

**DIN 2440-78 STEEL TUBES MEDIUM WEIGHT SUITABLE FOR SCREWING**

1. Scope

This Standard applies to medium-weight tubes suitable for screwing. They are suitable for nominal pressure 2 for liquids and nominal pressure 10 for air and non-hazardous gases.

2. Other relevant Standards

DIN 2444 Zinc coatings on steel tubes; quality standard for the hot galvanizing of steel tubes for installation purposes

DIN 2999 Part 1 Whitworth pipe threads for tubes and fittings; cylindrical internal thread and conical external

DIN 17100 Steels for general structural purposes; quality specifications

DIN 50136 Testing of metallic materials; flattening test on tubes

3. Dimensions, designation

Designation of a medium-weight tube suitable for screwing, nominal width 40, seamlessly galvanized (B), in manufacturing lengths:

Table 1. Threaded tube DIN 2440 - DN 40-seamless B

Nominal width	Connecting nominal width of the fittings according to DIN 2950 and DIN 2980	Whitworth-pipe threads according to DIN 2999 Part 1	Tube				Screw thread					Corresponding socket according to DIN 2986	
			Outside diameter d1	Wall thickness s	Weight		Theoretical screw thread diameter d2	Threads per 25.4mm	Usable thread length J at a max.	Distance of screw thread diameter d2 from tube end		Outside diameter min.	Length min.
					Plain-end tube kg/m	socketed tube kg/m				a max.	a min.		
6	1/8	R 1/8	10.2	2.0	0.407	0.410	9.728	28	7.4	4.9	3.1	14	17
8	1/4	R 1/4	13.5	2.35	0.650	0.654	13.157	19	11.0	7.3	4.7	15.4	25
10	3/8	R 3/8	17.2	2.65	0.852	0.858	16.662	19	11.4	7.7	5.1	21.3	26
15	1/2	R 1/2	21.3	2.65	1.22	1.23	20.955	14	15.0	10.0	6.4	26.4	34

20	3/4	R 3/5	26.9	2.65	1.58	1.59	26.441	14	16.3	11.3	7.7	31.8	36
25	1	R 1	33.7	3.25	2.44	2.46	33.249	11	19.1	12.7	8.1	39.5	43
32	1 1/4	R 1 1/4	42.4	3.25	3.14	3.17	41.910	11	21.4	15.0	10.4	48.3	48
40	1 1/2	R 1 1/2	48.3	3.25	3.61	3.64	47.803	11	21.4	15.0	10.4	54.5	48
50	2	R 2	60.3	3.65	5.10	5.17	59.614	11	25.7	18.2	13.6	66.3	56
65	2 1/2	R 2 1/2	76.1	3.65	6.51	6.63	75.184	11	30.2	21.0	14.0	82	65
80	3	R 3	88.9	4.05	8.47	8.64	87.884	11	33.3	24.1	17.1	95	71
100	4	R4	114.3	4.5	12.1	12.4	113.030	11	39.3	28.9	21.9	122	83
125	5	R 5	139.7	4.85	16.2	16.2	138.430	11	43.6	32.1	25.1	147	92
150	6	R 6	165.1	4.85	19.2	19.8	163.830	11	43.6	32.1	25.1	174	92
1) Referred to an average length of 6m													

Table 3

Nominal width DN	d1 max.	d1 min.
6	10.6	9.8
8	14.0	13.2
10	17.5	16.7
15	21.8	21.0
20	27.3	26.5
25	34.2	33.3
32	42.9	42.0
40	48.8	47.9
50	60.8	59.7
65	76.6	75.3
80	89.5	88.0
100	115.0	113.1

125	140.8	138.5
150	166.5	163.9

Wall thickness

- 12.5% (-15% at individual points not longer than 2 X the outside diameter, provided that this reduction is effective only on the outer surface).

The upper limit is fixed by the permissible weight deviation.

10.6 Weight deviations

Compared with the weights specified in the table on page 1 deviations according to the following table are permissible.

Table 4

for a single tube	for a consignment of not less than 10 t
±10%	±7.5%

10.7 Straightness

The tubes must appear straight to the eye.

10.8 Cold bending capability

Tubes suitable for screwing according to this Standard without surface treatment must be capable of being bent cold by means of a suitable commercial bending tool to a radius of 3X tube outside diameter up to and including DIN 25, and to a radius of 3.5 X tube outside diameter in the case of tubes up to nominal width 50 (see Section 11.4).

Grade	Mfg. Process	Chemical Composition (%)								
		C	Si	Mn	P	S	Ni	Cr	Mo	Others
St33.2	S, W	rdf.DIN 17100	-	-	-	-	-	-	-	-

Grade	Tensile Test MPa or N/mm <sup>2</sup>		Remarks (Similar to JIS) Similar to KS
	Min Yield point	Tensile Strength	
St33.2	-	-	(SGP)(SPP)