

## Nominal Wall Thickness and Mass of Steel Pipe

According to ASME B36.10M-2004

Mass calculation:  $W_{pe} = 0.0246615(D-t)t$

Where:  $W_{pe}$  = nominal plain end mass rounded to the nearest 0.01 kg/m  
D = outside diameter<sup>(1)</sup>  
t = specified wall thickness, rounded to the nearest 0.01 mm

### Metric Units

NPS	O.D.	Sch 10		Sch 20		Sch 30		Sch 40		Standard		Sch 60		Sch 80		Extra Strong		Sch 100		Sch 120		Sch 140		Sch 160		Dble. Ex. Strg.		
		wt	kg/m	wt	kg/m	wt	kg/m	wt	kg/m	wt	kg/m	wt	kg/m	wt	kg/m	wt	kg/m	wt	kg/m	wt	kg/m	wt	kg/m	wt	kg/m	wt	kg/m	
1/8	10.3	1.24	0.28	...	...	1.45	0.32	1.73	0.37	1.73	0.37	...	...	2.41	0.47	2.41	0.47	...	...	...	...	...	...	...	...	...	...	
1/4	13.7	1.65	0.49	...	...	1.85	0.54	2.24	0.63	2.24	0.63	...	...	3.02	0.80	3.02	0.80	...	...	...	...	...	...	...	...	...	...	
3/8	17.1	1.65	0.63	...	...	1.85	0.70	2.31	0.84	2.31	0.84	...	...	3.20	1.10	3.20	1.10	...	...	...	...	...	...	...	...	...	...	
1/2	21.3	2.11	1.00	...	...	2.41	1.12	2.77	1.27	2.77	1.27	...	...	3.73	1.62	3.73	1.62	...	...	...	...	...	...	4.78	1.95	7.47	2.55	
3/4	26.7	2.11	1.28	...	...	2.41	1.44	2.87	1.69	2.87	1.69	...	...	3.91	2.20	3.91	2.20	...	...	...	...	...	...	5.56	2.90	7.82	3.64	
1	33.4	2.77	2.09	...	...	2.90	2.18	3.38	2.50	3.38	2.50	...	...	4.55	3.24	4.55	3.24	...	...	...	...	...	...	6.35	4.24	9.09	5.45	
1 1/4	42.2	2.77	2.69	...	...	2.97	2.87	3.56	3.39	3.56	3.39	...	...	4.85	4.47	4.85	4.47	...	...	...	...	...	...	6.35	5.61	9.70	7.77	
1 1/2	48.3	2.77	3.11	...	...	3.18	3.53	3.68	4.05	3.68	4.05	...	...	5.08	5.41	5.08	5.41	...	...	...	...	...	...	7.14	7.25	10.15	9.55	
2	60.3	2.77	3.93	...	...	3.18	4.48	3.91	5.44	3.91	5.44	...	...	5.54	7.48	5.54	7.48	...	...	...	...	...	...	8.74	11.11	11.07	13.44	
2 1/2	73.0	3.05	5.26	...	...	4.78	8.04	5.16	8.63	5.16	8.63	...	...	7.01	11.41	7.01	11.41	...	...	...	...	...	...	9.53	14.92	14.02	20.39	
3	88.9	3.05	6.46	...	...	4.78	9.92	5.49	11.29	5.49	11.29	...	...	7.62	15.27	7.62	15.27	...	...	...	...	...	...	11.13	21.35	15.24	27.68	
3 1/2	101.6	3.05	7.41	...	...	4.78	11.41	5.74	13.57	5.74	13.57	...	...	8.08	18.64	8.08	18.64	...	...	...	...	...	...	...	...	...	...	
4	114.3	3.05	8.37	...	...	4.78	12.91	6.02	16.08	6.02	16.08	...	...	8.56	22.32	8.56	22.32	...	...	11.13	28.32	...	...	13.49	33.54	17.12	41.03	
5	141.3	3.40	11.56	...	...	...	...	6.55	21.77	6.55	21.77	...	...	9.53	30.97	9.53	30.97	...	...	12.70	40.28	...	...	15.88	49.12	19.05	57.43	
6	168.3	3.40	13.83	...	...	...	...	7.11	28.26	7.11	28.26	...	...	10.97	42.56	10.97	42.56	...	...	14.27	54.21	...	...	18.26	67.57	21.95	79.22	
8	219.1	3.76	19.97	6.35	33.32	7.04	36.82	8.18	42.55	8.18	42.55	10.31	53.09	12.70	64.64	12.70	64.64	15.09	75.92	18.26	90.44	20.62	100.93	23.01	111.27	22.23	107.93	
10	273.0	4.19	27.78	6.35	41.76	7.80	51.01	9.27	60.29	9.27	60.29	12.70	81.53	15.09	95.98	12.70	81.53	18.26	114.71	21.44	133.01	25.40	155.10	28.58	172.27	25.40	155.10	
12	323.8	4.57	35.98	6.35	49.71	8.38	65.19	10.31	79.71	9.53	73.86	14.27	108.93	17.48	132.05	12.70	97.44	21.44	159.87	25.40	186.92	28.58	208.08	33.32	238.69	25.40	186.92	
14	355.6	6.35	54.69	7.92	67.91	9.53	81.33	11.13	94.55	9.53	81.33	15.09	126.72	19.05	158.11	12.70	107.40	23.83	194.98	27.79	224.66	31.75	253.58	35.71	281.72	...	...	
16	406.4	6.35	62.65	7.92	77.83	9.53	93.27	12.70	123.31	9.53	93.27	16.66	160.13	21.44	203.54	12.70	123.31	26.19	245.57	30.96	286.66	36.53	333.21	40.49	365.38	...	...	
18	457	6.35	70.57	7.92	87.71	11.13	122.38	14.27	155.81	9.53	105.17	19.05	205.75	23.83	254.57	12.70	139.16	29.36	309.64	34.93	363.58	39.67	408.28	45.24	459.39	...	...	
20	508	6.35	78.56	9.53	117.15	12.70	155.13	15.09	183.43	9.53	117.15	20.62	247.84	26.19	311.19	12.70	155.13	32.54	381.55	38.10	441.52	44.45	508.15	50.01	564.85	...	...	
22	559	6.35	86.55	9.53	129.14	12.70	171.10	...	...	9.53	129.14	22.23	294.27	28.58	373.85	12.70	171.10	34.93	451.45	41.28	527.05	47.63	600.67	53.98	672.30	...	...	
24	610	6.35	94.53	9.53	141.12	14.27	209.65	17.48	255.43	9.53	141.12	24.61	355.28	30.96	442.11	12.70	187.07	38.89	547.74	46.02	640.07	52.37	720.19	59.54	808.27	...	...	
26	660	7.92	127.36	12.70	202.74	...	...	...	...	9.53	152.88	...	...	...	...	12.70	202.74	...	...	...	...	...	...	...	...	...	...	...
28	711	7.92	137.32	12.70	218.71	15.88	272.23	...	...	9.53	164.86	...	...	...	...	12.70	218.71	...	...	...	...	...	...	...	...	...	...	...
30	762	7.92	147.29	12.70	234.68	15.88	292.20	...	...	9.53	176.85	...	...	...	...	12.70	234.68	...	...	...	...	...	...	...	...	...	...	...
32	813	7.92	157.25	12.70	250.65	15.88	312.17	17.48	342.94	9.53	188.83	...	...	...	...	12.70	250.65	...	...	...	...	...	...	...	...	...	...	...
34	864	7.92	167.21	12.70	266.63	15.88	332.14	17.48	364.92	9.53	200.82	...	...	...	...	12.70	266.63	...	...	...	...	...	...	...	...	...	...	...
36	914	7.92	176.97	12.70	282.29	15.88	351.73	19.05	420.45	9.53	212.57	...	...	...	...	12.70	282.29	...	...	...	...	...	...	...	...	...	...	...

All dimensions are given in millimeters, all masses are given in kgs. per meter.

<sup>(1)</sup> to the nearest 0.1 mm for outside diameters of 16 in. (406.4 mm) and smaller, and to the nearest 1.0 mm for outside diameters larger than 16 in. (406.4 mm).