

A.3 STEEL PIPE DIMENSIONS: CAPACITIES AND WEIGHTS

Nominal pipe size, in	Outside diam., in	Schedule no.	Wall thickness, in	Inside diam., in	Cross- sectional area metal, in ²	Inside sectional area, ft ²	Circumference, ft, or surface, ft ² /ft, of length		Capacity at 1 ft/s velocity		Weight of pipe, lb/ft
							Outside	Inside	U.S. gal/ min	lb/h water	
$\frac{1}{8}$	0.405	40	0.068	0.269	0.072	0.00040	0.106	0.0705	0.179	89.5	0.25
		80	0.095	0.215	0.093	0.00025	0.106	0.0563	0.112	56.0	0.32
$\frac{1}{4}$	0.540	40	0.088	0.364	0.125	0.00072	0.141	0.0954	0.323	161.5	0.43
		80	0.119	0.302	0.157	0.00050	0.141	0.0792	0.224	112.0	0.54
$\frac{3}{8}$	0.675	40	0.091	0.493	0.167	0.00133	0.177	0.1293	0.596	298.0	0.57
		80	0.126	0.423	0.217	0.00098	0.177	0.1110	0.440	220.0	0.74
$\frac{1}{2}$	0.840	40	0.109	0.622	0.250	0.00211	0.220	0.1630	0.945	472.5	0.85
		80	0.147	0.546	0.320	0.00163	0.220	0.1430	0.730	365.0	1.09
		160	0.187	0.466	0.384	0.00118	0.220	0.1220	0.529	264.5	1.31
$\frac{3}{4}$	1.050	40	0.113	0.824	0.333	0.00371	0.275	0.2158	1.665	832.5	1.13
		80	0.154	0.742	0.433	0.00300	0.275	0.1942	1.345	672.5	1.48
		160	0.218	0.614	0.570	0.00206	0.275	0.1610	0.924	462.0	1.94
1	1.315	40	0.133	1.049	0.494	0.00600	0.344	0.2745	2.690	1,345.0	1.68
		80	0.179	0.957	0.639	0.00499	0.344	0.2505	2.240	1,120.0	2.17
		160	0.250	0.815	0.837	0.00362	0.344	0.2135	1.625	812.5	2.85
1 $\frac{1}{4}$	1.660	40	0.140	1.380	0.669	0.01040	0.435	0.362	4.57	2,285.0	2.28
		80	0.191	1.278	0.881	0.00891	0.435	0.335	3.99	1,995.0	3.00
		160	0.250	1.160	1.107	0.00734	0.435	0.304	3.29	1,645.0	3.77
1 $\frac{1}{2}$	1.990	40	0.145	1.610	0.799	0.01414	0.498	0.422	6.34	3,170.0	2.72
		80	0.200	1.500	1.068	0.01225	0.498	0.393	5.49	2,745.0	3.64
		160	0.281	1.338	1.429	0.00976	0.498	0.350	4.38	2,190.0	4.86

Nominal pipe size, in	Outside diam., in	Schedule no.	Wall thickness, in	Inside diam., in	Cross- sectional area metal, in ²	Inside sectional area, ft ²	Circumference, ft, or surface, ft ² /ft, of length		Capacity at 1 ft/s velocity		Weight of pipe, lb/ft
							Outside	Inside	U.S. gal/ min	lb/h water	
2	2.375	40 80 160	0.154 0.218 0.343	2.067 1.939 1.689	1.075 1.477 2.190	0.02330 0.02050 0.01556	0.622 0.622 0.622	0.542 0.508 0.442	10.45 9.20 6.97	5,225.0 4,600.0 3,485.0	3.66 5.03 7.45
2½	2.875	40 80 160	0.203 0.276 0.375	2.469 2.323 2.125	1.704 2.254 2.945	0.3322 0.02942 0.02463	0.753 0.753 0.753	0.647 0.609 0.557	14.92 13.20 11.07	7,460.0 6,600.0 5,535.0	5.80 7.67 10.0
3	3.500	40 80 160	0.216 0.300 0.437	3.068 2.900 2.626	2.228 3.016 4.205	0.05130 0.04587 0.03761	0.917 0.917 0.917	0.804 0.760 0.688	23.00 20.55 16.90	11,500.0 10,275.0 8,450.0	7.58 10.3 14.3
3½	4.000	40 80	0.226 0.318	3.548 3.364	2.680 3.678	0.06870 0.06170	1.047 1.047	0.930 0.882	30.80 27.70	15,400.0 13,850.0	9.11 12.5
4	4.500	40 80 120 160	0.237 0.337 0.437 0.531	4.026 3.826 3.626 3.438	3.173 4.407 5.578 6.621	0.08840 0.07986 0.07170 0.06447	1.178 1.178 1.178 1.178	1.055 1.002 0.950 0.901	39.6 35.8 32.2 28.9	19,800.0 17,900.0 16,100.0 14,450.0	10.8 15.0 19.0 22.6
5	5.563	40 80 120 160	0.258 0.375 0.500 0.625	5.047 4.813 4.563 4.313	4.304 6.112 7.953 9.696	0.1390 0.1263 0.1136 0.1015	1.456 1.456 1.456 1.456	1.322 1.263 1.197 1.132	62.3 57.7 51.0 45.5	31,150.0 28,850.0 25,500.0 22,750.0	14.7 20.8 27.1 33.0
6	6.625	40 80 120 160	0.280 0.432 0.562 0.718	6.065 5.761 5.501 5.189	5.584 8.405 10.71 13.32	0.2006 0.1810 0.1650 0.1469	1.734 1.734 1.734 1.734	1.590 1.510 1.445 1.360	90.0 81.1 73.9 65.8	45,000.0 40,500.0 36,950.0 32,900.0	19.0 28.6 36.4 45.3
8	8.625	20 30 40 60 80	0.250 0.277 0.322 0.406 0.500	8.125 8.071 7.981 7.813 7.625	6.570 7.260 8.396 10.48 12.76	0.3601 0.3553 0.3474 0.3329 0.3171	2.258 2.258 2.258 2.258 2.258	2.130 2.115 2.090 2.050 2.000	161.5 159.4 155.7 149.4 142.3	80,750.0 79,700.0 77,850.0 74,700.0 71,150.0	22.4 24.7 28.6 35.7 43.4