



Ductile Iron Wallpipe

Thrust rated wall penetration spoils

- Ductile Iron Flanged joints are manufactured in accordance ANSI/AWWA C115/A21.15
- Ductile iron pipe conforms to ANSI/AWWA C151/A21.51. Pipe shall be minimum Class 53. C&B uses ductile iron pipe made in the USA. Pipe Class submitted is noted below.

☒ CL53 ☐ CL54 ☐ CL55 ☐ CL56

- Flanges are made of ductile iron and are drilled in accordance with ANSI B16.1 CL 125 rated for 250 psi. ANSI CL 250 drilled flanges are available upon request. Flanges submitted are noted below. See attached TABLE 2 in DI FLANGED PIPE submittal for technical data.

☒ CL125 ☐ CL250

- Flanges are manufactured from import sources. As an option to the customer, USA manufactured flanges may be selected. Flanges submitted are manufactured from

☒ Import ☐ USA

- C&B wall collars are industry standard and are made of ductile iron (ASTM A536-70:50:05) and are welded continuously both sides of the collar with NI-55 weld rod. The collars are rated for 250 psi thrust load. See TABLE 1 for dimensional data.
- C&B standard lining is double thickness cement mortar and bituminous seal coat in accordance with ANSI/AWWA C104/A21.4 C&B offers special linings when required by the project per pipe system. Linings submitted are noted below.

☒ CEM ☐ Protecto 401 ☐ CBGL911 Glass

- C&B standard exterior coating is bituminous asphalt in accordance with ANSI/AWWA C151/A21.51. If the pipe is required to be shop coated for temporary jobsite protection, refer to the included C&B Piping Coating Submittal attached.

Application

When piping passes through walls in water/ wastewater treatment plants and pump stations, ductile iron fabricated wall pipe are commonly used. End configurations can be flanged, grooved, mechanical joint, push on bell, or restrained joint bell. When wallpipe are set flush with the wall face, flanges and mechanical joint bells must be ordered as "tapped for studs" in order to assemble the joints and connected piping.

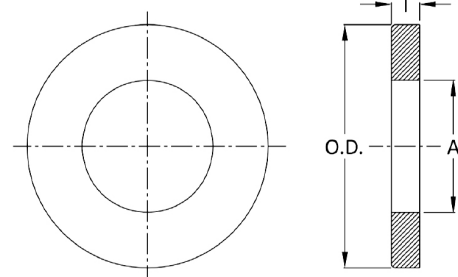


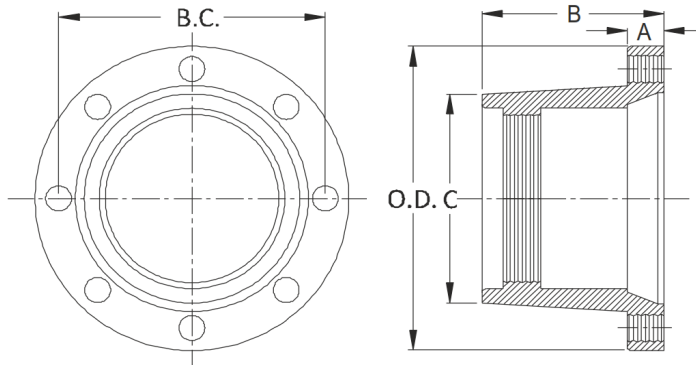
Table 1. Wall Collar Dimensions

	03"	04"	06"	08"	10"	12"	14"	16"	18"	20"	24"	30"	36"	42"	48"	54"	60"	64"
O.D.	6.50	7.40	9.50	12.00	14.10	16.20	18.40	21.00	23.05	25.70	30.00	36.90	43.40	50.00	56.50	62.50	69.00	75.70
A	4.00	4.85	7.00	9.10	11.15	13.20	15.35	17.45	19.50	21.60	25.85	32.00	38.30	44.40	50.75	57.65	61.70	65.75
T	0.50	0.50	0.50	0.50	0.50	0.50	0.50	0.50	0.50	0.50	0.50	0.63	0.63	1.00	1.00	1.25	1.25	1.25



MJ Threaded Adapter Bell

The MJ Adapter Bell is fabricated onto a ductile iron pipe plain end to convert to a mechanical joint connection



SIZE	OD PIPE	FLANGE THK. A	TOTAL THK. B†	THREAD LENGTH	O.D. FLANGE	HUB DIA C‡	BOLT CIRCLE B.C.	BOLT THDS (UNC-2A)	NO. BOLT HOLES	WEIGHT #
03"	3.96	0.94	4.12	0.94	7.69	4.50	6.19	5/8 - 11	4	11
04"	4.80	1.00	4.25	1.00	9.12	5.32	7.50	3/4 - 10	4	15
06"	6.90	1.06	4.43	1.16	11.12	7.56	9.50	3/4 - 10	6	22
08"	9.05	1.12	4.75	1.38	13.37	9.73	11.75	3/4 - 10	6	35
10"	11.10	1.19	4.87	1.50	15.69	12.06	14.00	3/4 - 10	8	46
12"	13.20	1.25	5.12	1.75	17.94	14.16	16.25	3/4 - 10	8	55
14"	15.30	1.31	6.50	1.87	20.31	16.25	18.75	3/4 - 10	10	94
16"	17.40	1.38	6.75	2.06	22.58	18.44	21.00	3/4 - 10	12	118
18"	19.50	1.44	7.00	2.25	24.83	20.53	23.25	3/4 - 10	12	125
20"	21.60	1.50	7.25	2.44	27.08	22.63	25.50	3/4 - 10	14	150
24"	25.80	1.62	7.50	2.75	31.58	26.82	30.00	3/4 - 10	16	235
30"	32.00	1.81	9.13	3.37	39.12	32.75	36.88	1 - 8	20	375
36"	38.30	2.00	7.95	4.00	46.00	39.12	43.75	1 - 8	24	500
42"	44.50	2.00	10.50	4.00	53.12	46.00	50.62	1 1/4 - 7	28	735
48"	50.80	2.00	11.00	4.12	60.00	52.25	57.50	1 1/4 - 7	32	940
54"	57.56	2.00	11.50	4.25	65.70	59.18	63.20	1 1/4 - 7	36	978
60"	61.61	2.00	11.50	5.00	70.22	63.00	67.72	1 1/4 - 7	36	1109

† This dimension may vary slightly based on variations in this dimension per threaded bell manufacturer.

- Ductile iron per ASTM A536
- MJ joint design per ANSI/AWWA C111/A21.11



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Wall Pipe Minimum Lengths

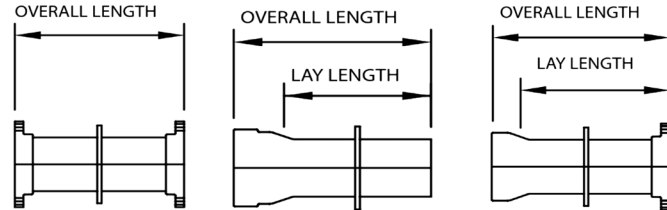
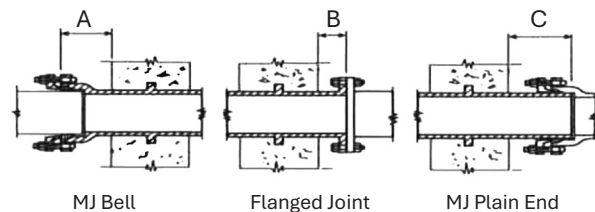


Table 2. Wall Pipe Minimum Lengths

SIZE (IN.)	F-C-F OA	F-C-PE OA	PE-C-PE OA	TMJ-C-F OA LL		TMJ-C-PE OA LL		TMJ-C-TMJ OA LL		FR-C-F OA LL		FR-C-PE OA LL		FR BELL-C-F OA LL	
03"	8.00	6.25	6.00	10.50	8.00	8.75	6.25	13.00	10.50	X	X	X	X	X	X
04"	8.00	6.25	6.00	10.50	8.00	8.75	6.25	13.00	10.50	12.75	7.75	11.00	6.25	X	X
06"	8.50	6.50	6.00	11.00	8.50	8.75	6.25	13.37	11.00	13.25	8.00	11.50	6.25	X	X
08"	9.00	6.75	6.00	11.50	9.00	8.75	6.25	14.00	11.50	14.00	8.25	12.00	6.25	X	X
10"	9.37	7.00	6.00	11.75	9.25	8.75	6.25	14.25	11.75	14.50	8.50	12.25	6.37	X	X
12"	9.75	7.00	6.00	12.25	9.75	8.75	6.25	14.75	12.25	14.75	8.50	12.75	7.00	X	X
14"	9.75	7.25	6.00	13.75	10.25	9.75	6.25	17.50	14.00	17.50	9.75	14.75	7.00	X	X
16"	9.75	7.25	6.00	14.00	10.37	9.75	6.25	18.00	14.50	17.75	9.75	15.00	7.00	X	X
18"	10.00	7.25	6.00	14.25	10.75	9.75	6.25	18.50	15.00	18.00	9.75	15.25	7.00	X	X
20"	10.25	7.37	6.00	14.75	11.25	9.75	6.25	19.00	15.50	18.50	10.00	15.50	7.00	X	X
24"	10.75	7.75	6.00	15.25	11.75	9.75	6.25	19.50	16.00	19.25	10.25	16.00	7.00	X	X
30"	12.50	8.75	6.00	17.75	13.75	10.50	6.50	23.00	19.00	22.00	11.75	17.25	7.00	20.50	11.75
36"	13.75	9.25	6.00	19.00	15.00	10.50	6.50	24.25	20.25	23.25	12.25	18.00	7.00	21.00	12.25
42"	14.75	9.50	6.00	20.00	16.00	10.75	6.75	25.25	21.25	22.25	12.75	17.50	8.00	22.00	12.75
48"	15.25	10.25	6.00	20.37	16.37	11.00	7.00	25.50	21.50	21.50	13.25	16.25	8.00	23.37	13.25
54"	18.00	14.75	6.00	X	X	X	X	X	X	25.75	17.00	18.75	10.00	27.00	17.00
60"	18.00	15.00	6.00	X	X	X	X	X	X	31.25	21.00	18.75	8.50	31.00	21.00
64"	18.00	15.50	6.00	X	X	X	X	X	X	32.00	21.25	18.75	9.00	31.37	21.25

- In order to achieve minimum lengths shown in Table 2, the wall collar may not be located in the center.
- Flanges and MJ Bells expected to sit flush with the wall should be ordered as "Tapped for Studs." TFS will include threaded bolt holes.
- C&B wall collars are industry standard and are made of ductile iron (ASTM A536-70:50:05). C&B welds the collar continuously on both sides of the collar with NI-55 weld rod. The collars are rated for 250 psi thrust load. See TABLE 1 for additional dimensional data.
- FR stands for Flex-Ring® by American.



MJ Bell

Flanged Joint

MJ Plain End

Table 3. Wall Pipe Clearance

	03"	04"	06"	08"	10"	12"	14"	16"	18"	20"	24"	30"	36"	42"	48"	54"	60"	64"
A	5.75	5.75	5.75	6.25	6.50	6.50	7.00	7.25	7.50	7.50	8.00	9.50	9.75	10.00	10.00	14.00	15.00	16.00
B	2.25	2.25	2.75	2.75	3.00	3.00	3.50	3.50	3.75	3.75	4.00	5.00	5.25	6.00	6.50	6.75	7.00	7.25
C	6.00	6.00	6.50	6.50	6.50	7.75	7.75	7.75	7.75	7.75	8.25	9.75	9.75	10.00	10.00	14.00	15.00	16.00