



Diameters, Circumferences, Areas and Volumes for Standard Minimum Pressure Classes of Ductile Iron Single-Thickness Cement-Lined Pipe

Table No. 17-4

Nominal Size in.	Outside Diameter in.	Inside Diameter in.	Cross Sectional Areas		O.D. Circumference in.	I.D. Circumference in.	Approx. Outside Surface Area* sq. ft.	Volume Gallons per linear ft.	Volume† Gallons per 20' nom. length
			Based on O.D. sq. in.	Based on I.D. sq. in.					
4	4.80	4.17	18.10	13.66	15.08	13.10	26	0.71	14.19
6	6.90	6.27	37.39	30.88	21.68	19.70	37	1.60	32.08
8	9.05	8.42	64.33	55.68	28.43	26.45	48	2.89	57.85
10	11.10	10.45	96.77	85.77	34.87	32.83	59	4.46	89.11
12	13.20	12.51	136.85	122.92	41.47	39.30	70	6.39	127.71
14	15.30	14.55	183.85	166.27	48.07	45.71	82	8.64	172.75
16	17.40	16.61	237.79	216.69	54.66	52.18	93	11.26	225.13
18	19.50	18.69	298.65	274.35	61.26	58.72	105	14.25	285.04
20	21.60	20.75	366.44	338.16	67.86	65.19	116	17.57	351.34
24	25.80	24.95	522.79	488.91	81.05	78.38	138	25.40	507.96
30	32.00	31.07	804.25	758.18	100.83	97.61	172	39.39	787.72
36	38.30	37.29	1152.10	1092.13	120.32	117.15	206	56.73	1134.68
42	44.50	43.43	1555.29	1481.39	139.80	136.44	240	76.96	1539.11
48	50.80	49.63	2026.83	1934.55	159.59	155.92	275	100.50	2009.92
54	57.56	56.29	2602.15	2488.59	180.83	176.84	312	129.28	2585.55
60	61.61	60.28	2981.22	2853.89	193.55	189.37	334	148.25	2965.08
64	65.67	64.30	3387.08	3247.23	206.31	202.00	357	168.69	3373.75

*This value is roughly calculated as the outside surface area of a cylinder with an O.D. equal to the standard barrel O.D. of the pipe and length equal to the overall length of a "full-length" Fastite® pipe. Obviously, cut or trim pipe would have less surface area. Also, if one wanted to include the flare effects on area as a result of the sloping bell contour or the area of the radial bell face, this would increase the areas very slightly from the tabular values shown.

†This value may also be helpful in a rough determination of the "buoyancy" of a ductile iron pipe full of air. (Buoyancy force is roughly equivalent to weight of fresh or salt water, etc., displaced.) See also Section 9 for buoyancy of 4"-36" Flex-Ring pc 350 pipe.