STANDARD/SPECIFICATION	NUMBER
	GOST 7417-75
ROUND SIZED STEEL. ASSORTMENT	SUPERSEDES GOST 7417-57
	1 SHT OF 7

1. This standard pertains to sized cold-drawn or cold-rolled steel of round section having diameter from 3 to 100 mm

Requirements of SEV recommendations as per standard RS 960-67 are considered in this standard.

2. Diameters of steel and tolerances on them, depending on the class of accuracy, should correspond to the data given in the figure and table 1.

figure

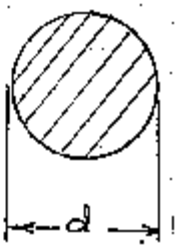

Table I

Diameter of steel d, mm	Tolerances, in mm, for steel for class of accuracy				Cross sectional area in mm^2	Weight of 1 meter length, in kg.
	3	3a	4	5		
1	2	3	4	5	6	7
3.0	-0.020	-0.040	-0.060	-0.120	7.07	0.056
3.1					7.55	0.059
3.2					8.04	0.063
3.3					8.55	0.067
3.4					9.08	0.071
3.5					9.62	0.076
3.6					10.18	0.080
3.7					10.75	0.084
3.8					11.34	0.089
3.9					11.95	0.094
4.0					12.56	0.099
4.1	-0.025	-0.048	-0.080	-0.160	13.20	0.104
4.2					13.85	0.109
4.4					15.21	0.119
4.5					15.90	0.125
4.6					16.62	0.130
4.8					18.10	0.142
4.9					18.86	0.148
5.0					19.63	0.154
5.2					21.24	0.167
5.3					22.06	0.173
5.5					23.76	0.186
5.6					24.63	0.193
5.8					26.42	0.207
6.0					28.27	0.222
6.1					29.22	0.229
6.3					31.17	0.245
6.5					33.17	0.260
6.7					35.26	0.277
6.9					37.39	0.294
7.0					38.48	0.302
7.1					39.59	0.311
7.3					41.85	0.329
7.5					44.18	0.347
7.7					46.57	0.366
7.8	-0.030	-0.058	-0.100	-0.200	47.78	0.375
8.0					50.27	0.395
8.2					52.81	0.415
8.5					56.75	0.445
8.8					60.82	0.477
9.0					63.62	0.500

Table-1 (Contd)

1	2	3	4	5	6	7
9.2					66.48	0.522
9.3					67.93	0.533
9.5					70.88	0.556
9.8					75.43	0.592
10.0					78.54	0.616
10.2					81.71	0.641
10.5			-0.120	-0.240	86.59	0.680
10.8					91.61	0.719
11.0					95.03	0.746
11.2					98.52	0.773
11.5					103.90	0.815
11.8					109.36	0.858
12.0					113.10	0.890
12.2					116.90	0.918
12.5					122.72	0.953
12.8					128.68	1.010
13.0					132.70	1.042
13.2					136.85	1.074
13.5					143.14	1.124
13.8					149.57	1.174
14.0	-0.035	-0.070	-0.120	-0.240	153.90	1.208
14.2					158.37	1.243
14.5					165.13	1.296
14.8					172.03	1.350
15.0					176.7	1.387
15.2					181.5	1.42
15.5					188.7	1.48
15.8					196.1	1.54
16.0					201.1	1.58
16.2					206.1	1.62
16.5					213.8	1.68
16.8					221.7	1.74
17.0					227.0	1.78
17.2					232.3	1.82
17.5					240.5	1.89
17.6					243.2	1.91
17.8					248.8	1.95
18.0					254.5	2.03
18.5					268.8	2.11
19.0					283.5	2.23
19.5					298.6	2.34
20.0					314.2	2.47
20.5					330.1	2.59
21.0					346.4	2.72
21.5					363.1	2.85
22.0	-0.045	-0.084	-0.140	-0.280	380.1	2.98
23.0					415.5	3.26
24.0					452.4	3.55
25.0					490.9	3.85
26.0					530.9	4.17

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Table 1 Contd.

1	2	3	4	5	6	7
27.0					572.6	4.49
28.0					615.7	4.83
29.0					660.5	5.18
30.0					706.9	5.55
31.0					754.8	5.95
32.0					804.2	6.31
33.0					855.3	6.71
34.0					907.9	7.13
35.0	-0.050	-0.100	-0.170	-0.340	962.1	7.55
36.0					1018	7.99
37.0					1075	8.44
38.0					1134	8.90
39.0					1195	9.38
40.0					1257	9.86
41.0					1320	10.36
42.0					1385	10.87
44.0					1521	11.94
45.0					1590	12.48
46.0					1662	13.05
48.0					1810	14.21
49.0					1886	14.80
50.0					1963	15.41
52.0					2124	16.67
53.0					2206	17.32
55.0					2376	18.65
56.0					2463	19.33
58.0	-0.060	-0.120			2642	20.64
60.0					2827	22.19
61.0					2922	22.94
62.0					3019	23.70
63.0					3117	24.47
65.0			-0200	-0.400	3317	26.04
67.0					3526	27.68
69.0					3739	29.33
70.0					3848	30.21
71.0	-	-			3959	31.08
73.0					4185	32.85
75.0					4418	34.61
78.0					4778	37.51
80.0					5027	39.46
82.0					5281	41.45
85.0					5674	44.54
88.0					6082	47.74
90.0	-	-	- 0230	-0.460	6362	49.94
92.0					6648	52.19
95.0					7088	55.64
98.0					7543	59.21
100.0					7854	61.65

NOTES:- 1. Sized steel, meant for cold upsetting and having technical requirements as per GOST 10702-63 (except for dimensions given in table 1), should be supplied with the following dimensions(diameters) in millimeters:
4.35; 4.42: 4.70; 5.27; 5.70; 7.27: 7.40; 8.94; 9.10: 9.65; 10.72; [illegible]
13.60; 14.56; 14.90; 15.60; 16.24; 16.90; 18.24; 18.90; 19.55; 20.24; 21.55; 21.90; 22.55; 22.80; 23.55; 24.90; 25.20; 25.55; 26.55; 27.40; 27.58; 28.55; 29.55; 33.25; 33.90; 34.60; 35.55; 38.93; 39.90; 44.60; 45.89.

2. The cross-sectional area and weight of 1 metre rod are calculated for nominal dimension in this case the density of steel is taken to be equal to 7.85 gm/cm^3.

3. On customer's request sized steel of dimensions, which are not indicated in table 1. may be supplied. In such cases the tolerances should correspond to the norms, given for the nearest larger diameter.

Example of method of calling sized steel of grade 45, diameter 10 mm, class of accuracy 4, surface quality of group V as per GOST 1051-73;

Found $\frac{10\text{-}4 \text{ GOST } 7417\text{-}75}{45\text{-}V \text{ GOST } 1051\text{-}73}$

3. Ovality of section(difference between maximum and minium diameter of the same section) should not exceed the tolerances on diameter, given in table 1. On customer's request steel, whose quality does not exceed half the tolerance on diameter should be supplied.

4. Steel of diameter 5 mm and above is produced in the form of rods; steel of diameter, less than 5 mm is produced in the form of rods by mutual agreement of manufactuerer and customer.

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On customer's request steel of diameter upto25mm inclusively should be produced in the form of rolls. With customer's approval together with manufacturer, steel of diameter above 25 mm may be produced in the form of rolls.

5. Depending on the purpose, the rods are produced as follows:
with uniform length;
[illegible]
with uniform length with remainder upto 15% of the batch weight;

with short uniform length with remainder upto 15% of batch weight;
with non-uniform length;
with limited length in the range of non-uniform length.

Rods having length not less than 1.5 m. from quality carbon, free-cutting, low-alloy, alloy steels and not less than 1 m from high-alloy steel are considered as the remainder.

6. The rods are fabricated with length:

from 2 to 6.5 m. from quality carbon, free cutting, low alloy and alloy steels.

from 1.5 to 6.5 m from high-alloy steel

It is allowed to fabricate rods of larger length by mutual agreement between manufacturer and customer.

7. In case of supply of rods having non-uniform length, presence of rods having length not less than 1.5 m from quality carbon, free cutting, low-alloy and alloy steel and not less than 1 m from high-alloy steel in quanitity not exceeding 10% of the batch weight is allowed.

8. By mutual agreement between manufacturer and customer it is allowed to supply quality cerbon free cutting, low-alloy and high-alloy steel with length not less than 0.9 m for fabricating fine articles.

9. Tolerance on length of rods of uniform or short uniform length should not exceed.

+ 50 mm - for length of rods upto 4 m;
+ 50 mm - for length of rods above 4 m.

By mutual agreement between manufacturer and customer it is allowed to supply bars of uniform or short uniform length with tolerance + 50mm if length of rods is upto 4 m inclusively.

10. Curvature of rods, depending on the class of accuracy, should not exceed the values given in table 2.

Table 2

Diameter in mm	Maximum curvature depending on class of accuracy. for 1 m length, in mm			for full length, in %		
	3	3a&4	5	3	3a&4	5
upto 25	1.00	2.00	3.00	0.10	0.20	0.30
above 25 to 50	0.75	1.00	2.00	0.075	0.10	0.20
above 50	0.50	1.00	1.00	0.050	0.10	0.10

By mutual agreement between manufacturer and customer, the value of maximum curvature may be decreased.

11. Cutting of rods should be done at right angle to its longitudinal axis.

Permissible obliquity of the cut should not exceed:

0.2 d - for rods of diameter upto 15 mm;

3 mm - for rods of diameter above 15 upto 30 mm;

5 mm - for rods of diameter above 30 mm

12. Grades of steel and technical requirements are established by the respective standards.

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Other Standards referred to in this standard:-

GOST 10702-63

GOST 1051-73

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