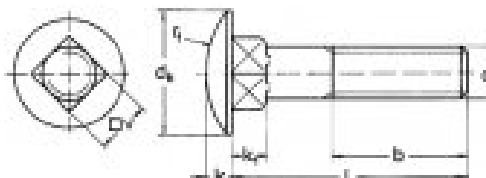


STANDARDE DIMENSIUNI ȘI GREUTĂȚI ORGANE DE ASAMBLARE ȘI PROFILE

11.1 Șurub cu cap bombat și gât patrat STAS 925 (DIN 603):

Grupa de calitate: 4.8; Stare de livrare: brunat/zincat.

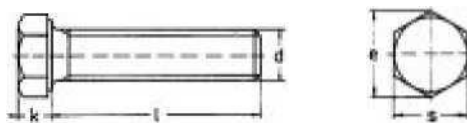


DIMENSIUNI ȘI GREUTĂȚI CONFORM STANDARDELOR DE FABRICAȚIE:

Filet	M5	M6	M8	M10	M12
Pas	0.5	1	1.25	1.5	1.75
rf	10.7	12.6	16	19.2	24.1
k	3.3	3.33	4.33	5.33	6.95
k1	4.1	4.6	5.6	6.6	3.75
dk	13.55	16.55	20.65	24.65	30.65
V	5.43	6.43	3.53	10.53	12.7
l(mm)	Masa pentru 100 buc (kg)				
16					
20		0.63			
25		0.695	1.35		
30		0.731	1.5	2.34	
35		0.363	1.66	3.09	4.34
40		0.954	1.31	3.33	4.7
45		1.04	1.97	3.57	5.06
50		1.13	2.12	3.32	5.41
55		1.21	2.23	4.06	5.77
60		1.3	2.43	4.31	6.12
65		1.39	2.59	4.55	6.43
70		1.47	2.75	4.3	6.34
80		1.65	3.06	5.23	7.55
90		1.32	3.37	5.77	3.26
100		1.99	3.66	6.26	3.97
110		2.17	3.99	6.75	9.63
120		2.34	4.3	7.24	10.4
130		2.51	4.6	7.72	11.1
140		2.69	4.92	8.21	11.3
150		2.36	5.23	3.7	12.5
160				9.19	13.2
180				10.2	14.7
200				11.1	16.1

11.2 Șurub cu cap hexagonal total filetat SR ISO 4017 DIN 933:

Grupa de calitate: 4.3,5.3, 6.S;S.3.10.9,12.9; Stare de livrare: brunat/zincat

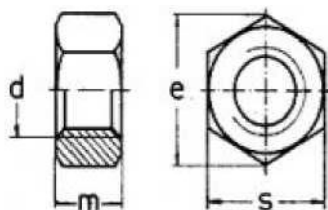


DIMENSIUNI ȘI GREUTĂȚI CONFORM STANDARDELOR DE FABRICAȚIE:

Filet	M5	M6	M8	M10	M12	M14	M16	M13	M20	M22	M24	M27	M30
Pas	0.5	1	1.25	1.5	1.75	2	2	2.5	2.5	2.5	3	3	3.5
e	8.79	11.1	14.4	13.9	21.1	24.5	26.3	30.1	33.5	35.7	40	45.2	50.9
k	3.5	4	5.3	6.4	7.5	8.8	10	11.5	12.5	14	15	17	18.7
s	8	10	13	17	19	22	24	27	30	32	36	41	46
l(mm)	Masa kg/100 buc												
10	0.27	0.44	0.88										
16	0.34	0.54	1.09	2.18									
20	0.39	0.61	1.23	2.39	34	49.4							
25	0.45	0.70	1.39	2.62	54.4	72.2							
30	0.5	0.79	1.55	2.88	4.12	5.93	7.89	10.8	14				
35	0.56	0.87	1.71	3.12	4.48	6.43	8.55	11.6	15.1				
40	0.62	0.96	1.87	3.38	4.82	6.93	9.22	12.4	16.1	19.9	25.1		
45	0.98	1.05	2.03	3.62	5.2	7.42	9.88	13.2	17.1	21.2	26.6	36.7	
50	0.74	1.14	2.18	3.88	5.56	7.93	10.6	14	18.1	22.4	23.1	33.6	51
60		1.32	2.5	4.38	6.28	8.94	11.9	15.6	20.1	25	31.1	42.5	55.6
70		1.46	2.82	4.88	7	9.91	13.2	17.2	22.2	27.5	34.1	46.3	60.4
80		1.52	3.14	5.38	7.22	10.9	14.5	18.3	24.2	30.1	37	50.2	65.1
90			3.46	5.88	8.44	11.9	15.9	20.4	26.2	32.6	40	54	69.3
100			3.77	6.3	9.16	12.9	17.2	22	28.3	35.1	43	57.9	74.6
110					9.52	13.7	18.3	23.7	30.3	37.7	46	61.7	79.3
120					10.2	14.7	19.6	25.3	32.3	40.2	49	65.6	84
130					10.96	15.7	20.9	26.9	34.3	42.3	51.9	69.4	93.7
140					11.68	16.7	22.2	28.5	45	45.3	54.9	73.3	93.4
150					12.4	17.7	23.5	30.1	47.5	47.3	57.9	77.1	93.2

11.3 Piulița hexagonală STAS 4071 (DIN 934):

Grupa de calitate: 6, 8, 10

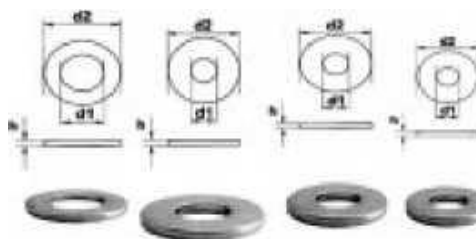


DIMENSIUNI ȘI GREUTĂȚI CONFORM STANDARDELOR DE FABRICAȚIE:

Filet	Pas	m	e	s	Masa kg/100buc
M3	0.5	2.4	6.01	5.5	0.0334
M4	0.7	3.2	7.66	7	0.0312
M5	0.3	4	3.79	3	0.123
M6	1	5	11.05	10	0.25
M7	1	5.5	12.12	11	0.312
M8	1.25	6.5	14.33	13	0.53
M10	1.5	3	13.9	17	1.16
M12	1.75	10	21.1	19	1.73
M14	2	11	24.49	22	2.5
M16	2	13	26.75	24	3.33
MW	2.5	15	29.56	27	4.94
M20	2.5	W	32.95	30	6.44
M22	2.5	13	35.03	32	7.9
M24	3	19	39.55	36	11.0
M27	3	22	45.2	41	16.5
M30	3.5	24	50.35	46	22.3
M33	3.5	26	55.37	50	22.3
M36	4	29	60.79	55	39.3
M39	4				
M42	4.5				
M46	4.5				
M43	5				
M52	5				
M56	5.5				
M60	5.5				
M64	6				

11.4 Șaibă Plată seria normală STAS 520072 (DIN 125):

Stare de livrare: zincată

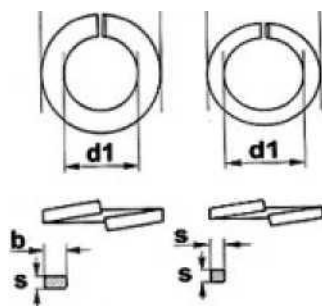


DIMENSIUNI ȘI GREUTĂȚI CONFORM STANDARDELOR DE FABRICAȚIE:

Dim (dxDxs) mm	Masa kg/100 buc
M3*7*0.5	0.0119
M4*8*0.8	0.0303
M5*10*1	0.443
M6*1.6*12	0.1016
M8*16*1.6	0.183
M10*20*2	0.357
M 12*24*2.5	0.627
M14*28*2.5	0.862
M16*32*3	1.13
M13*36*3	1.47
M2 0*3 7*3	1.72
M2 2*3 9*3	1.83
M24*44*4	3.23
M2 7*5 0*4	4.23
M3 0*5 6*4	5.3
M3 3*6 0*5	7.53
M3 6*6 6*5	9.21
M3 9*7 2*6	13.3
M4 2*7 8*7	18.3

11.5 Șaibă elastică grower (profil patrat) STAS 7666/4 (DIN 7980):

Stare de livrare: zincată

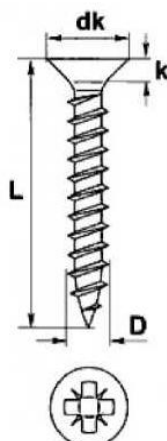


DIMENSIUNI ȘI GREUTĂȚI CONFORM STANDARDELOR DE FABRICAȚIE:

șuibă elastică grower DIN 127 B					
Filet	d1	d2	s	b	Masa/100buc
M3	3.1	6.2	0.8	1.3	0.01
M4	4.1	7.6	0.9	1.5	0.019
M5	5.1	9.2	1.2	1.3	0.031
M6	6.1	11.8	1.6	2.5	0.049
M3	8.1	14.8	2	3	0.1
M10	10.2	13.1	2.2	3.5	0.19
M12	12.2	21.1	2.5	4	0.33
M14	14.2	24.1	3	4.5	0.43
M16	16.2	27.4	3.5	5	0.59
M18	18.2	29.4	3.5	5	0.88
M20	20.2	33.6	4	6	1.25
M22	22.5	35.9	4	6	1.69
M24	24.5	40	5	7	2.22
M27	27.5	43	5	7	2.97
M30	30.5	48.2	6	8	3.84

11.6 Șurub cu cap Inecat și filet de lemn (Holșurub) (DIN 7505):

Stare de livrare: zincat galben /Zincat alb



DIMENSIUNI ȘI GREUTĂȚI CONFORM STANDARDELOR DE FABRICAȚIE:

D	2.5	3	3.5	4	4.5	5	6
Pas	1.15	1.35	1.6	1.8	2	2.2	2.6
Cruce tip	PZ1	PZ2	PZ2	PZ2	PZ2	PZ2	PZ3
dk	5	6	7	8	9	10	12
k	1.25	1.5	1.75	2	2.25	2.5	3
L	Masa kg/100 buc						
10		0.04					
12	0.03	0.04	0.06	0.09			
14	0.035	0.05	0.068	0.092			
16	0.04	0.05	0.075	0.094			
18	0.042	0.06	0.09	0.11			
20	0.045	0.06	0.089	0.112	0.148	0.178	
25	0.05	0.08	0.106	0.135	0.178	0.214	
30		0.09	0.124	0.157	0.207	0.249	0.45
35		0.10	0.142	0.18	0.237	0.285	0.49
43			0.16	0.202	0.266	0.32	0.51
45			0.177	0.225	0.333	0.35	0.59
50			0.195	0.263	0.326	0.392	0.62
60				0.292	0.385	0.463	0.706
70				0.337	0.444	0.534	0.815
80						0.605	0.924
90						0.676	1.032
100						0.748	1.141
110							1.25
120						0.89	1.358
130							1.467
140							1.576
150							1.684
160							1.825
180							2.059

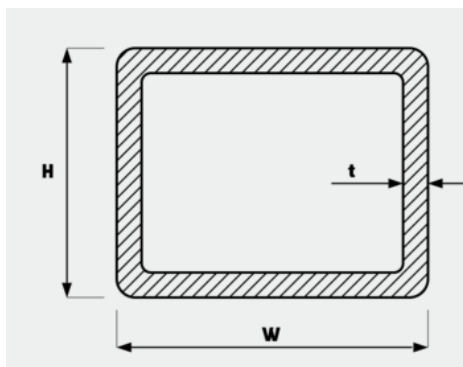
11.7 Tabla decapata, din otel, laminata la rece, EN 10131 sau GOST 1050-88:

Calitate DC01, conform EN 10130 sau 08KP, conform GOST 1050-88

DIMENSIUNI ȘI GREUTĂȚI CONFORM STANDARDELOR DE FABRICAȚIE:

Grosime	Greutate	Dimensiuni l x L		
		Greutate Kg/foaie		
(s) mm	Kg/mp	1000 x 2000	1250 x 2500	1500 x 3000
0.40	3.20	6.40	10.00	-
0.50	4.00	8.00	12.50	-
0.60	4.80	9.60	15.00	-
0.70	5.60	11.20	17.50	-
0.80	6.40	12.80	20.00	-
0.90	7.20	14.40	22.50	-
0.95	7.60	15.20	23.75	-
1.00	8.00	16.00	25.00	36.00
1.10	8.80	17.60	27.50	39.60
1.20	9.60	19.20	30.00	43.20
1.25	10.00	20.00	31.25	45.00
1.50	12.00	24.00	37.50	54.00
2.00	16.00	32.00	50.00	72.00
2.50	20.00	40.00	62.50	90.00
3.00	24.00	48.00	75.00	108.00
4.00	32.00	64.00	100.00	144.00
5.00	40.00	80.00	125.00	180.00
6.00	48.00	96.00	150.00	216.00
7.00	56.00	112.00	175.00	252.00
8.00	64.00	128.00	200.00	288.00

11.8 Țevi rectangulare și pătrate SR EN 10219-2:



DIMENSIUNI ȘI GREUTĂȚI CONFORM STANDARDELOR DE FABRICAȚIE:

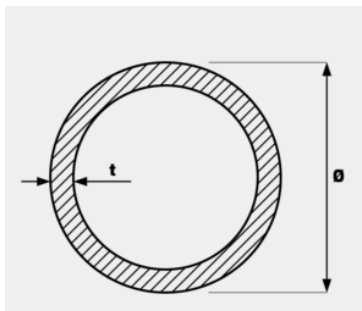
Țevi pătrate

ȚEAVĂ	Grosime (t) mm								
	1,5	2	3	4	5	6	8	10	12
Dimensiuni (H x W) mm	Kg/ml								
15 x 15	0,64	0,74							
20 x 20	0,87	1,11							
25 x 25	1,06	1,36	1,89						
30 x 30	1,30	1,68	2,36						
40 x 40	1,77	2,31	3,30	4,20					
50 x 50		2,93	4,25	5,45	6,56				
60 x 60		3,56	5,19	6,71	8,13				
70 x 70		4,19	6,13	7,97	9,70	11,30			
80 x 80			7,07	9,22	11,30	13,20	16,40		
90 x 90			8,01	10,50	12,80	15,10	18,90		
100 x100			8,96	11,70	14,40	17,00	21,40	25,60	
110 x110			9,89	13,00	16,00	18,90	23,90		
120 x120			10,80	14,20	17,50	20,70	26,40	31,80	35,80
130 x130				15,50	19,12				
140 x140				16,80	20,70	24,50	31,40	38,10	43,40
150 x150				18,00	22,30	26,40	33,90	41,30	47,10
160 x160				19,30	23,80	28,30	36,50	44,40	50,90
180 x180				21,80	27,00	32,10	41,50	50,70	58,50
200 x 200				24,30	30,10	35,80	46,50	57,00	
220 x 220					33,20	39,60	51,50	63,20	
250 x 250					38,00	45,20	59,10	72,70	
260 x 260						47,10	61,60	75,80	

Țevi rectangulare

TEAVA	Grosime (t) mm								
	1,5	2	3	4	5	6	8	10	12
Dimensiuni (H x W) mm	Kg/ml								
20 x 10	0,64	0,74							
30 x 10	0,87	1,11							
30 x 20	1,06	1,36	1,89						
40 x 20	1,30	1,68	2,36						
40 x 30	1,53	2,07	2,86						
50 x 20	1,53	2,07	2,86						
50 x 30	1,77	2,31	3,30	4,20					
50 x 40		2,62	3,77						
60 x 20	1,77	2,31	3,30	14,20					
60 x 30		2,62	3,77						
60 x 40		2,93	4,25	5,45	6,56				
70 x 30		2,93	4,25	5,45	6,56				
70 x 50		3,56	5,19	6,71	8,13				
80 x 20		2,93							
80 x 40		3,56	5,19	6,71	8,13				
80 x 50			5,65	7,33					
80 x 60		4,19	6,13	7,97	9,70	11,30			
100 x 40		4,19	6,13	7,98	9,70	11,30			
100 x 50			6,60	8,59	10,50	12,30			
100 x 60			7,07	9,22	11,30	13,20	16,40		
100 x 80			8,01	10,50	12,80	15,10	18,90		
120 x 40			7,07	9,22	11,30	13,20	16,40		
120 x 60			8,01	10,50	12,80	15,10	18,90		
120 x 80			8,96	11,70	14,40	17,00	21,40	25,60	
120x100			9,89	13,00	16,00	18,90	23,90		
140 x 80			9,89	13,00	16,00	18,90	23,90		
160 x 80			10,80	14,20	17,50	20,70	26,40	31,80	35,80
150x100			10,83	14,90	18,30	21,70	27,70	33,40	
160x100				15,50	19,12				
180 x 80				15,50	19,12				
180x100				16,80	20,70	24,50	31,40	38,10	43,40
200 x 80				16,80	20,70	24,50	31,40	38,10	43,40
200x100				18,00	22,30	26,40	33,90	41,30	47,10
200x120				19,30	23,80	28,30	36,50	44,40	50,90
250x150					30,10	35,80	46,50	57,00	
260x180					33,20	39,60	51,50	63,20	
300x100					30,10	35,80	46,50	57,00	
300x150						40,50	52,80	64,80	
300x200					38,00	45,20	59,10	72,70	
350x250						54,70	71,60	88,40	

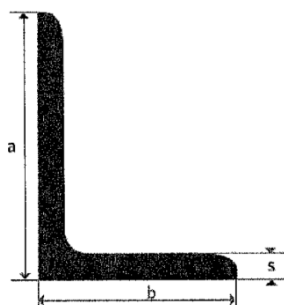
11.9 Tevi rotunde pentru construcții EN 10255, ISO 65:



DIMENSIUNI ȘI GREUTĂȚI CONFORM STANDARDELOR DE FABRICAȚIE:

0								17	7	96	13	59	04	90	75				
133,0	5"								10,24	11,49	12,73	14,26	15,78	18,79	19,69				
139,7	5 1/2'								10,77	12,09	13,39	15,00	16,61	19,80	20,73	23,22	26,00	32,00	
159,0											15,29	17,15	18,99	22,64	23,72				
168,3	6"										16,21	18,18	20,14	24,02	25,20	28,23	31,63	39,04	
177,8	7"										17,14	19,23	21,31	25,42	26,64	29,89	33,50	41,40	49,10
193,7	7 1/2'										18,71	21,00	23,30	27,80	29,12	32,67	36,60	45,30	53,80
219,1	8 5/8'										21,22	23,82	26,40	31,53	33,10	37,12	41,65	51,60	61,30
244,5	9"												29,53	35,30	37,01	41,57	46,70	57,80	68,81
273,0	10 3/4'												33,05	39,51	41,43	46,56	52,30	64,86	77,24
323,9	12 3/4'												39,32	47,04	49,34	55,47	62,32	77,41	92,30
355,6	14"														54,30		68,60	85,20	102,00

11.10 Profil Cornier cu aripi egale /inegale(L) SR EN 10056 -1: 2000; SR EN 10056 -2: 1996/EN 10204 - tip 2.2 sau 3.1B:

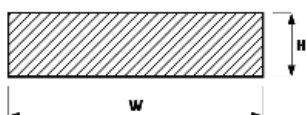


Lățime laturi axb	Grosime Laturi (s)	Greutate/ ml	r1	r2	Aria secțiunii cm
20 x 20	3	0,88	3,5	2,0	1,12
25x 25	3	1.11	3.5	20	1,42
	4	1.45	3,5	2)	155
	5	1.77	3.5	2.0	2.26
30x30	3	136	5.0	2.5	1.74
	4	1.78	5.0	2.5	2.27
	5	2.18	5,0	2.5	2.78
35 x 35	4	2.09	Sb	2.5	2.67
40 x 40	4	2.42	6.0	3.0	3.08
	5	2.97	6.0	3,0	379
	6	3,52	6.0	3,0	4.48
45x45	4	274	7,0 •	3.5	3.49
	5	3.38	7.0	3.5	4.30
	6	4.00	7.0	3.5	5,09
50 x 50	5	3,77	7,0	3.5	4.80
	6	4.47	70	3,5	5.69
	7	5.82	7.0	3.5	741
55 x 55	5	4.18	8.0	40	5.32
	6	4,95	8.0	4.0	6.31
60 x 60	5	4.57	8.0	4.0	5,82
	6	5,42	8.0	4.0	691
	8	7,09	8,0	4.0	9.03
	10	8.69	8,0	4,0	11,10
70 x 70	6	6.38	9.0	4.5	8.13
	8	8.36	9.0	4.5	10.60
	10	10.30	9.0	4.5	13.10
30 x BO	6	7,34	10.0	5.9	935
	8	9.63	10,0	5,0	12,30
	10	11,90	10.0	5,0	15,10

90 x 90	6	8.30	11.0	5.5	10.60
	8	10.90	11.0	5.5	13.90
	10	13A0	11,0	5.5	17.10
	12	15.90	11.0	5.5	20 30
100x100	8 •	12,20	12,0	6.0	15,50
	12	17.80	12.0	6,0	22,70
	15	21.90	12.0	6.0	27.90
120x120	8	14.70	13.0	6.5	18.70
	10	18.20	13,0	65	23,20
	12	21,60	13.0	6,5	27,50
	15	26.60	13.0	6.5	33.90

Lăţime laturi axb	Grosime Laturi (s)	Greutate/ ml	r1	r2	Aria secţiunii cm
30x20		1,12	4,0	2,0	143
	4	1.46	4,0	2,0	1.86
40x20	4	1.77	4,0	2,0	2.26
40x25	4	1.93	4,0	2,0	2.45
45x30	4	2.25	4,5	2,3	2,85
50x30	S	2.96	5,0	2,5	3.78
60x30	5	3.37	6,0	9,0	4.29
60x40	5	3.76	6,0	3,0	4.79
	6	4.46	6,0	3,0	5,68
65x50	5	4,35	6,0	3,4	354
70 x 50	6	5,41	7,0	3,0	529
75x50	6	5.65	7,0	3,5	7.19
	8	7.39	7,0	3,5	9.41
80 x 40	6	5.41	.	3,5	6.89
	8	7.07	7,0	3,5	9.01
80x60	7	7.36	as	4,0	938
100 x 50	6	6,84	8,0	4,0	831
	8	8,97	8,0	4,0	11.4
100x65	7	8,77	10,0	5,0	11.2
	8	9,94	10,0	5,0	12.7
	9	11.1	10,0	5,0	14.1
	10	12.3	10,0	5,0	15.6
	12	14.5	10,0	5,0	18,5

11.11 Platbandă oțel (Oțel Lat) S235, S275, S355 conform EN 10025 - 2 :



OTEL LAT	Grosime (H) mm															
	3	4	5	6	8	10	12	14	15	16	18	20	25	30	40	50
Lățime (W)	Greutate kg/ml															
10	0,23	0,31	0,39	0,471	0,628											
12	0,28	0,37	0,47	0,565	0,754	0,942										
14	0,33	0,44	0,55	0,660	0,880	1,100	1,320									
16	0,37	0,50	0,63	0,750	1,010	1,260	1,510									
18	0,42	0,56	0,71	0,850	1,130	1,410	1,700									
20	0,46	0,62	0,78	0,940	1,250	1,560	1,960	2,180	2,340	2,490	2,800					
25	0,58	0,78	0,97	1,170	1,560	1,950	2,340	2,730	2,920	3,120	3,530					
30	0,70	0,94	1,17	1,400	1,870	2,340	2,800	3,270	3,510	3,730	4,240					
35	0,82	1,10	1,37	1,650	2,200	2,750	3,300	3,850	4,120	4,350	4,950	5,500	6,870			
40	0,94	1,25	1,56	1,870	2,490	3,120	3,740	4,360	4,670	4,990	5,610	6,230	7,850	9,420		
45	1,05	1,40	1,75	2,100	2,800	3,510	4,210	4,910	5,260	5,610	6,310	7,010	8,830	10,60		
50	1,17	1,56	1,94	2,340	3,120	3,890	4,670	5,450	5,840	6,230	7,010	7,790	9,810	11,78	15,70	
60	1,41	1,88	2,34	2,800	3,740	4,670	5,610	6,540	7,010	7,480	8,410	9,350	11,78	14,13	18,84	23,56
70	1,65	2,20	2,75	3,300	4,400	5,500	6,600	7,700	8,240	8,790	9,890	10,99	13,74	16,49	21,98	27,48
80	1,88	2,51	3,14	3,770	5,020	6,280	7,450	8,790	9,420	10,05	11,30	12,56	15,70	18,84	25,12	31,40
90	2,12	2,83	3,53	4,240	5,650	7,070	8,480	9,890	10,60	11,30	12,72	14,13	17,66	21,20	28,26	35,32
100	2,36	3,14	3,93	4,710	6,280	7,850	9,420	10,99	11,77	12,56	14,63	15,70	19,63	23,55	31,40	39,26
110	2,59	3,45	4,32	5,180	6,910	8,640	10,36	12,09	12,95	13,82	15,54	17,27	21,59	25,91	34,54	43,18
120	2,83	3,77	4,71	5,650	7,540	9,420	11,30	13,19	14,13	15,07	16,96	18,84	23,55	28,26	37,68	47,10
130	3,06	4,08	5,10	6,120	8,160	10,21	12,25	14,29	15,31	16,33	18,37	20,41	25,51	30,62	40,82	51,02
140	3,30	4,40	5,50	6,600	8,790	10,99	13,19	15,39	16,49	17,58	19,78	21,98	27,48	32,97	43,96	54,96
150	3,53	4,71	5,89	7,070	9,420	11,77	14,13	16,48	17,66	18,84	21,20	23,55	29,44	35,33	47,10	58,88
160	3,77	5,02	6,28	7,540	10,05	12,56	15,07	17,58	18,84	20,10	22,61	25,12	31,40	37,68	50,24	68,80

• 11.12 Oțel beton (OB) S235, S275, S355 conform STAS DIN 488:2009:

Diametrul nominal mm	Abateri limita mm	Aria secțiunii cm ²	Masa liniara kg/m
6	±0.3-0.5	0.283	0.222
8	±0.3-0.5	0.503	0.395
10	±0.3-0.5	0.785	0.617
12	±0.3-0.5	1.130	0.888
14	±0.3-0.5	1.540	1.210
16	±0.3-0.5	2.010	1.580
16	±0.4-0.5	2.010	1.580
18	±0.4-0.5	2.540	1.990
20	±0.4-0.5	3.140	2.470
22	±0.4-0.5	3.800	2.984
25	±0.4-0.5	4.910	3.850
28	±0.4-0.75	6.160	4.840
32	±0.4-0.75	8.040	6.310
36	±0.4-0.75	10.20	7.990
40	±0.4-0.75	12.60	9.860