


















***Specialist steel fixtures & fittings***  
***316 (A4) & 304 (A2) Stainless Steel***

# ***FASTENERS CATALOGUE***

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Threaded bar 1m length

DIN975 50

**Eyebolts / Eyenuts**

**DIN Page**



Eyebolt

DIN934 21



Eye nut

DIN934 22

**Hose clamps**

**DIN Page**



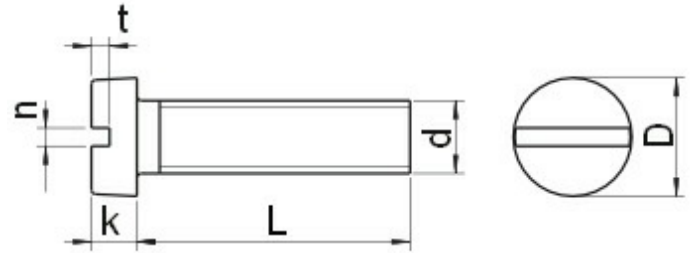
Hose clamp range 9mm

DIN3017 59



Hose clamp range 12mm

DIN3017 60

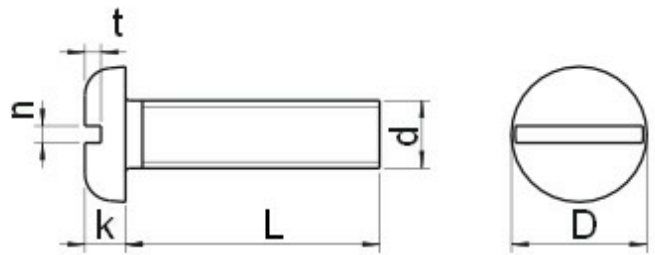


D	3	3.8	4.5	5.5	6	7	8.5	10	13	16
k	1	1.3	1.6	2	2.4	2.6	3.3	3.9	5	6
n	0.4	0.5	0.6	0.8	1	1.2	1.2	1.6	2	2.5
t	0.45	0.6	0.7	0.85	1	1.1	1.3	1.6	2	2.4
Θ	0.4x2.0	0.5x3.0	0.6x3.5	0.8x4.0	1.0x5.5	1.2x7.0	1.2x7.0	1.6x9.0	2.0x12	2.5x14

Length/d	M1.6	M2	M2.5	M3	M3.5	M4	M5	M6	M8	M10
3	○ ●	○ ●	○ ●	○ ●						
4	○ ●	○ ●	○ ●	○ ●	○ ●	○ ●				
5	○ ●	○ ●	○ ●	○ ●	○ ●	○ ●				
6	○ ●	○ ●	○ ●	○ ●	○ ●	○ ●	○ ●	○ ●		
8	○ ●	○ ●	○ ●	○ ●	○ ●	○ ●	○ ●	○ ●		
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14	○ ●	○ ●	○ ●	○ ●	○ ●	○ ●	○ ●	○ ●	○ ●	
16	○ ●	○ ●	○ ●	○ ●	○ ●	○ ●	○ ●	○ ●	○ ●	○ ●
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22		○ ●	○ ●	○ ●	○ ●	○ ●	○ ●	○ ●	○ ●	○ ●
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28		○ ●	○ ●	○ ●	○ ●	○ ●	○ ●	○ ●	○ ●	○ ●
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60				○ ●	○ ●	○ ●	○ ●	○ ●	○ ●	○ ●
65						○ ●	○ ●	○ ●	○ ●	○ ●
70						○ ●	○ ●	○ ●	○ ●	○ ●
80						○ ●	○ ●	○ ●	○ ●	○ ●
90						○ ●	○ ●	○ ●	○ ●	○ ●
100						○ ●	○ ●	○ ●	○ ●	○ ●

Part nos. example :  
 CategoryDIN - dia. x length - stainless type

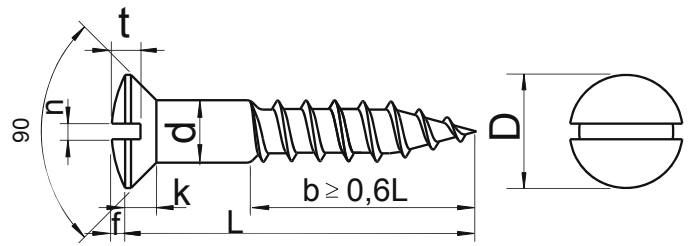
○ = A2 Stainless  
 ● = A4 Stainless



D	3.2	4	5	6	7	8	10	12	16	20
k	1	1.3	1.5	1.8	2.1	2.4	3	3.6	4.8	6
n	0.4	0.5	0.6	0.8	1	1.2	1.2	1.6	2	2.5
t	0.3	0.4	0.5	0.7	0.8	1	1.2	1.4	1.9	2.4
⊖	0.4x2.0	0.5x3.0	0.6x3.5	0.8x4.0	1.0x5.5	1.2x7.0	1.2x7.0	1.6x9.0	2.0x12	2.5x14

Length/d	M1.6	M2	M2.5	M3	M3.5	M4	M5	M6	M8	M10
3		○ ●	○ ●	○ ●						
4		○ ●	○ ●	○ ●						
5	○ ●	○ ●	○ ●	○ ●	○ ●	○ ●				
6	○ ●	○ ●	○ ●	○ ●	○ ●	○ ●	○ ●	○ ●		
8	○ ●	○ ●	○ ●	○ ●	○ ●	○ ●	○ ●	○ ●	○ ●	
10	○ ●	○ ●	○ ●	○ ●	○ ●	○ ●	○ ●	○ ●	○ ●	
12		○ ●	○ ●	○ ●	○ ●	○ ●	○ ●	○ ●	○ ●	
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18		○ ●	○ ●	○ ●	○ ●	○ ●	○ ●	○ ●	○ ●	○ ●
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22			○ ●	○ ●	○ ●	○ ●	○ ●	○ ●	○ ●	○ ●
25			○ ●	○ ●	○ ●	○ ●	○ ●	○ ●	○ ●	○ ●
28				○ ●	○ ●	○ ●	○ ●	○ ●	○ ●	○ ●
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35				○ ●	○ ●	○ ●	○ ●	○ ●	○ ●	○ ●
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60						○ ●	○ ●	○ ●	○ ●	○ ●
65							○ ●	○ ●	○ ●	○ ●
70							○ ●	○ ●	○ ●	○ ●
80							○ ●	○ ●	○ ●	○ ●
90							○ ●	○ ●	○ ●	○ ●
100							○ ●	○ ●	○ ●	○ ●

○ = A2 Stainless  
● = A4 Stainless

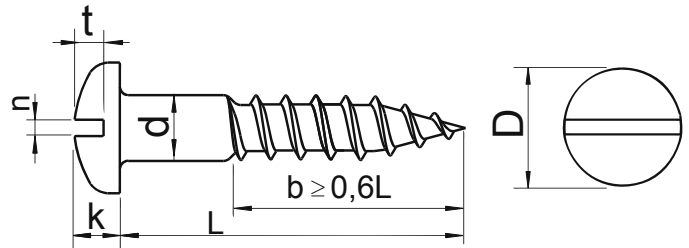


D	5.6	6.5	7.5	8.3	9.2	11
k	1.65	1.93	2.2	2.35	2.5	3
n	0.8	0.8	1	1	1.2	1.6
t	1.45	1.7	1.9	2.1	2.3	2.8
f	0.75	0.9	1	1.1	1.25	1.5
⊖	0.8x4.0	0.8x4.0	1.0x5.5	1.0x5.5	1.2x7.0	1.6x9.0

Length / d	3	3.5	4	4.5	5	6
10	○ ●					
12	○ ●	○ ●	○ ●			
16	○ ●	○ ●	○ ●	○ ●	○ ●	
20	○ ●	○ ●	○ ●	○ ●	○ ●	○ ●
25	○ ●	○ ●	○ ●	○ ●	○ ●	○ ●
30	○ ●	○ ●	○ ●	○ ●	○ ●	○ ●
35	○ ●	○ ●	○ ●	○ ●	○ ●	○ ●
40	○ ●	○ ●	○ ●	○ ●	○ ●	○ ●
45		○ ●	○ ●	○ ●	○ ●	○ ●
50		○ ●	○ ●	○ ●	○ ●	○ ●
60			○ ●	○ ●	○ ●	○ ●
70					○ ●	○ ●
80					○ ●	○ ●
90					○ ●	○ ●
100					○ ●	○ ●

○ = A2 Stainless  
● = A4 Stainless

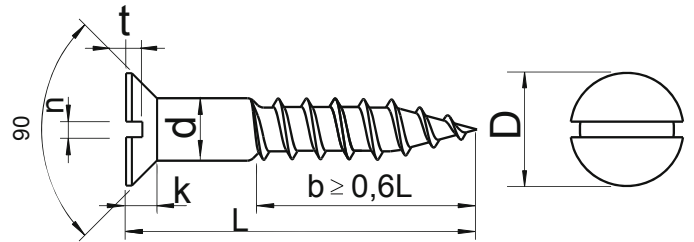




D	6	7	8	9	10	11	12
k	2.1	2.4	2.8	3.1	3.5	3.8	4.2
n	0.8	0.8	1	1	1.2	1.2	1.6
t	1.35	1.6	1.8	2	2.3	2.5	2.7
⊖	0.8x4.0	0.8x4.0	1.0x5.5	1.0x5.5	1.2x7.0	1.2x7.0	1.6x9.0

Length / d	3	3.5	4	4.5	5	5.5	6
12	○ ●	○ ●					
16	○ ●	○ ●	○ ●	○ ●	○ ●		
20	○ ●	○ ●	○ ●	○ ●	○ ●	○ ●	○ ●
25	○ ●	○ ●	○ ●	○ ●	○ ●	○ ●	○ ●
30	○ ●	○ ●	○ ●	○ ●	○ ●	○ ●	○ ●
35	○ ●	○ ●	○ ●	○ ●	○ ●	○ ●	○ ●
40	○ ●	○ ●	○ ●	○ ●	○ ●	○ ●	○ ●
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50		○ ●	○ ●	○ ●	○ ●	○ ●	○ ●
60			○ ●	○ ●	○ ●	○ ●	○ ●
65				○ ●	○ ●	○ ●	○ ●
70				○ ●	○ ●	○ ●	○ ●
80					○ ●	○ ●	○ ●
90					○ ●	○ ●	○ ●
100					○ ●	○ ●	○ ●

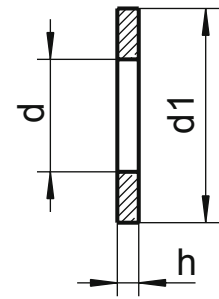
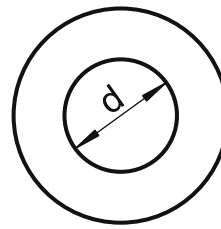
○ = A2 Stainless  
● = A4 Stainless



D	4.7	5.6	6.5	7.5	8.3	9.2	10.2	11	14.5
k	1.5	1.65	1.93	2.2	2.35	2.5	2.75	3	4
n	0.6	0.8	0.8	1	1	1.2	1.2	1.6	2
t	0.7	0.85	1	1.1	1.2	1.3	1.4	1.6	2.1
⊖	0.6x3.5	0.8x4.0	0.8x4.0	1.0x5.5	1.0x5.5	1.2x7.0	1.2x7.0	1.6x9.0	2.0x12.0

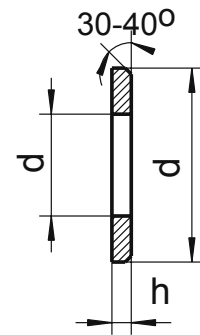
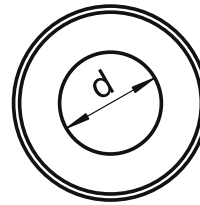
Length h/d	2.5	3	3.5	4	4.5	5	5.5	6	8
10	○ ●								
12	○ ●	○ ●							
16	○ ●	○ ●	○ ●	○ ●					
20	○ ●	○ ●	○ ●	○ ●	○ ●	○ ●	○ ●	○ ●	
25	○ ●	○ ●	○ ●	○ ●	○ ●	○ ●	○ ●	○ ●	
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35		○ ●	○ ●	○ ●	○ ●	○ ●	○ ●	○ ●	
40		○ ●	○ ●	○ ●	○ ●	○ ●	○ ●	○ ●	
45				○ ●	○ ●	○ ●	○ ●	○ ●	
50				○ ●	○ ●	○ ●	○ ●	○ ●	
60				○ ●	○ ●	○ ●	○ ●	○ ●	○ ●
70				○ ●	○ ●	○ ●	○ ●	○ ●	○ ●
80						○ ●	○ ●	○ ●	○ ●
90								○ ●	○ ●
100								○ ●	○ ●

○ = A2 Stainless  
● = A4 Stainless



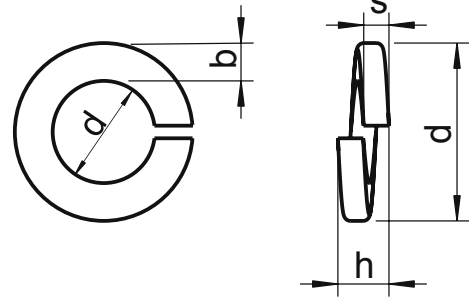
d	for	d1	h	grade
1.7	M1.6	4	0.3	○ ●
1.8	M1.7	4.5	0.3	○ ●
2.2	M2	5	0.3	○ ●
2.5	M2.3	6	0.5	○ ●
2.7	M2.5	6	0.5	○ ●
2.8	M2.6	7	0.5	○ ●
3.2	M3	7	0.5	○ ●
3.7	M3.5	8	0.5	○ ●
4.3	M4	9	0.8	○ ●
5.3	M5	10	1	○ ●
6.4	M6	12	1.6	○ ●
7.4	M7	14	1.6	○ ●
8.4	M8	16	1.6	○ ●
10.5	M10	20	2	○ ●
13	M12	24	2.5	○ ●
15	M14	28	2.5	○ ●
17	M16	30	3	○ ●
19	M18	34	3	○ ●
21	M20	37	3	○ ●
23	M22	39	3	○ ●
25	M24	44	4	○ ●
28	M27	50	4	○ ●
31	M30	56	4	○ ●
34	M33	60	5	○ ●
37	M36	66	5	○ ●
40	M39	72	6	○ ●
43	M42	78	7	○ ●
46	M45	85	7	○ ●
50	M48	92	8	○ ●
52	M50	92	8	○ ●
54	M52	98	8	○ ●

○ = A2 Stainless  
● = A4 Stainless



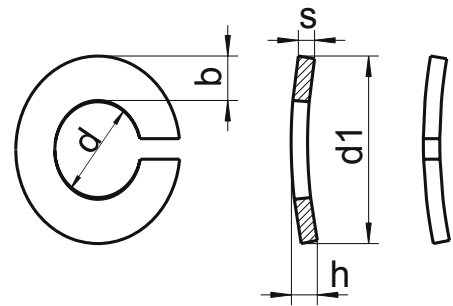
d	for	d1	h	grade
3.2	M3	7	0.5	○ ●
4.3	M4	9	0.8	○ ●
5.3	M5	10	1	○ ●
6.4	M6	12	1.6	○ ●
8.4	M8	16	1.6	○ ●
10.5	M10	20	2	○ ●
13	M12	24	2.5	○ ●
15	M14	28	2.5	○ ●
17	M16	30	3	○ ●
19	M18	34	3	○ ●
21	M20	37	3	○ ●
23	M22	39	3	○ ●
25	M24	44	4	○ ●
28	M27	50	4	○ ●
31	M30	56	4	○ ●
34	M33	60	5	○ ●

○ = A2 Stainless  
● = A4 Stainless



Nominal size	for	d	d1	h min.	s	b	grade
2	M2	2.1	4.4	1	0.5	0.9	○ ●
2.3	M2.3	2.3	4.8	1.2	0.6	1	○ ●
2.5	M2.5	2.6	5.1	1.2	0.6	1	○ ●
2.6	M2.6	2.7	5.2	1.2	0.6	1	○ ●
3	M3	3.1	6.2	1.6	0.8	1.31	○ ●
3.5	M3.5	3.6	6.7	1.6	0.8	1.31	○ ●
4	M4	4.1	7.6	1.8	0.9	1.51	○ ●
5	M5	5.1	9.2	2.4	1.2	1.8	○ ●
6	M6	6.1	11.8	3.2	1.6	2.5	○ ●
8	M8	8.1	14.8	4	2	3	○ ●
10	M10	10.2	18.1	4.4	2.2	3.5	○ ●
12	M12	12.2	21.1	5	2.5	4	○ ●
14	M14	14.2	24.1	6	3	4.5	○ ●
16	M16	16.2	27.4	7	3.5	5	○ ●
18	M18	18.2	29.4	7	3.5	5	○ ●
20	M20	20.2	33.6	8	4	6	○ ●
22	M22	22.5	35.9	8	5	6	○ ●
24	M24	24.5	40	10	5	7	○ ●
27	M27	27.5	43	10	5	7	○ ●
30	M30	30.5	48.2	12	6	8	○ ●
33	M33	33.5	55.2	12	6	10	○ ●
36	M36	36.5	58.2	12	6	10	○ ●
39	M39	39.5	61.2	12	6	10	○ ●
40	M40	40.5	63.5	14	7	12	○ ●
42	M42	42.5	68.2	14	7	12	○ ●
48	M48	49	75	14	7	12	○ ●

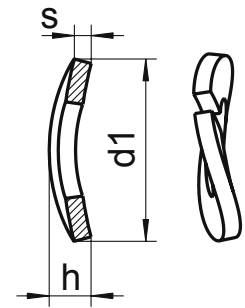
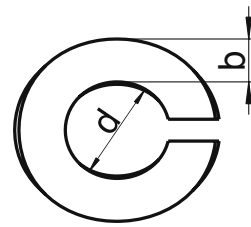
○ = A2 Stainless (spring steel)  
● = A4 Stainless (spring steel)



Nominal size	for	d min.	d1 max.	h min.	h max.	s	b	grade
2	M2	2.1	4.4	1	0.9	0.5	0.9	○ ●
2.3	M2.3	2.3	4.8	1.2	1.1	0.6	1	○ ●
2.5	M2.5	2.6	5.1	1.2	1.1	0.6	1	○ ●
2.6	M2.6	2.7	5.2	1.2	1.1	0.6	1	○ ●
3	M3	3.1	6.2	1.6	1.3	0.8	1.31	○ ●
3.5	M3.5	3.6	6.7	1.6	1.3	0.8	1.31	○ ●
4	M4	4.1	7.6	1.8	1.4	0.9	1.51	○ ●
5	M5	5.1	9.2	2.4	1.7	1.2	1.8	○ ●
6	M6	6.1	11.8	3.2	2.2	1.6	2.5	○ ●
8	M8	8.1	14.8	4	2.75	2	3	○ ●
10	M10	10.2	18.1	4.4	3.15	2.2	3.5	○ ●
12	M12	12.2	21.1	5	3.65	2.5	4	○ ●
14	M14	14.2	24.1	6	4.3	3	4.5	○ ●
16	M16	16.2	27.4	7	5.1	3.5	5	○ ●
18	M18	18.2	29.4	7	5.1	3.5	5	○ ●
20	M20	20.2	33.6	8	5.9	4	6	○ ●
22	M22	22.5	35.9	8	5.9	5	6	○ ●
24	M24	24.5	40	10	7.5	5	7	○ ●
27	M27	27.5	43	10	7.5	5	7	○ ●
30	M30	30.5	48.2	12	10.5	6	8	○ ●
36	M36	36.5	58.2	12	11.3	6	10	○ ●

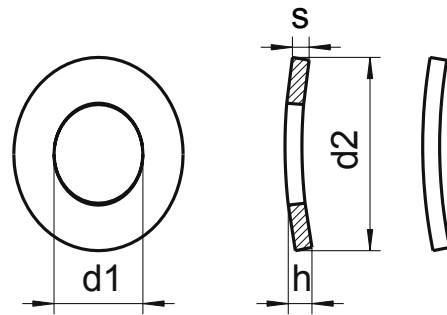
○ = A2 Stainless (spring steel)

● = A4 Stainless (spring steel)



Nominal size	for	d min.	d1 max.	h min.	h max.	s	b	grade
5	M5	5.1	9.2	1.5	1.7	1	1.8	○ ●
6	M6	6.1	11.8	2	2.2	1.3	2.5	○ ●
8	M8	8.1	14.8	2.45	2.75	1.6	3	○ ●
10	M10	10.2	18.1	2.85	3.15	1.8	3.5	○ ●
12	M12	12.2	21.1	3	3.65	2.1	4	○ ●
16	M16	16.2	27.4	3.5	5.1	2.8	5	○ ●

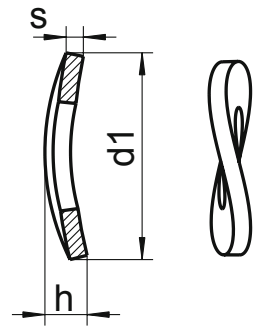
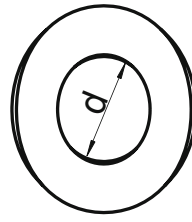
○ = A2 Stainless (spring steel)  
● = A4 Stainless (spring steel)



Nominal size	for	d	d1	h min.	h max.	s	grade
1.4	M1.4	1.5	3	0.4	0.8	0.25	○
1.6	M1.6	1.8	4	0.45	0.9	0.25	○
1.7	M1.7	1.8	4	0.45	0.9	0.25	○
2	M2	2.2	4.5	0.5	0.51	0.3	○
2.3	M2.3	2.5	5	0.5	1	0.3	○
2.5	M2.5	2.6	5.5	0.55	1.1	0.3	○
2.6	M2.6	2.8	5.5	0.55	1.1	0.3	○
3	M3	3.2	6	0.65	1.3	0.4	○
3.5	M3.5	3.7	7	0.7	1.4	0.4	○
4	M4	4.3	8	0.8	1.6	0.5	○
5	M5	5.3	10	0.9	1.8	0.5	○
6	M6	6.4	11	1.1	2.2	0.5	○
7	M7	7.4	12	1.2	2.4	0.5	○
8	M8	8.4	15	1.7	3.4	0.5	○
10	M10	10.5	18	2	4	0.8	○

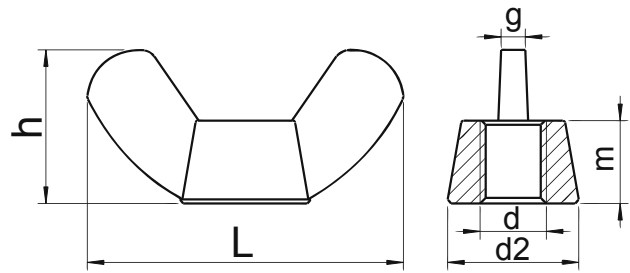
○ = A2 Stainless (spring steel)





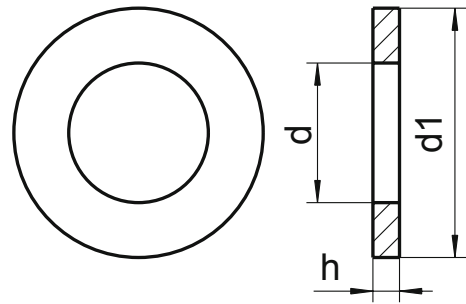
Nominal size	for	d	d1	h min.	h max.	s	grade
3	M3	3.2	8	0.8	1.6	0.5	○
3.5	M3.5	3.7	8	0.9	1.8	0.5	○
4	M4	4.3	9	1	2	0.5	○
5	M5	5.3	11	1.1	2.2	0.5	○
6	M6	6.4	12	1.3	2.6	0.5	○
7	M7	7.4	14	1.5	3	0.8	○
8	M8	8.4	15	1.5	3	0.8	○
10	M10	10.5	21	2.1	4.2	1	○
12	M12	13	24	2.5	5	1.2	○
14	M14	15	28	3	6	1.6	○
16	M16	17	30	3.2	6.4	1.6	○
18	M18	19	34	3.3	6.6	1.6	○
20	M20	21	36	3.7	7.4	1.6	○
22	M22	23	40	3.9	7.8	1.5	○
24	M24	25	44	4.1	8.2	1.8	○
27	M27	28	50	4.7	9.4	2	○

○ = A2 Stainless (spring steel)



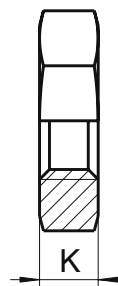
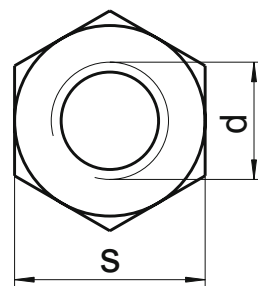
d	m	h	L	d2	g	grade
M3	2.4	8.8	15.3	68	1.2	○ ●
M4	2.9	8.8	17.6	8	1.6	○ ●
M5	4.1	10.5	22.5	10.3	2.1	○ ●
M6	5.1	12.9	27.8	12.7	2.5	○ ●
M8	5.6	14.8	30.3	13.8	2.8	○ ●
M10	6.8	17.3	36.2	16.5	3.3	○ ●
M12	9	22.3	49.4	22.5	4.5	○ ●
M14	10	30.8	52.7	26	6	○ ●
M16	10.7	30.8	58.3	26.6	6.3	○ ●
M18	12.2	31.2	66.5	29.3	7.2	○ ●
M20	12.2	31.2	66.5	29.3	7.2	○ ●

○ = A2 Stainless  
● = A4 Stainless



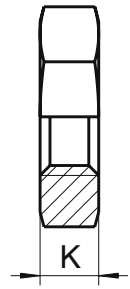
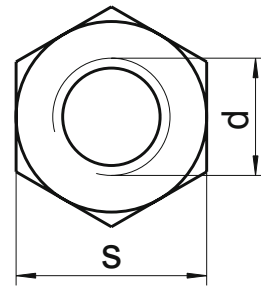
<b>d</b>	<b>for</b>	<b>d1</b>	<b>h</b>	<b>grade</b>
1.5	M1.4	3	0.3	○ ●
1.7	M1.6	3.5	3	○ ●
2.2	M2	4.5	0.5	○ ●
2.7	M2.5	5	0.5	○ ●
3.2	M3	6	0.5	○ ●
3.7	M3.5	7	5	○ ●
4.3	M4	8	0.5	○ ●
5.3	M5	9	1	○ ●
6.4	M6	11	1.6	○ ●
8.4	M8	15	1.6	○ ●
10.5	M10	18	1.6	○ ●
13	M12	20	2	○ ●
15	M14	24	2.5	○ ●
17	M16	28	2.5	○ ●
19	M18	30	2.5	○ ●
21	M20	34	3	○ ●

○ = A2 Stainless  
● = A4 Stainless



d	K	s	●	grade
M1.6	0.75	3.2	3.2	○ ●
M2	0.95	4	4	○ ●
M2.3	0.95	4.5	4.5	○ ●
M2.5	1.35	5	5	○ ●
M2.6	1.35	5	5	○ ●
M3	1.55	5.5	5.5	○ ●
M4	1.95	7	7	○ ●
M5	2.45	8	8	○ ●
M6	2.9	10	10	○ ●
M8	3.7	13	13	○ ●
M10	4.7	17	17	○ ●
M12	5.7	19	19	○ ●
M14	6.42	22	22	○ ●
M16	7.42	24	24	○ ●
M18	8.42	27	27	○ ●
M20	9.1	30	30	○ ●
M22	9.9	32	32	○ ●
M24	10.9	36	36	○ ●
M27	12.4	41	41	○ ●
M30	13.9	46	46	○ ●
M33	15.4	50	50	○ ●
M36	16.9	55	55	○ ●
M39	18.2	60	60	○ ●
M42	19.7	65	65	○ ●
M45	21.2	70	70	○ ●
M48	22.7	75	75	○ ●

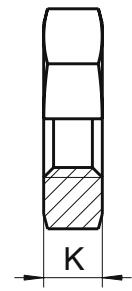
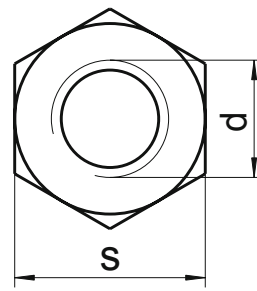
○ = A2 Stainless  
● = A4 Stainless



d	K min.	s	⬠
M6	2.9	10	10
M8	3.7	13	13
M10	4.7	17	17
M12	5.7	19	19
M16	7.42	24	24
M18	8.42	27	27
M20	9.1	30	30
M24	10.9	36	36
M30	13.9	46	46
M36	16.9	55	55

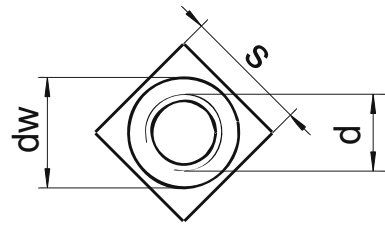
grade
○ ●
○ ●
○ ●
○ ●
○ ●
○ ●
○ ●
○ ●
○ ●
○ ●
○ ●

○ = A2 Stainless  
● = A4 Stainless



d	K min.	s	⬠	grade
M8	3.7	13	13	○ ●
M10	4.7	17	17	○ ●
M12	5.7	19	19	○ ●
M14	6.42	22	22	○ ●
M16	7.42	24	24	○ ●
M18	8.42	27	27	○ ●
M20	9.1	30	30	○ ●
M22	9.9	32	32	○ ●
M24	10.9	36	36	○ ●
M27	12.4	41	41	○ ●
M30	13.9	46	46	○ ●
M33	15.4	50	50	○ ●
M36	16.9	55	55	○ ●

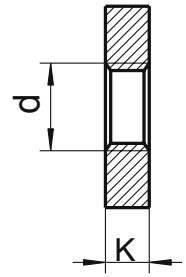
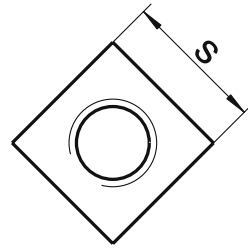
○ = A2 Stainless  
● = A4 Stainless



d	K	s	dw min.	●
M5	4	8	6.7	8
M6	5	10	8.7	10
M8	6.5	13	11.5	13
M10	8	17	14.5	17
M12	10	19	16.5	19
M16	13	24	22	24

grade	
○	●
○	●
○	●
○	●
○	●
○	●

○ = A2 Stainless  
● = A4 Stainless

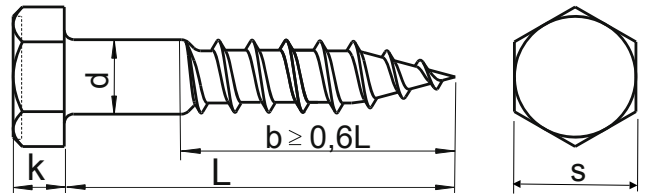


d	m	s	⬠
M1.6	1	3.2	3.2
M2	1.2	4	4
M2.5	1.6	5	5
M3	1.8	5.5	5.5
M4	2.2	7	7
M5	2.7	8	8
M6	3.2	10	10
M8	4	13	13
M10	5	16	16

grade
○ ●
○ ●
○ ●
○ ●
○ ●
○ ●
○ ●
○ ●
○ ●

○ = A2 Stainless  
● = A4 Stainless

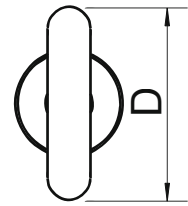
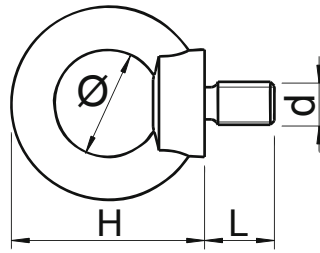




k	3.5	4	5	5.5	7	8	10
S	8	10	12	13	17	19	24
⬠	8	10	12	13	17	19	24

Length/d	5	6	7	8	10	12	16
20	○ ●	○ ●					
25	○ ●	○ ●	○ ●	○ ●			
30	○ ●	○ ●	○ ●	○ ●			
35	○ ●	○ ●	○ ●	○ ●			
40	○ ●	○ ●	○ ●	○ ●	○ ●		
45	○ ●	○ ●	○ ●	○ ●	○ ●		
50	○ ●	○ ●	○ ●	○ ●	○ ●	○ ●	○ ●
55	○ ●	○ ●	○ ●	○ ●	○ ●	○ ●	○ ●
60	○ ●	○ ●	○ ●	○ ●	○ ●	○ ●	○ ●
65	○ ●	○ ●	○ ●	○ ●	○ ●	○ ●	○ ●
70	○ ●	○ ●	○ ●	○ ●	○ ●	○ ●	○ ●
80	○ ●	○ ●	○ ●	○ ●	○ ●	○ ●	○ ●
90		○ ●	○ ●	○ ●	○ ●	○ ●	○ ●
100		○ ●	○ ●	○ ●	○ ●	○ ●	○ ●
110		○ ●	○ ●	○ ●	○ ●	○ ●	○ ●
120		○ ●	○ ●	○ ●	○ ●	○ ●	○ ●
130		○ ●	○ ●	○ ●	○ ●	○ ●	○ ●
140		○ ●	○ ●	○ ●	○ ●	○ ●	○ ●
150			○ ●	○ ●	○ ●	○ ●	○ ●
160			○ ●	○ ●	○ ●	○ ●	○ ●
170			○ ●	○ ●	○ ●	○ ●	○ ●
180				○ ●	○ ●	○ ●	○ ●
200				○ ●	○ ●	○ ●	○ ●
220						○ ●	
240						○ ●	
250						○ ●	
260						○ ●	
280						○ ●	
300						○ ●	

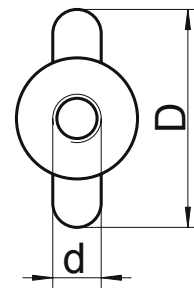
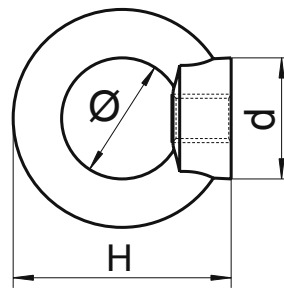
○ = A2 Stainless  
● = A4 Stainless



d	D	Ø	H	L
M6	27	16	31	11
M8	36	20	36	13
M10	45	25	45	17
M12	54	30	53	20.5
M16	63	35	62	27
M20	72	40	71	30
M24	90	50	90	36
M30	108	60	109	45
M36	126	70	128	54

grade
○ ●
○ ●
○ ●
○ ●
○ ●
○ ●
○ ●
○ ●
○ ●

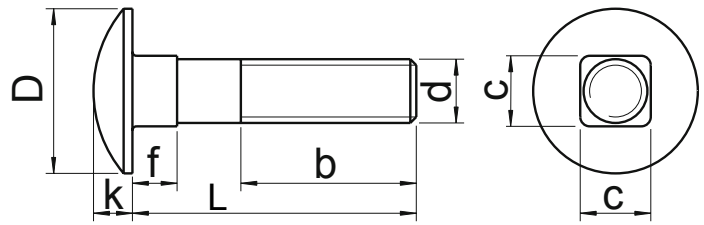
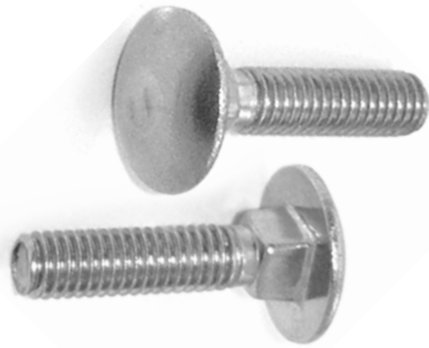
○ = A2 Stainless  
● = A4 Stainless



d	d	D	Ø	H
M6	16	27	16	31
M8	20	36	20	36
M10	25	45	25	45
M12	30	54	30	53
M16	35	63	35	62
M20	40	72	40	71
M27	65	108	60	109
M30	65	108	60	109
M36	75	126	70	128

grade
○ ●
○ ●
○ ●
○ ●
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○ = A2 Stainless  
● = A4 Stainless

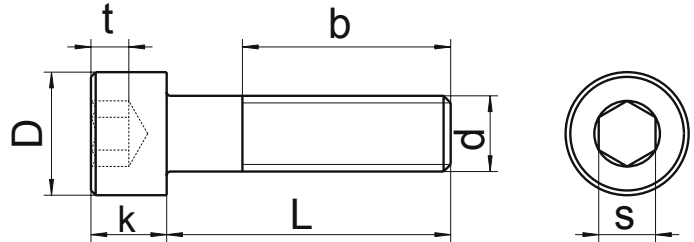


D	12.45	15.45	19.35	23.35	29.35	37.2
f	290	3.4	4.4	5.4	7.25	11.1
k min.	2.7	3.12	4.12	4.62	605	8.05
C min.	4.52	5.52	742	9.42	11.3	15.3
b <125	16	18	22	26	30	38
b >125	22	24	28	32	36	44

Length / d	M5	M6	M8	M10	M12	M16
12						
16	○ ●	○ ●	○ ●	○ ●		
20	○ ●	○ ●	○ ●	○ ●		
25	○ ●	○ ●	○ ●	○ ●	○ ●	
30	○ ●	○ ●	○ ●	○ ●	○ ●	
35	○ ●	○ ●	○ ●	○ ●	○ ●	
40	○ ●	○ ●	○ ●	○ ●	○ ●	○ ●
45	○ ●	○ ●	○ ●	○ ●	○ ●	○ ●
50	○ ●	○ ●	○ ●	○ ●	○ ●	○ ●
55	○ ●	○ ●	○ ●	○ ●	○ ●	○ ●
60	○ ●	○ ●	○ ●	○ ●	○ ●	○ ●
65	○ ●	○ ●	○ ●	○ ●	○ ●	○ ●
70	○ ●	○ ●	○ ●	○ ●	○ ●	○ ●
75	○ ●	○ ●	○ ●	○ ●	○ ●	○ ●
80	○ ●	○ ●	○ ●	○ ●	○ ●	○ ●
90		○ ●	○ ●	○ ●	○ ●	○ ●
100		○ ●	○ ●	○ ●	○ ●	○ ●
110		○ ●	○ ●	○ ●	○ ●	○ ●
120		○ ●	○ ●	○ ●	○ ●	○ ●
130		○ ●	○ ●	○ ●	○ ●	○ ●
140		○ ●	○ ●	○ ●	○ ●	○ ●
150			○ ●	○ ●	○ ●	○ ●
160			○ ●	○ ●	○ ●	○ ●
170			○ ●	○ ●	○ ●	○ ●
180			○ ●	○ ●	○ ●	○ ●
200			○ ●	○ ●	○ ●	○ ●

○ = A2 Stainless  
● = A4 Stainless

PAGE 1

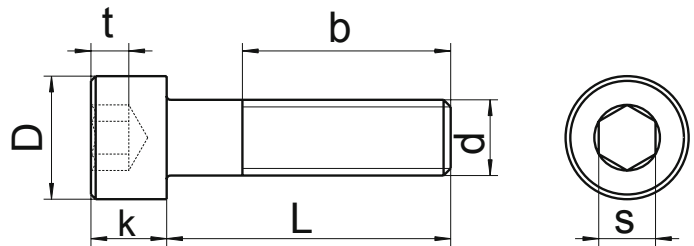


D Max.	3	3.8	4.5	5.5	7	8.5	10	13	16	18	21	24	27
K Max.	1.6	2	2.5	3	4	5	6	8	10	12	14	16	18
s	1.5	1.5	2	2.5	3	4	5	6	8	10	12	14	14
b	15	16	17	18	20	22	24	28	32	36	40	44	48
t	0.7	1	1.1	1.3	2	2.5	3	4	5	6	7	8	9
⬠	1.5	1.5	2	2.5	3	4	5	6	8	10	12	14	14

Length / d	M1.6	M2	M2.5	M3	M4	M5	M6	M8	M10	M12	M14	M16	M18
3	○ ●	○ ●											
4	○ ●	○ ●	○ ●	○ ●									
5	○ ●	○ ●	○ ●	○ ●	○ ●								
6	○ ●	○ ●	○ ●	○ ●	○ ●	○ ●	○ ●						
8	○ ●	○ ●	○ ●	○ ●	○ ●	○ ●	○ ●	○ ●					
10	○ ●	○ ●	○ ●	○ ●	○ ●	○ ●	○ ●	○ ●	○ ●				
12	○ ●	○ ●	○ ●	○ ●	○ ●	○ ●	○ ●	○ ●	○ ●	○ ●			
14	○ ●	○ ●	○ ●	○ ●	○ ●	○ ●	○ ●	○ ●	○ ●	○ ●			
16	○ ●	○ ●	○ ●	○ ●	○ ●	○ ●	○ ●	○ ●	○ ●	○ ●	○ ●		
18		○ ●	○ ●	○ ●	○ ●	○ ●	○ ●	○ ●	○ ●	○ ●			
20		○ ●	○ ●	○ ●	○ ●	○ ●	○ ●	○ ●	○ ●	○ ●	○ ●	○ ●	
22			○ ●	○ ●	○ ●	○ ●	○ ●	○ ●	○ ●	○ ●	○ ●	○ ●	
25			○ ●	○ ●	○ ●	○ ●	○ ●	○ ●	○ ●	○ ●	○ ●	○ ●	
30				○ ●	○ ●	○ ●	○ ●	○ ●	○ ●	○ ●	○ ●	○ ●	○ ●
35				○ ●	○ ●	○ ●	○ ●	○ ●	○ ●	○ ●	○ ●	○ ●	○ ●
40				○ ●	○ ●	○ ●	○ ●	○ ●	○ ●	○ ●	○ ●	○ ●	○ ●
45				○ ●	○ ●	○ ●	○ ●	○ ●	○ ●	○ ●	○ ●	○ ●	○ ●
50				○ ●	○ ●	○ ●	○ ●	○ ●	○ ●	○ ●	○ ●	○ ●	○ ●
55					○ ●	○ ●	○ ●	○ ●	○ ●	○ ●	○ ●	○ ●	○ ●
60					○ ●	○ ●	○ ●	○ ●	○ ●	○ ●	○ ●	○ ●	○ ●
65					○ ●	○ ●	○ ●	○ ●	○ ●	○ ●	○ ●	○ ●	○ ●
70					○ ●	○ ●	○ ●	○ ●	○ ●	○ ●	○ ●	○ ●	○ ●
75					○ ●	○ ●	○ ●	○ ●	○ ●	○ ●	○ ●	○ ●	○ ●
80					○ ●	○ ●	○ ●	○ ●	○ ●	○ ●	○ ●	○ ●	○ ●

○ = A2 Stainless  
● = A4 Stainless

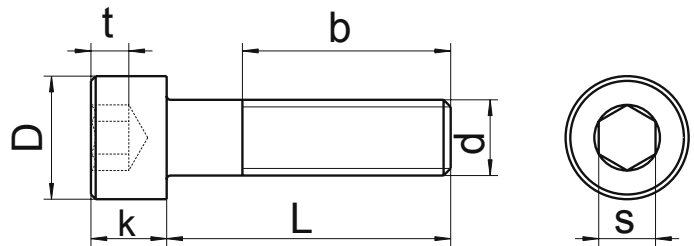
PAGE 2



D Max.	8.5	10	13	16	18	21	24	27
K Max.	5	6	8	10	12	14	16	18
s	4	5	6	8	10	12	14	14
b	22	24	28	32	36	40	44	48
t	2.5	3	4	5	6	7	8	9
◆	4	5	6	8	10	12	14	14

Length	M5	M6	M8	M10	M12	M14	M16	M18
80	○ ●	○ ●	○ ●	○ ●	○ ●	○ ●	○ ●	○ ●
85	○ ●	○ ●	○ ●	○ ●	○ ●	○ ●	○ ●	○ ●
90	○ ●	○ ●	○ ●	○ ●	○ ●	○ ●	○ ●	○ ●
95	○ ●	○ ●	○ ●	○ ●	○ ●	○ ●	○ ●	○ ●
100	○ ●	○ ●	○ ●	○ ●	○ ●	○ ●	○ ●	○ ●
110		○ ●	○ ●	○ ●	○ ●	○ ●	○ ●	○ ●
120		○ ●	○ ●	○ ●	○ ●	○ ●	○ ●	○ ●
130		○ ●	○ ●	○ ●	○ ●	○ ●	○ ●	○ ●
140		○ ●	○ ●	○ ●	○ ●	○ ●	○ ●	○ ●
150		○ ●	○ ●	○ ●	○ ●	○ ●	○ ●	○ ●
160		○ ●	○ ●	○ ●	○ ●	○ ●	○ ●	○ ●
170		○ ●	○ ●	○ ●	○ ●	○ ●	○ ●	○ ●
180		○ ●	○ ●	○ ●	○ ●	○ ●	○ ●	○ ●
190		○ ●	○ ●	○ ●	○ ●	○ ●	○ ●	○ ●
200		○ ●	○ ●	○ ●	○ ●	○ ●	○ ●	○ ●
210								
220								
230								
240								
250								
260								
270								
280								
300								

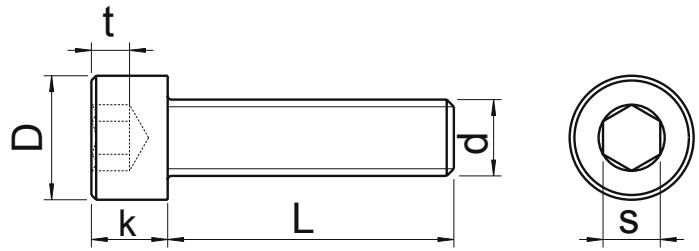
○ = A2 Stainless  
● = A4 Stainless



D Max.	30	36	40	45
K Max.	20	24	27	30
s	17	19	19	22
b	52	60	66	72
t	10	12	13.5	15.5
⬡	17	19	19	22

Length / d	M20	M24	M27	M30
30	○ ●			
35	○ ●			
40	○ ●	○ ●		
45	○ ●	○ ●		
50	○ ●	○ ●	○ ●	○ ●
55	○ ●	○ ●	○ ●	○ ●
60	○ ●	○ ●	○ ●	○ ●
65	○ ●	○ ●	○ ●	○ ●
70	○ ●	○ ●	○ ●	○ ●
75	○ ●	○ ●	○ ●	○ ●
80	○ ●	○ ●	○ ●	○ ●
85	○ ●	○ ●	○ ●	○ ●
90	○ ●	○ ●	○ ●	○ ●
95	○ ●	○ ●	○ ●	○ ●
100	○ ●	○ ●	○ ●	○ ●
110	○ ●	○ ●	○ ●	○ ●
120	○ ●	○ ●	○ ●	○ ●
130	○ ●	○ ●	○ ●	○ ●
140	○ ●	○ ●	○ ●	○ ●
150	○ ●	○ ●	○ ●	○ ●
160	○ ●	○ ●	○ ●	○ ●
170	○ ●	○ ●	○ ●	○ ●
180	○ ●	○ ●	○ ●	○ ●
190	○ ●	○ ●	○ ●	○ ●
200	○ ●	○ ●	○ ●	○ ●

○ = A2 Stainless  
● = A4 Stainless



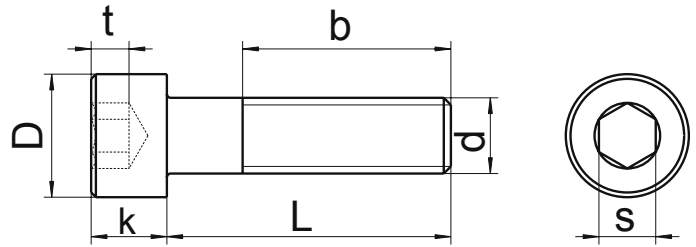
D Max.	8.5	10	13	16	18
K Max.	5	6	8	10	12
s	4	5	6	8	10
t	2.5	3	4	5	6
⬡	4	5	6	8	10

Length / d	M5	M6	M8	M10	M12
30	○ ●				
35	○ ●	○ ●			
40	○ ●	○ ●	○ ●		
45	○ ●	○ ●	○ ●		
50	○ ●	○ ●	○ ●	○ ●	
60		○ ●	○ ●	○ ●	○ ●
70		○ ●	○ ●	○ ●	○ ●
80		○ ●	○ ●	○ ●	○ ●
90		○ ●	○ ●	○ ●	○ ●
100		○ ●	○ ●	○ ●	○ ●

○ = A2 Stainless  
● = A4 Stainless



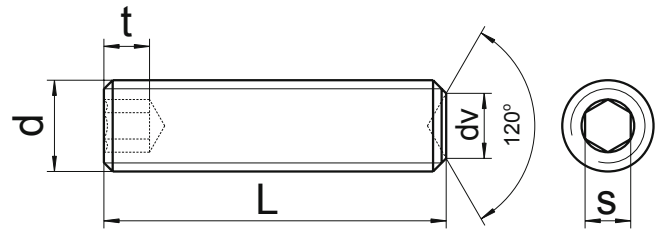
PAGE 1



D Max.	7	8.5	10	13	16	18	24	30
K Max.	4	5	6	8	10	12	16	20
s	3	4	5	6	8	10	14	17
b	20	22	24	28	32	36	44	52
t	2	2.5	3	4	5	6	8	10
⬠	3	4	5	6	8	10	14	17

Length / d	M4	M5	M6	M8	M10	M12	M16	M20
8		●	●					
10		●	●	●				
12		●	●	●				
14	●	●	●	●				
16	●	●	●	●	●	●		
18	●	●	●	●	●	●		
20	●	●	●	●	●	●	●	
22	●	●	●	●	●	●	●	
25	●	●	●	●	●	●	●	
30	●	●	●	●	●	●	●	●
35	●	●	●	●	●	●	●	●
40	●	●	●	●	●	●	●	●
45		●	●	●	●	●	●	●
50		●	●	●	●	●	●	●
55		●	●	●	●	●	●	●
60		●	●	●	●	●	●	●
65			●	●	●	●	●	●
70			●	●	●	●	●	●
75			●	●	●	●	●	●
80			●	●	●	●	●	●
90			●	●	●	●	●	●
100			●	●	●	●	●	●
110			●	●	●	●	●	●
120			●	●	●	●	●	●
130					●	●	●	●
140					●	●	●	●
150					●	●	●	●
160					●	●	●	●

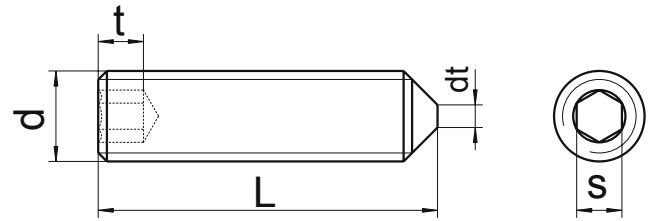
○ = A2 Stainless  
● = A4 Stainless



dp	0.75	1.25	1.75	2.25	3.2	3.7	5.2	6.64	8.14	11.57	14.57
t	0.8	1.2	1.2	1.5	2	2	3	4	4.8	6.4	8
s	0.9	1.3	1.5	2	2.5	3	4	5	6	8	10
⬡	0.9	1.3	1.5	2	2.5	3	4	5	6	8	10

Length	M2	M2.5	M3	M4	M5	M6	M8	M10	M12	M16	M20
2	○ ●										
3	○ ●	○ ●	○ ●	○ ●							
4	○ ●	○ ●	○ ●	○ ●							
5	○ ●	○ ●	○ ●	○ ●	○ ●	○ ●					
6	○ ●	○ ●	○ ●	○ ●	○ ●	○ ●	○ ●				
8	○ ●	○ ●	○ ●	○ ●	○ ●	○ ●	○ ●				
10	○ ●	○ ●	○ ●	○ ●	○ ●	○ ●	○ ●	○ ●			
12	○ ●	○ ●	○ ●	○ ●	○ ●	○ ●	○ ●	○ ●	○ ●		
14	○ ●	○ ●	○ ●	○ ●	○ ●	○ ●	○ ●	○ ●	○ ●		
16	○ ●	○ ●	○ ●	○ ●	○ ●	○ ●	○ ●	○ ●	○ ●	○ ●	
20			○ ●	○ ●	○ ●	○ ●	○ ●	○ ●	○ ●	○ ●	○ ●
25			○ ●	○ ●	○ ●	○ ●	○ ●	○ ●	○ ●	○ ●	○ ●
30			○ ●	○ ●	○ ●	○ ●	○ ●	○ ●	○ ●	○ ●	○ ●
35				○ ●	○ ●	○ ●	○ ●	○ ●	○ ●	○ ●	○ ●
40				○ ●	○ ●	○ ●	○ ●	○ ●	○ ●	○ ●	○ ●
45					○ ●	○ ●	○ ●	○ ●	○ ●	○ ●	○ ●
50					○ ●	○ ●	○ ●	○ ●	○ ●	○ ●	○ ●
55						○ ●	○ ●	○ ●	○ ●	○ ●	○ ●
60						○ ●	○ ●	○ ●	○ ●	○ ●	○ ●
70						○ ●	○ ●	○ ●	○ ●	○ ●	○ ●
80							○ ●	○ ●	○ ●	○ ●	○ ●
90								○ ●	○ ●	○ ●	○ ●
100										○ ●	○ ●

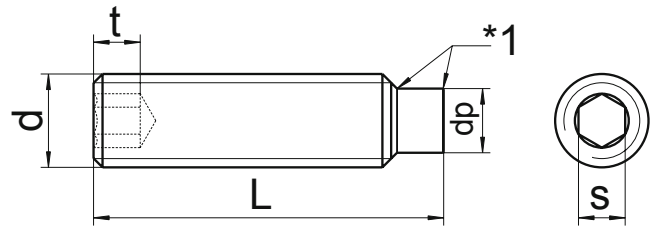
○ = A2 Stainless  
● = A4 Stainless



dt	N/A	N/A	N/A	N/A	N/A	0.9	1.4	1.9	2.4	3.25	4.25
t	0.8	1.2	1.2	1.5	2	2	3	4	4.8	6.4	8
s	0.9	1	2	2	3	3	4	5	6	8	10
⬡	0.9	1.3	15	2	2.5	3	4	5	6	8	10

Length	M2	M2.5	M3	M4	M5	M6	M8	M10	M12	M16	M20
2	○ ●										
3	○ ●	○ ●	○ ●	○ ●							
4	○ ●	○ ●	○ ●	○ ●							
5	○ ●	○ ●	○ ●	○ ●	○ ●	○ ●					
6	○ ●	○ ●	○ ●	○ ●	○ ●	○ ●	○ ●				
8	○ ●	○ ●	○ ●	○ ●	○ ●	○ ●	○ ●	○ ●			
10	○ ●	○ ●	○ ●	○ ●	○ ●	○ ●	○ ●	○ ●			
12	○ ●	○ ●	○ ●	○ ●	○ ●	○ ●	○ ●	○ ●	○ ●		
14	○ ●	○ ●	○ ●	○ ●	○ ●	○ ●	○ ●	○ ●	○ ●		
16	○ ●	○ ●	○ ●	○ ●	○ ●	○ ●	○ ●	○ ●	○ ●	○ ●	
20			○ ●	○ ●	○ ●	○ ●	○ ●	○ ●	○ ●	○ ●	○ ●
25			○ ●	○ ●	○ ●	○ ●	○ ●	○ ●	○ ●	○ ●	○ ●
30			○ ●	○ ●	○ ●	○ ●	○ ●	○ ●	○ ●	○ ●	○ ●
35				○ ●	○ ●	○ ●	○ ●	○ ●	○ ●	○ ●	○ ●
40				○ ●	○ ●	○ ●	○ ●	○ ●	○ ●	○ ●	○ ●
45					○ ●	○ ●	○ ●	○ ●	○ ●	○ ●	○ ●
50					○ ●	○ ●	○ ●	○ ●	○ ●	○ ●	○ ●
55						○ ●	○ ●	○ ●	○ ●	○ ●	○ ●
60						○ ●	○ ●	○ ●	○ ●	○ ●	○ ●
70						○ ●	○ ●	○ ●	○ ●	○ ●	○ ●
80							○ ●	○ ●	○ ●	○ ●	○ ●
90								○ ●	○ ●	○ ●	○ ●
100								○ ●	○ ●	○ ●	○ ●

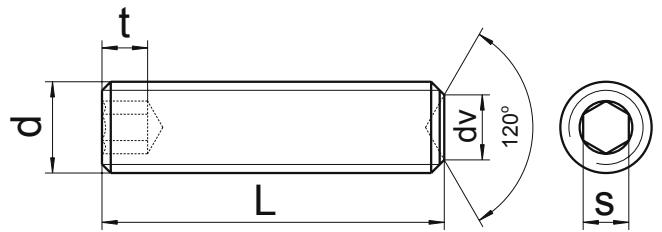
○ = A2 Stainless  
● = A4 Stainless



dt	0.75	1.25	1.75	2.25	3.2	3.7	5.2	6.64	8.14	11.57	14.57
t	0.8	1.2	1.2	1.5	2	2	3	4	4.8	6.4	8
s	0.9	1.3	1.5	2	2.5	3	4	5	6	8	10
⬠	0.9	13	1.5	2	2.5	3	4	5	6	8	10

Length	M2	M2.5	M3	M4	M5	M6	M8	M10	M12	M16	M20
3	○ ●	○ ●	○ ●								
4	○ ●	○ ●	○ ●	○ ●	○ ●						
5	○ ●	○ ●	○ ●	○ ●	○ ●						
6	○ ●	○ ●	○ ●	○ ●	○ ●	○ ●					
8	○ ●	○ ●	○ ●	○ ●	○ ●	○ ●	○ ●				
10	○ ●	○ ●	○ ●	○ ●	○ ●	○ ●	○ ●	○ ●			
12	○ ●	○ ●	○ ●	○ ●	○ ●	○ ●	○ ●	○ ●	○ ●		
14	○ ●	○ ●	○ ●	○ ●	○ ●	○ ●	○ ●	○ ●	○ ●		
16	○ ●	○ ●	○ ●	○ ●	○ ●	○ ●	○ ●	○ ●	○ ●	○ ●	
20			○ ●	○ ●	○ ●	○ ●	○ ●	○ ●	○ ●	○ ●	○ ●
25			○ ●	○ ●	○ ●	○ ●	○ ●	○ ●	○ ●	○ ●	○ ●
30			○ ●	○ ●	○ ●	○ ●	○ ●	○ ●	○ ●	○ ●	○ ●
35						○ ●	○ ●	○ ●	○ ●	○ ●	○ ●
40						○ ●	○ ●	○ ●	○ ●	○ ●	○ ●
45						○ ●	○ ●	○ ●	○ ●	○ ●	○ ●
50						○ ●	○ ●	○ ●	○ ●	○ ●	○ ●
55						○ ●	○ ●	○ ●	○ ●	○ ●	○ ●
60						○ ●	○ ●	○ ●	○ ●	○ ●	○ ●
70									○ ●	○ ●	○ ●
80									○ ●	○ ●	○ ●
90										○ ●	○ ●
100										○ ●	○ ●

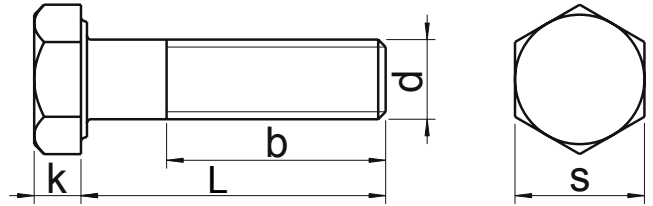
○ = A2 Stainless  
● = A4 Stainless



dt	0.75	0.95	1.15	1.75	2.25	2.75	4.7	5.7	7.64	9.64	13.57
t	0.8	1.2	1.2	1.5	2	2	3	4	4.8	6.4	8
s	0.9	1.3	1.5	2	2.5	3	4	5	6	8	10
⬡	0.9	1.3	1.5	2	2.5	3	4	5	6	8	10

Length / d	M2	M2.5	M3	M4	M5	M6	M8	M10	M12	M16	M20
3	○ ●	○ ●	○ ●	○ ●							
4	○ ●	○ ●	○ ●	○ ●	○ ●						
5	○ ●	○ ●	○ ●	○ ●	○ ●						
6	○ ●	○ ●	○ ●	○ ●	○ ●	○ ●	○ ●				
8	○ ●	○ ●	○ ●	○ ●	○ ●	○ ●	○ ●				
10	○ ●	○ ●	○ ●	○ ●	○ ●	○ ●	○ ●	○ ●			
12	○ ●	○ ●	○ ●	○ ●	○ ●	○ ●	○ ●	○ ●	○ ●		
16	○ ●	○ ●	○ ●	○ ●	○ ●	○ ●	○ ●	○ ●	○ ●	○ ●	
20			○ ●	○ ●	○ ●	○ ●	○ ●	○ ●	○ ●	○ ●	○ ●
25			○ ●	○ ●	○ ●	○ ●	○ ●	○ ●	○ ●	○ ●	○ ●
30			○ ●	○ ●	○ ●	○ ●	○ ●	○ ●	○ ●	○ ●	○ ●
35				○ ●	○ ●	○ ●	○ ●	○ ●	○ ●	○ ●	○ ●
40				○ ●	○ ●	○ ●	○ ●	○ ●	○ ●	○ ●	○ ●
45						○ ●	○ ●	○ ●	○ ●	○ ●	○ ●
50						○ ●	○ ●	○ ●	○ ●	○ ●	○ ●
55						○ ●	○ ●	○ ●	○ ●	○ ●	○ ●
60						○ ●	○ ●	○ ●	○ ●	○ ●	○ ●
70							○ ●	○ ●	○ ●	○ ●	○ ●
80							○ ●	○ ●	○ ●	○ ●	○ ●
90									○ ●	○ ●	○ ●
100										○ ●	○ ●

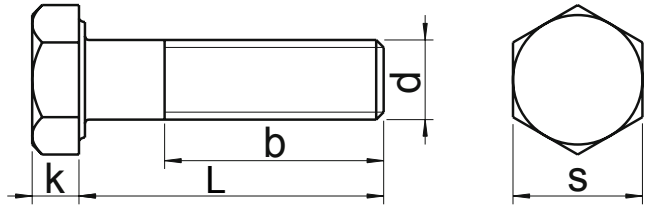
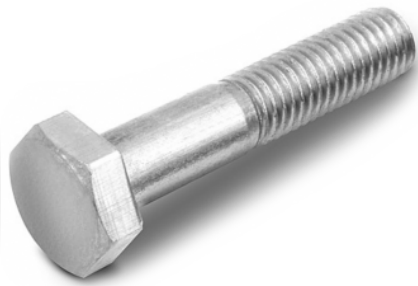
○ = A2 Stainless  
 ● = A4 Stainless



<b>b &lt;125</b>	16	18	22	26	30	34	38	42	46	50	54	60	66	72	78
<b>b &gt;125</b>	22	24	28	32	36	40	44	48	52	56	60	66	72	78	84
<b>s</b>	8	10	13	17	19	22	24	27	30	32	36	41	46	50	55
<b>k Min.</b>	3.35	3.85	5.15	6.22	7.32	8.62	9.82	11.28	12.28	13.78	14.78	16.65	18.28	20.58	22.08
	8	10	13	17	19	22	24	27	30	32	36	41	46	50	55

Length / d	M5	M6	M8	M10	M12	M14	M16	M18	M20	M22	M24	M27	M30	M33	M36
25	○ ●	○ ●													
30	○ ●	○ ●	○ ●												
35	○ ●	○ ●	○ ●	○ ●											
40	○ ●	○ ●	○ ●	○ ●	○ ●										
45	○ ●	○ ●	○ ●	○ ●	○ ●	○ ●									
50	○ ●	○ ●	○ ●	○ ●	○ ●	○ ●	○ ●								
55	○ ●	○ ●	○ ●	○ ●	○ ●	○ ●	○ ●	○ ●							
60	○ ●	○ ●	○ ●	○ ●	○ ●	○ ●	○ ●	○ ●	○ ●						
65	○ ●	○ ●	○ ●	○ ●	○ ●	○ ●	○ ●	○ ●	○ ●	○ ●					
70	○ ●	○ ●	○ ●	○ ●	○ ●	○ ●	○ ●	○ ●	○ ●	○ ●	○ ●				
75	○ ●	○ ●	○ ●	○ ●	○ ●	○ ●	○ ●	○ ●	○ ●	○ ●	○ ●	○ ●			
80	○ ●	○ ●	○ ●	○ ●	○ ●	○ ●	○ ●	○ ●	○ ●	○ ●	○ ●	○ ●	○ ●		
85	○ ●	○ ●	○ ●	○ ●	○ ●	○ ●	○ ●	○ ●	○ ●	○ ●	○ ●	○ ●	○ ●	○ ●	
90	○ ●	○ ●	○ ●	○ ●	○ ●	○ ●	○ ●	○ ●	○ ●	○ ●	○ ●	○ ●	○ ●	○ ●	○ ●
95	○ ●	○ ●	○ ●	○ ●	○ ●	○ ●	○ ●	○ ●	○ ●	○ ●	○ ●	○ ●	○ ●	○ ●	○ ●
100	○ ●	○ ●	○ ●	○ ●	○ ●	○ ●	○ ●	○ ●	○ ●	○ ●	○ ●	○ ●	○ ●	○ ●	○ ●
110		○ ●	○ ●	○ ●	○ ●	○ ●	○ ●	○ ●	○ ●	○ ●	○ ●	○ ●	○ ●	○ ●	○ ●
120		○ ●	○ ●	○ ●	○ ●	○ ●	○ ●	○ ●	○ ●	○ ●	○ ●	○ ●	○ ●	○ ●	○ ●
130		○ ●	○ ●	○ ●	○ ●	○ ●	○ ●	○ ●	○ ●	○ ●	○ ●	○ ●	○ ●	○ ●	○ ●
140		○ ●	○ ●	○ ●	○ ●	○ ●	○ ●	○ ●	○ ●	○ ●	○ ●	○ ●	○ ●	○ ●	○ ●
150		○ ●	○ ●	○ ●	○ ●	○ ●	○ ●	○ ●	○ ●	○ ●	○ ●	○ ●	○ ●	○ ●	○ ●
160		○ ●	○ ●	○ ●	○ ●	○ ●	○ ●	○ ●	○ ●	○ ●	○ ●	○ ●	○ ●	○ ●	○ ●
170		○ ●	○ ●	○ ●	○ ●	○ ●	○ ●	○ ●	○ ●	○ ●	○ ●	○ ●	○ ●	○ ●	○ ●
180		○ ●	○ ●	○ ●	○ ●	○ ●	○ ●	○ ●	○ ●	○ ●	○ ●	○ ●	○ ●	○ ●	○ ●
190		○ ●	○ ●	○ ●	○ ●	○ ●	○ ●	○ ●	○ ●	○ ●	○ ●	○ ●	○ ●	○ ●	○ ●
200		○ ●	○ ●	○ ●	○ ●	○ ●	○ ●	○ ●	○ ●	○ ●	○ ●	○ ●	○ ●	○ ●	○ ●

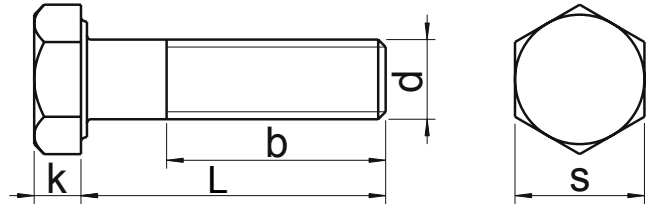
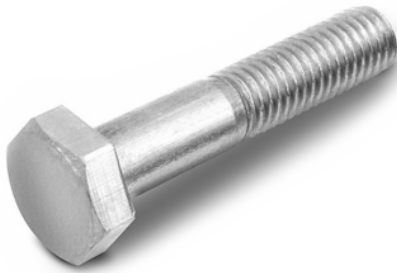
○ = A2 Stainless  
● = A4 Stainless



b<125	18	22	26	30	34	38	42	46	50	54	60	66	72	78
b>125	24	28	32	36	40	44	48	52	56	60	66	72	78	84
s	10	13	17	19	22	24	27	30	32	36	41	46	50	55
k Min.	3.85	5.15	6.22	7.32	8.62	9.82	11.28	12.28	13.78	14.78	16.65	18.28	20.58	22.08
⬤	10	13	17	19	22	24	27	30	32	36	41	46	50	55

Length	M6	M8	M10	M12	M14	M16	M18	M20	M22	M24	M27	M30	M33	M36
180	○ ●	○ ●	○ ●	○ ●	○ ●	○ ●	○ ●	○ ●	○ ●	○ ●	○ ●	○ ●	○ ●	○ ●
190	○ ●	○ ●	○ ●	○ ●	○ ●	○ ●	○ ●	○ ●	○ ●	○ ●	○ ●	○ ●	○ ●	○ ●
200	○ ●	○ ●	○ ●	○ ●	○ ●	○ ●	○ ●	○ ●	○ ●	○ ●	○ ●	○ ●	○ ●	○ ●
210		○ ●	○ ●	○ ●	○ ●	○ ●	○ ●	○ ●	○ ●	○ ●	○ ●	○ ●	○ ●	○ ●
220		○ ●	○ ●	○ ●	○ ●	○ ●	○ ●	○ ●	○ ●	○ ●	○ ●	○ ●	○ ●	○ ●
230		○ ●	○ ●	○ ●	○ ●	○ ●	○ ●	○ ●	○ ●	○ ●	○ ●	○ ●	○ ●	○ ●
240		○ ●	○ ●	○ ●	○ ●	○ ●	○ ●	○ ●	○ ●	○ ●	○ ●	○ ●	○ ●	○ ●
250			○ ●	○ ●	○ ●	○ ●	○ ●	○ ●	○ ●	○ ●	○ ●	○ ●	○ ●	○ ●
260			○ ●	○ ●	○ ●	○ ●	○ ●	○ ●	○ ●	○ ●	○ ●	○ ●	○ ●	○ ●
270			○ ●	○ ●	○ ●	○ ●	○ ●	○ ●	○ ●	○ ●	○ ●	○ ●	○ ●	○ ●
280			○ ●	○ ●	○ ●	○ ●	○ ●	○ ●	○ ●	○ ●	○ ●	○ ●	○ ●	○ ●
290			○ ●	○ ●		○ ●		○ ●		○ ●	○ ●	○ ●		
300			○ ●	○ ●		○ ●		○ ●		○ ●	○ ●	○ ●		
320			○ ●	○ ●		○ ●		○ ●		○ ●	○ ●			
340			○ ●	○ ●		○ ●		○ ●		○ ●	○ ●			
360			○ ●	○ ●		○ ●		○ ●		○ ●				
380			○ ●	○ ●		○ ●		○ ●		○ ●				
400			○ ●	○ ●		○ ●		○ ●		○ ●				
420			○ ●	○ ●		○ ●		○ ●		○ ●				
440			○ ●	○ ●		○ ●		○ ●		○ ●				
460			○ ●	○ ●		○ ●		○ ●		○ ●				
480			○ ●	○ ●		○ ●		○ ●		○ ●				
500			○ ●	○ ●		○ ●		○ ●		○ ●				

○ = A2 Stainless  
● = A4 Stainless

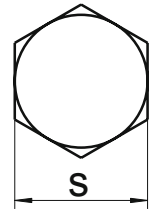
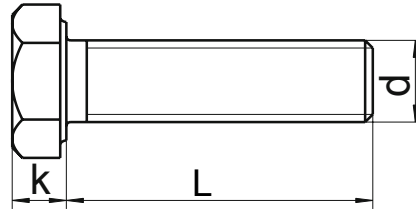


b <125	16	18	22	26	30	38	46	54
b >125	22	24	28	32	36	44	52	60
s	8	10	13	17	19	24	30	36
k Min.	3.35	3.85	5.15	6.22	7.32	9.82	12.28	14.78
⬡	8	10	13	17	19	24	30	36

Length / d	M5	M6	M8	M10	M12	M16	M20	M24
30	●	●	●					
35	●	●	●	●	●			
40	●	●	●	●	●			
45	●	●	●	●	●			
50	●	●	●	●	●	●		
55	●	●	●	●	●	●		
60	●	●	●	●	●	●	●	
65	●	●	●	●	●	●	●	
70	●	●	●	●	●	●	●	
75		●	●	●	●	●	●	
80		●	●	●	●	●	●	●
90		●	●	●	●	●	●	●
100		●	●	●	●	●	●	●
110		●	●	●	●	●	●	●
120			●	●	●	●	●	●
130			●	●	●	●	●	●
140			●	●	●	●	●	●
150			●	●	●	●	●	●
160			●	●	●	●	●	●
170			●		●	●		
180			●		●	●		
190			●		●	●		
200			●		●	●		
210			●		●			
220								

○ = A2 Stainless  
● = A4 Stainless

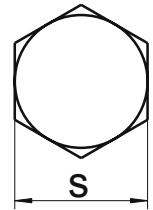
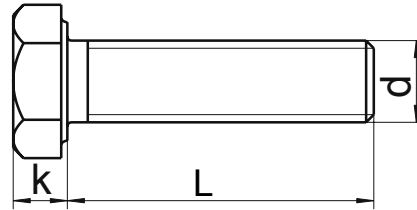




K MAX	1.4	1.7	2	2.8	3.5	4	5.3	6.4	7.5	8.8	10	11.5	12.5
S	4	5	5.5	7	8	10	13	17	19	22	24	27	30
⬠	4	5	5.5	7	8	10	13	17	19	22	24	27	30

Length / d	M2	M2.5	M3	M4	M5	M6	M8	M10	M12	M14	M16	M18	M20
3	○ ●	○ ●											
4	○ ●	○ ●											
5	○ ●	○ ●	○ ●	○ ●									
6	○ ●	○ ●	○ ●	○ ●	○ ●	○ ●							
8	○ ●	○ ●	○ ●	○ ●	○ ●	○ ●	○ ●						
10	○ ●	○ ●	○ ●	○ ●	○ ●	○ ●	○ ●	○ ●					
12	○ ●	○ ●	○ ●	○ ●	○ ●	○ ●	○ ●	○ ●	○ ●				
14	○ ●	○ ●	○ ●	○ ●	○ ●	○ ●	○ ●	○ ●	○ ●				
16	○ ●	○ ●	○ ●	○ ●	○ ●	○ ●	○ ●	○ ●	○ ●	○ ●			
18	○ ●	○ ●	○ ●	○ ●	○ ●	○ ●	○ ●	○ ●	○ ●	○ ●			
20	○ ●	○ ●	○ ●	○ ●	○ ●	○ ●	○ ●	○ ●	○ ●	○ ●	○ ●		
22			○ ●	○ ●	○ ●	○ ●	○ ●	○ ●	○ ●	○ ●	○ ●		
25			○ ●	○ ●	○ ●	○ ●	○ ●	○ ●	○ ●	○ ●	○ ●	○ ●	
30			○ ●	○ ●	○ ●	○ ●	○ ●	○ ●	○ ●	○ ●	○ ●	○ ●	○ ●
35			○ ●	○ ●	○ ●	○ ●	○ ●	○ ●	○ ●	○ ●	○ ●	○ ●	○ ●
40			○ ●	○ ●	○ ●	○ ●	○ ●	○ ●	○ ●	○ ●	○ ●	○ ●	○ ●
45			○ ●	○ ●	○ ●	○ ●	○ ●	○ ●	○ ●	○ ●	○ ●	○ ●	○ ●
50			○ ●	○ ●	○ ●	○ ●	○ ●	○ ●	○ ●	○ ●	○ ●	○ ●	○ ●
55				○ ●	○ ●	○ ●	○ ●	○ ●	○ ●	○ ●	○ ●	○ ●	○ ●
60				○ ●	○ ●	○ ●	○ ●	○ ●	○ ●	○ ●	○ ●	○ ●	○ ●
65				○ ●	○ ●	○ ●	○ ●	○ ●	○ ●	○ ●	○ ●	○ ●	○ ●
70				○ ●	○ ●	○ ●	○ ●	○ ●	○ ●	○ ●	○ ●	○ ●	○ ●
75					○ ●	○ ●	○ ●	○ ●	○ ●	○ ●	○ ●	○ ●	○ ●
80					○ ●	○ ●	○ ●	○ ●	○ ●	○ ●	○ ●	○ ●	○ ●
85						○ ●	○ ●	○ ●	○ ●	○ ●	○ ●	○ ●	○ ●
90						○ ●	○ ●	○ ●	○ ●	○ ●	○ ●	○ ●	○ ●

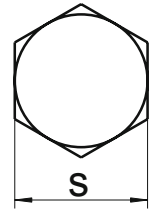
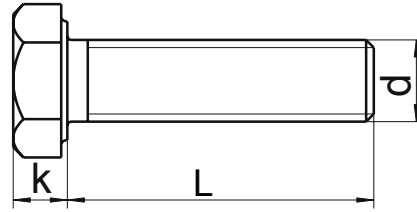
○ = A2 Stainless  
● = A4 Stainless



k max.	4	5.3	6.4	7.5	8.8	10	11.5	12.5
S	10	13	17	19	22	24	27	30
e	11.05	14.38	18.9	21.1	24.49	26.75	30.14	33.53
⬡	10	13	17	19	22	24	27	30

Length / d	M6	M8	M10	M12	M14	M16	M18	M20
95	○ ●	○ ●	○ ●	○ ●	○ ●	○ ●	○ ●	○ ●
100	○ ●	○ ●	○ ●	○ ●	○ ●	○ ●	○ ●	○ ●
110	○ ●	○ ●	○ ●	○ ●	○ ●	○ ●	○ ●	○ ●
120	○ ●	○ ●	○ ●	○ ●	○ ●	○ ●	○ ●	○ ●
130		○ ●	○ ●	○ ●	○ ●	○ ●	○ ●	○ ●
140		○ ●	○ ●	○ ●	○ ●	○ ●	○ ●	○ ●
150		○ ●	○ ●	○ ●	○ ●	○ ●	○ ●	○ ●
160		○ ●	○ ●	○ ●		○ ●		○ ●
170		○ ●	○ ●	○ ●		○ ●		○ ●
180		○ ●	○ ●	○ ●		○ ●		○ ●
200		○ ●	○ ●	○ ●		○ ●		○ ●
250				○ ●		○ ●		○ ●

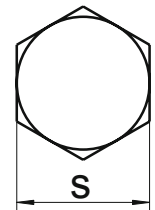
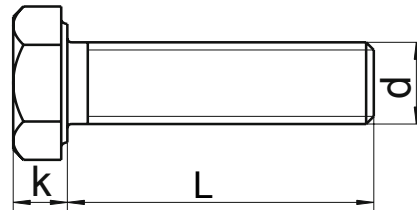
○ = A2 Stainless  
● = A4 Stainless



k max.	14	15	17	18.7	21	22.5
S	32	36	41	46	50	55
⬠	32	36	41	46	50	55

Length / d	M22	M24	M27	M30	M33	M36
30	○ ●	○ ●				
35	○ ●	○ ●				
40	○ ●	○ ●				
45	○ ●	○ ●				
50	○ ●	○ ●	○ ●	○ ●	○ ●	○ ●
55	○ ●	○ ●	○ ●	○ ●	○ ●	○ ●
60	○ ●	○ ●	○ ●	○ ●	○ ●	○ ●
65	○ ●	○ ●	○ ●	○ ●	○ ●	○ ●
70	○ ●	○ ●	○ ●	○ ●	○ ●	○ ●
75	○ ●	○ ●	○ ●	○ ●	○ ●	○ ●
80	○ ●	○ ●	○ ●	○ ●	○ ●	○ ●
85	○ ●	○ ●	○ ●	○ ●	○ ●	○ ●
90	○ ●	○ ●	○ ●	○ ●	○ ●	○ ●
95	○ ●	○ ●	○ ●	○ ●	○ ●	○ ●
100	○ ●	○ ●	○ ●	○ ●	○ ●	○ ●
110	○ ●	○ ●	○ ●	○ ●	○ ●	○ ●
120	○ ●	○ ●	○ ●	○ ●	○ ●	○ ●
130	○ ●	○ ●	○ ●	○ ●	○ ●	○ ●
140	○ ●	○ ●	○ ●	○ ●	○ ●	○ ●
150	○ ●	○ ●	○ ●	○ ●	○ ●	○ ●
160		○ ●				○ ●
170		○ ●				○ ●
180		○ ●				○ ●
190		○ ●				
200		○ ●				
250		○ ●				

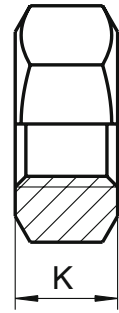
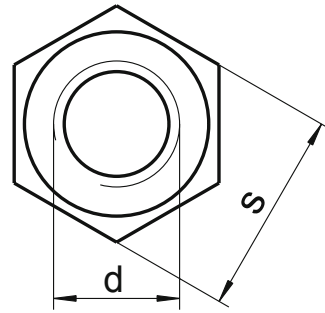
○ = A2 Stainless  
● = A4 Stainless



<b>K MAX</b>	3.5	4	5.3	6.4	7.5	8.8	10	12.5	15
<b>S</b>	8	10	13	17	19	22	24	30	36
	8	10	13	17	19	22	24	30	36

Length / d	M5	M6	M8	M10	M12	M14	M16	M20	M24
8	○ ●	○ ●							
10	○ ●	○ ●	○ ●						
12	○ ●	○ ●	○ ●	○ ●	○ ●				
14	○ ●	○ ●	○ ●	○ ●	○ ●				
16	○ ●	○ ●	○ ●	○ ●	○ ●				
18	○ ●	○ ●	○ ●	○ ●	○ ●				
20	○ ●	○ ●	○ ●	○ ●	○ ●	○ ●	○ ●		
22	○ ●	○ ●	○ ●	○ ●	○ ●	○ ●	○ ●		
25	○ ●	○ ●	○ ●	○ ●	○ ●	○ ●	○ ●		
30	○ ●	○ ●	○ ●	○ ●	○ ●	○ ●	○ ●	○ ●	
35	○ ●	○ ●	○ ●	○ ●	○ ●	○ ●	○ ●	○ ●	
40	○ ●	○ ●	○ ●	○ ●	○ ●	○ ●	○ ●	○ ●	○ ●
45	○ ●	○ ●	○ ●	○ ●	○ ●	○ ●	○ ●	○ ●	○ ●
50	○ ●	○ ●	○ ●	○ ●	○ ●	○ ●	○ ●	○ ●	○ ●
55	○ ●	○ ●	○ ●	○ ●	○ ●	○ ●	○ ●	○ ●	○ ●
60	○ ●	○ ●	○ ●	○ ●	○ ●	○ ●	○ ●	○ ●	○ ●
65	○ ●	○ ●	○ ●	○ ●	○ ●	○ ●	○ ●	○ ●	○ ●
70	○ ●	○ ●	○ ●	○ ●	○ ●	○ ●	○ ●	○ ●	○ ●
75		○ ●	○ ●	○ ●	○ ●	○ ●	○ ●	○ ●	○ ●
80		○ ●	○ ●	○ ●	○ ●	○ ●	○ ●	○ ●	○ ●
90		○ ●	○ ●	○ ●	○ ●	○ ●	○ ●	○ ●	○ ●
100		○ ●	○ ●	○ ●	○ ●	○ ●	○ ●	○ ●	○ ●
110				○ ●	○ ●	○ ●	○ ●	○ ●	○ ●
120				○ ●	○ ●	○ ●	○ ●	○ ●	○ ●
130				○ ●	○ ●	○ ●	○ ●	○ ●	○ ●
140				○ ●	○ ●	○ ●	○ ●	○ ●	○ ●
150									

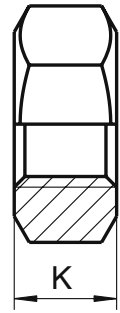
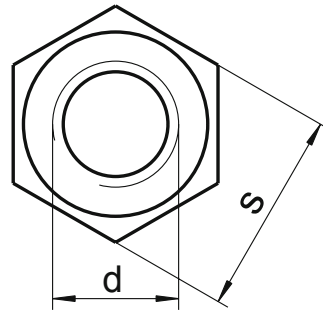
○ = A2 Stainless  
● = A4 Stainless



d	K min.	s	●
M1.4	0.95	3	3
M1.6	1.05	3.2	3.2
M1.7	1.15	3.5	3.5
M2	1.35	4	4
M2.3	1.55	4.5	4.5
M2.5	1.75	5	5
M2.6	1.75	5	5
M3	2.15	5.5	5.5
M3.5	2.55	6	6
M4	2.9	7	7
M5	3.7	8	8
M6	4.7	10	10
M7	5.2	11	11
M8	6.14	13	13
M10	7.64	17	17
M12	9.64	19	19
M14	10.3	22	22
M16	12.3	24	24
M18	14.3	27	27
M20	14.9	30	30
M22	16.9	32	32
M24	17.7	36	36
M27	20.7	41	41
M30	22.7	46	46
M33	24.7	50	50
M36	27.4	55	55
M39	29.4	60	60
M42	32.4	65	65
M45	34.4	70	70
M48	36.4	75	75
M52	40.4	80	80
M60	46.4	90	90
M64	49.1	95	95

grade
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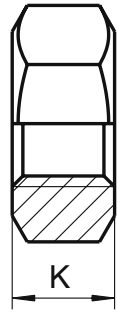
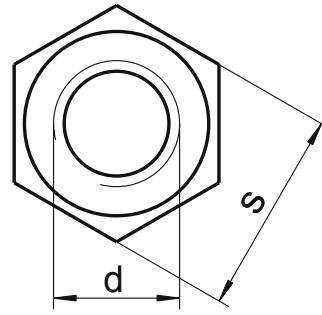
○ = A2 Stainless  
● = A4 Stainless



d	K min.	s	⬠
M3	2.15	5.5	5.5
M4	2.9	7	7
M5	3.7	8	8
M6	4.7	10	10
M8	6.14	13	13
M10	7.64	17	17
M12	9.64	19	19
M14	10.3	22	22
M16	12.3	24	24
M18	14.3	27	27
M20	14.9	30	30
M22	16.9	32	32
M24	17.7	36	36
M27	20.7	41	41
M30	22.7	46	46

grade
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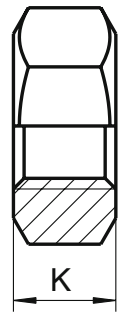
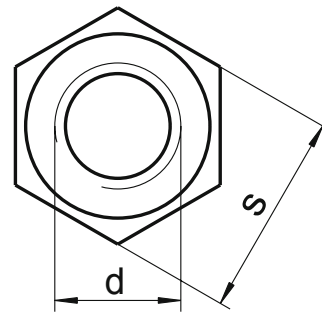
○ = A2 Stainless  
● = A4 Stainless



d	K min.	s	⬠
M8	6.5	13	13
M10	8	17	17
M12	10	19	19
M14	11	22	22
M16	13	24	24
M18	15	27	27
M20	16	30	30
M22	18	32	32
M24	19	36	36
M27	22	41	41
M30	24	46	46
M36	29	55	55
M42	34	65	65

grade
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○ = A2 Stainless  
● = A4 Stainless

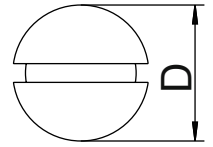
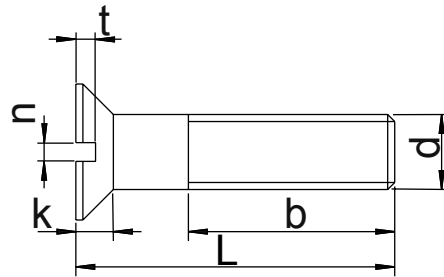


d	K min.	s	●
M4	2.9	7	7
M6	4.7	10	10
M8	6.14	13	13
M10	6.14	13	13
M12	9.64	19	19
M14	10.3	22	22
M16	12.3	24	24
M18	14.3	27	27
M20	14.9	30	30
M22	16.9	32	32
M24	17.7	36	36

grade
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○ = A2 Stainless  
 ● = A4 Stainless

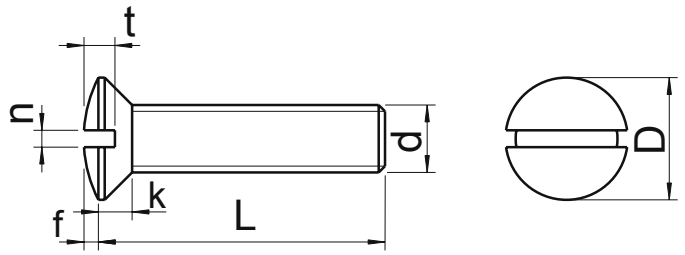




dk	3	3.8	4.7	5.6	6.5	7.5	9.2	11	14.5	18	22
K max	0.96	1.2	1.5	1.65	1.93	2.2	2.5	3	4	5	6
n	0.4	0.5	0.6	0.8	0.8	1	1.2	1.6	2	2.5	3
t min	0.32	0.4	0.5	0.6	0.7	0.8	1	1.2	1.6	2	2.4
b min	15	16	18	19	20	22	25	28	34	40	46
⊖	0.4X2.0	0.5X3.0	0.6X3.5	0.8X4.0	0.8X4.0	1.0X5.5	1.2X7.0	1.6X9.0	2.0X12	2.5X14	3.0X16

Length/Ø	M1.6	M2	M2.5	M3	M3.5	M4	M5	M6	M8	M10	M12
3	○ ●										
4	○ ●	○ ●	○ ●	○ ●							
5	○ ●	○ ●	○ ●	○ ●	○ ●	○ ●					
6	○ ●	○ ●	○ ●	○ ●	○ ●	○ ●	○ ●				
8	○ ●	○ ●	○ ●	○ ●	○ ●	○ ●	○ ●	○ ●			
10	○ ●	○ ●	○ ●	○ ●	○ ●	○ ●	○ ●	○ ●	○ ●		
12	○ ●	○ ●	○ ●	○ ●	○ ●	○ ●	○ ●	○ ●	○ ●		
14	○ ●	○ ●	○ ●	○ ●	○ ●	○ ●	○ ●	○ ●	○ ●		
16	○ ●	○ ●	○ ●	○ ●	○ ●	○ ●	○ ●	○ ●	○ ●	○ ●	
18		○ ●	○ ●	○ ●	○ ●	○ ●	○ ●	○ ●	○ ●	○ ●	
20		○ ●	○ ●	○ ●	○ ●	○ ●	○ ●	○ ●	○ ●	○ ●	○ ●
22		○ ●	○ ●	○ ●	○ ●	○ ●	○ ●	○ ●	○ ●	○ ●	○ ●
25		○ ●	○ ●	○ ●	○ ●	○ ●	○ ●	○ ●	○ ●	○ ●	○ ●
30		○ ●	○ ●	○ ●	○ ●	○ ●	○ ●	○ ●	○ ●	○ ●	○ ●
35				○ ●	○ ●	○ ●	○ ●	○ ●	○ ●	○ ●	○ ●
40				○ ●		○ ●	○ ●	○ ●	○ ●	○ ●	○ ●
45				○ ●		○ ●	○ ●	○ ●	○ ●	○ ●	○ ●
50				○ ●		○ ●	○ ●	○ ●	○ ●	○ ●	○ ●
55				○ ●		○ ●	○ ●	○ ●	○ ●	○ ●	○ ●
60				○ ●		○ ●	○ ●	○ ●	○ ●	○ ●	○ ●
65						○ ●	○ ●	○ ●	○ ●	○ ●	○ ●
70						○ ●	○ ●	○ ●	○ ●	○ ●	○ ●
75						○ ●	○ ●	○ ●	○ ●	○ ●	○ ●
85						○ ●	○ ●	○ ●	○ ●	○ ●	○ ●
90						○ ●	○ ●	○ ●	○ ●	○ ●	○ ●
100							○ ●	○ ●	○ ●	○ ●	○ ●
110								○ ●	○ ●	○ ●	○ ●
120								○ ●	○ ●	○ ●	○ ●

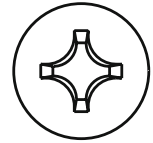
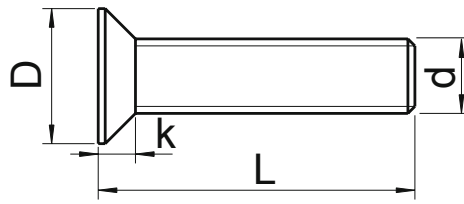
○ = A2 Stainless  
● = A4 Stainless



D	3.8	4.7	5.6	7.5	9.2	11	14.5	18
f	0.5	0.6	0.75	1	1.25	1.5	2	2.5
k	1.2	1.5	1.65	2.2	2.5	3	4	5
n	0.5	0.6	0.8	1	1.2	1.6	2	2.5
t min.	0.8	1	1.2	1.6	2	2.4	3.2	4
⊖	0.5X3.0	0.6X3.5	0.8X4.0	1.0X5.5	1.2X7.0	1.6X9.0	2.0X12.0	2.5X14.0

Length/d	M2	M2.5	M3	M4	M5	M6	M8	M10
4	○ ●							
5	○ ●	○ ●	○ ●	○ ●				
6	○ ●	○ ●	○ ●	○ ●	○ ●			
8	○ ●	○ ●	○ ●	○ ●	○ ●	○ ●		
10	○ ●	○ ●	○ ●	○ ●	○ ●	○ ●	○ ●	
12	○ ●	○ ●	○ ●	○ ●	○ ●	○ ●	○ ●	
14	○ ●	○ ●	○ ●	○ ●	○ ●	○ ●	○ ●	
16	○ ●	○ ●	○ ●	○ ●	○ ●	○ ●	○ ●	
18	○ ●	○ ●	○ ●	○ ●	○ ●	○ ●	○ ●	
20	○ ●	○ ●	○ ●	○ ●	○ ●	○ ●	○ ●	○ ●
22			○ ●	○ ●	○ ●	○ ●	○ ●	○ ●
25			○ ●	○ ●	○ ●	○ ●	○ ●	○ ●
30			○ ●	○ ●	○ ●	○ ●	○ ●	○ ●
35			○ ●	○ ●	○ ●	○ ●	○ ●	○ ●
40			○ ●	○ ●	○ ●	○ ●	○ ●	○ ●
45			○ ●	○ ●	○ ●	○ ●	○ ●	○ ●
50			○ ●	○ ●	○ ●	○ ●	○ ●	○ ●
55				○ ●	○ ●	○ ●	○ ●	○ ●
60				○ ●	○ ●	○ ●	○ ●	○ ●
65				○ ●	○ ●	○ ●	○ ●	○ ●
70				○ ●	○ ●	○ ●	○ ●	○ ●
75				○ ●	○ ●	○ ●	○ ●	○ ●
80				○ ●	○ ●	○ ●	○ ●	○ ●
90					○ ●	○ ●	○ ●	○ ●
95					○ ●	○ ●	○ ●	○ ●
100					○ ●	○ ●	○ ●	○ ●

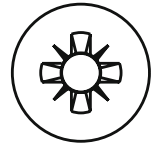
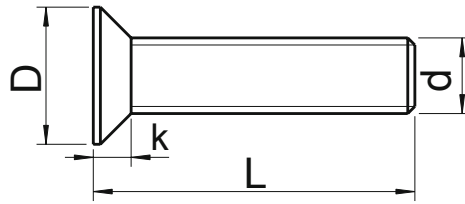
○ = A2 Stainless  
● = A4 Stainless



D	3	3.8	4.7	5.6	7.5	9.2	11	14.5	18
k max .	0.96	1.2	1.5	1.65	2.2	2.5	3	4	5
⊗	P0	P1	P1	P1	P2	P2	P3	P4	P4

Length/Ø	M1.6	M2	M2.5	M3	M4	M5	M6	M8	M10
3	○ ●	○ ●							
4	○ ●	○ ●	○ ●	○ ●					
5	○ ●	○ ●	○ ●	○ ●	○ ●				
6	○ ●	○ ●	○ ●	○ ●	○ ●	○ ●			
8	○ ●	○ ●	○ ●	○ ●	○ ●	○ ●	○ ●		
10	○ ●	○ ●	○ ●	○ ●	○ ●	○ ●	○ ●	○ ●	
12	○ ●	○ ●	○ ●	○ ●	○ ●	○ ●	○ ●	○ ●	
14	○ ●	○ ●	○ ●	○ ●	○ ●	○ ●	○ ●	○ ●	
16	○ ●	○ ●	○ ●	○ ●	○ ●	○ ●	○ ●	○ ●	○ ●
18		○ ●	○ ●	○ ●	○ ●	○ ●	○ ●	○ ●	○ ●
20		○ ●	○ ●	○ ●	○ ●	○ ●	○ ●	○ ●	○ ●
22				○ ●	○ ●	○ ●	○ ●	○ ●	○ ●
25				○ ●	○ ●	○ ●	○ ●	○ ●	○ ●
30				○ ●	○ ●	○ ●	○ ●	○ ●	○ ●
35				○ ●	○ ●	○ ●	○ ●	○ ●	○ ●
40				○ ●	○ ●	○ ●	○ ●	○ ●	○ ●
45				○ ●	○ ●	○ ●	○ ●	○ ●	○ ●
50				○ ●	○ ●	○ ●	○ ●	○ ●	○ ●
55				○ ●	○ ●	○ ●	○ ●	○ ●	○ ●
60				○ ●	○ ●	○ ●	○ ●	○ ●	○ ●
65					○ ●	○ ●	○ ●	○ ●	○ ●
70					○ ●	○ ●	○ ●	○ ●	○ ●
75					○ ●	○ ●	○ ●	○ ●	○ ●
80					○ ●	○ ●	○ ●	○ ●	○ ●
85					○ ●	○ ●	○ ●	○ ●	○ ●
90					○ ●	○ ●	○ ●	○ ●	○ ●
95					○ ●	○ ●	○ ●	○ ●	○ ●
100					○ ●	○ ●	○ ●	○ ●	○ ●

○ = A2 Stainless  
● = A4 Stainless

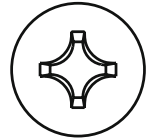
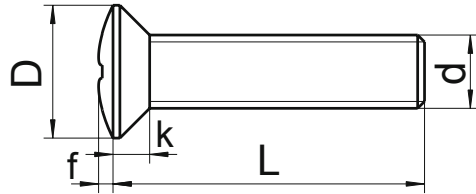


D	3	3.8	4.7	5.6	7.5	9.2	11	14.5	18
k max .	0.96	1.2	1.5	1.65	2.2	2.5	3	4	5
⊗	Z0	Z1	Z1	Z1	Z2	Z2	Z3	Z4	Z4

Length/d	M1.6	M2	M2.5	M3	M4	M5	M6	M8	M10
3	○ ●	○ ●							
4	○ ●	○ ●	○ ●	○ ●					
5	○ ●	○ ●	○ ●	○ ●	○ ●				
6	○ ●	○ ●	○ ●	○ ●	○ ●	○ ●			
8	○ ●	○ ●	○ ●	○ ●	○ ●	○ ●	○ ●		
10	○ ●	○ ●	○ ●	○ ●	○ ●	○ ●	○ ●	○ ●	
12	○ ●	○ ●	○ ●	○ ●	○ ●	○ ●	○ ●	○ ●	
14	○ ●	○ ●	○ ●	○ ●	○ ●	○ ●	○ ●	○ ●	
16	○ ●	○ ●	○ ●	○ ●	○ ●	○ ●	○ ●	○ ●	○ ●
18		○ ●	○ ●	○ ●	○ ●	○ ●	○ ●	○ ●	○ ●
20		○ ●	○ ●	○ ●	○ ●	○ ●	○ ●	○ ●	○ ●
22			○ ●	○ ●	○ ●	○ ●	○ ●	○ ●	○ ●
25			○ ●	○ ●	○ ●	○ ●	○ ●	○ ●	○ ●
30				○ ●	○ ●	○ ●	○ ●	○ ●	○ ●
35				○ ●	○ ●	○ ●	○ ●	○ ●	○ ●
40				○ ●	○ ●	○ ●	○ ●	○ ●	○ ●
45				○ ●	○ ●	○ ●	○ ●	○ ●	○ ●
50				○ ●	○ ●	○ ●	○ ●	○ ●	○ ●
55				○ ●	○ ●	○ ●	○ ●	○ ●	○ ●
60				○ ●	○ ●	○ ●	○ ●	○ ●	○ ●
65					○ ●	○ ●	○ ●	○ ●	○ ●
70					○ ●	○ ●	○ ●	○ ●	○ ●
75					○ ●	○ ●	○ ●	○ ●	○ ●
80					○ ●	○ ●	○ ●	○ ●	○ ●
85					○ ●	○ ●	○ ●	○ ●	○ ●
90					○ ●	○ ●	○ ●	○ ●	○ ●
95					○ ●	○ ●	○ ●	○ ●	○ ●
100					○ ●	○ ●	○ ●	○ ●	○ ●

○ = A2 Stainless

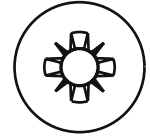
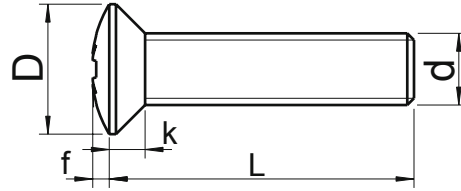
● = A4 Stainless



D	4.7	5.6	7.5	9.2	11	14.5	18
f	0.6	0.75	1	1.25	1.5	2	2.5
k	1.5	1.65	2.2	2.5	3	4	5
⊗	P1	P1	P2	P2	P3	P4	P4

Length / d	M2.5	M3	M4	M5	M6	M8	M10
4	○ ●	○ ●					
5	○ ●	○ ●	○ ●				
6	○ ●	○ ●	○ ●	○ ●			
8	○ ●	○ ●	○ ●	○ ●	○ ●		
10	○ ●	○ ●	○ ●	○ ●	○ ●	○ ●	
12	○ ●	○ ●	○ ●	○ ●	○ ●	○ ●	
14	○ ●	○ ●	○ ●	○ ●	○ ●	○ ●	
16	○ ●	○ ●	○ ●	○ ●	○ ●	○ ●	
18	○ ●	○ ●	○ ●	○ ●	○ ●	○ ●	
20	○ ●	○ ●	○ ●	○ ●	○ ●	○ ●	○ ●
22		○ ●	○ ●	○ ●	○ ●	○ ●	○ ●
25		○ ●	○ ●	○ ●	○ ●	○ ●	○ ●
28		○ ●	○ ●	○ ●	○ ●	○ ●	○ ●
30		○ ●	○ ●	○ ●	○ ●	○ ●	○ ●
35		○ ●	○ ●	○ ●	○ ●	○ ●	○ ●
40		○ ●	○ ●	○ ●	○ ●	○ ●	○ ●
45		○ ●	○ ●	○ ●	○ ●	○ ●	○ ●
50		○ ●	○ ●	○ ●	○ ●	○ ●	○ ●
55			○ ●	○ ●	○ ●	○ ●	○ ●
60			○ ●	○ ●	○ ●	○ ●	○ ●
65			○ ●	○ ●	○ ●	○ ●	
70			○ ●	○ ●	○ ●	○ ●	
75				○ ●	○ ●	○ ●	
80				○ ●	○ ●	○ ●	
85				○ ●	○ ●	○ ●	
90				○ ●	○ ●	○ ●	
95				○ ●	○ ●	○ ●	
100				○ ●	○ ●	○ ●	

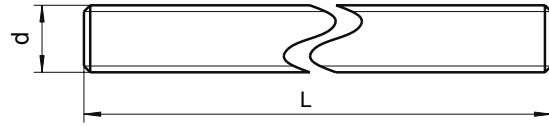
○ = A2 Stainless  
● = A4 Stainless



D	3.8	4.7	5.6	7.5	9.2	11
f	0.5	0.6	0.75	1	1.25	1.5
k	1.2	1.5	1.65	2.2	2.5	3
⊗	Z1	Z1	Z1	Z2	Z2	Z3

Length / d	M2	M2.5	M3	M4	M5	M6
4	○ ●	○ ●	○ ●			
5	○ ●	○ ●	○ ●	○ ●		
6	○ ●	○ ●	○ ●	○ ●	○ ●	
8	○ ●	○ ●	○ ●	○ ●	○ ●	○ ●
10	○ ●	○ ●	○ ●	○ ●	○ ●	○ ●
12	○ ●	○ ●	○ ●	○ ●	○ ●	○ ●
14		○ ●	○ ●	○ ●	○ ●	○ ●
16		○ ●	○ ●	○ ●	○ ●	○ ●
18		○ ●	○ ●	○ ●	○ ●	○ ●
20		○ ●	○ ●	○ ●	○ ●	○ ●
25			○ ●	○ ●	○ ●	○ ●
28			○ ●	○ ●	○ ●	○ ●
30			○ ●	○ ●	○ ●	○ ●
35			○ ●	○ ●	○ ●	○ ●
40			○ ●	○ ●	○ ●	○ ●
45			○ ●	○ ●	○ ●	○ ●
50			○ ●	○ ●	○ ●	○ ●
55				○ ●	○ ●	○ ●
60				○ ●	○ ●	○ ●
65				○ ●	○ ●	○ ●
70				○ ●	○ ●	○ ●
75					○ ●	○ ●
80					○ ●	○ ●
90					○ ●	○ ●
95					○ ●	○ ●
100					○ ●	○ ●

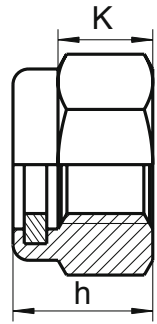
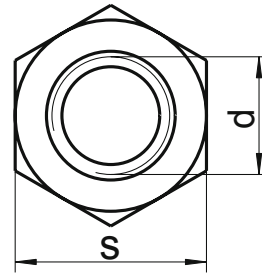
○ = A2 Stainless  
● = A4 Stainless



Length / d	M2	M3	M4	M5	M6	M8	M10	M12	M14	M16
1m	○ ●	○ ●	○ ●	○ ●	○ ●	○ ●	○ ●	○ ●	○ ●	○ ●

Length / d	M18	M20	M22	M24	M27	M30	M33	M36	M42	M48
1m	○ ●	○ ●	○ ●	○ ●	○ ●	○ ●	○ ●	○ ●	○ ●	○ ●

○ = A2 Stainless  
 ● = A4 Stainless

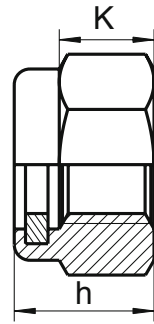
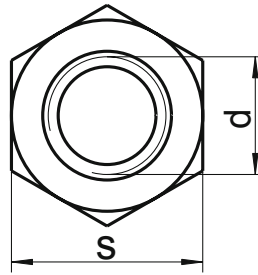


d	m	h	s	⬠
M4	3.6	6	7	7
M6	4.4	6.3	8	8
M8	4.9	8	10	10
M10	6.44	9.5	13	13
M12	8.04	11.5	17	17
M14	10.37	14	19	19
M16	12.1	16	22	22
M18	14.1	18	24	24
M20	16.9	22	30	30
M24	20.2	28	36	36

grade
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○ = A2 Stainless  
● = A4 Stainless

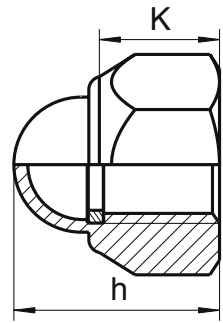
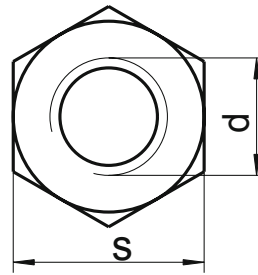




d	K	h	s	●
M2.5	3.5	2.3	5	5
M3	2.4	2.4	5.5	5.5
M4	2.9	2.9	7	7
M5	3.2	3.2	8	8
M6	4	6	10	10
M8	5.5	8	13	13
M10	6.5	10	17	17
M12	8	12	19	19
M14	9.5	14	22	22
M16	10.5	16	24	24
M18	13	18.5	27	27
M20	14	20	30	30
M22	15	22	32	32
M24	15	24	36	36
M27	17	27	41	41
M30	19	30	46	46
M33	22	33	50	50
M36	25	36	55	55

grade
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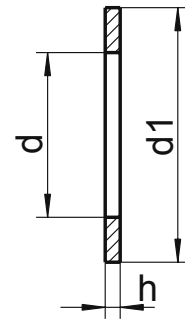
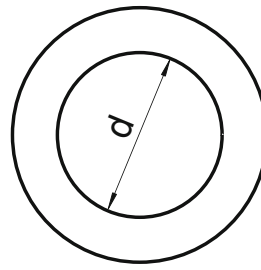
○ = A2 Stainless  
● = A4 Stainless



d	K	h	s	●
M4	2.9	9.6	7	7
M5	4.4	10.5	8	8
M6	4.9	12	10	10
M8	6.44	14	13	13
M10	8.04	18.1	16	16
M12	10.37	22.5	18	18
M14	12.1	26.4	21	21
M16	14.1	27.5	24	24

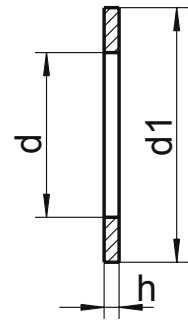
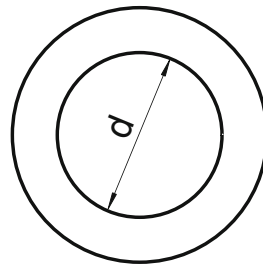
grade
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○ = A2 Stainless  
● = A4 Stainless



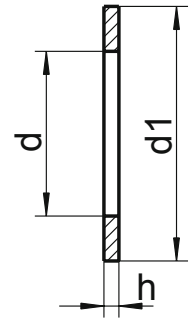
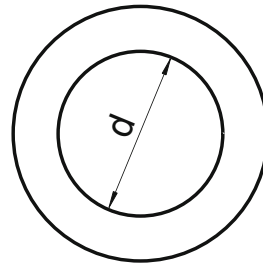
d	d1	h	grade
3	5	0.1	○
3	6	0.1	○
4	8	0.1	○
4	8	0.2	○
4	8	0.3	○
4	8	0.5	○
4	8	1	○
5	10	0.1	○
5	10	0.2	○
5	10	0.3	○
5	10	0.5	○
5	10	1	○
5	12	0.2	○
5	12	0.5	○
6	12	0.1	○
6	12	0.3	○
6	12	1	○
8	14	0.1	○
8	14	0.2	○
8	14	0.3	○
8	14	0.5	○
8	14	1	○
10	16	0.1	○
10	16	0.2	○
10	16	0.3	○
10	16	0.5	○
10	16	1	○
12	18	0.1	○
12	18	0.2	○
12	18	0.3	○
12	18	0.5	○
12	18	1	○

○ = A2 Stainless  
● = A4 Stainless



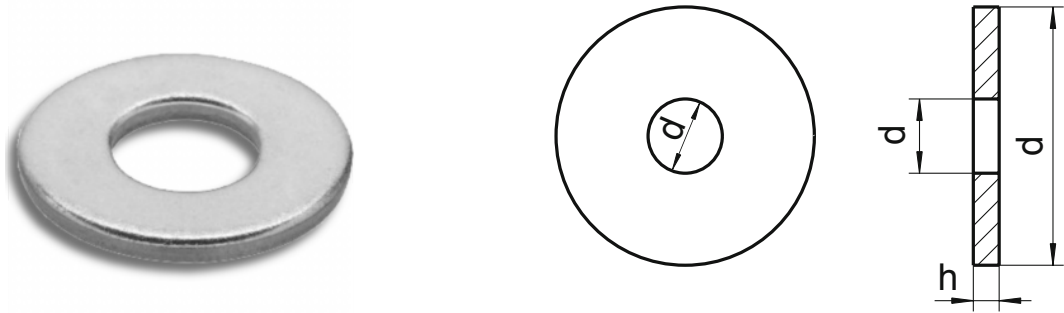
d	d1	h	grade
14	20	0.1	○
14	20	0.2	○
14	20	0.3	○
14	20	0.5	○
14	20	1	○
15	21	0.1	○
15	21	0.2	○
15	21	0.3	○
15	21	0.5	○
15	21	1	○
15	21	2	○
15	22	0.5	○
15	22	1	○
16	22	0.1	○
16	22	0.2	○
16	22	0.3	○
16	22	0.5	○
16	22	1	○
17	24	0.3	○
17	24	0.5	○
17	24	1	○
17	24	1.5	○
18	25	0.2	○
18	25	1	○
20	28	0.1	○
20	28	0.2	○
20	28	0.3	○
20	28	0.5	○
20	28	1	○
22	30	0.1	○
22	30	0.5	○

○ = A2 Stainless  
● = A4 Stainless



d	d1	h	grade
25	35	0.1	○
25	35	0.2	○
25	35	0.3	○
25	35	0.5	○
25	35	1	○
25	35	1.5	○
28	40	0.1	○
28	40	0.5	○
30	42	0.1	○
30	42	0.5	○
30	42	1	○
35	45	0.3	○
35	45	0.5	○
35	45	1	○
40	50	0.1	○
40	50	0.5	○
40	50	1	○
45	55	3	○
48	60	1	○
48	60	3	○
50	62	0.2	○

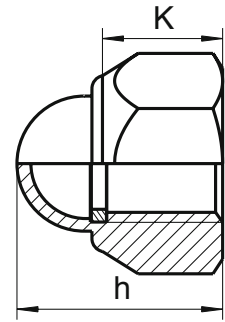
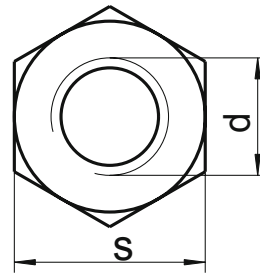
○ = A2 Stainless  
● = A4 Stainless



d	d1	h	h
14	M12	58	6
18	M16	68	6
23	M20	80	8
25	M22	92	8
27	M24	105	8

grade
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○ ●

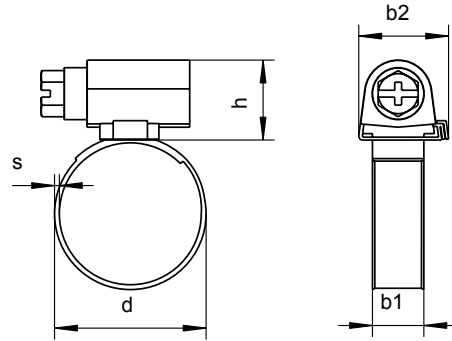
○ = A2 Stainless  
● = A4 Stainless



d	K	h	s	⬠
M3	2.4	7	5.5	5.5
M4	3.2	8	7	7
M5	4	10	8	8
M6	5	12	10	10
M8	6.5	15	13	13
M10	8	18	17	17
M12	10	22	19	19
M14	11	25	22	22
M16	13	28	24	24
M18	15	32	27	27
M20	16	34	30	30
M22	18	39	34	34
M24	19	42	36	36
M27	20	47	41	41
M30	24	52	46	46

grade
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○ = A2 Stainless  
● = A4 Stainless

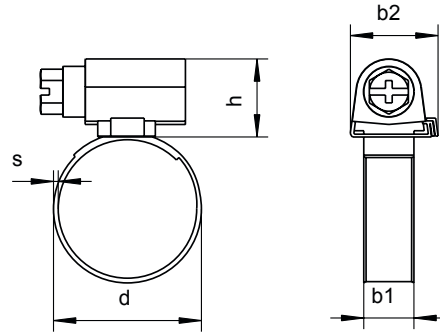


Range d	b1	B2 max
8-16	9	14
12-20	9	14
16-25	9	14
20-32	9	14
32-50	9	14
40-60	9	14

grade
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○ = A2 Stainless  
 ● = A4 Stainless

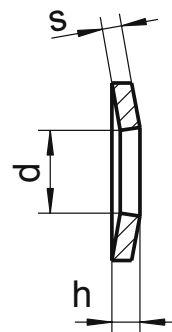
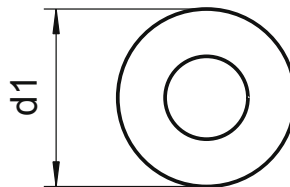




Range d	b1	B2 max
16-25	12	20
20-32	12	20
25-40	12	20
32-50	12	20
40-60	12	20
60-80	12	20

grade
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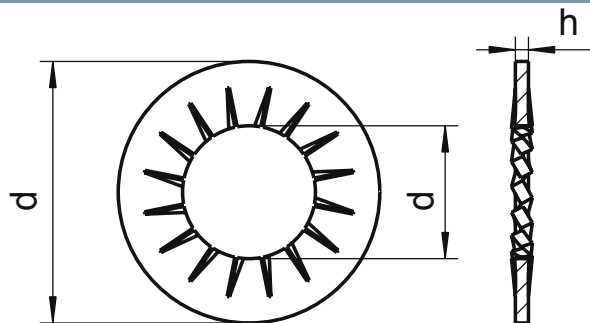
○ = A2 Stainless  
 ● = A4 Stainless



d	for	d1	h min.	h max.	s
3	M3	7	0.72	0.35	0.6
4	M4	9	1.12	1.3	1
5	M5	11	1.35	1.55	1.2
6	M6	14	1.7	2	1.5
8	M8	18	2.24	2.6	2
10	M10	23	2.8	3.2	2.5
12	M12	29	3.43	3.95	3
14	M14	35	4.04	4.65	3.5
16	M16	39	4.58	5.25	4
18	M18	42	5.08	5.8	4.5
20	M20	45	5.6	6.4	5
22	M22	49	6.15	7.05	5.5
24	M24	56	6.77	7.75	6

grade
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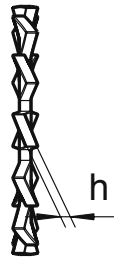
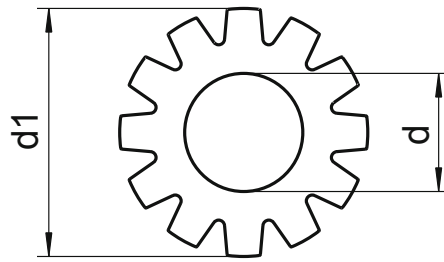
○ = A2 Stainless  
 ● = A4 Stainless



d	for	d1	h
2.2	M2	4.5	0.3
2.7	M2.5	5.5	0.4
3.2	M3	6	0.4
3.7	M3.5	7	0.4
4.3	M4	8	0.5
5.3	M5	10	0.5
6.4	M6	11	0.7
7.4	M7	12.5	0.8
8.4	M8	15	0.8
10.5	M10	18	0.9
13	M12	20.5	1
15	M14	24	1
17	M16	26	1.2
19	M18	30	1.4
21	M20	33	1.4
23	M22	36	1.5
25	M24	38	1.5
28	M27	44	1.6
31	M30	48	1.6

grade
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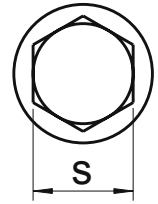
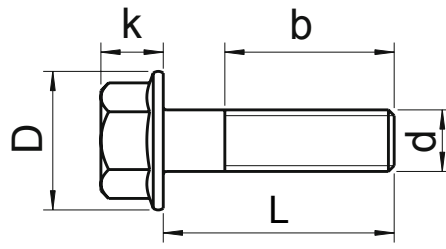
○ = A2 Stainless  
● = A4 Stainless



d	for	d2	h
2.2	M2	4.5	0.3
2.7	M2.5	5.5	0.4
3.2	M3	6	0.4
3.7	M3.5	7	0.4
4.3	M4	8	0.5
5.1	M5	9	0.5
5.3	M5	10	0.6
6.4	M6	11	0.7
7.4	M7	12.5	0.8
8.2	M8	14	0.8
10.5	M10	18	0.9
13	M12	20.5	1
15	M14	24	1
17	M16	26	1.2
19	M18	30	1.4
21	M20	33	1.4
23	M22	36	1.5
25	M24	38	1.5
28	M27	44	1.6
31	M30	48	1.6

grade
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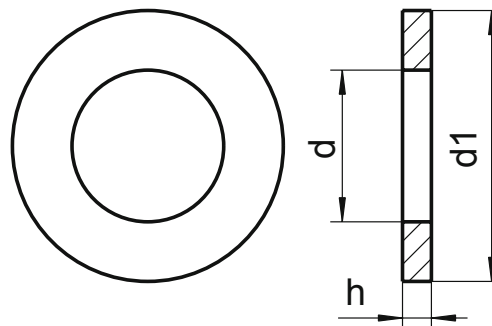
○ = A2 Stainless  
● = A4 Stainless



<b>b</b>	16	18	22	26	30	38
<b>k max.</b>	5.4	6.6	8.1	9.2	11.5	14.4
<b>S</b>	8	10	13	15	16	21
<b>D</b>	11.8	14.2	18	22.3	26.6	35
<b>⬠</b>	8	10	13	15	16	21

<b>Length /d</b>	<b>M5</b>	<b>M6</b>	<b>M8</b>	<b>M10</b>	<b>M12</b>	<b>M16</b>
10	○	○				
12	○	○				
16	○	○	○	○		
20	○	○	○	○		
25	○	○	○	○	○	
30	○	○	○	○	○	○
35	○	○	○	○	○	○
40	○	○	○	○	○	○
45		○	○	○	○	○
50		○	○	○	○	○
60		○	○	○	○	○
70						○

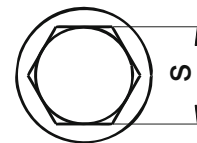
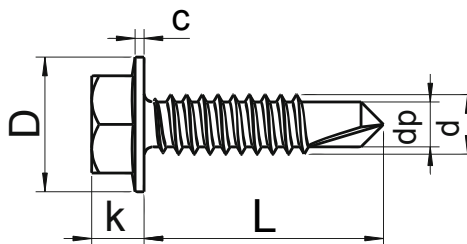
○ = A2 Stainless  
 ● = A4 Stainless



d	for Ø	d1	h
3.2	M3	9	1
4.3	M4	12	1.6
5.3	M5	15	2
6.4	M6	17	3
8.4	M8	21	4
10.5	M10	25	4
13	M2	30	6
15	M14	36	6
17	M16	40	6
19	M18	44	8
21	M20	44	8
23	M22	50	8
25	M24	50	10
28	M27	60	10
31	M30	68	10

grade
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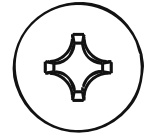
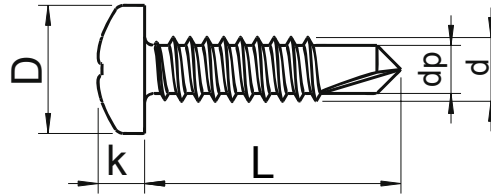
○ = A2 Stainless  
● = A4 Stainless



dp	2.8	3.1	3.6	4.1	4.8	5.8
s	5.5	5.5	7	8	8	10
c	0.6	0.6	0.9	0.9	1	1
k max.	3.45	3.45	4.25	4.45	5.45	6.45
D max.	8.3	8.3	8.8	10.5	11	13.2
⬠	5.5	5.5	7	8	8	10

Length / d	ST3.5	ST3.9	ST4.2	ST4.8	ST5.5	ST6.3
9,5 (3/8")	○	○	○	○	○	
13 (1/2")	○	○	○	○	○	
16 (5/8")	○	○	○	○	○	
19 (3/4")	○	○	○	○	○	
22 (7/8")	○	○	○	○	○	○
25 (1")	○	○	○	○	○	○
32 (1 1/4")		○	○	○	○	○
35 (1 3/8")		○	○	○	○	○
38 (1 1/2")		○	○	○	○	○
45 (1 3/4")				○	○	○
50 (2")				○	○	○
60 (2 3/8")					○	
70 (2 3/4")					○	
80 (3 1/8")					○	
90 (3 1/2")					○	
100 (4")					○	
110 (4 1/4")					○	
120 (4 3/4")					○	
130 (5 1/8")					○	

○ = A2 Stainless  
● = A4 Stainless

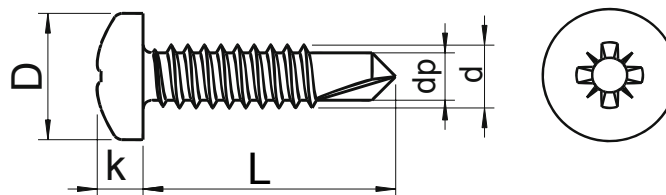


dp	2.3	2.8	3.1	3.6	4.1
D max.	5.6	6.9	7.5	8.2	9.5
k max.	2.2	2.6	2.8	3.05	3.55
⊗	P1	P2	P2	P2	P2

Length / d	ST2.9	ST3.5	ST3.9	ST4.2	ST4.8
9.5 (3/8")	○	○			
13 (1/2")	○	○	○	○	○
16 (5/8")		○	○	○	○
19 (3/4")		○	○	○	○
22 (7/8")		○	○	○	○
25 (1")		○	○	○	○
32 (1 1/4")			○	○	○
38 (1 1/2")			○	○	○
45 (1 3/4")					○
50 (2")					○
60 (2 3/8")					○
70 (2 3/4")					○

○ = A2 Stainless  
● = A4 Stainless

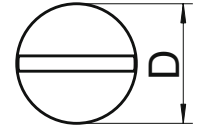
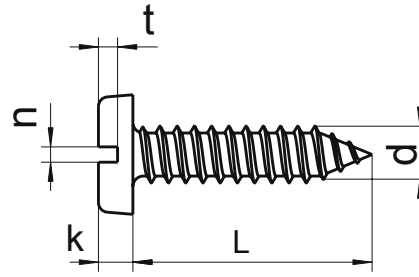




dp	2.8	3.1	3.6	4.1
D max.	6.9	7.5	8.2	9.5
k max.	2.6	2.8	3.05	3.55
⊗	Z2	Z2	Z2	Z2

Length / d	ST3.5	ST3.9	ST4.2	ST4.8
9.5 (3/8")	○	○	○	○
13 (1/2")	○	○	○	○
16 (5/8")	○	○	○	○
19 (3/4")	○	○	○	○
22 (7/8")	○	○	○	○
25 (1")	○	○	○	○
32 (1 1/4")	○	○	○	○
38 (1 1/2")	○	○	○	○
45 (1 3/4")	○	○	○	○
50 (2")	○	○	○	○
60 (2 3/8")	○	○	○	○
70 (2 3/4")	○	○	○	○

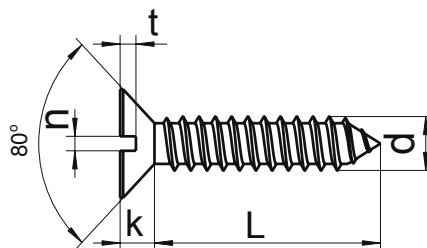
○ = A2 Stainless  
● = A4 Stainless



D	4.2	5.6	6.9	7.5	8.2	9.5	10.8	12.5
k min.	1.15	1.5	1.85	2	2.15	2.5	2.85	3.3
k max.	1.35	1.75	2.1	2.25	2.45	2.8	3.2	3.65
n	0.6	0.8	1	1	1.2	1.2	1.6	1.6
t max.	0.8	1	1.25	1.4	1.5	1.7	1.95	2.2
⊖	3.5X0.6	4.0X0.8	5.5.X1.0	5.5X1.0	7.0X1.2	7.0X1.2	9.0X1.6	9.0X1.6

Length / d	ST2.2	ST2.9	ST3.5	ST3.9	ST4.2	ST4.8	ST5.5	ST6.3
6.5 (1/4")	○	○	○	○	○			
9.5 (3/8")	○	○	○	○	○	○		
13 (1/2")	○	○	○	○	○	○	○	○
16 (5/8")	○	○	○	○	○	○	○	○
19 (3/4")	○	○	○	○	○	○	○	○
22 (7/8")	○	○	○	○	○	○	○	○
25 (1")	○	○	○	○	○	○	○	○
32 (1 1/4")		○	○	○	○	○	○	○
38 (1 1/2")			○	○	○	○	○	○
45 (1 3/4")				○	○	○	○	○
50 (2")				○	○	○	○	○
60 (2 3/8")						○	○	○
70 (2 3/4")						○	○	○

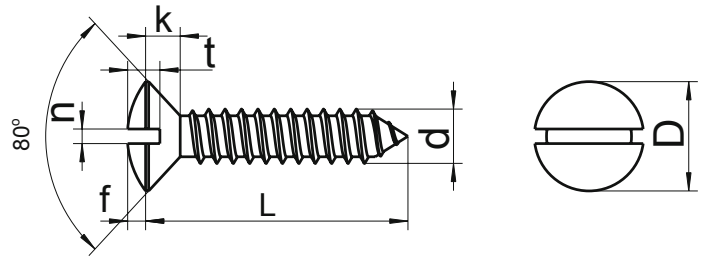
○ = A2 Stainless  
● = A4 Stainless



D	4.3	5.5	6.8	7.5	8.1	9.5	10.8	12.4
k	1.3	1.7	2.1	2.5	2.5	3	3.4	3.8
n	0.6	0.8	1	1	1.2	1.2	1.6	1.6
t max.	0.6	0.75	0.95	1.05	1.15	1.35	1.5	1.75
⊖	0.6X35	0.8X4.0	1.0X5.5	1.0X5.5	1.2X7.0	1.2X7.0	1.6X9.0	1.6X9.0

Length / Ø	ST2.2	ST2.9	ST3.5	ST3.9	ST4.2	ST4.8	ST5.5	ST6.3
6.5 (1/4")	○	○						
9.5 (3/8")	○	○	○	○	○			
13 (1/2")	○	○	○	○	○			
16 (5/8")	○	○	○	○	○	○	○	
19 (3/4")	○	○	○	○	○	○	○	
22 (7/8")	○	○	○	○	○	○	○	
25 (1")	○	○	○	○	○	○	○	○
32 (1 1/4")			○	○	○	○	○	○
38 (1 1/2")			○	○	○	○	○	○
45 (1 3/4")				○	○	○	○	○
50 (2")						○	○	○
60 (2 3/8")						○	○	○
70 (2 3/4")						○	○	○

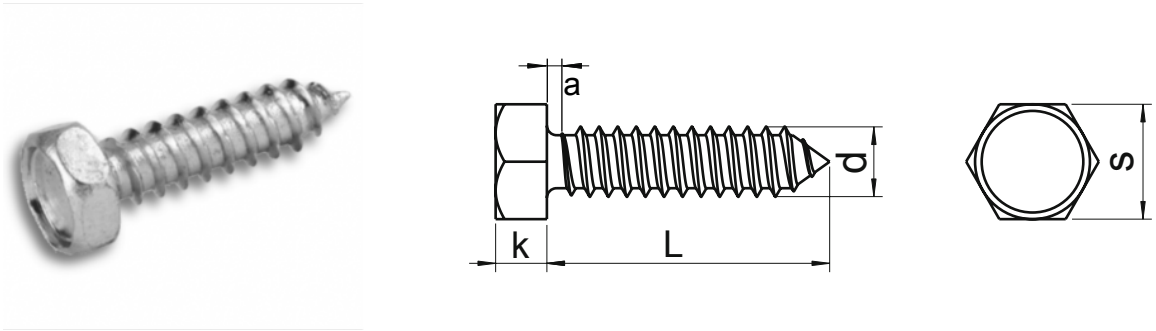
○ = A2 Stainless  
● = A4 Stainless



D	4.3	5.5	6.8	7.5	8.1	9.5	10.8	12.4
f	0.7	0.9	1.2	1.3	1.4	1.5	1.7	2
k	1.3	1.7	2.1	2.3	2.5	3	3.4	3.8
n	0.6	0.8	1	1	1.2	1.2	1.6	1.6
t max.	1.15	1.5	1.9	2.05	2.25	2.6	2.95	3.45
⊖	0.6X35	0.8X4.0	1.0X5.5	1.0X5.5	1.2X7.0	1.2X7.0	1.6X9.0	1.6X9.0

Length / Ø	ST2.2	ST2.9	ST3.5	ST3.9	ST4.2	ST4.8	ST5.5	ST6.3
6.5 (1/4")	○	○						
9.5 (3/8")	○	○	○	○	○	○	○	○
13 (1/2")	○	○	○	○	○	○	○	○
16 (5/8")	○	○	○	○	○	○	○	○
19 (3/4")	○	○	○	○	○	○	○	○
22 (7/8")	○	○	○	○	○	○	○	○
25 (1")	○	○	○	○	○	○	○	○
32 (1 1/4")		○	○	○	○	○	○	○
38 (1 1/2")			○	○	○	○	○	○
45 (1 3/4")			○	○	○	○	○	○
50 (2")						○	○	○
60 (2 3/8")						○	○	○

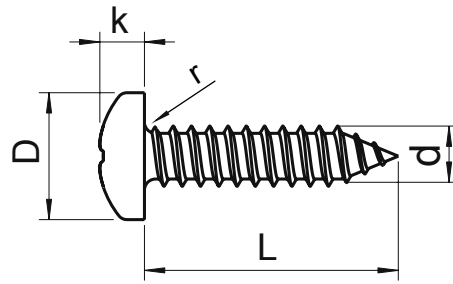
○ = A2 Stainless  
● = A4 Stainless



k	1.5	2.3	2.3	2.8	3	4	4.8	□5.8
s	5	5.5	7	7	8	8	10	13
a	1.1	1.3	1.3	1.4	1.6	1.8	1.8	2.1
◆	5	5.5	7	7	8	8	10	13

Length / d	ST2.9	ST3.5	ST3.9	ST4.2	ST4.8	ST5.5	ST6.3	ST8
9.5 (3/8")	○	○	○	○	○	○		
13 (1/2")	○	○	○	○	○	○	○	○
16 (5/8")	○	○	○	○	○	○	○	○
19 (3/4")	○	○	○	○	○	○	○	○
22 (7/8")	○	○	○	○	○	○	○	○
25 (1")	○	○	○	○	○	○	○	○
32 (1 1/4")	○	○	○	○	○	○	○	○
38 (1 1/2")	○	○	○	○	○	○	○	○
45 (1 3/4")		○	○	○	○	○	○	○
50 (2")		○	○	○	○	○	○	○
55 (2 1/8")			○	○	○	○	○	○
60 (2 3/8")			○	○	○	○	○	○
70 (2 3/4")					○	○	○	○
80 (3 3/8")					○	○	○	
90 (3 1/2")					○	○	○	
100 (4")					○	○	○	
110 (4 3/8")					○	○	○	
120 (4 3/4")					○	○	○	

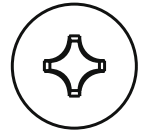
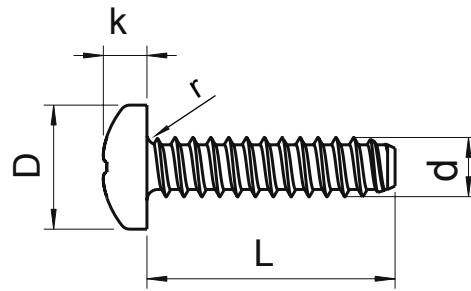
○ = A2 Stainless  
● = A4 Stainless



d	4.2	5.6	6.9	7.5	8.2	9.5	10.8	12.5
k min.	1.55	1.95	2.35	2.55	2.75	3.25	3.65	4.25
k max.	1.8	2.2	2.6	2.8	3.05	3.55	3.95	4.55
r max.	0.3	0.4	0.5	0.5	0.6	0.7	0.8	0.9
⊗	P1	P1	P2	P2	P2	P2	P3	P3

Length / Ø	ST2.2	ST2.9	ST3.5	ST3.9	ST4.2	ST4.8	ST5.5	ST6.3
4.5 (1/6")	○ ●							
6.5 (1/4")	○ ●	○ ●	○ ●	○ ●	○ ●			
9.5 (3/8")	○ ●	○ ●	○ ●	○ ●	○ ●	○ ●	○ ●	
13 (1/2")	○ ●	○ ●	○ ●	○ ●	○ ●	○ ●	○ ●	○ ●
16 (5/8")	○ ●	○ ●	○ ●	○ ●	○ ●	○ ●	○ ●	○ ●
19 (3/4")	○ ●	○ ●	○ ●	○ ●	○ ●	○ ●	○ ●	○ ●
22 (7/8")	○ ●	○ ●	○ ●	○ ●	○ ●	○ ●	○ ●	○ ●
25 (1")	○ ●	○ ●	○ ●	○ ●	○ ●	○ ●	○ ●	○ ●
32 (1 1/4")	○ ●	○ ●	○ ●	○ ●	○ ●	○ ●	○ ●	○ ●
38 (1 1/2")		○ ●	○ ●	○ ●	○ ●	○ ●	○ ●	○ ●
45 (1 3/4")			○ ●	○ ●	○ ●	○ ●	○ ●	○ ●
50 (2")			○ ●	○ ●	○ ●	○ ●	○ ●	○ ●
55 (2 1/8")			○ ●	○ ●	○ ●	○ ●	○ ●	○ ●
60 (2 3/8")			○ ●	○ ●	○ ●	○ ●	○ ●	○ ●
70 (2 3/4")			○ ●	○ ●	○ ●	○ ●	○ ●	○ ●
80 (3 3/8")				○ ●	○ ●	○ ●	○ ●	○ ●
90 (3 1/2")					○ ●	○ ●	○ ●	○ ●
100 (4")					○ ●	○ ●	○ ●	○ ●
120 (4 3/4")						○ ●	○ ●	○ ●

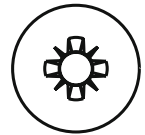
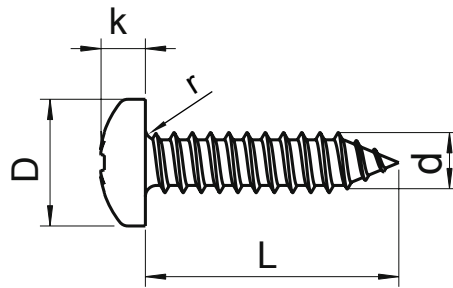
○ = A2 Stainless  
● = A4 Stainless



d	5.6	6.9	7.5	8.2	9.5	10.8
k min.	1.95	2.35	2.55	2.75	3.25	3.65
k max.	2.2	2.6	2.8	3.05	3.55	3.95
r max.	0.4	0.5	0.5	0.6	0.7	0.8
⊗	P1	P2	P2	P2	P2	P3

Length /Ø	ST2.9	ST3.5	ST3.9	ST4.2	ST4.8	ST5.5
6.5 (1/4")	○	○	○	○	○	○
9.5 (3/8")	○	○	○	○	○	○
13 (1/2")	○	○	○	○	○	○
16 (5/8")	○	○	○	○	○	○
19 (3/4")	○	○	○	○	○	○
22 (7/8")	○	○	○	○	○	○
25 (1")	○	○	○	○	○	○
32 (1 1/4")	○	○	○	○	○	○
45 (1 3/4")	○	○	○	○	○	○

○ = A2 Stainless  
● = A4 Stainless

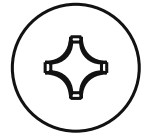
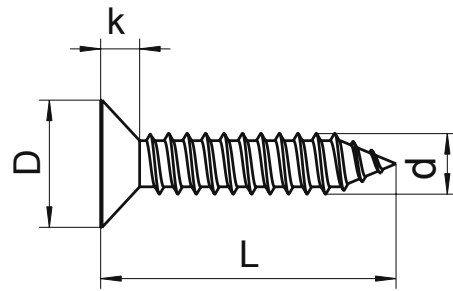


D	4.2	5.6	6.9	7.5	8.2	9.5	10.8	12.5
k min.	1.55	1.95	2.35	2.55	2.75	3.25	3.65	4.25
k max.	1.8	2.2	2.6	2.8	3.05	3.55	3.95	4.55
r max.	0.3	0.4	0.5	0.5	0.6	0.7	0.8	0.9
⊗	Z1	Z1	Z2	Z2	Z2	Z2	Z3	Z3

Length / Ø	ST2.2	ST2.9	ST3.5	ST3.9	ST4.2	ST4.8	ST5.5	ST6.3
6.5 (1/4")	○ ●	○ ●	○ ●	○ ●	○ ●	○ ●	○ ●	
9.5 (3/8")	○ ●	○ ●	○ ●	○ ●	○ ●	○ ●	○ ●	
13 (1/2")	○ ●	○ ●	○ ●	○ ●	○ ●	○ ●	○ ●	○ ●
16 (5/8")	○ ●	○ ●	○ ●	○ ●	○ ●	○ ●	○ ●	○ ●
19 (3/4")	○ ●	○ ●	○ ●	○ ●	○ ●	○ ●	○ ●	○ ●
22 (7/8")	○ ●	○ ●	○ ●	○ ●	○ ●	○ ●	○ ●	○ ●
25 (1")	○ ●	○ ●	○ ●	○ ●	○ ●	○ ●	○ ●	○ ●
32 (1 1/4")	○ ●	○ ●	○ ●	○ ●	○ ●	○ ●	○ ●	○ ●
38 (1 1/2")		○ ●	○ ●	○ ●	○ ●	○ ●	○ ●	○ ●
45 (1 3/4")			○ ●	○ ●	○ ●	○ ●	○ ●	○ ●
50 (2")			○ ●	○ ●	○ ●	○ ●	○ ●	○ ●
60 (2 3/8")			○ ●	○ ●	○ ●	○ ●	○ ●	○ ●
70 (2 3/4")				○ ●	○ ●	○ ●	○ ●	○ ●
80 (3 3/8")				○ ●	○ ●	○ ●	○ ●	○ ●
90 (3 1/2")						○ ●	○ ●	○ ●
100 (4")						○ ●	○ ●	○ ●

○ = A2 Stainless  
● = A4 Stainless

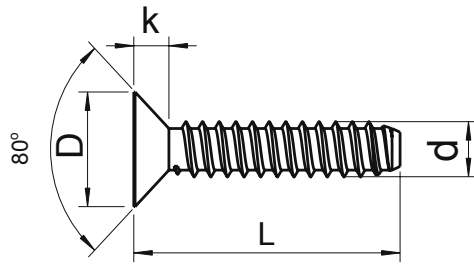




D	4.3	5.5	6.8	7.5	8.1	9.5	10.8	12.4
k	1.3	1.7	2.1	2.3	2.5	3	3.4	3.8
⊗	P1	P1	P2	P2	P2	P2	P3	P3

Length / Ø	ST2.2	ST2.9	ST3.5	ST3.9	ST4.2	ST4.8	ST5.5	ST6.3
6.5 (1/4")	○ ●	○ ●	○ ●	○ ●				
9.5 (3/8")	○ ●	○ ●	○ ●	○ ●	○ ●	○ ●		
13 (1/2")	○ ●	○ ●	○ ●	○ ●	○ ●	○ ●	○ ●	○ ●
16 (5/8")	○ ●	○ ●	○ ●	○ ●	○ ●	○ ●	○ ●	○ ●
19 (3/4")	○ ●	○ ●	○ ●	○ ●	○ ●	○ ●	○ ●	○ ●
22 (7/8")	○ ●	○ ●	○ ●	○ ●	○ ●	○ ●	○ ●	○ ●
25 (1")	○ ●	○ ●	○ ●	○ ●	○ ●	○ ●	○ ●	○ ●
32 (1 1/4")	○ ●	○ ●	○ ●	○ ●	○ ●	○ ●	○ ●	○ ●
38 (1 1/2")		○ ●	○ ●	○ ●	○ ●	○ ●	○ ●	○ ●
45 (1 3/4")			○ ●	○ ●	○ ●	○ ●	○ ●	○ ●
50 (2")			○ ●	○ ●	○ ●	○ ●	○ ●	○ ●
55 (2 1/8")			○ ●	○ ●	○ ●	○ ●	○ ●	○ ●
60 (2 3/8")			○ ●	○ ●	○ ●	○ ●	○ ●	○ ●
70 (2 3/4")					○ ●	○ ●	○ ●	○ ●
80 (3 3/8")					○ ●	○ ●	○ ●	○ ●
90 (3 1/2")					○ ●	○ ●	○ ●	○ ●
100 (4")					○ ●	○ ●	○ ●	○ ●
120 (4 3/4")						○ ●	○ ●	○ ●

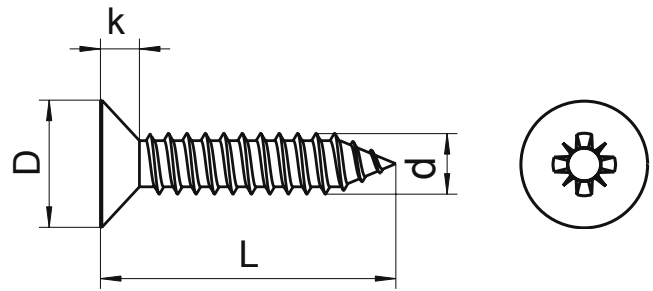
○ = A2 Stainless  
● = A4 Stainless



D	5.5	6.8	7.5	8.1	9.5	10.8
k	1.7	2.1	2.3	2.5	3	3.4
⊗	P1	P2	P2	P2	P2	P3

Length / Ø	ST2.9	ST3.5	ST3.9	ST4.2	ST4.8	ST5.5
6.5 (1/4")	○					
9.5 (3/8")	○	○	○	○	○	○
13 (1/2")		○	○	○	○	○
16 (5/8")		○	○	○	○	○
19 (3/4")		○	○	○	○	○
22 (7/8")		○	○	○	○	○
25 (1")		○	○	○	○	○
32 (1 1/4")			○	○	○	○

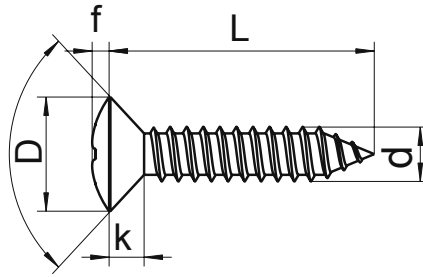
○ = A2 Stainless  
● = A4 Stainless



D	4.3	5.5	6.8	7.5	8.1	9.5	10.8	12.4
k	1.3	1.7	2.1	2.3	2.5	3	3.4	3.8
⊗	Z1	Z1	Z2	Z2	Z2	Z2	Z3	Z3

Length / Ø	ST2.2	ST2.9	ST3.5	ST3.9	ST4.2	ST4.8	ST5.5	ST6.3
6.5 (1/4")	○ ●	○ ●	○ ●	○ ●				
9.5 (3/8")	○ ●	○ ●	○ ●	○ ●	○ ●	○ ●		
13 (1/2")	○ ●	○ ●	○ ●	○ ●	○ ●	○ ●	○ ●	○ ●
16 (5/8")	○ ●	○ ●	○ ●	○ ●	○ ●	○ ●	○ ●	○ ●
19 (3/4")	○ ●	○ ●	○ ●	○ ●	○ ●	○ ●	○ ●	○ ●
22 (7/8")	○ ●	○ ●	○ ●	○ ●	○ ●	○ ●	○ ●	○ ●
25 (1")	○ ●	○ ●	○ ●	○ ●	○ ●	○ ●	○ ●	○ ●
32 (1 1/4")		○ ●	○ ●	○ ●	○ ●	○ ●	○ ●	○ ●
38 (1 1/2")		○ ●	○ ●	○ ●	○ ●	○ ●	○ ●	○ ●
45 (1 3/4")			○ ●	○ ●	○ ●	○ ●	○ ●	○ ●
50 (2")			○ ●	○ ●	○ ●	○ ●	○ ●	○ ●
60 (2 3/8")			○ ●	○ ●	○ ●	○ ●	○ ●	○ ●
70 (2 3/4")				○ ●	○ ●	○ ●	○ ●	○ ●
80 (3 3/8")				○ ●	○ ●	○ ●	○ ●	○ ●
90 (3 1/2")						○ ●	○ ●	○ ●
100 (4")						○ ●	○ ●	○ ●

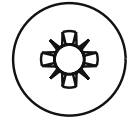
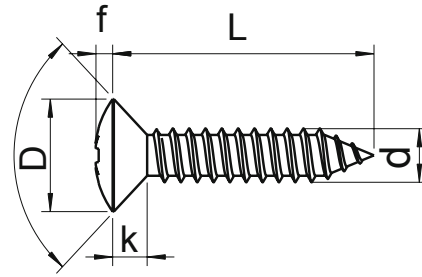
○ = A2 Stainless  
● = A4 Stainless



D	4.3	5.5	6.8	7.5	8.1	9.5	10.8	12.4
f	0.7	0.9	1.2	1.3	1.4	1.5	1.7	2
k	1.3	1.7	2.1	2.3	2.5	3	3.4	3.8
⊗	P1	P1	P2	P2	P2	P2	P3	P3

Length / Ø	ST2.2	ST2.9	ST3.5	ST3.9	ST4.2	ST4.8	ST5.5	ST6.3
6.5 (1/4")	○ ●	○ ●	○ ●	○ ●				
9.5 (3/8")	○ ●	○ ●	○ ●	○ ●	○ ●			
13 (1/2")	○ ●	○ ●	○ ●	○ ●	○ ●	○ ●	○ ●	○ ●
16 (5/8")	○ ●	○ ●	○ ●	○ ●	○ ●	○ ●	○ ●	○ ●
19 (3/4")	○ ●	○ ●	○ ●	○ ●	○ ●	○ ●	○ ●	○ ●
22 (7/8")	○ ●	○ ●	○ ●	○ ●	○ ●	○ ●	○ ●	○ ●
25 (1")	○ ●	○ ●	○ ●	○ ●	○ ●	○ ●	○ ●	○ ●
32 (1 1/4")	○ ●	○ ●	○ ●	○ ●	○ ●	○ ●	○ ●	○ ●
38 (1 1/2")		○ ●	○ ●	○ ●	○ ●	○ ●	○ ●	○ ●
45 (1 3/4")			○ ●	○ ●	○ ●	○ ●	○ ●	○ ●
50 (2")			○ ●	○ ●	○ ●	○ ●	○ ●	○ ●
60 (2 3/8")				○ ●	○ ●	○ ●	○ ●	○ ●
70 (2 3/4")				○ ●	○ ●	○ ●	○ ●	○ ●
80 (3 3/8")					○ ●	○ ●	○ ●	○ ●
90 (3 1/2")						○ ●	○ ●	○ ●
100 (4")						○ ●	○ ●	○ ●

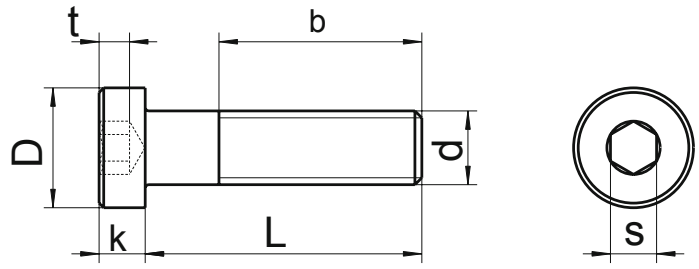
○ = A2 Stainless  
● = A4 Stainless



D	4.3	5.5	6.8	7.5	8.1	9.5	10.8	12.4
f	0.7	0.9	1.2	1.3	1.4	1.5	1.7	2
k	1.3	1.7	2.1	2.3	2.5	3	3.4	3.8
⊗	Z1	Z1	Z2	Z2	Z2	Z2	Z3	Z3

Length / Ø	ST2.2	ST2.9	ST3.5	ST3.9	ST4.2	ST4.8	ST5.5	ST6.3
6.5 (1/4")	○ ●	○ ●	○ ●	○ ●				
9.5 (3/8")	○ ●	○ ●	○ ●	○ ●	○ ●	○ ●	○ ●	○ ●
13 (1/2")	○ ●	○ ●	○ ●	○ ●	○ ●	○ ●	○ ●	○ ●
16 (5/8")	○ ●	○ ●	○ ●	○ ●	○ ●	○ ●	○ ●	○ ●
19 (3/4")	○ ●	○ ●	○ ●	○ ●	○ ●	○ ●	○ ●	○ ●
22 (7/8")	○ ●	○ ●	○ ●	○ ●	○ ●	○ ●	○ ●	○ ●
25 (1")	○ ●	○ ●	○ ●	○ ●	○ ●	○ ●	○ ●	○ ●
32 (1 1/4")	○ ●	○ ●	○ ●	○ ●	○ ●	○ ●	○ ●	○ ●
38 (1 1/2")		○ ●	○ ●	○ ●	○ ●	○ ●	○ ●	○ ●
45 (1 3/4")			○ ●	○ ●	○ ●	○ ●	○ ●	○ ●
50 (2")			○ ●	○ ●	○ ●	○ ●	○ ●	○ ●
60 (2 3/8")				○ ●	○ ●	○ ●	○ ●	○ ●
70 (2 3/4")				○ ●	○ ●	○ ●	○ ●	○ ●
80 (3 3/8")					○ ●	○ ●	○ ●	○ ●
90 (3 1/2")						○ ●	○ ●	○ ●
100 (4")						○ ●	○ ●	○ ●

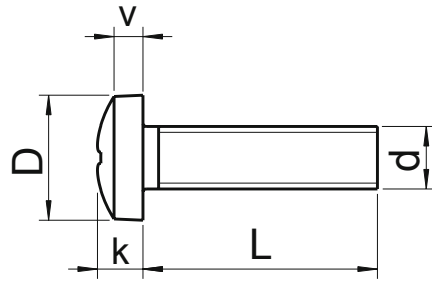
○ = A2 Stainless  
● = A4 Stainless



D	5.5	7	8.5	10	13	16	18	24	30
k	2	2.8	3.5	4	5	6	7	9	11
s	2	2.5	3	4	5	7	8	12	14
t	1.5	2.3	2.7	3	3.8	4.5	5	5.5	7.5
b	12	14	16	18	22	26	30	38	46
●	2	2.5	3	4	5	7	8	12	14

Length /Ø	M3	M4	M5	M6	M8	M10	M12	M16	M20
5	○ ●								
6	○ ●	○ ●							
8	○ ●	○ ●	○ ●	○ ●					
10	○ ●	○ ●	○ ●	○ ●	○ ●				
12	○ ●	○ ●	○ ●	○ ●	○ ●				
14	○ ●	○ ●	○ ●	○ ●	○ ●				
16	○ ●	○ ●	○ ●	○ ●	○ ●	○ ●			
20	○ ●	○ ●	○ ●	○ ●	○ ●	○ ●	○ ●		
25	○ ●	○ ●	○ ●	○ ●	○ ●	○ ●	○ ●	○ ●	
30	○ ●	○ ●	○ ●	○ ●	○ ●	○ ●	○ ●	○ ●	
35	○ ●	○ ●	○ ●	○ ●	○ ●	○ ●	○ ●	○ ●	○ ●
40	○ ●	○ ●	○ ●	○ ●	○ ●	○ ●	○ ●	○ ●	○ ●
45			○ ●	○ ●	○ ●	○ ●	○ ●	○ ●	○ ●
50			○ ●	○ ●	○ ●	○ ●	○ ●	○ ●	○ ●
55			○ ●	○ ●	○ ●	○ ●	○ ●	○ ●	○ ●
60			○ ●	○ ●	○ ●	○ ●	○ ●	○ ●	○ ●
70			○ ●	○ ●	○ ●	○ ●	○ ●	○ ●	○ ●
80					○ ●	○ ●	○ ●	○ ●	○ ●
90					○ ●	○ ●	○ ●	○ ●	○ ●
100					○ ●	○ ●	○ ●	○ ●	○ ●
110								○ ●	○ ●
120								○ ●	○ ●
130								○ ●	○ ●
140								○ ●	○ ●
150								○ ●	○ ●

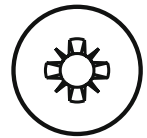
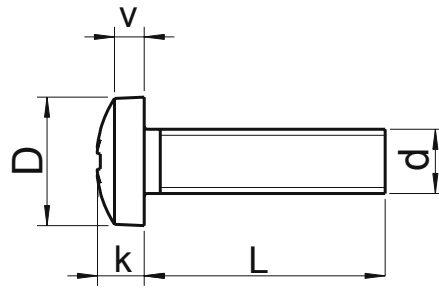
○ = A2 Stainless  
● = A4 Stainless



D	3.2	4	5	6	8	10	12	16
k	1.3	1.6	2	2.4	3.1	3.8	4.6	6
v	0.8	1.1	1.3	1.6	2	2.5	3	3.7
⊗	P0	P1	P1	P1	P2	P2	P3	P4

Length/ d	M1.6	M2	M2.5	M3	M4	M5	M6	M8
3	○ ●	○ ●	○ ●					
4	○ ●	○ ●	○ ●	○ ●	○ ●			
5	○ ●	○ ●	○ ●	○ ●	○ ●			
6	○ ●	○ ●	○ ●	○ ●	○ ●	○ ●		
8	○ ●	○ ●	○ ●	○ ●	○ ●	○ ●	○ ●	
10	○ ●	○ ●	○ ●	○ ●	○ ●	○ ●	○ ●	○ ●
12	○ ●	○ ●	○ ●	○ ●	○ ●	○ ●	○ ●	○ ●
14	○ ●	○ ●	○ ●	○ ●	○ ●	○ ●	○ ●	○ ●
16	○ ●	○ ●	○ ●	○ ●	○ ●	○ ●	○ ●	○ ●
18	○ ●	○ ●	○ ●	○ ●	○ ●	○ ●	○ ●	○ ●
20		○ ●	○ ●	○ ●	○ ●	○ ●	○ ●	○ ●
22			○ ●	○ ●	○ ●	○ ●	○ ●	○ ●
25			○ ●	○ ●	○ ●	○ ●	○ ●	○ ●
28			○ ●	○ ●	○ ●	○ ●	○ ●	○ ●
30			○ ●	○ ●	○ ●	○ ●	○ ●	○ ●
35				○ ●	○ ●	○ ●	○ ●	○ ●
40				○ ●	○ ●	○ ●	○ ●	○ ●
45				○ ●	○ ●	○ ●	○ ●	○ ●
50				○ ●	○ ●	○ ●	○ ●	○ ●
55				○ ●	○ ●	○ ●	○ ●	○ ●
60				○ ●	○ ●	○ ●	○ ●	○ ●
65					○ ●	○ ●	○ ●	○ ●
70					○ ●	○ ●	○ ●	○ ●
80					○ ●	○ ●	○ ●	○ ●
90					○ ●	○ ●	○ ●	○ ●
100					○ ●	○ ●	○ ●	○ ●

○ = A2 Stainless  
● = A4 Stainless

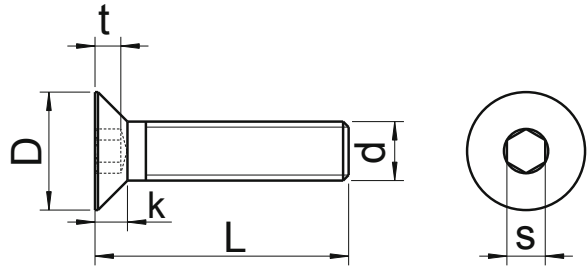


D	3.2	4	5	6	8	10	12	16
k	1.3	1.6	2	2.4	3.1	3.8	4.6	6
v	0.8	1.1	1.3	1.6	2	2.5	3	3.7
⊗	Z0	Z1	Z1	Z1	Z2	Z2	Z3	Z4

Length/Ø	M1.6	M2	M2.5	M3	M4	M5	M6	M8
3	○ ●	○ ●	○ ●					
4	○ ●	○ ●	○ ●	○ ●	○ ●			
5	○ ●	○ ●	○ ●	○ ●	○ ●			
6	○ ●	○ ●	○ ●	○ ●	○ ●	○ ●		
8	○ ●	○ ●	○ ●	○ ●	○ ●	○ ●	○ ●	
10	○ ●	○ ●	○ ●	○ ●	○ ●	○ ●	○ ●	○ ●
12	○ ●	○ ●	○ ●	○ ●	○ ●	○ ●	○ ●	○ ●
14	○ ●	○ ●	○ ●	○ ●	○ ●	○ ●	○ ●	○ ●
16	○ ●	○ ●	○ ●	○ ●	○ ●	○ ●	○ ●	○ ●
18	○ ●	○ ●	○ ●	○ ●	○ ●	○ ●	○ ●	○ ●
20		○ ●	○ ●	○ ●	○ ●	○ ●	○ ●	○ ●
22			○ ●	○ ●	○ ●	○ ●	○ ●	○ ●
25			○ ●	○ ●	○ ●	○ ●	○ ●	○ ●
28			○ ●	○ ●	○ ●	○ ●	○ ●	○ ●
30			○ ●	○ ●	○ ●	○ ●	○ ●	○ ●
35				○ ●	○ ●	○ ●	○ ●	○ ●
40				○ ●	○ ●	○ ●	○ ●	○ ●
45				○ ●	○ ●	○ ●	○ ●	○ ●
50				○ ●	○ ●	○ ●	○ ●	○ ●
55				○ ●	○ ●	○ ●	○ ●	○ ●
60				○ ●	○ ●	○ ●	○ ●	○ ●
65					○ ●	○ ●	○ ●	○ ●
70					○ ●	○ ●	○ ●	○ ●
75					○ ●	○ ●	○ ●	○ ●
80					○ ●	○ ●	○ ●	○ ●
90					○ ●	○ ●	○ ●	○ ●
100					○ ●	○ ●	○ ●	○ ●

○ = A2 Stainless  
● = A4 Stainless

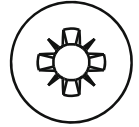
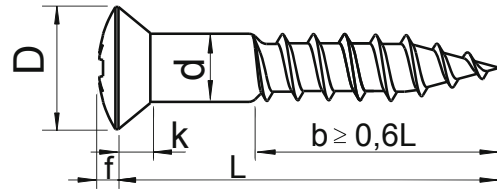




D	6	8	10	12	16	20	24	30	36	39
k	1.7	2.3	2.8	3.3	4.4	5.5	6.5	7.5	8.5	14
s	2	2.5	3	4	5	6	8	10	12	14
t	1.2	1.8	2.3	2.5	3.5	4.4	4.6	5.3	5.9	10.3
⬠	2	2.5	3	4	5	6	8	10	12	14

Length / d	M3	M4	M5	M6	M8	M10	M12	M16	M20	M24
6	○ ●	○ ●	○ ●							
8	○ ●	○ ●	○ ●	○ ●						
10	○ ●	○ ●	○ ●	○ ●	○ ●					
12	○ ●	○ ●	○ ●	○ ●	○ ●					
14	○ ●	○ ●	○ ●	○ ●	○ ●					
16	○ ●	○ ●	○ ●	○ ●	○ ●	○ ●	○ ●			
18	○ ●	○ ●	○ ●	○ ●	○ ●	○ ●	○ ●			
20	○ ●	○ ●	○ ●	○ ●	○ ●	○ ●	○ ●			
22	○ ●	○ ●	○ ●	○ ●	○ ●	○ ●	○ ●			
25	○ ●	○ ●	○ ●	○ ●	○ ●	○ ●	○ ●	○ ●		
30	○ ●	○ ●	○ ●	○ ●	○ ●	○ ●	○ ●	○ ●		
35	○ ●	○ ●	○ ●	○ ●	○ ●	○ ●	○ ●	○ ●	○ ●	
40	○ ●	○ ●	○ ●	○ ●	○ ●	○ ●	○ ●	○ ●	○ ●	
45		○ ●	○ ●	○ ●	○ ●	○ ●	○ ●	○ ●	○ ●	
50		○ ●	○ ●	○ ●	○ ●	○ ●	○ ●	○ ●	○ ●	○ ●
55		○ ●	○ ●	○ ●	○ ●	○ ●	○ ●	○ ●	○ ●	○ ●
60		○ ●	○ ●	○ ●	○ ●	○ ●	○ ●	○ ●	○ ●	○ ●
65		○ ●	○ ●	○ ●	○ ●	○ ●	○ ●	○ ●	○ ●	○ ●
70		○ ●	○ ●	○ ●	○ ●	○ ●	○ ●	○ ●	○ ●	○ ●
75			○ ●	○ ●	○ ●	○ ●	○ ●	○ ●	○ ●	○ ●
80			○ ●	○ ●	○ ●	○ ●	○ ●	○ ●	○ ●	○ ●
90			○ ●	○ ●	○ ●	○ ●	○ ●	○ ●	○ ●	○ ●
100			○ ●	○ ●	○ ●	○ ●	○ ●	○ ●	○ ●	○ ●
110					○ ●	○ ●	○ ●	○ ●	○ ●	○ ●
120					○ ●	○ ●	○ ●	○ ●	○ ●	○ ●
130					○ ●	○ ●	○ ●	○ ●	○ ●	○ ●
140					○ ●	○ ●	○ ●	○ ●	○ ●	○ ●
150					○ ●	○ ●	○ ●	○ ●	○ ●	○ ●
160					○ ●	○ ●	○ ●	○ ●	○ ●	○ ●

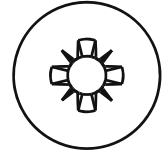
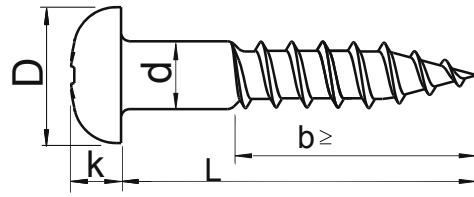
○ = A2 Stainless  
● = A4 Stainless



D	5.6	6.5	7.5	8.5	9.2	11
f	□0.75	0.9	1	1.1	1.25	1.5
k	1.65	1.93	2.2	2.35	2.5	3
⊗	Z1	Z2	Z2	Z2	Z2	Z3

Length /Ø	3	3.5	4	4.5	5	6
12	○	○				
16	○	○	○			
20	○	○	○	○	○	
25	○	○	○	○	○	○
30	○	○	○	○	○	○
35		○	○	○	○	○
40		○	○	○	○	○
45			○	○	○	○
50			○	○	○	○
60			○	○	○	○
70			○	○	○	○
80				○	○	○
90				○	○	○
100				○	○	○
110				○	○	○
120				○	○	○

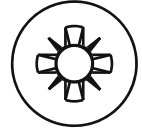
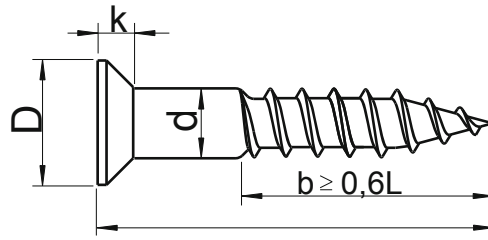
○ = A2 Stainless  
● = A4 Stainless



D	6	7	8	9	10	12
k	2.1	2.35	2.8	3.1	3.5	4.2
⊗	Z1	Z2	Z2	Z2	Z2	Z3

Length / d	3	3.5	4	4.5	5	6
12	○	○	○			
16	○	○	○			
20	○	○	○			
25	○	○	○	○	○	○
30	○	○	○	○	○	○
35		○	○	○	○	○
40		○	○	○	○	○
45		○	○	○	○	○
50		○	○	○	○	○
60			○	○	○	○
70			○	○	○	○
80					○	○
90					○	○
100					○	○
120					○	○

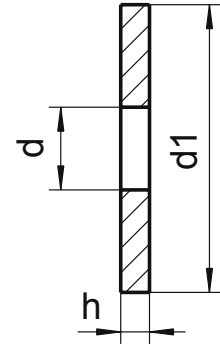
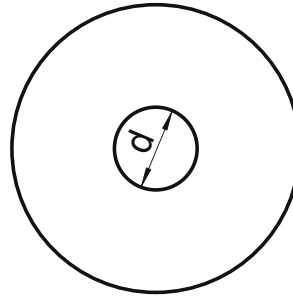
○ = A2 Stainless  
● = A4 Stainless



D	5.6	6.5	7.5	8.3	9.2	11
k	1.65	1.93	2.2	2.35	2.5	3
⊗	Z1	Z2	Z2	Z2	Z2	Z3

Length / d	3	3.5	4	4.5	5	6
12	○	○				
16	○	○	○			
20	○	○	○	○	○	
25	○	○	○	○	○	○
30	○	○	○	○	○	○
35	○	○	○	○	○	○
40		○	○	○	○	○
45		○	○	○	○	○
50		○	○	○	○	○
60			○	○	○	○
70			○	○	○	○
80					○	○
90					○	○
100					○	○
110					○	○
120					○	○

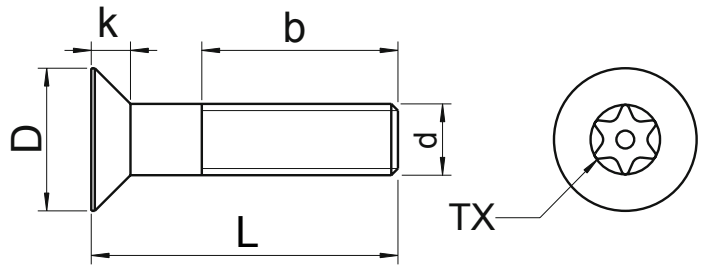
○ = A2 Stainless  
● = A4 Stainless



d	for Ø	d1	h
2.2	M2	7	0.8
2.7	M2.5	8	0.8
3.2	M3	9	0.8
3.7	M3.5	11	0.8
4.3	M4	12	1
5.3	M5	15	1.2
6.4	M6	18	1.6
7.4	M7	22	2
8.4	M8	24	2
10.5	M10	30	2.5
13	M12	37	3
15	M14	44	3
17	M16	50	3
20	M18	56	4
22	M20	60	4
26	M24	72	5
33	M30	92	6
39	M36	110	8

grade
○ ●
○ ●
○ ●
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○ ●

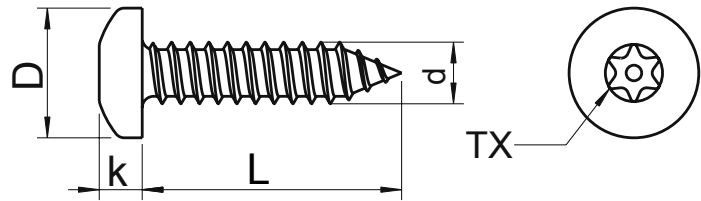
○ = A2 Stainless  
● = A4 Stainless



D	8	10	12
k	2.3	2.8	3.3
b	14	16	18
⊗	TX20	TX25	TX30

Length / d	M4	M5	M6
10	○		
12	○	○	
16	○	○	
20	○	○	○
25		○	○
30		○	○
35		○	○
40		○	○
50		○	○

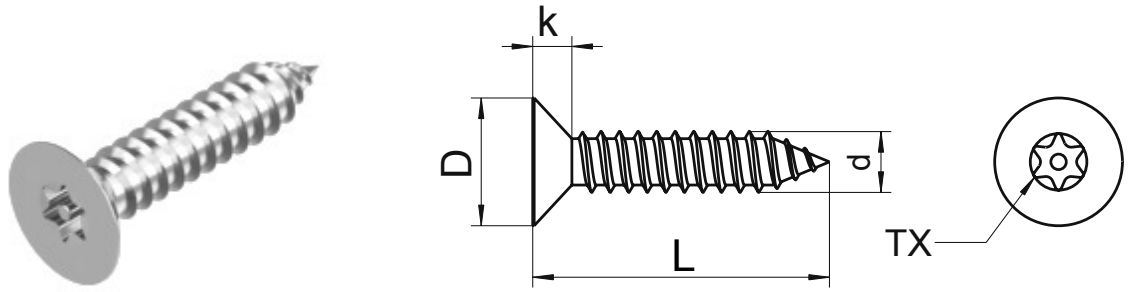
○ = A2 Stainless  
● = A4 Stainless



D	6.9	8.2	9.5
k	2.6	3.05	3.55
⊗	TX15	TX15	TX25

Length / d	ST3.5	ST4.2	ST4.8
13	○	○	○
19	○	○	○
25		○	○
32		○	○
38		○	○

○ = A2 Stainless  
● = A4 Stainless

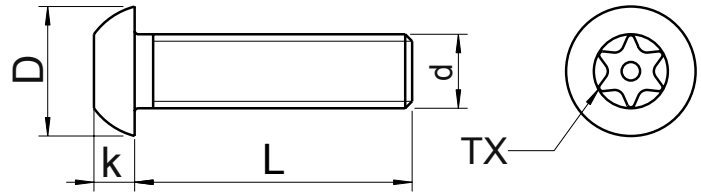


D	8.1	9.5
k	2.5	3
⊗	TX20	TX25

Length / d	ST4.2	ST4.8
19	○	○
25	○	○
32	○	○
38	○	○

○ = A2 Stainless  
● = A4 Stainless

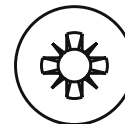
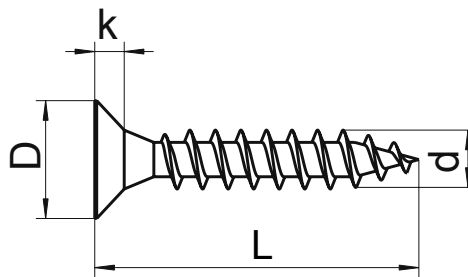




D	7.6	9.5	10.5	14
k	2.2	2.75	3.3	4.4
⊗	TX20	TX25	TX30	TX40

Length / d	M4	M5	M6	M8
10	○	○	○	○
12	○	○	○	○
16	○	○	○	○
20	○	○	○	○
25		○	○	○
30		○	○	○
35		○	○	○
40		○	○	○
50		○	○	○
60		○	○	○

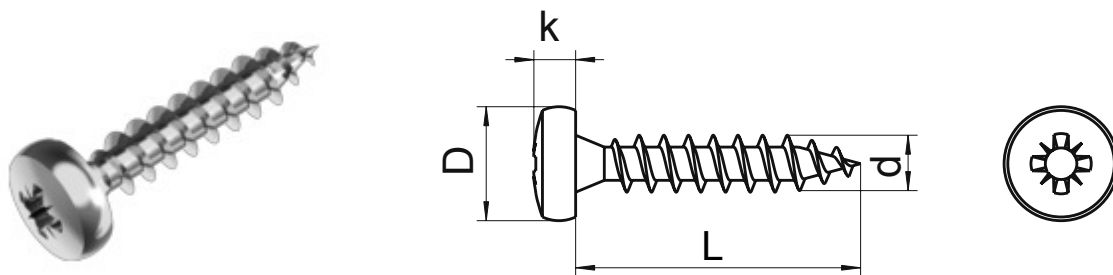
○ = A2 Stainless  
● = A4 Stainless



D	6	7	8	9	10	12
k	1.5	1.75	2	2.25	2.5	3
⊗	Z1	Z2	Z2	Z2	Z2	Z3

Length / d	3	3.5	4	4.5	5	6
12	○ ●	○ ●	○ ●			
13	○ ●	○ ●	○ ●			
14	○ ●	○ ●	○ ●			
16	○ ●	○ ●	○ ●	○ ●	○ ●	○ ●
20	○ ●	○ ●	○ ●	○ ●	○ ●	○ ●
25	○ ●	○ ●	○ ●	○ ●	○ ●	○ ●
30	○ ●	○ ●	○ ●	○ ●	○ ●	○ ●
35	○ ●	○ ●	○ ●	○ ●	○ ●	○ ●
40	○ ●	○ ●	○ ●	○ ●	○ ●	○ ●
45	○ ●	○ ●	○ ●	○ ●	○ ●	○ ●
50	○ ●	○ ●	○ ●	○ ●	○ ●	○ ●
55			○ ●	○ ●	○ ●	○ ●
60			○ ●	○ ●	○ ●	○ ●
65			○ ●	○ ●	○ ●	○ ●
70			○ ●	○ ●	○ ●	○ ●
75			○ ●	○ ●	○ ●	○ ●
80			○ ●	○ ●	○ ●	○ ●
90					○ ●	○ ●
100					○ ●	○ ●
110					○ ●	○ ●
120					○ ●	○ ●
130					○ ●	○ ●
140					○ ●	○ ●

○ = A2 Stainless  
● = A4 Stainless



D	6	7	8	9	10	12
k	1.5	1.75	2	2.25	2.5	3
⊗	Z1	Z2	Z2	Z2	Z2	Z3

Length / d	3	3.5	4	4.5	5	6
12	○ ●	○ ●	○ ●			
13	○ ●	○ ●	○ ●			
14	○ ●	○ ●	○ ●			
16	○ ●	○ ●	○ ●	○ ●	○ ●	○ ●
20	○ ●	○ ●	○ ●	○ ●	○ ●	○ ●
25	○ ●	○ ●	○ ●	○ ●	○ ●	○ ●
30	○ ●	○ ●	○ ●	○ ●	○ ●	○ ●
35	○ ●	○ ●	○ ●	○ ●	○ ●	○ ●
40	○ ●	○ ●	○ ●	○ ●	○ ●	○ ●
45	○ ●	○ ●	○ ●	○ ●	○ ●	○ ●
50	○ ●	○ ●	○ ●	○ ●	○ ●	○ ●
55			○ ●	○ ●	○ ●	○ ●
60			○ ●	○ ●	○ ●	○ ●
65			○ ●	○ ●	○ ●	○ ●
70			○ ●	○ ●	○ ●	○ ●
75			○ ●	○ ●	○ ●	○ ●
80			○ ●	○ ●	○ ●	○ ●
90					○ ●	○ ●
100					○ ●	○ ●
110					○ ●	○ ●
120					○ ●	○ ●
130					○ ●	○ ●
140					○ ●	○ ●

○ = A2 Stainless  
● = A4 Stainless

# NOTES

