

DIMENSIONS AND MASS

DIMENSIONS SHOWN ARE TO ASME B36.10

Nominal Size		Outside Diameter mm (inch)	Wall Thickness mm	Inside Diameter mm	Plain End Mass kg/m	Identification	
☆ NPS	⊕ DN					Standard (STD) X-Strong (XS) XX-Strong (XXS)	Schedule Number
1/8	6	10.3 (0.405)	1.73 2.41	6.8 5.5	0.37 0.47	STD XS	40 80
1/4	8	13.7 (0.540)	2.24 3.02	9.2 7.7	0.63 0.80	STD XS	40 80
3/8	10	17.1 (0.675)	2.31 3.20	12.5 10.7	0.84 1.10	STD XS	40 80
1/2	15	21.3 (0.840)	2.77	15.8	1.27	STD	40
			3.73	13.9	1.62	XS	80
			4.78	11.8	1.95	–	160
3/4	20	26.7 (1.050)	7.47	6.4	2.55	XXS	–
			2.87	20.9	1.69	STD	40
			3.91	18.9	2.20	XS	80
1	25	33.4 (1.315)	5.56	15.5	2.90	–	160
			7.82	11.0	3.64	XXS	–
			3.38	26.6	2.50	STD	40
1 1/4	32	42.2 (1.660)	4.55	24.3	3.24	XS	80
			6.35	20.7	4.24	–	160
			9.09	15.2	5.45	XXS	–
1 1/2	40	48.3 (1.900)	3.56	35.1	3.39	STD	40
			4.85	32.5	4.47	XS	80
			6.35	29.5	5.61	–	160
2	50	60.3 (2.375)	9.70	22.8	7.77	XXS	–
			3.68	40.9	4.05	STD	40
			5.08	38.1	5.41	XS	80
2 1/2	65	73.0 (2.875)	7.14	34.0	7.25	–	160
			10.15	27.9	9.55	XXS	–
			3.91	52.5	5.44	STD	40
			5.54	49.2	7.48	XS	80
			8.74	42.9	11.11	–	160
			11.07	38.2	13.44	XXS	–
			5.16	62.7	8.63	STD	40
			7.01	59.0	11.41	XS	80
			9.53	54.0	14.92	–	160
			14.02	45.0	20.39	XXS	–

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3	80	88.9 (3.500)	5.49	77.9	11.29	STD	40
			7.62	73.7	15.27	XS	80
			11.13	66.7	21.35	–	160
3 1/2	90	101.6 (4.000)	15.24	58.4	27.68	XXS	–
			5.74	90.1	13.57	STD	40
			8.08	85.4	18.64	XS	80
4	100	114.3 (4.500)	6.02	102.3	16.08	STD	40
			8.56	97.2	22.32	XS	80
			11.13	92.1	28.32	–	120
			13.49	87.3	33.54	–	160
			17.12	80.1	41.03	XXS	–
			6.55	128.2	21.77	STD	40
			9.53	122.3	30.97	XS	80
			12.70	115.9	40.28	–	120
5	125	141.3 (5.563)	15.88	109.6	49.12	–	160
			19.05	103.2	57.43	XXS	–
			7.11	154.1	28.26	STD	40
6	150	168.3 (6.625)	10.97	146.3	42.56	XS	80
			14.27	139.7	54.21	–	120
			18.26	131.8	67.57	–	160
			21.95	124.4	79.22	XXS	–
8	200	219.1 (8.625)	6.35	206.4	33.32	–	20
			7.04	205.0	36.82	–	30
			8.18	202.7	42.55	STD	40
			10.31	198.5	53.09	–	60
			12.70	193.7	64.64	XS	80
			15.09	188.9	75.92	–	100
			18.26	182.6	90.44	–	120
			20.62	177.8	100.93	–	140
			22.23	174.6	107.93	XXS	–
23.01	173.1	111.27	–	160			
10	250	273.1 (10.75)	6.35	260.3	41.76	–	20
			7.80	257.5	51.01	–	30
			9.27	254.5	60.29	STD	40
			12.70	247.7	81.53	XS	60
			15.09	242.9	95.98	–	80
			18.26	236.5	114.71	–	100
			21.44	230.2	133.01	–	120
			25.40	222.3	155.10	XXS	140
			28.58	215.9	172.27	–	160

☆ NPS: ASME term.

⊕ DN: SI Metric term.

All dimensions are nominal

NOTE: API and BS 1600 are dimensionally similar to ASME B36.10

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☆ NPS	⊕ DN					Standard (STD) X-Strong (XS) XX-Strong (XXS)	Schedule Number
12	300	323.9 (12.75)	6.35	311.1	49.71	–	20
			8.38	307.1	65.19	–	30
			9.53	304.8	73.86	STD	–
			10.31	303.2	79.71	–	40
			12.70	298.5	97.44	XS	–
			14.27	295.3	108.93	–	60
			17.48	288.9	132.05	–	80
			21.44	281.0	159.87	–	100
			25.40	273.1	186.92	XXS	120
			28.58	266.7	208.08	–	140
			33.32	257.2	238.69	–	160
14	350	355.6 (14.00)	6.35	342.9	54.69	–	10
			7.92	339.8	67.91	–	20
			9.53	336.6	81.33	STD	30
			11.13	333.3	94.55	–	40
			11.91	331.8	100.95	–	–
			12.70	330.2	107.40	XS	–
			15.09	325.4	126.72	–	60
			19.05	317.5	158.11	–	80
			23.83	307.9	194.98	–	100
			27.79	300.0	224.66	–	120
			31.75	292.1	253.58	–	140
35.71	284.2	281.72	–	160			
16	400	406.4 (16.00)	6.35	393.7	62.65	–	10
			7.92	390.6	77.83	–	20
			9.53	387.4	93.27	STD	30
			12.70	381.0	123.31	XS	40
			16.66	373.1	160.13	–	60
			21.44	363.5	203.54	–	80
			26.19	354.0	245.57	–	100
			30.96	344.5	286.66	–	120
			36.53	333.3	333.21	–	140
			40.49	325.4	365.38	–	160
			18	450	457 (18.00)	6.35	444.5
7.92	441.4	87.71				–	20
9.53	438.2	105.17				STD	–
11.13	434.9	122.38				–	30
12.70	431.8	139.16				XS	–
14.27	428.7	155.81				–	40
19.05	419.1	205.75				–	60
23.83	409.5	254.57				–	80
29.36	398.5	309.64				–	100
34.93	387.4	363.58				–	120
39.67	377.9	408.28				–	140
45.24	366.7	459.39	–	160			

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☆ NPS	⊕ DN					Standard (STD) X-Strong (XS) XX-Strong (XXS)	Schedule Number			
20	500	508 (20.00)	6.35	495.3	78.56	–	10			
			9.53	489.0	117.15	STD	20			
			12.70	482.6	155.13	XS	30			
			15.09	477.8	183.43	–	40			
			20.62	466.8	247.84	–	60			
			26.19	455.6	311.19	–	80			
			32.54	442.9	381.55	–	100			
			38.10	431.8	441.52	–	120			
			44.45	419.1	508.15	–	140			
			50.01	408.0	564.85	–	160			
			22	550	559 (22.00)	6.35	546.1	86.55	–	10
9.53	539.8	129.14				STD	20			
12.70	533.4	171.10				XS	30			
22.23	514.4	294.27				–	60			
28.58	501.7	373.85				–	80			
34.93	489.0	451.45				–	100			
41.28	476.2	527.05				–	120			
47.63	463.5	600.67				–	140			
53.98	450.8	672.30				–	160			
24	600	610 (24.00)				6.35	596.9	94.53	–	10
						9.53	590.6	141.12	STD	20
			12.70	584.2	187.07	XS	–			
			14.27	581.1	209.65	–	30			
			17.48	574.6	255.43	–	40			
			24.61	560.4	355.28	–	60			
			30.96	547.7	442.11	–	80			
			38.89	531.8	547.74	–	100			
			46.02	517.6	640.07	–	120			
			52.37	504.9	720.19	–	140			
			59.54	490.5	808.27	–	160			
26	650	660 (26.00)	7.92	644.6	127.36	–	10			
			9.53	641.4	152.88	STD	–			
28	700	711 (28.00)	12.70	635.0	202.74	XS	20			
			7.92	695.4	137.32	–	10			
30	750	762 (30.00)	9.53	692.2	164.86	STD	–			
			12.70	685.8	218.71	XS	20			
36	900	914 (36.00)	15.88	679.5	271.23	–	30			
			7.92	746.2	147.29	–	10			
42	1050	1067 (42.00)	9.53	743.0	176.85	STD	–			
			12.70	736.6	234.68	XS	20			
36	900	914 (36.00)	15.88	730.2	292.20	–	30			
			7.92	898.6	176.97	–	10			
36	900	914 (36.00)	9.53	895.4	212.57	STD	–			
			12.70	889.0	282.29	XS	20			
36	900	914 (36.00)	15.88	882.6	351.73	–	30			
			19.05	876.3	420.45	–	40			
42	1050	1067 (42.00)	9.53	1047.8	248.53	STD	–			
			12.70	1041.4	330.21	XS	–			

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FORMULA TO ATTAIN APPROXIMATE MASS IN KILOGRAMS PER METRE (kg/m) FOR STEEL ROUND PIPE AND TUBING

$$M = (D - T) T \times 0.02466$$

Where: **m** = mass to the nearest 0.01 kg/m.

D = Outside Diameter in millimetres (mm).

(To nearest 0.1mm for O.D. up to 406.4mm)

(To nearest 1.0mm for O.D. 457mm and above)

t = Wall Thickness to nearest 0.01mm

EXAMPLE

NOMINAL SIZE: NPS-12. DN-300

O.D. = 323.9mm W.T. = 9.53mm

Step 1. 323.9 - 9.53 = 314.37

Step 2. 314.37 x 9.53 = 2995.9461

Step 3. 2995.9461 x 0.02466 = **73.88 kg/m**