

ANSI Carbon Steel pipe schedules

(top number is wall thickness and bottom number is Kg/M)

Normal pipe size inches	OD mm	5S	10S	10	20	30	STD	40S	40	60	XS	80S	80	100	120	140	160	XXS
1/8	10.30	-	1.42 0.28	-	-	-	1.73 0.37	1.73 0.36	1.73 0.37	-	2.41 0.47	2.41 0.48	2.41 0.47	-	-	-	-	-
1/4	13.70	-	1.65 0.51	-	-	-	2.24 0.63	2.24 0.64	2.24 0.63	-	3.02 0.80	3.02 0.82	3.02 0.80	-	-	-	-	-
3/8	17.10	-	1.65 0.64	-	-	-	2.31 0.84	2.31 0.84	2.31 0.84	-	3.20 1.10	3.20 1.12	3.20 1.10	-	-	-	-	-
1/2	21.30	1.65 0.82	2.11 1.01	-	-	-	2.77 1.27	2.77 1.30	2.77 1.27	-	3.73 1.62	3.73 1.65	3.73 1.62	-	-	-	4.78 1.95	7.47 2.55
3/4	26.70	1.65 1.04	2.11 1.31	-	-	-	2.87 1.69	2.87 1.71	2.87 1.69	-	3.91 2.20	3.91 2.24	3.91 2.20	-	-	-	5.56 2.90	7.82 3.64
1	33.40	1.65 1.33	2.77 2.13	-	-	-	3.38 2.50	3.38 2.55	3.38 2.50	-	4.55 3.24	4.55 3.29	4.55 3.24	-	-	-	6.35 4.24	9.09 5.45
1 1/4	42.20	1.65 1.68	2.77 2.76	-	-	-	3.56 3.39	3.56 3.46	3.56 3.39	-	4.85 4.47	4.85 4.56	4.85 4.47	-	-	-	6.35 5.61	9.70 7.77
1 1/2	48.30	1.65 1.95	2.77 3.17	-	-	-	3.68 4.05	3.68 4.13	3.66 4.05	-	5.08 5.41	5.08 5.51	5.08 5.41	-	-	-	7.14 7.25	10.15 9.56
2	60.30	1.65 2.44	2.77 4.01	-	-	-	3.91 5.44	3.91 5.54	3.91 5.44	-	5.54 7.48	5.54 7.63	5.54 7.48	-	-	-	8.74 11.11	11.07 13.44
2 1/2	73.00	2.11 3.77	3.05 5.36	-	-	-	5.16 8.63	5.16 8.81	5.16 8.63	-	7.01 11.41	7.01 19.64	7.01 11.41	-	-	-	9.53 14.92	14.02 20.39
3	88.90	2.11 4.60	3.05 6.59	-	-	-	5.49 11.29	5.49 11.52	5.49 11.29	-	7.62 15.27	7.62 15.59	7.62 15.27	-	-	-	11.13 21.35	15.24 27.68
3 1/2	101.60	2.11 5.29	3.05 7.55	-	-	-	5.74 13.57	5.74 13.84	5.74 13.57	-	8.08 18.63	8.08 19.01	8.08 18.63	-	-	-	-	-
4	114.30	2.11 5.96	3.05 8.52	-	-	-	6.02 16.07	6.02 16.40	6.02 16.07	-	8.56 22.32	8.56 22.77	8.56 22.32	-	11.13 28.32	-	13.49 33.54	17.12 41.03
5	141.30	2.77 9.67	3.40 11.82	-	-	-	6.55 21.77	6.55 22.20	6.55 21.77	-	9.53 30.97	9.53 31.59	9.53 30.97	-	12.70 40.28	-	15.88 49.11	19.05 57.43
6	168.30	2.77 11.55	3.40 14.13	-	-	-	7.11 28.26	7.11 28.83	7.11 28.26	-	10.97 42.56	10.97 43.42	10.97 42.56	-	14.27 54.20	-	18.20 67.56	21.95 79.22
8	219.10	2.77 15.09	3.76 20.37	-	6.35 33.31	7.04 36.81	8.18 42.55	8.18 43.39	8.18 42.55	10.31 53.08	12.70 64.64	12.70 65.95	12.70 64.64	15.09 75.92	18.26 90.44	20.62 100.92	23.01 111.27	22.23 107.92
10	273.10	3.40 23.09	4.19 28.34	-	6.35 41.77	7.80 51.03	9.27 60.31	9.27 61.52	9.27 60.31	12.70 81.55	12.70 81.55	12.70 83.19	15.09 96.01	18.26 114.75	21.44 133.06	25.40 155.15	28.58 112.33	25.40 155.15
12	323.90	3.96 31.89	4.57 36.73	-	6.35 49.73	8.38 65.20	9.53 73.88	9.52 75.32	10.31 79.73	14.27 108.96	12.70 97.46	12.70 99.43	17.48 132.08	21.44 159.91	25.40 186.97	28.58 208.14	33.32 238.76	25.40 186.97
14	355.60	3.96 35.06	4.78 42.14	6.35 54.69	7.92 67.90	9.53 81.33	9.53 81.33	-	11.13 94.55	15.09 126.71	12.70 107.39	35.71 281.70	19.05 158.10	23.83 194.96	27.79 244.65	31.75 253.56	35.71 281.70	-
16	406.40	4.19 42.41	4.78 48.26	6.35 62.64	7.92 77.83	9.53 93.27	9.53 93.27	-	12.70 123.30	16.66 160.12	12.70 123.30	40.49 365.35	21.44 203.53	26.19 245.56	30.96 286.64	36.53 333.19	40.49 365.37	-
18	457.00	4.19 47.77	4.78 54.36	6.35 70.57	7.92 87.71	11.13 122.38	9.53 105.16	-	14.27 155.80	19.05 205.74	12.70 139.15	45.24 459.37	23.88 254.55	29.36 309.62	34.93 365.56	39.67 408.26	45.24 459.37	-
20	508.00	4.78 60.46	5.51 70.00	6.35 78.55	9.53 117.15	12.70 155.12	9.53 117.15	-	15.09 183.42	20.62 247.83	12.70 155.12	50.01 564.81	26.19 311.17	32.54 381.53	38.10 411.49	44.45 508.11	56.01 564.81	-
22	559.00	4.78 66.57	5.54 70.06	6.35 86.54	9.53 129.13	12.70 171.09	9.53 129.13	-	-	22.23 294.25	12.70 171.09	53.98 672.26	28.58 373.83	34.93 451.42	41.28 527.02	47.63 600.63	53.98 672.26	-
24	610.00	5.54 84.16	6.35 96.37	6.35 94.53	9.53 141.12	14.27 209.64	9.53 141.12	-	17.48 255.41	24.61 355.26	12.70 187.06	59.54 808.22	30.96 422.08	38.89 547.71	46.02 640.03	52.37 720.15	59.54 808.22	-

26	660.00	-	-	7.92 127.36	12.70 202.72	-	9.53 152.87	-	-	-	12.70 202.72	-	-	-	-	-	-	-
28	711.00	-	-	7.92 137.32	12.70 218.69	15.88 271.21	9.53 164.85	-	-	-	12.70 218.69	-	-	-	-	-	-	-
30	762.00	6.35 120.72	7.92 150.36	7.92 147.28	12.70 234.67	15.88 292.18	9.53 176.84	-	-	-	12.70 234.67	-	-	-	-	-	-	-
32	813.00	-	-	7.92 157.24	12.70 250.64	15.88 312.15	9.53 188.82	-	17.48 342.91	-	12.70 250.64	-	-	-	-	-	-	-
34	864.00	-	-	7.92 167.20	12.70 266.61	15.88 332.12	9.53 200.31	-	17.48 364.90	-	12.70 266.61	-	-	-	-	-	-	-
36	914.00	-	-	7.92 176.96	127.0 282.27	15.88 351.70	9.53 212.56	-	19.05 420.42	-	12.70 282.27	-	-	-	-	-	-	-
38	965.00	-	-	-	-	-	9.53 244.54	-	-	-	12.70 298.24	-	-	-	-	-	-	-
40	1016.00	-	-	-	-	-	9.53 236.53	-	-	-	12.70 314.22	-	-	-	-	-	-	-
42	1067.00	-	-	-	-	-	9.53 248.52	-	-	-	12.70 330.19	-	-	-	-	-	-	-
44	1118.00	-	-	-	-	-	9.53 260.50	-	-	-	12.70 346.16	-	-	-	-	-	-	-
46	1168.00	-	-	-	-	-	9.53 272.25	-	-	-	12.70 351.82	-	-	-	-	-	-	-
48	1219.00	-	-	-	-	-	9.53 284.24	-	-	-	12.70 377.79	-	-	-	-	-	-	-

Copper Tubes - ASTM B88M

Type A			
Nominal Size Outside Diameter (mm)	Wall Thickness (mm)	Tolerance +/- Maximum Deviation at any Point (mm)	Weight (kg/m)
6	0.9	0.08	0.12
8	0.9	0.09	0.18
10	0.9	0.09	0.23
12	1.2	0.1	0.36
15	1.2	0.1	0.47
18	1.2	0.1	0.57
22	1.6	0.15	0.92
28	1.6	0.15	1.19
35	1.6	0.15	1.50
42	1.8	0.2	2.03
54	2.1	0.2	3.06
67	2.4	0.25	4.35
79	2.8	0.3	5.99
105	3.4	0.35	9.70
130	4.0	0.4	14.2
156	4.8	0.5	20.3
206	6.8	0.7	38.0
257	8.5	0.85	59.3
308	10.3	1	86.1

Type B			
Nominal Size Outside Diameter (mm)	Wall Thickness (mm)	Tolerance +/- Maximum Deviation at any Point (mm)	Weight (kg/m)
6	0.7	0.07	0.10
8	0.8	0.08	0.16
10	0.8	0.08	0.21
12	0.9	0.09	0.28
15	1.0	0.1	0.39
18	1.0	0.1	0.48
22	1.1	0.1	0.65
28	1.2	0.1	0.90
35	1.4	0.15	1.32
42	1.5	0.15	1.71
54	1.7	0.15	2.50
67	2.0	0.15	3.65
79	2.3	0.2	4.95
105	2.8	0.25	8.04
130	3.1	0.3	11.0
156	3.5	0.3	15.0
206	5.0	0.35	28.2

257	6.3	0.5	44.4
308	7.1	0.65	60.0

Type C			
Nominal Size Outside Diameter (mm)	Wall Thickness (mm)	Tolerance +/- Maximum Deviation at any Point (mm)	Weight (kg/m)
6	0.6	-	0.09
8	0.6	-	0.13
10	0.6	-	0.16
12	0.6	0.06	0.19
15	0.7	0.07	0.28
18	0.7	0.07	0.34
22	0.8	0.08	0.48
28	0.9	0.09	0.69
35	1.1	0.1	1.05
42	1.2	0.1	1.37
54	1.5	0.15	2.21
67	1.6	0.15	2.94
79	1.8	0.2	3.90
105	2.4	0.25	6.92
130	2.7	0.25	9.65
156	3.1	0.3	13.3
206	4.3	0.45	24.4
257	5.4	0.55	38.2
308	6.4	0.65	54.2

Copper Tubes to BS (British Standard) 2871

(mm)	Outside Diameter (mm)	Table X Half hard light gauge tube		Table Y Half hard an annealed tube		Table Z Hard drawn thin wall tube	
		Thickness (mm)	Maximum Working Pressure (N/mm ²)	Thickness (mm)	Maximum Working Pressure (N/mm ²)	Thickness (mm)	Maximum Working Pressure (N/mm ²)
6	6	0.6	13.3	0.8	14.4	0.5	11.3
8	8	0.6	9.7	0.8	10.5	0.5	9.8
10	10	0.6	7.7	0.8	8.2	0.5	7.8
12	12	0.6	6.3	0.8	6.7	0.5	6.4
15	15	0.7	5.8	1	6.7	0.5	5
18	18	0.8	5.6	1	5.5	0.6	5
22	22	0.9	5.1	1.2	5.7	0.6	4.1
28	28	0.9	4	1.2	4.2	0.6	3.2
35	35	1.2	4.2	1.5	4.1	0.7	3
42	42	1.2	3.5	1.5	3.4	0.8	2.8
54	54	1.2	2.7	2	3.6	0.9	2.5
67	67	1.2	2	2	2.8	1	2
76.1	76.2	1.5	2.4	2	2.5	1.2	1.9
108	108.1	1.5	1.7	2.5	2.2	1.2	1.7
133	133.4	1.5	1.4			1.5	1.6
159	159.4	2	1.5			1.5	1.5

Stainless Steel Pipes - Dimensions and Weights ANSI/ASME 36.19

Nominal Pipe Size (inches)	Outside Diameter		<u>Schedule</u>									
			5S		10S		40S		80S		160S	
	(mm)	(inches)	Wall Thickness and Weight									
			mm (in)	kg/m	mm (in)	kg/m	mm (in)	kg/m	mm (in)	kg/m	mm (in)	kg/m
1/8	10.3	0.405	-	-	1.25 (0.049)	0.28	1.73 (0.068)	0.37	2.42 (0.095)	0.47	-	-
1/4	13.7	0.540	-	-	1.66 (0.065)	0.49	2.24 (0.088)	0.63	3.03 (0.119)	0.80	-	-
3/8	17.2	0.675	-	-	1.66 (0.065)	0.63	2.32 (0.091)	0.85	3.20 (0.126)	1.10	-	-
1/2	21.3	0.840	1.66 (0.065)	0.81	2.11 (0.083)	1.00	2.77 (0.109)	1.27	3.74 (0.147)	1.62	4.78	1.90
3/4	26.7	1.050	1.66 (0.065)	1.02	2.11 (0.083)	1.28	2.87 (0.113)	1.68	3.92 (0.154)	2.20	5.57	2.90
1	33.4	1.315	1.66 (0.065)	1.30	2.77 (0.109)	2.09	3.38 (0.133)	2.50	4.55 (0.179)	3.24	6.35	4.20
1 1/4	42.2	1.660	1.66 (0.065)	1.66	2.77 (0.109)	2.69	3.56 (0.140)	3.39	4.86 (0.191)	4.47	6.35	5.60
1 1/2	48.3	1.900	1.66 (0.065)	1.91	2.77 (0.109)	3.11	3.69 (0.145)	4.06	5.08 (0.200)	5.41	7.14	7.20
2	60.3	2.375	2.11 (0.065)	2.40	2.77 (0.109)	3.93	3.92 (0.154)	5.45	5.54 (0.218)	7.49	8.74	11.1
2 1/2	73.0	2.875	2.11 (0.083)	3.69	3.05 (0.120)	5.26	5.16 (0.203)	8.64	7.01 (0.276)	11.4	9.53	14.9
3	88.9	3.500	2.11 (0.083)	4.52	3.05 (0.120)	6.46	5.49 (0.216)	11.3	7.62 (0.300)	15.3	11.13	21.3
3 1/2	101.6	4.000	2.11 (0.083)	5.18	3.05 (0.120)	7.41	5.74 (0.226)	13.6	8.08 (0.318)	18.6	-	-

4	114.3	4.500	2.11 (0.083)	5.84	3.05 (0.120)	8.37	6.02 (0.237)	16.1	8.56 (0.337)	22.3	13.49	33.5
5	141.3	5.563	2.77 (0.109)	9.46	3.41 (0.134)	11.6	6.56 (0.258)	21.8	9.53 (0.375)	31.0	15.88	49.1
6	168.3	6.625	2.77 (0.109)	11.3	3.41 (0.134)	13.9	7.12 (0.280)	28.3	10.98 (0.432)	42.6	18.27	67.6
8	219.1	8.625	2.77 (0.109)	14.8	3.76 (0.148)	20.0	8.18 (0.322)	42.5	12.70 (0.500)	64.6	23.02	111
10	273.1	10.750	3.41 (0.134)	22.7	4.20 (0.165)	27.8	9.28 (0.365)	60.4	12.70 (0.500)	81.5	28.58	172
12	323.9	12.750	3.97 (0.156)	31.3	4.58 (0.180)	36.1	9.53 (0.375)	73.9	12.70 (0.500)	97.4	33.33	239

Dimensions for Metric PVC-U pipe Din 8061

Diameter mm			Wall Thickness mm		
Outside Diameter	Mean Outside Diameter		6 Bar	10 Bar	16 Bar
			Average Value	Average Value	Average Value
	min	max			
16	16	16.2	-	-	1.2
20	20	20.2	-	-	1.5
25	25	25.2	-	1.5	1.9
32	32	32.2	-	1.8	2.4
40	40	40.2	1.8	1.9	3.0
50	50	50.2	1.8	2.4	3.7
63	63	63.2	1.9	3.0	4.7
75	75	75.3	2.2	3.6	5.6
90	90	90.3	2.7	4.3	6.7
110	110	110.3	3.2	5.3	8.2
125	125	125.3	3.7	6.0	9.3
140	140	140.4	4.1	6.7	10.4
160	160	160.4	4.7	7.7	11.9
180	180	180.4	5.3	8.6	13.4
200	200	200.4	5.9	9.6	14.9
225	225	225.5	6.6	10.8	16.7
250	250	250.5	7.3	11.9	18.6
280	280	280.6	8.2	13.4	20.8
315	315	280.6	9.2	15.0	23.4

PE pipe dimensions according to European Standards

Outside Diameter (mm)	Pressure Rating				
	PN 2.5	PN 4	PN 6	PN 10	PN 16
	Inside Diameter (mm)				
20				16	14.4
25			21	20.4	18
32			28	26.2	23.2
40		36	35.4	32.6	29
50		46	44.2	40.8	36.2
63	59.8	58.2	55.8	51.4	45.8
75	71.2	69.2	66.4	61.4	54.4
90	85.6	83	79.8	73.6	65.4
110	104.6	101.6	97.4	90	79.8
125	118.8	115.4	110.8	102.2	90.8
140	133	129.2	124	114.6	101.6
160	152	147.6	141.8	130.8	116.2
180	171.2	166.2	159.6	147.2	130.8
200	190.2	184.6	177.2	163.6	145.4
225	214	207.8	199.2	184	163.4
250	237.6	230.7	221.6	204.6	181.6

280	266.2	258.6	248.2	229.2	203.4
315	299.6	290.8	279.2	257.8	229
355	337.6	327.8	314.8	290.6	258
400	380.4	369.4	354.6	327.4	290.6
450	428	415.6	399	368.2	327
500	475.4	461.8	443.4	409.2	
560	532.6	517.2	496.6	458.4	
630	599.2	581.8	558.6	515.6	
710	675.2	655.6	629.6		
800	760.8	738.8	709.4		
900	856	831.2	798		
1000	951	923.6	887		
1200	1141.2	1108.2			
1400	1331.4	1293			
1600	1521.6	1477.6			