

DOMESTIC

NON-DOMESTIC

## SUBMITTAL: C110 FLANGE JOINT CLASS 125 PRODUCT

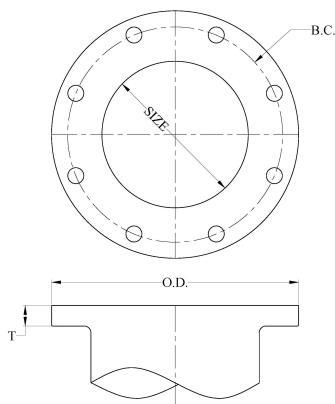
(Current revisions for the noted Standards apply)

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



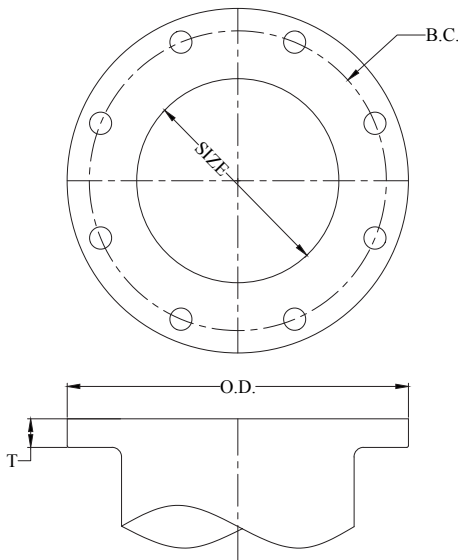
**C110 DUCTILE IRON FULL BODY FITTINGS**

**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 .

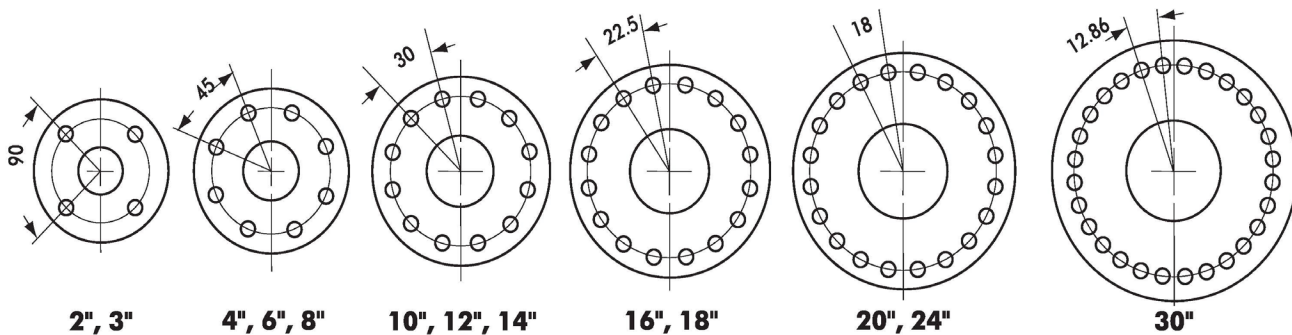
**NOTE:** Fittings are available prime coated, bare or epoxy coated. All coated fittings meet requirements of NSF-61, NSF-372 and Annex G. Interiors of fittings shall be lined and seal coated in accordance with ANSI/AWWA C104/A21.4. Installation of fittings shall be per AWWA C110.



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

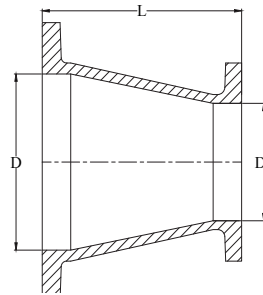
Contact Tyler Union for 54”–64” flange fitting information.



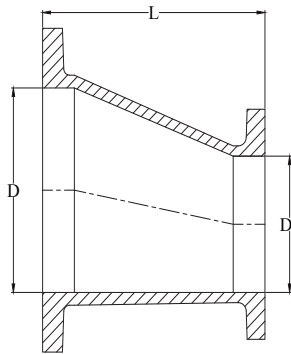
NOTE: Drilling templates are in multiples of four so that fittings may be made to face in any quarter. Bolt holes shall straddle the center line.

C110 DUCTILE IRON FULL BODY FITTINGS

CONCENTRIC REDUCER				
			Domestic	Import
D	D1	L	Weight	Weight
3.00	2.00	6.00	17	-
4.00	2.00	7.00	23	-
4.00	3.00	7.00	29	30
6.00	2.00	9.00	30	-
6.00	3.00	9.00	44	40
6.00	4.00	9.00	46	45
6.00	5.00	9.00	56	-
8.00	3.00	11.00	61	65
8.00	4.00	11.00	63	-
8.00	5.00	11.00	70	-
8.00	6.00	11.00	75	75
10.00	4.00	12.00	98	85
10.00	6.00	12.00	107	90
10.00	8.00	12.00	116	110
12.00	4.00	14.00	119	120
12.00	6.00	14.00	130	130
12.00	8.00	14.00	152	145
12.00	10.00	14.00	178	170
14.00	6.00	16.00	165	155
14.00	8.00	16.00	185	175
14.00	10.00	16.00	205	190
14.00	12.00	16.00	235	220
16.00	6.00	18.00	210	190
16.00	8.00	18.00	230	210
16.00	10.00	18.00	255	235
16.00	12.00	18.00	285	265
16.00	14.00	18.00	315	280
18.00	8.00	19.00	265	240
18.00	10.00	19.00	290	265
18.00	12.00	19.00	320	295
18.00	14.00	19.00	350	310
18.00	16.00	19.00	405	340
20.00	10.00	20.00	418	-
20.00	12.00	20.00	465	345
20.00	14.00	20.00	430	355
20.00	16.00	20.00	445	390
20.00	18.00	20.00	470	410
24.00	12.00	24.00	608	480
24.00	14.00	24.00	565	490
24.00	16.00	24.00	610	525
24.00	18.00	24.00	645	550
24.00	20.00	24.00	695	590
30.00	16.00	30.00	945	-
30.00	18.00	30.00	970	810
30.00	20.00	30.00	1144	870
30.00	24.00	30.00	1155	970
36.00	20.00	36.00	-	1230
36.00	24.00	36.00	-	1345
36.00	30.00	36.00	-	1555
42.00	24.00	42.00	1810	1820
42.00	30.00	42.00	2060	2060
42.00	36.00	42.00	-	2345
48.00	30.00	48.00	2615	2625
48.00	36.00	48.00	2940	2950
48.00	42.00	48.00	3320	3320



Concentric Reducer



Eccentric Reducer

*ECCENTRIC REDUCER				
			Domestic	Import
D	D1	L	Weight	Weight
4.00	3.00	7.00	30	-
6.00	3.00	9.00	45	-
6.00	4.00	9.00	52	45
8.00	4.00	11.00	70	-
8.00	6.00	11.00	80	-
10.00	4.00	12.00	95	-
10.00	6.00	12.00	98	-
10.00	8.00	12.00	123	-
12.00	4.00	14.00	120	-
12.00	6.00	14.00	135	-
12.00	8.00	14.00	149	-
12.00	10.00	14.00	177	-
14.00	6.00	16.00	165	-
14.00	8.00	16.00	185	-
14.00	10.00	16.00	205	-
14.00	12.00	16.00	294	-
16.00	6.00	18.00	210	-
16.00	8.00	18.00	230	-
16.00	10.00	18.00	255	-
16.00	12.00	18.00	285	-
16.00	14.00	18.00	315	-
18.00	8.00	19.00	265	-
18.00	10.00	19.00	290	-
18.00	12.00	19.00	306	-
18.00	14.00	19.00	350	-
18.00	16.00	19.00	385	-
20.00	10.00	20.00	350	-
20.00	12.00	20.00	370	-
20.00	14.00	20.00	402	-
20.00	16.00	20.00	449	-
20.00	18.00	20.00	455	-
24.00	12.00	24.00	535	-
24.00	14.00	24.00	570	-
24.00	16.00	24.00	614	-
24.00	18.00	24.00	645	-
24.00	20.00	24.00	695	-
30.00	16.00	30.00	778	-
30.00	18.00	30.00	810	-
30.00	20.00	30.00	870	-
30.00	24.00	30.00	970	-
36.00	24.00	36.00	1425	-
36.00	30.00	36.00	2120	-
42.00	24.00	42.00	2340	-
42.00	30.00	42.00	2060	-
42.00	36.00	42.00	2345	-
48.00	30.00	48.00	2625	-
48.00	36.00	48.00	2950	-
48.00	42.00	48.00	3320	-

\*Eccentric Reducers not included in AWWA C110.