



PSB Singapore

## Carbon Steel Tubes (Transition from BS 1387)

ท่อเหล็กกล้า (เปลี่ยนจาก BS 1387)

BS EN 10255

Grade		% Chemical Composition (Max)					Mechanical Properties (Min)		
		C	Si	Mn	P	S	Yield Strength	Tensile Strength	Elongation
Steel Name	Steel Number						MPa	MPa	%
S 195T	1.0026	0.20	-	1.40	0.035	0.030	195	320 - 520	20

H Series								
Nominal Size	Specified Outside Diameter	Designation of Thread	Outside Diameter		Thick-ness	Mass Per Unit Length		
			Max	Min		Plain End	Threads & Couplings	
mm	mm		mm	mm	mm	kg/m	kg/m	
6	10.2	1/8	10.6	9.8	2.6	0.487	0.490	
8	13.5	1/4	14.0	13.2	2.9	0.765	0.769	
10	17.2	3/8	17.5	16.7	2.9	1.02	1.03	
15	21.3	1/2	21.8	21.0	3.2	1.44	1.45	
20	26.9	3/4	27.3	26.5	3.2	1.87	1.88	
25	33.7	1	34.2	33.3	4.0	2.93	2.95	
32	42.4	1 1/4	42.9	42.0	4.0	3.79	3.82	
40	48.3	1 1/2	48.8	47.9	4.0	4.37	4.41	
50	60.3	2	60.8	59.7	4.5	6.19	6.26	
65	76.1	2 1/2	76.6	75.3	4.5	7.93	8.05	
80	88.9	3	89.5	88.0	5.0	10.3	10.5	
100	114.3	4	115.0	113.1	5.4	14.5	14.8	
125	139.7	5	140.8	138.5	5.4	17.9	18.4	
150	165.1	6	166.5	163.9	5.4	21.3	21.9	

Type L								
Nominal Size	Specified Outside Diameter	Designation of Thread	Outside Diameter		Thick-ness	Mass Per Unit Length		
			Max	Min		Plain End	Threads & Couplings	
mm	mm		mm	mm	mm	kg/m	kg/m	
8	13.5	1/4	13.9	13.2	2.0	0.567	0.571	
10	17.2	3/8	17.4	16.7	2.0	0.750	0.756	
15	21.3	1/2	21.7	21.0	2.3	1.08	1.09	
20	26.9	3/4	27.1	26.4	2.3	1.40	1.41	
25	33.7	1	34.0	33.2	2.9	2.20	2.22	
32	42.4	1 1/4	42.7	41.9	2.9	2.82	2.85	
40	48.3	1 1/2	48.6	47.8	2.9	3.25	3.29	
50	60.3	2	60.7	59.6	3.2	4.51	4.58	
65	76.1	2 1/2	76.0	75.2	3.2	5.75	5.87	
80	88.9	3	88.7	87.9	3.2	6.76	6.93	
90	101.6	3 1/2	101.2	100.3	3.6	8.70	8.88	
100	114.3	4	113.9	113.0	3.6	9.83	10.1	
125	139.7	5	140.8	138.5	4.5	15.0	15.5	
150	165.1	6	166.5	163.9	4.5	17.8	18.4	

M Series								
Nominal Size	Specified Outside Diameter	Designation of Thread	Outside Diameter		Thick-ness	Mass Per Unit Length		
			Max	Min		Plain End	Threads & Couplings	
mm	mm		mm	mm	mm	kg/m	kg/m	
6	10.2	1/8	10.6	9.8	2.0	0.404	0.407	
8	13.5	1/4	14.0	13.2	2.3	0.641	0.645	
10	17.2	3/8	17.5	16.7	2.3	0.839	0.845	
15	21.3	1/2	21.8	21.0	2.6	1.21	1.22	
20	26.9	3/4	27.3	26.5	2.6	1.56	1.57	
25	33.7	1	34.2	33.3	3.2	2.41	2.43	
32	42.4	1 1/4	42.9	42.0	3.2	3.10	3.13	
40	48.3	1 1/2	48.8	47.9	3.2	3.56	3.60	
50	60.3	2	60.8	59.7	3.6	5.03	5.10	
65	76.1	2 1/2	76.6	75.3	3.6	6.42	6.54	
80	88.9	3	89.5	88.0	4.0	8.36	8.53	
100	114.3	4	115.0	113.1	4.5	12.2	12.5	
125	139.7	5	140.8	138.5	5.0	16.6	17.1	
150	165.1	6	166.5	163.9	5.0	19.8	20.4	

Type L 1								
Nominal Size	Specified Outside Diameter	Designation of Thread	Outside Diameter		Thick-ness	Mass Per Unit Length		
			Max	Min		Plain End	Threads & Couplings	
mm	mm		mm	mm	mm	kg/m	kg/m	
8	13.5	1/4	13.9	13.2	2.0	0.570	0.574	
10	17.2	3/8	17.4	16.7	2.0	0.742	0.748	
15	21.3	1/2	21.7	21.0	2.3	1.08	1.09	
20	26.9	3/4	27.1	26.4	2.3	1.39	1.40	
25	33.7	1	34.0	33.2	2.9	2.20	2.22	
32	42.4	1 1/4	42.7	41.9	2.9	2.82	2.85	
40	48.3	1 1/2	48.6	47.8	2.9	3.24	3.28	
50	60.3	2	60.7	59.6	3.2	4.49	4.56	
65	76.1	2 1/2	76.3	75.2	3.2	5.73	5.85	
80	88.9	3	89.4	87.9	3.6	7.55	7.72	
100	114.3	4	114.9	113.0	4.0	10.80	11.10	

Type L 2								
Nominal Size	Specified Outside Diameter	Designation of Thread	Outside Diameter		Thick-ness	Mass Per Unit Length		
			Max	Min		Plain End	Threads & Couplings	
mm	mm		mm	mm	mm	kg/m	kg/m	
8	13.5	1/4	13.6	13.2	1.8	0.515	0.519	
10	17.2	3/8	17.1	16.7	1.8	0.670	0.676	
15	21.3	1/2	21.4	21.0	2.0	0.947	0.956	
20	26.9	3/4	26.9	26.4	2.3	1.38	1.39	
25	33.7	1	33.8	33.2	2.6	1.98	2.00	
32	42.4	1 1/4	42.5	41.9	2.6	2.54	2.57	
40	48.3	1 1/2	48.4	47.8	2.9	3.23	3.27	
50	60.3	2	60.2	59.6	2.9	4.08	4.15	
65	76.1	2 1/2	76.0	75.2	3.2	5.71	5.83	
80	88.9	3	88.7	87.9	3.2	6.72	6.89	
100	114.3	4	113.9	113.0	3.6	9.75	10.00	

Series / Type	H Series	M Series	Type L	Type L1	Type L2
Marking Color	Red	Blue	Green	White	Brown

Dimension Tolerances	Thickness	M, H Series and Type L : $\pm 10\%$ Type L1, L2 : + by mass tolerance, -8%
	Weight	M, H Series and Type L : $\pm 7.5\%$ Type L1, L2 : +10% , -8% on individual tubes
	Hydrostatic Test	50 bar