BS 1387 : 1985

Screwed and Socketed Steel Tubes and Tubular and for Plain End Steel Tubes Suitable for Welding

MATERIAL OF GRADE	(%) CHEMICAL COMPOSITION (Max)					MECHANICAL PROPERTIES (Min)		
	C Max	Si Max	Mn Max	P Max	S Max	Yield Strength	Tensile Strength	Elongation
						N/mm²	N/mm²	% (min.)
-	0.20	-	1.20	0.045	0.045	195	320-460	20

Light class

NOMINAL SIZE		THICKNESS MM		OUTSIDE DIAMETER MM		WEIGHT (PLAIN END) KG/M	CROSS SECTIONAL AREA	GEOMETRICAL MOMENT OF INERTIA	MODULUS OF SECTION	RADIUS OF GYRATION
in	mm	Std.	Min	Min	Max	STD	cm²	cm⁴	cm³	cm
1/2"	15	2.0	1.84	21.0	21.4	0.95	1.200	0.580	0.54	0.70
3/4"	20	2.3	2.12	26.4	26.9	1.380	1.840	1.357	1.01	0.86
1"	25	2.6	2.39	33.2	33.8	1.980	2.548	3.124	1.85	1.11
1¼"	32	2.6	2.39	41.9	42.5	2.540	3.341	6.516	3.07	1.40
1½"	40	2.9	2.67	47.8	48.4	3.230	4.205	10.775	4.45	1.60
2"	50	2.9	2.67	59.6	60.2	4.080	5.365	21.489	7.14	2.00
2½"	65	3.2	2.94	75.2	76.0	5.710	7.392	48.598	12.79	2.56
3"	80	3.2	2.94	87.9	88.7	6.720	8.768	78.685	17.74	3.00
4"	100	3.6	3.31	113.0	113.9	9.750	12.744	189.988	33.36	3.86

Medium class

NOMINAL SIZE		THICKNESS MM		OUTSIDE DIAMETER MM		WEIGHT (PLAIN END) KG/M	CROSS SECTIONAL AREA	GEOMETRICAL MOMENT OF INERTIA	MODULUS OF SECTION	RADIUS OF GYRATION
in	mm	Std.	Min	Min	Max	STD	cm²	cm⁴	cm³	cm
1/2"	15	2.6	2.34	21.1	21.7	1.210	1.534	0.725	0.67	0.69
3/4"	20	2.6	2.34	26.6	27.2	1.560	2.054	1.538	1.13	0.87
1"	25	3.2	2.88	33.4	34.2	2.410	3.184	3.785	2.21	1.09
1¼"	32	3.2	2.88	42.1	42.9	3.100	4.080	7.917	3.69	1.39
1½"	40	3.2	2.88	48.0	48.8	3.570	4.640	11.979	4.91	1.61
2"	50	3.6	3.24	59.8	60.8	5.030	6.516	26.573	8.74	2.02
2½"	65	3.6	3.24	75.4	76.6	6.430	8.280	55.152	14.40	2.58
3"	80	4.0	3.60	88.1	89.5	8.370	10.720	98.433	22.00	3.03
4"	100	4.5	4.05	113.3	114.9	12.200	15.750	238.273	41.47	3.89
5"	125	5.0	4.50	138.7	140.6	16.600	21.650	490.426	69.76	4.76
6"	150	5.0	4.50	164.1	166.1	19.700	25.450	822.071	98.99	5.68

Heavy class

NOMINAL SIZE		THICKNESS MM		OUTSIDE DIAMETER MM		WEIGHT (PLAIN END) KG/M	CROSS SECTIONAL AREA	GEOMETRICAL MOMENT OF INERTIA	MODULUS OF SECTION	RADIUS OF GYRATION
in	mm	Std.	Min	Min	Max	STD	cm²	cm⁴	cm³	cm
1/2"	15	3.2	2.88	21.1	21.7	1.440	1.856	0.820	0.76	0.66
3/4"	20	3.2	2.88	26.6	27.2	1.870	2.496	1.769	1.30	0.84
1"	25	4.0	3.60	33.4	34.2	2.940	3.920	4.404	2.58	1.06
1¼"	32	4.0	3.60	42.1	42.9	3.800	5.000	9.348	4.36	1.37
1½"	40	4.0	3.60	48.0	48.8	4.380	5.720	14.242	5.84	1.58
2"	50	4.5	4.05	59.8	60.8	6.190	8.100	31.750	10.44	1.98
2½"	65	4.5	4.05	75.4	76.6	7.930	10.350	66.518	17.37	2.54
3"	80	5.0	4.50	88.1	89.5	10.300	13.400	118.930	26.58	2.98
4"	100	5.4	4.86	113.3	114.9	14.500	18.684	279.207	48.60	3.87
5"	125	5.4	4.86	138.7	140.6	17.900	23.382	525.111	74.70	4.74
6"	150	5.4	4.86	164.1	166.1	21.300	27.486	881.386	106.13	5.66

Dimension Tolerances

Thickness	Light tube (L) : - 8% Medium (M) and Heavy tube (H) : - 10%
Weight	+ 10% , - 8%
Hydrostatic Test	50 bar or 700 psi.

Color Marking

Class	Color
Light	Brown
Medium	Blue
Heavy	Red