	7.74 (196,6)	6.10 (154,9)	4.50 (114,3)	100 (45,36)
12 SSS x 8 SSS	1200 (8,2)				7.74 (196,6)		4.75 (120,7)	100 (45,36)
12 SSS x 10 SSS	1200 (8,2)				9.84 (249,9)		5.40 (137,2)	65 (29,48)

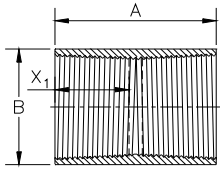
Threaded Couplings Female x Female



Thread Size Inches	Pressure Rating psi (MPa)	A In (mm)	B In (mm)	X ₁ In (mm)	Wt Lbs (kg)
1.90	2000 (13,8)	5.125 (130,2)	2.80 (71,1)	2.06 (52,4)	1.1 (0,50)
	2500 (17,2)		2.90 (73,7)		1.2 (0,54)
	3000 (20,7)		3.00 (76,2)		1.4 (0,64)
	3500 (24,1)		3.15 (80,0)		1.6 (0,74)
	4000 (27,6)		3.30 (83,8)		1.9 (0,87)
2 3/8	1500 (10,3)	6.126 (155,6)	3.25 (82,6)	2.56 (65,1)	1.4 (0,64)
	2000 (13,8)		3.40 (86,4)		1.8 (0,80)
	2500 (17,2)		3.60 (91,4)		2.2 (1,02)
	3000 (20,7)		3.70 (94,0)		2.5 (1,13)
	3500 (24,1)		3.90 (99,1)		3.0 (1,37)
	4000 (27,6)		4.10 (104,1)		3.6 (1,61)
2 7/8	1500 (10,3)	6.750 (171,5)	3.80 (96,5)	2.88 (73,0)	2.0 (0,91)
	2000 (13,8)		4.00 (101,6)		2.6 (1,17)
	2500 (17,2)		4.20 (106,7)		3.2 (1,45)
	3000 (20,7)		4.40 (111,8)		3.9 (1,75)
	3500 (24,1)		4.60 (116,8)		4.5 (2,05)
	4000 (27,6)		4.80 (121,9)		5.2 (2,37)
3 1/2	1500 (10,3)	7.250 (184,2)	4.60 (116,8)	3.13 (79,4)	3.1 (1,41)
	2000 (13,8)		4.80 (121,9)		3.9 (1,76)
	2500 (17,2)		5.10 (129,5)		5.1 (2,30)
	3000 (20,7)		5.25 (133,4)		5.7 (2,58)
	3500 (24,1)		5.50 (139,7)		6.8 (3,08)
	4000 (27,6)		5.75 (146,1)		7.9 (3,59)
4	1500 (10,3)	8.750 (222,3)	5.00 (127,0)	3.88 (98,4)	3.5 (1,59)
	2000 (13,8)		5.25 (133,4)		4.8 (2,16)
	2500 (17,2)		5.55 (141,0)		6.3 (2,88)
	3000 (20,7)		5.80 (147,3)		7.7 (3,50)
4 1/2	1500 (10,3)	8.000 (203,2)	5.80 (147,3)	3.50 (88,9)	5.3 (2,39)
	2000 (13,8)		6.10 (154,9)		6.9 (3,11)
	2500 (17,2)		6.40 (162,6)		8.5 (3,86)
	3000 (20,7)		6.70 (170,2)		10.3 (4,66)
	3500 (24,1)		7.00 (177,8)		12.1 (5,49)
	4000 (27,6)		7.20 (182,9)		13.4 (6,07)

Threaded Couplings

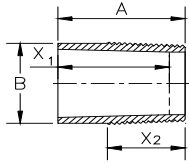
Female x Female
(continued)



Thread Size Inches	Pressure Rating psi (MPa)	A In (mm)	B In (mm)	X ₁ In (mm)	Wt Lbs (kg)
5 ½	1000 (6,9)	9.750 (247,7)	6.25 (158,8)	4.38 (111,1)	5.5 (2,51)
	1250 (8,6)		6.45 (163,8)		6.9 (3,14)
	1500 (10,3)		6.60 (167,6)		8.0 (3,62)
	1750 (12,1)		6.75 (171,5)		9.1 (4,13)
	2000 (13,8)		7.00 (177,8)		10.9 (4,96)
	2500 (17,2)		7.30 (185,4)		13.3 (6,02)
	3000 (20,7)		7.60 (193,0)		15.7 (7,13)
	3500 (24,1)		7.90 (200,7)		18.2 (8,27)
	4000 (27,6)		8.20 (208,3)		20.9 (9,46)
6 ⅝	800 (5,5)	8.75 (222,3)	7.35 (186,7)	3.88 (98,4)	5.6 (2,55)
	1000 (6,9)		7.55 (191,8)		7.1 (3,21)
	1250 (8,6)		7.70 (195,6)		8.2 (3,71)
	1500 (10,3)		7.90 (200,7)		9.7 (4,40)
	2000 (13,8)		8.25 (209,6)		12.5 (5,66)
	2500 (17,2)		8.70 (221,0)		16.2 (7,34)
7	800 (5,5)	10.00 (254,0)	7.85 (199,4)	4.50 (114,3)	7.7 (3,48)
	1000 (6,9)		8.00 (203,2)		9.0 (4,09)
	1250 (8,6)		8.20 (208,3)		10.8 (4,91)
	1500 (10,3)		8.40 (213,4)		12.7 (5,75)
	2000 (13,8)		8.75 (222,3)		16.0 (7,26)
	2500 (17,2)		9.20 (233,7)		20.5 (9,31)
8 ⅝	800 (5,5)	10.00 (254,0)	9.50 (241,3)	4.50 (114,3)	9.9 (4,47)
	1000 (6,9)		9.70 (246,4)		12.0 (5,44)
	1250 (8,6)		10.00 (254,0)		15.3 (6,93)
	1500 (10,3)		10.20 (259,1)		17.5 (7,96)
9 ⅝	800 (5,5)	10.50 (266,7)	10.70 (271,8)	4.75 (120,7)	13.5 (6,12)
	1000 (6,9)		10.90 (276,9)		16.7 (7,57)
	1250 (8,6)		11.10 (281,9)		19.3 (8,74)
	1500 (10,3)		11.50 (292,1)		24.6 (11,14)
	2000 (13,8)		11.90 (302,3)		30.0 (13,63)
8 SSS	800 (5,5)	10 (254,0)	9.60 (243,8)	4.75 (120,7)	9.0 (4,08)
	1250 (8,6)		10.20 (259,1)		15.0 (6,80)
10 SSS	800 (5,5)	11.375 (288,9)	12.8 (325,1)	5.40 (137,2)	18.0 (8,16)
	1250 (8,6)		13.6 (345,4)		30.0 (13,61)
12 SSS	800 (5,5)	12.2 (309,9)	14.8 (375,9)	6.10 (154,9)	26.0 (11,79)
	1250 (8,6)		15.7 (398,8)		42.0 (19,05)

Threaded Adapter

Bonded Bell x Male

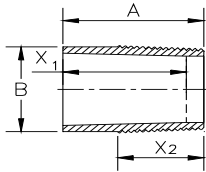


Thread Size	Pipe Pressure Rating		A In (mm)	B In (mm)	X ₁ In (mm)	X ₂ In (mm)	Wt Lbs (kg)	Anhydride		Aliphatic		Aromatic
	Inches	psi (MPa)						STD	15HR	STD	15HR	15HR
1.90		1250 (8,6)	4.25 (108,0)	2.15 (54,6)	4.00 (101,6)	2.36 (59,9)	0.6 (0,27)	N/A	R	N/A	N/A	N/A
		1500 (10,3)						R	R	R	R	R
		1750 (12,1)						R	R	R	R	Q
		2000 (13,8)						R	Q	R	R	Q
		2250 (15,5)						R	Q	R	Q	S
		2500 (17,2)						Q	S	R	P	N/A
2 3/8		750 (5,2)	5.00 (127,0)	2.71 (68,8)	4.75 (120,7)	2.56 (65,1)	0.9 (0,41)	N/A	S	N/A	R	N/A
		800 (5,5)						N/A	N/A	R	N/A	N/A
		1000 (6,9)						N/A	S	R	R	S
		1250 (8,6)						S	S	R	R	S
		1500 (10,3)						S	S	R	R	S
		1750 (12,1)						S	S	R	S	Q
		2000 (13,8)						S	Q	R	Q	P
		2250 (15,5)						Q	P	R	P	N/A
		2500 (17,2)						Q	P	S	N/A	Q
	2 7/8		750 (5,2)	5.25 (133,4)	3.21 (81,5)	5.00 (127,0)	2.88 (73,0)	1.2 (0,54)	N/A	T	N/A	U
		800 (5,5)						N/A	N/A	U	N/A	N/A
		1000 (6,9)						T	T	U	U	T
		1250 (8,6)						T	T	U	U	T
		1500 (10,3)						T	T	U	T	Q
		1750 (12,1)						T	S	U	S	Q
		2000 (13,8)						S	Q	U	Q	N/A
		2250 (15,5)						Q	Q	T	Q	N/A
		2500 (17,2)						Q	N/A	R	Q	Q
3 1/2			500 (3,5)	5.50 (139,7)	3.89 (98,8)	5.25 (133,4)	3.13 (79,4)	1.6 (0,73)	N/A	T	U	U
		750 (5,2)						N/A	T	N/A	U	T
		800 (5,5)						T	N/A	U	N/A	N/A
		1000 (6,9)						T	T	U	U	T
		1250 (8,6)						T	T	U	U	S
		1500 (10,3)						T	S	U	S	S
		1750 (12,1)						T	S	U	S	Q
		2000 (13,8)						S	R	S	R	P
		2250 (15,5)						S	Q	S	R	S
		2500 (17,2)						R	P	R	Q	S
4 1/2		500 (3,5)	5.75 (146,1)	4.89 (124,2)	5.50 (139,7)	3.50 (88,9)	2.4 (1,09)	T	T	U	U	T
		750 (5,2)						N/A	T	N/A	U	T
		800 (5,5)						T	N/A	U	N/A	N/A
		1000 (6,9)						T	T	U	U	S
		1250 (8,6)						T	S	U	T	R
		1500 (10,3)						S	R	T	R	Q
		1750 (12,1)						S	R	S	Q	P
		2000 (13,8)						R	P	R	P	Q

Threaded Adapter

Bonded Bell x Male
(continued)

Thread Size	Pipe Pressure Rating		A In (mm)	B In (mm)	X ₁ In (mm)	X ₂ In (mm)	Wt Lbs (kg)	Anhydride		Aliphatic		Aromatic
	Inches	psi (MPa)						STD	15HR	STD	15HR	15HR
TC5 1/2	500 (3,5)	6.75 (171,5)	5.55 (141,0)	6.50 (165,1)	4.38 (111,1)	3.2 (1,45)	R	R	R	N/A	N/A	
	750 (5,2)						N/A	R	N/A	N/A	R	
	800 (5,5)						R	N/A	R	N/A	N/A	
	1000 (6,9)						R	R	R	N/A	Q	
	1250 (8,6)						R	Q	R	N/A	P	
	1500 (10,3)						Q	P	T	N/A	N/A	
6 5/8	500 (3,5)	6.25 (158,8)	6.77 (172,0)	6.00 (152,4)	3.88 (98,4)	3.5 (2,40)	V	V	S	S	V	
	750* (5,2)						N/A	V	N/A	U (5.50 ID)	S	
									N/A	S (5.93 ID)		
	800* (5,5)						V	N/A	U (5.50 ID)	N/A	N/A	
									S (5.93 ID)			
	1000* (6,9)						V	S	U (5.50 ID)	T (5.50 ID)	Q	
								R (5.93 ID)	R (5.93 ID)			
	1250 (8,6)						S	Q	T	N/A	V	
8 5/8	500 (3,5)	6.88 (174,8)	8.77 (222,8)	6.63 (168,4)	4.50 (114,3)	5.3 (2,40)	U	U	S	S	U	
	750 (5,2)						N/A	U	N/A	R	T	
	800 (5,5)						U	N/A	S	N/A	N/A	
	1000 (6,9)						T	S	R	N/A	R	
8 SSS	500 (3,5)	8.00 (203,2)	8.79 (223,3)	8.00 (203,2)	4.75 (120,7)	7.5 (3,42)	N/A	N/A	R	N/A	N/A	
	800 (5,5)						N/A	N/A	R	N/A	N/A	
10 SSS	500 (3,5)	10.0 (254,0)	11.27 (286,3)	7.00 (177,8)	5.40 (137,2)	8.7 (3,93)	N/A	N/A	R	N/A	N/A	
12 SSS	500 (3,5)	10.0 (254,0)	13.25 (337,1)	7.00 (177,8)	6.10 (154,9)	21.5 (9,74)	N/A	N/A	R	N/A	N/A	



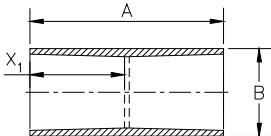
*IMPORTANT NOTICE

It is important to know the ID before ordering 6 5/8" Threaded Adapters.

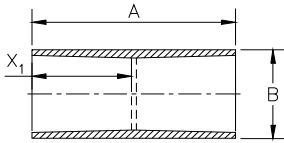
Sleeve Coupling

Bonded Bell x Bonded Bell

Thread Size	Pipe Pressure Rating		A In (mm)	B In (mm)	X ₁ In (mm)	Wt Lbs (kg)	Anhydride		Aliphatic		Aromatic
	Inches	psi (MPa)					STD	15HR	STD	15HR	15HR
1.90	1250 (8,6)	18.0 (457,2)	2.20 (55,9)	3.00 (76,2)	2.6 (1,2)	N/A	R	N/A	N/A	N/A	
	1500 (10,3)					R	R	R	R	R	
	1750 (12,1)					R	R	R	R	Q	
	2000 (13,8)					R	Q	R	R	Q	
2 3/8	750 (5,2)	18.0 (457,2)	3.00 (76,2)	3.75 (95,3)	5.0 (2,3)	N/A	S	N/A	R	N/A	
	800 (5,5)					N/A	N/A	R	N/A	N/A	
	1000 (6,9)					N/A	S	R	R	S	
	1250 (8,6)					S	S	R	R	S	
	1500 (10,3)					S	S	R	R	S	
	1750 (12,1)					S	S	R	S	Q	
	2000 (13,8)					S	Q	R	Q	P	



Sleeve Coupling
Bonded Bell x Bonded Bell
(continued)

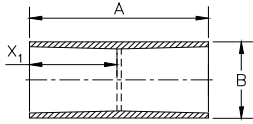


Thread Size	Pipe Pressure Rating		A In (mm)	B In (mm)	X ₁ In (mm)	Wt Lbs (kg)	Anhydride		Aliphatic		Aromatic
	Inches	psi (MPa)					STD	15HR	STD	15HR	15HR
2 7/8	750 (5,2)	18.0 (457,2)	3.65 (92,7)	4.00 (101,6)	7.4 (3,4)	N/A	T	N/A	U	T	
	800 (5,5)					N/A	N/A	U	N/A	N/A	
	1000 (6,9)					T	T	U	U	T	
	1250 (8,6)					T	T	U	U	T	
	1500 (10,3)					T	T	U	T	Q	
	1750 (12,1)					T	S	U	S	Q	
	2000 (13,8)					S	Q	U	Q	N/A	
3 1/2	500 (3,5)	18.0 (457,2)	4.50 (114,3)	4.25 (114,3)	11.3 (5,1)	N/A	T	U	U	T	
	750 (5,2)					N/A	T	N/A	U	T	
	800 (5,5)					T	N/A	U	N/A	N/A	
	1000 (6,9)					T	T	U	U	T	
	1250 (8,6)					T	T	U	U	S	
	1500 (10,3)					T	S	U	S	S	
4 1/2	500 (3,5)	18.0 (457,2)	5.75 (146,1)	4.50 (114,3)	17.8 (8,1)	T	T	U	U	T	
	750 (5,2)					N/A	T	N/A	U	T	
	800 (5,5)					T	N/A	U	N/A	N/A	
	1000 (6,9)					T	T	U	T	S	
	1250 (8,6)					T	S	U	S	R	
TC5 1/2	500 (3,5)	18.0 (457,1)	7.50 (190,5)	5.50 (139,7)	33.8 (15,3)	R	R	R	N/A	N/A	
	750 (5,2)					N/A	R	N/A	N/A	R	
	800 (5,5)					R	N/A	R	N/A	N/A	
	1000 (6,9)					R	R	R	N/A	Q	
	1250 (8,6)					R	Q	R	N/A	P	
6 5/8	500 (3,5)	18.0 (457,2)	7.65 (194,3)	5.00 (127,0)	24.3 (11,0)	V	V	S	S	V	
	750* (5,2)					N/A	V	N/A	U (5.50 ID)	S (5.50 ID)	
	750* (5,2)							N/A	S (5.93 ID)	S (5.93 ID)	
	800* (5,5)					V	N/A	U (5.50 ID)	N/A (5.93 ID)	N/A	
	800* (5,5)							S (5.93 ID)	N/A (5.93 ID)		
	1000*					V	S	U (5.50 ID)	U (5.50 ID)	Q	
	1000*							S (5.93 ID)	R (5.93 ID)		
	1250					S	Q			V	
8 5/8	500	18.0 (457,2)	10.0 (254,0)	5.38 (136,7)	43.7 (19,8)	U	U	S	S	U	
	750					N/A	U	N/A	S	T	
	800					U	N/A	S	N/A	N/A	

***IMPORTANT NOTICE**
 It is important to know the ID before ordering 6 5/8" Sleeve Couplings.

Sleeve Coupling

Bonded Bell x Bonded Bell (continued)



Thread Size	Pipe Pressure Rating	A In (mm)	B In (mm)	X ₁ In (mm)	Wt Lbs (kg)	Anhydride		Aliphatic		Aromatic
						STD	15HR	STD	15HR	15HR
8 SSS	500 (3,5)	8.00 (203,2)	8.79 (223,3)	8.00 (203,2)	7.5 (3,42)	N/A	N/A	R	N/A	N/A
	800 (5,5)					N/A	N/A	R	N/A	N/A
10 SSS	500 (3,5)	10.0 (254,0)	11.27 (286,3)	7.00 (177,8)	8.7 (3,93)	N/A	N/A	R	N/A	N/A
12 SSS	500 (3,5)	10.0 (254,0)	13.25 (337,1)	7.00 (177,8)	21.5 (9,74)	N/A	N/A	R	N/A	N/A

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