





## Introduction

#### Welcome to Interpipe's product catalogue for industrial application 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 and welded steel pipes are in use around the world covering applications in housing and communal services, construction and general purpose structures.

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 EN, DIN, NFA, ASTM, API 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

### DIN 1629 EN 10220 (DIN 2448)

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

Dimen	Dimensions and weight for Cold-formed															
Outside	Sn,	Weight	per unit le	ength, kg/	/m											
diameter, mm	mm	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
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	-	-	-	-	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	-	-	-	-	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	-	-	-	-	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	-	-	-	-	9,56	10,6	11,8	13,2	14,7	16,0	17,9	19,4	21,6	23,9	26,2

Dimer	sion	s an	ıd w	reig	ht fo	or H	ot-r	olle	d																				
Outside	Sn,	Wei	ight p	er un	it ler	igth, l	kg/m																						
diameter, mm	mm	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	60,0
33,7	2,6	2,41	2,67	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
38,0	2,6	2,75	3,05	3,35	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
42,4	2,6	3,09	3,44	3,79	4,21	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
48,3	2,6	3,56	3,97	4,37	4,86	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
51,0	2,6	3,77	4,21	4,64	5,16	5,67	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
57,0	2,9	-	4,74	5,23	5,83	6,41	7,10	7,88	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
60,3	2,9	-	5,03	5,55	6,19	6,82	7,55	8,39	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
63,5	2,9	-	5,32	5,87	6,55	7,21	8,00	8,89	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
70,0	2,9	-	5,90	6,51	7,27	8,01	8,89	9,90	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
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	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
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	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
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	-	-	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	-	-	-	-	19,0	23,7	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	-	-	-	-	-	-	33,1	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	223	236

#### Dimensions and weight for Hot-rolled (continued) Outside Sn, Weight per unit length, kg/m diameter, mm 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 60,0 mm 122 257 37,0 41,6 46,7 51,2 57,8 63,3 71,5 80,6 90,2 98,0 111 135 149 159 168 185 202 240 273 244.5 6,3 273,0 41,4 | 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 | 315 6,3 7,1 55,5 62,3 68,4 77,4 84,9 96,0 108 121 132 150 165 184 204 217 230 256 280 310 338 365 390 323.9 68,6 75,3 85,2 93,5 106 120 134 146 166 183 204 226 241 255 284 311 345 377 408 437 355,6 8,0

Manufacturing of pipe sizes not specified in the table is possible. Sn - normal wall thickness Upon agreement pipes are produced with outside diameter: 229, 254, 267, 298.5, 305, 330, 368, 377 mm.

#### Length supplied:

- Technological, constant and exact length to be no more than 12,5 m.

Steel hardness:	
Steel grades	Chemical compound according to
St37.0, St44.0, St52.0	DIN 1629

#### Obligatory requirements:

- Carrying out hydraulic pressure tests or non-destructive control methods;
- Carrying out ring sample tensile test (for pipes with external diameter more than 146 mm);
- Carrying out expanding and flattening tests (for pipes with external diameter 146 mm and less);

#### Upon customer's request it is possible to carry out:

- Chemical composition control;
- Pipe normalization;
- Chamfering.

## High-performance seamless circular unalloyed steel pipes

DIN 1630 EN 10220 (DIN 2448)

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

Dimen	Dimensions and weight for Cold-formed															
Outside	Sn,	Weight	per unit le	ength, kg,	/m											
diameter, mm	mm	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
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	-	-	-	-	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	-	-	-	-	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	-	-	-	-	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	-	-	-	-	9,56	10,6	11,8	13,2	14,7	16,0	17,9	19,4	21,6	23,9	26,2

Dimen	rsion	s an	ıd w	eig	ht f	or H	ot-r	olle	d																				
Outside	Sn,	Wei	ight p	er un	it len	igth, l	kg/m																						
diameter, mm	mm	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	60,0
33,7	2,6	2,41	2,67	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
38,0	2,6	2,75	3,05	3,35	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
42,4	2,6	3,09	3,44	3,79	4,21	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
48,3	2,6	3,56	3,97	4,37	4,86	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
51,0	2,6	3,77	4,21	4,64	5,16	5,67	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
57,0	2,9	-	4,74	5,23	5,83	6,41	7,10	7,88	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
60,3	2,9	-	5,03	5,55	6,19	6,82	7,55	8,39	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
63,5	2,9	-	5,32	5,87	6,55	7,21	8,00	8,89	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
70,0	2,9	-	5,90	6,51	7,27	8,01	8,89	9,90	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
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	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
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	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
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	-	-	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	-	-	-	-	19,0	23,7	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		-	-	-		85,7	,	104	114	121	128	140	152	165	-	-	-
219,1	6,3	-	-	-	-	-	-	,	37,1			51,6	-	,	,	,				120	132	140	148	163	177	193	209	223	236
244,5	6,3	-	-	-	-	-	-		41,6		51,2	57,8	63,3	71,5	80,6	90,2	98,0	111	122	135	149	159	168	185	202	221	240	257	273
273,0	6,3	-	-	-	-	-	-	41,4	46,6			64,9	-	80,3	-	-	110	125	137	153	169	180	190	210	230	253	275	296	315
323,9	7,1	-	-	-	-	-	-	-	55,5			77,4				121	132	150	165	184	204	217	230	256	280	310	338	365	390
355,6	8,0	-	-	-	-	-	-	-	-			85,2		,		134	146	166	183	204	226	241	255	284	311	345	377	408	437

Manufacturing of pipe sizes not specified in the table is possible. Sn - normal wall thickness Upon agreement pipes are produced with outside diameter: 229, 254, 267, 298.5, 305, 330, 368, 377 mm.

#### Length supplied:

- Technological, constant and exact length no more than 12,5 m.

Steel hardness:	
Steel grades	Chemical compound according to
St37.4, St44.4, St52.4	DIN 1630

#### Obligatory requirements:

- Carrying out hydraulic pressure testing or non-destructive control;
- Carrying out ring sample tensile test (for pipes with external diameter more than 146 mm);
- Carrying out expanding and flattening tests (for pipes with external diameter 146 mm and less);
- Carrying out non-destructive testing of pipe-ends with wall thickness more than 40 mm.

- Chemical composition control;
- Non-destructive testing;
- Pipe normalization;
- Chamfering.

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

Application: for manufacturing metal structures

Outside	Weight p	oer meter, kg	, for wall th	ickness, mm								
diameter, 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
33,7	2,41	-	-	-	-	-	-	-	-	-	-	-
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	-	-	-	24,0	25,2	31,6	39,0	46,3	48,0	-	-	-
177,8	-	-	-	25,4	26,6	33,5	41,4	49,1	51,0	-	-	-
193,7	-	-	-	27,8	29,1	36,6	45,3	53,8	55,9	70,1	-	-
219,1	-	-	-	31,5	33,1	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

Manufacturing of pipe sizes is possible under EN 10220 (DIN 2448).

Upon agreement pipes are produced with outside diameter: 229, 254, 267, 298.5, 305, 330, 368, 377 mm.

#### Lengths supplied:

- Technological length 4,0-12,5 m;
- Constant length 4,0-12,5 m;
- Precise length 2,0-12,5 m.

Steel hardness:	
Steel grades	Chemical compound according to
S235J RH, S275J OH, S275J 2H, S355J OH, S355J 2H, S275 NH, S275N LH, S355 NH, S355N LH, S460 NH, S460N LH	EN 10210-1

#### Obligatory requirements:

- Chemical composition control.

- Chemical composition control;
- Bending impact test of J2 group pipes;
- Normalized carbon equivalent pipes to be supplied.

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

NF A 49-112

Application: for transporting fluids and general purpose

Pipe d	imen	sions	and	weig	ht																
Outside	Weigh	nt per n	neter, k	g, for v	all thic	kness,	mm														
diameter, 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	-	-	-	-	-	-	-	-	-	-	-	-	-
88,9	-	11,5	12,8	14,3	16,0	17,4	19,5	21,1	23,6	26,2	28,8	30,8	-	-	-	-	-	-	-	-	-
101,6	-	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	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	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	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	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	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	-	-	-
159,0	-	21,2	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	117	127	-
168,3	-	-	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	127	137	-
193,7	-	-	-	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	152	165	-
219,1	-	-	-	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	177	193	209
244,5	-	-	-	41,6	46,7	51,2	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

#### Lengths supplied:

- Standard length 5-8 m;
- Random length up to 12,5 m;
- Precise length.

Steel hardness:	
Steel grades	Chemical compound according to
TUE220A, TUE235A	NF A 49-112

- Chemical composition control;
- Carrying out hydraulic pressure testing;
- Carrying out expanding and flattening tests.

## Hot finished seamless steel tubes suitable for threading

Application: fluids transportation

Pipe d	imensions an	d weight						
Outside	Weight per meter	r, kg, for wall thick	ness, mm					
diameter, mm	regular wall, mm				heavy wall, mm			
	3,2	3,6	4,0	4,5	4,0	4,5	4,9	5,4
33,7	2,41	-	-	-	-	-	-	-
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

Lengths supplied: 6,0-7,5 m. Tubes are supplied with plain ends

Steel hardness:	
Steel grades	Chemical compound according to
TU 34-1	NF A 49-115

#### Obligatory requirements:

### Seamless steel tubes for operating under pressure Part I: Unalloyed steel tubes with specified room temperature properties

EN 10216-1 EN 10220 (DIN 2448)

Application: in tool-making, for constructing reservoirs and pipelines, as well as in general tooling and machine-building

Dimen	sion	s and v	weight	for Col	d-form	ed										
Outside	Sn,	Weight	per mete	r, kg, for v	vall thick	ness mm										
diameter, mm	mm	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
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	-	-	-	-
14,5	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	-	-	-
18,3	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	-
50,3	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
53,5	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	-	-	-	-	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	-	-	-	-	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	-	-	-	-	8,77	9,74	10,8	12,1	13,4	14,6	16,3	17,7	19,6	21,7	23,7
32,5	3,2	-	-	-	-	9,56	10,6	11,8	13,2	14,7	16,0	17,9	19,4	21,6	23,9	26,2

<sup>-</sup> Carrying out hydraulic pressure or eddy-current testing.

Outside	Sn,	Wei	ight p	er m	eter,	kg, fo	r wa	ll thic	knes	s mm																			
diameter, mm	mm	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	60,
33,7	2,6	2,41	2,67	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
38,0	2,6	2,75	3,05	3,35	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
12,4	2,6	3,09	3,44	3,79	4,21	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
18,3	2,6	3,56	3,97	4,37	4,86	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
51,0	2,6	3,77	4,21	4,64	5,16	5,67	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
57,0	2,9	-	4,74	5,23	5,83	6,41	7,10	7,88	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
50,3	2,9	-	5,03	5,55	6,19	6,82	7,55	8,39	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
53,5	2,9	-	5,32	5,87	6,55	7,21	8,00	8,89	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
70,0	2,9	-	5,90	6,51	7,27	8,01	8,89	9,90	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
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	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
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	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
32,5	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	-	-	-	-	-	-	-	-	-	-	-	-	-
38,9	3,2	-	-	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	-	-	-	-	19,0	23,7	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	-	-	-	-	-	-	33,1	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	223	236
244,5	6,3	-	-	-	-	-	-	37,0	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	257	273
273,0	6,3	-	-	-	-	-	-	41,4	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	315
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	390
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	437

Upon agreement pipes are produced with outside diameter: 229, 254, 267, 298.5, 305, 330, 368, 377 mm. Sn - normal wall thickness

#### Lengths supplied:

- Random length;
- Fixed length;
- Multiple length from 6,0 up to 12 m.

Steel hardness:	
Steel grades	Chemical compound according to
P195TR1, P195TR2, P235TR1, P235TR2, P265TR1, P265TR2	DIN EN 10216-1

#### Obligatory requirements:

- Carrying out hydraulic pressure testing or electromagnetic non-destructive control

- Chamfering;
- Applying surface protection coating on pipes.

### Seamless steel tubes for operating under pressure Part II: Unalloyed steel tubes with specified high-temperature properties

### EN 10216-2 EN 10220

Application: for producing storage tanks of heat-resistant steels used in boiler-making, tool-making; for constructing pressure reservoirs and in machinery where up to 60  $0^{\circ}$  N temperature and high pressure are simultaneously used to have summarized load and special conditions

Dimen	sion	s and v	weight	for Col	d-form	ed										
Outside	Sn,	Weight	per mete	r, kg, for v	wall thick	ness mm										
diameter, mm	mm	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
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	-	-	-	-	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	-	-	-	-	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	-	-	-	-	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	-	-	-	-	9,56	10,6	11,8	13,2	14,7	16,0	17,9	19,4	21,6	23,9	26,2

Dimer	sion	s an	d w	eig	ht fo	or H	ot-r	olle	d																				
Outside	Sn,	Wei	ght p	er m	eter, l	kg, fo	r wal	l thic	knes	s mm																			
diameter, mm	mm	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	60,0
33,7	2,6	2,41	2,67	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
38,0	2,6	2,75	3,05	3,35	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
42,4	2,6	3,09	3,44	3,79	4,21	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
48,3	2,6	3,56	3,97	4,37	4,86	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
51,0	2,6	3,77	4,21	4,64	5,16	5,67	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
57,0	2,9	-	4,74	5,23	5,83	6,41	7,10	7,88	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
60,3	2,9	-	5,03	5,55	6,19	6,82	7,55	8,39	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
63,5	2,9	-	5,32	5,87	6,55	7,21	8,00	8,89	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
70,0	2,9	-	5,90	6,51	7,27	8,01	8,89	9,90	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
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	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
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	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
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	-	-	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	-	-	-	-	19,0	23,7	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	-	-	-

Dimen	sion	s an	ıd w	veig	ht f	or H	ot-r	olle	d (c	ont	inue	ed)																	
Outside	Sn,	Wei	ight p	er m	eter,	kg, fo	or wa	ll thic	knes	s mm	1																		
diameter, mm	mm	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	60,0
219,1	6,3	-	-	-	-	-	-	33,1	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	223	236
244,5	6,3	-	-	-	-	-	-	37,0	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	257	273
273,0	6,3	-	-	-	-	-	-	41,4	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	315
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	390
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	437

Upon agreement pipes are produced with outside diameter: 229, 254, 267, 298.5, 305, 330, 368, 377 mm. Sn - normal wall thickness

#### Lengths supplied:

- Random length;
- Fixed length;
- Multiple length from 6,0 up to 12 m.

Steel hardness:	
Steel grades	Chemical compound according to
P195GH, P235GH, P265GH, 16Mo3, 8MoB5-4, 14MoV6-3, 10CrMo5-5, 13CrMo4-5 10CrM09-10, 11CrMo9-10, 25CrMo4, 20MoNb6	DIN EN 10216-2

#### Obligatory requirements:

- Carrying out hydraulic pressure testing or electromagnetic non-destructive control;
- Carrying out flattening and expanding tests.

#### Upon customer's request it is possible to carry out:

- Chamfering;
- Applying surface protection coating on pipes;
- Carrying out bending impact tests;
- Tensile strength testing under high temperature.

## Circular steel tubes for mechanical structures and general machine-building

EN 10297-1 EN 10220 (DIN 2448)

Application: for mechanical structures and in general machinery

Dimen	sion	s and v	weight	for Col	d-form	ed										
Outside	Sn,	Weight	per mete	r, kg, for v	wall thick	ness mm										
diameter, mm	mm	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
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	-
50,3	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
53,5	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	-	-	-	-	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	-	-	-	-	8,38	9,31	10,4	11,5	12,8	13,9	15,5	16,8	18,7	20,6	22,5
6,1	2,9	-	-	-	-	8,77	9,74	10,8	12,1	13,4	14,6	16,3	17,7	19,6	21,7	23,7
32,5	3,2	-	-	-	-	9,56	10,6	11,8	13,2	14,7	16,0	17,9	19,4	21,6	23,9	26,2

Outside	Sn,	Wei	ght p	er m	eter,	kg, fo	r wal	l thic	kness	s mm																			
diameter, mm	mm	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	60,
33,7	2,6	2,41	2,67	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
38,0	2,6	2,75	3,05	3,35	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
42,4	2,6	3,09	3,44	3,79	4,21	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
48,3	2,6	3,56	3,97	4,37	4,86	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
51,0	2,6	3,77	4,21	4,64	5,16	5,67	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
57,0	2,9	-	4,74	5,23	5,83	6,41	7,10	7,88	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
60,3	2,9	-	5,03	5,55	6,19	6,82	7,55	8,39	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
63,5	2,9	-	5,32	5,87	6,55	7,21	8,00	8,89	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
70,0	2,9	-	5,90	6,51	7,27	8,01	8,89	9,90	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
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	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
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	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
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	-	-	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	-	-	-	-	19,0	23,7	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	-	-	-	-	-	-	33,1	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	223	23
244,5	6,3	-	-	-	-	-	-	37,0	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	257	273
273,0	6,3	-	-	-	-	-	-	41,4	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	31
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	390
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	437

Upon agreement pipes are produced with outside diameter: 229, 254, 267, 298.5, 305, 330, 368, 377 mm. Sn - normal wall thickness

#### Lengths supplied:

- Random length;
- Fixed length;
- Multiple length from 6,0 up to 12 m.

Steel hardness:	
Steel grades	Chemical compound according to
E235, E275, E 315, E 355, E470	EN 10297-1

- Bending impact test;
- Non-destructive testing;
- Hydraulic pressure testing.

### Medium-weight threaded steel tubes DIN 2440

Application: air, water, non-aggressive gas and fluid transportation under no more than 25 kgs/cm<sup>2</sup> pressure, for air and non-aggressive gas - under no more than 10 kgs/cm<sup>2</sup> pressure

Pipe dimensions and weight						
Nominal size, DN, mm	Outside diameter, mm	Wall thickness, mm	Weight per meter, kg/m	Pipe type	Pipe type	
				Seamless	Welded	
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	4,05 4,5	11,01 12,1	•	•	

Pipes supplied are black (non-zinc-coated) and non-threaded

#### Lengths supplied:

- From 4,0 up to 8,0 m. If agreed by the Parties, pipes having other length are possible to be supplied

Steel grades: St 33, S185.

#### Obligatory requirements:

- Carrying out hydraulic pressure or non-destructive testing;
- Carrying out bending impact test (for pipes with nominal inside diameter 50 mm and less);
- Carrying out flattening test (for welded pipes).

### Heavy-weight threaded steel tubes DIN 2441

Application: air, water, non-aggressive gas and fluid transportation under no more than 25 kgs/cm<sup>2</sup> pressure, for air and non-aggressive gas under no more than 10 kgs/cm<sup>2</sup> pressure

Pipe dimensions and weight						
Nominal size, DN, mm	Outside diameter, mm	Wall thickness, mm	Weight per meter, kg/m			
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			

Pipes supplied are black (non-zinc-coated) and non-threaded

Pipes are produced as seamless ones.

#### Lengths supplied:

- From 4,0 up to 8,0 m. If agreed by the Parties, pipes having other length are possible to be supplied

Steel grades: \$185.

- Carrying out hydraulic pressure or non-destructive testing;
- Carrying out bending impact test (for pipes with nominal inside diameter 50 mm and less);
- Carrying out flattening test (for welded pipes).

## Unalloyed steel tubes suitable for welding and threading

### **DIN EN 10255**

Application: for transporting fluids and general purpose

Dimensions and weight for Hot-rolled							
Nominal	Outside diameter		H, Heavy-weight		M, Medium-weight		
size, D (mm)	max. (mm)	min. (mm)	Wall thickness, T (mm)	Weight per meter, (kg/m)	Wall thickness, T (mm)	Weight per unit length (kg/m)	
33,7	34,2	33,3	-	-	3,2	2,41	
42,4	42,9	42,0	4,0	3,79	3,2	3,10	
48,3	48,8	47,9	4,0	4,37	3,2	3,56	
60,3	60,8	59,7	4,5	6,19	3,6	5,03	
76,1	76,6	75,3	4,5	7,93	3,6	6,42	
88,9	89,5	88,0	5,0	10,3	4,0	8,36	
114,3	115,0	113,1	5,4	14,5	4,5	12,2	

#### Lengths supplied:

- Standard length 6,0 or 6,4 m;
- Alternative length.

Steel hardness:	
Steel grades	Chemical compound according to
S 195 T	DIN EN 10255

- Carrying out electromagnetic non-destructive testing;
- Carrying out hydraulic pressure testing.

### Pipes for pipelines

### API 5L

Application: gas, water and oil transportation in both oil and natural gas

Nominal size	Outside diameter		Wall thickne	Wall thickness		Weight per length unit		Pipe type	
	inches	mm	inches	mm	lb/ft	Kg/m	Seamless	Welded	
.840	0.840	21,3	0.109	2,8	0.85	1,28		•	
050	1.050	26,7	0.133	2,9	1.13	1,70	•	•	
315	1.315	33,4	0.133	3,4	1.68	2,52	•	•	
660	1.660	42,2	0.140	3,6	2.27	3,43	•	•	
900	1.900	48,3	0.145	3,7	2.72	4,07	•	•	
3/8	2.375	60,3	0.109	2,8	2.64	3,97		•	
			0.125	3,2	3.01	4,51		•	
			0.141	3,6	3.37	5,03	•		
			0.154	3,9	3.66	5,42	•		
			0.172	4,4	4.05	6,07	•		
			0.188	4,8	4.40	6,57	•		
			0.218	5,5	5.03	7,43	•		
7/8	2.875	73,0	0.156	4,0	4.53	6,81	•		
			0.172	4,4	4.97	7,44	•		
			0.188	4,8	5.40	8,07	•		
			0.203	5,2	5.80	8,69	•		
			0.216	5,5	6.14	9,16	•		
			0.250	6,4	7.02	10,51	•		
			0.276	7,0	7.67	11,39	•		
1/2	3.500	88,9	0.109	2,8	3.95	5,95		•	
			0.125	3,2	4.51	6,76		•	
			0.141	3,6	5.06	7,57			
			0.156	4,0	5.58	8,37	•		
			0.172	4,4	6.12	9,17	•		
			0.188	4,8	6.66	9,95	•		
			0.216	5,5	7.58	11,31	•		
			0.250	6,4	8.69	13,02	•		
			0.281	7,1	9.67	14,32	•		
			0.300	7,6	10.26	15,24	•		
	4.000	101,6	0.109	2,8	4.53	6,82		•	
			0.125	3,2	5.18	7,76		•	
			0.141	3,6	5.52	8,70		•	
			0.156	4,0	6.41	9,63	•		
			0.172	4,4	7.04	10,55	•		
			0.188	4,8	7.66	11,46	•		
			0.226	5,7	9.12	13,48	•		
			0.250	6,4	10.02	15,02	•		
			0.281	7,1	11.17	16,55	•		
			0.318	8,1	12.52	18,68	•		
1/2	4.500	114,3	0.125	3,2	5.85	8,78		•	
			0.141	3,6	6.57	9,83		•	
			0.156	4,0	7.24	10,88			
			0.172	4,4	7.96	11,92			
			0.188	4,8	8.67	12,96			
			0.203	5,2	9.32	13,99			
			0.219	5,6	10.02	15,01			
			0.237	6,0	10.80	16,02	•		
			0.250	6,4	11.36	17,03	•		
			0.281	7,1	12.67	18,77	•		
			0.312	7,9	13.97	20,73	•		
			0.312	8,6	15.00	22,42			
			0.438	11,1	19.02	28,25			

Pipe dimensions and weight (continued)								
Nominal size	Outside diamete	er	Wall thickness		Weight per leng	th unit	Pipe type	
	inches	mm	inches	mm	lb/ft	Kg/m	Seamless	Welded
5 <sup>9</sup> / <sub>16</sub>	5.563	141,3	0.258	6,6	14.63	21,92	•	
			0.281	7,1	15.87	23,50	•	
			0.312	7,9	17.51	25,99	•	
			0.344	8,7	19.19	28,45	•	
			0.375	9,5	20.80	30,88	•	
			0.500	12,7	27.06	40,28	•	
6 %	6.625	168,3	0.203	5,2	13.94	20,91		•
			0.219	5,6	15.00	22,47		•
			0.250	6,4	17.04	25,55	•	•
			0.280	7,1	18.99	28,22	•	•
			0.312	7,9	21.06	31,25	•	
			0.344	8,7	23.10	34,24	•	
			0.375	9,5	25.05	37,20	•	
			0.432	11,0	28.60	42,67	•	
			0.500	12,7	32.74	48,73	•	
8 %	8.625	219,1	0.203	5,2	18.28	27,43		•
			0.219	5,6	19.68	29,48		•
			0.250	6,4	22.38	33,57		•
			0.277	7,0	24.72	36,61	•	•
			0.312	7,9	27.73	41,14	•	•
			0.322	8,2	28.58	42,65	•	•
			0.344	8,7	30.45	45,14	•	
			0.375	9,5	33.07	49,10	•	
			0.438	11,1	38.33	56,94	•	
			0.500	12,7	43.43	64,64	•	
10 3/4	10.750	273,1	0.203	5,2	22.89	34,35		•
			0.219	5,6	24.65	36,94		•
			0.250	6,4	28.06	42,09		•
			0.279	7,1	31.23	46,57		•
			0.307	7,8	34.27	51,03	•	•
			0.344	8,7	38.27	56,72	•	
			0.365	9,3	40.52	60,50	•	
			0.438	11,1	48.28	71,72	•	
			0.500	12,7	54.79	81,55	•	
12 ¾	12,750	323,9	0.219	5,6	29.34	43,96		•
			0.250	6,4	33.41	50,11		•
			0.281	7,1	37.46	55,47		•
			0.312	7,9	41.48	61,56		•
			0.330	8,4	43.81	65,35	•	•
			0.344	8,7	45.62	67,62	•	•
			0.375	9,5	49.61	73,65	•	•
			0.406	10,3	53.57	79,65	•	
			0.438	11,1	57.65	85,62	•	
			0.500	12,7	65.48	97,46	•	

#### Pipe dimensions and weight (continued) Nominal size Outside diameter Wall thickness Weight per length unit Pipe type inches inches lb/ft Seamless Welded mm mm Kg/m 14.000 355,6 0.219 32.26 48,33 14 5,6 0.250 36.75 55,11 6,4 0.281 7,1 41.21 61,02 0.312 7,9 45.65 67,74 0.344 50.22 74,42 8,7 0.375 9,5 54.62 81,08 16.000 406,4 0.219 36.95 16 5,6 55,35 42.09 63,13 6,4 0.281 7,1 47.22 69,91 0.312 77,63 7,9 52.32 0.344 8,7 57.57 85.32 9,5 62.64 92,98 0.375

Pipe dimensions and weight for PSL1 and PSL2.

#### Lengths supplied:

- From 20 ft (6,0 m) up to 40 ft (12,0 m).

Steel hardness for seamless tubes:		
Quality group	Steel grades	Chemical compound according to
PSL1	A25, A, B, X42, X46, X52, X56, X60	API 5L
PSL2	B, X42, X46, X52, X56	

Steel hardness for welded tubes with diameter 168,3- 406,4 mm:				
Quality group	Steel grades	Chemical compound according to		
PSL1	A, B, X42, X46, X52	API 5L		

Pipes are supplied heat-treated within the whole volume

Steel hardness for pipes with diameter 1016 mm:				
Quality group	Steel grade	Chemical compound according to		
PSL1, PSL2	X46, X52, X56, X60, X65	API 5L		

Pipes are produced non-heat-treated within the whole volume.

#### Obligatory requirements:

- Carrying out hydraulic pressure testing;
- Carrying out bending impact test (for PSL2);
- Carrying out non-destructive control testing (for PSL2);
- Supplying normalized carbon equivalent pipes (for PSL2);
- Carrying out flattening test (for welded pipes);
- Carrying out weld's quality non-destructive control (for welded pipes);
- Carrying out chemical composition control;
- Chamfering.

#### Upon customer's request it is possible to carry out:

- Carrying out non-destructive testing (for PSL1).

## Seamless carbon steel pipes for high-temperature service tools

### ASTM A 106 ANSI/ASME B36.10M

Application: for producing structures, as well as for steam, water, gas and air pipelines, and also in general machine-building & tool-making

Nominal size	Outside diam	eter	Wall thicknes	SS	Weight per l	ength unit	Weight class <sup>3</sup>
	inches	mm	inches	mm	lb/ft	kg/m	
	1.315	33,4	0.133	3,38	1.68	2,50	STD
1/4	1.660	42,2	0.140	3,56	2.27	3,39	STD
1/2	1.900	48,3	0.145	3,68	2.72	4,05	STD
	2.375	60,3	0.141	3,58	3.36	5,01	
			0.154	3,91	3.66	5,44	STD
			0.172	4,37	4.05	6,03	
			0.188	4,78	4.39	6,54	
			0.218	5,54	5.03	7,48	XS
1/2	2.875	73,0	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	5.80	8,63	STD
			0.216	5,49	6.13	9,14	
			0.250	6,35	7.01	10,44	
			0.276	7,01	7.67	11,41	XS
			0.375	9,53	10.01	14,92	
	3.500	88,9	0.141	3,58	5.06	7,53	
			0.156	3,96	5.58	8,29	
			0.172	4,37	6.11	9,11	
			0.188	4,78	6.66	9,92	
			0.216	5,49	7.58	11,29	STD
			0.250	6,35	8.69	12,93	
			0.281	7,14	9.67	14,40	
			0.300	7,62	10.26	15,27	XS
			0.438	11,13	14.32	21,35	
1/2	4.000	101,6	0.156	3,96	6.41	9,53	
		101,5	0.172	4,37	7.03	10,48	
			0.188	4,78	7.66	11,41	
			0.226	5,74	9.12	13,57	STD
			0.250	6,35	10.02	14,92	
			0.281	7,14	11.17	16,63	
			0.318	8,08	12.52	18,63	XS
	4.500	114,3	0.172	4,37	7.95	11,85	
	1.500	111,5	0.188	4,78	8.67	12,91	
			0.203	5,16	9.32	13,89	
			0.219	5,56	10.02	14,91	
			0.237	6,02	10.80	16,07	STD
			0.250	6,35	11.36	16,90	
			0.230	7,14	12.67	18,87	
			0.281	8,56	14.98	22,32	XS
			0.438	11,13	19.00	28,32	
	5 542	1/1 2	0.531	13,49	22.51	33,54	 STD
	5.563	141,3	0.258	6,55	14.62	21,77	STD
			0.375	9,53	20.78	30,97	XS
			0.500 0.625	12,70 15,88	27.04 32.96	40,28 49,11	

Nominal size	Outside diameter		Wall thicknes	Wall thickness		Weight per length unit	
	inches	mm	inches	mm	lb/ft	kg/m	Weight class
	6.625	168,3	0.250	6,35	17.02	25,36	
			0.280	7,11	18.97	28,26	STD
			0.312	7,92	21.04	31,32	
			0.344	8,74	23.08	34,39	
			0.375	9,52	25.03	37,28	
			0.432	10,97	28.57	42,56	XS
			0.562	14,27	36.39	54,20	
			0.719	18,26	45.35	67,56	
			0.864	21,95	53.16	79,22	XXS
	8.625	219,1	0.250	6,35	22.36	33,31	
			0.277	7,04	24.70	36,81	
			0.312	7,92	27.70	41,24	
			0.322	8,18	28.55	42,55	STD
			0.344	8,74	30.42	45,34	
			0.375	9,53	33.04	49,25	
			0.406	10,31	35.64	53,08	
			0.438	11,13	38.30	57,08	
			0.500	12,70	43.39	64,64	XS
			0.594	15,09	50.95	75,92	
			0.719	18,26	60.71	90,44	
			0.812	20,62	67.76	100,92	
			0.875	22,23	72.42	100,92	XXS
			0.906	23,01	74.69	111,27	
	10.750	273,0					
)	10.750	2/3,0	0.307	7,80	34.24 38.23	51,03	
			0.344	8,74	40.48	56,98	 CTD
				9,27		60,31	STD
			0.500	12,70	54.74	81,55	XS
			0.594	15,09	64.43	96,01	
			0.719	18,26	77.03	114,70	
			0.844	21,44	89.29	133,09	
			1.000	25,40	104.13	155,15	XXS
			1.125	28,58	115.64	172,21	
	12.750	323,8	0.330	8,38	43.77	65,20	
			0.344	8,74	45.58	67,93	
			0.375	9,53	49.56	73,88	STD
			0.406	10,31	53.52	79,73	
			0.438	11,13	57.59	85,84	
			0.500	12,70	65.42	97,46	XS
			0.562	14,27	73.15	108,92	
			0.688	17,48	88.63	132,04	
			0.844	21,44	107.32	159,86	
			1.000	25,40	125.49	186,91	XXS
			1.125	28,58	139.67	208,14	
			1.312	33,32	160.27	238,68	
	14.000	355,6	0.375	9,53	54.57	81,33	STD
			0.438	11,13	63.44	94,55	
			0.594	15,09	85.05	126,71	
			0.750	19,05	106.13	158,10	
			0.938	23,83	130.85	194,96	
			1.094	27,79	150.79	224,65	
			1.250	31,75	170.21	253,56	
			1.406	35,71	189.11	281,70	

<sup>\*</sup> STD – standard weight class

XS – extra-standard weight class (high durability)

XXS – double extra-standard weight class (doubled durability)

#### Length supplied:

<sup>-</sup> From 20 ft up to 40 ft (from 6,0 up to 12,0 m).

Steel hardness:	
Steel grades	Chemical compound according to
A, B, C	ASTM A106

#### Obligatory requirements:

- Carrying out hydraulic pressure or non-destructive testing;
- Carrying out flattening test.

#### Upon customer's request it is possible to carry out:

- Non-destructive testing.

## Hot-dipped zinc-coated & black welded and seamless pipes

ASTM A 53/A 53M ANSI/ASME B36.10M

Application: for producing steam, water, gas and air pipelines

Nominal size,	Outside diame	eter	Wall thickne	SS	Weight per	length unit	Weight class*	Pipe type	
inches	inches	mm	inches	mm	lb/ft	kg/m	inches	mm	inches
1/2	0.840	21,3	0.109	2,77	0.85	1,27	STD		•
3/4	1.050	26,7	0.113	2,87	1.13	1,69	STD		•
1	1.315	33,4	0.133	3,38	1.68	2,50	STD	•	•
1 1/4	1.660	42,2	0.140	3,56	2.27	3,39	STD	•	•
1 ½	1.900	48,3	0.145	3,68	2.72	4,05	STD	•	•
2	2.375	60,3	0.141	3,58	3.36	5,01		•	
			0.154	3,91	3.66	5,44	STD	•	•
			0.172	4,37	4.05	6,03		•	
			0.188	4,78	4.39	6,54		•	
			0.218	5,54	5.03	7,48	XS	•	
2 ½	2.875	73,0	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	5.80	8,63	STD	•	
			0.216	5,49	6.13	9,14		•	
			0.250	6,35	7.01	10,44		•	
			0.276	7,01	7.67	11,41	XS	•	
			0.375	9,52	10.01	14,90		•	
3	3.500	88,9	0.125	3,18	4.51	6,72			•
			0.141	3,58	5.06	7,53		•	
			0.156	3,96	5.58	8,29		•	•
			0.172	4,37	6.11	9,11		•	
			0.188	4,78	6.66	9,92		•	
			0.216	5,49	7.58	11,29	STD	•	
			0.250	6,35	8.69	12,93		•	
			0.281	7,14	9.67	14,40		•	
			0.300	7,62	10.26	15,27	XS	•	
			0.438	11,13	14.32	21,35		•	
			0.600	15,24	18.58	27,68	XXS	•	

Nominal size,	Outside diam	eter	Wall thickn	ess	Weight per	length unit	Weight class*	Pipe type	
nches	inches	mm	inches	mm	lb/ft	kg/m		seamless	welded
1/2	4.000	101,6	0.125	3,18	5.17	7,72			•
			0.156	3,96	6.41	9,53		•	•
			0.172	4,37	7.03	10,48		•	
			0.188	4,78	7.66	11,41		•	
			0.226	5,74	9.12	13,57	STD	•	
			0.250	6,35	10.02	14,92		•	
			0.281	7,14	11.17	16,63		•	
			0.318	8,08	12.52	18,63	XS	•	
	4.500	114,3	0.125	3,18	5.84	8,71			•
			0.156	3,96	7.24	10,78			•
			0.172	4,37	7.95	11,85		•	
			0.188	4,78	8.67	12,91		•	
			0.203	5,16	9.32	13,89		•	
			0.219	5,56	10.02	14,91		•	
			0.237	6,02	10.80	16,07	STD	•	
			0.250	6,35	11.36	16,90		•	
			0.281	7,14	12.67	18,87		•	
			0.312	7,92	13.98	20,78		•	
	5.563	141,3	0.258	6,55	14.62	21,77	STD	•	
			0.281	7,14	15.85	23,62		•	
			0.312	7,92	17.50	26,05		•	
			0.344	8,74	19.17	28,57		•	
			0.375	9,52	20.78	30,97	XS	•	
			0.500	12,70	27.04	40,28		•	
			0.625	15,88	32.96	49,11		•	
			0.750	19,05	38.55	57,43	XXS	•	
	6.625	168,3	0.188	4,78	12.92	19,27			•
			0.219	5,56	14.98	22,31			•
			0.250	6,35	17.04	25,36			•
			0.280	7,11	18.97	28,26	STD	•	•
			0.312	7,92	21.04	31,32		•	
			0.344	8,74	23.08	34,39		•	
			0.375	9,52	25.03	37,28		•	
			0.432	10,97	28.57	42,56	XS	•	
			0.562	14,27	36.39	54,20		•	
			0.719	18,26	45.35	67,56		•	
			0.864	21,95	53.16	79,22	XXS	•	

lominal size,	Outside diam	eter	Wall thickne	ss	Weight per le	ength unit	Weight class*	s* Pipe type		
iches	inches	mm	inches	mm	lb/ft	kg/m		seamless	welded	
	8.625	219,1	0.203	5,16	18.26	27,22			•	
			0.219	5,56	19.66	29,28			•	
			0.250	6,35	22.36	33,31			•	
			0.277	7,04	24.70	36,81		•	•	
			0.312	7,92	27.70	41,24		•	•	
			0.322	8,18	28.55	42,55	STD	•		
			0.344	8,74	30.42	45,34		•		
			0.375	9,53	33.04	49,25		•		
			0.406	10,31	35.64	53,08		•		
			0.438	11,13	38.30	57,08		•		
			0.500	12,70	43.39	64,64	XS	•		
			0.594	15,09	50.95	75,92		•		
			0.719	18,26	60.71	90,44		•		
			0.812	20,62	67.76	100,92		•		
			0.875	22,23	72.42	107,92	XXS	•		
			0.906	23,01	74.69	111,27		•		
)	10.750	273,0	0.203	5,16	22.87	34,09			•	
			0.219	5,56	24.63	36,68			•	
			0.250	6,35	28.04	41,77			•	
			0.279	7,09	31.20	46,51			•	
			0.307	7,80	34.24	51,03			•	
			0.365	9,27	40.48	60,31		•		
			0.438	11,13	48.24	71,90		•		
			0.500	12,70	54.74	81,55		•		
			0.594	15,09	64.43	96,01	STD	•		
			0.719	18,26	77.03	114,75		•		
			0.844	21,44	89.29	133,06	XS	•		
			1.000	25,40	104.13	155,15		•		
			1.125	28,58	115.64	172,33		•		
			0.844	21,44	89.29	133,06		•		
			1.000	25,40	104.13	155,15	XXS	•		
			1.125	28,58	115.64	172,33		•		
2	12.750	323,8	0.219	5,56	29.31	43,65				
			0.250	6,35	33.38	49,73			•	
			0.281	7,14	37.42	55,77			•	
			0.312	7,92	41.45	61,71				
			0.330	8,38	43.77	65,20		•	•	
			0.344	8,74	45.58	67,93		•	•	
			0.375	9,53	49.56	73,88	STD	•	•	
			0.406	10,31	53.52	79,73		•		
			0.438	11,13	57.59	85,84		•		
			0.500	12,70	65.42	97,46	XS	•		
			0.562	14,27	73.15	108,96		•		
			0.688	17,48	88.63	132,08		•		
			0.844	21,44	107.32	159,91		•		
							 VVC			
			1.000	25,40	125.49	186,97	XXS	•		
			1.125 1.312	28,58 33,32	139.67 160.27	208,14		•		

#### Pipe dimensions and weight (continued) Outside diameter Wall thickness Weight per length unit Weight class\* Nominal size, Pipe type inches inches inches lb/ft kg/m seamless welded mm mm 14.000 355,6 32.23 47,99 14 0.219 5,56 0.250 6,35 36.71 54,69 0.281 7,14 41.17 61,35 0.312 7,92 45.61 67,90 0.344 8,74 50.17 74,76 0.375 54.57 9,53 81,33 STD 0.438 63.44 94,55 11,13 0.469 11,91 67.78 100,94 0.500 12,70 72.09 107,39 XS 0.594 15,09 85.05 126,71 0.750 19,05 106.13 158,10 0.938 23,83 130.85 194,96 1.094 27,79 150.79 224,65 1.250 31,75 170.21 253,56 2.000 50,80 256.32 381,83 2.125 53,98 269.50 401,50 16.000 16 406,4 0.219 5,56 36.94 54,86 42.05 6,35 62,64 0.281 7,14 47.17 70,30 0.312 7,92 52.27 77,83 0.344 8,74 57.52 85,71 9,52 62.58 93,27 STD

Pipes supplied are black (non-zinc-coated) and non-threaded

- \* STD standard weight class
  - XS extra-standard weight class (high durability)
  - XXS double extra-standard weight class (doubled durability)

#### Length supplied:

- From 20 ft up to 40 ft (from 6,0 up to 12,0 m).

Steel hardness:	
Steel grades	Chemical compound according to
A, B	ASTM A53

#### Obligatory requirements:

- Carrying out chemical composition control;
- Carrying out hydraulic pressure or non-destructive testing;
- Carrying out hydraulic pressure testing or weld's quality non-destructive control (for welded pipes);
- Carrying out bending impact test (for pipes with nominal diameter less or equal to 2 inches);
- Carrying out flattening test (for pipes with nominal diameter more than 2 inches);
- Chamfering (for pipes with outside diameter no less than 60,3 mm and with wall thickness no less than 5 mm, unless other one is stipulated by the contract).

#### Upon customer's request it is possible to carry out:

- Non-destructive testing.

## Welded circular unalloyed steel tubes without special requirements

DIN 1615 DIN 2458

Application: for general purpose structures without hydraulic pressure load

Outside diameter,	Weigl	nt per r	neter, k	g, for v	vall thi	ckness	mm														
mm	1,4	1,6	1,8	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,
17,2	0,546	0,616	0,684	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
21,3	0,687	0,777	0,866	0,952	1,08	1,20	1,32	-	-	-	-	-	-	-	-	-	-	-	-	-	-
26,9	0,880	0,998	1,11	1,23	1,40	1,56	1,72	-	-	-	-	-	-	-	-	-	-	-	-	-	-
3,7	1,12	1,27	1,42	1,56	1,78	1,99	2,20	2,41	2,67	-	-	-	-	-	-	-	-	-	-	-	-
12,4	1,42	1,61	1,80	1,99	2,27	2,55	2,82	3,09	3,44	3,79	-	-	-	-	-	-	-	-	-	-	-
18,3	1,62	1,84	2,06	2,28	2,61	2,93	3,25	3,56	3,97	4,37	-	-	-	-	-	-	-	-	-	-	-
51,0	-	-	-	2,42	2,76	3,10	3,44	3,77	4,21	4,64	-	-	-	-	-	-	-	-	-	-	-
57,0	-	-	-	2,71	3,10	3,49	3,87	4,25	4,74	5,23	-	-	-	-	-	-	-	-	-	-	-
50,3	2,03	2,32	2,60	2,88	3,29	3,70	4,11	4,51	5,03	5,55	-	-	-	-	-	-	-	-	-	-	-
76,1	-	-	-	-	-	4,71	5,24	5,75	6,44	7,11	-	-	-	-	-	-	-	-	-	-	-
38,9	-	-	-	-	-	-	-	6,76	7,57	8,38	-	-	-	-	-	-	-	-	-	-	-
101,6	-	-	-	-	-	-	-	7,77	8,70	9,63	10,8	-	-	-	-	-	-	-	-	-	-
108,0	-	-	-	-	-	-	-	8,27	9,27	10,3	11,5	-	-	-	-	-	-	-	-	-	-
114,3	-	-	-	-	-	-	-	8,77	9,83	10,9	12,2	-	-	-	-	-	-	-	-	-	-
59,0	-	-	-	-	-	-	-	-	-	-	-	19,0	21,2	23,7	26,6	-	-	-	-	-	-
68,3	-	-	-	-	-	-	-	-	-	-	-	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	-	-	-	-
106,4	-	-	-	-	-	-	-	-	-	-	-	-	55,4	62,2	69,9	78,6	86,3	-	-	-	-
1016,0	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	248	273	309	351

#### Lengths supplied:

- Technological length;
- Constant length;
- Precise length.

Steel hardness: Steel grade St.33

## Welded structural hollow sections for metal structures

EN 10219-1 EN 10219-2

Application: on-ground and underground construction, bridge and crane building

Outside	Weight	t per me	ter, kg, f	or wall t	hickness	s mm																
diameter, 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	Pipe dimensions and weight for shaped pipes										
Dimension, mm		Weight per meter, kg, for	wall thickness mm								
A	В	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						

Range according to DIN EN 10219-2

Pipe	dimensio	ons and weight o	of square pipes are	manufactured upo	on agreement	
Dimensi	on, mm	Weight per mete	er, kg, for wall thickness n	nm		
Α	В	2,0	2,5	3,0	3,5	4,0
17	17	0,888	1,05	-	-	-
20	20	1,075	1,29	-	-	-
25	25	1,39	1,68	1,95	-	-
30	30	1,70	2,07	2,42	-	-
35	35	2,02	2,46	2,89	-	-
40	40	2,33	2,85	3,36	3,85	4,31
45	45	2,65	3,25	3,83	4,39	4,93
50	50	2,96	3,64	4,31	4,94	5,56
60	60	3,59	4,43	5,25	6,04	6,82
70	70	4,22	5,21	6,19	7,14	8,07
80	80	4,84	6,00	7,13	8,24	9,33
90	90	5,47	6,78	8,07	9,34	10,59

		w	1 ( 11.1.1			
Dimensio			r, kg, for wall thickness r			
A	В	2,0	2,5	3,0	3,5	4,0
25	28	1,49	1,80	-	-	-
30	20	1,39	1,68	-	-	-
30	25	1,55	1,88	-	-	-
35	20	1,55	1,88	-	-	-
35	30	1,86	2,27	-	-	-
40	20	1,70	2,07	-	-	-
40	25	1,86	2,27	-	-	-
40	28	1,95	2,39	-	-	-
40	30	2,02	2,47	2,89	-	-
45	20	1,86	2,27	2,66	-	-
50	25	2,17	2,66	3,13	3,57	3,99
50	28	2,27	2,78	3,27	3,74	4,18
50	30	2,32	2,86	3,36	3,85	4,31
50	40	2,65	3,25	3,83	4,39	4,93
50	45	2,80	3,45	4,07	4,67	5,25
60	28	2,58	3,17	3,74	4,29	4,81
60	30	2,65	3,25	3,83	4,39	4,93
60	35	2,80	3,45	4,07	4,67	5,25
60	40	2,96	3,64	4,30	4,94	5,56
80	40	3,59	4,43	5,25	6,04	6,82
80	60	4,22	5,21	6,19	7,14	8,07
100	40	-	-	6,19	7,14	8,07
100	60	-	-	7,13	8,24	9,33
100	80	-	-	8,18	9,50	10,81

Lengths supplied From 6,0 up to 12,0 m.

Steel hardness:	
Steel grades	Chemical compound according to
S235JRH, S275J0H, S275J2H, S355J0H, S355J2H	EN 10219-1

- Chemical composition control;
- Weld's non-destructive testing;
- Tensile strength test;
- Bending impact test.

## Unalloyed steel tubes with specified room temperature properties

EN 10217-1

Application: for using under pressing load

Dimer	nsions a	nd weig	ght for V	Velded 1	ubes									
Outside	Weight p	er meter, k	g, for wall	thickness,	mm									
diameter, 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
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

#### Length supplied:

- 4,0-16 m.

Steel hardness:	
Steel grades	Chemical compound according to
P195TR1, P235TR1, P265TR1	EN 10217-1

- Chemical composition control;
- Extending test;
- Flattening test;
- Carrying out weld's non-destructive testing;
- Carrying out hydraulic pressure testing.

## Welded steel pipes for oil & gas pipelines EN 10208-1 (instead of DIN 2458/1626)

Application: for constructing pipelines to transport fuel materials

Dimer	sions a	nd weig	ght											
Outside		er meter,	kg, for wall	thickness,	, mm									
diameter, 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
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

#### Length supplied:

- 6,0-12,0 m.

Steel hardness:	
Steel grades	Chemical compound according to
L210GA, L235GA, L245GA, L290GA, L360GA	EN 10208-1

- Chemical composition control;
- Carrying out weld's non-destructive testing;
- Extending test;
- Bending impact test;
- Carrying out hydraulic pressure testing.

### Hot-rolled seamless steel tubes

### GOST 8731-74 GOST 8732-78

Application: for constructing pipelines, producing car elements and mechanisms, structure details, columns, long-well beams, fundamental piles, anti-landslip bearings, in road building, etc.

Outside	Weig	ht per i	meter,	kg, for	wall th	ckness	mm															
diameter, 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	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
3,7	2,27	2,41	2,61	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
8	2,59	2,75	2,98	3,35	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
2	2,89	3,06	3,32	3,75	4,16	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
2,4	2,91	3,09	3,36	3,79	4,20	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
5	3,11	3,30	3,58	4,04	4,49	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
8,3	3,35	3,56	3,87	4,37	4,86	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
0	3,48	3,69	4,01	4,54	5,05	5,55	6,04	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
51	3,55	3,77	4,10	4,64	5,16	5,67	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
57	-	-	4,62	5,23	5,83	6,41	6,99	7,55	8,10	-	-	-	-	-	-	-	-	-	-	-	-	-
50	-	-	4,88	5,52	6,16	6,78	7,39	7,99	-	-	-	-	-	-	-	-	-	-	-	-	-	-
50,3	-	-	4,90	5,55	6,19	6,82	7,43	8,03	-	-	-	-	-	-	-	-	-	-	-	-	-	-
3,5	-	-	5,18	5,87	6,55	7,21	7,87	8,51	-	-	-	-	-	-	-	-	-	-	-	-	-	-
0	-	-	5,74	6,51	7,27	8,02	8,75	9,47	-	-	-	-	-	-	-	-	-	-	-	-	-	-
3	-	-	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	18,05	-	-	-	-
6	-	-	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	18,94	-	-	-	-
13	-	-	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,
19	-	-	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		22,70	24,37	25,90	27,37	28,
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,
02	-	-	-	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		32,18	33,
08	-	-	-	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,
14	-	-	-	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,
21	-	-	-	-	-	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,
27	-	-	-	-	-	15,04	16,48	17,90	19,32		22,10	23,48	24,84	26,19	27,53	28,85	31,47	34,03	36,55	39,01	41,43	43,
33	-	-	-	-	-	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,
40	-	-	-	-	-	16,65	18,24	19,83	21,40		24,51	26,04	27,57	29,08	30,57	32,06	35,00	37,88	40,72	43,50	46,24	48,
46	-	-	-	-	-	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,
52	-	-	-	-	-	18,13	19,87				26,73	28,41	30,08	31,74	33,39	35,05	38,25	41,43	44,56		50,68	53,
59	-	-	-	-	-											36,75						
80									25,89 27,81		31,91					38,97 41,93				53,17		
94										32,28		,	38,89			45,38				62,15		
.03						_				33,84			40,77			47,60			,	65,25	,	-
19	_	_	_	_	_	_	_			36,60		41,63				51,54				70,78		
45	_	-	-		_	_	-	-	-	41,09	43,93		49,58	52,38	55,17		63,48			79,76		
73	_	_	_	_	_	_	_	_	_	45,92		,	55,45			64,86				89,42		
99	_					_	-			-3,72	-		60,90			71,27						
25	_	-	-	-	_	-	-	_	_	_	_	62,54	66,35			77,68						
51												- 02,34	-	75,91		84,10				116,35		
377																90,51					133,91	

#### Pipe dimensions and weight (continued) Outside Weight per meter, kg, for wall thickness mm diameter 17,0 18,0 19,0 20,0 22,0 24,0 25,0 26,0 28,0 30.0 32,0 35.0 36.0 38,0 42,0 45,0 48,0 56,0 60,0 mm 83 27 67 89 30,19 32,80 36,35 34,18 35,61 36,99 39,61 42,02 95 32.70 102 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 44,51 46,36 49,92 54,87 56,43 59,39 49,82 121 43.60 45.72 47.79 53,71 57.41 59.19 60.91 64.22 127 46,12 48,39 52,78 56,97 60,96 62,89 64,76 68,36 55,74 64,51 76,20 133 48,63 51,05 53,42 60,22 66,58 68.61 72,51 79,71 140 54,16 56,70 59,19 64,02 70,90 73,10 77,34 81,38 88,88 90,63 62,15 56,82 59,51 67,28 76,94 81,48 85,82 89,97 93,91 95,81 146 54.08 72.21 74.60 97.66 75,76 152 59,48 62,32 78,30 80,79 90,26 94,70 98,94 100,99 102,99 56,60 68,56 74,33 109,20 159 59,53 62,59 65,60 79,90 82,62 85,28 90,46 95,44 100,22 104,81 107,03 168 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 93,32 104,20 107,72 114,63 | 121,34 | 127,85 | 134,16 | 137,24 | 140,28 | 146,19 | 151,92 | 157,44 | 165,36 105,95 109,74 | 113,49 | 120,84 | 127,99 | 134,95 | 141,71 | 145,01 | 148,27 154,63 160,79 166,76 175,34 183,48 188,66 82,12 86,22 90,26 98,20 203 77.98 219 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 | 84,69 130,80 | 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 | 240,45 100,77 | 105,90 | 110,98 | 120,99 | 245 95,59 273 107,33 | 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 | 255,49 | 266,20 | 281,88 | 297,12 | 307,04 | 335,59 | 353,65 129,13 | 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 | 392,12 140,03 | 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 | 430,59 351 150,93 | 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 | 469,06 377

Manufacturing of pipes not specified in the table is possible.

#### Lengths supplied:

- Random length from 4 up to 12,5 m;
- Fixed length within a random length limit;
- Multiple fixed length within a random length limit.

Steel hardness:	
Steel grades	Chemical compound according to
St2sp, St4sp, St5sp, St6sp	GOST 380
10, 20, 35, 45, 50	GOST 1050
15X, 15XA, 18XГ, 20X, 30X, 35X, 40X, 45X, 30XГСА, 15XМ, 15XФ, 20XМ, 30XМ, 35XМ, 38XA, 30XМA, 33XС, 40XФА, 40XМФА, 38XМЮА, 12XМ3А, 40XН2МА, 10Г2, 20Г, 30Г, 30Г2, 35Г2 , 50Г, 18ХГТ, 20ХН, 40ХН, 45ХН, 20ХГНТР, 19ХГН, 10ХСНД12ХН2, 12ХН3А, 20ХН3А, 20Х2Н4А, 30ХН3А, 30ХГСА, 30ХГСН2А, 38Х2Н2МА, 18Х2Н4МА, 38Х2МЮА	GOST 4543
09Г2С, 09Г2СД, 10Г2С1, 10Г2Б, 10ХСНД, 14Г2АФ, 17Г1С, 15ГС	GOST 19281

Steel Grade "sp" is killed steel Steel Grade "ps" is semi-killed steel Steel Grade "kp" is boiled steel

The plant guarantees that tubes operating under pressure have ability to sustain hydraulic pressure testing

- Hydraulic pressure or non-destructive testing;
- One or some tests on: bending, expanding, butting and flattening (for pipes of steel grades 10, 20 and 15XM);
- Bending impact test;
- Chamfering (for pipes with wall thickness up to 20 mm).
- Heat treatment;
- Macrostructure control (for pipes with wall thickness 12 mm and more).

### Cold-formed seamless steel tubes

GOST 8733-74 GOST 8734-75

Application: for making pipelines, structures, car details, etc.

Outside	Weigh	t per me	eter, kg, 1	or wall t	hickness	s mm												
diameter, nm	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
6	-	-	2,805	3,175	3,496	3,822	4,137	4,439	4,728	5,006	5,271	5,524	-	-	-	-	-	-
8	2,441	2,588	2,978	3,354	3,718	4,069	4,408	4,735	5,049	5,352	5,641	5,919	6,184	6,437	-	-	-	-
0	2,737	2,904	3,150	3,551	3,940	4,316	4,680	5,031	5,369	5,697	6,011	6,313	6,603	6,881	-	-	-	-
2	2,885	3,062	3,323	3,749	4,162	4,562	4,951	5,327	5,690	6,042	6,381	6,708	7,023	7,324	-	-	-	-
5	3,107	3,299	3,582	4,044	4,495	4,932	5,358	5,771	6,171	6,560	6,936	7,300	7,651	7,990	8,317	8,632	-	-
8	3,329	3,535	3,841	4,340	4,827	5,302	5,765	6,215	6,652	7,078	7,491	7,892	8,280	8,656	9,020	9,371	-	-
0	-	-	4,014	4,538	5,019	5,549	6,036	6,511	6,972	7,423	7,861	8,286	8,699	9,110	9,489	9,865	10,580	11,2
1	-	-	4,100	4,636	5,160	5,672	6,172	6,659	7,132	7,596	8,046	8,484	8,909	9,322	9,723	10,111	10,851	11,5
3	-	-	4,273	4,834	5,382	5,919	6,443	6,955	7,453	7,941	8,416	8,878	9,328	9,766	10,191	10,604	11,394	12,1
4	-	-	4,359	4,932	5,493	6,042	6,578	7,103	7,613	8,114	8,601	9,075	9,538	9,988	10,426	10,851	11,665	12,4
6	-	-	4,532	5,130	5,715	6,289	6,850	7,398	7,934	8,459	8,971	9,470	9,957	10,432	10,894	11,345	12,207	13,0
7	-	-	4,618	5,228	5,826	6,412	6,985	7,546	8,095	8,632	9,156	9,667	10,167	10,654	11,128	11,591	12,479	13,3
0	-	-	4,877	5,524	6,159	6,782	7,392	7,990	8,575	9,149	9,710	10,259	10,796	11,320	11,831	12,331	13,293	14,2
3	-	-	5,136	5,820	6,492	7,152	7,799	8,434	9,056	9,667	10,265	10,851	11,424	11,985	12,534	13,070	14,106	15,0
5	-	-	5,308	6,017	6,714	7,398	8,070	8,730	9,377	10,013	10,635	11,246	11,844	12,429	13,003	13,564	14,649	15,6
8	-	-	5,567	6,313	7,047	7,768	8,477	9,174	9,857	10,530	11,190	11,838	12,473	13,095	13,706	14,304	15,463	16,5
0	-	-	5,740	6,511	7,269	8,015	8,749	9,470	10,178	10,876	11,560	12,232	12,892	13,539	14,174	14,797	16,005	17,1
3	-	-	5,999	6,807	7,602	8,385	9,156	9,914	10,659	11,394	12,115	12,824	13,521	14,205	14,877	15,537	16,819	18,0
5	-	-	6,172	7,004	7,824	8,631	9,427	10,210	10,980	11,739	12,485	13,219	13,940	14,649	15,345	16,030	17,362	18,6
6	-	-	6,258	7,103	7,935	8,755	9,562	10,358	11,140	11,911	12,670	13,416	14,150	14,871	15,580	16,276	17,633	18,9
0	-	-	6,603	7,497	8,379	9,248	10,105	10,950	11,781	12,602	13,410	14,205	14,988	15,759	16,517	17,263	18,718	20,1
3	-	-	6,862	7,793	8,712	9,618	10,512	11,394	12,263	13,120	13,965	14,797	15,617	16,425	17,220	18,033	19,532	21,0
5	-	-	7,035	7,990	8,934	9,865	10,783	11,690	12,584	13,465	14,334	15,191	16,036	16,868	17,688	18,496	20,074	21,6
9	-	-	7,380	8,385	9,378	10,358	11,326	12,281	13,225	14,156	15,074	15,981	16,875	17,756	18,626	19,483	21,160	22,7
0	-	-	7,466	8,484	9,489	10,481	11,461	12,429	13,385	14,328	15,259	16,178	17,084	17,978	18,860	19,729	21,431	23,0

#### Lengths supplied:

- Random length from 1,5 up to 9 m;
- Fixed length from 4,5 up to 9 m;
- Multiple fixed length from 1,5 up to 9.

Steel hardness:	
Steel grades	Chemical compound according to
10, 20, 35, 45	GOST 1050
20X, 40X, 30XΓCA, 15XM, 30XMA	GOST 4543

The plant guarantees that tubes operating under pressure have ability to sustain hydraulic pressure testing

- Bending impact test;
- Carrying out hydraulic pressure or non-destructive testing;
- Carrying out one or some tests on: bending, expanding, butting and flattening (for pipes of steel grades 10, 20 and 15XM);
- Chamfering (for pipes with wall thickness more than 5 mm).

### ERW longitudinally welded steel tubes

GOST 10705-80 GOST 10704-91

Application: for pipelines and different purpose structures

Outside	Weight	per mete	r, kg, for	wall thick	ness mm											
diameter, nm	1,0	1,2	1,4	1,5	1,6	1,8	2,0	2,2	2,5	2,8	3,0	3,2	3,5	3,8	4,0	4,5
12	0,271	0,320	0,366	0,388	0,410	-	-	-	-	-	-	-	-	-	-	-
13	0,296	0,349	0,401	0,425	0,450	-	-	-	-	-	-	-	-	-	-	-
14	0,321	0,379	0,435	0,462	0,489	-	-	-	-	-	-	-	-	-	-	-
15	0,345	0,408	0,470	0,499	0,529	-	-	-	-	-	-	-	-	-	-	-
16	0,370	0,438	0,504	0,536	0,568	-	-	-	-	-	-	-	-	-	-	-
17	0,395	0,468	0,539	0,573	0,608	-	-	-	-	-	-	-	-	-	-	-
18	0,419	0,497	0,573	0,610	0,719	-	-	-	-	-	-	-	-	-	-	-
19	0,444	0,527	0,608	0,647	0,687	0,764	0,838	-	-	-	-	-	-	-	-	-
20	0,469	0,556	0,642	0,684	0,726	0,808	0,888	-	-	-	-	-	-	-	-	-
21,3	0,501	0,595	0,687	0,732	0,777	0,866	0,952	-	-	-	-	-	-	-	-	-
22	0,518	0,616	0,711	0,758	0,805	0,897	0,986	-	-	-	-	-	-	-	-	-
25	0,592	0,704	0,815	0,869	0,923	1,03	1,13	1,24	1,39	-	-	-	-	-	-	-
26	0,617	0,734	0,849	0,906	0,963	1,07	1,18	1,29	1,45	-	-	-	-	-	-	-
27	0,641	0,764	0,884	0,943	1,00	1,12	1,23	1,35	1,51	-	-	-	-	-	-	-
28	0,666	0,793	0,918	0,980	1,04	1,16	1,28	1,40	1,57	-	-	-	-	-	-	-
30	0,715	0,852	0,987	1,05	1,12	1,25	1,38	1,51	1,70	-	-	-	-	-	-	-
32	0,765	0,911	1,06	1,13	1,20	1,34	1,48	1,62	1,82	2,02	2,15	-	-	-	-	-
33	0,798	0,941	1,09	1,17	1,24	1,38	1,53	1,67	1,88	2,09	2,22	-	-	-	-	-
33,7	-	0,962	1,12	1,19	1,27	1,42	1,56	1,71	1,92	2,13	2,27	-	-	-	-	-
36	-	1,03	1,19	1,28	1,36	1,52	1,68	1,83	2,07	2,29	2,44	-	-	-	-	-
38	-	1,09	1,26	1,35	1,44	1,61	1,78	1,94	2,19	2,43	2,59	-	-	-	-	-
40	-	-	1,33	1,42	1,52	1,70	1,87	2,05	2,31	2,57	2,74	-	-	-	-	-
42	-	-	1,40	1,50	1,59	1,78	1,97	2,16	2,44	2,71	2,89	-	-	-	-	-
45	-	-	1,51	1,61	1,71	1,92	2,12	2,32	2,62	2,91	3,11	-	-	-	-	-
48	-	-	1,61	1,72	1,83	2,05	2,27	2,48	2,81	3,12	3,33	3,54	3,84	-	-	-
51	-	-	1,71	1,83	1,95	2,18	2,42	2,65	2,99	3,33	3,55	3,77	4,10	-	-	-
54	-	-	1,82	1,94	2,07	2,32	2,56	2,81	3,18	3,54	3,77	4,01	-	-	-	-
57	-	-	1,92	2,05	2,19	2,45	2,71	2,97	3,36	3,74	4,00	4,25	4,62	-	-	-
50	-	-	2,02	2,16	2,30	2,58	2,86	3,14	3,55	3,95	4,22	4,48	4,88	5,27	-	-
53,5	-	-	2,14	2,29	2,44	2,74	3,03	3,33	3,76	4,19	4,48	4,76	-	-	-	-
76	-	-	-	-	-	-	-	-	4,53	5,05	5,40	5,75	6,26	6,77	7,10	-
39	-	-	-	-	-	-	-	-	-	-	6,36	6,77	7,38	7,98	8,38	-
102	-	-	-	-	-	-	-	-	-	-	7,32	7,80	8,50	9.20	9,67	10,
108	-	-	-	-	-	-	-	-	-	-	7,77	8,27	9,02	9,76	10,26	11,4
114	-	-	-	-	-	-	-	_	_	-	8,21	8,74	9,54	10,33	10,85	12,

#### Pipe dimensions and weight (continued) Weight per meter, kg, for wall thickness mm **Outside** diameter, 4,5 5,0 5,5 6,0 6,5 7,0 7,5 8,0 8,5 9,0 9,5 10,0 mm 159 17,15 18,99 20,82 22,64 24,44 26,24 168 18,14 20,10 22,04 23,97 25,89 27,79 219 26,39 28,96 31,52 34,06 36,60 39,12 41,63 49,11 273 33,05 36,28 39,51 42,72 45,92 52,28 43.34 47.20 54.90 66.35 325 51.06 58.73 62.54 70.14 73.91 355,6 47,49 51,73 55,95 60,18 64,38 68,58 72,75 76,93 81,08 406,4 54,38 59,25 64,10 68,95 73,77 78,60 83,40 88,20 92,98 426 87,52 92,55 97,58 62,15 67,25 72,33 77,41 82,47 102,59 530 90,29 96,64 102,99 109,32 115,64 121,94 128,24

#### Lengths supplied:

- Random length: no less than 2 m with diameter up to 30 mm;

no less than 3 m with diameter over 30 up to 70 mm; no less than 4 m with diameter over 70 up to 114 mm; no less than 5 m with diameter 159 mm and more;

- Fixed length: from 5 up to 9 m with diameter up to 70 mm;

from 6 up to 9 m with diameter over 70 up to 219 mm; from 10 up to 12 m with diameter over 219 up to 426 mm.

- Multiple lengths having no less than 250 mm and not exceeding low limit specified for fixed length pipes.

Steel hardness:	
Steel Grades	Chemical compound according to
St1sp, St1kp, St1ps, St2sp, St2kp, St2ps, St3sp, St3kp, St3ps	GOST 380
08, 08kp, 08ps, 10, 10kp, 10ps, 15, 15kp, 15ps, 20, 20kp, 20ps	GOST 1050

Steel Grade "sp" is killed steel Steel Grade "ps" is semi-killed steel Steel Grade "kp" is boiled steel

- Carrying out hydraulic pressure testing;
- Carrying out weld's quality non-destructive testing;
- Carrying out flattening test;
- Carrying out expanding test (for pipes with diameter 20 mm and more, with wall thickness less than 0,06Dn and diameter 63,5 mm).

### SAW longitudinally welded steel tubes

GOST 10706-76 GOST 10704-91

Application: for pipelines and general purpose structures

Pipe d	imensions and we	eight									
Outside diameter,	Veight per meter, kg, for wall thickness mm										
mm	9,0 10,0 11,0 12,0 13,0 14,0										
1020	226,63	251,57	276,46	301,29	326,07	350,80					

#### Lengths supplied:

- Random length from 6,0 up to 11,6 m.

Steel hardness:	
Steel Grades	Chemical compound according to
St3sp	GOST 380
Low-alloyed steel, which carbon equivalent does not exceed 0,48%	

Steel Grade "sp" is killed steel

Obligatory requirements:

- Carrying out hydraulic pressure testing;
- Carrying out bending impact test.

At customer's request it is possible to carry out:

- Carrying out weld's non-destructive testing;
- Carrying out weld joint\s bending impact test.

### Square section steel tubes

GOST 8639-82 GOST 13663-86

Application: for general purpose structures, for cooling radiators, as well as in furniture industry

Pipe	dimensio	ons and we	ight								
Dimensio	on, mm	Weight pe	er meter, kg, f	or wall thickr	ness mm						
Α	В	1,0	1,5	2,0	2,2	2,5	2,8	3,0	3,2	3,5	4,0
17	17	-	-	0,888	0,957	1,05	-	-	-	-	-
20	20	0,583	0,841	1,075	1,164	1,29	-	-	-	-	-
25	25	0,470	1,07	1,39	1,51	1,68	-	1,95	-	-	-
30	30	-	-	1,70	1,85	2,07	2,29	2,42	-	-	-
35	35	-	-	2,02	2,20	2,46	2,72	2,89	-	-	-
40	40	-	-	2,33	2,55	2,85	3,16	3,36	3,56	3,85	4,31
45	45	-	-	2,65	2,89	3,25	3,60	3,83	4,06	4,39	4,93
50	50	-	-	2,96	3,24	3,64	4,04	4,31	4,56	4,94	5,56
60	60	-	-	3,59	3,93	4,43	4,92	5,25	5,57	6,04	6,82
70	70	-	-	4,22	4,62	5,21	5,80	6,19	6,57	7,14	8,07
80	80	-	-	4,84	5,31	6,00	6,68	7,13	7,58	8,24	9,33
90	90	-	-	5,47	6,00	6,78	7,56	8,07	8,58	9,34	10,59

#### Lengths supplied:

- Random length from 1,5 up to 11,0 m,
- Fixed length from 5 up to 9 m;
- Any multiple fixed lengths not exceeding low limit specified for fixed length pipes

Steel hardness:	
Steel Grades	Chemical compound according to
St2sp, St2kp, St2ps	GOST 380
08kp, 10, 10ps, 20	GOST 1050

Steel Grade "sp" is killed steel Steel Grade "ps" is semi-killed steel Steel Grade "kp" is boiled steel

### Rectangular section steel tubes

GOST 8645-68 GOST 13663-86

Application: for general purpose structures, for cooling radiators, as well as in furniture industry

Dimension	n, mm	Weight per	meter, kg, for v	vall thickness n	nm					
A	В	1,5	2,0	2,2	2,5	2,8	3,0	3,2	3,5	4,0
25	28	1,15	1,49	1,61	1,80	-	-	-	-	-
30	20	-	1,39	1,51	1,68	-	-	-	-	-
30	25	-	1,55	1,68	1,88	-	-	-	-	-
35	20	-	1,55	1,68	1,88	-	-	-	-	-
35	30	-	1,86	2,03	2,27	-	-	-	-	-
40	20	-	1,70	1,85	2,07	-	-	-	-	-
40	25	1,43	1,86	2,03	2,27	-	-	-	-	-
40	28	1,50	1,95	2,13	2,39	-	-	-	-	-
40	30	-	2,02	2,20	2,47	2,72	2,89	-	-	-
45	20	-	1,86	2,03	2,27	2,50	2,66	-	-	-
50	25	-	2,17	2,37	2,66	2,94	3,13	3,31	3,57	3,99
50	28	-	2,27	2,48	2,78	3,08	3,27	3,46	3,74	4,18
50	30	-	2,32	2,55	2,86	3,16	3,36	3,56	3,85	4,31
50	40	-	2,65	2,89	3,25	3,60	3,83	4,06	4,39	4,93
50	45	-	2,80	3,06	3,45	3,60	4,07	4,31	4,67	5,25
60	28	-	2,58	2,82	3,17	3,52	3,74	3,96	4,29	4,81
60	30	-	2,65	2,89	3,25	3,60	3,83	4,06	4,39	4,93
60	35	-	2,80	3,06	3,45	3,82	4,07	4,31	4,67	5,25
60	40	-	2,96	3,24	3,64	4,04	4,30	4,56	4,94	5,56
80	40	-	3,59	3,93	4,43	4,92	5,25	5,57	6,04	6,82
80	60	-	4,22	4,62	5,21	5,80	6,19	6,57	7,14	8,07
100	40	-	-	-	-	-	6,19	6,57	7,14	8,07
100	60	-	-	-	-	-	7,13	7,58	8,24	9,33
100	80	-	-	-	-	-	8,18	8,71	9,50	10,81

#### Lengths supplied:

- Random length from 1,5 up to 11,0 m;
- Fixed length from 5,0 up to 9,0 m;
- Multiple fixed length from 4 up to 12 m.
- Random fixed any multiple fixed lengths not exceeding low limit specified for fixed length pipes

Steel hardness:	
Steel Grades	Chemical compound according to
St2sp, St2kp, St2ps	GOST 380
08kp, 10, 10ps, 20	GOST 1050

Steel Grade "sp" is killed steel Steel Grade "ps" is semi-killed steel Steel Grade "kp" is boiled steel

### Water and gas line steel pipes

GOST 3262-75

Application: for water & gas pipelines, as well as for water & gas line detail structures

Pipe d	imensions	and weig	ght													
Nominal	Outside	Weight per	Weight per meter, kg, for wall thickness mm													
size, DN, mm	diameter, 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	-	-	-	-	-	-	-	-					
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					

#### Lengths supplied:

- Random length;
- Fixed length;
- Multiple fixed length from 4 to 12 m.

Steel hardness:	
Steel Grades	Chemical compound according to
St1sp, St1kp, St1ps, St2sp, St2kp, St2ps, St3sp, St3kp, St3ps	GOST 380
08, 08kp, 08ps, 10, 10kp, 10ps, 15, 15kp, 15ps, 20, 20kp, 20ps	GOST 1050

Steel Grade "sp" is killed steel Steel Grade "ps" is semi-killed steel Steel Grade "kp" is boiled steel

Pipes are supplied without zinc-coating & threading

#### Obligatory requirements:

- Carrying out hydraulic pressure testing;
- Carrying out bend impact testing.

- Weld's non-destructive testing;
- Expanding test;
- Flattening test.

# Seamless cold-worked tubes of carbon and alloy-free steel with special properties

GOST 30563-98 DSTU 3666-97

Used for pipeline construction.

Pipe d	imensi	ions an	d weig	jht												
Outside	Weight per meter, kg, for wall thickness mm															
diameter, mm	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
40	3,150	3,551	3,940	4,316	4,680	5,031	5,369	5,697	6,011	6,313	6,603	6,881				
42	3,323	3,749	4,162	4,562	4,951	5,327	5,690	6,042	6,381	6,708	7,023	7,324	-	-	-	-
45	3,582	4,044	4,495	4,932	5,358	5,771	6,171	6,560	6,936	7,300	7,651	7,990	8,317	8,632	-	-
48	3,841	4,340	4,827	5,302	5,765	6,215	6,652	7,078	7,491	7,892	8,280	8,656	9,020	9,371	-	-
50	4,014	4,538	5,019	5,549	6,036	6,511	6,972	7,423	7,861	8,286	8,699	9,110	9,489	9,865	10,580	11,246
60	4,877	5,524	6,159	6,782	7,392	7,990	8,575	9,149	9,710	10,259	10,796	11,320	11,831	12,331	13,293	14,205
63	5,136	5,820	6,492	7,152	7,799	8,434	9,056	9,667	10,265	10,851	11,424	11,985	12,534	13,070	14,106	15,093
73	5,999	6,807	7,602	8,385	9,156	9,914	10,659	11,394	12,115	12,824	13,521	14,205	14,877	15,537	16,819	18,052
89	7,380	8,385	9,378	10,358	11,326	12,281	13,225	14,156	15,074	15,981	16,875	17,756	18,626	19,483	21,160	22,787

Tubes might be manufactured with outer diameters and with wall thickness intermediate as to those specified in this table according to GOST 8734 pipe grade as may be agreed by parties.

#### Lengths supplied:

- off-gage length of 1.5 to 11.5 m;
- specific cut length of 4.5 to 9.0 m;
- multiple specific cut length of 1.5 to 9.0.

Steel hardness:	
Steel grade	Chemical compound according to
10, 20	GOST 1050
15XM, 30XMA	GOST 4543

#### Obligatory requirements:

- hydraulic pressure test or non-destructive check;
- bend-over test;
- collapse test (for tubes with wall thickness of no more than 15% of outer diameter).

- non-destructive check;
- impact-bending test (for tubes with wall thickness of no less than 5 mm);
- chamfering (at tube ends with wall thickness of no less than 5 mm).

# Seamless hot-worked tubes of carbon and alloy-free steel with special properties

GOST 30564-98 DSTU 3667-97

Used for pipeline construction.

Outside	Weight	per mete	r, kg, for	wall thick	ness, mm											
diameter, mm	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
45	3,58	4,04	4,49	-	-	-	-	-	-	-	-	-	-	-	-	-
50	4,01	4,54	5,05	5,55	6,04	-	-	-	-	-	-	-	-	-	-	-
57	4,62	5,23	5,83	6,41	6,99	7,55	8,10	-	-	-	-	-	-	-	-	-
50	4,88	5,52	6,16	6,78	7,39	7,99	-	-	-	-	-	-	-	-	-	-
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	18,0
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	18,9
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	21,0
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	22,7
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	24,5
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	26,6
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	28,4
114	-	-	-	13,44	14,72	15,98	17,23	18,47	19,70	20,91	22,12	23,31	24,48	25,65	27,94	30,1
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	32,2
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	34,0
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	35,8
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	37,8
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	39,6
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	41,4
159	-	-	-	-	-	22,64	24,45	26,24	28,02	29,79	31,55	33,29	35,03	36,75	40,15	43,5
168	-	-	-	-	-	23,97	25,89	27,79	29,69	31,57	33,44	35,29	37,13	38,97	42,59	46,1
180	-	-	-	-	-	-	-	29,87	31,91	33,93	35,95	37,95	39,95	41,93	45,85	49,7
194	-	-	-	-	-	-	-	32,28	34,50	36,70	38,89	41,06	43,23	45,38	49,64	53,8
203	-	-	-	-	-	-	-	33,84	36,16	38,47	40,77	43,06	45,33	47,60	52,09	56,5
219	-	-	-	-	-	-	-	36,60	39,12	41,63	44,13	46,61	49,08	51,54	56,43	61,2
245	-	-	-	-	-	-	-	41,09	43,93	46,76	49,58	52,38	55,17	57,95	63,48	68,9
273	-	-	-	-	-	-	-	45,92	49,11	52,28	55,45	58,60	61,73	64,86	71,07	77,2
299	-	-	-	-	-	-	-	-	-	57,41	60,90	64,37	67,83	71,27	78,13	84,9
325	-	-	-	-	-	-	-	-	-	62,54	66,35	70,14	73,92	77,68	85,18	92,6
351	-	-	-	-	-	-	-	-	-	-	-	75,91	80,01	84,10	92,23	100
377	-	-	-	-	-	-	-	-	-	-	-	81,68	86,10	90,51	99,29	108

Pipe d	imensi	ons and	d weigh	it (cont	inued)										
Outside	Weight p	Weight per meter, kg, for wall thickness, mm													
diameter, mm	13,0	14,0	15,0	16,0	17,0	18,0	19,0	20,0	22,0	24,0	25,0	26,0	28,0	30,0	32,0
83	22,44	23,82	-	-	-	-	-	-	-	-	-	-	-	-	-
89	24,37	25,90	27,37	-	-	-	-	-	-	-	-	-	-	-	-
95	26,29	27,97	29,59	-	-	-	-	-	-	-	-	-	-	-	-
102	28,53	30,38	32,18	-	-	-	-	-	-	-	-	-	-	-	-
108	30,46	32,46	34,40	-	-	-	-	-	-	-	-	-	-	-	-
114	32,38	34,53	36,62	38,67	40,67	-	-	-	-	-	-	-	-	-	-
121	34,62	36,94	39,21	41,63	43,60	-	-	-	-	-	-	-	-	-	-
127	36,55	39,01	41,43	43,80	46,12	-	-	-	-	-	-	-	-	-	-
133	38,47	41,09	43,65	46,17	48,63	-	-	-	-	-	-	-	-	-	-
140	40,72	43,50	46,24	48,93	51,57	54,16	56,70	-	-	-	-	-	-	-	-
146	42,64	45,57	48,46	51,30	54,08	56,82	59,51	-	-	-	-	-	-	-	-
152	44,56	47,65	50,68	53,66	56,60	59,48	62,32	-	-	-	-	-	-	-	-
159	46,81	50,06	53,27	56,43	59,53	62,59	65,60	-	-	-	-	-	-	-	-
168	49,69	53,17	56,60	59,98	63,31	66,59	69,82	73,00	79,21	-	-	-	-	-	-
180	53,54	57,31	61,04	64,71	68,34	71,91	75,44	78,92	85,72	-	-	-	-	-	-
194	58,03	62,15	66,22	70,24	74,21	78,13	82,00	85,82	93,32	-	-	-	-	-	-
203	60,91	65,25	69,55	73,79	77,98	82,12	86,22	90,26	98,20	-	-	-	-	-	-
219	66,04	70,78	75,46	80,10	84,69	89,23	93,71	98,15	106,88	115,42	119,61	-	-	-	-
245	74,38	79,76	85,08	90,36	95,59	100,77	105,90	110,98	120,99	130,80	135,64	-	-	-	-
273	83,36	89,42	95,44	101,41	107,33	113,20	119,02	124,79	136,18	147,38	152,90	158,38	169,18	179,78	190,19
299	91,69	98,40	105,06	111,67	118,23	124,74	131,20	137,61	150,29	162,77	168,93	175,05	187,13	199,02	210,71
325	100,03	107,38	114,68	121,93	129,13	136,28	143,38	150,44	164,39	178,16	184,96	191,72	205,09	218,25	231,23
351	108,36	116,35	124,29	132,19	140,03	147,82	155,57	163,26	178,50	193,54	200,99	208,39	223,04	237,49	251,74
377	116,70	125,33	133,91	142,45	150,93	159,36	167,75	176,08	192,61	208,93	217,02	225,06	240,99	256,73	272,26

It is possible to made tube with dimensions not specified in this table.

#### Lengths supplied:

- off-gage length of 4 to 12.5 m;
- specific cut length within off-gage length;
- multiple specific cut length within off-gage length.

Steel hardness:	
Steel grade	Chemical compound according to
10, 20, 35, 45	GOST 1050
20X, 30X, 10Γ2, 15ΧΜ, 30ΧΜΑ	GOST 4543
10Г2	GOST 4543
10Г2А	GOST 30564
09Г2С	GOST 19281

#### Obligatory requirements:

- hydraulic pressure test or non-destructive check;
- collapse test (for tubes with wall thickness of no more than 15% of outer diameter).

- non-destructive check;
- bend-over test;
- impact-bending test (for tubes with wall thickness of 5 to 22 mm);
- macrostructure control (for tubes with wall thickness of no less than 10 mm);
- chamfering (for tubes with wall thickness of 5 to 20 mm).

### Steel electric-welded longitudinal tubes of 1020 mm diameter

TU 14-3-620-92

Used for construction of high-pressure pipelines and heating systems.

Pipe d	Pipe dimensions and weight									
Outside	Weight per meter, k	Veight per meter, kg, for wall thickness, mm								
diameter, mm	9,0	10,0	11,0	12,0	13,0	14,0	14,9			
1020	226,63	251,57	276,46	301,29	326,07	350,80	373,00			

#### Lengths supplied:

- off-gage length of 10.6 to 11.6 m with single transversal (annular) seam. Delivery of tubes with length of no less than 8 m in amount of up to 10% of bulk weight is acceptable.

Steel hardness:	
Steel grade	Chemical compound according to
17ГС, 17Г1С	GOST 19281
13Г1С-У	TU 14-1-3636
17Г1С-У	TU 14-1-1950

- hydraulic pressure test;
- non-destructive check of welded seam quality (longitudinal seam ultrasonically and transversal seam by radiography examination).

### Steel welded longitudinal tubes for heating networks of carbon and low-alloy steel

Used for heating systems' pipeline construction.

Pipe d	Pipe dimensions and weight									
Outside		Weight per meter, kg, for wall thickness, mm								
diameter, mm	5,0	6,0	7,0	8,0	9,0	10,0				
159	18,99	22,64	-	-	-	-				
168	20,10	23,97	-	-	-	-				
219	26,39	31,52	36,60	41,63	-	-				
273	33,05	39,51	45,92	52,28	-	-				
325	39,46	47,20	54,90	62,54	-	-				
426	-	62,15	72,33	82,47	92,56	102,59				
530	-	77,54	90,29	102,90	115,64	128,24				

#### Lengths supplied:

- length within 10.6 to 11.6 m.

Delivery of tubes with length of no more than 10.6 m but no less than 8 m in amount of up to 10% of bulk weight is acceptable.

Steel hardness:	
Steel grade	Chemical compound according to
St3sp5	GOST 380
10, 20	GOST 1050
17ГС, 17Г1С, 17Г1С-У	GOST 19281, TU 14-106-502, TU 14-1-4358, TU 14-1-4598, TU 14-105-723, TU 14-105-711, TU 14-105-505, TU 14-106-717, TU 14-106-718
13ГС, 13Г1С, 13Г1С-У, 22ГЮ	TU 14-105-711, TU 14-105-505, TU 14-106-718, TU 14-1-4358

#### Obligatory requirements:

- hydraulic pressure test;
- non-destructive check of welded seam quality;
- collapse test.
- bend-over test of welded seam.

- impact-bending test of welded seam.- hydraulic pressure test;
- non-destructive check of welded seam quality (longitudinal seam ultrasonically and transversal seam by radiography examination).

# Steel seamless hot-worked tubes for gas pipelines of gas-lifting systems and natural gas-field facilities construction

#### TU 14-3-1128-2000 TU 14-3-1128-2005

Used for gas pipelines of oil-production gas-lifting systems and natural gas-field facilities construction (non-corrosive gas).

Pipe d	limensio	ons and w	reight									
Outside	Weight po	er meter, kg,	for wall thic	kness, mm								
diameter, mm	4,0	4,5	5,0	5,5	6,0	6,5	7,0	7,5	8,0	8,5	9,0	9,5
57	5,23	5,83	6,41	6,99	7,55	8,10	-	-	-	-	-	-
50	5,52	6,16	6,78	7,39	7,99	-	-	-	-	-	-	-
50,3	5,55	6,19	6,82	7,43	8,03	-	-	-	-	-	-	-
53,5	5,87	6,55	7,21	7,87	8,51	-	-	-	-	-	-	-
70	6,51	7,27	8,02	8,75	9,47	-	-	-	-	-	-	-
73	6,81	7,60	8,39	9,16	9,91	10,66	11,39	12,12	12,82	13,52	14,21	14,88
76	7,10	7,94	8,76	9,56	10,36	11,14	11,91	12,67	13,42	14,15	14,87	15,58
83	7,79	8,71	9,62	10,51	11,39	12,26	13,12	13,96	14,80	15,62	16,43	17,22
39	8,39	9,38	10,36	11,33	12,28	13,23	14,16	15,07	15,98	16,88	17,76	18,63
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
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
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
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
121	-	-	14,30	15,67	17,02	18,35	19,68	20,99	22,29	23,58	24,86	26,12
127	-	-	15,04	16,48	17,90	19,32	20,72	22,10	23,48	24,84	26,19	27,53
133	-	-	15,78	17,29	18,79	20,28	21,75	23,21	24,66	26,10	27,52	28,93
140	-	-	-	-	19,83	21,40	22,96	24,51	26,04	27,57	29,08	30,57
146	-	-	-	-	20,72	22,36	24,00	25,62	27,23	28,82	30,41	31,98
152	-	-	-	-	21,60	23,32	25,03	26,73	28,41	30,08	31,74	33,39
159	-	-	-	-	22,64	24,45	26,24	28,02	29,79	31,55	33,29	35,03
168	-	-	-	-	-	-	27,79	29,69	31,57	33,44	35,29	37,13
180	-	-	-	-	-	-	29,87	31,91	33,93	35,95	37,95	39,95
194	-	-	-	-	-	-	32,28	34,50	36,70	38,89	41,06	43,23
203	-	-	-	-	-	-	33,84	36,16	38,47	40,77	43,06	45,33
219	-	-	-	-	-	-	36,60	39,12	41,63	44,13	46,61	49,08
245	-	-	-	-	-	-	41,09	43,93	46,76	49,58	52,38	55,17
273	-	-	-	-	-	-	45,92	49,11	52,28	55,45	58,60	61,73
299	-	-	-	-	-	-	-	-	57,41	60,90	64,37	67,83
325	-	-	-	-	-	-	-	-	62,54	66,35	70,14	73,92
351	-	-	-	-	-	-	-	-	-	-	75,91	80,01
377	-	-	-	-	-	-	-	-	-	-	81,68	86,10

#### Pipe dimensions and weight (continued) Outside Weight per meter, kg, for wall thickness, mm diameter 17,0 19,0 22,0 11,0 12,0 13,0 14,0 15,0 16,0 18,0 20,0 25,0 mm 15,54 16,82 73 76 16,28 17,63 18,00 22,44 23,82 25,16 83 19,53 21,01 26,44 89 19,48 21,16 24,37 25,90 27,37 28,81 30,19 31,52 95 20.96 22.79 24.56 26.29 27.97 29.59 31.17 32.70 34.18 35.61 36.99 102 22,69 24,69 28,53 30,38 32,18 33,93 35,64 37,29 38,89 40,45 43,40 108 24,17 26,31 28,41 30,46 32,46 34,40 36,30 38,15 39,95 41,70 43,40 46,66 51,17 114 25,65 27,94 30,19 34,53 36,62 38,67 40,67 42,62 44,51 46,36 49,92 54,87 27,37 29,84 32,26 34,62 36,94 41,63 45,72 47,79 49,82 53,71 59,19 121 39,21 43,60 127 28,85 31,47 34,03 36,55 39,01 41,43 43,80 46,12 48,39 50,61 52,78 56,97 62,89 133 30,33 33,10 35,81 38,47 41,09 43,65 46,17 48,63 51,05 53,42 55,74 60,22 66,58 140 32,06 35,00 37,88 40,72 43,50 46,24 48,93 51,57 54,16 56,70 59,19 64,02 70,90 146 33,54 36,62 39,66 42,64 45,57 48,46 51,30 54,08 56,82 59,51 62,15 67,28 74,60 152 35,05 38,25 41,43 44,56 47,65 50,68 59,48 62,32 53,66 56,60 65,11 71,53 78,30 36,75 40,15 43,50 46,81 50,06 53,27 56,43 59,53 62,59 65,60 68,56 74,33 82,62 159 38,97 42,59 66,59 69,82 168 46,17 49,69 53,17 56,60 59,98 63,31 73,00 79,21 88,16 180 41,93 45.85 49.72 53.54 57,31 61,04 64.71 68.34 71,91 75,44 78.92 85,72 95,56 194 45,38 53,86 58,03 62,15 85,82 93,32 104,20 49,64 66,22 70,24 74,21 78,13 82,00 52,09 203 47,60 56,52 60,91 65,25 69,55 73,79 77,98 82,12 86,22 90,26 98,20 109,74 219 51,54 56,43 61,26 66,04 70,78 75,46 89,23 93,71 106,88 80,10 84,69 98,15 119,61 245 57.95 63.48 68.95 74.38 79.76 85.08 90.36 95.59 100.77 105.90 110.98 120.99 135.64 273 64,86 71,07 77,24 83,36 89,42 95,44 101,41 113,20 119,02 124,79 136,18 152,90 299 71,27 78,13 84,93 91,69 98,40 105,06 111,67 118,23 124,74 131,20 137,61 150,29 168,93 325 77,68 85,18 92,63 100,03 107,38 121,93 129,13 136,28 143,38 150,44 164,39 184,96 114,68 200.99 351 84,10 92.23 100.32 108.36 116.35 124.29 132,19 140,03 147,82 155.57 163,26 178,50 377 90,51 99,29 108,02 116,70 125,33 133,91 142,45 150,93 159,36 167,75 176,08 192,61 217,02

It is possible to made tube with dimensions not specified in this table.

#### Lengths supplied:

- 7,0 to 11,6 m. Length for tubes with wall thickness of no less than 16 mm is to be set as may be agreed by parties.

Steel hardness:	
Steel grade	Chemical compound according to
20	GOST 1050
09Г2С	GOST 19281

#### Obligatory requirements:

- hydraulic pressure test or non-destructive check;
- macrostructure control (for tubes with wall thickness of no less than 12 mm);
- chamfering;
- supply of tubes with standardized equivalent carbon content.

#### At customer's request it is possible to carry out:

- collapse test (for tubes with wall thickness of no more than 10 mm).

Used for construction of gas and oil main pipelines, oil-products pipelines, process and field pipelines.

Pipe d	Pipe dimensions and weight											
Outside		Weight per meter, kg, for wall thickness, mm										
diameter, mm	5,0	5,5	6,0	6,5	7,0	7,5	8,0	8,5	9,0	9,5	10,0	
159	18,99	20,82	22,64	24,44	26,24	-	-	-	-	-	-	
168	20,10	22,04	23,97	25,89	27,79	-	-	-	-	-	-	
219	26,39	28,96	31,52	34,06	36,60	39,12	41,63	-	-	-	-	
273	33,05	36,28	39,51	42,72	45,92	49,11	52,28	-	-	-	-	
325	-	43,34	47,20	51,05	54,90	58,73	62,54	66,35	70,14	73,91	-	
426	-	-	62,15	67,25	72,33	77,41	82,47	87,52	92,56	97,58	102,59	

#### Lengths supplied:

- off-gage length within 10.6 to 11.6 m throughout heat-treated.

Delivery of tubes with length of no less than 8 m in amount of up to 10% of bulk weight is acceptable.

Tubes' Strength class:	
Strength class (Steel grade)	Chemical compound according to
K34 (Steel 10, 10ps)	GOST 1050
K38 (St3sp, St3ps)	GOST 380
K42 (Steel 20, 20ps)	GOST 1050

- hydraulic pressure test;
- non-destructive check of welded seam quality.

## Steel welded longitudinal tubes for gas TU U 14-8-19-99 and oil main pipelines

Used for construction of gas and oil main pipelines, oil-products pipelines, process and field pipelines.

Pipe d	Pipe dimensions and weight								
	Weight per meter, kg, for wall thickr	Veight per meter, kg, for wall thickness, mm							
diameter, mm	7,0	8,0	9,0	10,0					
530	90,29	102,99	115,64	128,24					

#### Lengths supplied:

- length within 10.6 to 11.6 m throughout heat-treated.

Delivery of tubes with length of no less than 8 m in amount of up to 10% of bulk weight is acceptable.

Tubes' Strength class:	
Steel grade	Chemical compound according to
K34 (Steel 10)	GOST 1050
K38 (St3sp)	GOST 380
K42 (Steel 20)	GOST 1050
К46 (16ГС, 09Г2С, 12ГС)	GOST 19281
K48 (12ГС, 16ГС, 09Г2С)	GOST 19281
K50 (09Г2С)	GOST 19281
(17FC,17F1C)	TU 14-106-502
K52 (13FC)	TU 14-1-5415
(17F1C-Y)	TU 14-106-502
(08ГБЮ)	TU 14-1-4358
K55 (13Г1С-У)	TU 14-1-5415
(09ГБЮ)	TU 14-1-4358

#### Obligatory requirements:

- hydraulic pressure test;
- non-destructive check of welded seam quality.

#### At customer's request it is possible to carry out:

- impact-bending test of welded seam.

## Steel welded longitudinal tubes for gas TU U 14-8-20-99 and oil main pipelines

Used for construction of gas and oil main pipelines, oil-products pipelines, process and field pipelines.

Pipe dimensions and weight									
	Weight per meter, kg, for wall thickness, mm								
diameter, mm	7,0	8,0	9,0	10,0					
530	90,29	102,99	115,64	128,24					

#### Lengths supplied:

- length within 10.6 to 11.6 m throughout heat-treated.

Delivery of tubes with length of no less than 8 m in amount of up to 10% of bulk weight is acceptable.

Tubes' Strength class:	
Steel grade	Chemical compound according to
K34 (Steel 10)	GOST 1050
K38 (St3sp)	GOST 380
K42 (Steel 20)	GOST 1050
К46 (16ГС, 09Г2С, 12ГС)	GOST 19281
K48 (12ГС, 16ГС, 09Г2С)	GOST 19281
K50 (09F2C) (17FC,17F1C)	GOST 19281 TU 14-106-502
K52 (13ГС) (17Г1С-У) (08ГБЮ)	TU 14-1-5415 TU 14-106-502 TU 14-1-4358
K55 (13Г1С-У) (09ГБЮ)	TU 14-1-5415 TU 14-1-4358

- hydraulic pressure test;
- non-destructive check of welded seam quality.

### Steel welded longitudinal tubes for gas and oil main pipelines

TU 14-3-377-99

Used for construction of gas and oil pipelines and constructions of various purpose.

Pipe d	Pipe dimensions and weight											
Outside	Weight pe	Weight per meter, kg, for wall thickness, mm										
diameter, mm	4,5	5,0	5,5	6,0	6,5	7,0	7,5	8,0	8,5	9,0	9,5	10,0
159	17,15	18,99	20,82	22,64	24,44	26,24	-	-	-	-	-	-
168	-	20,10	22,04	23,97	25,89	27,79	-	-	-	-	-	-
219	-	26,39	28,96	31,52	34,06	36,60	39,12	41,63	-	-	-	-
273	-	33,05	36,28	39,51	42,72	45,92	49,11	52,28	-	-	-	-
325	-	-	43,34	47,20	51,05	54,90	58,73	62,54	66,35	70,14	73,91	-
355,6		-	47,49	51,73	55,96	60,18	64,38	68,58	72,75	76,93	81,08	-
406,4		-		59,25	64,10	68,95	73,78	78,60	83,40	88,20	92,98	-
426	-	-	-	62,15	67,25	72,33	77,41	82,47	87,52	92,56	97,58	102,59

#### Lengths supplied:

<sup>-</sup> off-gage length of 10.6 to 11.6 m throughout heat-treated. Delivery of tubes with length of no less than 8 m in amount of up to 10% of bulk weight is acceptable.

Tubes' Strength class	
Steel grade	Chemical compound according to
K34 (Steel 10)	GOST 1050
K38 (St3sp)	GOST 380
K42 (Steel 20)	GOST 1050

#### Obligatory requirements:

- hydraulic pressure test;
- non-destructive check of welded seam quality.

# Steel electric-welded longitudinal tubes for gas and oil pipelines of 1020 mm diameter

TU 14-3-1424-94

Used for construction of oil main pipelines and gas pipelines with operation pressure up to 7.4 MPa

Pipe dimensions and weight																		
Outside		Weight per meter, kg, for wall thickness, mm																
diameter, mm	9,3	9,4	9,70	10,0	10,3	10,5	11,0	11,2	11,4	12,0	12,1	12,3	13,0	13,1	13,4	14,0	14,2	14,9
1020	234,10	236,60	244,08	251,57	259,03	264,00	276,46	281,41	286,38	301,29	303,75	308,71	326,07	328,53	335,95	350,80	355,73	373,00

#### Lengths supplied:

- off-gage length of 10.6 to 11.6 m with single transversal (annular) seam. Delivery of tubes with length of no less than 9 m in amount of no more than 10% of bulk delivery is acceptable.

Steel hardness:	
Steel grade	Chemical compound according to
13Г1С-У, 13Г1СБ-У	TU 14-1-3636
17Г1С-У	TU 14-1-1950
10Г2ФБЮ	TU 14-1-4627

- hydraulic pressure test;
- non-destructive check of welded seam quality (ultrasonically and partly by radiography examination longitudinal seam and transversal seam);
- bend-over test of welded seam.

### Steel welded longitudinal tubes for gas TU 14-3-1948-2000 and oil main pipelines of low-alloy steel

Used for gas and oil pipelines, oil-products pipelines, process and field pipelines.

Pipe d	Pipe dimensions and weight									
Outside	Weight per meter, kg, for wall thickness, mm									
diameter, mm	4,5	5,0	6,0	7,0	8,0	9,0	10,0			
159	17,15	18,99	22,64	-	-	-	-			
168	-	20,10	23,97	-	-	-	-			
219	-	26,39	31,52	36,60	41,63	-	-			
273	-	33,05	39,51	45,92	52,28	-	-			
325	-	39,46	47,20	54,90	62,54	-	-			
355,6	-	-	51,73	60,18	68,58	-	-			
406,4	-	-	59,25	68,95	78,6	88,2	-			
426	-	-	62,15	72,33	82,47	92,56	-			
530	-	-	-	90,29	102,99	115,64	128,24			

#### Lengths supplied:

- length within 10.6 to 11.6 m.

Delivery of tubes with length of no more than 10.6 m but no less than 8 m in amount of up to 10% of bulk weight is acceptable. Supply of tubes with length up to 18 m is possible as may be agreed by customer.

Tubes' Strength class:	
Steel grade	Chemical compound according to
K46, K48, K50, K52, K55	GOST 19281, TU 14-106-502, TU 14-1-4358, TU 14-1-4598

#### Obligatory requirements:

- hydraulic pressure test;
- non-destructive check of welded seam quality;
- impact-bending test (for tubes with diameter of no less than 219 mm and wall thickness of no less than 6 mm).
- tubes with diameter up to 426 mm inclusive are to comply to collapse test according to GOST 8695.
- welded seam of tubes with diameter of 530 is to comply to bend-over test according to GOST 6996.

#### At customer's request it is possible to carry out:

- impact-bending test of welded seam.

## Steel welded longitudinal tubes of low-alloy steel of conventional purpose

#### TU U 14-8-32-2000

Used for pipeline construction (except for gas and oil main pipelines) and constructions of various purpose.

Pipe d	Pipe dimensions and weight									
Outside	Weight per meter, kg, for wall thickness, mm									
diameter, mm	5,0	6,0	7,0	8,0	9,0	10,0				
159	18,99	22,64	-	-	-	-				
168	20,10	23,97	-	-	-	-				
219	26,39	31,52	36,60	41,63	-	-				
273	33,05	39,51	45,92	52,28	-	-				
325	-	47,20	54,90	62,54	-	-				
426	-	62,15	72,33	82,47	92,56	-				
530	-	-	90,29	102,99	115,64	128,24				

#### Lengths supplied:

Supply of tubes with length up to 18 m is possible as may be agreed.

#### Low-alloy steel tubes' Strength class:

Steel grade	Chemical compound according to
K46, K48, K50, K52, K55	GOST 19281, TU 14-106-502, TU 14-1-4358, TU 14-1-4598

#### Obligatory requirements:

- hydraulic pressure test;
- non-destructive check of welded seam quality.

- bend-over test;
- collapse test.

<sup>- 10</sup> to 12 m throughout heat-treated and without throughout heat-treatment. Delivery of tubes with length of no less than 5 m in amount of up to 10% of bulk weight is acceptable.

Used for constructions of conventional purpose.

Pipe	e dimensi	ons and	weight										
Outer d	limensions,	Weight per meter, kg, for wall thickness, mm											
A	В	1,0	1,2	1,4	1,5	1,6	1,8	2,0	2,2	2,5	2,8	3,0	3,2
17	17	0,485	0,576	0,659	0,700	0,739	0,815	0,888	0,957	1,05	-	-	-
17	25	0,614	0,727	0,831	0,888	0,928	1,04	1,14	1,23	1,37	-	-	-
20	20	0,583	0,689	0,791	0,841	0,890	0,985	1,08	1,16	1,29	-	-	-
21	21	0,614	0,727	0,835	0,888	0,940	1,04	1,14	1,23	1,37	1,49	1,57	-
25	15	0,583	0,689	0,767	0,841	0,914	0,985	1,08	1,16	1,29	-	-	-
25	25	0,740	0,877	1,01	1,07	1,14	1,27	1,39	1,51	1,68	1,86	1,95	-
26	26	-	0,915	1,05	1,12	1,19	1,32	1,45	1,58	1,76	1,93	2,05	2,15
28	25	-	0,934	1,08	1,15	1,22	1,35	1,49	1,61	1,80	1,98	2,09	2,20
30	30	-	1,07	1,23	1,31	1,39	1,55	1,70	1,86	2,07	2,29	2,42	2,55
40	20	-	1,07	1,23	1,31	1,39	1,55	1,70	1,86	2,07	2,29	2,42	2,55
40	25	-	-	1,34	1,43	1,52	1,69	1,86	2,03	2,27	2,51	2,66	2,81
40	28	-	-	1,41	1,50	1,59	1,78	1,95	2,13	2,39	2,64	2,80	2,96
40	30	-	-	1,45	1,55	1,64	1,83	2,02	2,20	2,47	2,73	2,89	3,05
40	40	-	-	1,67	1,78	1,89	2,12	2,33	2,55	2,86	3,16	3,36	3,56
50	25	-	-	1,56	1,66	1,77	1,97	2,17	2,37	2,66	2,95	3,13	3,31
50	30	-	-	1,67	1,78	1,89	2,12	2,33	2,55	2,86	3,16	3,36	3,56
50	30	-	-	1,89	2,02	2,15	2,40	2,65	2,89	3,25	3,60	3,83	4,06
50	35	-	-	2,00	2,14	2,27	2,54	2,80	3,06	3,45	3,82	4,07	4,31

- off-gage length of 1.5 to 11.0 m;
- specific cut length of 5.0 to 9.0 m;
- $\ multiple \ specific \ cut \ length \ with \ any \ multiplicity \ not \ exceeding \ low \ limit \ set \ for \ cut-to \ length \ tubes.$

Steel hardness:	
Steel grade	Chemical compound according to
St1sp, St1kp, St1ps, St2sp, St2kp, St2ps, St3sp, St3kp, St3ps	GOST 380
08, 08kp, 08ps, 10, 10kp, 10ps, 15, 15kp, 15ps, 20, 20kp, 20ps	GOST 1050
08Ю	GOST 9045

#### Steel electric-welded flat-oval tubes

TU U 14-8-42-2001

Used for constructions of conventional purpose.

Dime	Dimensions and weight of oval tubes														
Outer di	mensions,	Weight per meter, kg, for wall thickness, mm													
Α	В	1,0	1,2	1,5	1,8	2,0	2,2	2,5	3,0						
30	15	0,592	0,703	0,869	1,03	1,13	1,24	1,39	-						
40	20	-	0,941	1,17	1,38	1,53	1,67	1,88	2,22						

#### Dimensions and weight of flat-oval tubes Outer dimensions, y<sub>o</sub>, mm Weight per meter, kg, for wall thickness, mm mm Α 1,2 1,5 1,8 2,0 В 2,2 2,5 2,8 3,0 40 20 0,994 1,23 1,45 1,60 1,74 1,95 2,15 2,28

#### $y_0$ – distance to gravity center.

- off-gage length of 1.5 to 11.0 m;
- specific cut length of 5 to 9 m;
- multiple specific cut length with any multiplicity not exceeding low limit set for cut-to length tubes.

Steel hardness:	
Steel grade	Chemical compound according to
St1sp, St1kp, St1ps, St2sp, St2kp, St2ps, St3sp, St3kp, St3ps	GOST 380
08, 08kp, 08ps, 10, 10kp, 10ps, 15, 15kp, 15ps, 20, 20kp, 20ps	GOST 1050

### Steel electric-welded shaped tubes TU U 27.2-05393139.10-2001

Used for constructions of conventional purpose.

Dimens	ion, mm	Weight per	meter, kg, for wa	all thickness, mm	1				
A	В	2,0	2,2	2,5	2,8	3,0	3,2	3,5	4,0
17	17	0,888	0,957	1,05	-	-	-	-	-
20	20	1,075	1,164	1,29	-	-	-	-	-
25	25	1,39	1,51	1,68	-	-	-	-	-
25	28	1,49	1,61	1,80	-	-	-	-	-
30	20	1,39	1,51	1,68	-	-	-	-	-
30	25	1,55	1,68	1,88	-	-	-	-	-
30	30	1,70	1,85	2,07	2,29	2,42	-	-	-
35	20	1,55	1,68	1,88	2,07	2,19	-	-	-
35	30	1,86	2,03	2,27	2,50	2,66	-	-	-
35	35	2,02	2,20	2,46	2,72	2,89	-	-	-
40	20	1,70	1,85	2,07	2,29	2,42	-	-	-
40	25	1,86	2,03	2,27	2,50	2,66	-	-	-
40	28	1,95	2,13	2,39	2,64	2,80	-	-	-
40	30	2,02	2,20	2,47	2,72	2,89	-	-	-
40	40	2,33	2,55	2,85	3,16	3,36	3,56	3,85	4,31
45	20	1,86	2,03	2,27	2,50	2,66	2,81	3,02	3,36
45	45	2,65	2,89	3,25	3,60	3,83	4,06	4,39	4,93
50	25	2,17	2,37	2,66	2,94	3,13	3,31	3,57	3,99
50	28	2,27	2,48	2,78	3,08	3,27	3,46	3,74	4,18
50	30	2,32	2,55	2,86	3,16	3,36	3,56	3,85	4,31
50	40	2,65	2,89	3,25	3,60	3,83	4,06	4,39	4,93
50	45	2,80	3,06	3,45	3,60	4,07	4,31	4,67	5,25
50	50	2,96	3,24	3,64	4,04	4,31	4,56	4,94	5,56
60	28	2,58	2,82	3,17	3,52	3,74	3,96	4,29	4,81
60	30	2,65	2,89	3,25	3,60	3,83	4,06	4,39	4,93
60	35	2,80	3,06	3,45	3,82	4,07	4,31	4,67	5,25
60	40	2,96	3,24	3,64	4,04	4,30	4,56	4,94	5,56
60	60	3,59	3,93	4,43	4,92	5,25	5,57	6,04	6,82
70	70	4,22	4,62	5,21	5,80	6,19	6,57	7,14	8,07
80	40	3,59	3,93	4,43	4,92	5,25	5,57	6,04	6,82
80	60	4,22	4,62	5,21	5,80	6,19	6,57	7,14	8,07
80	80	4,84	5,31	6,00	6,68	7,13	7,58	8,24	9,33
90	90	5,47	6,00	6,78	7,56	8,07	8,58	9,43	10,59
100	40	-	-	-	-	6,19	6,57	7,14	8,07
100	60	-	-	-	-	7,13	7,58	8,24	9,33
100	80	-	-	-	-	8,18	8,71	9,50	10,81

Tubes with alternate dimension are manufactured as may be agreed by parties.

- off-gage length of 1.5 to 9 m;
- specific cut length of 5 to 9 m;
- multiple length with any multiplicity not exceeding 5 m.

Steel hardness:	
Steel grade	Chemical compound according to
St1sp, St1kp, St1ps, St2sp, St2kp, St2ps, St3sp, St3kp, St3ps	GOST 380
08, 08kp, 08ps, 10, 10kp, 10ps, 15, 15kp, 15ps, 20, 20kp, 20ps	GOST 1050
08Ю	GOST 9045

#### TU 14-3-190-04

# Steel seamless tubes for steam generating units and pipelines

Used for steam generating units and pipelines.

Dimer	sions a	and we	iaht of	cold-wo	orked tu	ıbes									
Outside	ı			all thickne											
diameter, mm	3,5	4,0	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
34	2,633	2,959	3,576	-	-	-	-	-	-	-	-	-	-	-	-
35	2,719	3,058	3,699	-	-	-	-	-	-	-	-	-	-	-	-
36	2,805	3,157	3,822	4,137	4,439	-	-	-	-	-	-	-	-	-	-
38	-	3,354	4,069	4,408	4,735	5,049	5,352	-	-	-	-	-	-	-	-
40	-	3,551	4,316	4,680	5,031	5,369	5,697	6,011	6,313	-	-	-	-	-	-
42	-	3,749	4,562	4,951	5,327	5,690	6,042	6,381	6,708	7,023	7,324	-	-	-	-
45	-	4,044	4,932	5,358	5,771	6,171	6,560	6,936	7,300	7,651	7,990	8,317	8,632	-	-
48	-	4,340	5,302	5,765	6,215	6,652	7,078	7,491	7,892	8,280	8,656	9,020	9,371	-	-
50	-	4,538	5,549	6,036	6,511	6,972	7,423	7,861	8,286	8,699	9,110	9,489	9,865	10,580-	11,246
51	-	4,636	5,672	6,172	6,659	7,132	7,596	8,046	8,484	8,909	9,322	9,723	10,110	10,851	11,542
53	-	4,834	5,919	6,443	6,955	7,453	7,941	8,416	8,878	9,328	8,776	10,191	10,604	11,394	12,133
54	-	4,932	6,042	6,578	7,103	7,613	8,114	8,601	9,075	9,538	9,988	10,426	10,851	11,665	12,429
56	-	5,130	6,289	6,850	7,398	7,934	8,459	8,971	9,470	9,957	10,432	10,894	11,345	12,207	13,021
57	-	5,228	6,412	6,985	7,546	8,095	8,632	9,156	9,667	10,167	10,654	11,128	11,591	12,479	13,317
60	-	5,524	6,782	7,392	7,990	8,575	9,149	9,710	10,259	10,796	11,320	11,831	12,331	13,293	14,205
63	-	5,820	7,152	7,799	8,434	9,056	9,667	10,265	10,851	11,424	11,985	12,534	13,070	14,106	15,093
65	-	-	7,398	8,070	8,730	9,377	10,013	10,635	11,246	11,844	12,429	13,003	13,564	14,649	15,685
68	-	-	-	8,477	9,174	9,857	10,530	11,190	11,838	12,473	13,095	13,706	14,304	15,463	16,573
70	-	-	-	-	9,470	10,178	10,876	11,560	12,232	12,892	13,539	14,174	14,797	16,005	17,164
73	-	-	-	-	9,914	10,659	11,394	12,115	12,824	13,521	14,205	14,877	15,375	16,819	18,052
75	-	-	-	-	12,210	10,980	11,739	12,486	12,219	13,940	14,649	15,345	16,030	17,362	18,644
76	-	-	-	-	10,358	11,140	11,911	12,670	13,416	14,150	14,871	15,480	16,276	17,633	18,940
80	-	-	-	-	10,950	11,781	12,602	13,410	14,205	14,988	15,759	16,517	17,263	18,718	20,124
83	-	-	-	-	11,394	12,263	13,120	13,965	14,797	15,617	16,425	17,220	18,003	19,532	21,012

Dimer	rsior	is an	d we	ight	of h	ot-w	orke	d tu	bes															
Outside	Weig	ght per	mete	r, kg, fo	or wal	l thick	ness, n	nm																
diameter, 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	17,0	18,0
32	2,15	2,27	2,46	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
38	2,59	2,75	2,98	3,35	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
42	2,89	3,06	3,32	3,75	4,16	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
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	30,19	31,52
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	32,70	34,18
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	35,64	37,29
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	38,15	39,95
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	40,67	42,62
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	43,60	45,72
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	46,12	48,39
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	48,63	51,05
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	51,57	54,16
146	-	-	-	-	-	-	-	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	54,08	56,82
152	-	-	-	-	-	-	-	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	56,60	59,48
159	-	-	-	-	-	-	-	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	59,53	62,59
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	63,31	66,59
180	-	-	-	-	-	-	-	25,75	27,81	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	71,91
194	-	-	-	-	-	-	-	27,82	30,06	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	78,13
203	-	-	-	-	-	-	-	29,15	31,50	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	77,98	82,12
219	-	-	-	-	-	-	-	31,52	34,06	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	84,69	89,23
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	95,59	100,77
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	107,33	113,20
299	-	-	-	-	-	-	-	-	-	-	-	57,41	60,90	64,37	67,83	71,27	78,13	84,93	91,69	98,40	105,06	111,67	118,23	124,74
325	-	-	-	-	-	-	-	-	-	-	-	62,54	66,35	70,14	73,92	77,68	85,18	92,63	100,03	107,38	114,68		,	136,28
351	-	-	-	-	-	-	-	-	-	-	-	-	-	75,91	80,01	84,10	92,23	100,32					,	147,82
377	-	-	-	-	-	-	-	-	-	-	-	-	-	81,68	86,10	90,51	99,29	108,02	116,70	125,33	133,91	142,45	150,93	159,36

Tubes with diameter of  $\varnothing$  51 mm are manufactured with wall thickness of 2.5 and 2.8 mm as may be agreed by parties. It is possible to made tube with dimensions not specified in this table.

- Lengths supplied: off-gage length of 4.0 to 12.5 m;
- specific cut length within off-gage length;
- multiple specific cut length within off-gage length.

#### Steel hardness:

Steel grade	Chemical compound according to
10, 20, 20ПВ	GOST 1050

Manufacturing plant warrants tube capability to pass hydraulic pressure test.

- bend-over test;
- flaring test,
- collapse test;
- macrostructure control.

#### TU 14-3-460-2003

# Steel seamless tubes for steam generators and pipelines

Used for steam generators and pipelines, installations with high and supercritical steam parameters.

Dimen	isions a	ind wei	ght of co	old-wor	ked tub	es								
Outside	Weight p	er meter,	kg, for wall	thickness,	mm									
diameter, mm	4,0	4,5	5,0	5,5	6,0	6,5	7,0	7,5	8,0	9,0	10,0	11,0	12,0	13,0
36	3,16	3,50	3,82	4,14	4,44	4,73	5,01	5,27	5,52	-	-	-	-	-
38	3,35	3,72	4,07	4,41	4,74	5,05	5,35	5,64	5,92	6,44	-	-	-	-
40	3,55	3,94	4,32	4,68	5,03	5,37	5,70	6,01	6,31	6,88	7,40	7,87	-	-
42	3,75	4,16	4,56	4,95	5,33	5,69	6,04	6,38	6,71	7,32	7,89	8,41	-	
45	4,04	4,49	4,93	5,36	5,77	6,17	6,56	6,94	7,30	7,99	8,63	9,22	-	-
48	4,34	4,83	5,30	5,76	6,21	6,65	7,08	7,49	7,89	8,66	9,37	10,00	-	-
50	4,54	5,05	5,55	6,04	6,51	6,97	7,42	7,86	8,29	9,10	9,86	10,59	-	-
51	4,64	5,16	5,67	6,17	6,66	7,13	7,60	8,05	8,48	9,32	10,11	10,85	11,54	-
54	4,93	5,49	6,04	6,58	7,10	7,61	8,11	8,60	9,08	9,99	10,85	11,67	12,43	-
55	5,03	5,60	6,16	6,71	7,25	7,77	8,28	8,78	9,27	10,21	11,10	11,93	12,72	-
57	5,23	5,83	6,41	6,99	7,55	8,10	8,63	9,16	9,67	10,65	11,59	12,48	13,32	-
60	5,52	6,16	6,78	7,39	7,99	8,58	9,15	9,71	10,26	11,32	12,33	13,29	14,21	-
63	5,81	6,49	7,14	7,77	8,41	9,04	9,57	10,23	10,81	11,96	13,05	14,07	15,09	-
70	6,51	7,27	8,01	8,75	9,47	10,18	10,88	11,56	12,23	13,54	14,80	16,01	17,16	18,27
76	7,10	7,93	8,75	9,56	10,36	11,14	11,91	12,67	13,42	14,87	16,28	17,63	18,94	20,20
83	7,79	8,71	9,62	10,51	11,39	12,26	13,12	13,96	14,80	16,42	18,00	19,53	21,01	22,44

Dimer	sion	s and	weigh	it of h	ot-wo	rked	tubes												
Outside	Weig	ht per m	eter, kg	, for wal	l thickne	ess, mm													
diameter, mm	3,5	4,0	4,5	5,0	5,5	6,0	6,5	7,0	7,5	8,0	9,0	10,0	11,0	12,0	13,0	14,0	15,0	16,0	17,0
57	4,72	5,35	5,96	6,56	7,14	7,71	8,27	-	-	-	-	-	-	-	-	-	-	-	-
60	4,99	5,65	6,30	6,94	7,56	8,17	-	-	-	-	-	-	-	-	-	-	-	-	-
76	6,41	7,27	8,12	8,96	9,78	10,59	11,39	12,18	12,95	13,71	15,19	16,62	18,00	19,32	20,59	21,82	22,99	24,10	25,17
83	6,95	7,98	8,92	9,84	10,75	11,65	12,54	13,42	14,28	15,12	16,78	18,39	19,94	21,44	22,89	24,29	25,64	26,93	28,18
89	7,47	8,58	9,60	10,60	11,59	12,56	13,53	14,48	15,41	16,34	18,15	19,90	21,61	23,26	24,87	26,42	27,91	29,36	30,76
102	-	-	11,08	12,24	13,40	14,54	15,66	16,78	17,88	18,97	21,10	23,19	25,22	27,21	29,14	31,02	32,84	34,62	36,34
108	-	-	11,76	13,00	14,23	15,45	16,65	17,84	19,02	20,18	22,47	24,71	26,89	29,03	31,11	33,14	35,12	37,04	38,92
114	-	-	-	14,40	15,76	17,11	18,44	19,76	21,06	22,35	24,89	27,37	29,79	32,16	34,47	36,72	38,92	41,06	43,14
121	-	-	-	15,32	16,78	18,22	19,64	21,06	22,45	23,84	26,56	29,23	31,84	34,39	36,88	39,32	41,70	44,08	46,29
133	-	-	-	16,92	18,53	20,13	21,71	23,28	24,84	26,38	29,42	32,41	35,34	38,20	41,02	43,77	46,47	49,12	51,70
140	-	-	-	-	-	21,24	22,92	24,58	26,23	27,87	31,09	34,26	37,38	40,43	43,43	46,37	49,26	52,08	54,86
146	-	-	-	-	-	22,20	23,95	25,70	27,42	29,14	32,52	35,85	39,13	42,34	45,50	48,60	51,64	54,63	57,56
152	-	-	-	-	-	23,15	24,99	26,81	28,62	30,41	33,96	37,44	40,88	44,25	47,57	50,83	54,08	57,18	60,26
159	-	-	-	-	-	24,26	26,19	28,11	30,01	31,90	35,63	39,30	42,92	46,48	49,98	53,42	56,81	60,14	63,42
168	-	-	-	-	-	-	27,74	29,78	31,80	33,80	37,77	41,69	45,54	49,34	53,08	56,76	60,39	63,96	67,48
194	-	-	-	-	-	-	-	34,60	36,97	39,32	43,98	48,58	53,12	57,61	62,04	66,41	70,73	74,99	79,19
219	-	-	-	-	-	-	-	-	41,94	44,62	49,94	55,21	60,41	65,56	70,66	75,69	80,67	85,59	90,46
245	-	-	-	-	-	-	-	-	-	-	56,14	62,10	67,99	73,83	79,62	85,34	91,01	96,62	102,18
273	-	-	-	-	-	-	-	-	-	-	-	69,52	76,16	82,74	89,27	95,73	102,14	108,50	114,79
299	-	-	-	-	-	-	-	-	-	-	-	76,41	83,74	91,01	98,23	105,38	112,48	119,53	126,5
325	-	-	-	-	-	-	-	-	-	-	-	-	-	-	107,19	115,03	122,82	130,55	138,28
351	-	-	-	-	-	-	-	-	-	-	-	-	-	-	117,44	126,07	134,63	143,14	151,59
377	-	-	-	-	-	-	-	-	-	-	-	-	-	-	126,50	135,83	145,09	154,30	168,45

#### Dimensions and weight of hot-worked tubes (continued) Outside Weight per meter, kg, for wall thickness, mm diameter 30,0 18,0 19,0 20,0 22,0 24,0 25,0 26,0 28,0 32,0 56,0 60,0 mm 28,06 76 26,18 27,15 83 31,59 89 32.10 33,39 34,64 102 38,01 39,68 41,20 44,18 40.74 42.51 44.23 47.52 50.59 52.05 53.46 108 45,16 47,13 49,04 56,12 57,74 114 121 48,50 50,66 52,75 56,78 60,57 62,38 64,13 133 59,12 63,77 68,20 56,70 72,40 76,38 80,12 83,64 89,99 62.83 72,66 77,23 140 57 57 60,23 67,86 74,97 81,58 85 69 89 58 93 24 96,67 86,03 66,01 71,36 76,47 78,95 81,36 90,46 94,67 98,65 102,40 146 60,48 152 63,30 66,27 69,19 74,85 80,29 82,92 85,50 90,48 95,24 99,76 104,06 108,13 159 66,64 69,80 72,90 78,94 84,74 87,56 90,32 95,68 110,37 114,81 168 70,98 74,33 77,67 84,19 90,47 93,53 96,53 102,36 107,96 113,33 118,49 123,40 | 128,08 132,55 194 91,46 114,45 128,64 | 135,39 141,91 148,21 | 154,28 | 160,12 83,34 87,43 99,35 107,01 110,76 121,66 165,73 173,72 95.27 100.02 104.71 113.93 122,92 127.33 131.68 140.21 148.52 156.60 164.45 172.07 179,46 186.63 193.56 203.54 213.01 219.03 219 118.50 129,09 | 139,46 | 144,56 | 149,60 159,51 169,20 178,65 187,88 196,88 | 205,65 | 215,26 | 222,51 | 234,56 | 246,09 | 253,50 245 107,67 113,11 273 121,03 127,32 133.34 145.42 157,28 163,28 168.90 180,30 191,46 202.40 213,12 223.60 233,86 243.89 253.69 267,96 281.72 290.61 315.91 331.60 199,60 212,14 224,46 248,42 260,05 271,46 372,99 299 133,44 140,31 147,13 173,82 180,35 186,82 289,64 298,98 314,80 325,07 218,89 232,82 246,52 273,23 286,24 299,03 325 160,91 175,75 190,36 197,58 204,74 259,99 311,58 329,99 347,89 359,54 393,10 414,34 145,85 153.41 351 159,98 | 168,32 | 174,70 190,91 206,90 214,81 222,61 238,19 253,49 268,57 283,42 298,04 312,43 326,60 340,53 361,01 380,97 395,99 431,70 455,70 181,57 | 188,48 | 206,08 | 223,44 | 232,13 | 240,58 | 257,49 | 274,17 | 290,63 | 306,86 | 322,85 | 388,62 | 354,17 | 369,18 | 392,08 | 414,06 | 428,46 | 470,30 | 497,05 377 172.54

Tubes are manufactured in A package. Tubes with diameter of 351 and 377 of steel 15XM, 12X1MΦ, 15X1M1Φ are manufactured as may be agreed by parties.

#### Lengths supplied:

- off-gage length of 4.0 to 12.0 m;
- specific cut length for tubes with wall thickness up to 13 mm at length up to 9,0 m,
  - for tubes with wall thickness of no less than 13 mm depending on tube dimensions.

Steel grades for tube production.	
Steel grade	Chemical compound according to
20, 20-ПВ, 5ГС, 15ХМ, 12Х1МФ, 12Х1МФ-ПВ , 15Х1М1Ф	TU 14-3-460

Manufacturing plant warrants tube capability to pass hydraulic pressure test.

#### Obligatory requirements:

- non-destructive check;
- collapse test;
- macrostructure control (for tubes with wall thickness of no less than 15 mm);
- tube metal macrostructure control;
- contamination control of tube metal for nonmetallic impurities.

- flaring test (for tubes with diameter up to 83 mm);
- anticorrosion tube protection with grease.

## Steel seamless tubes for steam generators and pipelines

TU 14-3R-55-2001

Used for steam generators and pipelines, installations with high and supercritical steam parameters.

Outside	Weig	ht per m	eter, kg	, for wal	l thickn	ess, mm													
diameter, mm	3,5	4,0	4,5	5,0	5,5	6,0	6,5	7,0	7,5	8,0	9,0	10,0	11,0	12,0	13,0	14,0	15,0	16,0	17,0
57	4,72	5,35	5,96	6,56	7,14	7,71	8,27	-	-	-	-	-	-	-	-	-	-	-	-
60	4,99	5,65	6,30	6,94	7,56	8,17	-	-	-	-	-	-	-	-	-	-	-	-	-
76	6,41	7,27	8,12	8,96	9,78	10,59	-	-	-	-	-	-	-	-	-	-	-	-	-
83	6,95	7,98	8,92	9,84	10,75	11,65	12,54	13,42	14,28	15,12	-	-	-	-	-	-	-	-	-
89	7,47	8,58	9,60	10,60	11,59	12,56	13,53	14,48	15,41	16,34	-	-	-	-	-	-	-	-	-
102	-	-	11,08	12,24	13,40	14,54	15,66	16,78	17,88	18,97	-	-	-	-	-	-	-	-	-
108	-	-	11,76	13,00	14,23	15,45	16,65	17,84	19,02	20,18	-	-	-	-	-	-	-	-	-
114	-	-	-	14,40	15,76	17,11	18,44	19,76	21,06	-	-	-	-	-	-	-	-	-	-
146	-	-	-	-	-	22,20	23,95	25,70	27,42	29,14	32,52	35,85	39,13	42,34	45,50	48,60	51,64	54,63	57,56
152	-	-	-	-	-	23,15	24,99	26,81	28,62	30,41	33,96	37,44	40,88	44,25	47,57	50,83	54,08	57,18	60,26
159	-	-	-	-	-	24,26	26,19	28,11	30,01	31,90	35,63	39,30	42,92	46,48	49,98	53,42	56,81	60,14	63,42
168	-	-	-	-	-	-	27,74	29,78	31,80	33,80	37,77	41,69	45,54	49,34	53,08	56,76	60,39	63,96	67,48
194	-	-	-	-	-	-	-	34,60	36,97	39,32	43,98	48,58	53,12	57,61	62,04	66,41	70,73	74,99	79,19
219	-	-	-	-	-	-	-	-	41,94	44,62	49,94	55,21	60,41	65,56	70,66	75,69	80,67	85,59	90,46
245	-	-	-	-	-	-	-	-	-	-	56,14	62,10	67,99	73,83	79,62	85,34	91,01	96,62	102,1
273	-	-	-	-	-	-	-	-	-	-	-	69,52	76,16	82,74	89,27	95,73	102,14	108,50	114,79
325	-	-	-	-	-	-	-	-	-	-	-	-	-	-	107,19	115,03	122,82	130,55	138,2

Dimer	sions	and v	veigh	t of ho	ot-wo	rked t	ubes	(conti	nued	*									
Outside	Weight	t per me	ter, kg,	for wall	thickne	ss, mm													
diameter, mm			20,0	22,0	24,0	25,0	26,0	28,0	30,0	32,0	34,0	36,0	38,0	40,0	42,0	45,0	48,0	50,0	56,0
146	60,48	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
152	63,30	66,27	69,19	74,85	80,29	82,92	85,50	90,48	-	-	-	-	-	-	-	-	-	-	-
159	66,64	69,80	72,90	78,94	84,74	87,56	90,32	95,68	-	-	-	-	-	-	-	-	-	-	-
168	70,98	74,33	77,67	84,19	90,47	93,53	96,53	102,36	107,96	-	-	-	-	-	-	-	-	-	-
194	83,34	87,43	91,46	99,35	107,01	110,76	114,45	121,66	128,64	135,39	-	-	-	-	-	-	-	-	-
219	95,27	100,02	104,71	113,93	122,92	127,33	131,68	140,21	148,52	156,60	164,45	172,07	179,46	186,63	193,56	-	-	-	-
245	107,67	113,11	118,50	129,09	139,46	144,56	149,60	159,51	169,20	178,65	187,88	196,88	205,65	215,26	222,51	234,56	246,09	253,50	-
273	121,03	127,32	133,34	145,42	157,28	163,28	168,90	180,30	191,46	202,40	213,12	223,60	233,86	243,89	253,69	267,96	281,72	290,61	315,91
325	145,85	153,41	160,91	175,75	190,36	197,58	204,74	218,89	232,82	246,52	259,99	273,23	286,24	299,03	311,58	329,99	347,89	359,54	-

<sup>\*-</sup> theoretical weight of carbon, low-alloy and martensitic chromium steel grades.

- off-gage length of 4.0 to 10.0 m;
- specific cut length within off-gage length taking into account possible minimum and maximum lengths;
- multiple length within specific cut length (as may be agreed by parties).

# Steel grades for tube production Steel grade Chemical compound according to 20, 20-ПВ, 15ГС, 12Х1МФ, 15Х1М1Ф,10Х9МФБ-Ш (10Х9МФБ) TU 14-3R-55

Manufacturing plant warrants tube capability to pass hydraulic pressure test.

#### Obligatory requirements:

- chemical composition check;
- impact-bending test;
- hardness test;
- non-destructive check for longitudinal defects and defects of delaminating type;
- collapse test, flaring test, bend-over test;
- macrostructure control (for tubes with wall thickness of no less than 15 mm);
- tube metal macrostructure control;
- contamination control of tube metal for nonmetallic impurities;
- stress-durability test (intermittent monitoring).

#### At customer's request it is possible to carry out:

- non-destructive check for transversal defects and defects of delaminating type;
- non-destructive check for longitudinal and transversal defects according to higher standards;
- anticorrosion tube protection with grease;
- grain-boundary corrosion resistance testing.

#### Re-rolled mill products for machinebuilding and construction products

TU U 27.1-4-569-2004

Used for manufacturing of machine-building and construction products.

Dimensions of tubes						
Mill	Mill products description	Dimensions, mm		Mill products length (off-grade		
products group		Outer diameter	Wall thickness	length), mm		
				min		
1	Hot-rolled mill products	73,0 - 377,0	5,0 - 65,0	2000,0		
2	cold-rolled mill products	37,0 - 203,0	3,0 - 30,0	2000,0		
3	Hot-rolled heavy-walled mill	320,0 - 330,0	70,0	500,0		
	products (tubular billet)	370,0 - 380,0	70,0	600,0		
		430,0 - 440,0	60,0	600,0		
		440,0 - 450,0	80,0	500,0		

Steel grades for tube production with chemical composition according to:

DSTU 2651, GOST 1050, GOST 4543, GOST 801, GOST 19281 etc.

#### Skid rails

TU U 27.2-8-87-2004

Used for production of water-cooled metal constructions.

Pipe dimensions and weight						
Outside square side, mm	Inner diameter, mm	Rounded radius, mm	Weight per 1 m of tube, kg			
140	85	20	106,6			
155	100		124,3			

Limit deviation for every tube dimension: ±5 mm

#### Lengths supplied:

- off-gage length of 4.0 to 13.0 m.

Tubes are manufactured of killed open-hearth steel.

Sulphur and phosphorus weight fractions in steel each must not exceed 0,045%.

#### Interpipe

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