

DOMESTIC

NON-DOMESTIC

SUBMITTAL: C110 FLANGE JOINT CLASS 125 PRODUCT

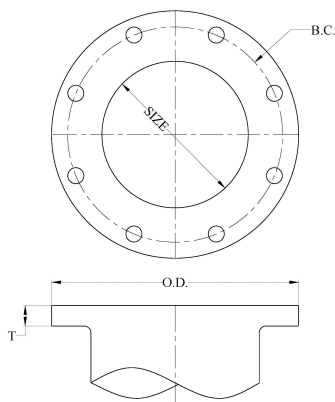
(Current revisions for the noted Standards apply)

SIZES:	2" - 64" (Contact Tyler Union for 54" - 64" flange fitting information)
STANDARDS:	ANSI/AWWA C110/A21.10, NFPA 13/24, ASME B16.1, 3" - 12" UL listed and FM approved
MATERIAL:	Cast of ASTM A536 qualified ductile iron. Date code is cast on and required for traceability.
PRESSURE RATING:	*Flanged fittings *2" - 48" rated at 250 psi. 54" - 64" rated at 150psi. *Note: With rubber annular ring flange gasket, 2" - 24" flanged fittings can be rated at 350 psi.
DEFLECTION:	Deflection is "not" recommended for flange joint due to the rigidity of the joint.
NSF-61 & NSF372:	Meets all requirements including Annex G, Tyler Union's Underwriters Laboratory listing MH16439.
COATING:	Asphaltic or Primer per ANSI/AWWA C104/A21.4, Standard primer is Tnemec Pota Pox N140-1211. Contact Tyler Union for additional coating options.
CEMENT LINING:	Per ANSI/AWWA C104/A21.4, with double cement lining available upon request.
EPOXY COATING:	Fusion bonded epoxy per ANSI/AWWA C116/A21.16. Additional coatings available upon request.
BARE FITTINGS:	Available upon request.
FLANGES:	ANSI Class 125 per ASME B16.1 and ANSI/AWWA C111/A21.11. Bolt holes shall straddle the center line NOTE: Class 125 ASME B16.1 are not compatible with Class 250 Flanges NOTE: Class 250 ASME B16.1 fittings are available upon request.
FASTNERS:	High strength low alloy weathering steel per ANSI/AWWA C111/A21.11 and ASTM A242
INSTALLATION:	Install per AWWA C600/C651 using pipe conforming to ANSI/AWWA C151/A21.51.

FLANGE DETAILS IN INCHES

BOLTS

Size Inches	Diameter DI Pipe	Flange O.D.	B.C. Diameter	Flange Thickness T	Bolt Hole Diameter	Size	Qty
2	2.51	6.00	4.75	0.62	0.750	5/8 x 2-1/4	4
3	3.96	7.50	6.00	0.75	0.750	5/8 x 2-1/4	4
4	4.80	9.00	7.50	0.94	0.750	5/8 x 3	8
6	6.90	11.00	9.50	1.00	0.875	3/4 x 3-1/2	8
8	9.05	13.50	11.75	1.12	0.875	3/4 x 3-1/2	8
10	11.10	16.00	14.25	1.19	1.000	7/8 x 4	12
12	13.20	19.00	17.00	1.25	1.000	7/8 x 4	12
14	15.30	21.00	18.75	1.38	1.125	1 x 4-1/2	12
16	17.40	23.50	21.25	1.44	1.125	1 x 4-1/2	16
18	19.50	25.00	22.75	1.56	1.250	1-1/8 x 5	16
20	21.60	27.50	25.00	1.69	1.250	1-1/8 x 5	20
24	25.80	32.00	29.50	1.88	1.375	1-1/4 x 5-1/2	20
30	32.00	38.75	36.00	2.12	1.375	1-1/4 x 5-1/2	28
36	38.30	46.00	42.75	2.38	1.625	1-1/2 x 7	32
42	44.50	53.00	49.50	2.62	1.625	1-1/2 x 7-1/2	36
48	50.80	59.50	56.00	2.75	1.625	1-1/2 x 8	44
54	Available on Request						
60	Available on Request						
64	Available on Request						



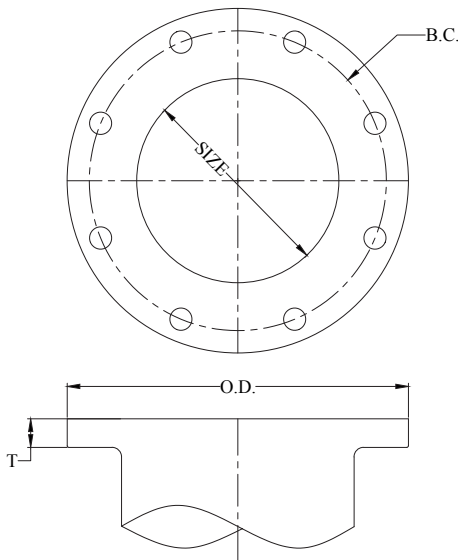
C110 DUCTILE IRON FULL BODY FITTINGS

SAMPLE SPECIFICATIONS

(Current ANSI/AWWA revisions apply)

Flanged fittings, 2” through 64”, shall be manufactured of Ductile Iron in accordance with all applicable terms and provisions of standards ANSI/AWWA C110/A21.10. Flange surfaces shall be faced and drilled in accordance with ANSI Class 125, B16.1. All Ductile Iron flanged fittings shall be rated for water pressure of 250 psi. Flanged ductile iron fittings in 24” (610 mm) and smaller sizes may be rated for 350 psi (2,413 kPa) with the use of special gaskets .

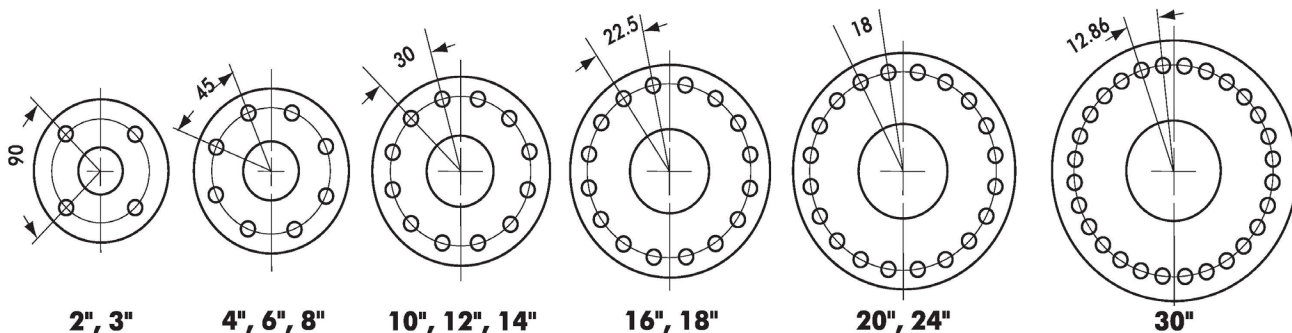
NOTE: Fittings are available prime coated, bare or epoxy coated. All coated fittings meet requirements of NSF-61, NSF-372 and Annex G. Interiors of fittings shall be lined and seal coated in accordance with ANSI/AWWA C104/A21.4. Installation of fittings shall be per AWWA C110.



ANSI/AWWA C110 Class 125 Flange Fittings

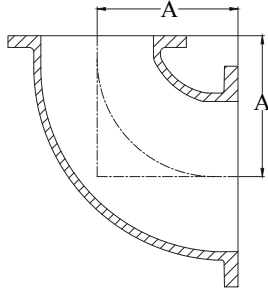
FLANGE DETAILS						
Nominal Pipe Size Inch	Flange O.D.	B.C. Diameter	Flange Thickness T	Bolt Hole Diameter	Number of Bolts	Bolt Dia. and Lengths
2	6.00	4.75	0.62	0.750	4	5/8 x 2 1/4
3	7.50	6.00	0.75	0.750	4	5/8 x 2 1/2
4	9.00	7.50	0.94	0.750	8	5/8 x 3
6	11.00	9.50	1.00	0.880	8	3/4 x 3 1/2
8	13.50	11.75	1.12	0.880	8	3/4 x 3 1/2
10	16.00	14.25	1.19	1.000	12	7/8 x 4
12	19.00	17.00	1.25	1.000	12	7/8 x 4
14	21.00	18.75	1.38	1.130	12	1 x 4 1/2
16	23.50	21.25	1.44	1.130	16	1 x 4 1/2
18	25.00	22.75	1.56	1.250	16	1 1/8 x 5
20	27.50	25.00	1.69	1.250	20	1 1/8 x 5
24	32.00	29.50	1.88	1.375	20	1 1/4 x 5 1/2
30	38.75	36.00	2.12	1.375	28	1 1/4 x 6 1/2
36	46.00	42.75	2.38	1.625	32	1 1/2 x 7
42	53.00	49.50	2.62	1.625	36	1 1/2 x 7 1/2
48	59.50	56.00	2.75	1.625	44	1 1/2 x 8
54	66.25	62.75	3.00	2.00	44	1 3/4 x 8 1/2
60	73.00	69.25	3.12	2.00	52	1 3/4 x 9
64	80.00	76.00	3.38	2.00	52	1 3/4 x 9

Contact Tyler Union for 54”–64” flange fitting information.



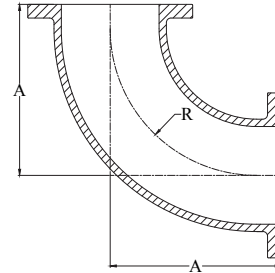
NOTE: Drilling templates are in multiples of four so that fittings may be made to face in any quarter. Bolt holes shall straddle the center line.

C110 DUCTILE IRON FULL BODY FITTINGS



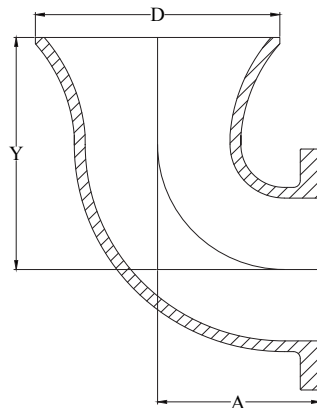
90° REDUCING BEND (1/4)		
Size	A	Weight
4x3	6.50	35
6x4	8.00	65
8x4	9.00	88
8x6	9.00	96
10x6	11.00	126
10x8	11.00	151
12x6	12.00	172
12x8	12.00	191
12x10	12.00	218
14x3	14.00	230
14x8	14.00	240
16x10	15.00	280

*Not included in AWWA C110. Contact Tyler Union for sizes not shown.



90° LONG RADIUS BEND (1/4)			
Size	R	A	Weight
3	6.25	7.75	32
4	7.00	9.00	46
6	9.50	11.50	83
8	12.00	14.00	140
10	14.50	16.50	252
12	17.00	19.00	310
14	19.00	21.50	475
16	21.50	24.00	630
18	—	26.50	840
20	—	29.00	1080
24	—	34.00	1640

*Not included in AWWA C110. Contact Tyler Union for sizes not shown.



FLANGE AND FLARE 90° BEND (1/4)				
Size	D	A	Y	Weight
3	8.00	5.50	8.50	26
4	9.00	6.50	9.50	39
6	11.00	8.00	12.00	73
8	14.00	9.00	13.00	110
10	16.00	11.00	15.00	171
12	19.00	12.00	16.00	253
14	21.00	14.00	21.50	450
16	24.00	15.00	23.00	545
18	25.00	16.50	24.50	675
20	28.00	18.00	26.00	860
24	32.00	22.00	30.00	1195
30	39.00	25.00	38.00	2070
36	48.00	28.00	38.00	2900