



# STEEL GEAR



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

## **FASTENERS CATALOGUE**

**[www.steelgear.co.uk](http://www.steelgear.co.uk)**



Click the image of the product you wish to view and you will be taken to the Correct page

This index shows you products by Screw type  
The main product catalogue is in order of DIN standard  
ie DIN 1 TO DIN 9021 - PAGE 6-96

### PRODUCT INDEX / SCREW FINDER

Hexagon head	DIN	Page	Machine screws	DIN	Page
Hexagon head bolt	DIN931	33	Slotted cheese head machine screw DIN84		1
Hexagon head bolt - strength 80 DIN931		35	Slotted panhead machine screw DIN85		2
Hexagon head set screw	DIN933	36	Slotted countersunk machine screw DIN963		44
Hexagon head set screw strength 80 A4-80	DIN933 A4-80	39	Slotted raised countersunk machine screw DIN964		45
Hexagon flange bolt	DIN6921	64	Pozi flathead countersunk machine screw DIN965 Z		47
Hexagon woodscrew	DIN571	20	Phillips flathead Countersunk machine screw DIN965 H		46
Mushroom head square neck bolt	DIN603	23	Pozi raised countersunk machine screw DIN966 Z		49
Socket head	DIN	Page	Phillips raised countersunk machine screw	DIN	Page
Hexagon socket head cap screw DIN912		24	Phillips raised countersunk machine screw DIN966 H		48
Hexagon socket head cap screw Strength 80 A4-80		28	Phillips pan head machine screw DIN7985 H		82
Hexagon socket head cap screw Full thread		27	Pozi pan head machine screw DIN7985 Z		83
Hexagon socket Low head cap screw	DIN7984	81	Countersunk flathead Hex Socket machine screw DIN7991		84
Hexagon countersunk flat head screw	DIN7991	83	Self tapping screws DIN		Page
Hexagon socket set screw with flat point	DIN913	29	Slotted Pan head type AB Self Tapping screw DIN7971 C		69
Hexagon socket head cap screw with cone point	DIN914	30	Slotted countersunk flat head type AB Self tapper DIN7972 C		70
Hexagon socket set screw with dog point	DIN915	31	Slotted countersunk raised head type AB Self tapper DIN7973 C		71
Hexagon socket set screw with cup point	DIN916	32	Hexagon head, type AB Self tapping screw DIN7976 C		72

Self tapping screws Cont. DIN Page			Security screws cont. DIN Page		
	Phillips Panhead head Self Tapping screw dog point type B	DIN7981 74 FH		Countersunk head with TX And PIN	Sim. DIN7982 91
	Pozi Panhead head Self Tapping Screw type AB	DIN7981 75 CZ		Socket button head with TX And PIN	Sim. ISO7380 92
	Phillips Panhead head Self Tapping screw type AB	DIN7981 73 CH			
				<b>Self drilling screws</b>	<b>DIN Page</b>
	Pozidrive Countersunk flat head Self tapping screw type AB	DIN7982 78 CZ		Hexagon head with flange	DIN7504 66 K
	Phillips Countersunk flat head Self tapping screw type AB	DIN7982 76 CH		Panhead Phillips	DIN7504 67 NH
	Phillips Countersunk flat head Self tapping screw with Dog point type B	DIN7982 77 FH		Panhead Pozidrive	DIN7504 68 NZ
	Phillips Raised Countersunk head Type AB	DIN7983 79 CH			
	Pozidrive Raised Countersunk head Type AB	DIN7983 80 CZ		<b>Chipboard screws</b>	<b>DIN Page</b>
				Countersunk head with Pozidirve and full thread	FCSCZF 93
				Panhead with pozidrive and Full thread	FCSPZF 94
	<b>Wood screws</b>	<b>DIN Page</b>			
	Raised countersunk head with slot	DIN95 3			
	Round head with slot	DIN96 4		<b>Nuts</b>	<b>DIN Page</b>
	Countersunk head with slot	DIN97 5		Wing nut	DIN315 13
	Raise countersunk with cross Recess Z (pozidrive)	DIN7995 85 Z		Thin type (Type B)	DIN439 15
	Round head with cross recess (Pozidrive)	DIN7996 86 Z		Thin type left hand thread	DIN439 16
	Countersunk head with cross Recess (Pozidrive)	DIN7997 87 Z		Thin type fine thread	DIN439 17
	<b>Security screws</b>	<b>DIN Page</b>		Square nut	DIN557 18
	Countersunk head with TX and PIN	Sim. DIN7991 89			
	Panhead with TX and PIN	Sim. DIN7981 90		Square thin nut	DIN562 19

Nuts cont.	DIN	Page	Washers cont.	DIN	Page	
	Hexagon nuts	DIN934	40		Spring lock washers type B DIN128B waved	10
	Hexagon nuts - strength 80	DIN934	43		Spring lock washers type A DIN137A curved	11
	Hexagon nuts fine thread	DIN934	42		Spring lock washers type B DIN137B waved	12
	Hexagon nuts left hand thread	DIN934	41		Washers for hexagon socket DIN433 Cap head screws	14
	Hexagon nuts prevailing torque	DIN982	51		Shim and supporting rings DIN988	54
	Hexagon nuts thin type prevailing torque (non metallic Insert)	DIN985	52		Washers for wood construction DIN1052	57
	Hexagon nut prevailing Torque Domed cap	DIN986	53		Conical spring washers DIN6796	61
	Hexagon nut Domed cap	DIN1587	58			
Washers	DIN	Page				
	Plain washers	DIN125A	6		External tooth lock washers DIN6798 AZ	63
	Plain washers with chamfer	DIN125B	7		Internal tooth lock washers DIN6798 IZ	62
	Spring lock washers type B Plain pattern	DIN127B	8		Washers for bolts (Hex socket screw) DIN7349	65
	Spring lock washers type A curved	DIN128A	9		Flat washer (large OD/ small hole) DIN9021	88

**Studding****DIN****Page**

Threaded bar 1m length

DIN975

50

**Eyebolts / Eyenuts****DIN****Page**

Eyebolt

DIN934

21



Eyenut

DIN934

22

**Hose clamps****DIN****Page**

Hose clamp range 9mm

DIN3017

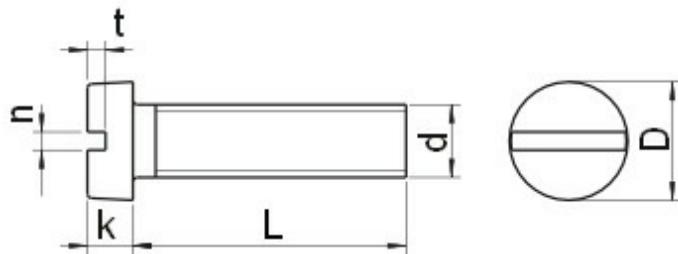
59



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
$\Theta$	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

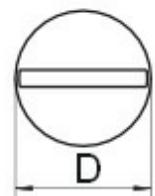
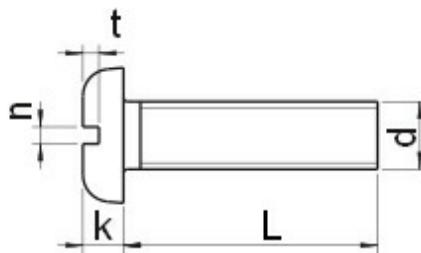
Length/d	M1.6	M2	M2.5	M3	M3.5	M4	M5	M6	M8	M10
3	○ ●	○ ●	○ ●	○ ●						
4	○ ●	○ ●	○ ●	○ ●	○ ●	○ ●				
5	○ ●	○ ●	○ ●	○ ●	○ ●	○ ●				
6	○ ●	○ ●	○ ●	○ ●	○ ●	○ ●	○ ●	○ ●		
8	○ ●	○ ●	○ ●	○ ●	○ ●	○ ●	○ ●	○ ●		
10	○ ●	○ ●	○ ●	○ ●	○ ●	○ ●	○ ●	○ ●	○ ●	
12	○ ●	○ ●	○ ●	○ ●	○ ●	○ ●	○ ●	○ ●	○ ●	
14	○ ●	○ ●	○ ●	○ ●	○ ●	○ ●	○ ●	○ ●	○ ●	
16	○ ●	○ ●	○ ●	○ ●	○ ●	○ ●	○ ●	○ ●	○ ●	○ ●
18	○ ●	○ ●	○ ●	○ ●	○ ●	○ ●	○ ●	○ ●	○ ●	○ ●
20		○ ●	○ ●	○ ●	○ ●	○ ●	○ ●	○ ●	○ ●	○ ●
22		○ ●	○ ●	○ ●	○ ●	○ ●	○ ●	○ ●	○ ●	○ ●
25		○ ●	○ ●	○ ●	○ ●	○ ●	○ ●	○ ●	○ ●	○ ●
28		○ ●	○ ●	○ ●	○ ●	○ ●	○ ●	○ ●	○ ●	○ ●
30		○ ●	○ ●	○ ●	○ ●	○ ●	○ ●	○ ●	○ ●	○ ●
35				○ ●	○ ●	○ ●	○ ●	○ ●	○ ●	○ ●
40				○ ●	○ ●	○ ●	○ ●	○ ●	○ ●	○ ●
45				○ ●	○ ●	○ ●	○ ●	○ ●	○ ●	○ ●
50				○ ●	○ ●	○ ●	○ ●	○ ●	○ ●	○ ●
55				○ ●	○ ●	○ ●	○ ●	○ ●	○ ●	○ ●
60				○ ●	○ ●	○ ●	○ ●	○ ●	○ ●	○ ●
65					○ ●	○ ●	○ ●	○ ●	○ ●	○ ●
70					○ ●	○ ●	○ ●	○ ●	○ ●	○ ●
80					○ ●	○ ●	○ ●	○ ●	○ ●	○ ●
90					○ ●	○ ●	○ ●	○ ●	○ ●	○ ●
100					○ ●	○ ●	○ ●	○ ●	○ ●	○ ●

Part nos. example :

Category DIN - dia. x length - stainless type

○ = A2 Stainless

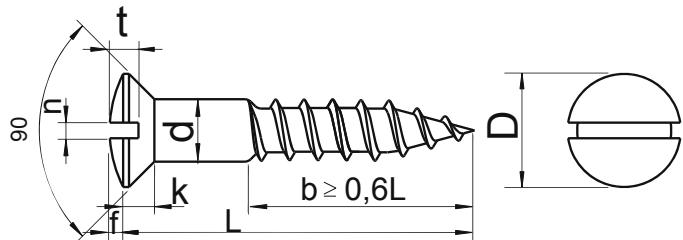
● = A4 Stainless



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
$\Theta$	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		○ ●	○ ●	○ ●	○ ●	○ ●	○ ●	○ ●	○ ●	
14		○ ●	○ ●	○ ●	○ ●	○ ●	○ ●	○ ●	○ ●	
16		○ ●	○ ●	○ ●	○ ●	○ ●	○ ●	○ ●	○ ●	○ ●
18		○ ●	○ ●	○ ●	○ ●	○ ●	○ ●	○ ●	○ ●	○ ●
20		○ ●	○ ●	○ ●	○ ●	○ ●	○ ●	○ ●	○ ●	○ ●
22			○ ●	○ ●	○ ●	○ ●	○ ●	○ ●	○ ●	○ ●
25			○ ●	○ ●	○ ●	○ ●	○ ●	○ ●	○ ●	○ ●
28				○ ●	○ ●	○ ●	○ ●	○ ●	○ ●	○ ●
30				○ ●	○ ●	○ ●	○ ●	○ ●	○ ●	○ ●
35				○ ●	○ ●	○ ●	○ ●	○ ●	○ ●	○ ●
40				○ ●	○ ●	○ ●	○ ●	○ ●	○ ●	○ ●
45				○ ●	○ ●	○ ●	○ ●	○ ●	○ ●	○ ●
50				○ ●	○ ●	○ ●	○ ●	○ ●	○ ●	○ ●
55					○ ●	○ ●	○ ●	○ ●	○ ●	○ ●
60						○ ●	○ ●	○ ●	○ ●	○ ●
65							○ ●	○ ●	○ ●	○ ●
70							○ ●	○ ●	○ ●	○ ●
80							○ ●	○ ●	○ ●	○ ●
90							○ ●	○ ●	○ ●	○ ●
100							○ ●	○ ●	○ ●	○ ●

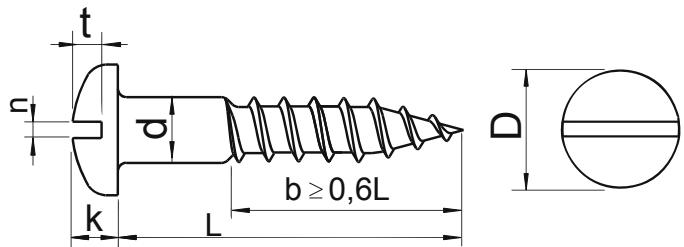
○ = A2 Stainless  
● = A4 Stainless



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
Θ	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					○ ●	○ ●

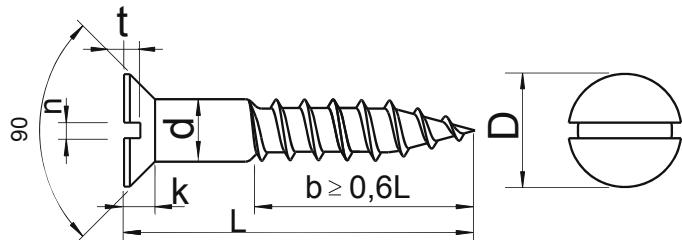
○ = A2 Stainless  
● = A4 Stainless



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
Θ	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	○ ●	○ ●	○ ●	○ ●	○ ●	○ ●	○ ●
45		○ ●	○ ●	○ ●	○ ●	○ ●	○ ●
50		○ ●	○ ●	○ ●	○ ●	○ ●	○ ●
60			○ ●	○ ●	○ ●	○ ●	○ ●
65				○ ●	○ ●	○ ●	○ ●
70				○ ●	○ ●	○ ●	○ ●
80					○ ●	○ ●	○ ●
90					○ ●	○ ●	○ ●
100					○ ●	○ ●	○ ●

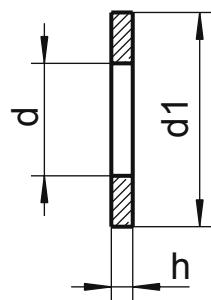
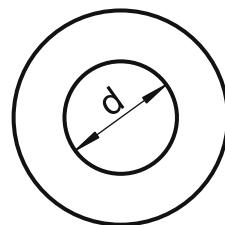
○ = A2 Stainless  
● = A4 Stainless



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
Θ	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

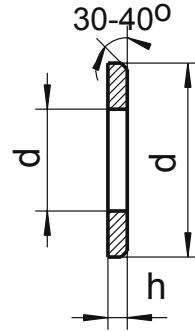
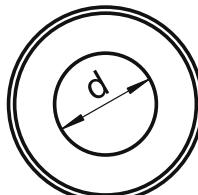
Lengt h/d	2.5	3	3.5	4	4.5	5	5.5	6	8
10	○ ●								
12	○ ●	○ ●							
16	○ ●	○ ●	○ ●	○ ●					
20	○ ●	○ ●	○ ●	○ ●	○ ●	○ ●	○ ●	○ ●	
25	○ ●	○ ●	○ ●	○ ●	○ ●	○ ●	○ ●	○ ●	
30		○ ●	○ ●	○ ●	○ ●	○ ●	○ ●	○ ●	
35		○ ●	○ ●	○ ●	○ ●	○ ●	○ ●	○ ●	
40		○ ●	○ ●	○ ●	○ ●	○ ●	○ ●	○ ●	
45				○ ●	○ ●	○ ●	○ ●	○ ●	
50				○ ●	○ ●	○ ●	○ ●	○ ●	
60				○ ●	○ ●	○ ●	○ ●	○ ●	○ ●
70				○ ●	○ ●	○ ●	○ ●	○ ●	○ ●
80					○ ●	○ ●	○ ●	○ ●	○ ●
90							○ ●	○ ●	○ ●
100							○ ●	○ ●	○ ●

○ = A2 Stainless  
● = A4 Stainless



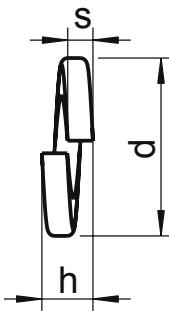
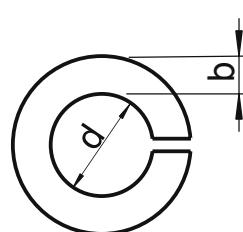
<b>d</b>	<b>for</b>	<b>d1</b>	<b>h</b>	<b>grade</b>
1.7	M1.6	4	0.3	○ ●
1.8	M1.7	4.5	0.3	○ ●
2.2	M2	5	0.3	○ ●
2.5	M2.3	6	0.5	○ ●
2.7	M2.5	6	0.5	○ ●
2.8	M2.6	7	0.5	○ ●
3.2	M3	7	0.5	○ ●
3.7	M3.5	8	0.5	○ ●
4.3	M4	9	0.8	○ ●
5.3	M5	10	1	○ ●
6.4	M6	12	1.6	○ ●
7.4	M7	14	1.6	○ ●
8.4	M8	16	1.6	○ ●
10.5	M10	20	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



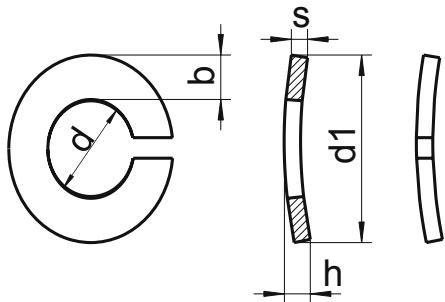
<b>d</b>	<b>for</b>	<b>d1</b>	<b>h</b>	<b>grade</b>
3.2	M3	7	0.5	○ ●
4.3	M4	9	0.8	○ ●
5.3	M5	10	1	○ ●
6.4	M6	12	1.6	○ ●
8.4	M8	16	1.6	○ ●
10.5	M10	20	2	○ ●
13	M12	24	2.5	○ ●
15	M14	28	2.5	○ ●
17	M16	30	3	○ ●
19	M18	34	3	○ ●
21	M20	37	3	○ ●
23	M22	39	3	○ ●
25	M24	44	4	○ ●
28	M27	50	4	○ ●
31	M30	56	4	○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

○ = A2 Stainless  
● = A4 Stainless



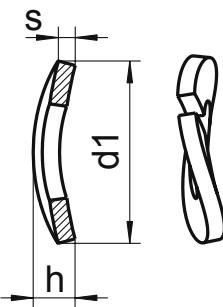
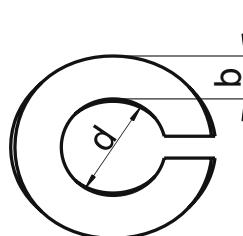
Nominal size	for	d	d1	h min.	s	b	grade
2	M2	2.1	4.4	1	0.5	0.9	○ ●
2.3	M2.3	2.3	4.8	1.2	0.6	1	○ ●
2.5	M2.5	2.6	5.1	1.2	0.6	1	○ ●
2.6	M2.6	2.7	5.2	1.2	0.6	1	○ ●
3	M3	3.1	6.2	1.6	0.8	1.31	○ ●
3.5	M3.5	3.6	6.7	1.6	0.8	1.31	○ ●
4	M4	4.1	7.6	1.8	0.9	1.51	○ ●
5	M5	5.1	9.2	2.4	1.2	1.8	○ ●
6	M6	6.1	11.8	3.2	1.6	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)



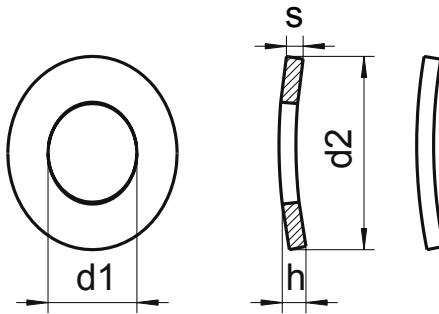
Nominal size	for	d min.	d1 max.	h min.	h max.	s	b	grade
2	M2	2.1	4.4	1	0.9	0.5	0.9	○ ●
2.3	M2.3	2.3	4.8	1.2	1.1	0.6	1	○ ●
2.5	M2.5	2.6	5.1	1.2	1.1	0.6	1	○ ●
2.6	M2.6	2.7	5.2	1.2	1.1	0.6	1	○ ●
3	M3	3.1	6.2	1.6	1.3	0.8	1.31	○ ●
3.5	M3.5	3.6	6.7	1.6	1.3	0.8	1.31	○ ●
4	M4	4.1	7.6	1.8	1.4	0.9	1.51	○ ●
5	M5	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)



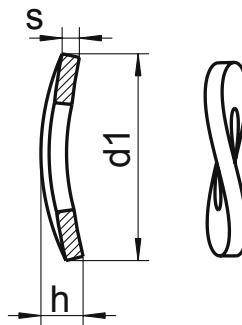
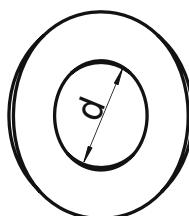
Nominal size	for	d min.	d1 max.	h min.	h max.	s	b	grade
5	M5	5.1	9.2	1.5	1.7	1	1.8	○ ●
6	M6	6.1	11.8	2	2.2	1.3	2.5	○ ●
8	M8	8.1	14.8	2.45	2.75	1.6	3	○ ●
10	M10	10.2	18.1	2.85	3.15	1.8	3.5	○ ●
12	M12	12.2	21.1	3	3.65	2.1	4	○ ●
16	M16	16.2	27.4	354.5	5.1	2.8	5	○ ●

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



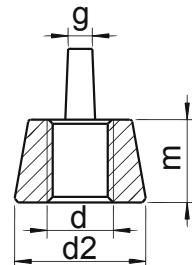
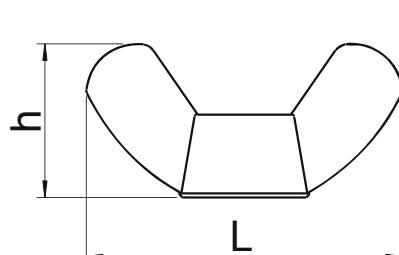
Nominal size	for	d	d1	h min.	h max.	s	grade
<b>1.4</b>	M1.4	1.5	3	0.4	0.8	0.25	○
<b>1.6</b>	M1.6	1.8	4	0.45	0.9	0.25	○
<b>1.7</b>	M1.7	1.8	4	0.45	0.9	0.25	○
<b>2</b>	M2	2.2	4.5	0.5	0.51	0.3	○
<b>2.3</b>	M2.3	2.5	5	0.5	1	0.3	○
<b>2.5</b>	M2.5	2.6	5.5	0.55	1.1	0.3	○
<b>2.6</b>	M2.6	2.8	5.5	0.55	1.1	0.3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

○ = A2 Stainless (spring steel)



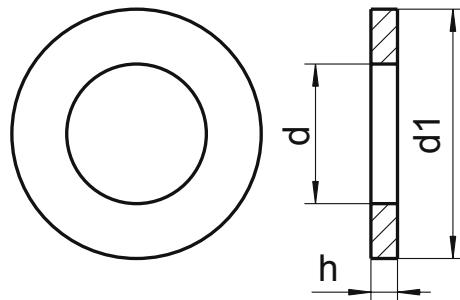
Nominal size	for	d	d1	h min.	h max.	s	grade
3	M3	3.2	8	0.8	1.6	0.5	○
3.5	M3.5	3.7	8	0.9	1.8	0.5	○
4	M4	4.3	9	1	2	0.5	○
5	M5	5.3	11	1.1	2.2	0.5	○
6	M6	6.4	12	1.3	2.6	0.5	○
7	M7	7.4	14	1.5	3	0.8	○
8	M8	8.4	15	1.5	3	0.8	○
10	M10	10.5	21	2.1	4.2	1	○
12	M12	13	24	2.5	5	1.2	○
14	M14	15	28	3	6	1.6	○
16	M16	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)



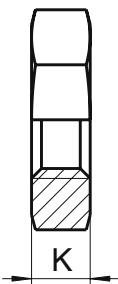
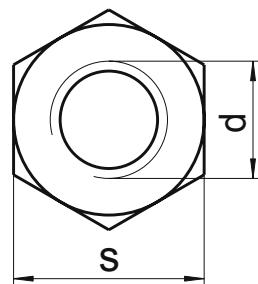
<b>d</b>	<b>m</b>	<b>h</b>	<b>L</b>	<b>d2</b>	<b>g</b>	<b>grade</b>
<b>M3</b>	2.4	8.8	15.3	68	1.2	○ ●
<b>M4</b>	2.9	8.8	17.6	8	1.6	○ ●
<b>M5</b>	4.1	10.5	22.5	10.3	2.1	○ ●
<b>M6</b>	5.1	12.9	27.8	12.7	2.5	○ ●
<b>M8</b>	5.6	14.8	30.3	13.8	2.8	○ ●
<b>M10</b>	6.8	17.3	36.2	16.5	3.3	○ ●
<b>M12</b>	9	22.3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

○ = A2 Stainless  
● = A4 Stainless



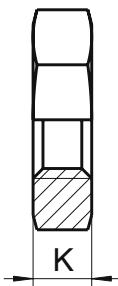
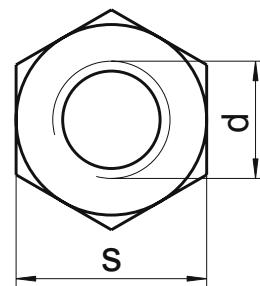
<b>d</b>	<b>for</b>	<b>d1</b>	<b>h</b>	<b>grade</b>
1.5	M1.4	3	0.3	○ ●
1.7	M1.6	3.5	3	○ ●
2.2	M2	4.5	0.5	○ ●
2.7	M2.5	5	0.5	○ ●
3.2	M3	6	0.5	○ ●
3.7	M3.5	7	5	○ ●
4.3	M4	8	0.5	○ ●
5.3	M5	9	1	○ ●
6.4	M6	11	1.6	○ ●
8.4	M8	15	1.6	○ ●
10.5	M10	18	1.6	○ ●
13	M12	20	2	○ ●
15	M14	24	2.5	○ ●
17	M16	28	2.5	○ ●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

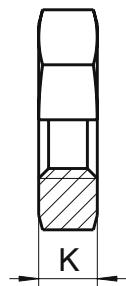
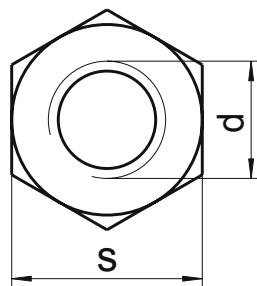
○ = A2 Stainless  
● = A4 Stainless



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

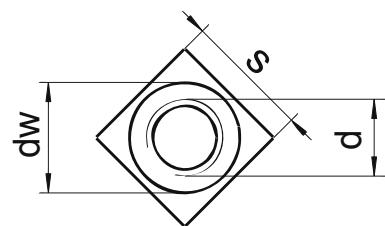
<b>grade</b>
○ ●
○ ●
○ ●
○ ●
○ ●
○ ●
○ ●
○ ●
○ ●
○ ●
○ ●

○ = A2 Stainless  
● = A4 Stainless



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

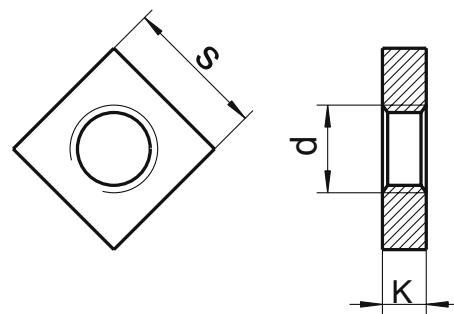
○ = A2 Stainless  
● = A4 Stainless



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

<b>grade</b>
○ ●
○ ●
○ ●
○ ●
○ ●
○ ●

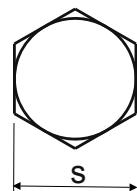
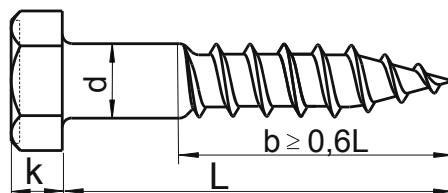
○ = A2 Stainless  
● = A4 Stainless



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

<b>grade</b>
○ ●
○ ●
○ ●
○ ●
○ ●
○ ●
○ ●
○ ●
○ ●
○ ●

○ = A2 Stainless  
● = A4 Stainless

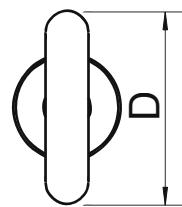
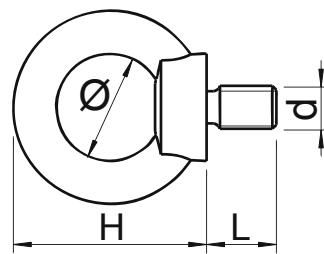


<b>k</b>	3.5	4	5	5.5	7	8	10
<b>S</b>	8	10	12	13	17	19	24
◆	8	10	12	13	17	19	24

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

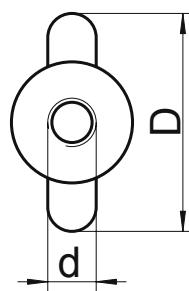
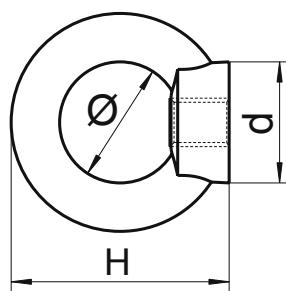
● = A4 Stainless



d	D	$\varnothing$	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

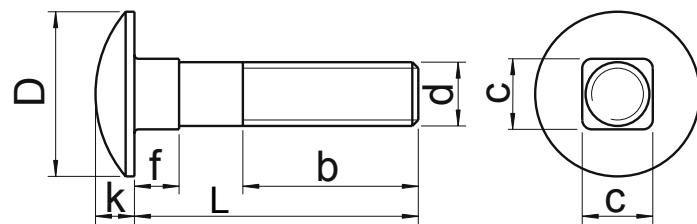
grade
○ ●
○ ●
○ ●
○ ●
○ ●
○ ●
○ ●
○ ●
○ ●
○ ●

○ = A2 Stainless  
● = A4 Stainless



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

○ = A2 Stainless  
● = A4 Stainless



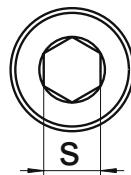
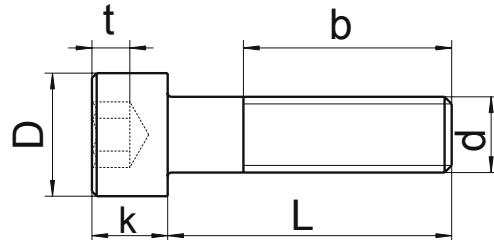
<b>D</b>	12.45	15.45	19.35	23.35	29.35	37.2
<b>f</b>	290	3.4	4.4	5.4	7.25	11.1
<b>k min.</b>	2.7	3.12	4.12	4.62	605	8.05
<b>C min.</b>	4.52	5.52	742	9.42	11.3	15.3
<b>b &lt;125</b>	16	18	22	26	30	38
<b>b &gt;125</b>	22	24	28	32	36	44

<b>Length / d</b>	<b>M5</b>	<b>M6</b>	<b>M8</b>	<b>M10</b>	<b>M12</b>	<b>M16</b>
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



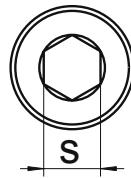
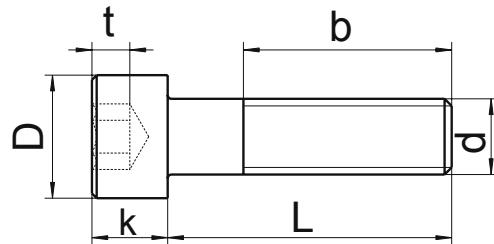
PAGE 1



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

- = A2 Stainless
- = A4 Stainless

## PAGE 2

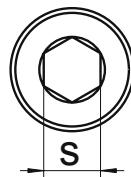
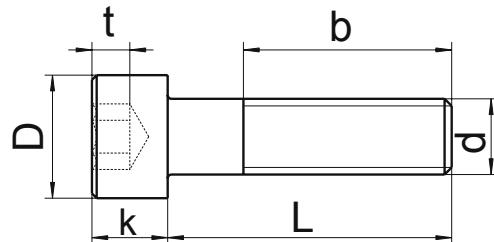


D Max.	8.5	10	13	16	18	21	24	27
K Max.	5	6	8	10	12	14	16	18
s	4	5	6	8	10	12	14	14
b	22	24	28	32	36	40	44	48
t	2.5	3	4	5	6	7	8	9
◆	4	5	6	8	10	12	14	14

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

## PAGE 3

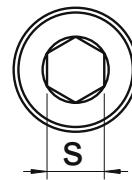
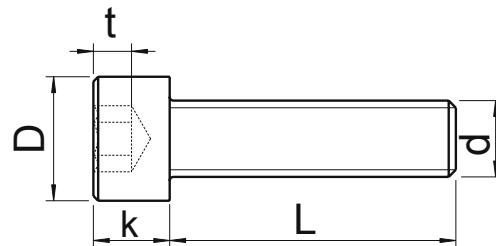


D Max.	30	36	40	45
K Max.	20	24	27	30
s	17	19	19	22
b	52	60	66	72
t	10	12	13.5	15.5
•	17	19	19	22

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

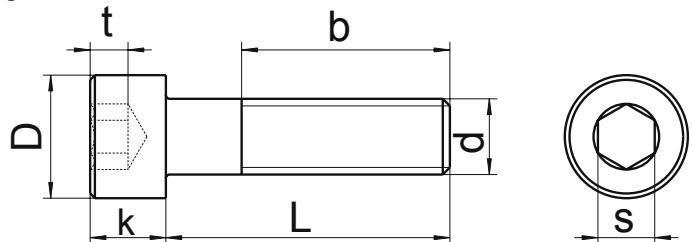


D Max.	8.5	10	13	16	18
K Max.	5	6	8	10	12
s	4	5	6	8	10
t	2.5	3	4	5	6
◆	4	5	6	8	10

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

○ = A2 Stainless  
● = A4 Stainless

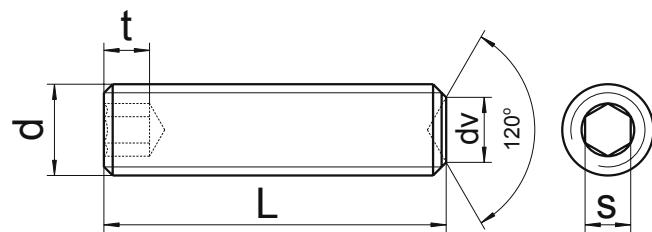
## PAGE 1



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					●	●	●	●

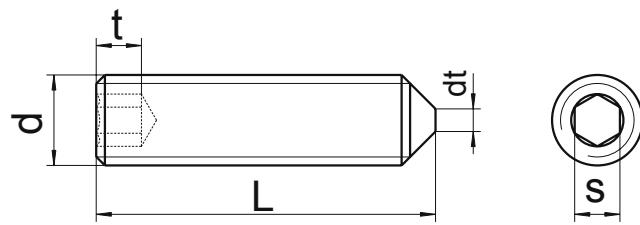
○ = A2 Stainless  
● = A4 Stainless



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									○ ●	○ ●	○ ●

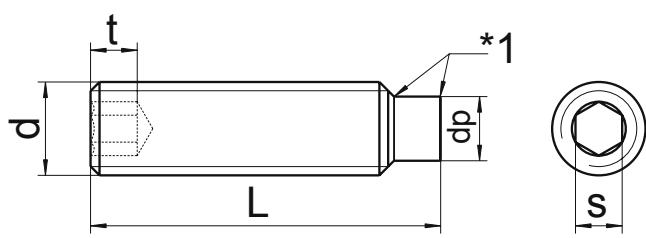
○ = A2 Stainless  
● = A4 Stainless



$dt$	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									○ ●	○ ●	○ ●

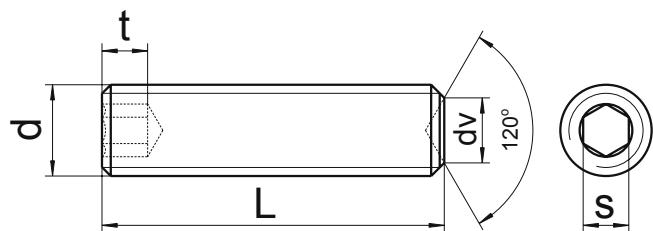
○ = A2 Stainless  
● = A4 Stainless



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

<b>Length</b>	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

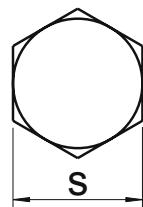
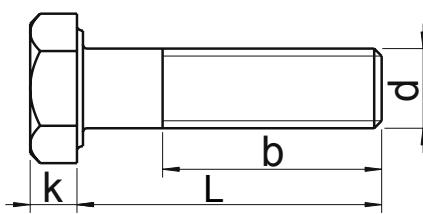


$d_t$	0.75	0.95	1.15	1.75	2.25	2.75	4.7	5.7	7.64	9.64	13.57
$t$	0.8	1.2	1.2	1.5	2	2	3	4	4.8	6.4	8
$s$	0.9	1.3	1.5	2	2.5	3	4	5	6	8	10
◆	0.9	1.3	1.5	2	2.5	3	4	5	6	8	10

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

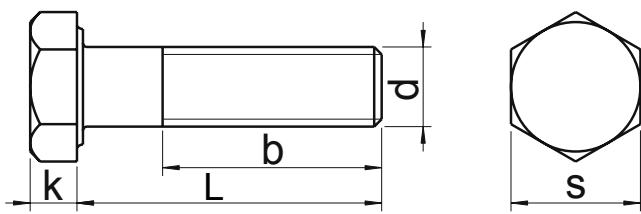


<b>b &lt;125</b>	16	18	22	26	30	34	38	42	46	50	54	60	66	72	78
<b>b &gt;125</b>	22	24	28	32	36	40	44	48	52	56	60	66	72	78	84
<b>s</b>	8	10	13	17	19	22	24	27	30	32	36	41	46	50	55
<b>k Min.</b>	3.35	3.85	5.15	6.22	7.32	8.62	9.82	11.28	12.28	13.78	14.78	16.65	18.28	20.58	22.08
<b>◆</b>	8	10	13	17	19	22	24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

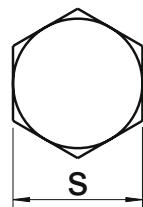
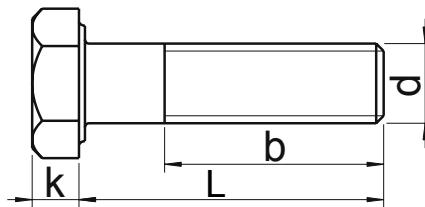


<b>b&lt;125</b>	18	22	26	30	34	38	42	46	50	54	60	66	72	78
<b>b&gt;125</b>	24	28	32	36	40	44	48	52	56	60	66	72	78	84
<b>s</b>	10	13	17	19	22	24	27	30	32	36	41	46	50	55
<b>k Min.</b>	3.85	5.15	6.22	7.32	8.62	9.82	11.28	12.28	13.78	14.78	16.65	18.28	20.58	22.08
<b>•</b>	10	13	17	19	22	24	27	30	32	36	41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

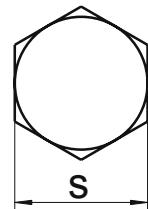
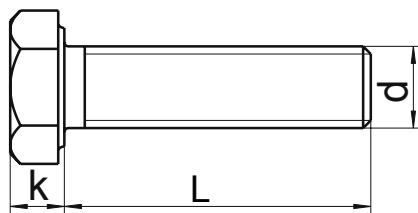
● = A4 Stainless



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

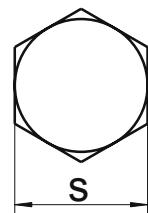
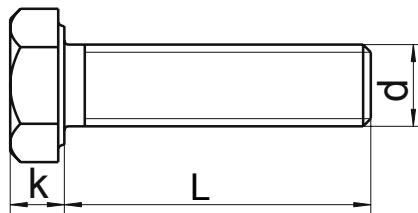


K MAX	1.4	1.7	2	2.8	3.5	4	5.3	6.4	7.5	8.8	10	11.5	12.5
S	4	5	5.5	7	8	10	13	17	19	22	24	27	30
◆	4	5	5.5	7	8	10	13	17	19	22	24	27	30

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

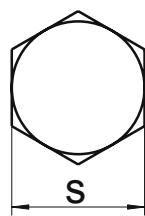
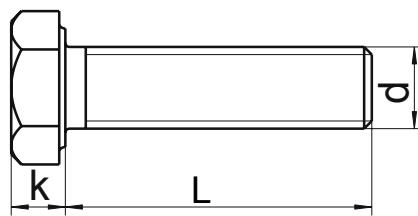
● = A4 Stainless



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				○ ●		○ ●		○ ●

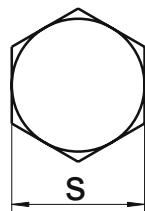
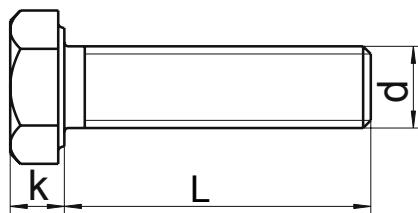
○ = A2 Stainless  
● = A4 Stainless



<b>k max.</b>	14	15	17	18.7	21	22.5
<b>S</b>	32	36	41	46	50	55
<b>◆</b>	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

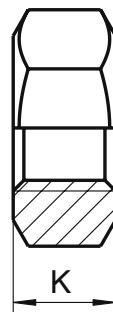
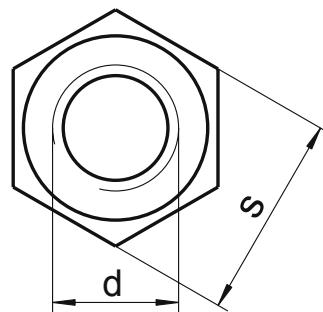


K MAX	3.5	4	5.3	6.4	7.5	8.8	10	12.5	15
S	8	10	13	17	19	22	24	30	36
◆	8	10	13	17	19	22	24	30	36

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									

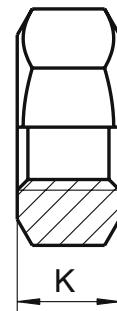
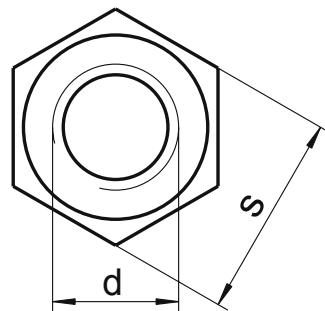
○ = A2 Stainless

● = 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

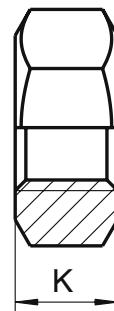
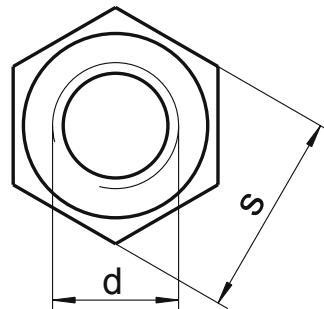
- = A2 Stainless
- = A4 Stainless



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

<b>grade</b>
○ ●
○ ●
○ ●
○ ●
○ ●
○ ●
○ ●
○ ●
○ ●
○ ●
○ ●
○ ●
○ ●
○ ●
○ ●
○ ●
○ ●
○ ●

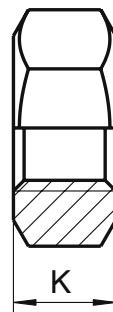
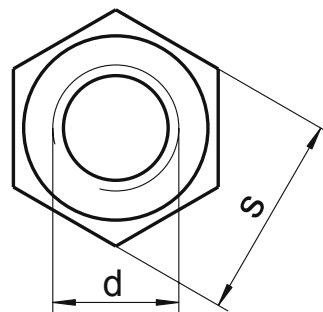
○ = A2 Stainless  
● = A4 Stainless



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

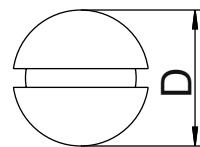
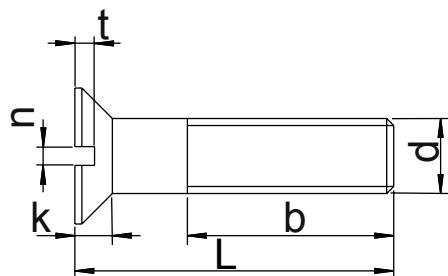
<b>grade</b>
○ ●
○ ●
○ ●
○ ●
○ ●
○ ●
○ ●
○ ●
○ ●
○ ●
○ ●
○ ●
○ ●
○ ●
○ ●

○ = A2 Stainless  
● = A4 Stainless



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

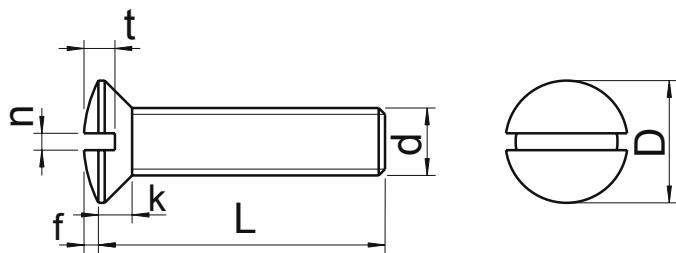
○ = A2 Stainless  
● = A4 Stainless



<b>dk</b>	3	3.8	4.7	5.6	6.5	7.5	9.2	11	14.5	18	22
<b>K max</b>	0.96	1.2	1.5	1.65	1.93	2.2	2.5	3	4	5	6
<b>n</b>	0.4	0.5	0.6	0.8	0.8	1	1.2	1.6	2	2.5	3
<b>t min</b>	0.32	0.4	0.5	0.6	0.7	0.8	1	1.2	1.6	2	2.4
<b>b min</b>	15	16	18	19	20	22	25	28	34	40	46
<b>Θ</b>	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

<b>Length/Ø</b>	<b>M1.6</b>	<b>M2</b>	<b>M2.5</b>	<b>M3</b>	<b>M3.5</b>	<b>M4</b>	<b>M5</b>	<b>M6</b>	<b>M8</b>	<b>M10</b>	<b>M12</b>
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								○ ●	○ ●	○ ●	

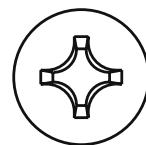
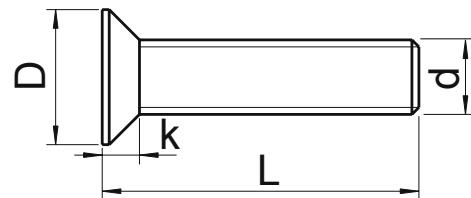
○ = A2 Stainless  
● = A4 Stainless



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
Θ	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

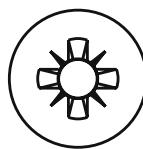
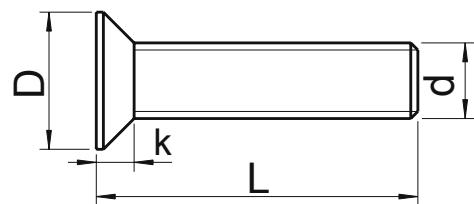


D	3	3.8	4.7	5.6	7.5	9.2	11	14.5	18
k max .	0.96	1.2	1.5	1.65	2.2	2.5	3	4	5
⊗	P0	P1	P1	P1	P2	P2	P3	P4	P4

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

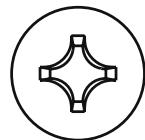
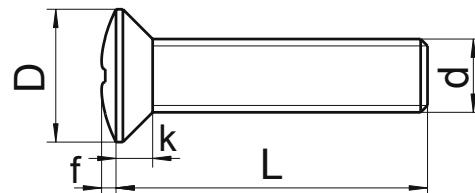


D	3	3.8	4.7	5.6	7.5	9.2	11	14.5	18
k max .	0.96	1.2	1.5	1.65	2.2	2.5	3	4	5
⊗	Z0	Z1	Z1	Z1	Z2	Z2	Z3	Z4	Z4

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

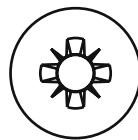
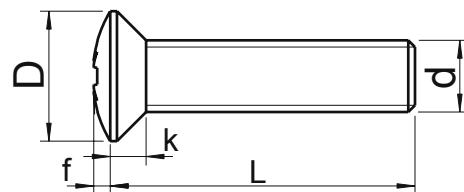
● = A4 Stainless



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

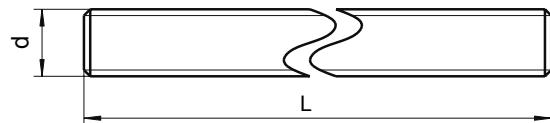


D	3.8	4.7	5.6	7.5	9.2	11
f	0.5	0.6	0.75	1	1.25	1.5
k	1.2	1.5	1.65	2.2	2.5	3
⊗	Z1	Z1	Z1	Z2	Z2	Z3

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

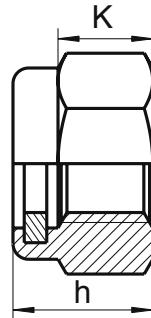
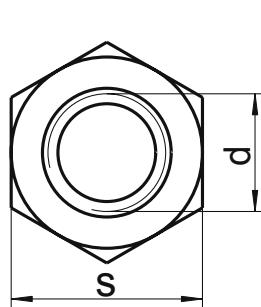
● = A4 Stainless



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	○ ●	○ ●	○ ●	○ ●	○ ●	○ ●	○ ●	○ ●	○ ●	○ ●

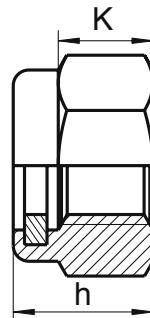
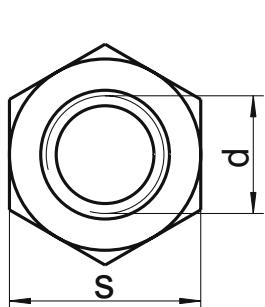
○ = A2 Stainless  
● = A4 Stainless



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

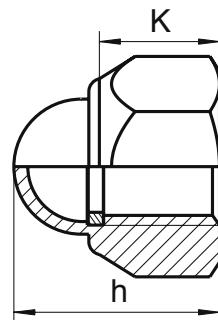
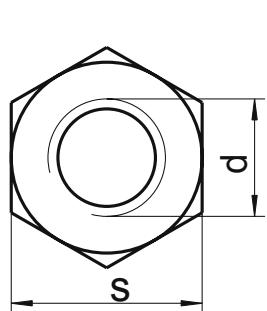
<b>grade</b>
○ ●
○ ●
○ ●
○ ●
○ ●
○ ●
○ ●
○ ●
○ ●
○ ●
○ ●

○ = A2 Stainless  
● = A4 Stainless



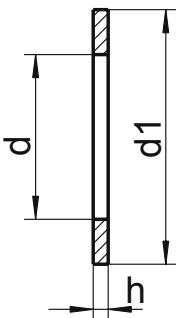
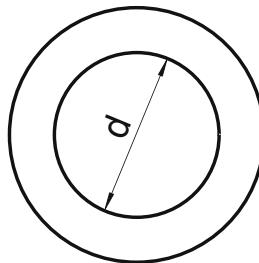
<b>d</b>	<b>K</b>	<b>h</b>	<b>s</b>	<b>•</b>	<b>grade</b>
M2.5	3.5	2.3	5	5	○ ●
M3	2.4	2.4	5.5	5.5	○ ●
M4	2.9	2.9	7	7	○ ●
M5	3.2	3.2	8	8	○ ●
M6	4	6	10	10	○ ●
M8	5.5	8	13	13	○ ●
M10	6.5	10	17	17	○ ●
M12	8	12	19	19	○ ●
M14	9.5	14	22	22	○ ●
M16	10.5	16	24	24	○ ●
M18	13	18.5	27	27	○ ●
M20	14	20	30	30	○ ●
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	○ ●

○ = A2 Stainless  
● = A4 Stainless



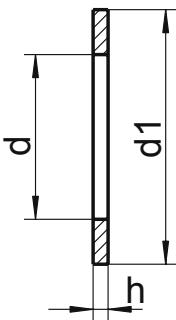
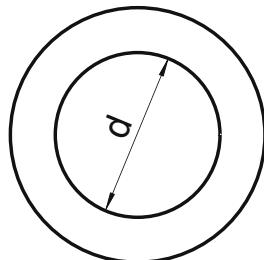
<b>d</b>	<b>K</b>	<b>h</b>	<b>s</b>	<b>•</b>	<b>grade</b>
<b>M4</b>	2.9	9.6	7	7	○
<b>M5</b>	4.4	10.5	8	8	○
<b>M6</b>	4.9	12	10	10	○
<b>M8</b>	6.44	14	13	13	○
<b>M10</b>	8.04	18.1	16	16	○
<b>M12</b>	10.37	22.5	18	18	○
<b>M14</b>	12.1	26.4	21	21	○
<b>M16</b>	14.1	27.5	24	24	○

○ = A2 Stainless  
● = A4 Stainless



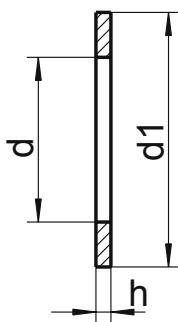
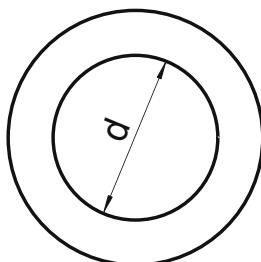
<b>d</b>	<b>d1</b>	<b>h</b>	<b>grade</b>
3	5	0.1	○
3	6	0.1	○
4	8	0.1	○
4	8	0.2	○
4	8	0.3	○
4	8	0.5	○
4	8	1	○
5	10	0.1	○
5	10	0.2	○
5	10	0.3	○
5	10	0.5	○
5	10	1	○
5	12	0.2	○
5	12	0.5	○
6	12	0.1	○
6	12	0.3	○
6	12	1	○
8	14	0.1	○
8	14	0.2	○
8	14	0.3	○
8	14	0.5	○
8	14	1	○
10	16	0.1	○
10	16	0.2	○
10	16	0.3	○
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



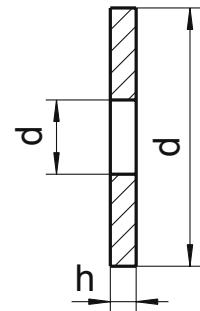
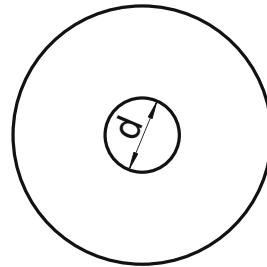
<b>d</b>	<b>d1</b>	<b>h</b>	<b>grade</b>
14	20	0.1	○
14	20	0.2	○
14	20	0.3	○
14	20	0.5	○
14	20	1	○
15	21	0.1	○
15	21	0.2	○
15	21	0.3	○
15	21	0.5	○
15	21	1	○
15	21	2	○
15	22	0.5	○
15	22	1	○
16	22	0.1	○
16	22	0.2	○
16	22	0.3	○
16	22	0.5	○
16	22	1	○
17	24	0.3	○
17	24	0.5	○
17	24	1	○
17	24	1.5	○
18	25	0.2	○
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



<b>d</b>	<b>d1</b>	<b>h</b>	<b>grade</b>
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	○

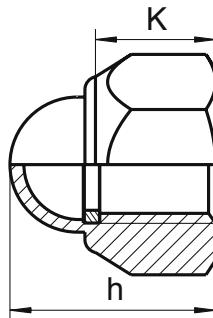
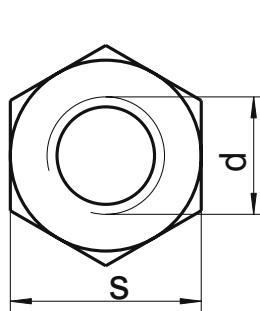
○ = A2 Stainless  
● = A4 Stainless



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

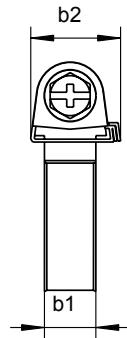
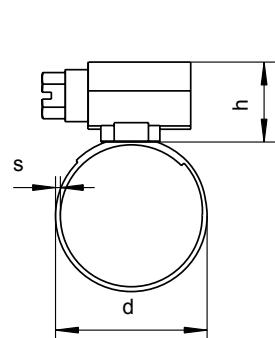
<b>grade</b>
○ ●
○ ●
○ ●
○ ●
○ ●

○ = A2 Stainless  
● = A4 Stainless



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

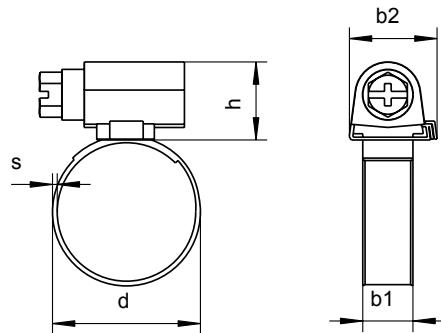
○ = A2 Stainless  
● = A4 Stainless



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

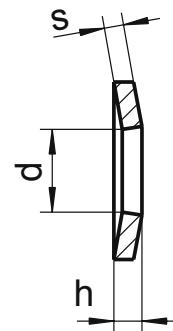
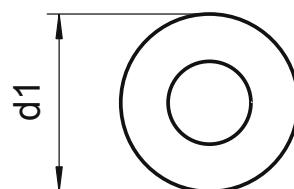
grade
○ ●
○ ●
○ ●
○ ●
○ ●
○ ●

○ = A2 Stainless  
● = A4 Stainless



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

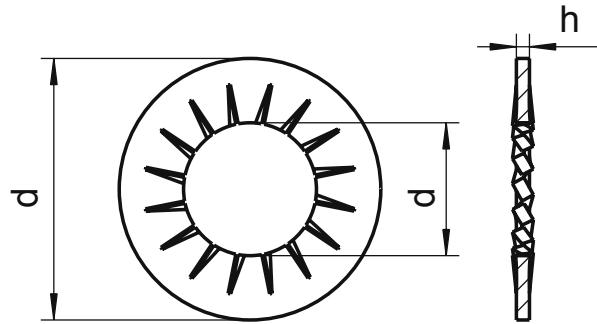
○ = A2 Stainless  
● = A4 Stainless



<b>d</b>	<b>for</b>	<b>d1</b>	<b>h min.</b>	<b>h max.</b>	<b>s</b>
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

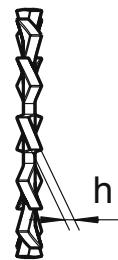
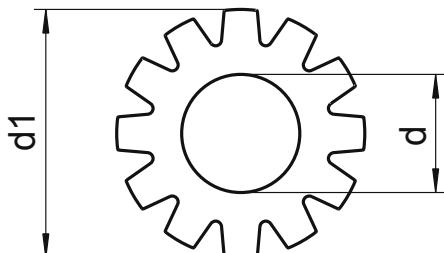
<b>grade</b>
○ ●
○ ●
○ ●
○ ●
○ ●
○ ●
○ ●
○ ●
○ ●
○ ●
○ ●
○ ●
○ ●
○ ●
○ ●
○ ●

○ = A2 Stainless  
● = A4 Stainless



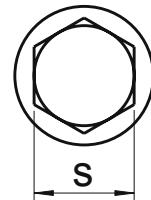
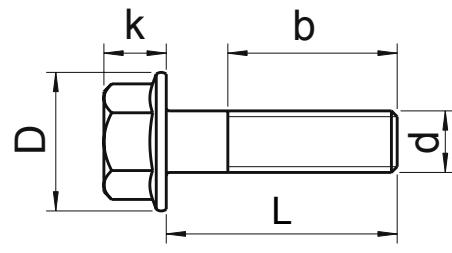
<b>d</b>	<b>for</b>	<b>d1</b>	<b>h</b>	<b>grade</b>
2.2	M2	4.5	0.3	○ ●
2.7	M2.5	5.5	0.4	○ ●
3.2	M3	6	0.4	○ ●
3.7	M3.5	7	0.4	○ ●
4.3	M4	8	0.5	○ ●
5.3	M5	10	0.5	○ ●
6.4	M6	11	0.7	○ ●
7.4	M7	12.5	0.8	○ ●
8.4	M8	15	0.8	○ ●
10.5	M10	18	0.9	○ ●
13	M12	20.5	1	○ ●
15	M14	24	1	○ ●
17	M16	26	1.2	○ ●
19	M18	30	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	○ ●

○ = 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

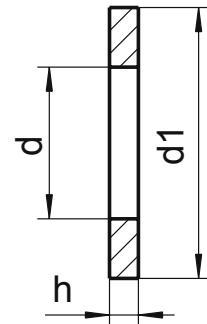
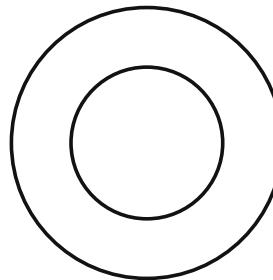
- = A2 Stainless
- = A4 Stainless



<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

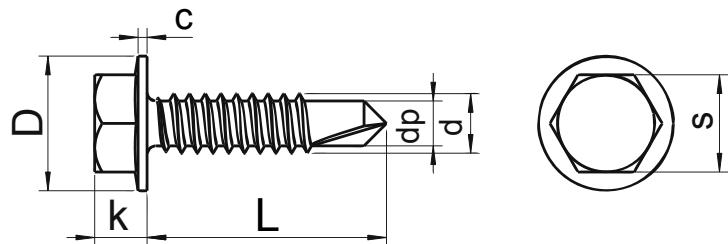
Length /d	M5	M6	M8	M10	M12	M16
10	○	○				
12	○	○				
16	○	○	○	○		
20	○	○	○	○		
25	○	○	○	○	○	
30	○	○	○	○	○	○
35	○	○	○	○	○	○
40	○	○	○	○	○	○
45		○	○	○	○	○
50		○	○	○	○	○
60		○	○	○	○	○
70						○

○ = A2 Stainless  
● = A4 Stainless



<b>d</b>	<b>for Ø</b>	<b>d1</b>	<b>h</b>	<b>grade</b>
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	○ ●

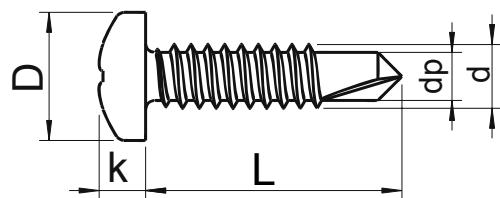
○ = A2 Stainless  
● = A4 Stainless



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")					○	

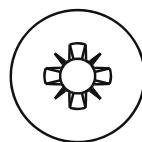
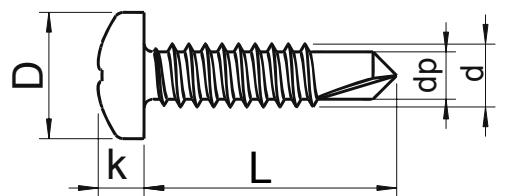
○ = A2 Stainless  
● = A4 Stainless



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")					○

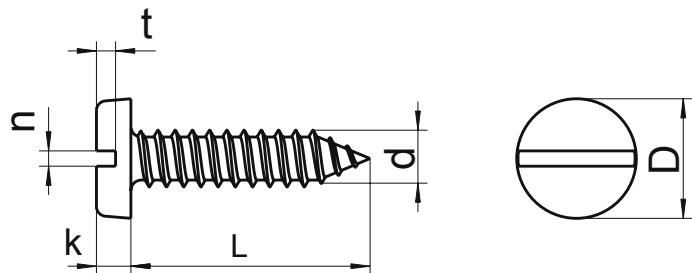
○ = A2 Stainless  
● = A4 Stainless



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")	○	○	○	○

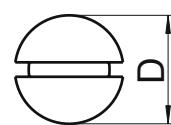
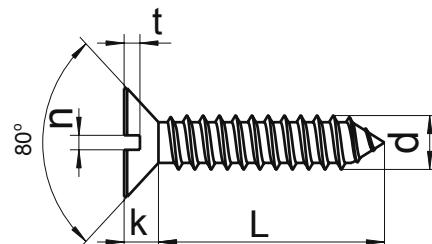
○ = A2 Stainless  
● = A4 Stainless



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
Θ	3.5X0.6	4.0X0.8	5.5X1.0	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")						○	○	○

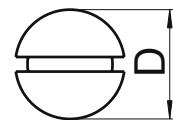
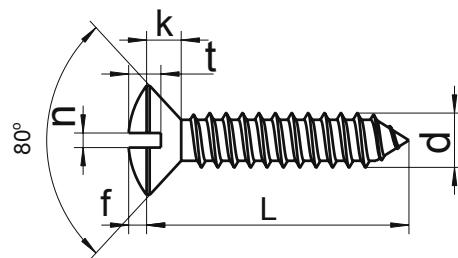
○ = A2 Stainless  
● = A4 Stainless



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
Θ	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")						○	○	○

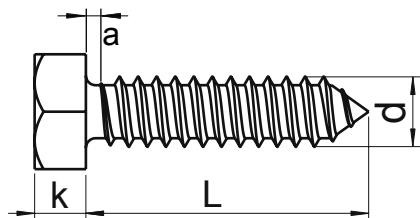
○ = A2 Stainless  
● = A4 Stainless



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
Θ	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")						○	○	○

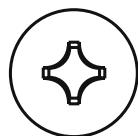
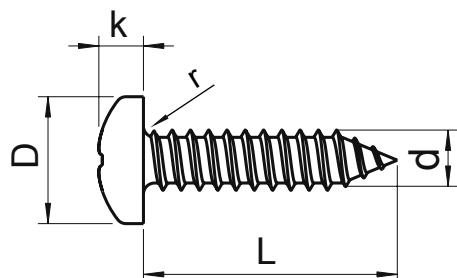
○ = A2 Stainless  
● = A4 Stainless



<b>k</b>	1.5	2.3	2.3	2.8	3	4	4.8	□ 5.8
<b>s</b>	5	5.5	7	7	8	8	10	13
<b>a</b>	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")					○	○	○	

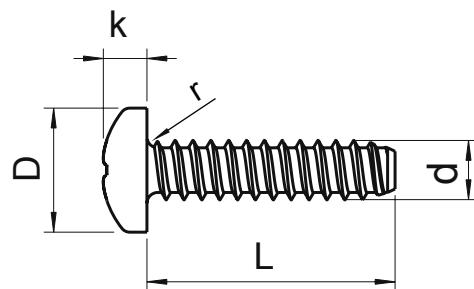
○ = A2 Stainless  
● = A4 Stainless



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")						○ ●	○ ●	○ ●

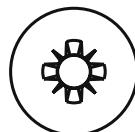
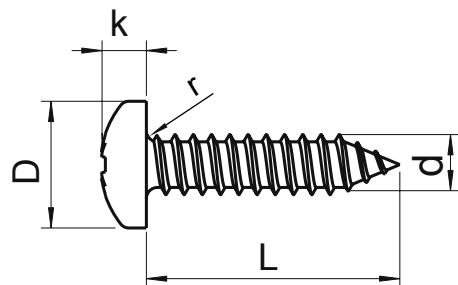
○ = A2 Stainless  
● = A4 Stainless



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

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

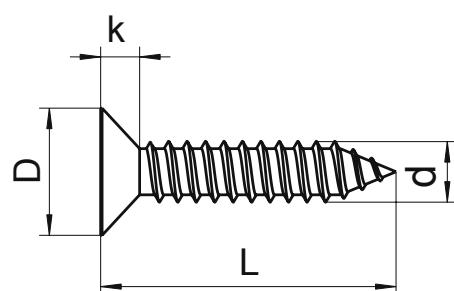
○ = A2 Stainless  
● = A4 Stainless



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")						○ ●	○ ●	○ ●

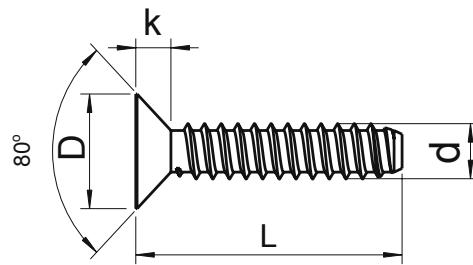
○ = A2 Stainless  
● = A4 Stainless



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")						○ ●	○ ●	○ ●

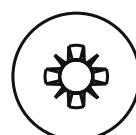
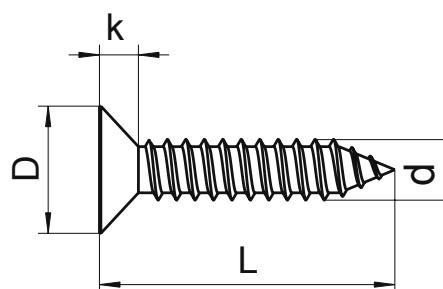
○ = A2 Stainless  
● = A4 Stainless



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")			○	○	○	○

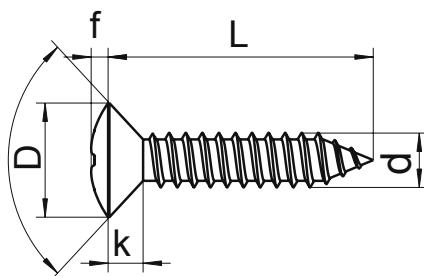
○ = A2 Stainless  
● = A4 Stainless



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

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

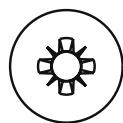
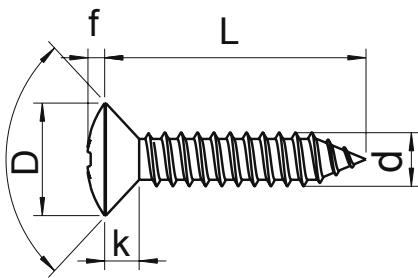
○ = A2 Stainless  
● = A4 Stainless



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")						○ ●	○ ●	○ ●

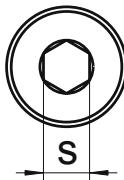
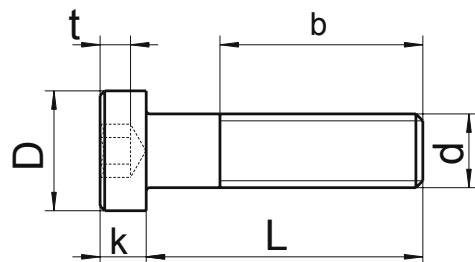
○ = A2 Stainless  
● = A4 Stainless



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

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

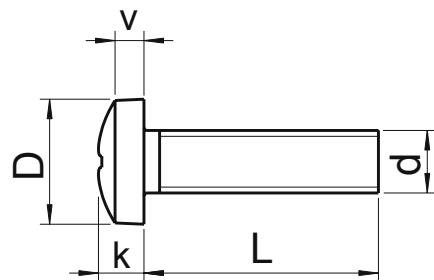
○ = A2 Stainless  
● = A4 Stainless



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								○ ●	○ ●

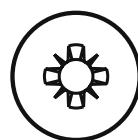
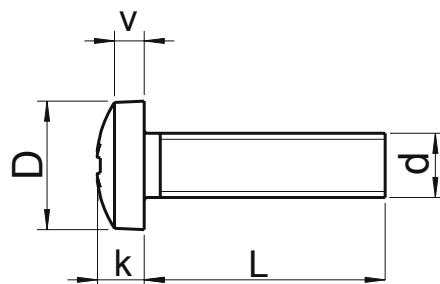
○ = A2 Stainless  
● = A4 Stainless



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					○ ●	○ ●	○ ●	○ ●

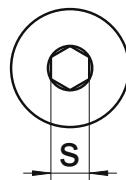
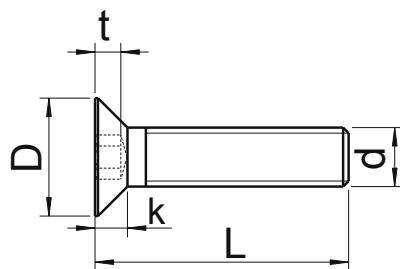
○ = A2 Stainless  
● = A4 Stainless



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

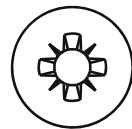
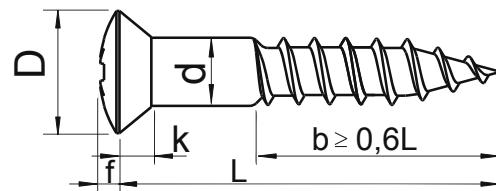


D	6	8	10	12	16	20	24	30	36	39
k	1.7	2.3	2.8	3.3	4.4	5.5	6.5	7.5	8.5	14
s	2	2.5	3	4	5	6	8	10	12	14
t	1.2	1.8	2.3	2.5	3.5	4.4	4.6	5.3	5.9	10.3
◆	2	2.5	3	4	5	6	8	10	12	14

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

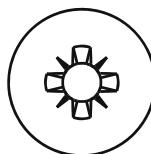
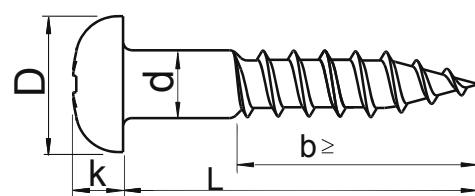
● = A4 Stainless



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				○	○	○

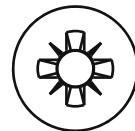
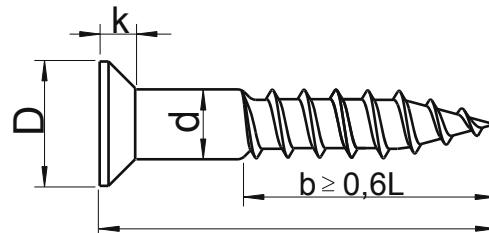
○ = A2 Stainless  
● = A4 Stainless



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					○	○

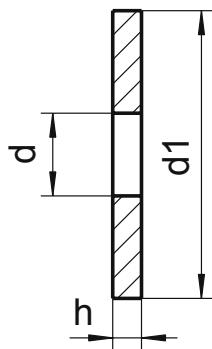
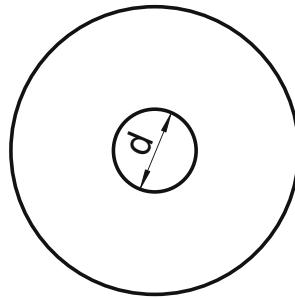
○ = A2 Stainless  
● = A4 Stainless



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

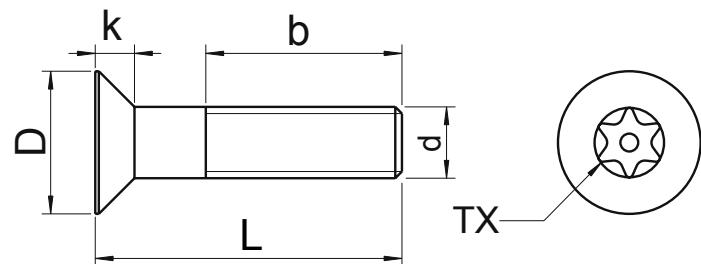
Length / d	3	3.5	4	4.5	5	6
12	○	○				
16	○	○	○			
20	○	○	○	○	○	
25	○	○	○	○	○	○
30	○	○	○	○	○	○
35	○	○	○	○	○	○
40		○	○	○	○	○
45		○	○	○	○	○
50		○	○	○	○	○
60			○	○	○	○
70			○	○	○	○
80					○	○
90					○	○
100					○	○
110					○	○
120					○	○

○ = A2 Stainless  
● = A4 Stainless



<b>d</b>	<b>for Ø</b>	<b>d1</b>	<b>h</b>	<b>grade</b>
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	○ ●

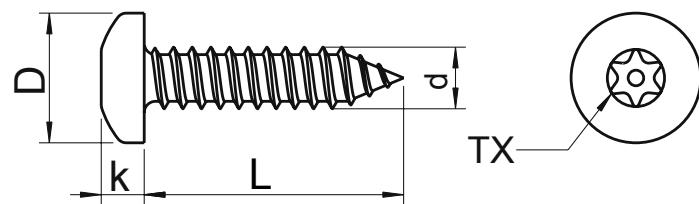
○ = A2 Stainless  
● = A4 Stainless



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		○	○

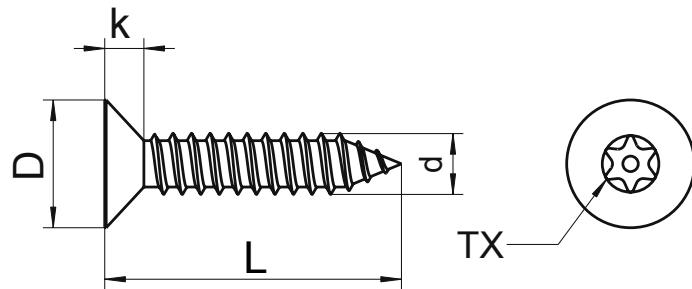
○ = A2 Stainless  
● = A4 Stainless



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		○	○

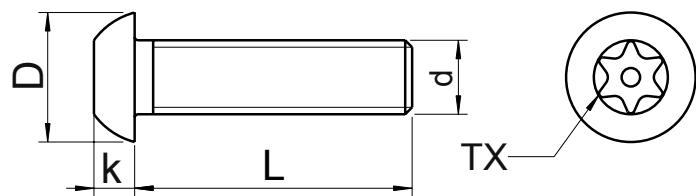
○ = A2 Stainless  
● = A4 Stainless



D	8.1	9.5
k	2.5	3
⊗	TX20	TX25

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

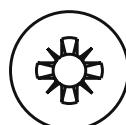
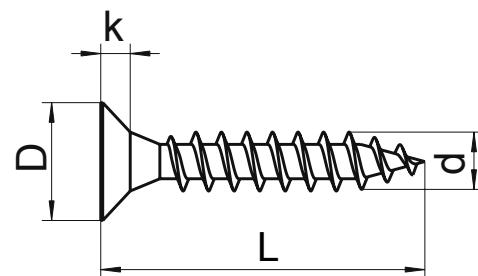
○ = A2 Stainless  
● = A4 Stainless



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		○	○	○

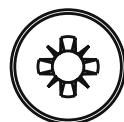
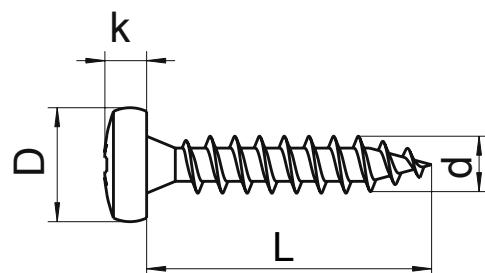
○ = A2 Stainless  
● = A4 Stainless



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
Ø	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

# WAYS TO ORDER

**Order online : [www.steelgear.co.uk](http://www.steelgear.co.uk) (full e-commerce site)**

Order on account - please call us for account application form or goto [www.steelgear.co.uk](http://www.steelgear.co.uk) and download the form on the "Trade" page

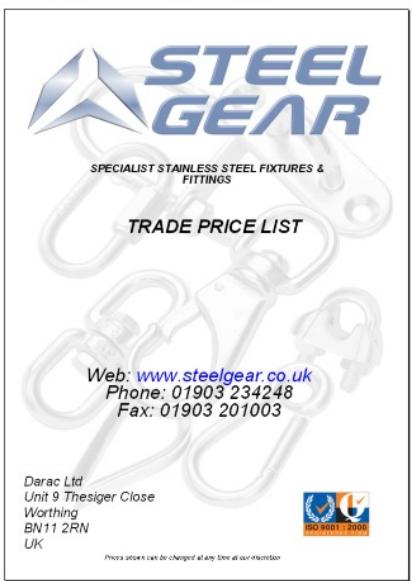


Order by phone : 0800 6906150 or 01903 331391

Order by fax : 01903 201003

Order by e-mail : [sales@steelgear.co.uk](mailto:sales@steelgear.co.uk)

**Call us for a complete price list in Excel or PDF**

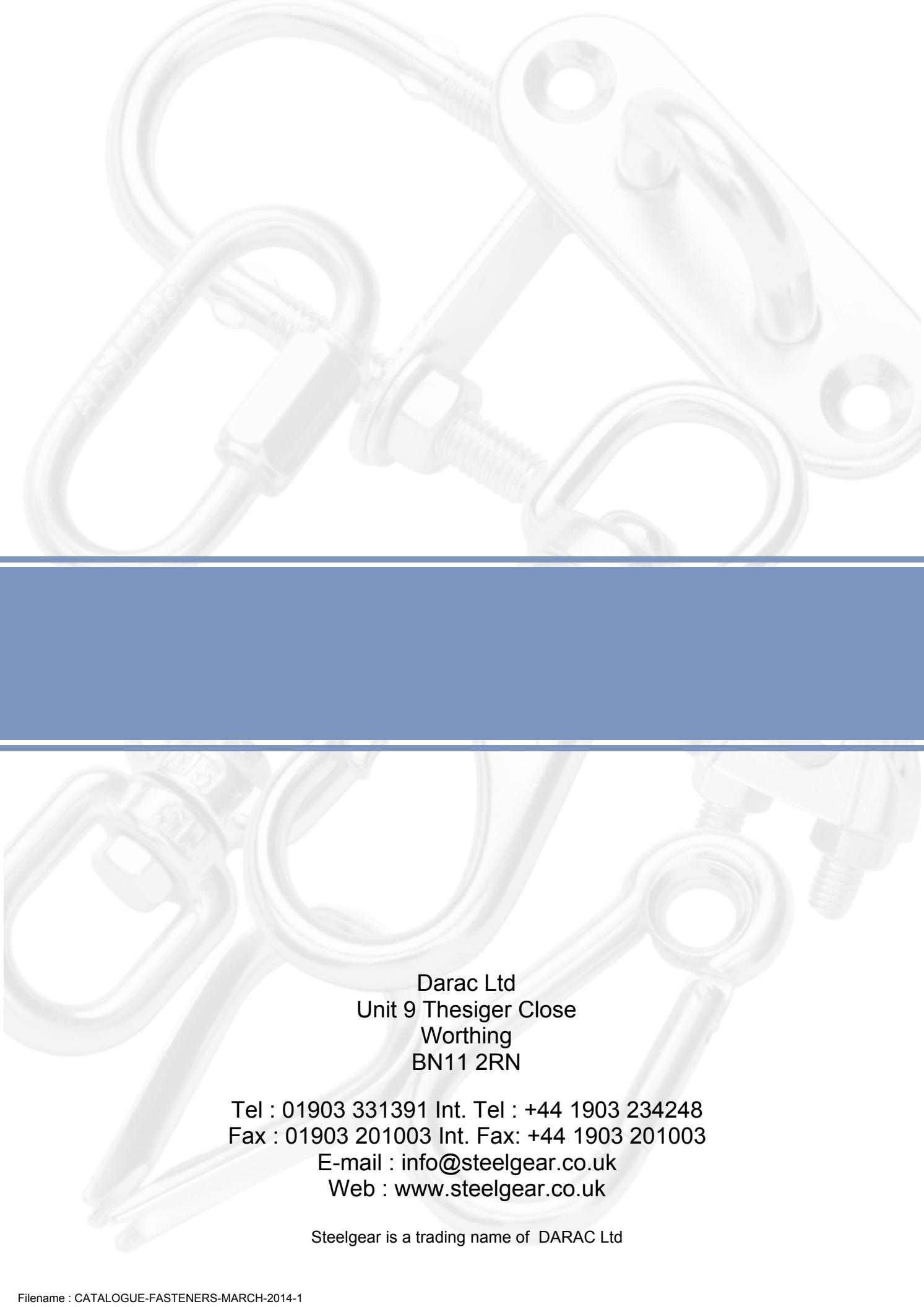


Darac Ltd  
Unit 9 Thesiger close  
Worthing  
BN11 2RN

Company reg no. 03554943

Steelgear is a trading name of DARAC Ltd





Darac Ltd  
Unit 9 Thesiger Close  
Worthing  
BN11 2RN

Tel : 01903 331391 Int. Tel : +44 1903 234248  
Fax : 01903 201003 Int. Fax: +44 1903 201003  
E-mail : [info@steelgear.co.uk](mailto:info@steelgear.co.uk)  
Web : [www.steelgear.co.uk](http://www.steelgear.co.uk)

Steelgear is a trading name of DARAC Ltd