

DOMESTIC

NON-DOMESTIC

SUBMITTAL: C110 FLANGE JOINT CLASS 125 PRODUCT

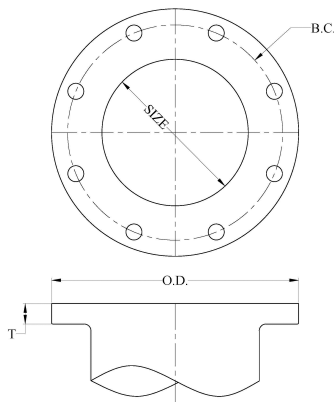
(Current revisions for the noted Standards apply)

- 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						



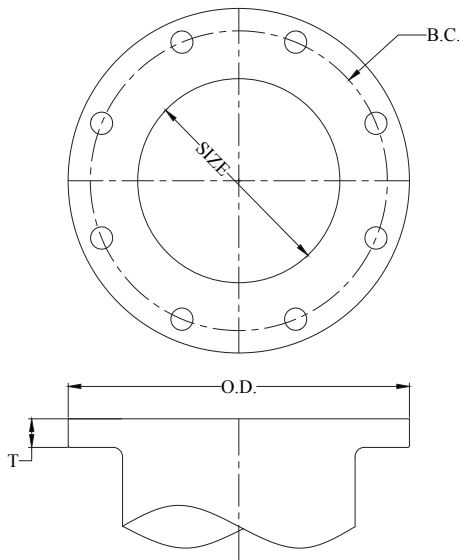
C110 DUCTILE IRON FULL BODY FITTINGS

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 .

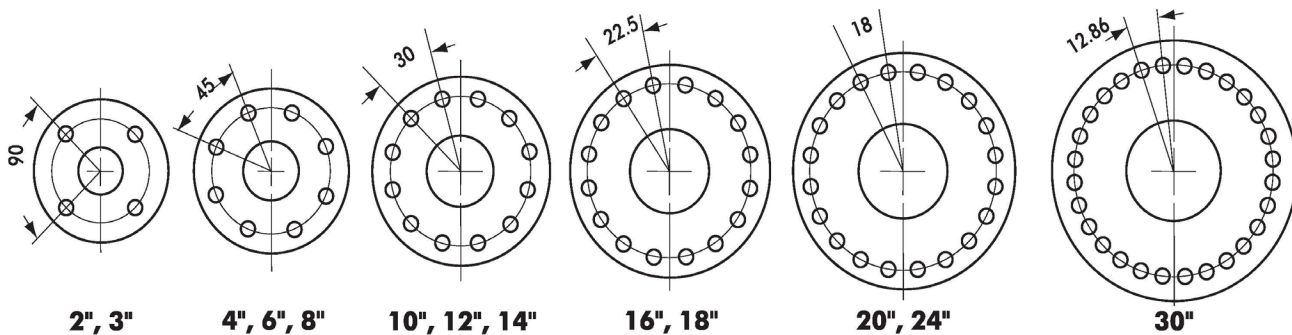
NOTE: Fittings are available prime coated, bare or epoxy coated. All coated fittings meet requirements of NSF-61, NSF-372 and Annex G. Interiors of fittings shall be lined and seal coated in accordance with ANSI/AWWA C104/A21.4. Installation of fittings shall be per AWWA C110.



ANSI/AWWA C110 Class 125 Flange Fittings

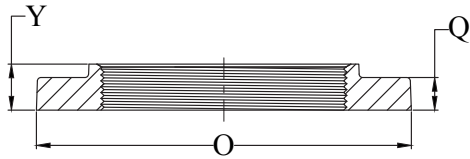
FLANGE DETAILS						
Nominal Pipe Size Inch	Flange O.D.	B.C. Diameter	Flange Thickness T	Bolt Hole Diameter	Number of Bolts	Bolt Dia. and Lengths
2	6.00	4.75	0.62	0.750	4	5/8 x 2 1/4
3	7.50	6.00	0.75	0.750	4	5/8 x 2 1/2
4	9.00	7.50	0.94	0.750	8	5/8 x 3
6	11.00	9.50	1.00	0.880	8	3/4 x 3 1/2
8	13.50	11.75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

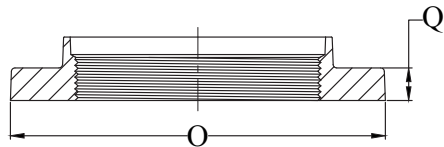


NOTE: Drilling templates are in multiples of four so that fittings may be made to face in any quarter. Bolt holes shall straddle the center line.

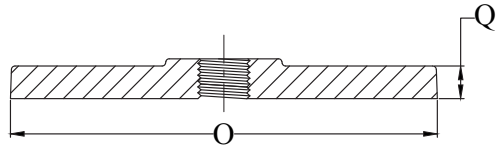
C110 DUCTILE IRON FULL BODY FITTINGS



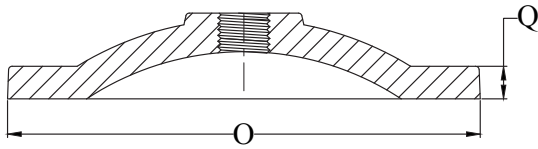
Flange for Steel Pipe
Reducing Flange for Steel Pipe



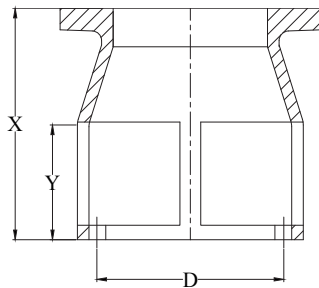
Flange for DI Pipe
Reducing Flange for DI Pipe



Under 12" Blind Flange
with Optional 2" Tap



12" and Larger Blind Flange
with Optional 2" Tap



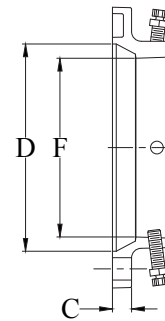
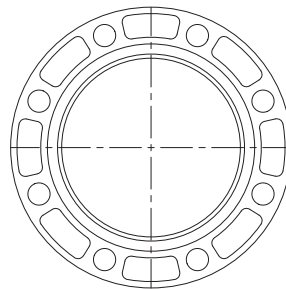
*FLANGE SLUDGE SHOE				
Size	D	X	Y	Domestic Weight
3	5.75	12.00	6.00	28
4	7.00	12.00	6.00	35
6	7.87	12.00	6.00	45
8	10.12	12.00	6.00	69
10	12.25	12.00	6.00	88
12	15.25	12.00	6.00	120

*Not included in AWWA C110.

FLANGES										
Size	Sizes				Domestic Weight	Import Weight	Domestic Weight	Import Weight	Domestic Weight	Import Weight
	O	Q	Y	Z	Steel	Steel	DI	DI	Blind	Blind
2	6.00	0.62	1.00	4.75	4	—	—	—	—	—
2½	7.00	0.69	1.13	5.50	6	—	—	—	—	—
3	7.50	0.75	1.19	6.00	9	—	6	7	8	9
4	9.00	0.94	1.31	7.50	15	—	13	12	14	16
6	11.00	1.00	1.56	9.50	20	—	19	17	27	25
8	13.50	1.12	1.75	11.75	31	—	29	26	38	38
10	16.00	1.19	1.94	14.25	50	—	36	38	55	66
12	19.00	1.25	2.19	—	63	—	61	57	73	85
14	21.00	1.38	2.25	—	—	—	59	61	116	120
16	23.50	1.44	2.50	—	—	—	78	83	153	145
18	25.00	1.56	2.69	—	—	—	98	98	176	179
20	27.50	1.69	2.88	—	—	—	103	110	215	244
24	32.00	1.88	3.25	—	—	—	147	145	348	364
30	38.75	2.12	—	—	—	—	255	212	615	546
36	46.00	2.38	—	—	—	—	360	324	900	958
42	53.00	2.62	—	—	—	—	535	533	1300	1300
48	59.50	2.75	—	—	—	—	650	646	1620	1740

DI REDUCING FLANGE THREADED FOR STEEL PIPE		
Size	Tap x O.D.	Domestic weight
4x3	3x9	16
6x4	4x11	25
8x4	4x13.5	44
8x6	6x13.5	31
10x6	6x16	50
12x6	6x19	60
10x8	8x16	55
12x10	10x19	72

DI REDUCING FLANGE THREADED FOR DUCTILE IRON PIPE		
Size	Tap x O.D.	Weight
4x3	3x9	16
6x4	4x11	25
8x4	4x13.5	40
8x6	6x13.5	35
10x8	8x16	50
12x8	8x19	85



ADAPTER FLANGE									
Size	Rated Working Pressure	No. of Set Screws	Bolt Circle	Ductile Iron Pipe OD +.06 or -.06	D +.06 -.04	F +.07 -.03	C	Domestic Weight	Import Weight
3.00	250	4	6.00	3.96	4.94	4.06	0.94	7	6.5
4.00	250	4	7.50	4.80	6.02	4.90	1.00	8	8
6.00	250	8	9.50	6.90	8.12	7.00	1.06	12	12
8.00	250	8	11.75	9.05	10.27	9.15	1.12	18	18
10.00	250	12	14.25	11.10	12.34	11.20	1.19	28	28
12.00	150	12	17.00	13.20	14.44	13.30	1.25	40	34

All set screws are 5/8" 80lb. torque head.

Note: Recommended for class 53-class 56 wall thickness D.I. pipe.