



Carbon Steel Tubes for General Structural Purposes

MATERIAL OF GRADE	CHEMICAL COMPOSITION (%)					MECHANICAL PROPERTIES			COLOR CODE
	C Max	Si Max	Mn Max	P Max	S Max	Yield Strength	Tensile Strength		Material of Grade
						N/mm ² (min)	N/mm ² (min)	% (min)	
STK 400	0.250	-	-	0.040	0.040	235	400	23	WHITE
STK 490	0.180	0.550	1.500	0.040	0.040	315	490	23	WHITE

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	Max	Std.	Min	Max	STD	cm ²	cm ⁴	cm ³	cm
1/2"	21.7	2.00	1.50	2.60	21.70	21.20	22.20	0.972	1.238	0.607	0.560	0.700
		2.30	1.80	2.90	27.20	26.70	27.70	1.240	1.583	1.260	0.930	0.890
3/4"	27.2	2.30	1.80	2.90	27.20	26.70	27.70	1.410	1.799	1.410	1.030	0.880
		2.50	2.00	3.10	34.00	33.50	34.50	1.800	2.291	2.890	1.700	1.120
1"	34.0	2.30	1.80	2.90	42.70	42.20	43.20	2.290	2.919	5.970	2.800	1.430
		2.50	2.00	3.10	42.70	42.20	43.20	2.480	3.157	6.400	3.000	1.420
1-1/4"	42.7	2.30	1.80	2.90	48.60	48.10	49.10	2.630	3.345	8.990	3.700	1.640
		2.50	2.00	3.10	48.60	48.10	49.10	2.840	3.621	9.650	3.970	1.630
		2.80	2.30	3.40	48.60	48.10	49.10	3.160	4.029	10.600	4.360	1.620
		3.20	2.70	3.80	48.60	48.10	49.10	3.580	4.564	11.800	4.860	1.610
2"	60.5	2.30	1.80	2.90	60.50	59.90	61.11	3.300	4.205	17.800	5.900	2.060
		3.20	2.70	3.80	60.50	59.90	61.11	4.520	5.760	23.700	7.840	2.030
		4.00	3.50	4.60	60.50	59.90	61.11	5.570	7.100	28.500	9.410	2.000
2-1/2"	76.3	2.80	2.30	3.40	76.30	75.54	77.06	5.080	6.465	43.700	11.500	2.600
		3.20	2.70	3.80	76.30	75.54	77.06	5.770	7.349	49.200	12.900	2.590
		4.00	3.50	4.60	76.30	75.54	77.06	7.130	9.085	59.500	15.600	2.580
3"	89.1	2.80	2.30	3.40	89.10	88.21	89.99	5.960	7.591	70.700	15.900	3.050
		3.20	2.70	3.80	89.10	88.21	89.99	6.780	8.636	79.800	17.900	3.040
3-1/2"	101.6	3.20	2.70	3.80	101.60	100.58	102.62	7.760	9.892	120.000	23.600	3.480
		4.00	3.50	4.60	101.60	100.58	102.62	9.630	12.260	146.000	28.800	3.450
		5.00	4.38	5.75	101.60	100.58	102.62	11.900	15.170	177.000	34.900	3.420
4"	114.3	3.20	2.70	3.80	114.30	113.16	115.44	8.770	11.170	172.000	30.200	3.930
		3.50	3.00	4.10	114.30	113.16	115.44	9.580	12.180	187.000	32.700	3.920
		4.50	3.94	5.18	114.30	113.16	115.44	12.200	15.520	234.000	41.000	3.890
5"	139.8	3.60	3.10	4.20	139.80	138.40	141.20	12.100	15.400	357.000	51.100	4.820
		4.00	3.50	4.60	139.80	138.40	141.20	13.400	17.070	394.000	56.300	4.800
		4.50	3.94	5.18	139.80	138.40	141.20	15.000	19.130	438.000	62.700	4.790
		6.00	5.25	6.90	139.80	138.40	141.20	19.800	25.220	566.000	80.900	4.740
6"	165.2	4.50	3.94	5.18	165.20	163.55	166.85	17.800	22.720	734.000	88.900	5.680
		5.00	4.38	5.75	165.20	163.55	166.85	19.800	25.160	808.000	97.800	5.670
		6.00	5.25	6.90	165.20	163.55	166.85	23.600	30.010	952.000	115.000	5.630
		7.10	6.21	8.17	165.20	163.55	166.85	27.700	35.260	1100.000	134.000	5.600

Dimension Tolerances

Outside Diameter	< 50 mm. : ± 0.5 mm. ≥ 50 mm. : ± 1 %
Thickness	< 4.0 mm. : +0.6 mm., - 0.5 mm. ≥ 4.0 mm. : +15 %, -12.5 %
Weight	N/A