



**INTERPIPE**

# Mechanical Pipes





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# Introduction

**Welcome to Interpipe's product catalogue for mechanical pipes.**

Interpipe is a leading producer of steel pipes and one of the fastest growing companies in the steel sector with a wide range of products covering many different sectors. Our seamless steel pipes are in use around the world covering applications in machine building, power engineering and aircraft building.

Our integrated business model gives us the opportunity to control the complete manufacturing process from the quality of the steel to end product testing. Our products are certified according to a number of international quality standards – including DIN, EN, NFA, ASTM and GOST.

By working in close partnership with our customers we are able to anticipate and respond to their ever changing needs and to develop products that answer those new requirements.

Through our manufacturing network and trading companies all over the world we aim to deliver the best services to our customers in more than 75 countries around the world. In addition to Europe, we now operate an international sales network of offices as diverse as Russia, Kazakhstan, Dubai and the USA.

At Interpipe we believe in long-term partnerships with our customers and we are committed to contribute to their operational success by providing them with quality products and superior customer service.



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# Seamless circular unalloyed steel tubes subject to special requirements - EN 10220/DIN 1629

Application: blanks for machining

## Dimensions and weight

Outside diameter, mm	Sn, 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	10.4	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	-	-	-	-	-	
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	96.9	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.

Sn - 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 ± 0.5 mm)	± 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 4Sn	WT above WT up to 0.05d	WT above WT up above 0.05d up to 0.11d	WT above 0.11d	WT up to 0.05d	WT above 0.05d up to 0.09d	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	longi-tudinal	trans versal	longi-tudinal	trans versal	Testing temperature
		N/mm <sup>2</sup> (Mpa)	N/mm <sup>2</sup> (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

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

Application: blanks for machining

### Dimensions and weight

Outside diameter, mm	S <sub>n</sub> , 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	10.4	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	-	-	-	-	
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	96.9	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<sub>n</sub> - 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 ± 0.5 mm)	± 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 4Sn	WT above WT up to 0.05d	WT above WT up to 0.05d up to 0.11d	WT above 0.11d	WT up to 0.05d	WT above 0.05d up to 0.09d	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			
			N/mm <sup>2</sup> (Mpa)	up to 16	above 16 up to 40	above 40	longi-tudinal	trans versal	longi-tudinal	trans versal	Testing temperature
				N/mm <sup>2</sup> (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	

# Hot finished structural hollow sections of non-alloy and fine grain structural steels - EN 10210-1/EN 10210-2

## Pipe dimensions and weight

Outside diameter, mm	Weight per unit length, kg, for wall thickness, mm											
	3.2	4.0	5.0	6.0	6.3	8.0	10.0	12.0	12.5	16.0	20.0	25.0
42.4	3.09	3.79	-	-	-	-	-	-	-	-	-	-
48.3	3.56	4.37	-	-	-	-	-	-	-	-	-	-
60.3	-	5.55	6.82	-	-	-	-	-	-	-	-	-
76.1	-	7.11	8.77	-	-	-	-	-	-	-	-	-
88.9	-	8.38	10.3	12.3	12.8	-	-	-	-	-	-	-
101.6	-	9.63	11.9	14.1	14.8	18.5	22.6	-	-	-	-	-
114.3	-	10.9	13.5	16.0	16.8	21.0	25.7	-	-	-	-	-
139.7	-	-	16.6	19.8	20.7	26.0	32.0	37.8	39.2	-	-	-
168.3	-	-	-	-	25.2	31.6	39.0	46.3	48.0	-	-	-
177.8	-	-	-	-	26.6	33.5	41.4	49.1	51.0	-	-	-
193.7	-	-	-	-	29.1	36.6	45.3	53.8	55.9	70.1	-	-
219.1	-	-	-	-	-	41.6	51.6	61.3	63.7	80.1	98.2	-
244.5	-	-	-	-	-	46.7	57.8	68.8	71.5	90.2	111	135
273.0	-	-	-	-	-	52.3	64.9	77.2	80.3	101	125	153
323.9	-	-	-	-	-	62.3	77.4	92.3	96.0	121	150	184
355.6	-	-	-	-	-	68.6	85.2	102	106	134	166	204

The size is produced upon agreement

## Tolerances

Outside diameter permissible deviation	Wall thickness permissible deviation
± 1 % (but not less than ± 0.5 mm and not more than ±10 mm)	- 10% Positive deviations are limited by weight deviation

## Mechanical properties of steel

Steel Grade	Tensile strength	Yield strength, N/mm <sup>2</sup> (Mpa) not less than	Elongation,%	Impact toughness	
				Testing temperature, °C	Av, <sub>J</sub> not less than
S235JRH	340-470 (34.7-48.0)	235 (24.0)	26	+20	27 <sup>2)</sup>
S275JOH	410-560 (41.8-55.1)	275 (28.0)	22	0	27 <sup>2)</sup>
S275J2H	410-560 (41.8-55.1)	275 (28.0)	22	-20	27
S355JOH	490-630 (50.0-64.3)	355 (36.2)	22	0	27 <sup>2)</sup>
S355J2H	490-630 (50.0-64.3)	355 (36.2)	22	-20	27

### Lengths supplied

Mechanical pipes are supplied of

- random length 4.5-12.5m
- fixed length within the random length range

### Protection

Pipes are supplied:

- black and bare
- external varnished with black or clear lacquer
- oiled

Upon request pipes ends are protected with plastic caps

### Marking

Pipes are supplied with marking according to standard and customer request

Marking is paint and/or die stencilled on the ends of pipes. The same data, as well as additional information per customer's request, is indicated on the bundle's tags.

### Delivery

Pipes are supplied in hexahedral (up to OD114mm) or round (above 121mm) bundles tied in at least five places with steel strip.

Weight of bundle - up to 5000 kg upon request of customer.

Each bundle is furnished with three tags.

### Mill test certificate

MTC is issued in accordance with EN 10204

# Plain end seamless hot rolled tubes with specified room temperature properties and with special delivery conditions - NF A 49-112

## Pipe dimensions and weight

Outside diameter, mm	Weight of 1 meter of a pipe, kg, with wall thickness, mm																				
	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	40.0	45.0	50.0
76.1	-	9.74	10.8	12.1	13.4	14.6	16.3	17.7	-	-	28.8	-	-	-	-	-	-	-	-	-	-
88.9	-	11.5	12.8	14.3	16.0	17.4	19.5	21.1	23.6	26.2	33.8	30.8	-	-	-	-	-	-	-	-	-
101.6	-	13.3	14.8	16.5	18.5	20.1	22.6	24.6	27.5	30.6	36.3	36.3	40.2	43.5	-	-	-	-	-	-	-
108.0	12.7	14.1	15.8	17.7	19.7	21.5	24.2	28.0	29.4	32.8	38.8	39.1	43.4	47.0	51.2	55.2	-	-	-	-	-
114.3	13.5	15.0	15.8	18.8	21.0	22.9	26.3	31.5	31.4	35.1	43.8	41.8	46.5	50.4	55.1	59.6	-	-	-	-	-
127.0	15.0	16.8	16.8	21.0	23.5	25.7	25.7	35.3	35.1	39.5	47.3	47.3	52.8	57.4	62.9	68.4	71.8	75.0	-	-	-
133.0	15.8	17.6	18.8	22.0	24.7	27.0	28.9	33.1	37.1	41.6	46.2	49.8	55.7	60.7	66.6	72.5	76.2	79.7	-	-	-
139.7	16.6	18.5	19.7	23.2	26.0	30.3	32.0	34.9	39.2	43.9	48.8	52.7	59.0	64.3	70.7	77.1	81.2	85.0	-	-	-
159.0	-	-	20.7	26.6	29.8	28.4	36.7	40.1	45.2	50.7	56.4	61.1	68.6	74.9	82.6	90.5	95.4	100	117	127	-
168.3	-	-	23.7	28.2	31.6	32.6	39.0	42.7	48.0	54.0	60.1	65.1	73.1	80.0	88.3	96.9	102	108	127	137	-
193.7	-	-	25.2	32.7	36.6	34.6	45.3	49.6	55.9	62.9	70.1	76.0	85.7	93.9	104	114	121	128	152	165	-
219.1	-	-	29.1	37.1	41.6	40.1	51.6	56.5	63.7	71.8	80.1	87.0	98.2	108	120	132	140	148	177	193	209
244.5	-	-	-	41.6	46.7	45.6	57.8	63.3	71.5	80.6	90.2	98.0	111	122	135	149	159	168	202	221	240
273.0	-	-	-	46.6	52.3	57.3	64.9	71.1	80.3	90.6	101	110	125	137	153	169	180	190	230	253	275
323.9	-	-	-	55.5	62.3	68.4	77.4	84.9	96.0	108	121	132	150	165	184	204	217	230	280	310	338
355.6	-	-	-	-	68.6	75.3	85.2	93.5	106	120	134	146	166	183	204	226	241	255	311	345	377

The sizes are produced upon agreement.

## Tolerances

Outside diameter:	Outside diameter permissible deviation $\pm 1\%$ but not less than $\pm 0.5$ mm	
Wall thickness:		
for outside diameter	Wall thickness T or T/D ratio	Wall thickness permissible deviation
OD up to 101.6	T up to 10 mm T above 10 mm	$\pm 12.5\%$ but not less than $\pm 0.5$ mm $\pm 10\%$
OD above 101.6	T/D above 0.100 T/D above 0.050 up to 0.100 T/D above 0.025 up to 0.050 T/D up to 0.025	$\pm 10\%$ $\pm 12.5\%$ $\pm 15\%$ $\pm 20\%$

## Mechanical properties of steel

Steel Grade	Tensile strength, N/mm <sup>2</sup> (Mpa)		Yield strength, N/mm <sup>2</sup> (Mpa) for wall thickness, mm		Elongation, %
	not less than	not more than	up to 16	above 16	
			not less than	not less than	
TUE220A	360 (36.7)	500 (51.0)	220 (22.5)	200 (20.4)	23
TUE235A	410 (41.8)	550 (56.1)	235 (24.0)	215 (21.9)	21

### Lengths supplied:

- Pipes for general purpose are supplied of
  - random length 4.5-12.5 m
  - fixed length within the random length range

### Protection

- Pipes are supplied:
  - black and bare
  - external varnished with black or clear - oiled
- Upon request pipes ends are protected with plastic caps

### Marking

- Pipes are supplied with marking according to standard and customer request.
- Marking is paint and/or die stencilled on the ends of pipes. The same data, as well as additional information per customer's request, is indicated on the bundle's tags.

### Delivery

- Pipes are supplied in hexahedral (up to OD 114mm) or round (above 121 mm) bundles tied in at least five places with steel strip. Weight of bundle - up to 5000 kg upon request of customer. Each bundle is furnished with three tags.

### Mill test certificate

- MTC is issued in accordance with EN 10204

# Seamless hot-rolled steel tubes - GOST 8731-74/GOST 8732-78

Application: for transportation of gas, air, water and oil, as well as general purpose

Pipe dimensions and weight																						
Outside diameter, mm	Weight per meter, kg, for wall thickness, mm																					
	3.0	3.2	3.5	4.0	4.5	5.0	5.5	6.0	6.5	7.0	7.5	8.0	8.5	9.0	9.5	10.0	11.0	12.0	13.0	14.0	15.0	16.0
32	2.15	2.27	2.46	2.76	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
33.7	2.27	2.41	2.61	2.93	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
38	2.59	2.75	2.98	3.35	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
42	2.89	3.06	3.32	3.75	4.16	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
42.4	2.91	3.09	3.36	3.79	4.20	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
45	3.11	3.30	3.58	4.04	4.49	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
48.3	3.35	3.56	3.87	4.37	4.86	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
50	3.48	3.69	4.01	4.54	5.05	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
51	3.55	3.77	4.10	4.64	5.16	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
57	-	-	4.62	5.23	5.83	6.41	6.99	7.55	-	-	-	-	-	-	-	-	-	-	-	-	-	-
60	-	-	4.88	5.52	6.16	6.78	7.39	7.99	-	-	-	-	-	-	-	-	-	-	-	-	-	-
60.3	-	-	4.90	5.55	6.19	6.82	7.43	8.03	-	-	-	-	-	-	-	-	-	-	-	-	-	-
63.5	-	-	5.18	5.87	6.55	7.21	7.87	8.51	-	-	-	-	-	-	-	-	-	-	-	-	-	-
70	-	-	5.74	6.51	7.27	8.02	8.75	9.47	-	-	-	-	-	-	-	-	-	-	-	-	-	-
73	-	-	6.00	6.81	7.60	8.39	9.16	9.91	10.66	11.39	12.12	12.82	13.52	14.21	14.88	15.54	16.82	-	-	-	-	-
76	-	-	6.26	7.10	7.94	8.76	9.56	10.36	11.14	11.91	12.67	13.42	14.15	14.87	15.58	16.28	17.63	-	-	-	-	-
83	-	-	6.86	7.79	8.71	9.62	10.51	11.39	12.26	13.12	13.96	14.80	15.62	16.43	17.22	18.00	19.53	21.01	22.44	23.82	25.16	26.44
89	-	-	7.38	8.39	9.38	10.36	11.33	12.28	13.23	14.16	15.07	15.98	16.88	17.76	18.63	19.48	21.16	22.70	24.37	25.90	27.37	28.81
95	-	-	-	8.98	10.04	11.10	12.14	13.17	14.19	15.19	16.18	17.16	18.13	19.09	20.03	20.96	22.79	24.56	26.29	27.97	29.59	31.17
102	-	-	-	9.67	10.82	11.96	13.09	14.21	15.31	16.40	17.48	18.55	19.60	20.64	21.67	22.69	24.69	26.63	28.53	30.38	32.18	33.93
108	-	-	-	10.26	11.49	12.70	13.90	15.09	16.27	17.44	18.59	19.73	20.86	21.97	23.08	24.17	26.31	28.41	30.46	32.46	34.40	36.30
114	-	-	-	10.85	12.15	13.44	14.72	15.98	17.23	18.47	19.70	20.91	22.12	23.31	24.48	25.65	27.94	30.19	32.38	34.53	36.62	38.67
121	-	-	-	-	-	14.30	15.67	17.02	18.35	19.68	20.99	22.29	23.58	24.86	26.12	27.37	29.84	32.26	34.62	36.94	39.21	41.63
127	-	-	-	-	-	15.04	16.48	17.90	19.32	20.72	22.10	23.48	24.84	26.19	27.53	28.85	31.47	34.03	36.55	39.01	41.43	43.80
133	-	-	-	-	-	15.78	17.29	18.79	20.28	21.75	23.21	24.66	26.10	27.52	28.93	30.33	33.10	35.81	38.47	41.09	43.65	46.17
140	-	-	-	-	-	16.65	18.24	19.83	21.40	22.96	24.51	26.04	27.57	29.08	30.57	32.06	35.00	37.88	40.72	43.50	46.24	48.93
146	-	-	-	-	-	17.39	19.06	20.72	22.36	24.00	25.62	27.23	28.82	30.41	31.98	33.54	36.62	39.66	42.64	45.57	48.46	51.30
152	-	-	-	-	-	18.13	19.87	21.60	23.32	25.03	26.73	28.41	30.08	31.74	33.39	35.05	38.25	41.43	44.56	47.65	50.68	53.66
159	-	-	-	-	-	18.99	20.82	22.64	24.45	26.24	28.02	29.79	31.55	33.29	35.03	36.75	40.15	43.50	46.81	50.06	53.27	56.43
168	-	-	-	-	-	-	-	23.97	25.89	27.79	29.69	31.57	33.44	35.29	37.13	38.97	42.59	46.17	49.69	53.17	56.60	59.98
180	-	-	-	-	-	-	-	-	29.87	31.91	33.93	35.95	37.95	39.95	41.93	45.85	49.72	53.54	57.31	61.04	64.71	-
194	-	-	-	-	-	-	-	-	32.28	34.50	36.70	38.89	41.06	43.23	45.38	49.64	53.86	58.03	62.15	66.22	70.24	-
203	-	-	-	-	-	-	-	-	33.84	36.16	38.47	40.77	43.06	45.33	47.60	52.09	56.52	60.91	65.25	69.55	73.79	-
219	-	-	-	-	-	-	-	-	36.60	39.12	41.63	44.13	46.61	49.08	51.54	56.43	61.26	66.04	70.78	75.46	80.10	-
245	-	-	-	-	-	-	-	-	41.09	43.93	46.76	49.58	52.38	55.17	57.95	63.48	68.95	74.38	79.76	85.08	90.36	-
273	-	-	-	-	-	-	-	-	45.92	49.11	52.28	55.45	58.60	61.73	64.86	71.07	77.24	83.36	89.42	95.44	101.41	-
299	-	-	-	-	-	-	-	-	-	-	57.41	60.90	64.37	67.83	71.27	78.13	84.93	91.69	98.40	105.06	111.67	-
325	-	-	-	-	-	-	-	-	-	-	62.54	66.35	70.14	73.92	77.68	85.18	92.63	100.03	107.38	114.68	121.93	-
351	-	-	-	-	-	-	-	-	-	-	-	-	-	75.91	80.01	84.10	92.23	100.32	108.36	116.35	124.29	132.19
377	-	-	-	-	-	-	-	-	-	-	-	-	-	81.68	86.10	90.51	99.29	108.02	116.70	125.33	133.91	142.45

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

## Pipe dimensions and weight (continued)

Outside diameter, mm	Weight per meter, kg, for wall thickness, mm																					
	17.0	18.0	19.0	20.0	22.0	24.0	25.0	26.0	28.0	30.0	32.0	34.0	35.0	36.0	38.0	40.0	42.0	45.0	48.0	50.0	56.0	60.0
89	30.19	31.52	32.80	34.03	36.35	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
95	32.70	34.18	35.61	36.99	39.61	42.02	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
102	35.64	37.29	38.89	40.45	43.40	46.17	46.17	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
108	38.15	39.95	41.70	43.40	46.66	49.72	51.17	52.58	55.24	-	-	-	-	-	-	-	-	-	-	-	-	-
114	40.67	42.62	44.51	46.36	49.92	53.27	54.87	56.43	59.39	-	-	-	-	-	-	-	-	-	-	-	-	-
121	43.60	45.72	47.79	49.82	53.71	57.41	59.19	60.91	64.22	-	-	-	-	-	-	-	-	-	-	-	-	-
127	46.12	48.39	50.61	52.78	56.97	60.96	62.89	64.76	68.36	71.77	-	-	-	-	-	-	-	-	-	-	-	-
133	48.63	51.05	53.42	55.74	60.22	64.51	66.58	68.61	72.51	76.20	79.71	-	-	-	-	-	-	-	-	-	-	-
140	51.57	54.16	56.70	59.19	64.02	68.66	70.90	73.10	77.34	81.38	85.23	88.88	90.63	92.33	-	-	-	-	-	-	-	-
146	54.08	56.82	59.51	62.15	67.28	72.21	74.60	76.94	81.48	85.82	89.97	93.51	95.81	97.66	-	-	-	-	-	-	-	-
152	56.60	59.48	62.32	65.11	71.53	75.76	78.30	80.79	85.73	90.26	94.70	98.54	100.99	102.99	-	-	-	-	-	-	-	-
159	59.53	62.59	65.60	68.56	74.33	79.90	82.62	85.28	90.46	95.44	100.22	104.81	107.03	109.20	-	-	-	-	-	-	-	-
168	63.31	66.59	69.82	73.00	79.21	85.23	88.16	91.05	96.67	102.10	107.33	112.36	114.80	117.19	121.83	126.27	130.51	136.50	-	-	-	-
180	68.34	71.91	75.44	78.92	85.72	92.33	95.56	98.75	104.96	110.98	116.80	122.42	125.16	127.85	133.07	138.10	142.94	149.82	-	-	-	-
194	74.21	78.13	82.00	85.82	93.32	100.62	104.20	107.72	114.63	121.34	127.85	134.16	137.24	140.28	146.19	151.92	157.44	165.36	-	-	-	-
203	77.98	82.12	86.22	90.26	98.20	105.95	109.74	113.49	120.84	127.99	134.95	141.71	145.01	148.27	154.63	160.79	166.76	175.34	183.48	208.39	-	-
219	84.69	89.23	93.71	98.15	106.88	115.42	119.61	123.75	131.89	139.83	147.57	155.12	158.82	162.47	169.62	176.58	183.33	193.10	202.42	208.39	-	-
245	95.59	100.77	105.90	110.98	120.99	130.80	135.64	140.42	149.84	159.07	168.09	176.92	181.26	185.55	193.99	202.22	210.26	221.95	233.20	240.45	-	-
273	107.33	113.20	119.02	124.79	136.18	147.38	152.90	158.38	169.18	179.78	190.19	200.40	205.43	210.41	220.23	229.85	239.27	253.03	266.34	274.98	-	-
299	118.23	124.74	131.20	137.61	150.29	162.77	168.93	175.05	187.13	199.02	210.71	222.20	227.87	233.50	244.59	255/19	266.20	281.88	297.12	307.04	335.59	353.65
325	129.13	136.28	143.38	150.44	164.39	178.16	184.96	191.72	205.09	218.25	231.23	244.00	250.31	256.58	268.96	281.14	293.13	310.74	327.90	339.10	371.50	392.12
351	140.03	147.82	155.57	163.26	178.50	193.54	200.99	208.39	223.04	237.49	251.74	265.80	272.76	279.66	293.32	306.79	320.06	338.59	358.68	371.16	407.41	430.59
377	150.93	159.36	167.75	176.08	192.61	208.93	217.02	225.06	240.99	256.73	272.26	287.60	295.20	302.74	317.69	332.44	346.99	368.44	389.45	403.22	442.32	469.06

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

## Tolerances

Outside diameter, mm	Outside diameter permissible deviation		Wall thickness, mm	Wall thickness permissible deviation	
	extra accuracy	regular accuracy		extra accuracy	regular accuracy
up to 50 cold-formed hot-rolled	± 0.4 mm	± 0.4 mm	up to 5 mm above 5 up to 12 mm (cold-formed)	± 10%	± 10%
	± 0.5 mm	± 0.5 mm		± 8%	± 8%
above 50 up to 219	± 0.8%	± 1.0%	up to 15 (hot-rolled)	+ 12.5%	+ 12.5% - 15.0%
			above 15 up to 30	+ 10.0% - 12.5%	± 12.5%
			above 30	± 10.0%	+ 10.0% - 12.5%
above 219	± 1.0%	± 1.25%	up to 15 above 15 up to 30 above 30	+ 12.5% - 15.0% ± 12.5% + 10.0% - 12.5%	

## Length supplied

- random from 4.5 up to 12.5 meters
- fixed within the random length range

## Mechanical properties of steel

Steel Grade	Tensile strength, N/mm <sup>2</sup> (kgf/mm <sup>2</sup> )	Yield strength, N/mm <sup>2</sup> (kgf/mm <sup>2</sup> )	Elongation, %
	not less than		
Ст2сп	343 (35)	216 (22)	24
Ст4сп	412 (42)	245 (25)	20
Ст5сп	490 (50)	274 (28)	17
Ст6сп	588 (60)	304 (31)	14
10	353 (36)	216 (22)	24
20	412 (42)	245 (25)	21
35	510 (52)	294 (30)	17
45	588 (60)	323 (33)	14
20X	431 (44)		16
40X	657 (67)		9
30XFCA	686 (70)		11
15XM	431 (44)	225 (23)	21
15XMA	588 (60)	392 (40)	13

# Seamless cold-formed steel tubes - GOST 8733-74/GOST 8734-78

Application: for transportation of gas, air, water and oil, as well as general purpose

Pipe dimensions and weight																						
Outside diameter, mm	Weight per meter, kg, for wall thickness, mm																					
	3.0	3.2	3.5	4.0	4.5	5.0	5.5	6.0	6.5	7.0	7.5	8.0	8.5	9.0	9.5	10.0	11.0	12.0	13.0	14.0	15.0	16.0
32	2.15	2.27	2.46	2.76	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
33.7	2.27	2.41	2.61	2.93	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
38	2.59	2.75	2.98	3.35	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
42	2.89	3.06	3.32	3.75	4.16	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
42.4	2.91	3.09	3.36	3.79	4.20	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
45	3.11	3.30	3.58	4.04	4.49	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
48.3	3.35	3.56	3.87	4.37	4.86	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
50	3.48	3.69	4.01	4.54	5.05	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
51	3.55	3.77	4.10	4.64	5.16	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
57	-	-	4.62	5.23	5.83	6.41	6.99	7.55	-	-	-	-	-	-	-	-	-	-	-	-	-	-
60	-	-	4.88	5.52	6.16	6.78	7.39	7.99	-	-	-	-	-	-	-	-	-	-	-	-	-	-
60.3	-	-	4.90	5.55	6.19	6.82	7.43	8.03	-	-	-	-	-	-	-	-	-	-	-	-	-	-
63.5	-	-	5.18	5.87	6.55	7.21	7.87	8.51	-	-	-	-	-	-	-	-	-	-	-	-	-	-
70	-	-	5.74	6.51	7.27	8.02	8.75	9.47	-	-	-	-	-	-	-	-	-	-	-	-	-	-
73	-	-	6.00	6.81	7.60	8.39	9.16	9.91	10.66	11.39	12.12	12.82	13.52	14.21	14.88	15.54	16.82	-	-	-	-	-
76	-	-	6.26	7.10	7.94	8.76	9.56	10.36	11.14	11.91	12.67	13.42	14.15	14.87	15.58	16.28	17.63	-	-	-	-	-
83	-	-	6.86	7.79	8.71	9.62	10.51	11.39	12.26	13.12	13.96	14.80	15.62	16.43	17.22	18.00	19.53	21.01	22.44	23.82	25.16	26.44
89	-	-	7.38	8.39	9.38	10.36	11.33	12.28	13.23	14.16	15.07	15.98	16.88	17.76	18.63	19.48	21.16	22.70	24.37	25.90	27.37	28.81
95	-	-	-	8.98	10.04	11.10	12.14	13.17	14.19	15.19	16.18	17.16	18.13	19.09	20.03	20.96	22.79	24.56	26.29	27.97	29.59	31.17
102	-	-	-	9.67	10.82	11.96	13.09	14.21	15.31	16.40	17.48	18.55	19.60	20.64	21.67	22.69	24.69	26.63	28.53	30.38	32.18	33.93
108	-	-	-	10.26	11.49	12.70	13.90	15.09	16.27	17.44	18.59	19.73	20.86	21.97	23.08	24.17	26.31	28.41	30.46	32.46	34.40	36.30
114	-	-	-	10.85	12.15	13.44	14.72	15.98	17.23	18.47	19.70	20.91	22.12	23.31	24.48	25.65	27.94	30.19	32.38	34.53	36.62	38.67
121	-	-	-	-	14.30	15.67	17.02	18.35	19.68	20.99	22.29	23.58	24.86	26.12	27.37	29.84	32.26	34.62	36.94	39.21	41.63	44.63
127	-	-	-	-	15.04	16.48	17.90	19.32	20.72	22.10	23.48	24.84	26.19	27.53	28.85	31.47	34.03	36.55	39.01	41.43	43.80	46.17
133	-	-	-	-	15.78	17.29	18.79	20.28	21.75	23.21	24.66	26.10	27.52	28.93	30.33	33.10	35.81	38.47	41.09	43.65	46.17	48.67
140	-	-	-	-	16.65	18.24	19.83	21.40	22.96	24.51	26.04	27.57	29.08	30.57	32.06	35.00	37.88	40.72	43.50	46.24	48.93	51.30
146	-	-	-	-	17.39	19.06	20.72	22.36	24.00	25.62	27.23	28.82	30.41	31.98	33.54	36.62	39.66	42.64	45.57	48.46	51.30	54.17
152	-	-	-	-	18.13	19.87	21.60	23.32	25.03	26.73	28.41	30.08	31.74	33.39	35.05	38.25	41.43	44.56	47.65	50.68	53.66	56.63
159	-	-	-	-	18.99	20.82	22.64	24.45	26.24	28.02	29.79	31.55	33.29	35.03	36.75	40.15	43.50	46.81	50.06	53.27	56.43	59.58
168	-	-	-	-	-	-	23.97	25.89	27.79	29.69	31.57	33.44	35.29	37.13	38.97	42.59	46.17	49.69	53.17	56.60	59.98	63.35
180	-	-	-	-	-	-	-	-	29.87	31.91	33.93	35.95	37.95	39.95	41.93	45.85	49.72	53.54	57.31	61.04	64.71	68.34
194	-	-	-	-	-	-	-	-	32.28	34.50	36.70	38.89	41.06	43.23	45.38	49.64	53.86	58.03	62.15	66.22	70.24	74.21
203	-	-	-	-	-	-	-	-	33.84	36.16	38.47	40.77	43.06	45.33	47.60	52.09	56.52	60.91	65.25	69.55	73.79	78.00
219	-	-	-	-	-	-	-	-	36.60	39.12	41.63	44.13	46.61	49.08	51.54	56.43	61.26	66.04	70.78	75.46	80.10	84.74
245	-	-	-	-	-	-	-	-	41.09	43.93	46.76	49.58	52.38	55.17	57.95	63.48	68.95	74.38	79.76	85.08	90.36	95.64
273	-	-	-	-	-	-	-	-	45.92	49.11	52.28	55.45	58.60	61.73	64.86	71.07	77.24	83.36	89.42	95.44	101.41	107.34
299	-	-	-	-	-	-	-	-	-	-	57.41	60.90	64.37	67.83	71.27	78.13	84.93	91.69	98.40	105.06	111.67	118.24
325	-	-	-	-	-	-	-	-	-	-	62.54	66.35	70.14	73.92	77.68	85.18	92.63	100.03	107.38	114.68	121.93	129.14
351	-	-	-	-	-	-	-	-	-	-	-	-	75.91	80.01	84.10	92.23	100.32	108.36	116.35	124.29	132.19	140.04
377	-	-	-	-	-	-	-	-	-	-	-	-	-	81.68	86.10	90.51	99.29	108.02	116.70	125.33	133.91	142.45

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

## Pipe dimensions and weight (continued)

Outside diameter, mm	Weight per meter, kg, for wall thickness, mm																					
	17.0	18.0	19.0	20.0	22.0	24.0	25.0	26.0	28.0	30.0	32.0	34.0	35.0	36.0	38.0	40.0	42.0	45.0	48.0	50.0	56.0	60.0
89	30.19	31.52	32.80	34.03	36.35	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
95	32.70	34.18	35.61	36.99	39.61	42.02	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
102	35.64	37.29	38.89	40.45	43.40	46.17	46.17	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
108	38.15	39.95	41.70	43.40	46.66	49.72	51.17	52.58	55.24	-	-	-	-	-	-	-	-	-	-	-	-	-
114	40.67	42.62	44.51	46.36	49.92	53.27	54.87	56.43	59.39	-	-	-	-	-	-	-	-	-	-	-	-	-
121	43.60	45.72	47.79	49.82	53.71	57.41	59.19	60.91	64.22	-	-	-	-	-	-	-	-	-	-	-	-	-
127	46.12	48.39	50.61	52.78	56.97	60.96	62.89	64.76	68.36	71.77	-	-	-	-	-	-	-	-	-	-	-	-
133	48.63	51.05	53.42	55.74	60.22	64.51	66.58	68.61	72.51	76.20	79.71	-	-	-	-	-	-	-	-	-	-	-
140	51.57	54.16	56.70	59.19	64.02	68.66	70.90	73.10	77.34	81.38	85.23	88.88	90.63	92.33	-	-	-	-	-	-	-	-
146	54.08	56.82	59.51	62.15	67.28	72.21	74.60	76.94	81.48	85.82	89.97	93.51	95.81	97.66	-	-	-	-	-	-	-	-
152	56.60	59.48	62.32	65.11	71.53	75.76	78.30	80.79	85.73	90.26	94.70	98.54	100.99	102.99	-	-	-	-	-	-	-	-
159	59.53	62.59	65.60	68.56	74.33	79.90	82.62	85.28	90.46	95.44	100.22	104.81	107.03	109.20	-	-	-	-	-	-	-	-
168	63.31	66.59	69.82	73.00	79.21	85.23	88.16	91.05	96.67	102.10	107.33	112.36	114.80	117.19	121.83	126.27	130.51	136.50	-	-	-	-
180	68.34	71.91	75.44	78.92	85.72	92.33	95.56	98.75	104.96	110.98	116.80	122.42	125.16	127.85	133.07	138.10	142.94	149.82	-	-	-	-
194	74.21	78.13	82.00	85.82	93.32	100.62	104.20	107.72	114.63	121.34	127.85	134.16	137.24	140.28	146.19	151.92	157.44	165.36	-	-	-	-
203	77.98	82.12	86.22	90.26	98.20	105.95	109.74	113.49	120.84	127.99	134.95	141.71	145.01	148.27	154.63	160.79	166.76	175.34	183.48	208.39	-	-
219	84.69	89.23	93.71	98.15	106.88	115.42	119.61	123.75	131.89	139.83	147.57	155.12	158.82	162.47	169.62	176.58	183.33	193.10	202.42	208.39	-	-
245	95.59	100.77	105.90	110.98	120.99	130.80	135.64	140.42	149.84	159.07	168.09	176.92	181.26	185.55	193.99	202.22	210.26	221.95	233.20	240.45	-	-
273	107.33	113.20	119.02	124.79	136.18	147.38	152.90	158.38	169.18	179.78	190.19	200.40	205.43	210.41	220.23	229.85	239.27	253.03	266.34	274.98	-	-
299	118.23	124.74	131.20	137.61	150.29	162.77	168.93	175.05	187.13	199.02	210.71	222.20	227.87	233.50	244.59	255.19	266.20	281.88	297.12	307.04	335.59	353.65
325	129.13	136.28	143.38	150.44	164.39	178.16	184.96	191.72	205.09	218.25	231.23	244.00	250.31	256.58	268.96	281.14	293.13	310.74	327.90	339.10	371.50	392.12
351	140.03	147.82	155.57	163.26	178.50	193.54	200.99	208.39	223.04	237.49	251.74	265.80	272.76	279.66	293.32	306.79	320.06	338.59	358.68	371.16	407.41	430.59
377	150.93	159.36	167.75	176.08	192.61	208.93	217.02	225.06	240.99	256.73	272.26	287.60	295.20	302.74	317.69	332.44	346.99	368.44	389.45	403.22	442.32	469.06

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

## Tolerances

Outside diameter, mm	Outside diameter permissible deviation		Wall thickness, mm	Wall thickness permissible deviation	
	extra accuracy	regular accuracy		extra accuracy	regular accuracy
Up to 50 cold-formed hot-rolled	± 0.4 mm	± 0.4 mm	up to 5 mm	± 10%	± 10%
	± 0.5 mm	± 0.5 mm	above 5 up to 12 mm (cold-formed)	± 8%	± 8%
Above 50 up to 219	±0.8%	±1.0%	up to 15 (hot-rolled)	+ 12.5%	+ 12.5% - 15.0%
			above 15 up to 30	+ 10.0% - 12.5%	±12.5%
			above 30	±10.0%	+ 10.0% - 12.5%
Above 219	±1.0%	±1.25%	up to 15	+ 12.5% - 15.0%	
			above 15 up to 30	±12.5%	
			above 30	+ 10.0% - 12.5%	

## Length supplied

- random from 4.5 up to 12.5 meters
- fixed within the random length range

## Mechanical properties of steel

Steel Grade	Tensile strength, N/mm <sup>2</sup> (kgf/mm <sup>2</sup> )	Yield strength, N/mm <sup>2</sup> (kgf/mm <sup>2</sup> )	Elongation, %
	not less than		
Ст2сп	343 (35)	216 (22)	24
Ст4сп	412 (42)	245 (25)	20
Ст5сп	490 (50)	274 (28)	17
Ст6сп	588 (60)	304 (31)	14
10	353 (36)	216 (22)	24
20	412 (42)	245 (25)	21
35	510 (52)	294 (30)	17
45	588 (60)	323 (33)	14
20X	431 (44)	-	16
40X	657 (67)	-	9
30XГСА	686 (70)	-	11
15XM	431 (44)	225 (23)	21
15XMA	588 (60)	392 (40)	13

# Medium-weight threaded steel tubes - EN 10255/DIN 2440

Application: air, water, non-aggressive gas and fluid transportation.

## Pipe dimensions and weight

Nominal size, DN	Outside diameter, mm	Wall thickness, mm	Weight per meter, kg/m
15	21.3	2.65	1.22
20	26.9	2.65	1.58
25	33.7	3.25	2.44
32	42.4	3.25	3.14
40	48.3	3.25	3.61
50	60.3	3.65	5.10
65	76.1	3.65	6.51
80	88.9	4.05	8.47
100	114.3	4.5	12.1

## Tolerances

Nominal outside diameter, mm	Outside diameter, mm		Wall thickness permissible deviation, %
	Maximum	Minimum	
21.3	21.8	21.0	-12.5 (for areas of the pipe of length less than 2D deviation of minus 15% is acceptable). Positive deviation is limited by weight of the pipe
26.9	27.3	26.5	
33.7	34.2	33.3	
42.4	42.9	42.0	
48.3	48.8	47.9	
60.3	60.8	59.7	
76.1	76.6	75.3	
88.9	89.5	88.0	
114.3	115.0	113.1	

## Mechanical properties of steel

Steel Grade	Wall thickness, mm	Tensile strength, N/mm <sup>2</sup> (Mpa)	Yield strength, N/mm <sup>2</sup> not less than	Elongation,%, not less than
S185	Less than 3	310-540 (31.6-55.1)	185 (18.9)	14
	3 and above	290 (29.6) and above		18

# Heavy-weight threaded steel tubes - EN 10255/DIN 2441

## Pipe dimensions and weight

Nominal size, DN	Outside diameter, mm	Wall thickness, mm	Weight per meter, kg
32	42.4	4.05	3.84
40	48.3	4.05	4.43
50	60.3	4.50	6.17
65	76.1	4.50	7.90
80	88.9	4.85	10.1
100	114.3	5.40	14.4

## Tolerances

Nominal outside diameter, mm	Outside diameter, mm		Permissible deviation for wall thickness, %
	Maximum	Minimum	
42.4	42.9	42.0	-12.5 (for areas of the pipe with length less than 2D deviation of minus 15% is acceptable). Positive deviation is limited by pipe weight
48.3	48.8	47.9	
60.3	60.8	59.7	
76.1	76.6	75.3	
88.9	89.5	88.0	
114.3	115.0	113.1	

## Mechanical properties of steel

Steel Grade	Tensile strength, N/mm <sup>2</sup> (Mpa) not less than	Yield strength, N/mm <sup>2</sup> (Mpa) not less than	Elongation, %
S185	290 (29.6)	185 (18.9)	18

# Hot finished seamless steel tubes suitable for threading - NF A 49-115

Application: fluids transportation

## Pipe dimensions and weight

Outside diameter, mm	Weight per length unit, kg/m							
	regular wall, mm				heavywall, mm			
	3.2	3.6	4.0	4.5	4.0	4.5	4.9	5.4
33.7	2.41	-	-	-	2.93	-	-	-
42.4	3.09	-	-	-	3.79	-	-	-
48.3	3.56	-	-	-	4.37	-	-	-
60.3	-	5.03	-	-	-	6.19	-	-
76.1	-	6.44	-	-	-	7.95	-	-
88.9	-	-	8.38	-	-	-	10.0	-
101.6	-	-	9.63	-	-	-	11.7	-
114.3	-	-	-	12.2	-	-	-	14.5

The size is produced upon agreement.

## Tolerances

Outside diameter, mm	Outside diameter permissible deviation, mm	Wall thickness permissible deviation, %
33.7 - 48.3	+ 0.5 - 0.4	-12.5 (for areas of the pipe with length less than 2D WT deviation -15% is acceptable). Positive deviation is limited by pipe weight
60.3	+ 0.5 - 0.6	
76.1	+ 0.5 - 0.8	
88.9	+ 0.6 - 0.9	
101.6	+ 0.5 - 1.2	
114.3	+ 0.7 - 1.2	

## Mechanical properties of steel

Steel Grade	Tensile strength, N/mm <sup>2</sup> (Mpa) not less than	Yield strength, N/mm <sup>2</sup> (Mpa) not less than	Elongation, %
TU34-1	320 (32.6)	185 (18.9)	18

Tubes in accordance with DIN 2440, 2441 and NF A 49-115 are supplied with plain ends

### Length supplied

Tubes suitable for threading are supplied of  
 - random length 4.5-12.5 m  
 - fixed length within the random length range

### Protection

Pipes are supplied:  
 - black and bare  
 - oiled

### Marking

Pipes are supplied with marking according to standard and customer request.  
 Marking is paint and/or die stencilled on the ends of pipes. The same data, as well customer's request, is indicated on the bundle's tags.

### Delivery

Pipes are supplied in hexahedral bundles tied in at least five places with steel strip  
 Weight of bundle - up to 5000 kg upon request of customer.  
 Each bundle is furnished with three tags.

### Mill test certificate

MTC is issued in accordance with EN 10204

# Water and gas pipes - GOST 3262-75

Application: gas and water pipelines, heating systems as well as parts for water and gas supply systems

## Pipe dimensions and weight

Nominal size	Outside	Weight per meter, kg, for wall thickness, mm									
		2.0	2.2	2.35	2.5	2.8	3.0	3.2	3.5	4.0	4.5
10	17.0	0.74	0.80	-	-	0.98	-	-	-	-	-
15	21.3	-	-	1.10	1.16	1.28	-	1.43	-	-	-
20	26.8	-	-	1.42	1.50	1.66	-	1.86	-	-	-
25	33.5	-	-	-	-	2.12	-	2.39	-	-	-
32	42.3	-	-	-	-	2.73	-	3.09	-	-	-
40	48.0	-	-	-	-	-	3.33	-	3.84	4.34	-
50	60.0	-	-	-	-	-	4.22	-	4.88	-	-
65	75.5	-	-	-	-	-	-	5.71	-	7.05	-
80	88.5	-	-	-	-	-	-	-	7.34	8.34	-
90	101.3	-	-	-	-	-	-	-	8.44	9.60	10.74
100	114.0	-	-	-	-	-	-	-	-	10.85	12.15

## Tolerances

Nominal size	Outside diameter permissible deviation		Wall thickness permissible deviation	
	regular accuracy	extra accuracy	regular accuracy	extra accuracy
up to 40 mm	+0.4 mm -0.5 mm	±0.4 mm	-15%	-10%
above 40 mm	+0.8 % -1.0 %	±0.8 %	Positive deviations are limited by weight	

Permissible weight deviation cannot exceed +8 % (Upon customer's request: +7.5% - for the whole lot and +10% - for single pipe).

## Lengths supplied

- random from 4.5 up to 12 m

Pipes are produced from the following steel grades: Ст1сп, Ст1кп, Ст1пс, Ст2сп, Ст2кп, Ст2пс, Ст3сп, Ст3кп, Ст3пс, 08, 08кп, 08пс, 10, 10кп, 10пс, 15, 15кп, 15пс, 20, 20кп, 20пс

## Protection

Pipes are supplied black and bare

## Marking

Pipes are supplied with marking according to standard and customer request.

## Delivery

Weight of bundle - up to 5000 kg upon request of customer.

# Welded structural hollow sections - EN 10219-1/EN 10219-2

Application: overground and underground construction, bridge and crane construction

## Pipe dimensions and weight of circular pipes

Outside diameter, mm	Weight per meter, kg, for wall thickness mm																	
	2,0	2,3	2,6	2,9	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
21,3	0,952	1,08	1,20	1,32	-	-	-	-	-	-	-	-	-	-	-	-	-	-
26,9	1,23	1,40	1,56	1,72	-	-	-	-	-	-	-	-	-	-	-	-	-	-
33,7	1,56	1,78	1,99	2,20	2,41	2,67	-	-	-	-	-	-	-	-	-	-	-	-
42,4	1,99	2,27	2,55	2,82	3,09	3,44	3,79	-	-	-	-	-	-	-	-	-	-	-
48,3	2,28	2,61	2,93	3,25	3,56	3,97	4,37	-	-	-	-	-	-	-	-	-	-	-
60,3	-	-	3,70	4,11	4,51	5,03	5,55	-	-	-	-	-	-	-	-	-	-	-
76,1	-	-	4,71	5,24	5,75	6,44	7,11	-	-	-	-	-	-	-	-	-	-	-
88,9	-	-	-	-	6,76	7,57	8,38	-	-	-	-	-	-	-	-	-	-	-
101,6	-	-	-	-	7,77	8,70	9,63	10,8	-	-	-	-	-	-	-	-	-	-
114,3	-	-	-	-	8,77	9,83	10,9	12,2	-	-	-	-	-	-	-	-	-	-
168,3	-	-	-	-	-	-	-	-	20,1	22,5	25,2	28,2	-	-	-	-	-	-
219,1	-	-	-	-	-	-	-	-	26,4	29,5	33,1	37,1	41,6	-	-	-	-	-
273,0	-	-	-	-	-	-	-	-	33,0	36,9	41,4	46,6	52,3	-	-	-	-	-
323,9	-	-	-	-	-	-	-	-	-	44,0	49,3	55,5	62,3	68,4	-	-	-	-
355,6	-	-	-	-	-	-	-	-	-	-	48,3	54,3	61,0	68,6	75,3	-	-	-
406,4	-	-	-	-	-	-	-	-	-	-	55,4	62,2	69,9	78,6	86,3	-	-	-

## Pipe dimensions and weight of square and rectangular pipes

Dimension, mm		Weight per meter, kg, for wall thickness mm			
A	B	2,0	2,5	3,0	4,0
20	20	1,05	-	-	-
25	25	1,36	1,64	-	-
30	30	1,68	2,03	2,36	-
40	20	1,68	2,03	2,36	-
40	40	2,31	2,82	3,30	4,20
50	30	2,31	2,82	3,30	4,20
50	50	2,93	3,60	4,25	5,45
60	40	2,93	3,60	4,25	5,45
60	60	3,56	4,39	5,19	6,71
70	70	-	5,17	6,13	7,97
80	40	3,56	4,39	5,19	6,71
80	60	4,19	5,17	6,13	7,97
80	80	-	-	7,07	9,22
90	90	-	-	8,01	10,5
100	40	-	5,17	6,13	7,97
100	60	-	5,96	7,07	9,22
100	80	-	6,85	8,01	10,5

### Lengths supplied

From 6.0 up to 12.0 meters

### Steel Grades:

Steel Grade	Chemical composition
S235JRH, S275J0H, S275J2H, S355J0H, S355J2H	EN 10219-1

### Obligatory requirements:

- Chemical composition control;
- NDT of weld seam;
- tensile test;
- bending impact test.

# Precision steel tubes - GOST 9567-75/GOST 8731-74

Application: machinery and construction engineering industry

## Pipe dimensions and weight

Outside diameter, mm	Weight per meter, kg, for wall thickness, mm									
	3.5	4.0	4.5	5.0	5.5	6.0	6.5	7.0	7.5	8.0
50	4.014	4.538	-	-	-	-	-	-	-	-
57	4.618	5.228	5.826	6.412	-	-	-	-	-	-
63.5	5.179	5.869	6.548	7.213	7.861	8.508	-	-	-	-
70	5.740	6.511	7.269	8.015	8.749	9.470	-	-	-	-
76	6.258	7.103	7.935	8.755	9.562	10.359	11.140	11.911	12.670	13.416
83	6.862	7.793	8.712	9.618	10.512	11.394	12.263	13.126	13.965	14.797
89	7.380	8.385	9.378	10.358	11.326	12.281	13.225	14.156	15.074	15.981
95	-	8.977	10.043	11.098	12.140	13.169	14.187	15.191	16.184	17.164
102	-	9.667	10.880	11.961	13.089	14.205	15.308	16.406	17.475	18.545
108	-	10.259	11.486	12.701	13.903	15.093	16.265	17.436	18.589	19.729
114	-	10.851	12.152	13.440	14.717	15.981	-	-	-	-

## Tolerances

Outside diameter	Outside diameter permissible deviation	Wall thickness	Wall thickness permissible deviation
50 mm	± 0.35 mm	up to 7 mm	±10 %
Above 50 mm	+ 0.8 %		
Above 68 mm	± 0.5 %	from 7.0 to 8 mm	± 6 %

## Lengths supplied

- random from 6.0 up to 12.0 m

## Mechanical properties of steel

Steel Grade	Tensile strength, N/mm <sup>2</sup> (kgf/mm <sup>2</sup> )	Yield strength, N/mm <sup>2</sup> (kgf/mm <sup>2</sup> )	Elongation, %
	not less than		
10	353 (36)	216 (22)	24
20	412 (42)	245 (25)	21
35	510 (52)	294 (30)	17
45	588 (60)	323 (33)	14

Protection, marking and delivery conditions are subject to additional agreement.

# Seamless precision steel tubes - EN 10305/DIN 2391

Application: motor-car construction, pneumatic and hydraulic operating mechanisms

## Pipe dimensions and weight

Wall thickness, mm (normal size)	3.5	4	4.5	5	5.5	6	7	8	9	10	12	14	16	18
<b>Outside diameter</b>														
<b>Normal size</b>	<b>Inside diameter (normal size and limit deviations)</b>													
<b>Limit deviations</b>														
50	±0.20	43 ±0.20	42 ±0.20	-	-	-	-	-	-	-	-	-	-	-
55	±0.25	48 ±0.25	47 ±0.25	46 ±0.25	-	-	-	-	-	-	-	-	-	-
60		53 ±0.25	52 ±0.25	51 ±0.25	50 ±0.25	49 ±0.25	48 ±0.25	46 ±0.25	44 ±0.25	-	-	-	-	-
65	±0.30	58 ±0.30	57 ±0.30	56 ±0.30	55 ±0.30	54 ±0.30	53 ±0.30	51 ±0.30	49 ±0.30	-	-	-	-	-
70		63 ±0.30	62 ±0.30	61 ±0.30	60 ±0.30	59 ±0.30	58 ±0.30	56 ±0.30	54 ±0.30	-	-	-	-	-
75	±0.35	68 ±0.35	67 ±0.35	66 ±0.35	65 ±0.35	64 ±0.35	63 ±0.35	61 ±0.35	59 ±0.35	-	-	-	-	-
80		73 ±0.35	72 ±0.35	71 ±0.35	70 ±0.35	69 ±0.35	68 ±0.35	66 ±0.35	64 ±0.35	62 ±0.35	60 ±0.35	56 ±0.35	52 ±0.35	48 ±0.35
85	±0.40	78 ±0.40	77 ±0.40	76 ±0.40	75 ±0.40	74 ±0.40	73 ±0.40	71 ±0.40	69 ±0.40	67 ±0.40	65 ±0.40	61 ±0.40	57 ±0.40	53 ±0.40
90		83 ±0.40	82 ±0.40	81 ±0.40	80 ±0.40	79 ±0.40	78 ±0.40	76 ±0.40	74 ±0.40	72 ±0.40	70 ±0.40	66 ±0.40	62 ±0.40	58 ±0.40
95	±0.45	-	87 ±0.45	86 ±0.45	85 ±0.45	84 ±0.45	83 ±0.45	81 ±0.45	79 ±0.45	77 ±0.45	75 ±0.45	71 ±0.45	67 ±0.45	63 ±0.45
100		-	92 ±0.45	91 ±0.45	90 ±0.45	89 ±0.45	88 ±0.45	86 ±0.45	84 ±0.45	82 ±0.45	80 ±0.45	76 ±0.45	72 ±0.45	68 ±0.45
110	±0.50	-	102 ±0.50	101 ±0.50	100 ±0.50	99 ±0.50	98 ±0.50	96 ±0.50	94 ±0.50	92 ±0.50	90 ±0.50	86 ±0.50	82 ±0.50	78 ±0.50
120		-	112 ±0.50	111 ±0.50	110 ±0.50	109 ±0.50	108 ±0.50	106 ±0.50	104 ±0.50	102 ±0.50	100 ±0.50	96 ±0.50	92 ±0.50	88 ±0.50
130	±0.70	-	122 ±0.70	121 ±0.70	120 ±0.70	119 ±0.70	118 ±0.70	116 ±0.70	114 ±0.70	112 ±0.70	110 ±0.70	106 ±0.70	102 ±0.70	98 ±0.70
140		-	132 ±0.70	131 ±0.70	130 ±0.70	129 ±0.70	128 ±0.70	126 ±0.70	124 ±0.70	122 ±0.70	120 ±0.70	116 ±0.70	112 ±0.70	108 ±0.70

## Tolerances

Permissible deviations for the diameter of heat-treated tubes

Wall thickness	Permissible deviations for diameter
0.05 D and above	±0.15 as specified in table of pipe dimensions and weight
above 0.05 D up to 0.025 D	1.5 times the values in table of pipe dimensions and weight
above 0.025 D	2 times the values in table of pipe dimensions and weight

The limit for wall thickness deviation ±10%

## Lengths supplied

- random length from 4 up to 10.5 meters

## Mechanical properties of steel

Steel grade	Cold finished +C		Cold finished +LC		Cold finished and stress-relieved +Sr +A				Normalized +N			
	Min tensile strength, N/mm <sup>2</sup> :	Min elongation	Min tensile strength, N/mm <sup>2</sup> :	Min elongation	Min tensile strength, N/mm <sup>2</sup> :	Min yield strength, N/mm <sup>2</sup> :	Min. elongation	Min tensile strength, N/mm <sup>2</sup> :	Min. elongation	Tensile strength, N/mm <sup>2</sup> :	Min yield strength, N/mm <sup>2</sup> :	Min. elongation
E215	430	8	380	12	380	280	16	280	30	290 to 420	215	30
E235	480	6	420	10	420	315	14	315	25	340 to 470	235	25
E255	580	5	520	8	520	375	12	390	21	440 to 570	255	21
E355	640	4	580	7	580	420	10	490	22	490 to 630	355	22

## Protection

Pipes are supplied:

- black and bare

## Marking

Pipes are supplied with marking according to standard and customer request.

Marking is paint and/or die stenciled on the ends of pipes. The same data, as well as additional information per customer's request, is indicated on the bundle's tags.

## Delivery

Pipes are supplied in round bundles tied in at least five places with steel Weight of bundle - up to 5000 kg upon request of customer. Each bundle is furnished with three tags.

Mill test certificate

MTS is issued in accordance with EN 10204

# Bearing tubes - GOST 800-78

Application: rings for ball and roller bearings

## Pipe dimensions

Tube type	Outside diameter, mm	Wall thickness, mm
Cold-formed	37.4-81.2	is produced upon agreement with the customer within outside diameter to wall thickness ratio equal to $D/S \leq 12$
Hot-rolled	80-183	

Hot-rolled pipes are supplied outside surface machined.

## Tolerances

Tube type	Outside diameter mm	Outside diameter permissible deviation	Wall thickness	Wall thickness permissible deviation
Cold-formed	Outside diameter up to 60 mm Outside diameter above 60 mm	+0.4 mm +0.5 mm	D/S ratio $\leq 11$ D/S ratio $> 11$	+15%
Hot-rolled	Outside diameter above 80 mm	+0.2 mm	D/S ratio $< 11$ D/S ratio $> 11$	+15% Upon agreement with the customer

## Lengths supplied

- random from 2 up to 5 m. Lengths more than 5 meters are subject for additional agreement.

## Steel hardness:

Cold-formed	steel grades ШХ15, ШХ15СГ, ШХ15Ш	HB 255-207
Hot-rolled	steel grades ШХ15, ШХ15Ш	HB 207-187
	steel grades ШХ15СГ	HB 217-197

## Protection

Pipes are supplied:  
- black and bare  
- oiled

## Marking

Pipes are supplied with marking according to standard and customer request.

## Delivery

Weight of bundle - up to 5000 kg upon request of customer.

# Seamless tubes and pipes for boilers, headers and high temperature services

Interpipe NIKO TUBE is an Interpipe member production facility located in Nikopol, Ukraine.

Interpipe NIKO TUBE operates 41/2" continuous mandrel mill and 14" plug mill.

All products are manufactured according to the most exacting quality standards. Interpipe NIKO TUBE gained recognition in a variety of fields, including oil and gas, mechanical, chemical and petrochemical industries and, last but not least, the power generation industry.

Interpipe NIKO TUBE meets customer demands with a wide range of carbon and alloy steel.

Seamless boiler tubes and header pipes are manufactured in accordance with all major international standards. The mill is ISO 9001 certified. Quality control procedures are applied throughout the whole manufacturing process and our steel is sourced only from certified suppliers.

BOILERS TUBES			HEADER PIPES		
Product	Specification	Grades	Product	Specification	Grades
Carbon	ASTM A 106 ASTM A 192 ASTM A 210 EN 10216 (DIN 17175)	A, B, C carbon steel A1, C P195GH, P235GH, P265GH ST 35.8, ST 45.8	Carbon	ASTM A 106 EN 10216 (DIN 17175)	A,B,C P195GH, P235GH, P265GH T 35.8, ST 45.8
Alloy	ASTM A 335 ASTM A 209 ASTM A 213 EN 10216 (DIN 17175)	T1, T2, T11, T12, T22 T1, T1a, T1b T2, T11, T12, T22 16Mo3, 10CrMo5-5, 13CrMo4-5, 10CrMo9-10, 11CrMo9-10 15Mo3, 13CrMo4-4, 10CrMo9-10	Alloy	ASTM A 335 EN 10216 (DIN 17175)	P1, P2, P11, P12, P22 16Mo3, 10CrMo5-5 15Mo3

## Lengths

- fixed length within the random lengths range
- tolerances on fixed lengths: +10/-0 mm for boiler tubes and +50/-0 mm for header pipes
- maximum length up to 24 m

## Protection

- unprotected
- if required, the tubes can be delivered with plastic caps at both ends
- protection for sea transport on request

## Marking

- Marking is done according to material standard or as per customer request
- tubes can be stenciled on ends or over entire length and die-stamped on one or both ends

## Delivery

In hexagonal bundles tied with steel strip.  
Bundles weight up to 5000 kg (11000 lbs)  
Weight tolerances: + 5%

## Mill test certificates

Product are supplied with 3.1 test certificates, ace. to EN 10204.  
Certificate ace. to 3.2 can be agreed at the time of ordering.

## Mill's certification

Interpipe NIKO TUBE is ISO 9001 certified. Interpipe NIKO TUBE is qualified by International accredited inspection bodies of TUV ace. to DIN 17175, EN 10216 and equivalent national standards.

Seamless tubes for boilers and high temperature services  
 Carbon steel: [ASTM A/ASME SA 106](#), [ASTM A/ASME SA 192](#),  
[ASTM A/ASME SA 210](#), [EN 10216](#), ([DIN 17175](#))

Alloy steel: [ASTM A/ASME SA 209](#), [ASTM A/ASME SA 213](#),  
[ASTM A/ASME SA 335](#), [EN 10216](#), ([DIN 17175](#))

**End uses:** construction of boilers, pipelines and equipments for high temperature and pressure services

Dimensions								
NPS	Outside Diameter		Wall thickness		Weight		Weight class	Schedule No
	IN	mm	IN	mm	lb/ft	kg/m		
1"	1.315	33.4	0.109	2.77	1.40	2.09	STD	10
			0.114	2.90	1.46	2.18		30
			0.133	3.38	1.68	2.50		40
1 ¼"	1.660	42.2	0.109	2.77	1.81	2.69	STD	10
			0.117	2.97	1.93	2.87		30
			0.140	3.56	2.27	3.39		40
1 ½"	1.900	48.3	0.109	2.77	2.08	3.11	STD	10
			0.125	3.18	2.37	3.54		30
			0.145	3.68	2.72	4.05		40
2"	2.375	60.3	0.125	3.18	3.00	4.48	STD	30
			0.141	3.58	3.36	5.01		40
			0.154	3.91	3.65	5.44		
			0.172	4.37	4.05	6.03		
			0.188	4.78	4.39	6.54		
			0.218	5.54	5.02	7.48		XS
2 ½"	2.875	73.0	0.120	3.05	3.53	5.26	STD	10
			0.125	3.18	3.67	5.48		
			0.141	3.58	4.12	6.13		
			0.156	3.96	4.53	6.74		
			0.172	4.37	4.97	7.40		
			0.188	4.78	5.40	8.04		
			0.203	5.16	5.79	8.63		
			0.216	5.49	6.13	9.14		
			0.250	6.35	7.01	10.44		
			0.276	7.01	7.66	11.41		XS
3"	3.500	88.9	0.120	3.05*	4.33	6.46	STD	10
			0.125	3.18	4.51	6.72		
			0.141	3.58	5.06	7.53		
			0.156	3.96	5.57	8.30		
			0.172	4.37	6.11	9.11		
			0.188	4.78	6.65	9.92		
			0.216	5.49	7.58	11.29		
			0.250	6.35	8.68	12.93		
			0.281	7.14	9.66	14.40		
			0.300	7.62	10.25	15.27		XS
3 ½"	4.000	101.6	0.141	3.58	5.81	8.65	STD	30
			0.156	3.96	6.40	9.54		
			0.172	4.37	7.03	10.48		
			0.188	4.78	7.65	11.41		
			0.226	5.74	9.11	13.57		
			0.250	6.35	10.01	14.92		
			0.281	7.14	11.16	16.63		
0.318	8.08	12.50	18.64	XS	80			
4"	4.500	114.3	0.156	3.96	7.24	10.78	STD	30
			0.172	4.37	7.95	11.85		
			0.188	4.78	8.66	12.91		
			0.203	5.16	9.32	13.89		
			0.219	5.56	10.01	14.91		
			0.237	6.02	10.79	16.08		
			0.250	6.35	11.35	16.91		
0.281	7.14	12.66	18.87	40				

# Boiler tubes

Carbon steel: **EN 10216** (test category 1 and 2)

Alloy steel: **EN 10216** (test category 1 and 2)

Dimensions											
Outside Diameter mm	Wall thickness										
	2.6	2.9	3.2	3.6	4.0	4.5	5.0	5.5	6.3	7.1	8.0
	Weight kg/m										
31.8	1.87	2.07	2.26	2.50	2.74	3.03	-	-	-	-	-
33.7	1.99	2.20	2.41	2.67	2.93	3.24	-	-	-	-	-
38.0	2.26	2.51	2.75	3.05	3.35	3.72	-	-	-	-	-
42.4	2.55	2.82	3.09	3.44	3.79	4.21	-	-	-	-	-
44.5	2.68	2.98	3.26	3.63	4.00	4.44	-	-	-	-	-
48.3	2.93	3.25	3.56	3.97	4.37	4.86	-	-	-	-	-
51.0	3.03	3.44	3.77	4.21	4.64	5.16	5.67	6.17	-	-	-
54.0	-	-	-	4.47	4.93	5.49	6.04	6.58	-	-	-
57.0	-	-	-	4.74	5.23	5.83	6.41	6.99	7.88	-	-
60.3	-	-	-	5.03	5.55	6.19	6.82	7.43	8.39	-	-
63.5	-	-	-	5.32	5.87	6.55	7.21	7.87	8.89	-	-
70.0	-	-	-	5.90	6.51	7.27	8.01	8.75	9.90	-	-
73.0	-	-	-	6.16	6.81	7.60	8.38	9.16	10.36	-	-
76.1	-	-	-	6.44	7.11	7.95	8.77	9.58	10.84	12.08	-
82.5	-	-	-	7.00	7.74	8.66	9.56	10.44	11.84	13.20	14.70
88.9	-	-	-	7.57	8.38	9.37	10.35	11.31	12.83	14.32	15.96
101.6	-	-	-	8.70	9.63	10.78	11.91	13.03	14.81	16.55	18.47
108.0	-	-	-	-	10.26	11.49	12.70	13.90	15.80	17.67	19.73
114.3	-	-	-	-	10.88	12.19	13.48	14.76	16.78	18.77	-

# Seamless pipes for headers and high temperature services

Carbon steel: **ASTM A/ASME SA 106, EN 10216, (DIN 17175)**  
 Alloy steel: **ASTM A/ASME SA 335, EN 10216, (DIN 17175)**

End uses: construction of headers, pipelines and equipments for high temperature and pressure services

Dimensions								
NPS	Outside Diameter		Wall thicknei		Weight		Weight class	Schedule No
	in	mm	in	mm	lb/ft	kg/m		
6"	6.625	168.3	0.250	6.35	17.02	25.36	STD	40
			0.280	7.11	18.97	28.26		
			0.312	7.92	21.04	31.32		
			0.344	8.74	23.08	34.39		
			0.375	9.53	25.03	37.31	XS	80
			0.432	10.97	28.57	42.56		
			0.500	12.70	32.71	48.73		
			0.562	14.27	36.59	54.20		
			0.625	15.88	40.05	59.69	XXS	120
			0.719	18.26	45.35	67.56		
			0.750	19.05	47.06	70.11		
			0.864	21.95	53.16	79.22		
8"	8.625	219.1	0.277	7.04	24.70	36.81	STD	30
			0.312	7.92	27.70	41.24		
			0.322	8.18	28.55	42.55		
			0.344	8.74	30.42	45.34		
			0.375	9.53	33.04	49.25	XS	60
			0.406	10.31	35.64	53.08		
			0.438	11.13	38.30	57.08		
			0.500	12.70	43.39	64.64		
			0.562	14.27	48.40	72.08	XXS	80
			0.594	15.09	50.95	75.92		
			0.625	15.88	53.40	79.58		
			0.719	18.26	60.71	90.44		
			0.750	19.05	63.08	93.98	XXS	100
			0.812	20.62	67.76	100.92		
0.875	22.23	72.42	107.92					
0.906	23.01	74.69	111.27					
1.000	25.40	81.44	121.33	XXS	120			
10"	10.750	273.0	0.279	7.09	31.20	46.51	STD	30
			0.307	7.80	34.24	51.03		
			0.344	8.74	38.23	56.98		
			0.365	9.27	40.48	60.31		
			0.438	11.13	48.24	71.90	XS	60
			0.500	12.70	54.74	81.55		
			0.562	14.27	61.15	91.08		
			0.594	15.09	64.43	96.01		
			0.625	15.88	67.58	100.73	XXS	80
			0.719	18.26	77.03	114.75		
			0.812	20.62	86.18	128.38		
			0.844	21.44	89.29	133.06		
			0.875	22.23	92.28	137.52	XXS	100
			0.938	23.83	98.30	146.48		
			1.000	25.40	104.13	155.15		
			1.125*	28.58*	115.64	172.33		
1.250*	31.75*	126.83	188.97	XXS	120			
12"	12.750	323.8	0.312	7.92	41.45	61.71	STD	30
			0.330	8.38	43.77	65.20		
			0.344	8.74	45.58	67.93		
			0.375	9.53	49.56	73.88		
			0.406	10.31	53.52	79.73	XS	40
			0.438	11.13	57.59	85.84		
			0.500	12.70	65.42	97.46		
			0.562	14.27	73.15	108.96		
			0.625	15.88	80.93	120.62	XXS	60
			0.688	17.48	88.63	132.08		
			0.750	19.05	96.12	143.21		
			0.812	20.62	103.53	154.21		
			0.844	21.44	107.32	159.91	XXS	80
			0.875	22.23	110.97	165.37		
			0.938	23.83	118.33	176.33		
			1.000	25.40	125.49	186.97		
1.062*	26.97*	132.57	197.48	XXS	100			
1.125*	28.58*	139.67	208.14					
1.250*	31.75*	153.53	228.74					
1.250*	31.75*	153.53	228.74					

\* upon request

# Header pipes - EN 10216 (test category 1 and 2)

## Dimensions

Outside Diameter, mm	Wall thickness									
	7.0	7.5	8.0	8.5	9.0	9.5	10.0	11.0	12.0	13.0
	Weight kg/m									
146.0	-	-	27.23	28.82	30.41	31.98	33.54	36.62	39.66	42.64
152.0	25.03	26.73	28.41	30.08	31.74	33.39	35.05	38.25	41.43	44.56
159.0	26.24	28.02	29.79	31.55	33.29	35.05	36.75	40.15	43.50	46.81
168.0	27.79	29.69	31.57	33.44	35.29	37.13	38.97	42.59	46.17	49.69
180.0	29.87	31.91	33.93	35.95	37.95	39.95	41.93	45.85	49.72	53.54
194.0	-	-	36.70	38.89	41.06	43.23	45.38	49.64	53.86	58.03
203.0	-	-	38.47	40.77	43.06	45.33	47.60	52.09	46.52	60.91
219.0	-	-	41.63	44.13	46.61	49.08	51.54	56.43	61.26	66.04
245.0	-	-	-	-	52.38	55.17	57.95	63.48	68.95	74.38
273.0	-	-	-	-	-	-	-	71.07	77.24	83.36
325.0	-	-	-	-	-	-	-	85.18	92.63	100.03

Outside Diameter mm	Wall thickness									
	14.0	15.0	16.0	17.0	18.0	19.0	20.0	22.0	24.0	25.0
	Weight kg/m									
146.0	45.57	48.46	51.30	54.08	56.82	-	-	-	-	-
152.0	47.65	50.68	53.66	56.60	59.48	62.32	65.11	-	-	-
159.0	50.06	53.27	56.43	59.53	62.59	65.60	68.56	-	-	-
168.0	53.17	56.60	59.98	63.31	66.59	69.82	73.00	79.21	85.23	88.16
180.0	57.31	61.04	64.71	68.34	71.91	75.44	78.92	85.72	92.33	95.56
194.0	62.15	66.22	70.24	74.21	78.13	82.00	85.82	93.32	100.62	104.20
203.0	65.25	69.55	73.79	77.98	82.12	86.22	90.26	98.20	105.95	109.74
219.0	70.78	75.46	80.10	84.69	89.23	93.71	98.15	106.88	115.42	119.61
245.0	79.76	85.08	90.36	95.59	100.77	105.90	110.98	120.99	130.80	135.64
273.0	89.42	95.44	101.41	107.33	113.20	119.02	124.79	136.18	147.38	152.90
325.0	107.38	114.68	121.93	129.13	136.28	143.38	150.44	164.39	178.16	184.96

Outside Diameter mm	Wall thickness										
	26.0*	28.0*	30.0*	32.0*	34.0*	35.0*	36.0*	38.0*	40.0*	42.0*	45.0*
	Weight kg/m										
152.0	-	-	-	-	-	-	-	-	-	-	-
159.0	-	-	-	-	-	-	-	-	-	-	-
168.0	91.05	96.67	-	-	-	-	-	-	-	-	-
180.0	98.75	104.96	110.98	116.80	-	-	-	-	-	-	-
194.0	107.72	114.63	121.34	127.85	-	-	-	-	-	-	-
203.0	113.49	120.84	127.99	134.95	141.71	-	-	-	-	-	-
219.0	123.75	131.89	139.83	145.57	155.12	158.82	162.47	-	-	-	-
245.0	140.42	149.84	159.07	168.09	176.92	181.26	185.55	193.99	202.22	-	-
273.0	158.38	169.18	179.78	190.19	200.40	205.43	210.41	220.23	229.85	239.27	253.03
325.0	191.72	205.09	218.25	231.23	244.00	250.31	256.58	268.96	281.14	293.13	310.74

\* upon request



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