



INTERPIPE

Pipes for Industrial Application



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

Dimensions and weight for Cold-formed

| Outside diameter, mm | Sn, mm | Weight per unit length, kg/m | | | | | | | | | | | | | | |
|----------------------|--------|------------------------------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|
| | | 3,2 | 3,6 | 4,0 | 4,5 | 5,0 | 5,6 | 6,3 | 7,1 | 8,0 | 8,8 | 10,0 | 11,0 | 12,5 | 14,2 | 16,0 |
| 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 |

Dimensions and weight for Hot-rolled

| Outside diameter, mm | Sn, mm | Weight per unit length, kg/m | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
|----------------------|--------|------------------------------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|---|---|
| | | 3,2 | 3,6 | 4,0 | 4,5 | 5,0 | 5,6 | 6,3 | 7,1 | 8,0 | 8,8 | 10,0 | 11,0 | 12,5 | 14,2 | 16,0 | 17,5 | 20,0 | 22,2 | 25,0 | 28,0 | 30,0 | 32,0 | 36,0 | 40,0 | 45,0 | 50,0 | 55,0 | 60,0 | 65,0 | | |
| 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 diameter, mm | Sn, mm | Weight per unit length, kg/m | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
|----------------------|--------|------------------------------|-----|-----|-----|-----|-----|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|
| | | 3,2 | 3,6 | 4,0 | 4,5 | 5,0 | 5,6 | 6,3 | 7,1 | 8,0 | 8,8 | 10,0 | 11,0 | 12,5 | 14,2 | 16,0 | 17,5 | 20,0 | 22,2 | 25,0 | 28,0 | 30,0 | 32,0 | 36,0 | 40,0 | 45,0 | 50,0 | 55,0 | 60,0 | 65,0 |
| 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 | 466 |

Manufacturing of pipe sizes not specified in the table is possible. Sn - normal wall thickness

Upon agreement pipes are produced with outside diameter: 216, 229, 254, 267, 298.5, 305, 330, 351, 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

Dimensions and weight for Cold-formed

| Outside diameter, mm | Sn, mm | Weight per unit length, kg/m | | | | | | | | | | | | | | |
|----------------------|--------|------------------------------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|
| | | 3,2 | 3,6 | 4,0 | 4,5 | 5,0 | 5,6 | 6,3 | 7,1 | 8,0 | 8,8 | 10,0 | 11,0 | 12,5 | 14,2 | 16,0 |
| 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 |

Dimensions and weight for Hot-rolled

| Outside diameter, mm | Sn, mm | Weight per unit length, kg/m | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
|----------------------|--------|------------------------------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|---|---|
| | | 3,2 | 3,6 | 4,0 | 4,5 | 5,0 | 5,6 | 6,3 | 7,1 | 8,0 | 8,8 | 10,0 | 11,0 | 12,5 | 14,2 | 16,0 | 17,5 | 20,0 | 22,2 | 25,0 | 28,0 | 30,0 | 32,0 | 36,0 | 40,0 | 45,0 | 50,0 | 55,0 | 60,0 | 65,0 | | |
| 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 | - | - | |
| 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 | 466 | - | - | - |

Manufacturing of pipe sizes not specified in the table is possible. Sn - normal wall thickness

Upon agreement pipes are produced with outside diameter: 216, 229, 254, 267, 298.5, 305, 330, 351, 368, 377 mm.

Length supplied:

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

Steel hardness:

Steel grades

St37.4, St44.4, St52.4

Chemical compound according to

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.

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

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

Hot finished structural hollow sections of non-alloy and fine-grain structural steels

EN 10210-1
EN 10210-2

Application: for manufacturing metal structures

Dimensions and weight

| Outside diameter, mm | Weight per meter, kg, for wall thickness, mm | | | | | | | | | | | |
|----------------------|--|------|------|------|------|------|------|------|------|------|------|------|
| | 3,2 | 4,0 | 5,0 | 6,0 | 6,3 | 8,0 | 10,0 | 12,0 | 12,5 | 16,0 | 20,0 | 25,0 |
| 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.

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

- 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 dimensions and weight

| Outside diameter, mm | Weight per meter, kg, for wall thickness, mm | | | | | | | | | | | | | | | | | | | | |
|----------------------|--|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|
| | 5,0 | 5,6 | 6,3 | 7,1 | 8,0 | 8,8 | 10,0 | 11,0 | 12,5 | 14,2 | 16,0 | 17,5 | 20,0 | 22,2 | 25,0 | 28,0 | 30,0 | 32,0 | 40,0 | 45,0 | 50,0 |
| 76,1 | - | 9,74 | 10,8 | 12,1 | 13,4 | 14,6 | 16,3 | 17,7 | - | - | - | - | - | - | - | - | - | - | - | - | - |
| 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 |

Obligatory requirements:

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

Hot finished seamless steel tubes suitable for threading

NF A 49-115

Application: fluids transportation

Pipe dimensions and weight

| Outside diameter, mm | Weight per meter, kg, for wall thickness, 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:

- Carrying out hydraulic pressure or eddy-current testing.

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

Dimensions and weight for Cold-formed

| Outside diameter, mm | Sn, mm | Weight per meter, kg, for wall thickness 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 |

Dimensions and weight for Hot-rolled (continued)

| Outside diameter, mm | Sn, mm | Weight per meter, kg, for wall thickness 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 | - | - |
| 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

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

- 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° N temperature and high pressure
are simultaneously used to have summarized load and special conditions

Dimensions and weight for Cold-formed

| Outside diameter, mm | Sn, mm | Weight per meter, kg, for wall thickness 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 |

Dimensions and weight for Hot-rolled

| Outside diameter, mm | Sn, mm | Weight per meter, kg, for wall thickness 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 | - | - | - | - | - |

Dimensions and weight for Hot-rolled (continued)

| Outside diameter, mm | Sn, mm | Weight per meter, kg, for wall thickness 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, 10CrMo9-10, 11CrMo9-10, 25CrMo4, 20MnNb6 | 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

Dimensions and weight for Cold-formed

| Outside diameter, mm | Sn, mm | Weight per meter, kg, for wall thickness 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 |

Dimensions and weight for Hot-rolled (continued)

| Outside diameter, mm | Sn, mm | Weight per meter, kg, for wall thickness 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 | | |
| 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 |
|--------------------------------|--------------------------------|
| E235, E275, E 315, E 355, E470 | EN 10297-1 |

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

- 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/cm² pressure, for air and non-aggressive gas - under no more than 10 kgs/cm² pressure

Pipe dimensions and weight

| Nominal size, DN, mm | Outside diameter, mm | Wall thickness, mm | Weight per meter, kg/m | 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/cm² pressure, for air and non-aggressive gas under no more than 10 kgs/cm² 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: 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).

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 size, D (mm) | Outside diameter | | H, Heavy-weight | | M, Medium-weight | |
|----------------------|------------------|-----------|------------------------|--------------------------|------------------------|-------------------------------|
| | 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 |

Obligatory requirements:

- 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

| Pipe dimensions and weight | | | | | | | | |
|----------------------------|------------------|-------|----------------|------|------------------------|-------|-----------|--------|
| NPS | Outside diameter | | Wall thickness | | Weight per length unit | | Pipe type | |
| | inches | mm | inches | mm | lb/ft | Kg/m | Seamless | Welded |
| 1 | 1.315 | 33,4 | 0.133 | 3,4 | 1.68 | 2,52 | • | |
| 1 ¼ | 1.660 | 42,2 | 0.140 | 3,6 | 2.27 | 3,43 | • | |
| 1 ½ | 1.900 | 48,3 | 0.145 | 3,7 | 2.72 | 4,07 | • | |
| 2 | 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 | • | |
| 2 ½ | 2.875 | 73,0 | 0.218 | 5,5 | 5.03 | 7,43 | • | |
| | | | 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 | • | |
| 3 | 3.500 | 88,9 | 0.250 | 6,4 | 7.02 | 10,51 | • | |
| | | | 0.276 | 7,0 | 7.67 | 11,39 | • | |
| | | | 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 | • | |
| 3 ½ | 4.000 | 101,6 | 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 | • | |
| | | | 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 | • | |
| 4 | 4.500 | 114,3 | 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 | • | |
| | | | 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 | • | |
| 4 | 4.500 | 114,3 | 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 | • | |
| | | | 0.337 | 8,6 | 15.00 | 22,42 | • | |
| | | | 0.438 | 11,1 | 19.02 | 28,25 | • | |

Pipe dimensions and weight (continued)

| NPS | Outside diameter | | Wall thickness | | Weight per length unit | | Pipe type | |
|-----|------------------|-------|----------------|-------|------------------------|-------|-----------|--------|
| | inches | mm | inches | mm | lb/ft | Kg/m | Seamless | Welded |
| 5 | 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 | • | |
| 10 | 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 | 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)

| NPS | Outside diameter | | Wall thickness | | Weight per length unit | | Pipe type | |
|-----|------------------|-------|----------------|-----|------------------------|-------|-----------|--------|
| | inches | mm | inches | mm | lb/ft | Kg/m | Seamless | Welded |
| 14 | 14.000 | 355,6 | 0.219 | 5,6 | 32.26 | 48,33 | | • |
| | | | 0.250 | 6,4 | 36.75 | 55,11 | | • |
| | | | 0.281 | 7,1 | 41.21 | 61,02 | | • |
| | | | 0.312 | 7,9 | 45.65 | 67,74 | | • |
| | | | 0.344 | 8,7 | 50.22 | 74,42 | | • |
| | | | 0.375 | 9,5 | 54.62 | 81,08 | | • |
| 16 | 16.000 | 406,4 | 0.219 | 5,6 | 36.95 | 55,35 | | • |
| | | | 0.250 | 6,4 | 42.09 | 63,13 | | • |
| | | | 0.281 | 7,1 | 47.22 | 69,91 | | • |
| | | | 0.312 | 7,9 | 52.32 | 77,63 | | • |
| | | | 0.344 | 8,7 | 57.57 | 85,32 | | • |
| | | | 0.375 | 9,5 | 62.64 | 92,98 | | • |

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 grades 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

Mandatory requirements:

- Hydrotesting;
- Impact test (PSL2);
- Non-destructive UT test (PSL2);
- Controlled carbon equivalent (PSL2);
- Flattening test (PSL2);
- NDE of welding seam;
- Chemical composition;
- Mechanical properties;
- Beveled ends.

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

Pipe dimensions and weight for hot-formed pipes

| Nominal size | Outside diameter | | Wall thickness | | Weight per length unit | | Weight class* |
|--------------|------------------|-------|----------------|-------|------------------------|-------|---------------|
| | inches | mm | inches | mm | lb/ft | kg/m | |
| 1 | 1.315 | 33,4 | 0.133 | 3,38 | 1.68 | 2,50 | STD |
| 1 ¼ | 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 | ... |
| 2 ½ | 2.875 | 73,0 | 0.218 | 5,54 | 5.03 | 7,48 | XS |
| | | | 0.141 | 3,58 | 4.12 | 6,13 | ... |
| | | | 0.156 | 3,96 | 4.53 | 6,74 | ... |
| | | | 0.172 | 4,37 | 4.97 | 7,40 | ... |
| 2 ½ | 2.875 | 73,0 | 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 | 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 |
| 3 ½ | 4.000 | 101,6 | 0.438 | 11,13 | 14.32 | 21,35 | ... |
| | | | 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 | ... |
| 3 ½ | 4.000 | 101,6 | 0.281 | 7,14 | 11.17 | 16,63 | ... |
| | | | 0.318 | 8,08 | 12.52 | 18,63 | XS |
| | | | 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 | ... |
| 4 | 4.500 | 114,3 | 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 | ... |
| | | | 0.337 | 8,56 | 14.98 | 22,32 | XS |
| | | | 0.438 | 11,13 | 19.00 | 28,32 | ... |
| | | | 0.531 | 13,49 | 22.51 | 33,54 | ... |
| | | | 0.258 | 6,55 | 14.62 | 21,77 | STD |
| | | | 0.375 | 9,53 | 20.78 | 30,97 | XS |
| 5 | 5.563 | 141,3 | 0.500 | 12,70 | 27.04 | 40,28 | ... |
| | | | 0.625 | 15,88 | 32.96 | 49,11 | ... |

Pipe dimensions and weight (continued)

| Nominal size | Outside diameter | | Wall thickness | | Weight per length unit | | Weight class* |
|--------------|------------------|-------|----------------|-------|------------------------|--------|---------------|
| | inches | mm | inches | mm | lb/ft | kg/m | |
| 6 | 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 | ... |
| 8 | 8.625 | 219,1 | 0.864 | 21,95 | 53.16 | 79,22 | XXS |
| | | | 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 | ... |
| 10 | 10.750 | 273,0 | 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 | ... |
| | | | 0.307 | 7,80 | 34.24 | 51,03 | ... |
| | | | 0.344 | 8,74 | 38.23 | 56,98 | ... |
| | | | 0.365 | 9,27 | 40.48 | 60,31 | STD |
| | | | 0.500 | 12,70 | 54.74 | 81,55 | XS |
| 12 | 12.750 | 323,8 | 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 | ... |
| | | | 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 | ... |
| 14 | 14.000 | 355,6 | 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 | ... |
| | | | 0.375 | 9,53 | 54.57 | 81,33 | STD |
| 14 | 14.000 | 355,6 | 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 | ... |

* 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, 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

Pipe dimensions and weight

| Nominal size, inches | Outside diameter | | Wall thickness | | Weight per length unit | | Weight class* inches | Pipe type | |
|----------------------|------------------|------|----------------|-------|------------------------|-------|----------------------|-----------|--------|
| | inches | mm | inches | mm | lb/ft | kg/m | | seamless | welded |
| 1 | 1.315 | 33,4 | 0.133 | 3,38 | 1.68 | 2,50 | STD | • | |
| 1 ¼ | 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 | 0.141 | 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 | • | |

Pipe dimensions and weight (continued)

| Nominal size, inches | Outside diameter | | Wall thickness | | Weight per length unit | | Weight class* | Pipe type | |
|-------------------------|------------------|-------|----------------|-------|------------------------|-------|---------------|-----------|--------|
| | inches | mm | inches | mm | lb/ft | kg/m | | seamless | welded |
| 3 ½ | 4.000 | 101,6 | 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 | 4.500 | 114,3 | 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 | 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 | 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 | • | |

Pipe dimensions and weight (continued)

| Nominal size, inches | Outside diameter | | Wall thickness | | Weight per length unit | | Weight class* | Pipe type | |
|-------------------------|------------------|--------|----------------|--------|------------------------|--------|---------------|-----------|--------|
| | inches | mm | inches | mm | lb/ft | kg/m | | seamless | welded |
| 8 | 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 | 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 | ... | • | | | | |
| 12 | 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 | ... | • | |
| | | | 1.000 | 25,40 | 125.49 | 186,97 | XXS | • | |
| | | | 1.125 | 28,58 | 139.67 | 208,14 | ... | • | |
| | | | 1.312 | 33,32 | 160.27 | 238,76 | ... | • | |

Pipe dimensions and weight (continued)

| Nominal size, inches | Outside diameter | | Wall thickness | | Weight per length unit | | Weight class* | Pipe type | |
|----------------------|------------------|-------|----------------|-------|------------------------|--------|---------------|-----------|--------|
| | inches | mm | inches | mm | lb/ft | kg/m | | seamless | welded |
| 14 | 14.000 | 355,6 | 0.219 | 5,56 | 32.23 | 47,99 | ... | | • |
| | | | 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 | 9,53 | 54.57 | 81,33 | STD | • | • |
| | | | 0.438 | 11,13 | 63.44 | 94,55 | ... | • | |
| | | | 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 | ... | • | |
| 16 | 16.000 | 406,4 | 2.000 | 50,80 | 256.32 | 381,83 | ... | • | |
| | | | 2.125 | 53,98 | 269.50 | 401,50 | ... | • | |
| | | | 0.219 | 5,56 | 36.94 | 54,86 | ... | | • |
| | | | 0.250 | 6,35 | 42.05 | 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 | ... | • | |
| | | | 0.375 | 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

Dimensions and weight for Welded

| Outside diameter, mm | Weight per meter, kg, for wall thickness 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 | 14,2 |
| 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 | - | - | - | - | - | - | - | - | - | - | - | - | - | - |
| 33,7 | 1,12 | 1,27 | 1,42 | 1,56 | 1,78 | 1,99 | 2,20 | 2,41 | 2,67 | - | - | - | - | - | - | - | - | - | - | - | - |
| 42,4 | 1,42 | 1,61 | 1,80 | 1,99 | 2,27 | 2,55 | 2,82 | 3,09 | 3,44 | 3,79 | - | - | - | - | - | - | - | - | - | - | - |
| 48,3 | 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 | - | - | - | - | - | - | - | - | - | - | - |
| 60,3 | 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 | - | - | - | - | - | - | - | - | - | - | - |
| 88,9 | - | - | - | - | - | - | - | 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 | - | - | - | - | - | - | - | - | - | - |
| 159,0 | - | - | - | - | - | - | - | - | - | - | - | 19,0 | 21,2 | 23,7 | 26,6 | - | - | - | - | - | - |
| 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 | 57,3 | - | - | - | - |
| 323,9 | - | - | - | - | - | - | - | - | - | - | - | - | 44,0 | 49,3 | 55,5 | 62,3 | 68,4 | 77,4 | - | - | - |
| 355,6 | - | - | - | - | - | - | - | - | - | - | - | - | 48,3 | 54,3 | 61,0 | 68,6 | 75,3 | 85,2 | - | - | - |
| 406,4 | - | - | - | - | - | - | - | - | - | - | - | - | 55,4 | 62,2 | 69,9 | 78,6 | 86,3 | 97,8 | - | - | - |
| 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

Pipe dimensions and weight for circular pipes

| Outside diameter, mm | Weight per meter, kg, for wall thickness mm | | | | | | | | | | | | | | |
|----------------------|---|------|------|------|------|------|------|------|------|------|------|------|------|------|------|
| | 2,0 | 2,3 | 2,6 | 2,9 | 3,2 | 3,6 | 4,0 | 4,5 | 5,0 | 5,6 | 6,3 | 7,1 | 8,0 | 8,8 | 10,0 |
| 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 | 57,3 | - |
| 323,9 | - | - | - | - | - | - | - | - | - | 44,0 | 49,3 | 55,5 | 62,3 | 68,4 | 77,4 |
| 355,6 | - | - | - | - | - | - | - | - | - | 48,3 | 54,3 | 61,0 | 68,6 | 75,3 | 85,2 |
| 406,4 | - | - | - | - | - | - | - | - | - | 55,4 | 62,2 | 69,9 | 78,6 | 86,3 | 97,8 |

Pipe dimensions and weight for shaped pipes

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

Range according to DIN EN 10219-2

Pipe dimensions and weight of square pipes are manufactured upon agreement

| Dimension, mm | | Weight per meter, kg, for wall thickness mm | | | | |
|---------------|----|---|------|------|------|-------|
| A | B | 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 |

Pipe dimensions and weight of rectangular pipes are manufactured upon agreement

| Dimension, mm | | Weight per meter, kg, for wall thickness mm | | | | |
|---------------|----|---|------|------|------|-------|
| A | B | 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 14,0 m.

Steel hardness:

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

Obligatory requirements:

- 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

Dimensions and weight for Welded tubes

| Outside diameter, mm | Weight per meter, kg, for wall thickness, mm | | | | | | |
|----------------------|--|------|------|------|------|------|------|
| | 5,0 | 5,6 | 6,3 | 7,1 | 8,0 | 8,8 | 10,0 |
| 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 | 57,3 | - |
| 323,9 | - | 44,0 | 49,3 | 55,5 | 62,3 | 68,4 | 77,4 |
| 355,6 | - | 48,3 | 54,3 | 61,0 | 68,6 | 75,3 | 85,2 |
| 406,4 | - | 55,4 | 62,2 | 69,9 | 78,6 | 86,3 | 97,8 |

Length supplied:

- 4,0-14,0 m.

Steel hardness:

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

Obligatory requirements:

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

Unalloyed steel tubes with specified room temperature properties

EN 10217-2

Application: for using under pressing load

Dimensions and weight for Welded tubes

| Outside diameter, mm | Weight per meter, kg, for wall thickness, mm | | | | | | |
|----------------------|--|------|------|------|------|------|------|
| | 5,0 | 5,6 | 6,3 | 7,1 | 8,0 | 8,8 | 10,0 |
| 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 | 57,3 | - |
| 323,9 | - | 44,0 | 49,3 | 55,5 | 62,3 | 68,4 | 77,4 |
| 355,6 | - | 48,3 | 54,3 | 61,0 | 68,6 | 75,3 | 85,2 |
| 406,4 | - | 55,4 | 62,2 | 69,9 | 78,6 | 86,3 | 97,8 |

Length supplied:

- 4,0-14,0 m.

Steel hardness:

| Steel grades | Chemical compound according to |
|--------------|--------------------------------|
| P235 GH TC1 | EN 10217-2 |

Obligatory requirements:

- 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

Dimensions and weight

| Outside diameter, mm | Weight per meter, kg, for wall thickness, mm | | | | | | |
|----------------------|--|------|------|------|------|------|------|
| | 5,0 | 5,6 | 6,3 | 7,1 | 8,0 | 8,8 | 10,0 |
| 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 | 57,3 | - |
| 323,9 | - | 44,0 | 49,3 | 55,5 | 62,3 | 68,4 | 77,4 |
| 355,6 | - | 48,3 | 54,3 | 61,0 | 68,6 | 75,3 | 85,2 |
| 406,4 | - | 55,4 | 62,2 | 69,9 | 78,6 | 86,3 | 97,8 |

Length supplied:

- 6,0-14,0 m.

Steel hardness:

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

Obligatory requirements:

- 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.

| Pipe dimensions and weight | | | | | | | | | | | | | | | | | | | | | | |
|----------------------------|---|------|------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|--------|--------|--------|--------|--------|
| Outside diameter, mm | Weight per meter, kg, for wall thickness mm | | | | | | | | | | | | | | | | | | | | | |
| | 3,0 | 3,2 | 3,5 | 4,0 | 4,5 | 5,0 | 5,5 | 6,0 | 6,5 | 7,0 | 7,5 | 8,0 | 8,5 | 9,0 | 9,5 | 10,0 | 11,0 | 12,0 | 13,0 | 14,0 | 15,0 | 16,0 |
| 32 | 2,15 | 2,27 | 2,46 | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |
| 33,7 | 2,27 | 2,41 | 2,61 | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |
| 38 | 2,59 | 2,75 | 2,98 | 3,35 | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |
| 42 | 2,89 | 3,06 | 3,32 | 3,75 | 4,16 | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |
| 42,4 | 2,91 | 3,09 | 3,36 | 3,79 | 4,20 | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |
| 45 | 3,11 | 3,30 | 3,58 | 4,04 | 4,49 | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |
| 48,3 | 3,35 | 3,56 | 3,87 | 4,37 | 4,86 | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |
| 50 | 3,48 | 3,69 | 4,01 | 4,54 | 5,05 | 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 | - | - | - | - | - | - | - | - | - | - | - | - | - |
| 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 | 18,05 | - | - | - | - |
| 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 | 18,94 | - | - | - | - |
| 83 | - | - | 6,86 | 7,79 | 8,71 | 9,62 | 10,51 | 11,39 | 12,26 | 13,12 | 13,96 | 14,80 | 15,62 | 16,43 | 17,22 | 18,00 | 19,53 | 21,01 | 22,44 | 23,82 | 25,16 | 26,44 |
| 89 | - | - | 7,38 | 8,39 | 9,38 | 10,36 | 11,33 | 12,28 | 13,23 | 14,16 | 15,07 | 15,98 | 16,88 | 17,76 | 18,63 | 19,48 | 21,16 | 22,70 | 24,37 | 25,90 | 27,37 | 28,81 |
| 95 | - | - | - | 8,98 | 10,04 | 11,10 | 12,14 | 13,17 | 14,19 | 15,19 | 16,18 | 17,16 | 18,13 | 19,09 | 20,03 | 20,96 | 22,79 | 24,56 | 26,29 | 27,97 | 29,59 | 31,17 |
| 102 | - | - | - | 9,67 | 10,82 | 11,96 | 13,09 | 14,21 | 15,31 | 16,40 | 17,48 | 18,55 | 19,60 | 20,64 | 21,67 | 22,69 | 24,69 | 26,63 | 28,53 | 30,38 | 32,18 | 33,93 |
| 108 | - | - | - | 10,26 | 11,49 | 12,70 | 13,90 | 15,09 | 16,27 | 17,44 | 18,59 | 19,73 | 20,86 | 21,97 | 23,08 | 24,17 | 26,31 | 28,41 | 30,46 | 32,46 | 34,40 | 36,30 |
| 114 | - | - | - | 10,85 | 12,15 | 13,44 | 14,72 | 15,98 | 17,23 | 18,47 | 19,70 | 20,91 | 22,12 | 23,31 | 24,48 | 25,65 | 27,94 | 30,19 | 32,38 | 34,53 | 36,62 | 38,67 |
| 121 | - | - | - | - | - | 14,30 | 15,67 | 17,02 | 18,35 | 19,68 | 20,99 | 22,29 | 23,58 | 24,86 | 26,12 | 27,37 | 29,84 | 32,26 | 34,62 | 36,94 | 39,21 | 41,63 |
| 127 | - | - | - | - | - | 15,04 | 16,48 | 17,90 | 19,32 | 20,72 | 22,10 | 23,48 | 24,84 | 26,19 | 27,53 | 28,85 | 31,47 | 34,03 | 36,55 | 39,01 | 41,43 | 43,80 |
| 133 | - | - | - | - | - | 15,78 | 17,29 | 18,79 | 20,28 | 21,75 | 23,21 | 24,66 | 26,10 | 27,52 | 28,93 | 30,33 | 33,10 | 35,81 | 38,47 | 41,09 | 43,65 | 46,17 |
| 140 | - | - | - | - | - | 16,65 | 18,24 | 19,83 | 21,40 | 22,96 | 24,51 | 26,04 | 27,57 | 29,08 | 30,57 | 32,06 | 35,00 | 37,88 | 40,72 | 43,50 | 46,24 | 48,93 |
| 146 | - | - | - | - | - | 17,39 | 19,06 | 20,72 | 22,36 | 24,00 | 25,62 | 27,23 | 28,82 | 30,41 | 31,98 | 33,54 | 36,62 | 39,66 | 42,64 | 45,57 | 48,46 | 51,30 |
| 152 | - | - | - | - | - | 18,13 | 19,87 | 21,60 | 23,32 | 25,03 | 26,73 | 28,41 | 30,08 | 31,74 | 33,39 | 35,05 | 38,25 | 41,43 | 44,56 | 47,65 | 50,68 | 53,66 |
| 159 | - | - | - | - | - | - | - | 22,64 | 24,45 | 26,24 | 28,02 | 29,79 | 31,55 | 33,29 | 35,03 | 36,75 | 40,15 | 43,50 | 46,81 | 50,06 | 53,27 | 56,43 |
| 168 | - | - | - | - | - | - | - | 23,97 | 25,89 | 27,79 | 29,69 | 31,57 | 33,44 | 35,29 | 37,13 | 38,97 | 42,59 | 46,17 | 49,69 | 53,17 | 56,60 | 59,98 |
| 180 | - | - | - | - | - | - | - | 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 |
| 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 |
| 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 |
| 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 |
| 245 | - | - | - | - | - | - | - | - | 41,09 | 43,93 | 46,76 | 49,58 | 52,38 | 55,17 | 57,95 | 63,48 | 68,95 | 74,38 | 79,76 | 85,08 | 90,36 | - |
| 273 | - | - | - | - | - | - | - | - | 45,92 | 49,11 | 52,28 | 55,45 | 58,60 | 61,73 | 64,86 | 71,07 | 77,24 | 83,36 | 89,42 | 95,44 | 101,41 | - |
| 299 | - | - | - | - | - | - | - | - | - | - | 57,41 | 60,90 | 64,37 | 67,83 | 71,27 | 78,13 | 84,93 | 91,69 | 98,40 | 105,06 | 111,67 | - |
| 325 | - | - | - | - | - | - | - | - | - | - | 62,54 | 66,35 | 70,14 | 73,92 | 77,68 | 85,18 | 92,63 | 100,03 | 107,38 | 114,68 | 121,93 | - |
| 351 | - | - | - | - | - | - | - | - | - | - | - | - | - | 75,91 | 80,01 | 84,10 | 92,23 | 100,32 | 108,36 | 116,35 | 124,29 | 132,19 |
| 377 | - | - | - | - | - | - | - | - | - | - | - | - | - | 81,68 | 86,10 | 90,51 | 99,29 | 108,02 | 116,70 | 125,33 | 133,91 | 142,45 |

Pipe dimensions and weight (continued)

| Outside diameter, mm | Weight per meter, kg, for wall thickness mm | | | | | | | | | | | | | | | | | | | | | |
|----------------------|---|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|
| | 17,0 | 18,0 | 19,0 | 20,0 | 22,0 | 24,0 | 25,0 | 26,0 | 28,0 | 30,0 | 32,0 | 34,0 | 35,0 | 36,0 | 38,0 | 40,0 | 42,0 | 45,0 | 48,0 | 50,0 | 56,0 | 60,0 |
| 83 | 27,67 | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |
| 89 | 30,19 | 31,52 | 32,80 | 34,03 | 36,35 | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |
| 95 | 32,70 | 34,18 | 35,61 | 36,99 | 39,61 | 42,02 | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |
| 102 | 35,64 | 37,29 | 38,89 | 40,45 | 43,40 | 46,17 | 46,17 | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |
| 108 | 38,15 | 39,95 | 41,70 | 43,40 | 46,66 | 49,72 | 51,17 | 52,58 | 55,24 | - | - | - | - | - | - | - | - | - | - | - | - | - |
| 114 | 40,67 | 42,62 | 44,51 | 46,36 | 49,92 | 53,27 | 54,87 | 56,43 | 59,39 | - | - | - | - | - | - | - | - | - | - | - | - | - |
| 121 | 43,60 | 45,72 | 47,79 | 49,82 | 53,71 | 57,41 | 59,19 | 60,91 | 64,22 | - | - | - | - | - | - | - | - | - | - | - | - | - |
| 127 | 46,12 | 48,39 | 50,61 | 52,78 | 56,97 | 60,96 | 62,89 | 64,76 | 68,36 | 71,77 | - | - | - | - | - | - | - | - | - | - | - | - |
| 133 | 48,63 | 51,05 | 53,42 | 55,74 | 60,22 | 64,51 | 66,58 | 68,61 | 72,51 | 76,20 | 79,71 | - | - | - | - | - | - | - | - | - | - | - |
| 140 | 51,57 | 54,16 | 56,70 | 59,19 | 64,02 | 68,66 | 70,90 | 73,10 | 77,34 | 81,38 | 85,23 | 88,88 | 90,63 | 92,33 | - | - | - | - | - | - | - | - |
| 146 | 54,08 | 56,82 | 59,51 | 62,15 | 67,28 | 72,21 | 74,60 | 76,94 | 81,48 | 85,82 | 89,97 | 93,91 | 95,81 | 97,66 | - | - | - | - | - | - | - | - |
| 152 | 56,60 | 59,48 | 62,32 | 65,11 | 71,53 | 75,76 | 78,30 | 80,79 | 85,63 | 90,26 | 94,70 | 98,94 | 100,99 | 102,99 | - | - | - | - | - | - | - | - |
| 159 | 59,53 | 62,59 | 65,60 | 68,56 | 74,33 | 79,90 | 82,62 | 85,28 | 90,46 | 95,44 | 100,22 | 104,81 | 107,03 | 109,20 | - | - | - | - | - | - | - | - |
| 168 | 63,31 | 66,59 | 69,82 | 73,00 | 79,21 | 85,23 | 88,16 | 91,05 | 96,67 | 102,10 | 107,33 | 112,36 | 114,80 | 117,19 | 121,83 | 126,27 | 130,51 | 136,50 | - | - | - | - |
| 180 | 68,34 | 71,91 | 75,44 | 78,92 | 85,72 | 92,33 | 95,56 | 98,75 | 104,96 | 110,98 | 116,80 | 122,42 | 125,16 | 127,85 | 133,07 | 138,10 | 142,94 | 149,82 | - | - | - | - |
| 194 | 74,21 | 78,13 | 82,00 | 85,82 | 93,32 | 100,62 | 104,20 | 107,72 | 114,63 | 121,34 | 127,85 | 134,16 | 137,24 | 140,28 | 146,19 | 151,92 | 157,44 | 165,36 | - | - | - | - |
| 203 | 77,98 | 82,12 | 86,22 | 90,26 | 98,20 | 105,95 | 109,74 | 113,49 | 120,84 | 127,99 | 134,95 | 141,71 | 145,01 | 148,27 | 154,63 | 160,79 | 166,76 | 175,34 | 183,48 | 188,66 | - | - |
| 219 | 84,69 | 89,23 | 93,71 | 98,15 | 106,88 | 115,42 | 119,61 | 123,75 | 131,89 | 139,83 | 147,57 | 155,12 | 158,82 | 162,47 | 169,62 | 176,58 | 183,33 | 193,10 | 202,42 | 208,39 | - | - |
| 245 | 95,59 | 100,77 | 105,90 | 110,98 | 120,99 | 130,80 | 135,64 | 140,42 | 149,84 | 159,07 | 168,09 | 176,92 | 181,26 | 185,55 | 193,99 | 202,22 | 210,26 | 221,95 | 233,20 | 240,45 | - | - |
| 273 | 107,33 | 113,20 | 119,02 | 124,79 | 136,18 | 147,38 | 152,90 | 158,38 | 169,18 | 179,78 | 190,19 | 200,40 | 205,43 | 210,41 | 220,23 | 229,85 | 239,27 | 253,03 | 266,34 | 274,98 | - | - |
| 299 | 118,23 | 124,74 | 131,20 | 137,61 | 150,29 | 162,77 | 168,93 | 175,05 | 187,13 | 199,02 | 210,71 | 222,20 | 227,87 | 233,50 | 244,59 | 255,49 | 266,20 | 281,88 | 297,12 | 307,04 | 335,59 | 353,65 |
| 325 | 129,13 | 136,28 | 143,38 | 150,44 | 164,39 | 178,16 | 184,96 | 191,72 | 205,09 | 218,25 | 231,23 | 244,00 | 250,31 | 256,58 | 268,96 | 281,14 | 293,13 | 310,74 | 327,90 | 339,10 | 371,50 | 392,12 |
| 351 | 140,03 | 147,82 | 155,57 | 163,26 | 178,50 | 193,54 | 200,99 | 208,39 | 223,04 | 237,49 | 251,74 | 265,80 | 272,76 | 279,66 | 293,32 | 306,79 | 320,06 | 338,59 | 358,68 | 371,16 | 407,41 | 430,59 |
| 377 | 150,93 | 159,36 | 167,75 | 176,08 | 192,61 | 208,93 | 217,02 | 225,06 | 240,99 | 256,73 | 272,26 | 287,60 | 295,20 | 302,74 | 317,69 | 332,44 | 346,99 | 368,44 | 389,45 | 403,22 | 442,32 | 469,06 |

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, 15XM, 15XФ, 20XM, 30XM, 35XM, 38XA, 30XMA, 33XC, 40XФА, 40XMФА, 38XMЮА, 12XMЗА, 40XH2MA, 10Г2, 20Г, 30Г, 30Г2, 35Г2, 50Г, 18XГТ, 20XH, 40XH, 45XH, 20XHТР, 19XГН, 10XCHД12XH2, 12XH3A, 20XH3A, 20XH2H4A, 30XH3A, 30XГСА, 30XГCH2A, 38XH2H2MA, 18XH2H4MA, 38XH2MЮА | GOST 4543 |
| 09Г2С, 09Г2СД, 10Г2С1, 10Г2Б, 10XCHД, 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

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

- 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.

Pipe dimensions and weight

| Outside diameter, mm | Weight per meter, kg, for wall thickness mm | | | | | | | | | | | | | | | | | |
|----------------------|---|-------|-------|-------|-------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|
| | 3,0 | 3,2 | 3,5 | 4,0 | 4,5 | 5,0 | 5,5 | 6,0 | 6,5 | 7,0 | 7,5 | 8,0 | 8,5 | 9,0 | 9,5 | 10,0 | 11,0 | 12,0 |
| 36 | - | - | 2,805 | 3,175 | 3,496 | 3,822 | 4,137 | 4,439 | 4,728 | 5,006 | 5,271 | 5,524 | - | - | - | - | - | - |
| 38 | 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 | - | - | - | - |
| 40 | 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 | - | - | - | - |
| 42 | 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 | - | - | - | - |
| 45 | 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 | - | - |
| 48 | 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 | - | - |
| 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 |
| 51 | - | - | 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 | 11,542 |
| 53 | - | - | 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 | 12,133 |
| 54 | - | - | 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 | 12,429 |
| 56 | - | - | 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 | 13,021 |
| 57 | - | - | 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 | 13,317 |
| 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 |
| 65 | - | - | 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 | 15,685 |
| 68 | - | - | 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 | 16,573 |
| 70 | - | - | 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 | 17,164 |
| 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 |
| 75 | - | - | 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 | 18,644 |
| 76 | - | - | 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 | 18,940 |
| 80 | - | - | 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 | 20,124 |
| 83 | - | - | 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 | 21,012 |
| 85 | - | - | 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 | 21,603 |
| 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 |
| 90 | - | - | 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 | 23,083 |

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, 30XGCA, 15XM, 30XMA | GOST 4543 |

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

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

- 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

Pipe dimensions and weight

| Outside diameter, mm | Weight per meter, kg, for wall thickness mm | | | | | | | | | | | | | | | |
|----------------------|---|-------|-------|-------|-------|-------|-------|------|------|------|------|------|------|-------|-------|-------|
| | 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 | - | - | - |
| 60 | - | - | 2,02 | 2,16 | 2,30 | 2,58 | 2,86 | 3,14 | 3,55 | 3,95 | 4,22 | 4,48 | 4,88 | 5,27 | - | - |
| 63,5 | - | - | 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 | - |
| 89 | - | - | - | - | - | - | - | - | - | - | 6,36 | 6,77 | 7,38 | 7,98 | 8,38 | - |
| 102 | - | - | - | - | - | - | - | - | - | - | 7,32 | 7,80 | 8,50 | 9,20 | 9,67 | 10,82 |
| 108 | - | - | - | - | - | - | - | - | - | - | 7,77 | 8,27 | 9,02 | 9,76 | 10,26 | 11,49 |
| 114 | - | - | - | - | - | - | - | - | - | - | 8,21 | 8,74 | 9,54 | 10,33 | 10,85 | 12,15 |

Pipe dimensions and weight (continued)

| Outside diameter, mm | Weight per meter, kg, for wall thickness 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 | 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 | - | - | - | - |
| 273 | - | 33,05 | 36,28 | 39,51 | 42,72 | 45,92 | 49,11 | 52,28 | - | - | - | - |
| 325 | - | - | 43,34 | 47,20 | 51,06 | 54,90 | 58,73 | 62,54 | 66,35 | 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 | - | - | - | 62,15 | 67,25 | 72,33 | 77,41 | 82,47 | 87,52 | 92,55 | 97,58 | 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

Obligatory requirements:

- 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 dimensions and weight

| Outside diameter, mm | Weight per meter, kg, for wall thickness 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 Low-alloyed steel, which carbon equivalent does not exceed 0,48% | GOST 380 |

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 dimensions and weight

| Dimension, mm | | Weight per meter, kg, for wall thickness mm | | | | | | | | | |
|---------------|----|---|-------|-------|-------|------|------|------|------|------|-------|
| A | B | 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 08kp, 10, 10ps, 20 | GOST 380 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

Pipe dimensions and weight

| Dimension, mm | | Weight per meter, kg, for wall thickness mm | | | | | | | | |
|---------------|----|---|------|------|------|------|------|------|------|-------|
| A | B | 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 dimensions and weight

| Nominal size, DN, mm | Outside diameter, mm | Weight per meter, kg, for wall thickness mm | | | | | | | | | | |
|----------------------|----------------------|---|------|------|------|------|------|------|------|------|-------|-------|
| | | 2,0 | 2,2 | 2,35 | 2,5 | 2,8 | 3,0 | 3,2 | 3,5 | 4,0 | 4,5 | |
| 10 | 17,0 | 0,74 | 0,80 | - | - | - | - | - | - | - | - | - |
| 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.

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

- 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 dimensions and weight

| Outside diameter, mm | Weight per meter, kg, for wall thickness mm | | | | | | | | | | | | | | | |
|----------------------|---|-------|-------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|
| | 3,5 | 4,0 | 4,5 | 5,0 | 5,5 | 6,0 | 6,5 | 7,0 | 7,5 | 8,0 | 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).

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

- 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.

Pipe dimensions and weight

| Outside diameter, mm | Weight per meter, kg, for wall thickness, mm | | | | | | | | | | | | | | | |
|----------------------|--|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|--------|
| | 3,5 | 4,0 | 4,5 | 5,0 | 5,5 | 6,0 | 6,5 | 7,0 | 7,5 | 8,0 | 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 | - | - | - | - | - | - | - | - | - |
| 60 | 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 | 18,05 |
| 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 | 18,94 |
| 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 |
| 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 |
| 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 |
| 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 |
| 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 |
| 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 | 30,19 |
| 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 |
| 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 |
| 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 |
| 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 |
| 146 | - | - | - | 17,39 | 19,06 | 20,72 | 22,36 | 24,00 | 25,62 | 27,23 | 28,82 | 30,41 | 31,98 | 33,54 | 36,62 | 39,66 |
| 152 | - | - | - | 18,13 | 19,87 | 21,60 | 23,32 | 25,03 | 26,73 | 28,41 | 30,08 | 31,74 | 33,39 | 35,05 | 38,25 | 41,43 |
| 159 | - | - | - | - | - | 22,64 | 24,45 | 26,24 | 28,02 | 29,79 | 31,55 | 33,29 | 35,03 | 36,75 | 40,15 | 43,50 |
| 168 | - | - | - | - | - | 23,97 | 25,89 | 27,79 | 29,69 | 31,57 | 33,44 | 35,29 | 37,13 | 38,97 | 42,59 | 46,17 |
| 180 | - | - | - | - | - | - | - | 29,87 | 31,91 | 33,93 | 35,95 | 37,95 | 39,95 | 41,93 | 45,85 | 49,72 |
| 194 | - | - | - | - | - | - | - | 32,28 | 34,50 | 36,70 | 38,89 | 41,06 | 43,23 | 45,38 | 49,64 | 53,86 |
| 203 | - | - | - | - | - | - | - | 33,84 | 36,16 | 38,47 | 40,77 | 43,06 | 45,33 | 47,60 | 52,09 | 56,52 |
| 219 | - | - | - | - | - | - | - | 36,60 | 39,12 | 41,63 | 44,13 | 46,61 | 49,08 | 51,54 | 56,43 | 61,26 |
| 245 | - | - | - | - | - | - | - | 41,09 | 43,93 | 46,76 | 49,58 | 52,38 | 55,17 | 57,95 | 63,48 | 68,95 |
| 273 | - | - | - | - | - | - | - | 45,92 | 49,11 | 52,28 | 55,45 | 58,60 | 61,73 | 64,86 | 71,07 | 77,24 |
| 299 | - | - | - | - | - | - | - | - | - | 57,41 | 60,90 | 64,37 | 67,83 | 71,27 | 78,13 | 84,93 |
| 325 | - | - | - | - | - | - | - | - | - | 62,54 | 66,35 | 70,14 | 73,92 | 77,68 | 85,18 | 92,63 |
| 351 | - | - | - | - | - | - | - | - | - | - | - | 75,91 | 80,01 | 84,10 | 92,23 | 100,32 |
| 377 | - | - | - | - | - | - | - | - | - | - | - | 81,68 | 86,10 | 90,51 | 99,29 | 108,02 |

Pipe dimensions and weight (continued)

| Outside diameter, mm | Weight per meter, kg, for wall thickness, 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 make 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, 10Г2, 15XM, 30XMA | GOST 4543 |
| 10Г2 | GOST 4543 |
| 10Г2A | 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).

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

- 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 dimensions and weight

| Outside diameter, mm | Weight per meter, kg, for wall thickness, 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 |
|-------------|--------------------------------|
| 17ГC, 17Г1C | GOST 19281 |
| 13Г1C-Y | TU 14-1-3636 |
| 17Г1C-Y | TU 14-1-1950 |

Obligatory requirements:

- 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

TU U 27.2-8-61-2002

Used for heating systems' pipeline construction.

Pipe dimensions and weight

| Outside diameter, mm | Weight per meter, kg, for wall thickness, 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 |
| 17ГC, 17Г1C, 17Г1C-V | 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 |
| 13ГC, 13Г1C, 13Г1C-V, 22Г10 | 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.

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

- 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 dimensions and weight

| Outside diameter, mm | Weight per meter, kg, for wall thickness, 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 | - | - | - | - | - | - |
| 60 | 5,52 | 6,16 | 6,78 | 7,39 | 7,99 | - | - | - | - | - | - | - |
| 60,3 | 5,55 | 6,19 | 6,82 | 7,43 | 8,03 | - | - | - | - | - | - | - |
| 63,5 | 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 |
| 89 | 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 diameter, mm | Weight per meter, kg, for wall thickness, mm | | | | | | | | | | | | |
|----------------------|--|-------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|
| | 10,0 | 11,0 | 12,0 | 13,0 | 14,0 | 15,0 | 16,0 | 17,0 | 18,0 | 19,0 | 20,0 | 22,0 | 25,0 |
| 73 | 15,54 | 16,82 | - | - | - | - | - | - | - | - | - | - | - |
| 76 | 16,28 | 17,63 | - | - | - | - | - | - | - | - | - | - | - |
| 83 | 18,00 | 19,53 | 21,01 | 22,44 | 23,82 | 25,16 | 26,44 | - | - | - | - | - | - |
| 89 | 19,48 | 21,16 | 22,70 | 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 | 26,63 | 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 | 32,38 | 34,53 | 36,62 | 38,67 | 40,67 | 42,62 | 44,51 | 46,36 | 49,92 | 54,87 |
| 121 | 27,37 | 29,84 | 32,26 | 34,62 | 36,94 | 39,21 | 41,63 | 43,60 | 45,72 | 47,79 | 49,82 | 53,71 | 59,19 |
| 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 | 53,66 | 56,60 | 59,48 | 62,32 | 65,11 | 71,53 | 78,30 |
| 159 | 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 |
| 168 | 38,97 | 42,59 | 46,17 | 49,69 | 53,17 | 56,60 | 59,98 | 63,31 | 66,59 | 69,82 | 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 | 49,64 | 53,86 | 58,03 | 62,15 | 66,22 | 70,24 | 74,21 | 78,13 | 82,00 | 85,82 | 93,32 | 104,20 |
| 203 | 47,60 | 52,09 | 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 | 80,10 | 84,69 | 89,23 | 93,71 | 98,15 | 106,88 | 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 | 107,33 | 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 | 114,68 | 121,93 | 129,13 | 136,28 | 143,38 | 150,44 | 164,39 | 184,96 |
| 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 | 200,99 |
| 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).

Steel welded tubes for gas and oil main pipelines

GOST 20295-85

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

Pipe dimensions and weight

| Outside diameter, mm | Weight per meter, kg, for wall thickness, 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 |

Obligatory requirements:

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

Steel welded longitudinal tubes for gas and oil main pipelines

TU U 14-8-19-99

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

Pipe dimensions and weight

| Outside diameter, mm | Weight per meter, kg, for wall thickness, 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 |
| K46 (16ГC, 09Г2C, 12ГC) | GOST 19281 |
| K48 (12ГC, 16ГC, 09Г2C) | GOST 19281 |
| K50 (09Г2C) (17ГC, 17Г1C) | GOST 19281 TU 14-106-502 |
| K52 (13ГC) (17Г1C-У) (08ГБЮ) | TU 14-1-5415 TU 14-106-502 TU 14-1-4358 |
| K55 (13Г1C-У) (09ГБЮ) | TU 14-1-5415 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 and oil main pipelines

TU U 14-8-20-99

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

Pipe dimensions and weight

| Outside diameter, mm | Weight per meter, kg, for wall thickness, 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 |
| K46 (16ГC, 09Г2C, 12ГC) | GOST 19281 |
| K48 (12ГC, 16ГC, 09Г2C) | GOST 19281 |
| K50 (09Г2C) (17ГC, 17Г1C) | GOST 19281 TU 14-106-502 |
| K52 (13ГC) (17Г1C-У) (08ГБЮ) | TU 14-1-5415 TU 14-106-502 TU 14-1-4358 |
| K55 (13Г1C-У) (09ГБЮ) | TU 14-1-5415 TU 14-1-4358 |

Obligatory requirements:

- 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 dimensions and weight

| Outside diameter, mm | Weight per meter, kg, for wall thickness, 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:

- 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 diameter, mm | Weight per meter, kg, for wall thickness, 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, 13Г1С6-У | TU 14-1-3636 |
| 17Г1С-У | TU 14-1-1950 |
| 10Г2ФБЮ | TU 14-1-4627 |

Obligatory requirements:

- 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 and oil main pipelines of low-alloy steel

TU 14-3-1948-2000

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

Pipe dimensions and weight

| Outside diameter, mm | Weight per meter, kg, for wall thickness, 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 dimensions and weight

| Outside diameter, mm | Weight per meter, kg, for wall thickness, 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:

- 10 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.

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.

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

- bend-over test;
- collapse test.

Shaped electric-welded tubes

TU U 14-8-41-2001

Used for constructions of conventional purpose.

Pipe dimensions and weight

| Outer dimensions, mm | | Weight per meter, kg, for wall thickness, mm | | | | | | | | | | | |
|----------------------|----|--|-------|-------|-------|-------|-------|-------|-------|------|------|------|------|
| A | B | 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 |
| 60 | 30 | - | - | 1,89 | 2,02 | 2,15 | 2,40 | 2,65 | 2,89 | 3,25 | 3,60 | 3,83 | 4,06 |
| 60 | 35 | - | - | 2,00 | 2,14 | 2,27 | 2,54 | 2,80 | 3,06 | 3,45 | 3,82 | 4,07 | 4,31 |

Lengths supplied:

- 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 |
| 08H0 | GOST 9045 |

Steel electric-welded flat-oval tubes

TU U 14-8-42-2001

Used for constructions of conventional purpose.

Dimensions and weight of oval tubes

| Outer dimensions, mm | | Weight per meter, kg, for wall thickness, mm | | | | | | | |
|----------------------|----|--|-------|-------|------|------|------|------|------|
| A | B | 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, mm | | Y_0 , mm | Weight per meter, kg, for wall thickness, mm | | | | | | | |
|----------------------|----|------------|--|------|------|------|------|------|------|------|
| A | B | | 1,2 | 1,5 | 1,8 | 2,0 | 2,2 | 2,5 | 2,8 | 3,0 |
| 40 | 20 | 15 | 0,994 | 1,23 | 1,45 | 1,60 | 1,74 | 1,95 | 2,15 | 2,28 |

Y_0 – distance to gravity center.

Lengths supplied:

- 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.

Pipe dimensions and weight

| Dimension, mm | | Weight per meter, kg, for wall thickness, mm | | | | | | | |
|---------------|----|--|-------|------|------|------|------|------|-------|
| A | B | 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.

Lengths supplied:

- 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 |
| 08H0 | GOST 9045 |

Steel seamless tubes for steam generating units and pipelines

TU 14-3-190-04

Used for steam generating units and pipelines.

Dimensions and weight of cold-worked tubes

| Outside diameter, mm | Weight per meter, kg, for wall thickness, 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 | 9,776 | 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 |

Dimensions and weight of hot-worked tubes

| Outside diameter, mm | Weight per meter, kg, for wall thickness, mm | | | | | | | | | | | | | | | | | | | | | | | |
|----------------------|--|------|------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|--------|--------|--------|--------|--------|--------|--------|-------|-------|
| | 3,0 | 3,2 | 3,5 | 4,0 | 4,5 | 5,0 | 5,5 | 6,0 | 6,5 | 7,0 | 7,5 | 8,0 | 8,5 | 9,0 | 9,5 | 10,0 | 11,0 | 12,0 | 13,0 | 14,0 | 15,0 | 16,0 | 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 | 74,71 | 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 | 81,43 | 85,18 | 92,63 | 100,03 | 107,38 | 114,68 | 121,93 | 129,13 | 136,28 | - | - |
| 351 | - | - | - | - | - | - | - | - | - | - | 75,91 | 80,01 | 84,10 | 88,19 | 92,23 | 100,32 | 108,36 | 116,35 | 124,29 | 132,19 | 140,03 | 147,82 | - | - |
| 377 | - | - | - | - | - | - | - | - | - | - | 81,68 | 86,10 | 90,51 | 94,92 | 99,29 | 108,02 | 116,70 | 125,33 | 133,91 | 142,45 | 150,93 | 159,36 | - | - |

Tubes with diameter of Ø 51 mm are manufactured with wall thickness of 2.5 and 2.8 mm as may be agreed by parties. It is possible to make 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.

Obligatory requirements:

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

Steel seamless tubes for steam generators and pipelines

TU 14-3-460-2003

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

Dimensions and weight of cold-worked tubes

| Outside diameter, mm | Weight per meter, kg, for wall thickness, 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 |

Dimensions and weight of hot-worked tubes

| Outside diameter, mm | Weight per meter, kg, for wall thickness, mm | | | | | | | | | | | | | | | | | | |
|----------------------|--|------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|--------|--------|--------|--------|--------|--------|
| | 3,5 | 4,0 | 4,5 | 5,0 | 5,5 | 6,0 | 6,5 | 7,0 | 7,5 | 8,0 | 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 | 126,51 |
| 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 diameter, mm | Weight per meter, kg, for wall thickness, mm | | | | | | | | | | | | | | | | | | | |
|----------------------|--|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|
| | 18,0 | 19,0 | 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 | 60,0 |
| 76 | 26,18 | 27,15 | 28,06 | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |
| 83 | 29,37 | 30,51 | 31,59 | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |
| 89 | 32,10 | 33,39 | 34,64 | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |
| 102 | 38,01 | 39,68 | 41,20 | 44,18 | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |
| 108 | 40,74 | 42,51 | 44,23 | 47,52 | 50,59 | 52,05 | 53,46 | - | - | - | - | - | - | - | - | - | - | - | - | - |
| 114 | 45,16 | 47,13 | 49,04 | 52,69 | 56,12 | 57,74 | 59,31 | - | - | - | - | - | - | - | - | - | - | - | - | - |
| 121 | 48,50 | 50,66 | 52,75 | 56,78 | 60,57 | 62,38 | 64,13 | - | - | - | - | - | - | - | - | - | - | - | - | - |
| 133 | 54,23 | 56,70 | 59,12 | 63,77 | 68,20 | 70,33 | 72,40 | 76,38 | 80,12 | 83,64 | 86,93 | 89,99 | - | - | - | - | - | - | - | - |
| 140 | 57,57 | 60,23 | 62,83 | 67,86 | 72,66 | 74,97 | 77,23 | 81,58 | 85,69 | 89,58 | 93,24 | 96,67 | - | - | - | - | - | - | - | - |
| 146 | 60,48 | 63,25 | 66,01 | 71,36 | 76,47 | 78,95 | 81,36 | 86,03 | 90,46 | 94,67 | 98,65 | 102,40 | - | - | - | - | - | - | - | - |
| 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 | 100,80 | 105,70 | 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 | 83,34 | 87,43 | 91,46 | 99,35 | 107,01 | 110,76 | 114,45 | 121,66 | 128,64 | 135,39 | 141,91 | 148,21 | 154,28 | 160,12 | 165,73 | 173,72 | - | - | - | - |
| 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 | 203,54 | 213,01 | 219,03 | - | - |
| 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 | 331,60 |
| 299 | 133,44 | 140,31 | 147,13 | 160,59 | 173,82 | 180,35 | 186,82 | 199,60 | 212,14 | 224,46 | 236,55 | 248,42 | 260,05 | 271,46 | 289,64 | 298,98 | 314,80 | 325,07 | 354,51 | 372,99 |
| 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 | 393,10 | 414,34 |
| 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 |
| 377 | 172,54 | 181,57 | 188,48 | 206,08 | 223,44 | 232,13 | 240,58 | 257,49 | 274,17 | 290,63 | 306,86 | 322,85 | 338,62 | 354,17 | 369,18 | 392,08 | 414,06 | 428,46 | 470,30 | 497,05 |

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, 15XM, 12X1MΦ, 12X1MΦ-ПВ, 15X1M1Φ | 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.

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

- 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.

Dimensions and weight of hot-worked tubes *

| Outside diameter, mm | Weight per meter, kg, for wall thickness, mm | | | | | | | | | | | | | | | | | | |
|----------------------|--|------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|--------|--------|--------|--------|--------|
| | 3,5 | 4,0 | 4,5 | 5,0 | 5,5 | 6,0 | 6,5 | 7,0 | 7,5 | 8,0 | 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 | 102,18 |
| 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 | 138,28 |

Dimensions and weight of hot-worked tubes (continued)*

| Outside diameter, mm | Weight per meter, kg, for wall thickness, 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 | - |

*- theoretical weight of carbon, low-alloy and martensitic chromium steel grades.

Lengths supplied:

- 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 machine-building and construction products

TU U 27.1-4-569-2004

Used for manufacturing of machine-building and construction products.

Dimensions of tubes

| Mill products group | Mill products description | Dimensions, mm | | Mill products length (off-grade length), mm min |
|---------------------|---|----------------|----------------|--|
| | | Outer diameter | Wall thickness | |
| 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 products (tubular billet) | 320,0 – 330,0 | 70,0 | 500,0 |
| | | 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%.

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