

GOST 10498-82 SEAMLESS EXTRA-THIN WALL TUBES OF CORROSION-RESISTANT STEEL

For size range of the tubes see Table 1 below.

Table 1 Size range for extra-thin wall tubes of corrosion-resistant steel

Out- side diame- ter, mm	Wall thickness, mm	Out- side diame- ter, mm	Wall thickness, mm	Out- side diame- ter, mm	Wall thickness, mm
1	2	3	4	5	6
4.0	0.2; 0.3; 0.4; 0.5	26.0	0.3-1.0	48.0	0.3-1.0
4.5	0.2-0.5	26.5	0.3-1.0	48.5	0.3-1.0
5.0	0.2-0.5	27.0	0.3-1.0	49.0	0.3-1.0
5.5	0.2-0.5	27.5	0.3-1.0	49.5	0.3-1.0
6.0	0.2-0.5	28.0	0.3-1.0	50.0	0.3-1.0
6.5	0.2-0.5; 0.6; 0.7	28.5	0.3-1.0	50.5	0.3-1.0
7.0	0.2-0.7	29.0	0.3-1.0	51.0	0.3-1.0
7.5	0.2-0.7	29.5	0.3-1.0	51.5	0.3-1.0
8.0	0.2-0.7	30.0	0.3-1.0	52.0	0.3-1.0
8.5	0.2-0.7	30.5	0.3-1.0	52.5	0.3-1.0
9.0	0.2-0.7	31.0	0.3-1.0	53.0	0.3-1.0
9.5	0.2-0.7	31.5	0.3-1.0	53.5	0.3-1.0
10.0	0.2-0.7	32.0	0.3-1.0	54.0	0.3-1.0
10.5	0.2-0.7; 0.8; 0.9; 1.0	32.5	0.3-1.0	54.5	0.3-1.0
11.0	0.2-1.0	33.0	0.3-1.0	55.0	0.3-1.0
11.5	0.2-1.0	33.5	0.3-1.0	55.5	0.3-1.0
12.0	0.2-1.0	34.0	0.3-1.0	56.0	0.3-1.0
12.5	0.2-1.0	34.5	0.3-1.0	56.5	0.3-1.0
13.0	0.2-1.0	35.0	0.3-1.0	57.0	0.3-1.0
13.5	0.2-1.0	35.5	0.3-1.0	57.5	0.3-1.0
14.0	0.2-1.0	36.0	0.3-1.0	58.0	0.3-1.0
14.5	0.2-1.0	36.5	0.3-1.0	58.5	0.3-1.0
15.0	0.2-1.0	37.0	0.3-1.0	59.0	0.3-1.0
15.5	0.2-1.0	37.5	0.3-1.0	59.5	0.3-1.0
16.0	0.2-1.0	38.0	0.3-1.0	60.0	0.3-1.0
16.5	0.2-1.0	38.5	0.3-1.0	65.0	0.3-1.0

Продолжение табл. 1.			Table 1 (contd.)		
1	2	3	4	5	6
17.0	0.2-1.0	39.0	0.3-1.0	68.0	0.3-1.0
17.5	0.2-1.0	39.5	0.3-1.0	70.0	0.3-1.0
18.0	0.2-1.0	40.0	0.3-1.0	75.0	0.3-1.0
18.5	0.2-1.0	40.5	0.3-1.0	80.0	0.4-1.0
19.0	0.2-1.0	41.0	0.3-1.0	83.0	0.4-1.0
19.5	0.2-1.0	41.5	0.3-1.0	85.0	0.4-1.0
20.0	0.2-1.0	42.0	0.3-1.0	89.0	0.4-1.0
20.5	0.2-1.0	42.5	0.3-1.0	90.0	0.4-1.0
21.0	0.2-1.0	43.0	0.3-1.0	95.0	0.4-1.0
21.5	0.2-1.0	43.5	0.3-1.0	96.0	0.4-1.0
22.0	0.2-1.0	44.0	0.3-1.0	100.0	0.5-1.0
22.5	0.2-1.0	44.5	0.3-1.0	102.0	0.5-1.0
23.0	0.2-1.0	45.0	0.3-1.0	108.0	0.5-1.0
23.5	0.2-1.0	45.5	0.3-1.0	110.0	0.5-1.0
24.0	0.2-1.0	46.0	0.3-1.0	114.0	0.5-1.0
24.5	0.2-1.0	46.5	0.3-1.0	116.0	0.5-1.0
25.0	0.2-1.0	47.0	0.3-1.0	120.0	0.5-1.0
25.5	0.3-1.0	47.5	0.3-1.0		

Other sizes are available on agreement.

Tubes shall be delivered in random length of 1 to 8 meters, specified length of 1 to 3 meters (for diameters 4 to 6 mm only) or 1 to 5 meters (for diameters 6.5 to 40 mm only) and 1 to 4 meters (for diameters over 40.5 mm).

On agreement sizes other than those given in Table can be produced.

Total tolerance for tube length shall not be over + 10 mm.

Tubes shall be delivered in length multiple to the specified length with 5 mm allowance per cut within the total allowance for length equal to + 10 mm. Shorter lengths from 0.5 to 1.0 m in quantities up to 20 percent of the order and 20 percent of random length tubes not shorter than the length specified in the order are also allowed. On the buyer's request specified length up to 7 meters can be delivered.

Dimensional tolerances are given in Table 2 below.

Table 2 Dimensional tolerances for extra-thin wall tubes of corrosion-resistant steel

Tube size, mm	Accuracy, mm			
	High, for w.t. given below		Super high, for w.t. given below	
	< 0.5	0.6-1.0	< 0.5	0.6-1.0
Наружный диаметр: Outside diameter:				
< 6	± 0.05	—	± 0.03	—
6.5-10	± 0.07	± 0.2	± 0.05	± 0.8
10.5-20	± 0.08	± 0.2	± 0.05	± 1.5
20.5-35	± 0.08	± 0.2	± 0.06	± 1.5
35.5-60	± 0.8*	± 0.8*	± 0.8*	± 0.5*
60.5-120	± 1.0*	± 1.0	± 0.12*	± 0.6*
Толщина стенки: Wall thickness:				
0.2-0.3	± 0.05	—	± 0.03	—
0.4-0.5	± 0.07	—	± 0.04	—
0.6-1.0	± 10*	—	± 8*	—
* - Допускаемые отклонения в процентах.		* - Percent of w.t.		

Tube curvature per meter length shall not exceed the values given below:

Дн, мм Outside diameter, mm	< 5.0	5.5-10.0	10.5-60.0	> 60.5
Кривизна, мм Curvature, mm	5	2	1.5	2.0

Technical requirements.

Tubes to this standard shall be manufactured of steels 06H18N10T, 09H18N10T, 13H13C2M2, 03H16N15M3, 06H16N15M3B, and 04H16N15M3B. Steel billets shall be machined prior to tube making.

On agreement other steel grades can be used.

Tubes shall be delivered in heat-treated condition or, on agreement, in work-hardened condition. Tube ends shall be cut square and deburred.

Outside tube surface shall be pickled, ground, polished or electropolished; inside tube surface can be pickled or electropolished.

Mechanical properties of tubes in delivery condition are given in Table 3.

Table 3 Mechanical properties of tubes to GOST 10498-82

Steel grade	Tensile strength, MPa	Elongation, percent
	not lower	
06X18H10T	530	40
09X18H10T	549	40
13X13C2M2	540	20
03X16H15M3 (ЭИ844)	549	38
06X16H15M3B	540	35
04X15H15M3B	510	38

Other requirements.

As-delivered tubes with the diameters equal or smaller than 20 mm shall withstand hydraulic or pneumatic test pressure not lower than 49 MPa; for tubes with diameters larger than 20 mm this value shall be 98 MPa.

On agreement, the hydraulic test pressure can be guaranteed by the manufacturer without respective tests.

Tubes of austenitic steel grades shall withstand flatter test and intercrystalline corrosion test to GOST 6032-75.

On the buyer's request tubes in delivery condition shall be subjected to expansion test to GOST 8694-75, carbon content test etc.