

High-performance seamless circular unalloyed steel pipes - EN 10220/DIN 1630

Application: commercial pipes for construction, pipeworks and other general engineering purposes

Dimensions and weight

Outside diameter, mm	S _n , mm	Weight per unit length, kg/m																										
		3.2	3.6	4.0	4.5	5.0	5.6	6.3	7.1	8.0	8.8	10.0	11.0	12.5	14.2	16.0	17.5	20.0	22.2	25.0	28.0	30.0	32.0	36.0	40.0	45.0	50.0	55.0
33.7	2.6	2.41	2.67	2.93	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
38.0	2.6	2.75	3.05	3.35	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
42.4	2.6	3.09	3.44	3.79	4.21	4.61	5.08	5.61	6.18	6.79	7.29	7.99	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
44.5	2.6	3.26	3.63	4.00	4.44	4.87	5.37	5.94	6.55	7.20	7.75	8.51	9.09	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
48.3	2.6	3.56	3.97	4.37	4.86	5.34	5.90	6.53	7.21	7.95	8.57	9.45	10.1	11.0	-	-	-	-	-	-	-	-	-	-	-	-	-	-
51.0	2.6	3.77	4.21	4.64	5.16	5.67	6.27	6.94	7.69	8.48	9.16	10.1	10.9	11.9	-	-	-	-	-	-	-	-	-	-	-	-	-	-
54.0	2.6	4.01	4.47	4.93	5.49	6.04	6.68	7.41	8.21	9.08	9.81	10.9	11.7	12.8	-	-	-	-	-	-	-	-	-	-	-	-	-	-
57.0	2.9	4.25	4.74	5.23	5.83	6.41	7.10	7.88	8.74	9.67	10.5	11.6	12.5	13.7	15.0	-	-	-	-	-	-	-	-	-	-	-	-	-
60.3	2.9	4.51	5.03	5.55	6.19	6.82	7.55	8.39	9.32	10.3	11.2	12.4	13.4	14.7	16.1	17.5	-	-	-	-	-	-	-	-	-	-	-	-
63.5	2.9	4.76	5.32	5.87	6.55	7.21	8.00	8.89	9.88	10.9	11.9	13.2	14.2	15.7	17.3	18.7	-	-	-	-	-	-	-	-	-	-	-	-
70.0	2.9	-	5.90	6.51	7.27	8.01	8.89	9.90	11.0	12.2	13.3	14.8	16.0	17.7	19.5	21.3	-	-	-	-	-	-	-	-	-	-	-	-
73.0	2.9	-	6.16	6.81	7.60	8.38	9.31	10.04	11.5	12.8	13.9	15.5	16.8	18.7	20.6	22.5	-	-	-	-	-	-	-	-	-	-	-	-
76.1	2.9	-	6.44	7.11	7.95	8.77	9.74	10.8	12.1	13.4	14.6	16.3	17.7	19.6	21.7	23.7	-	-	-	-	-	-	-	-	-	-	-	-
82.5	3.2	-	7.57	7.74	8.66	9.56	10.6	11.8	13.2	14.7	16.0	17.9	19.4	21.6	23.9	26.2	-	-	-	-	-	-	-	-	-	-	-	-
88.9	3.2	-	6.76	8.38	9.37	10.3	11.5	12.8	14.3	16.0	17.4	19.5	21.1	23.6	26.2	28.8	30.8	-	-	-	-	-	-	-	-	-	-	-
101.6	3.6	-	-	9.63	10.8	11.9	13.3	14.8	16.5	18.5	20.1	22.6	24.6	27.5	30.6	33.8	36.3	40.2	43.5	-	-	-	-	-	-	-	-	-
108.0	3.6	-	-	10.3	11.5	12.7	14.1	15.8	17.7	19.7	21.5	24.2	26.3	29.4	32.8	36.3	39.1	43.4	47.0	51.2	55.2	-	-	-	-	-	-	-
114.3	3.6	-	-	10.9	12.2	13.5	15.0	16.8	18.8	21.0	22.9	25.7	28.0	31.4	35.1	38.8	41.8	46.5	50.4	55.1	59.6	-	-	-	-	-	-	-
127.0	4.0	-	-	-	-	15.0	16.8	18.8	21.0	23.5	25.7	28.9	31.5	35.3	39.5	43.8	47.3	52.8	57.4	62.9	68.4	71.8	75.0	-	-	-	-	-
133.0	4.0	-	-	-	-	15.8	17.6	19.7	22.0	24.7	27.0	30.3	33.1	37.1	41.6	46.2	49.8	55.7	60.7	66.6	72.5	76.2	79.7	-	-	-	-	-
139.7	4.0	-	-	-	-	16.6	18.5	20.7	23.2	26.0	28.4	32.0	34.9	39.2	43.9	48.8	52.7	59.0	64.3	70.7	77.1	81.2	85.0	92.1	-	-	-	-
152.4	4.5	-	-	-	-	18.2	20.3	22.7	25.4	28.5	31.2	35.1	38.4	43.1	48.4	53.8	58.2	65.3	71.3	78.5	85.9	90.6	95.0	103	109	117	127	-
159.0	4.5	-	-	-	-	-	-	23.7	26.6	29.8	32.6	36.7	40.1	45.2	50.7	56.4	61.1	68.6	74.9	82.6	90.5	95.4	100	109	117	127	-	-
168.3	4.5	-	-	-	-	-	-	25.2	28.2	31.6	34.6	39.0	42.7	48.0	54.0	60.1	65.1	73.1	80.0	88.3	96.6	102	108	117	127	137	-	-
177.8	5.0	-	-	-	-	-	-	26.6	29.9	33.5	36.7	41.4	45.2	51.0	57.3	63.8	69.2	77.8	85.2	94.2	103	109	115	126	136	147	-	-
193.7	5.6	-	-	-	-	-	-	29.1	32.7	36.6	40.1	45.3	49.6	55.9	62.9	70.1	76.0	85.7	93.9	104	114	121	128	140	152	165	-	-
219.1	6.3	-	-	-	-	-	-	-	37.1	41.6	45.6	51.6	56.5	63.7	71.8	80.1	87.0	98.2	108	120	132	140	148	163	177	193	209	-
244.5	6.3	-	-	-	-	-	-	-	41.6	46.7	51.2	57.8	63.3	71.5	80.6	90.2	98.0	111	122	135	149	159	168	185	202	221	240	-
273.0	6.3	-	-	-	-	-	-	-	46.6	52.3	57.3	64.9	71.1	80.3	90.6	101	110	125	137	153	169	180	190	210	230	253	275	296
323.9	7.1	-	-	-	-	-	-	-	55.5	62.3	68.4	77.4	84.9	96.0	108	121	132	150	165	184	204	217	230	256	280	310	338	365
355.6	8.0	-	-	-	-	-	-	-	68.6	75.3	85.2	93.5	106	120	134	146	166	183	204	226	241	255	284	311	345	377	408	-

The sizes are produced upon request. Intermediate sizes are subject to additional agreement.

S_n - normal wall thickness

Tolerances

Outside diameter, mm	Outside diameter permissible deviation	
	Pipe body	Pipe end (subject to additional agreement)
Up to 100	± 1 % (but not less than ± 0.5mm)	± 0.4 mm
above 100 up to 200	± 1 %	± 0.5 %
above 200	± 1 %	± 0.6 %

Wall thickness permissible deviation for diameter D

D up to 130 mm			D above 130 mm and up to 320 mm and wall thickness S			D above 320 mm		
WT up to 2Sn	WT above 2 Sn up to 4 Sn	WT above 4 Sn	WT up to 0.05D	WT above 0.05D up to 0.11D	WT above 0.11D	WT up to 0.05D	WT above 0.05D up to 0.9D	WT above 0.09D
+15% -10%	+12.5% 10%	±9%	+17.5% -12.5%	±12.5%	±10%	+20% -15%	+15% -12.5%	+12.5% -10%

Mechanical properties of steel

Steel Grade		Tensile strength	Yield strength for wall thickness, mm			Elongation		Impact toughness		
			up to 16	above 16 up to 40	above 40	longitudinal	transversal	longitudinal	transversal	testing temperature
		N/mm ² (MPa)	N/mm ² (MPa)			%		J		°C
			not less than			not less than		not less than		
DIN 1629	St37.0	350-480 (35.7-49.0)	235 (24.0)	225 (23.0)	215 (21.9)	25	23	-	-	-
	St44.0	420-550 (42.9-56.1)	275 (28.0)	265 (27.0)	255 (26.0)	21	19	-	-	-
	St52.0	500-650 (51.0-66.3)	355 (36.2)	345 (35.2)	335 (34.2)	21	19	-	-	-
DIN 1630	St37.4	350-480 (35.7-49.0)	235 (24.0)	225 (23.0)	215 (21.9)	25	23	43	27	+20
	St44.4	420-550 (42.9-56.1)	275 (28.0)	265 (27.0)	255 (26.0)	21	19	43	27	+20
	St52.4	500-650 (51.0-66.3)	355 (36.2)	345 (35.2)	335 (34.2)	21	19	43	27	+20