

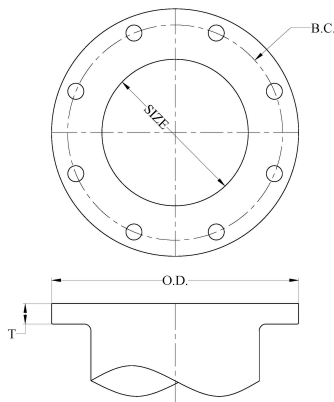
☐ DOMESTIC

☐ 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						

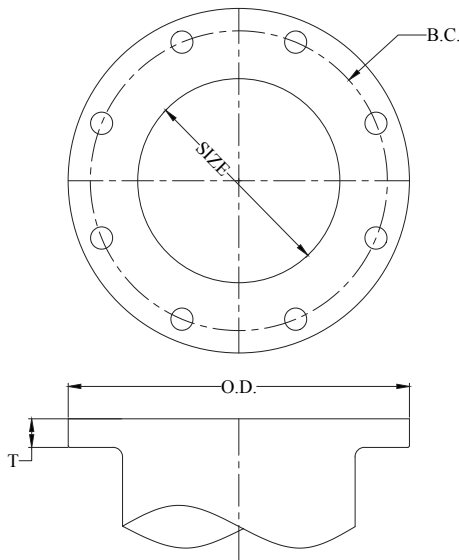
C110 DUCTILE IRON FULL BODY FITTINGS

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.

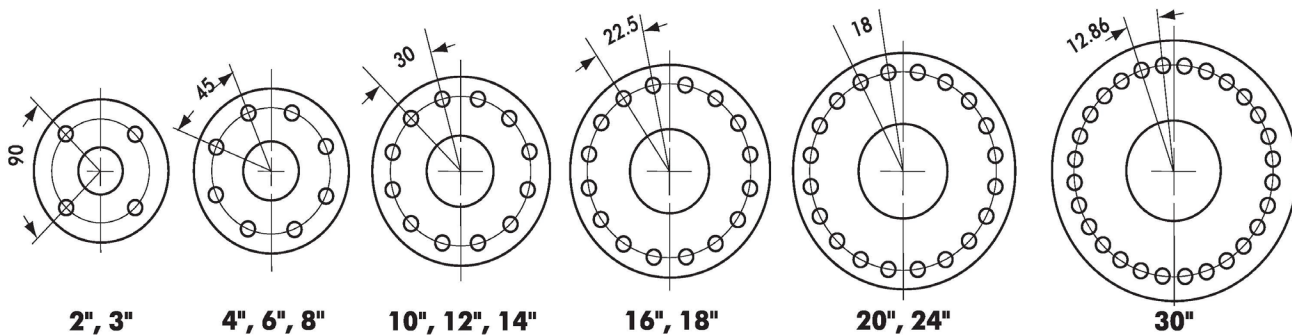
NOTE: Fittings are available prime coated, bare or epoxy coated. All coated fittings meet requirements of NSF-61, NSF-372 and Annex G. Interiors of fittings shall be lined and seal coated in accordance with ANSI/AWWA C104/A21.4. Installation of fittings shall be per AWWA C110.



ANSI/AWWA C110 Class 125 Flange Fittings

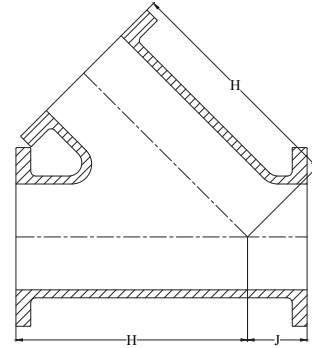
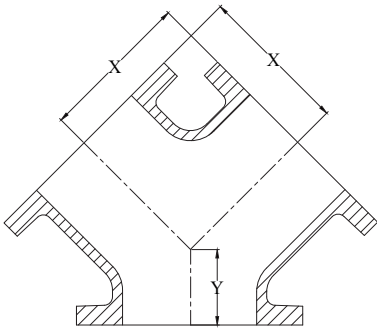
FLANGE DETAILS						
Nominal Pipe Size Inch	Flange O.D.	B.C. Diameter	Flange Thickness T	Bolt Hole Diameter	Number of Bolts	Bolt Dia. and Lengths
2	6.00	4.75	0.62	0.750	4	5/8 x 2 1/4
3	7.50	6.00	0.75	0.750	4	5/8 x 2 1/2
4	9.00	7.50	0.94	0.750	8	5/8 x 3
6	11.00	9.50	1.00	0.880	8	3/4 x 3 1/2
8	13.50	11.75	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.



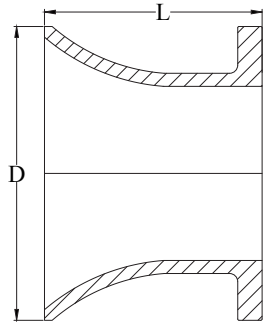
NOTE: Drilling templates are in multiples of four so that fittings may be made to face in any quarter. Bolt holes shall straddle the center line.

C110 DUCTILE IRON FULL BODY FITTINGS



*TRUE WYES				
Sizes				Domestic
Stem	Branch	X	Y	Weight
4	4	6.50	3.00	49
6	4	8.00	3.50	75
6	6	8.00	3.50	84
8	6	9.00	4.50	134
8	8	9.00	4.50	125
10	6	8.00	5.00	140
10	8	9.00	5.00	155
10	10	11.00	5.00	220
12	8	9.00	5.50	210
12	10	11.00	5.50	240
12	12	12.00	5.50	315
16	16	13.00	6.50	520

*Not included in AWWA C110.



*FLANGE x FLARE PIECE			
Size	D	L	Weight
3	7.00	8.00	21
4	9.00	8.00	30
6	11.00	8.00	44
8	14.00	10.00	75
10	16.00	10.00	113
12	19.00	12.00	155
14	21.00	16.00	225
16	24.00	16.00	330
18	25.00	16.00	355
20	28.00	18.00	465
24	32.00	18.00	598
30	39.00	24.00	900
36	46.00	24.00	1200

*Not included in AWWA C110.

*WYES / LATERALS				
Sizes				Domestic
Run	Branch	H	J	Tee
3	3	10.00	3.00	49
4	3	12.00	3.00	68
4	4	12.00	3.00	76
6	4	14.50	3.50	106
6	6	14.50	3.50	131
8	4	17.50	4.50	153
8	6	17.50	4.50	188
8	8	17.50	4.50	201
10	4	20.50	5.00	232
10	6	20.50	5.00	288
10	8	20.50	5.00	333
10	10	20.50	5.00	300
12	4	24.50	5.50	355
12	6	24.50	5.50	370
12	8	24.50	5.50	395
12	10	24.50	5.50	420
12	12	24.50	5.50	460
14	6	27.00	6.00	500
14	8	27.00	6.00	525
14	10	27.00	6.00	555
14	12	27.00	6.00	600
14	14	27.00	6.00	640
16	6	30.00	6.50	655
16	8	30.00	6.50	680
16	10	30.00	6.50	715
16	12	30.00	6.50	755
16	14	30.00	6.50	800
16	16	30.00	6.50	850
18	8	32.00	7.00	820
18	10	32.00	7.00	855
18	12	32.00	7.00	1003
18	14	32.00	7.00	940
18	16	32.00	7.00	990
18	18	32.00	7.00	1035
20	10	35.00	8.00	1095
20	12	35.00	8.00	1130
20	14	35.00	8.00	1170
20	16	35.00	8.00	1220
20	20	35.00	8.00	1345
24	24	40.50	9.00	2020
36	36	60.00	19.50	5740

*Not included in AWWA C110.