

BS 1387 : 1985

Screwed and socketed steel tubes and tubulars and for plain end steel tubes suitable for welding or for screwing to BS 21 pipe threads

Table 1. Chemical composition and mechanical properties at room temperature

Chemical composition (ladle)				Mechanical properties at room temperature		
C %	Mn %	P %	S %	Tensile Strength Rm N/mm ²	Yield Strength Re (min.) N/mm ²	Elongation on gauge length Lo=5.65ÖSo A (min.) %
0.20	1.20	0.045	0.045	320 to 460	195	20

Tolerances

The tolerances on the outside diameter, thickness, mass and length shall be as follows.

(a) *Outside diameter.*

Medium and heavy tubes as given in tables 4 and 5 respectively

(b) *Thickness*

Medium and heavy tubes - 10%

(c) *Mass*

The mean consignment mass for quantities of 150 m and over of one size shall not deviate by more than $\pm 4\%$ from the mass of the consignment calculated from the masses given in tables 3,4 and 5 as appropriate. No single tube shall deviate by more than $\pm 10\%$ from the mass given in tables 3,4 and 5 as appropriate.

(d) *Length*

Random lengths. When random lengths are ordered, tubes shall be supplied in one of the following ways:

- (a) in random lengths from 4 m to 7 m ;
- (b) (for orders of over 150 m of any one size of tube) in random lengths from 1.8 m to 4 m provided that the number of such lengths does not exceed 7.5% of the total number of lengths for DN 65 to DN 100 inclusive, and 5% for all other sizes.
- (c) as for (B) but including tubes with two lengths joined together to make a random length, provided that the number of such jointed lengths does not exceed 7.5% of the total number of lengths for DN 65 to DN 100 inclusive and 5% for all other sizes.

(2) *Mill lengths.* When mill lengths are required tubes shall be supplied in lengths of 6.4 m minimum. No tube shall exceed this length by more than 150 mm.

(3) *Approximate lengths.* Where approximate lengths are required, either for screwed and socketed tubes or for plain end tubes, each tube shall be within ± 150 mm of the specified length.

(4) *Exact lengths.* Where exact lengths are required, either for screwed and socketed tubes or for plain end tubes, each tube shall be within +6 mm of the specified length.

NOTE. The purchaser should state in the enquiry or order which lengths he requires.



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Table 2. Dimensions of steel tubes : medium

Nominal size (DN)	Designation of thread	Outside diameter		Thickness mm	Mass of black tube	
		max. mm	min. mm		Plain end kg/m	Screwed and socketed kg/m
8	1/4	13.9	13.3	2.3	0.641	0.645
10	3/8	17.4	16.8	2.3	0.839	0.845
15	1/2	21.7	21.1	2.6	1.21	1.22
20	3/4	27.2	26.6	2.6	1.56	1.57
25	1	34.2	33.4	3.2	2.41	2.43
32	1 1/4	42.9	42.1	3.2	3.10	3.13
40	1 1/2	48.8	48.0	3.2	3.57	3.61
50	2	60.8	59.8	3.6	5.03	5.10
65	2 1/2	76.6	75.4	3.6	6.43	6.55
80	3	89.5	88.1	4.0	8.37	8.54
100	4	114.9	113.3	4.5	12.2	12.5
125	5	140.6	138.7	5.0	16.6	17.1
150	6	166.1	164.1	5.0	19.7	20.3

NOTE. Maximum and minimum outside diameters meet the requirements of ISO 65

Table 3. Dimensions of steel tubes : heavy

Nominal size (DN)	Designation of thread	Outside diameter		Thickness mm	Mass of black tube	
		max. mm	min. mm		Plain end kg/m	Screwed and socketed kg/m
8	1/4	13.9	13.3	2.9	0.765	0.769
10	3/8	17.4	16.8	2.9	1.02	1.03
15	1/2	21.7	21.1	3.2	1.44	1.45
20	3/4	27.2	26.6	3.2	1.87	1.88
25	1	34.2	33.4	4.0	2.94	2.96
32	1 1/4	42.9	42.1	4.0	3.80	3.83
40	1 1/2	48.8	48.0	4.0	4.38	4.42
50	2	60.8	59.8	4.5	6.19	6.26
65	2 1/2	76.6	75.4	4.5	7.93	8.05
80	3	89.5	88.1	5.0	10.3	10.5
100	4	114.9	113.3	5.4	14.5	14.8
125	5	140.6	138.7	5.4	17.9	18.4
150	6	166.1	164.1	5.4	21.3	21.9

NOTE. Maximum and minimum outside diameters meet the requirements of ISO 65

