

ANSI B36.19 STAINLESS STEEL PIPE DIMENSION IN MM & WEIGHT PER KG.

Nominal Pipe Size		Outside Diameter	Schedule 5 S		Schedule 10 S		Schedule 20 S		Schedule 40 S		Schedule 80 S		Schedule 160 S		XXS	
mm	inch	mm	WT mm	WEIGHT (KGM)	WT mm	WEIGHT (KGM)	WT mm	WEIGHT (KGM)	WT mm	WEIGHT (KGM)	WT mm	WEIGHT (KGM)	WT mm	WEIGHT (KGM)	WT mm	WEIGHT (KGM)
3	1/8	10.3	1.2	0.20	1.24	0.28	1.5	0.33	1.73	0.37	2.41	0.47	-	-	-	-
6	1/4	13.7	1.2	0.37	1.65	0.49	2.00	0.58	2.24	0.630	3.02	0.80	-	-	-	-
10	3/8	17.1	1.2	0.47	1.65	0.63	2.00	0.74	2.31	0.840	3.20	1.10	-	-	-	-
15	1/2	21.3	1.65	0.80	2.11	1.00	2.30	1.07	2.77	1.27	3.73	1.62	4.75	1.94	7.47	2.55
20	3/4	26.7	1.65	1.03	2.11	1.28	2.55	1.52	2.87	1.69	3.91	2.20	5.56	2.90	7.82	3.64
25	1	33.4	1.65	1.30	2.77	2.09	2.55	1.94	3.38	2.50	4.55	3.24	6.35	4.24	9.09	5.45
32	1.1/4	42.2	1.65	1.65	2.77	2.70	3.00	2.90	3.56	3.39	4.85	4.47	6.35	5.61	9.70	7.77
40	1.1/2	48.3	1.65	1.91	2.77	3.11	3.00	3.55	3.68	4.05	5.08	5.41	7.14	7.25	11.1	10.18
50	2	60.3	1.65	2.40	2.77	3.93	3.00	4.24	3.91	5.44	5.54	7.48	8.74	11.11	11.07	13.44
65	2.1/2	73.0	2.11	3.69	3.05	5.26	4.00	6.81	5.16	8.63	7.01	11.41	9.53	14.91	14.02	20.39
80	3	88.9	2.11	4.51	3.05	6.45	4.00	8.37	5.49	11.29	7.62	15.27	11.1	21.30	15.24	27.68
100	4	114.3	2.11	5.84	3.05	8.36	4.50	12.18	6.02	16.07	8.56	22.32	13.49	33.54	17.12	41.03
125	5	141.3	2.77	9.47	3.40	11.57	5.00	16.80	6.55	21.8	9.53	30.97	15.88	49.11	19.05	57.43
150	6	168.3	2.77	11.32	3.40	13.84	6.35	25.36	7.11	28.26	10.97	42.56	18.25	67.53	21.95	79.22
200	8	219.1	2.77	14.79	3.76	19.96	6.35	33.31	8.18	42.55	12.7	64.64	23.01	111.27	22.23	107.92
250	10	273.1	3.40	22.63	4.19	27.78	6.35	41.77	9.27	60.31	12.7	96.01	28.58	172.33	25.40	155.15
300	12	323.8	3.96	31.25	4.57	36.00	6.35	49.7	9.53	73.88	12.7	132.05	33.32	238.76	25.40	186.97
350	14	355.6	3.96	34.36	4.78	41.3	7.92	67.80	11.13	94.59	ASTM A 312 TP 304 ASTM A 312 TP 316L ASTM A 312 TP 317L					
400	16	406.4	4.19	41.56	4.78	47.29	7.92	77.83	12.7	123.30						
450	18	457.2	4.19	46.81	4.78	53.26	7.92	87.71	14.27	155.80						
500	20	508.0	4.78	59.25	5.54	68.61	9.53	117.14	15.09	183.42						
600	24	610.0s	5.54s	82.47	6.35	94.45	9.53	141.12	17.48	255.41						

**ANSI B36.10 CARBON STEEL SEAMLESS PIPE WEIGHT PER KG/MTR
ASTM PIPE SCHEDULE - Wall = Wall Thickness Millimeter - Wt - Weights in Kg. / Mtr.**

Nominal Pipe Size		O/D	Schedule 10		Schedule 20		Schedule 30		Schedule STD		Schedule 40		Schedule 60		Schedule Extra Strong (XS)		Schedule 80		Schedule 100		Schedule 120		Schedule 140		Schedule 160		Schedule Double Extra Strong			
m	inch	Mm	m	Kg/m	m	Kg/m	m	Kg/m	Wa ll	wt.	Wall	wt.	Wall	wt.	Wall	wt.	Wall	wt.	Wa ll	wt.	Wall	wt.	Wall	wt.	Wall	wt.	Wall	wt.		
3	1/8	10.3							1.73	0.37	1.73	0.37			2.41	0.47	2.41	0.47												
6	1/4	13.7							2.24	0.63	2.24	0.63			3.02	0.80	3.02	0.80												
10	3/8	17.1							2.31	0.84	2.31	0.84			3.20	1.10	3.20	1.10												
15	1/2	21.3							2.77	1.27	2.77	1.27			3.73	1.62	3.73	1.62							4.78	1.95	7.5	2.55		
20	3/4	26.7							2.87	1.69	2.87	1.69			3.91	2.20	3.91	2.20							5.6	2.90	7.82	3.64		
25	1	33.4							3.38	2.50	3.38	2.50			4.55	3.24	4.55	3.24							6.4	4.24	9.0	5.45		
32	1.1/4	42.2							3.56	3.39	3.56	3.39			4.85	4.47	4.85	4.47							6.4	5.61	9.7	7.77		
40	1.1/2	48.3							3.68	4.05	3.68	4.05			5.08	5.41	5.08	5.41							7.14	7.25	10.2	9.56		
50	2	60.3							3.9	5.44	3.9	5.44			5.5	7.48	5.5	7.48							8.7	11.11	11.1	13.4		
65	2.1/2	73/0							5.16	8.63	5.16	8.63			7.0	11.41	7.0	11.41							9.5	14.92	14.0	20.4		
80	3	88.9							5.5	11.3	5.5	11.3			7.62	15.3	7.62	15.3							11.13	21.35	15.24	27.7		
90	3.1/2	101.6							5.74	13.57	5.74	13.57			8.08	18.63	8.08	18.63									16.2	34.1		
100	4	114.3							6.02	16.07	6.02	16.07			8.56	22.3	8.56	22.3		11.13	11.13	28.32			13.5	33.5	17.12	41.03		
125	5	141.3							6.55	21.77	6.55	21.77			9.53	30.9	9.53	30.9		12.7	12.7	40.2			15.9	49.11	19.0	57.4		
150	6	168.3							7.11	28.26	7.11	28.26			10.97	42.5	10.97	42.5		14.3	14.3	54.2			18.3	67.5	21.95	79.22		

200	8	219.1			6.35	33.3	7.0	36.8	8.2	42.5	8.2	42.5	10.3	53.1	12.7	64.6	12.7	64.5	15.1	75.92	18.3	90.4	20.6	100.9	23.0	111.27	22.23	108.0	
250	10	273.0			6.35	41.7	7.8	51.3	9.27	60.3	9.27	60.3	12.7	81.5	12.7	81.5	15.1	96.0	18.3	114.7	21.44	133.0	25.4	155	28.6	172.3	25.4	155.0	
300	12	323.8			6.35	49.7	8.4	65.2	9.53	73.8	10.3	79.7	14.3	109.0	12.7	97.4	17.4	132.0	21.4	160.0	25.4	187.0	28.6	208	33.3	238.7	25.4	187.0	
350	14	355.6	6.35	54.6	7.92	68.1	9.53	81.3	9.53	81.3	11.13	94.6	15.1	126.4	12.7	107.0	19.0	158.0	23.8	195.0	27.8	224.0	31.8	253.5	36.7	281			
400	16	406.4	6.35	62.6	7.92	77.9	9.5	93.3	9.53	93.3	12.7	123.0	16.7	160.0	12.7	123.0	21.44	203.0	26.2	245.0	30.9	286.0	36.53	333	40.5	366.0			
450	18	457.2	6.35	70.5	7.92	87.7	11.1	122.0	9.53	105.0	14.3	156.0	19.0	206.0	12.7	130.0	23.8	254.0	21.4	310.0	34.0	363.0	39.7	408.3	45.2	459.0			
500	20	508.0	6.35	78.5	9.53	117.2	12.7	155.1	9.53	117.2	15.1	183.0	20.6	248.0	12.7	155.1	26.2	311.0	32.5	381.0	38.1	441.0	44.4	508	50.0	564.0			
550	22	558.8	6.35	86.4	9.53	129.0	12.7	171.0	9.53	129.0			22.2	294.0	12.7	171.0	28.6	373.0	34.0	451.0	41.3	526.0	47.6	600	54.0	672.0			
600	24	600.5	6.35	94.5	9.53	141.0	14.3	210.0	9.53	141.0	17.4	255.0	24.5	355.0	12.87	187.0	30.9	442.0	38.8	547.7	46.0	640.0	52.4	720	59.5	808.0			
650	26	660.4	7.92	127.0	12.7	203.0			9.53	153.0				202	12.7														
700	28	711.0	7.92	137.4	12.7	218.0	15.8	292.0	9.53	165.0				218	12.7														
750	30	762.0	7.92	147.0	12.7	234.6	15.8	292.6	9.53	176.0				234	12.7														
800	32	812.8	7.92	157.0	12.7	250.6	15.8	312.5	9.53	188.2		364.9		251	12.7														
850	34	863.6	7.92	167.0	12.7	282.4	15.8	351.7	9.53	200.0	17.5	420.4		266	12.7														
900	36	914.4	7.92	176.6	12.7	282.4	15.8	352.2	9.53	212.0	19.1			282	12.7														

A 106 Gr B

API - 5L - Gr B

A 33 Gr 6

A 335 P 5

MILD STEEL PIPES CONFIRM TO IS : 1239 (PART I) - 1979

Nominal Bore		Outside Diameter		Light (A-Class) Thickness Weight		Medium (B-Class) Thickness Weight		Heavy (C-Class) Thickness Weight	
Inch	mm	Inch	mm	mm	kg/mtr	mm	kg/mtr	mm	kg/mtr
1/8"	3 mm	0.406	10.32	1.80	0.361	2.00	0.407	2.65	0.493
1/4"	6 mm	0.532	13.49	1.80	0.517	2.35	0.650	2.90	0.769
3/8"	10 mm	0.872	17.10	1.80	0.674	2.35	0.852	2.90	1.02
1/2"	15 mm	0.844	21.43	2.00	0.952	2.65	1.122	3.25	1.45
3/4"	20 mm	1.094	27.20	2.35	1.410	2.65	1.580	3.25	1.90
1"	25 mm	1.312	33.80	2.65	2.010	3.25	2.440	4.05	2.97
1.1/4"	32 mm	1.656	42.90	2.65	2.580	3.25	3.140	4.05	3.84
1.1/2"	40 mm	1.906	48.40	2.90	3.250	3.25	3.610	4.05	4.43
2"	50 mm	2.375	60.30	2.90	4.110	3.65	5.100	4.47	6.17
2.1/2"	65 mm	3.004	76.20	3.25	5.840	3.65	6.610	4.47	7.90
3"	80 mm	3.500	88.90	3.25	6.810	4.05	8.470	4.85	10.1
4"	100 mm	4.500	114.30	3.65	9.890	4.50	12.10	5.40	14.4
5"	125 mm	5.500	139.70	-	-	4.85	16.20	5.40	17.8
6"	150 mm	6.500	165.10	-	-	4.85	19.20	5.40	21.2

BIG DIAMETER ERW PIPES CONFIRM TO IS 3589

Wall Thickness	NominalBore 7" NB 193.7 mm OD	NominalBore 8" NB 219.1 mm OD	NominalBore 10" NB 273 mm OD	NominalBore 12" NB 323.7 mm OD	NominalBore 14" NB 355.6 mm OD	NominalBore 16" NB 406.4 mm OD	NominalBore 18" NB 457mm OD	NominalBore 20" NB 508 mm OD
mm	Kg/mtr	Kg/mtr	Kg/mtr	Kg/mtr	Kg/mtr	Kg/mtr	Kg/mtr	Kg/mtr
4.85	22.59	25.62	32.07	38.13	-	-	-	-
5.20	24.17	27.43	34.34	40.85	-	-	-	-
5.60	26.00	29.28	36.93	43.93	48.11	-	-	-
6.00	27.88	31.53	39.50	47.02	51.49	61.00	69.00	-
6.35	29.34	33.28	41.73	49.67	54.43	62.35	70.50	78.50
7.01	32.77	36.76	46.43	55.45	61.82	69.04	-	-
7.94	-	41.00	50.95	61.85	67.98	77.94	87.80	-
8.18	-	42.56	53.42	65.12	-	-	-	-
9.53	-	51.50	60.24	73.75	81.21	93.13	105.00	117.00
12.70	-	-	-	-	107.28	123.30	139.00	155.00

Tolerance on Thickness and Weight : as per IS 1239 The following manufacturing tolerance shall be permitted on the tubes and sockets.

MAXIMUM PERMISSIBLE PRESSURE AND TEMPERATE FOR TUBES WITH STEEL COUPLINGS OR SCREWED AND SOCKETED JOINTS

(a) Thickness			Nominal Bore mm	Maximum Permissible Pressure N/mm ²	Kg./cm ²	Maximum Permissible Temperature 0C
(1)	Butt welded Light tubes	+Not limited - 8 percent	Up to and Including 25 mm	1.20	12.24	260
	Medium and Heavy tubes	+ Not Limited - 10 percent	Over 25 mm up to and Including 40 mm	1.03	10.50	260
(2)	Seamless Tubes	+Not Limited - 12.5 percent	Over 40 mm up to and Including 80 mm	0.86	8.77	260
			Over 80 mm up to and Including 100 mm	0.69	7.04	260
(1)	Single tube (light series)	+10 percent - 8 percent		0.83	8.77	177
			Over 100 mm up to and Including 125 mm	0.69	7.04	171

(b) Weight :

(2)	Single tube (medium & heavy Series)	+10 percent	Over 125 mm up to and Including 150 mm	0.50	5.10	160
For tubes fitted with appropriate flanges of suitably butt welded together, the Max, permissible pressure shall be 21.00 Kg/cm ² and Max. permissible temp. 260 C						

HOLLOW STEEL SECTIONS FOR STRUCTURAL USE AS PER IS : 4923 : 1997

SQUARE HOLLOW SECTIONS (SHS)					
SECTION SHS(MM)	Depth D (mm)	Width B (mm)	Thickness T (mm)	Weight W (Kg/m)	Mts./ Tonne
16x16	16.00 16.00	16.00 16.00	1.80 2.40	0.83 1.07	1204 935
19x19	19.00 19.00	19.00 19.00	1.80 2.40	0.99 1.29	1010 775
25x25	25.00 25.00	25.00 25.00	2.60 3.20	1.69 1.98	592 505
30x30	30.00 30.00 30.00	30.00 30.00 30.00	2.60 3.20 4.00	2.10 2.49 2.94	476 402 340
40x40	40.00 40.00 40.00 40.00	40.00 40.00 40.00 40.00	2.60 3.20 3.60 4.00	2.92 3.49 3.85 4.20	342 287 260 238
50x50	50.00 50.00	50.00 50.00	2.90 3.20	4.35 4.77	230 210
70x70	70.00 70.00 70.00	70.00 70.00 70.00	3.20 4.00 4.80	6.71 8.22 9.66	149 122 104
80x80	80.00 80.00 80.00	80.00 80.00 80.00	3.60 4.50 4.90	9.38 11.52 12.44	107 87 80
100x100	100.00 100.00 100.00	100.00 100.00 100.00	3.60 4.50 5.40	9.67 11.88 14.01	103 84 71
120x120	120.00 120.00	120.00 120.00	4.80 5.40	15.92 17.74	63 56
132x132	132.00 132.00	132.00 132.00	4.80 5.40	18.71 20.88	53 48
150x150	150.00	150.00	5.00	22.26	45

RECTANGULAR HOLLOW SECTIONS (RHS)					
SECTION SHS (mm)	Depth D (mm)	Width B (mm)	Thickness T (mm)	Weight W (Kg/m)	Mts./Tonne
30X20	30.00	20.00	2.00	1.47	680
40X20	40.00	20.00	2.00	1.78	562
50X25	50.00 50.00	25.00 25.00	2.90 3.20	2.98 3.24	336 309
60X40	60.00	40.00	2.90	4.12	243
66X33	66.00 66.00 66.00	33.00 33.00 33.00	2.90 3.60 4.50	4.07 4.93 5.95	246 203 168
70X30	70.00 70.00 70.00	30.00 30.00 30.00	2.90 3.20 4.00	4.12 4.50 5.45	243 222 183

80X40	80.00 80.00 80.00	40.00 40.00 40.00	2.90 3.20 4.00	5.03 5.50 6.71	199 182 149
96X48	96.00 96.00 96.00	48.00 48.00 48.00	3.20 4.00 4.80	6.71 8.22 9.66	149 122 104
122X61	122.00 122.00 122.00	61.00 61.00 61.00	3.60 4.50 5.40	9.67 11.88 14.01	103 84 71
145X82	145.00 145.00	82.00 82.00	4.80 5.40	15.92 17.74	63 56
172X92	172.00 172.00	92.00 92.00	4.80 5.40	18.71 20.88	53 48

GRADE	T.S. (min)	Y.S. (min)	Elongation	
	Mpa	Mpa	25.4 mm & under	Over 25.4 mm
YST-210 YST-240 YST-310	330 410 450	210 240 310	12 10 8	20 15 10

O.D.	+/-0.5 mm
Thickness	+/-10%
Weight	
(1) Single Pipe	-8%+10%
(2) On lots of 10 Tonne	+7.5%