

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 made tube with dimensions not specified in this table.

Lengths supplied:

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

Steel hardness:

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

Manufacturing plant warrants tube capability to pass hydraulic pressure test.

Obligatory requirements:

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