

GOST 8696-74 SPIRALLY WELDED LINEPIPE

Tubes to this standard are manufactured by spiral forming of coiled strip and simultaneous inside and outside welding. The diameter range is 159 to 2520 mm and wall thickness range is 3.5 to 25 mm.

Size range and dimensional tolerances are given in Table 1.

Table 1 Size range and limit tolerances for diameter, mm

Outside diameter	Wall thickness	Limit tolerance for diameter for different accuracy of end parts		
		high	improved	normal
159	3.5; 4.0	-	-	±1.5
219	4.0; 5.0	-	-	±2.0
273	4.0; 5.0	-	-	±2.0
325	4.0; 5.0; 6.0	-	-	±2.5
377	4.0; 5.0; 6.0	-	-	±2.5
426	4.0; 5.0; 6.0; 7.0; 8.0	-	-	±2.5
480	4.0; 5.0; 6.0; 7.0; 8.0	-	-	±4.0
530	4.0-8.0; 9.0	±1.5	±2.5	±4.0
630	5.0-9.0; 10	±1.5	±2.5	±4.0
720	5.0-10; 11; 12	±1.5	±2.5	±4.0
820	5.0-10; 11; 12	±2.0	±2.5	±4.0
920	6.0-12	±2.0	±2.5	±4.0
1020	6.0-12	±2.0	±2.5	±4.0
1220	7.0-12	±3.5	±4.0	±4.0
1420	8.0-12.0; 13.0; 14.0; 15.0; 16.0; 17.0; 18.0; 19.0; 20.0; 21.0	±3.5	±4.0	±4.0
1620	15-21; 22; 23	±3.5	±4.0	±4.0
1720	15-23	±4.5	±6.0	±4.0
1820	15-23; 24	±4.5	±6.0	±4.0
2020	15-24; 25	±4.5	±6.0	±4.0
2220	15-24; 25	±4.5	±6.0	±4.0
2520	15-24; 25	±4.5	±6.0	±4.0

Notes.

1. Limit tolerances for wall thickness shall be those specified by GOST 8597-57 for sheet or strip metal.
2. Pipe with diameters over 1420 mm and wall thickness over 15 mm are manufactured on special agreement.

Pipe length shall be 10 to 12 m; 18 m on special agreement. Five percent of pipe in a lot shall have the length of 6 m. Strip edge displacement shall not exceed 25% of nominal wall thickness, but not over 3 mm for diameters 530 to 1420 mm and wall thicknesses 14 mm and lower and not over 5 mm for diameters 1420 to 2520 mm and wall thicknesses over 14 mm.

Out-of-roundness shall not exceed 2% of the specified outside diameter. Total curvature shall not exceed 0.2% of pipe length.

Pipe ends shall be cut square; they shall be bevelled at 25 to 30 degrees and an end surface belt of 1 to 3 mm width for walls of 4 to 7 mm; 1 to 4 mm for walls 8 to 14 mm and 1 to 6 mm for walls 15 to 25 mm. Deviation of end cut from the direct angle shall not exceed 2 mm or 3 mm for diameters 820 to 1420 mm.

Outside weld bead reinforcement shall be 0.5 to 3 mm for walls 10 mm and lower; 0.5 to 3.5 mm for walls over 10 mm; 0.5 to 4.5 mm for walls 15 to 20 mm and 0.5 to 5 mm for walls over 20 mm. Inside bead reinforcement shall be not less than 0.5 mm.

Technical requirements.

Pipe to this standard shall be delivered in the grade given below depending on quality level:

B - with chemical composition specified, of carbon rimming steel to GOST 380-88;

V - with chemical composition and mechanical properties specified, of carbon rimming steel or of low alloy steel to GOST 380-88 and 19282-89 respectively;

D - without chemical composition and mechanical properties specified.

Mechanical properties of base metal shall be equal to those of the steel grade used; on agreement, lower values are permissible.

Tensile strength of the weld metal shall be equal to that of the base metal.

Each pipe length shall withstand a hydraulic pressure test with permissible stress level equal to 0.85 of yield limit.