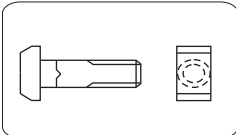
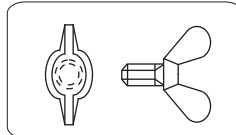


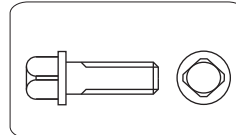
List of DIN standard



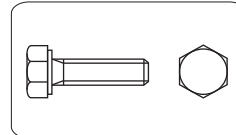
DIN: 186
Page: 1



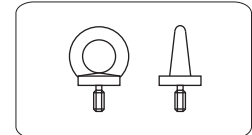
DIN: 316
Page: 2



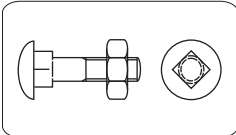
DIN: 478
Page: 3



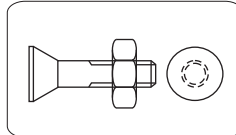
DIN: 558
Page: 4



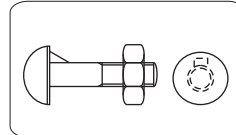
DIN: 580
Page: 5



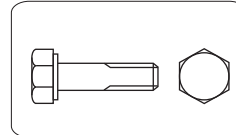
DIN: 603
Page: 6



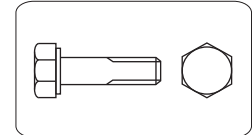
DIN: 604
Page: 7



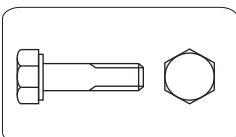
DIN: 607
Page: 8



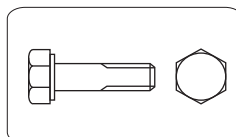
DIN: 931
Page: 9



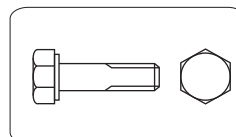
DIN: 931
Page: 10



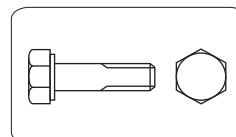
DIN: 931
Page: 11



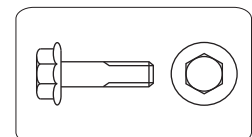
DIN: 933
Page: 12



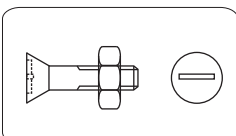
DIN: 961
Page: 13



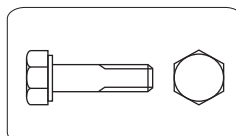
DIN: 6914
Page: 14



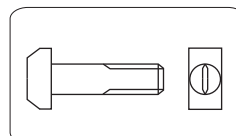
DIN: 6914
Page: 15



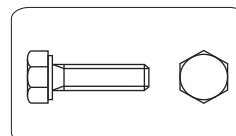
DIN: 7969
Page: 16



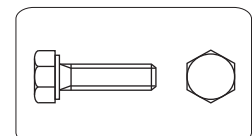
DIN: 7990
Page: 17



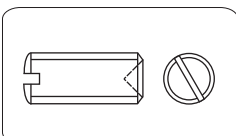
DIN: 7992
Page: 18



NMG: 101
Page: 19



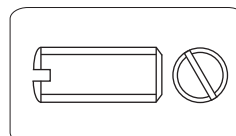
NMG: 102
Page: 20



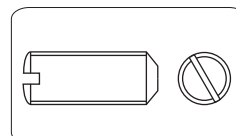
DIN: 438
Page: 21

Foundation Bolt

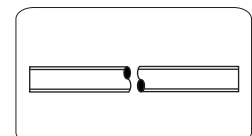
DIN: 529
Page: 22



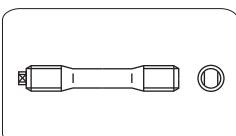
DIN: 551
Page: 23



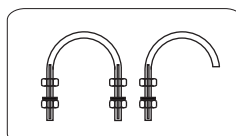
DIN: 553
Page: 24



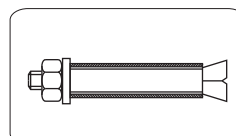
DIN: 975
Page: 25



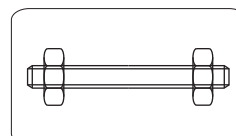
DIN: 2510
Page: 26



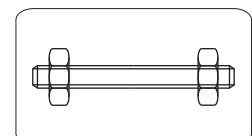
DIN: 3570
Page: 27



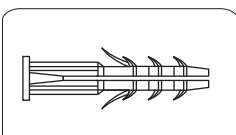
NMG: 115-116
Page: 28



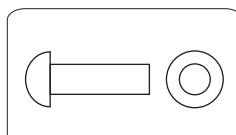
NMG: 150-151
Page: 29



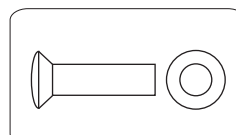
NMG: 154-155
Page: 30



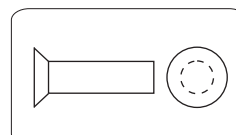
DIN: 505
Page: 31



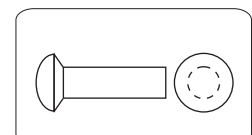
DIN: 124
Page: 32



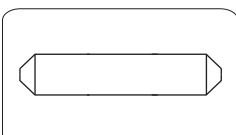
DIN: 302
Page: 33



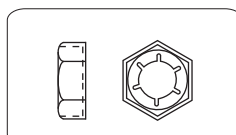
DIN: 660-661
Page: 34



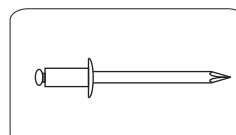
DIN: 662-647
Page: 35



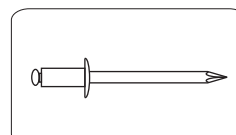
DIN: 1433
Page: 36



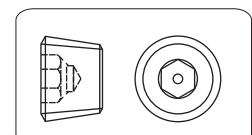
DIN: 7697
Page: 37



NMG: 351
Page: 38

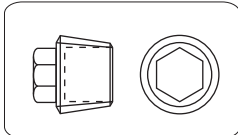


NMG: 351 to 382
Page: 39

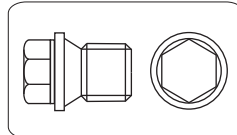


DIN: 906
Page: 40

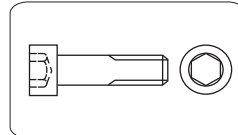
List of DIN standard



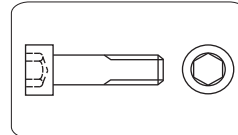
DIN: 909
Page: 41



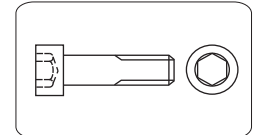
DIN: 910
Page: 42



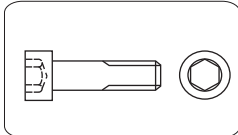
DIN: 912
Page: 43



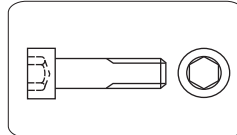
DIN: 912
Page: 44



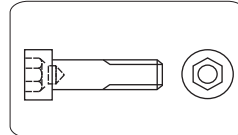
DIN: 912
Page: 45



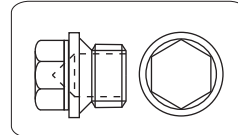
DIN: 912
Page: 46



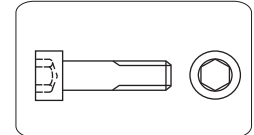
DIN: 912
Page: 47



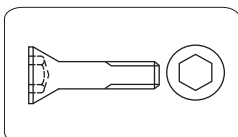
DIN: 6912
Page: 48



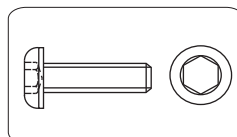
DIN: 7604
Page: 49



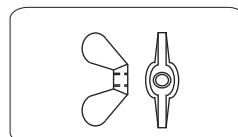
DIN: 7984
Page: 50



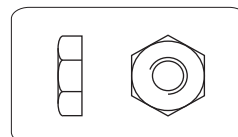
DIN: 7991
Page: 51



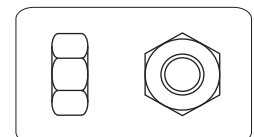
NMG: 104
Page: 52



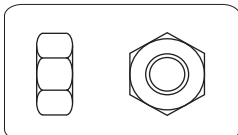
DIN: 315
Page: 53



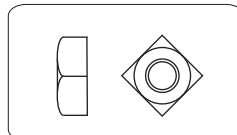
DIN: 431
Page: 54



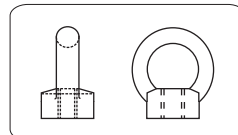
DIN: 439
Page: 55



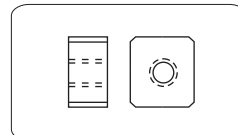
DIN: 555
Page: 56



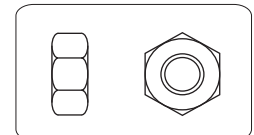
DIN: 557
Page: 57



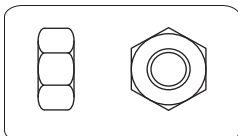
DIN: 582
Page: 58



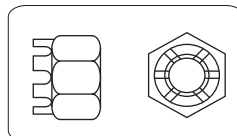
DIN: 798
Page: 59



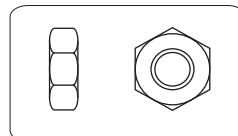
DIN: 934
Page: 60



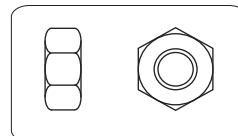
DIN: 934
Page: 61



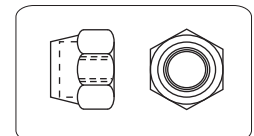
DIN: 935
Page: 62



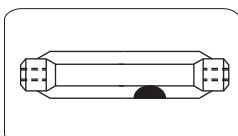
DIN: 936
Page: 63



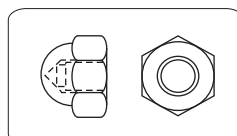
DIN: 970
Page: 64



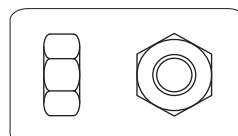
DIN: 985
Page: 65



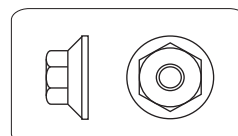
DIN: 1480
Page: 66



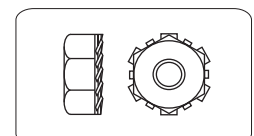
DIN: 1587
Page: 67



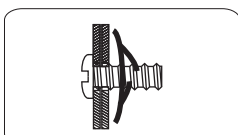
DIN: 6915
Page: 68



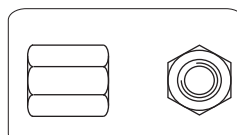
DIN: 6915
Page: 69



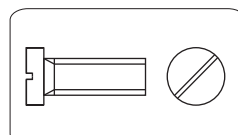
NMG: 308
Page: 70



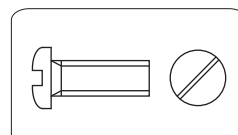
NMG: 316
Page: 71



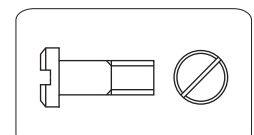
NMG: 319
Page: 72



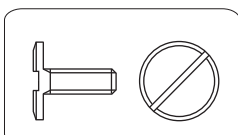
DIN: 84
Page: 73



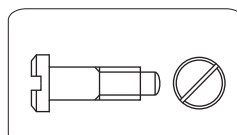
DIN: 84
Page: 74



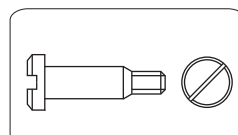
DIN: 920
Page: 75



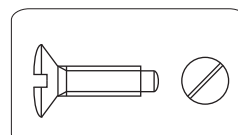
DIN: 921
Page: 76



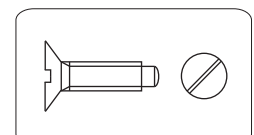
DIN: 922
Page: 77



DIN: 923
Page: 78

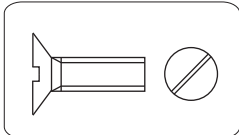


DIN: 924
Page: 79

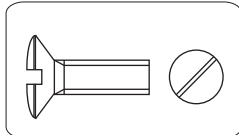


DIN: 7971-7972-7973
Page: 80

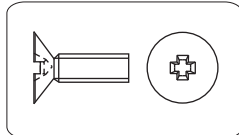
List of DIN standard



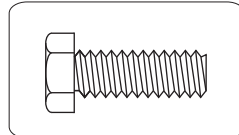
DIN: 963
Page: 81



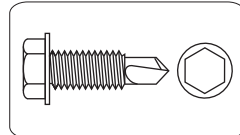
DIN: 964
Page: 82



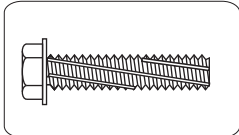
DIN: 965
Page: 83



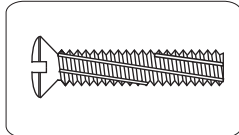
DIN: 7500
Page: 84



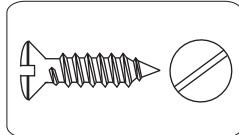
DIN: 7504
Page: 85



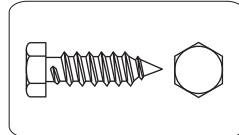
DIN: 5713
Page: 86



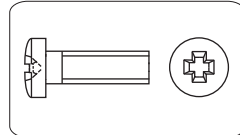
DIN: 5716
Page: 87



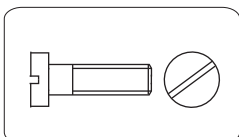
DIN: 7971-7972-7973
Page: 88



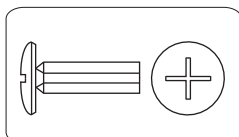
DIN: 7967
Page: 89



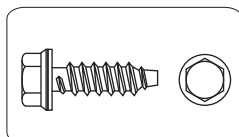
DIN: 7985
Page: 90



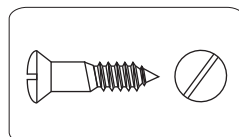
DIN: 8243-8245
Page: 91



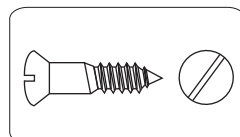
NMG: 221
Page: 92



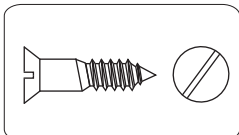
NMG: 215-225-231
Page: 93



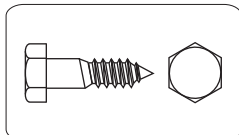
DIN: 95
Page: 94



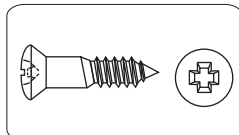
DIN: 96
Page: 95



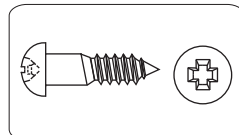
DIN: 97
Page: 96



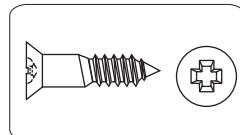
DIN: 571
Page: 97



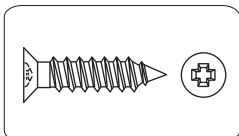
DIN: 7995
Page: 98



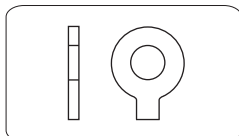
DIN: 7996
Page: 99



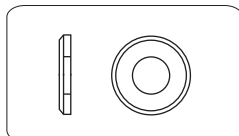
DIN: 7997
Page: 100



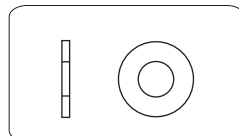
NMG: 360-361-36
Page: 101



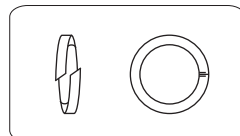
DIN: 93
Page: 102



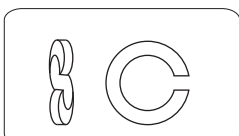
DIN: 125
Page: 103



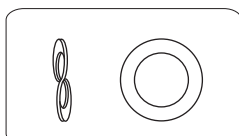
DIN: 126
Page: 104



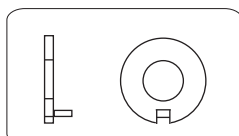
DIN: 127
Page: 105



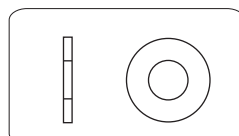
DIN: 128
Page: 106



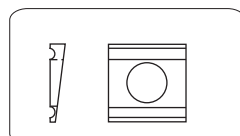
DIN: 137
Page: 107



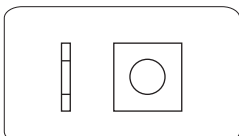
DIN: 432
Page: 108



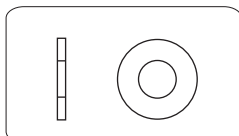
DIN: 433
Page: 109



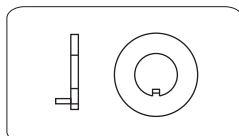
DIN: 434-435
Page: 110



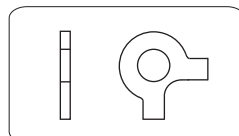
DIN: 436
Page: 111



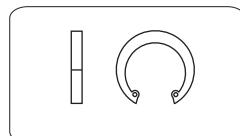
DIN: 440
Page: 112



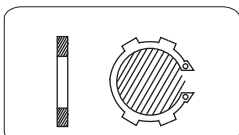
DIN: 462
Page: 113



DIN: 463
Page: 114



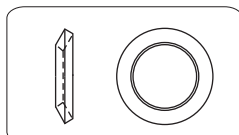
DIN: 472
Page: 115



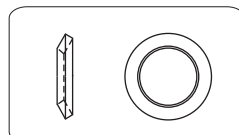
DIN: 983
Page: 116



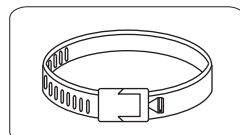
DIN: 986
Page: 117



DIN: 2093
Page: 118

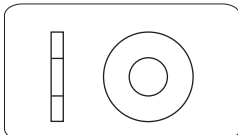


DIN: 2093
Page: 119

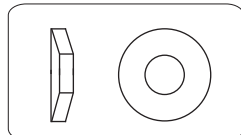


DIN: 3017
Page: 120

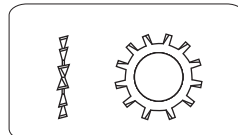
List of DIN standard



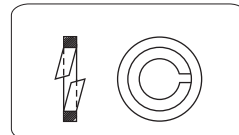
DIN: 340
Page: 121



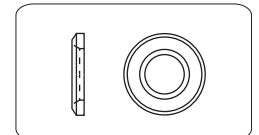
DIN: 6796
Page: 122



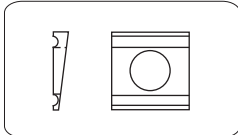
DIN: 6797
Page: 123



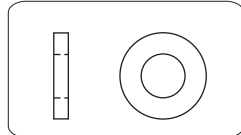
DIN: 6913
Page: 124



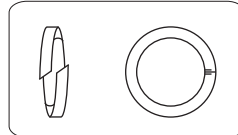
DIN: 6916
Page: 125



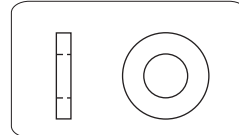
DIN: 6917-6918
Page: 126



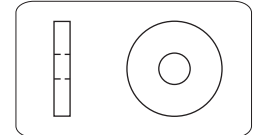
DIN: 7349
Page: 127



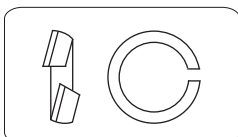
DIN: 7980
Page: 128



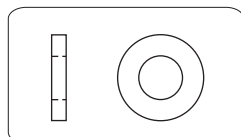
DIN: 7989
Page: 129



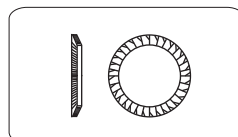
DIN: 9021
Page: 130



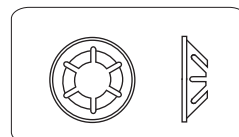
DIN: 74361
Page: 131



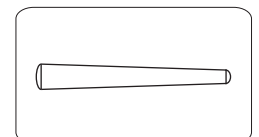
NMG: 451
Page: 132



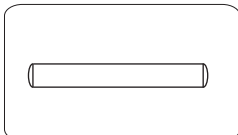
NMG: 452
Page: 133



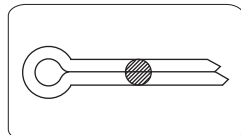
NMG: 454
Page: 134



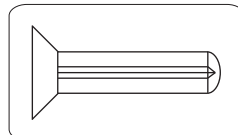
DIN: 1-A
Page: 135



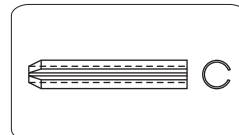
DIN: 7
Page: 136



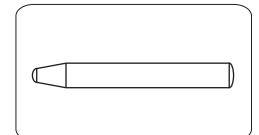
DIN: 94
Page: 137



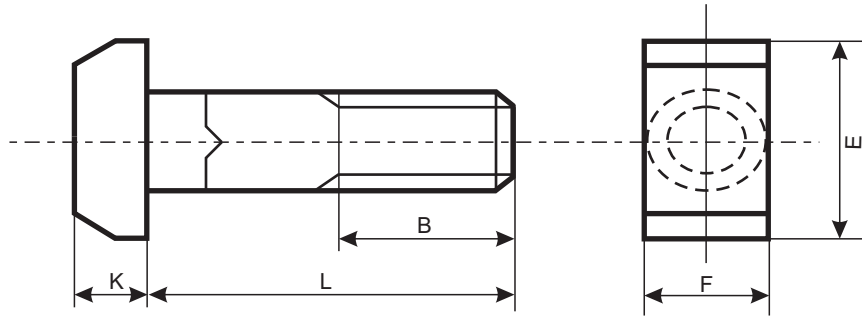
DIN: 1476-1477
Page: 138



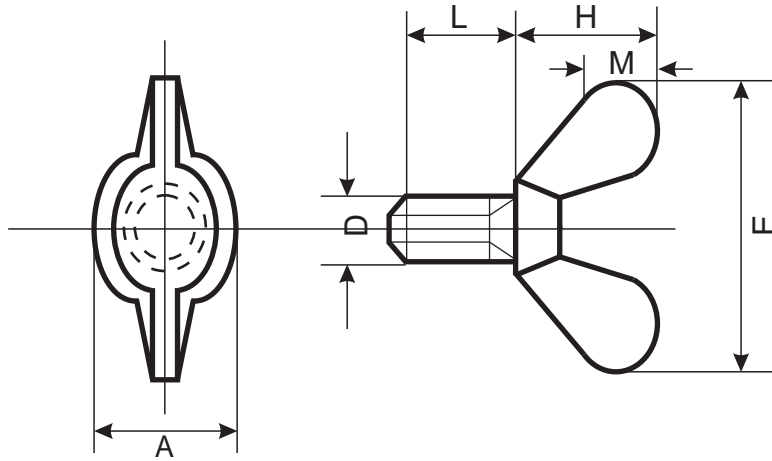
DIN: 1481
Page: 139



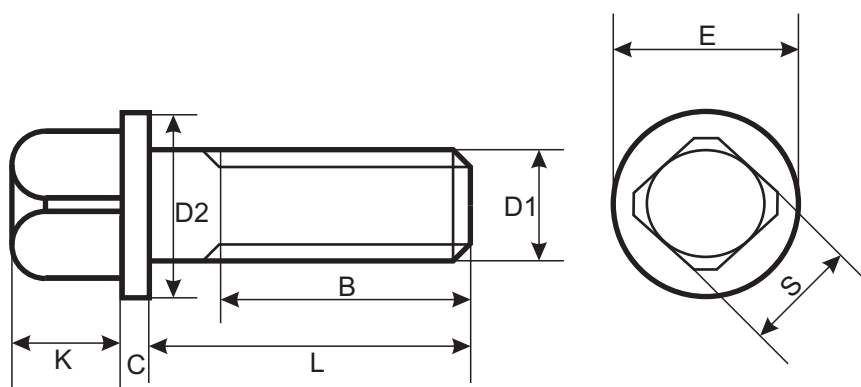
DIN: 6325
Page: 140



D	M6	M8	M10	M12	M16	M20	M24	M30	M36	M42	M48	
E	16	28	21	26	30	36	43	54	66	80	88	
F	6	8	10	12	16	20	24	30	36	42	48	
K	4.5	5.5	7	8	10.5	13	15	19	23	26	30	
B	X	18	22	26	30	38	46	54	66	78	90	102
	Y	24	28	32	36	44	52	60	72	84	96	108
L mm												
X	30	9.9	18.2	30.0								
	40	12.1	20.2	35.0	55.1							
	50	14.3	24.2	40.6	62.3	117						
	60	16.5	28.2	46.8	71.1	130	220					
	70		32.2	53.0	78.9	145	240	377				
	80		36.2	59.2	88.7	1161	262	407				
	90			65.4	97.6	177	287	437	727			
	100			71.6	106	193	302	467	773			
Y	120			124	225	351	538	874	1380			
	140				257	401	618	985	1530	2220		
	160				289	450	689	1090	1690	2420	3300	
	180					500	760	1200	1850	2640	3540	
	200					550	831	1310	2010	2860	3820	



∅	M5	M6	M8	M10	M12
A	10	12	16	20	23
E	25	32	40	50	64
H	12	16	20	25	32
M	6	8	10	12	14
L mm	Weights in kg per 1000 pieces				
10	5.74	11.4	23.7		
12	5.98	11.7	24.3		
16	6.48	12.4	25.6		82.1
20	6.94	13.2	26.8		84.9
25	7.54	14.1	28.4		88.5
30	8.14	14.7	30.0		92.0
35	8.74	15.6	31.6		95.5
40		16.5			99.1
50					106
60					113
Packing	200	100			20

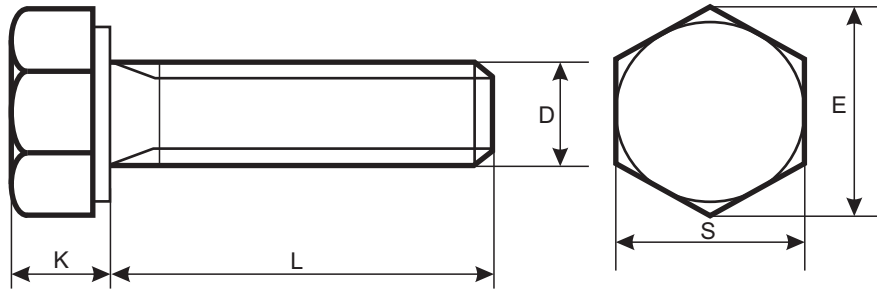


D	M5	M6	M8	M10	M12	M16	M20	M24	
D2	9.5	10.5	13.5	16.5	19.5	25	31	36	
S	5	6	8	10	13	17	22	24	
E	6.5	8	10	13	17	22	28	32	
C	2	2	2	3	3	4	5	6	
K	5	6	8	10	12	16	20	22	
B	X	FULLY THREADED							
	Y	16	18	22	26	30	38	46	54
L mm	Weights in kg per 1000 pieces								
10	3.19	4.57							
16	3.94	5.65	10.8						
20	4.60	6.35	12.1	21.9					
25	5.37	7.45	13.7	24.4	40				
30	6.74	8.55	15.7	27.5	43.5	88			
40					52.5	102	182	255	
50					61.5	118	203	285	
60					70.5	134	227	315	
70					79.5	150	252	350	
80					88.5	176	277	385	
90					97.5	192	302	420	
100						205	327	455	
110						224	352	490	
120						240	377	252	

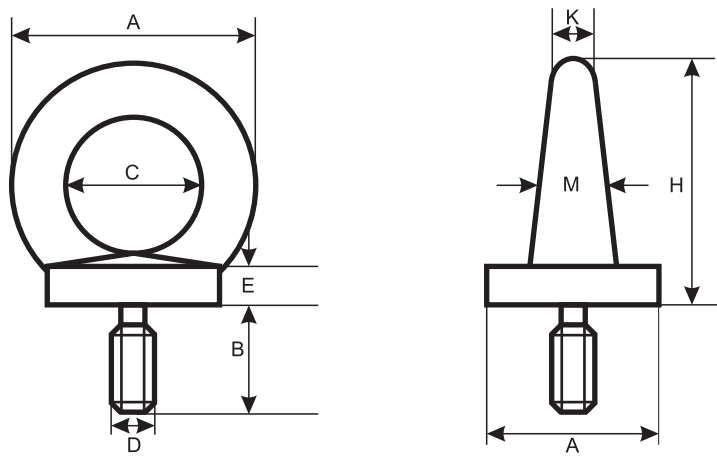
X

Y

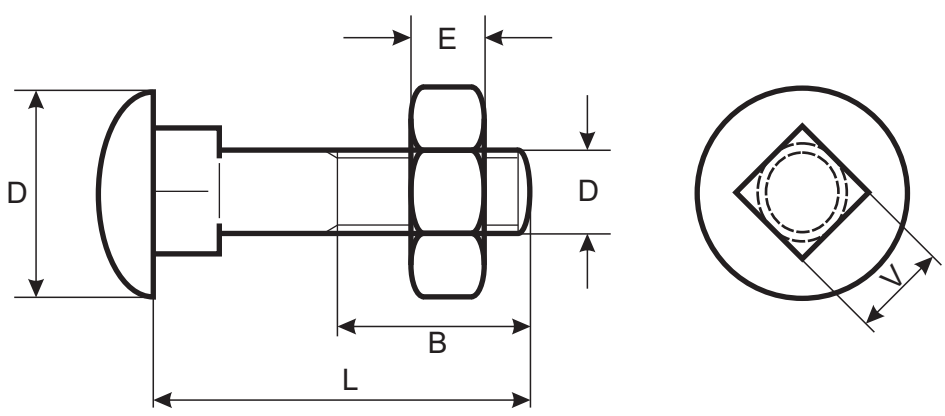




D	M5	M6	M8	M10	M12	M14	M16	M20	M24
S	8	10	13	17	19	22	24	30	36
E	8.63	10.89	14.20	18.72	20.88	23.91	26.17	32.95	39.55
K	3.5	4	5.5	7	8	9	10	13	15
L mm	Weights in kg per 1000 pieces								
10		5.11	11.1						
12		5.11	11.1	21.2					
16	3.37	5.11	11.1	21.2	30.2				
20	3.87	5.80	12.3	23.2	33.0	48.0	83.5		
25	4.49	6.65	13.9	25.7	36.6	55.0	70.2	126	
30	5.11	7.51	15.5	28.2	40.2	53.9	76.9	136	214
35	5.73	8.37	17.1	30.7	43.8	62.9	88.5	147	229
40	6.35	9.23	18.7	33.2	47.4	67.9	90.9	157	244
45	6.97	10.09	20.3	35.7	51.0	72.9	97.1	167	259
50	7.59	10.95	21.8	38.2	54.5	77.9	108	178	274
55	8.21	11.81	23.3	40.7	58.1	82.9	110	188	289
60	8.83	12.67	24.8	43.4	61.7	87.9	117	199	304
65		13.53	26.3	45.9	65.3	92.8	123	209	319
70		14.39	27.8	48.5	68.9	79.8	130	219	335
80			30.8	53.7	76.1	107	144	240	363
90			33.8	58.9	83.3	117	158	261	382
100			36.8	64.1	90.5	127	172	282	401



D	B	A	H	A1	C	E	K	M	In KG steel C15	Weights In KG Per 1000 piecec
M8	13	20	36	36	20	6	8	10	140	60
M10	17	25	45	45	25	8	10	12	230	110
M12	20.5	30	53	54	30	10	12	14	340	10
M16	27	35	62	63	35	12	14	16	700	280
M20	30	40	71	72	40	14	16	19	1200	450
M24	36	50	90	90	50	18	20	24	1800	740
M27	36	50	90	90	50	18	20	24	1800	740
M30	45	65	109	108	60	22	24	28	3600	1660
M33	45	65	109	108	60	22	24	28	3600	2650
M36	54	75	128	126	70	26	28	32	5100	2650
M39	54	75	128	126	70	26	28	32	5100	2650
M42	63	85	147	144	80	30	32	38	7000	4030
M45	63	85	147	144	80	30	32	38	7000	4030
M48	68	100	168	166	90	35	38	46	8600	6380
M52	68	100	168	168	90	35	38	46	8600	6380
M56	78	110	187	184	100	38	42	50	11500	8800
M64	90	120	208	206	110	42	48	58	16000	12400
M72	100	150	260	260	140	50	60	72	21000	23300
M80	12	170	298	296	160	55	68	80	28000	34200
M100	130	190	330	330	180	60	75	88	38000	49100

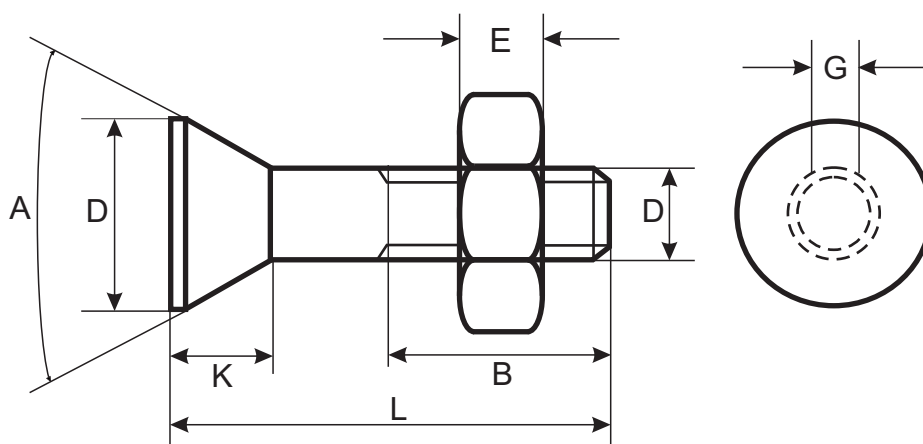


D	M5	M6	M8	M10	M12	M14
D1	13	16	20	24	30	38
K	3	3.5	4.5	5	6.5	8.5
F	3.5	4	5	6	8	12
V	5	6	8	10	12	16
M	4	5	6.5	8	10	13
B	FULLY THREADED					
	X Y Z	16 22	18 24	22 28	26 32	30 36
L mm	Weights in kg per 1000 pieces					
16	5.10	9.20				
20	5.60	9.90	18.6	33.6		
25	6.20	10.8	20.2	36.1		
30	7.00	11.9	21.8	38.6	61.6	
35	7.80	13.0	23.8	41.1	65.3	
40	8.60	14.1	25.8	43.6	69.0	
45	9.40	15.2	27.8	46.7	72.7	
50	10.2	16.3	29.8	49.8	77.1	
55	11.0	17.4	31.7	52.9		
60	11.8	18.5	33.7	56.0		
65	12.6	19.6	35.7	59.1		172
70	13.4	20.7	37.7	62.2		180
75	14.2	21.8	39.6			188
80	15.0	22.9	41.6			196
90	15.8	25.1	45.6		112	212
100		27.3	49.6		121	228
110		29.5			130	244
120		31.7			139	260
130		33.9			148	276
140		35.1			157	292
150		37.3			166	308
160				118	175	324
170				124	184	340
180				130	193	356
190				142	211	388
200				142	211	388

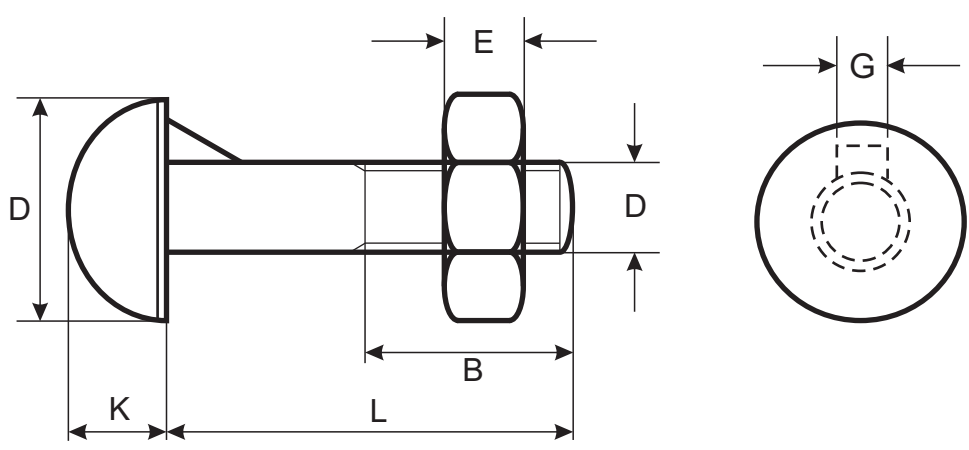
X

Y

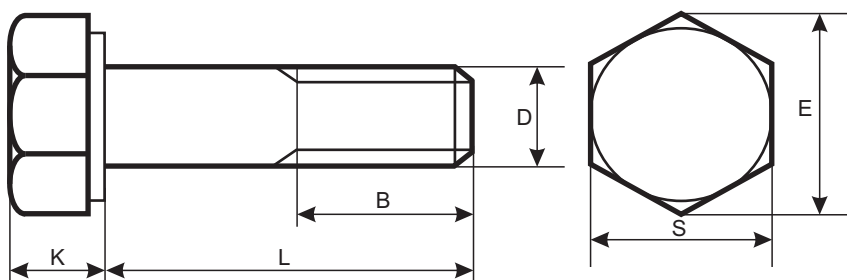
Z



D	M6	M8	M10	M12	M16	M20	M24	
D1	13	16	19	24	32	32	38	
A			90					
K	4	5	5.5	7	9	11.5	13	
M	5	6.5	8	10	13	16	19	
G	2.1	2.6	2.7	3.1	3.7	4.9	6	
	X	FULLY THREADED						
	Y	18	22	26	30	38	46	54
	Z	24	28	32	36	44	52	60
L mm	Weights in kg per 1000 pieces							
20	7.20	14.3	25.9					
25	8.20	15.9	28.4	43.6				
30	9.30	17.5	30.9	47.3				
35	10.4	19.5	33.4	51.0				
40	11.5	21.5	36.5	54.7				
415	12.6	23.5	39.6	59.1				
50	13.7	25.5	42.7	63.5		168		
55	14.8	27.5	45.8			199		
60	15.9	29.5	48.9			210	328	
65	17.0	31.5	52.0		144	221	344	
70	18.1	33.5	55.1		152	233	360	
80	20.2	37.5	61.3		168	257	394	
90	22.4	41.5	67.5	100	184	281	430	
100	24.6	45.5	73.7	109	200	305	466	
120		53.5	86.1	127	232			
140		61.52	98.5	145	264			



D	M5	M6	M8	M10	M12	M14
D1	10	12	16	19	24	30
K	4	5	6	7	9.2	11.2
l	1.8	2	2.3	2.7	3.2	3.5
G	2	2.5	3	3.2	3.6	4.2
M	4	5	6.5	8	10	13
B	FULLY THREADED					
	X 16	18	22	26	30	38
Y 22	24	38	32	36	44	
Z						
L mm	Weights in kg per 1000 pieces					
X	16	4.43	7.90			
	20	5.01	8.45	16.6		
	25	5.73	9.50	18.3	32.6	
	30	6.46	10.5	20.1	35.4	55.7
Y	35	7.18	11.6	21.9	38.2	60.3
	40	7.91	12.7	23.8	41.1	64.9
	45	8.60	13.7	25.6	44.1	69.2
	50	9.30	14.8	27.5	47.0	73.4
	55	10.0	15.8	29.4	49.8	
	60	10.7	16.8	31.3	52.7	
	65		17.8	33.2	55.6	160
	70		18.9	35.1	58.5	167
	75		19.9	37.0	61.4	174
	80		21.0	38.8	64.3	182
	90			42.4	70.2	196
	100			46.0	76.0	211
110			49.6	81.9	226	
120					241	
Z	130					257
	150					288



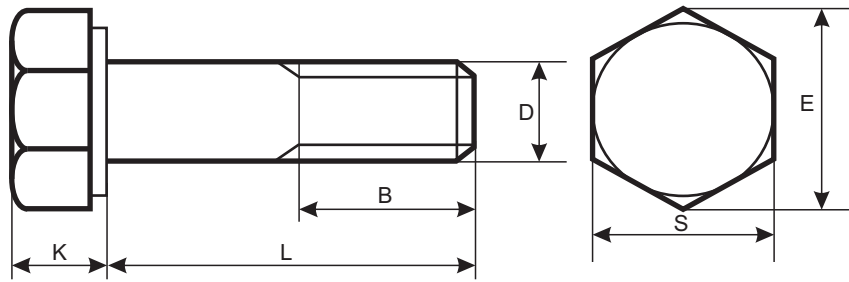
D	M4	M5	M6	M8	M10	M12	M14	M16	M18	M20	M22	M24
S	7	8	10	13	17	19	22	24	27	30	32	36
E	7.74	8.87	11.05	14.38	18.90	21.10	24.49	26.75	30.14	33.14	35.72	39.98
K	2.8	3.5	4	5.5	7	8	9	10	12	13	14	15
B	FULLY THREADED											
	X 14	16	18	22	26	30	34	38	42	46	50	54
Y -	22	24	28	32	36	40	44	48	52	56	60	Z 60
L mm	Weights in kg per 1000 pieces											
8												
10												
12												
16												
20												
25	3.12											
30		5.64	8.06									
35		6.42	9.13	18.2								
40		7.20	10.2	20.7	35.0							
45		7.98	11.3	22.2	38.0	53.6						
50		8.76	12.3	24.2	41.1	58.1	82.2					
55		9.54	13.4	25.8	43.8	62.6	88.3	115				
60		10.3	14.4	29.8	46.9	67.0	94.3	123	161			
65		11.1	15.5	29.8	50.0	70.3	100	131	171	219		
70		11.9	16.5	31.8	53.1	74.7	106	139	181	231	281	
75		12.7	17.6	33.7	56.2	79.1	112	147	191	243	296	264
80		13.5	18.6	35.7	62.3	83.6	118	155	201	255	311	382
90			20.8	39.6	68.5	92.4	128	171	220	279	341	428
100				43.6	77.7	100	140	186	240	303	370	464
110				47.5	83.9	109	152	202	260	327	400	500
120					90.0	118	165	218	280	351	430	535
130					96.2	127	175	230	295	365	450	560
140					102	136	187	246	315	389	480	595
150					108	145	199	262	335	423	510	630

X

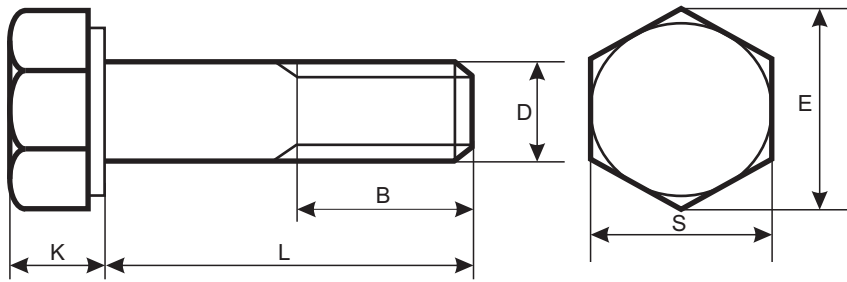
Y

Z





D	M27	M30	M33	M36	M39	M42	M45	M48	
S	41	46	50	55	60	65	70	75	
E	45.63	51.28	55.80	61.31	66.96	72.61	78.26	83.91	
K	17	19	21	23	25	26	28	30	
B	X	60	66	72	78	84	90	96	102
	Y	66	72	78	84	90	96	102	108
	Z	79	85	91	97	103	109	115	121
L mm	Weights in kg per 1000 pieces								
X	80	511							
	90	557	712						
	100	603	767	951					
	110	650	823	1020	1250	1510			
Y	120	695	880	1090	1330	1590	1900	2260	
	130	720	920	1150	1400	1650	1980	2350	
	140	765	975	1220	1480	1740	2090	2480	
	150	810	1030	1290	1560	1830	2200	2600	
	160	855	1090	1350	1640	1930	2310	2730	
	180	945	1200	1480	1900	2120	2520	2980	
	200	1030	1310	1610	2060	2310	2740	3220	
Z	220	1130	1420	1750	2220	2500	2960	3470	
	240		1530	1880	2380	2700	3180	3720	
	260		1640	2020	2540	2900	3400	3970	
	280		1750	2160	2700	3100	3620	4220	
	300		1860	2300	2860	3300	3840	4470	
									5130

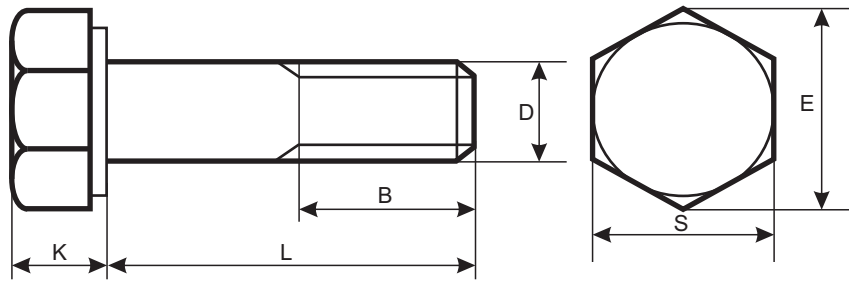


D	M12	M14	M16	M18	M20	M22	M24	
S	19	22	24	27	30	32	36	
E	21.10	24.49	26.75	30.14	33.53	35.72	39.98	
K	8	9	10	12	13	14	15	
B	X	36	40	44	48	52	56	60
	Y	49	53	57	61	65	69	73
L mm	Weights in kg per 1000 pieces							
160	153	211	278	355	447	540	665	
170	162	223	294	375	470	570	700	
180	171	235	310	395	495	600	735	
190	180	247	326	415	520	630	770	
200	189	260	342	435	545	660	805	
210	198	273	358	455	570	690	870	
220	207	286	374	475	590	720	870	
230			390	495	615	750	905	
240			406	515	640	780	940	
250			422	535	665	810	975	
260			438	555	690	840	1010	
280						900	1080	
300						960	1150	
320						1020	1270	
340						1080	1340	
350						1110	1375	
360						1140	1410	

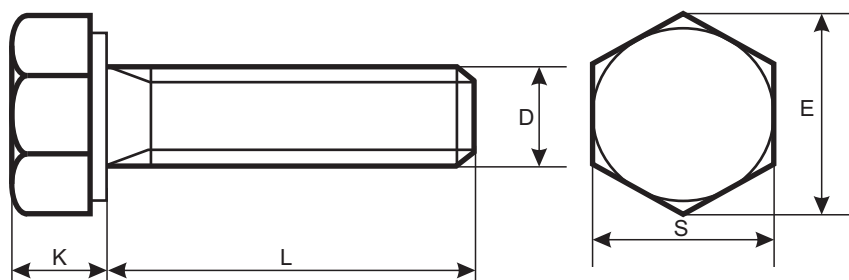
X

Y

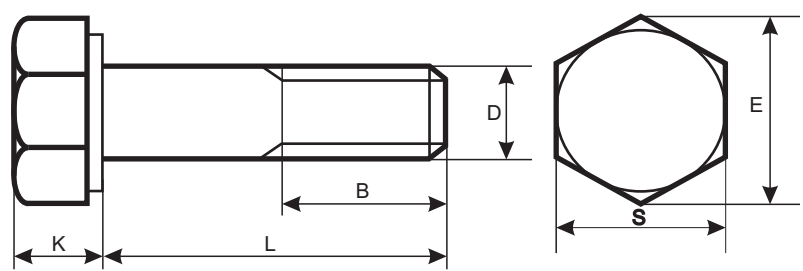




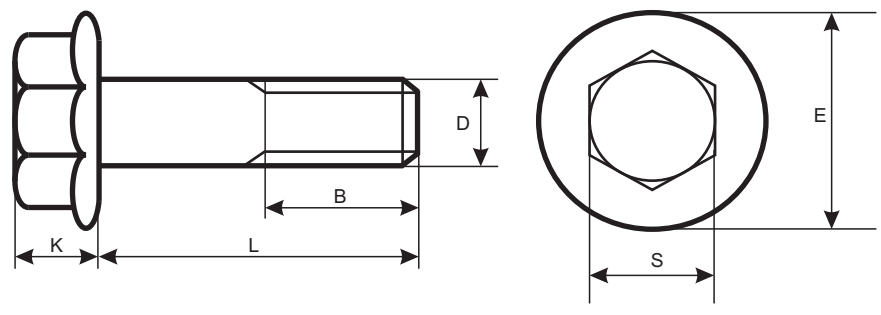
D	M4	M5	M6	M8	M10	M12	M14	M16	M18	M20	M22	M24
S	7	8	10	13	17	19	22	24	27	30	32	36
E	7.74	8.87	11.05	14.38	18.90	21.10	24.49	26.75	30.14	33.14	35.72	39.98
K	2.8	3.5	4	5.5	7	8	9	10	12	13	14	15
L mm	Weights in kg per 1000 pieces											
8	1.49	2.38	3.74	8.55	17.2							
10	1.64	2.63	4.08	9.10	18.2	25.8	38.0					
12	1.80	2.87	4.42	9.80	19.2	27.4	40.0	52.9				
16	2.10	3.37	5.31	11.1	21.2	30.2	44.0	58.3	82.7	107	133	173
20	2.41	3.87	5.80	12.3	23.2	33.0	48.0	63.5	87.9	116	143	184
25	2.80	4.49	6.65	13.9	25.7	36.6	53.0	70.2	96.5	126	155	199
30	3.19	5.11	7.51	15.5	28.2	40.2	57.9	76.9	105	136	168	214
35	3.57	5.73	8.37	17.1	30.7	43.8	62.9	83.5	113	147	181	229
40	3.96	6.35	9.23	18.7	33.2	47.4	67.9	90.2	121	157	193	244
45	3.34	6.99	10.1	20.3	35.7	51.0	72.9	97.1	129	167	206	259
50	4.73	7.59	11.0	21.8	38.2	54.5	77.9	103	137	178	219	274
55	5.12	8.21	11.9	23.4	40.7	58.1	82.9	110	146	188	232	289
60	5.50	8.83	12.7	25.0	43.3	61.7	87.8	117	154	199	244	304
65	5.89	9.45	13.6	26.6	45.8	65.3	92.8	123	162	209	257	319
70	6.28	10.1	14.4	28.2	48.8	68.9	97.8	130	170	219	269	334
75		10.7	15.3	29.8	50.8	72.5	102	137	178	229	282	348
80		11.3	16.2	31.4	53.3	76.1	107	144	187	240	295	363
90			17.9	34.6	58.3	83.3	117	157	203	260	321	393
100				37.7	63.3	90.5	127	170	219	281	346	423
110				40.9	68.4	97.7	137	184	236	302	371	453
120					73.4	105	147	197	252	322	397	483
130					78.4	112	157	210	269	343	421	513
140					83.4	119	167	224	285	364	448	543
150					88.4	126	177	237	301	384	473	572



D	M8	M10	M12	M14	M16	M18	M20
PITCH	X 1	X 1.25	X 1.25	X 1.5	X 1.5	X 1.5	X 1.5
S	13	17	19	22	24	27	30
E	14.38	18.90	21.10	24.49	26.75	30.14	33.53
K	5.5	7	8	9	10	12	13
L mm	Weights in kg per 1000 pieces						
16	11.1	21.3					
20	12.4	23.5	32.9	48.7	64.5		
25	14.1	26.2	36.6	54	71.5		
30	15.7	28.9	40.3	59.1	78.5	107	
35		31.6	44	64.4	85.3	116	
40		34.3	47.7	69.6	92.3	124	162
50		39.6	55	80.2	106	142	184
60							207

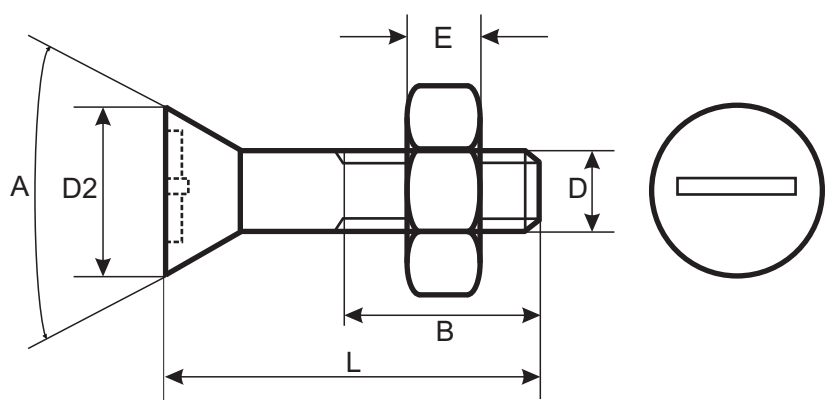


D	M12	M16	M20	M22	M24	M27	M30	
S	22	27	32	36	41	46	50	
E	23.91	29.56	35.03	39.55	45.20	50.85	55.37	
K	8	10	13	14	15	17	19	
B	X	21	26	31	32	34	37	40
	Y	23	28	33	34	37	39	42
L mm	Weights in kg per 1000 pieces							
X	30	42						
	35	52						
	40	56	105					
	45	59	113	180				
	50	64	121	194	249			
	55	68	129	207	264			
	60	72	137	219	279	353		
	65	77	145	232	294	371		
	70	81	153	244	309	389	519	
	75	86	157	257	324	407	542	695
80	90	165	269	339	425	564	723	
85	95	173	282	354	443	587	751	
Y	90	99	181	288	363	449	609	779
	95	104	189	301	378	467	632	807
	100		197	313	393	485	645	832
	105		205	326	408	503	666	860
	110		213	338	423	521	687	888
	115		221	351	438	539	708	916
	120		229	363	453	557	729	944
	125		237	376	468	575	750	972
	130		245	388	483	593	771	1000
	135			400	498	611	792	1028
140			413	513	629	813	1055	
145			425	528	647	834	1083	
150			438	543	665	855	1110	
155			450	558	683	876	1138	
160				573	700	897	1166	
165				588	718	918	1194	
170					736	939	1222	
175					754	960	1256	
180					772	981	1284	
190					808	1020	1340	
200						1060	1396	

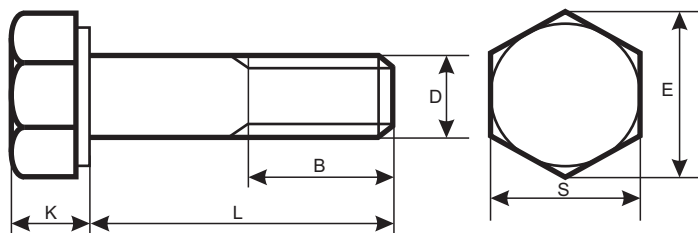


D	M5	M6	M8	M10	M12	M14	M16	M20	
S	7	10	13	15	16	18	21	27	
E	8.71	10.95	14.26	16.50	17.62	19.86	23.15	29.87	
K	5.4	6.6	8.1	9.2	11.5	12.8	14.4	17.1	
B	X	16	18	22	26	30	34	38	46
	Y	-	-	28	32	36	40	44	52
L mm		Weights in kg per 1000 pieces							
16									
20									
25									
30									
35									
40									
45									
50									
60									
70									
80									
90									
100									
110									
120									
130									
140									
150									
160									

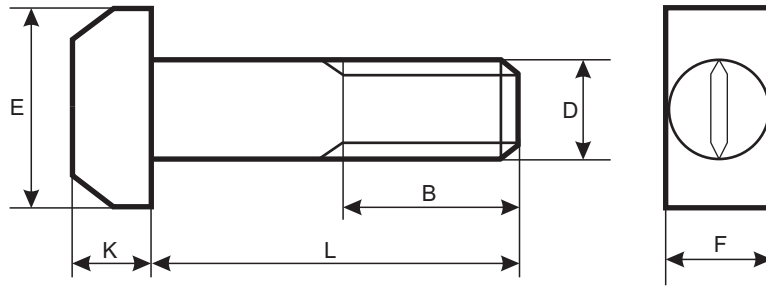
X
X



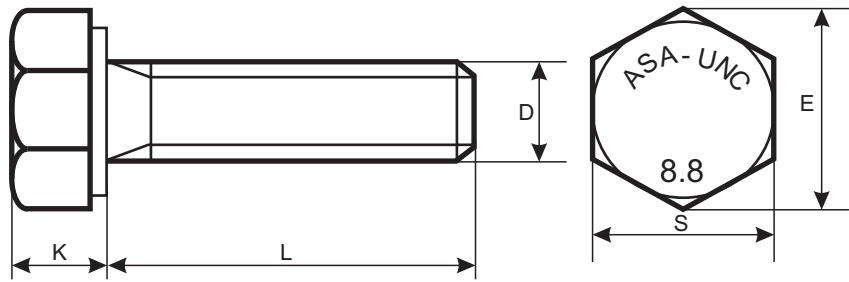
D	M10	M12	M16	M20	M22	M24	
A	75	75	75	60	60	60	
D2	17	21	28	32	35	38	
K	5.5	7	9	11.5	12	13	
M	8	10	13	16	18	19	
B	X	20	22	28	32	35	38
	Y	25	28	35	40	45	50
L mm	Weights in kg per 1000 pieces						
20	25.4						
25	27.8	43					
30	30.2	46.6	91.9				
35	33.5	50.1	98.3				
40	36.4	54.8	105				
45	39.4	59	113				
50	42.3	63.2	120	189			
60	47.9	71.6	135	215	260	332	
70	53.8	77.2	151	239	290	366	
80	56.9	87.6	166	262	320	401	
90	65.5	96.1	179	283	345	427	
100	71.4	105	195	307	375	462	
110	77.2	113	210	331	405	495	
120	83.1	122	225	355	435	531	
130	89	130	240	379	465	566	
140	94.8	139	255	403	495	600	
150	101	147	271	427	525	634	
160	107	155	266	450	555	669	



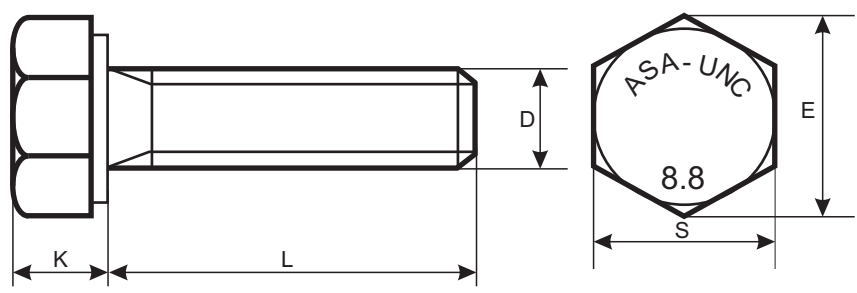
D	M12	M16	M20	M24	M27	M30
S	19	24	30	36	41	46
E	20.88	26.17	32.95	39.55	45.20	50.86
K	8	10	13	15	17	19
M	10	13	16	19	22	24
B	19.5	23	26	29.5	32.5	35
L mm	Weights in kg per 1000 pieces					
30	57.5					
35	62.0	117				
40	66.4	125	222			
45	70.8	133	234	369		
50	75.3	141	247	387		
55	79.6	149	259	405		
60	84.2	157	272	423	585	
65	88.6	164	284	440	607	
70	93.0	172	296	458	630	
75	97.5	180	309	476	652	
80	102	188	321	494	675	899
85	107	196	3334	514	697	917
90	111	204	348	529	720	945
95	116	212	358	547	742	972
100	120	220	371	565	765	1000
110	129	236	395	600	810	1060
120	138	252	420	638	855	1110
130	147	267	445	671	900	1170
140		283	489	707	945	1220
150		299	494	742	990	1280
160		315	519	778	1030	1340



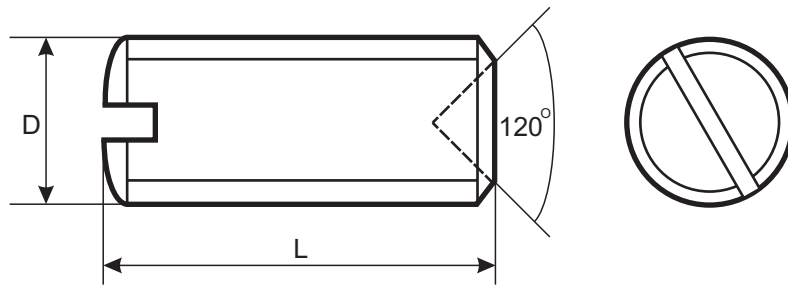
D	M24	M30	M35	M42	M48	M58	M64
E	65	75	85	95	110	125	140
K	18	22	25	30	35	40	50
F	24	30	36	42	48	56	64
B	100	120	140	170	200	220	240
Weights in kg per 1000 pieces							
Weight of the head only (e x k x f)	205	360	555	850	1340	2000	3210
Weight of each 20 mm of the body length	71	111	160	218	284	386	506



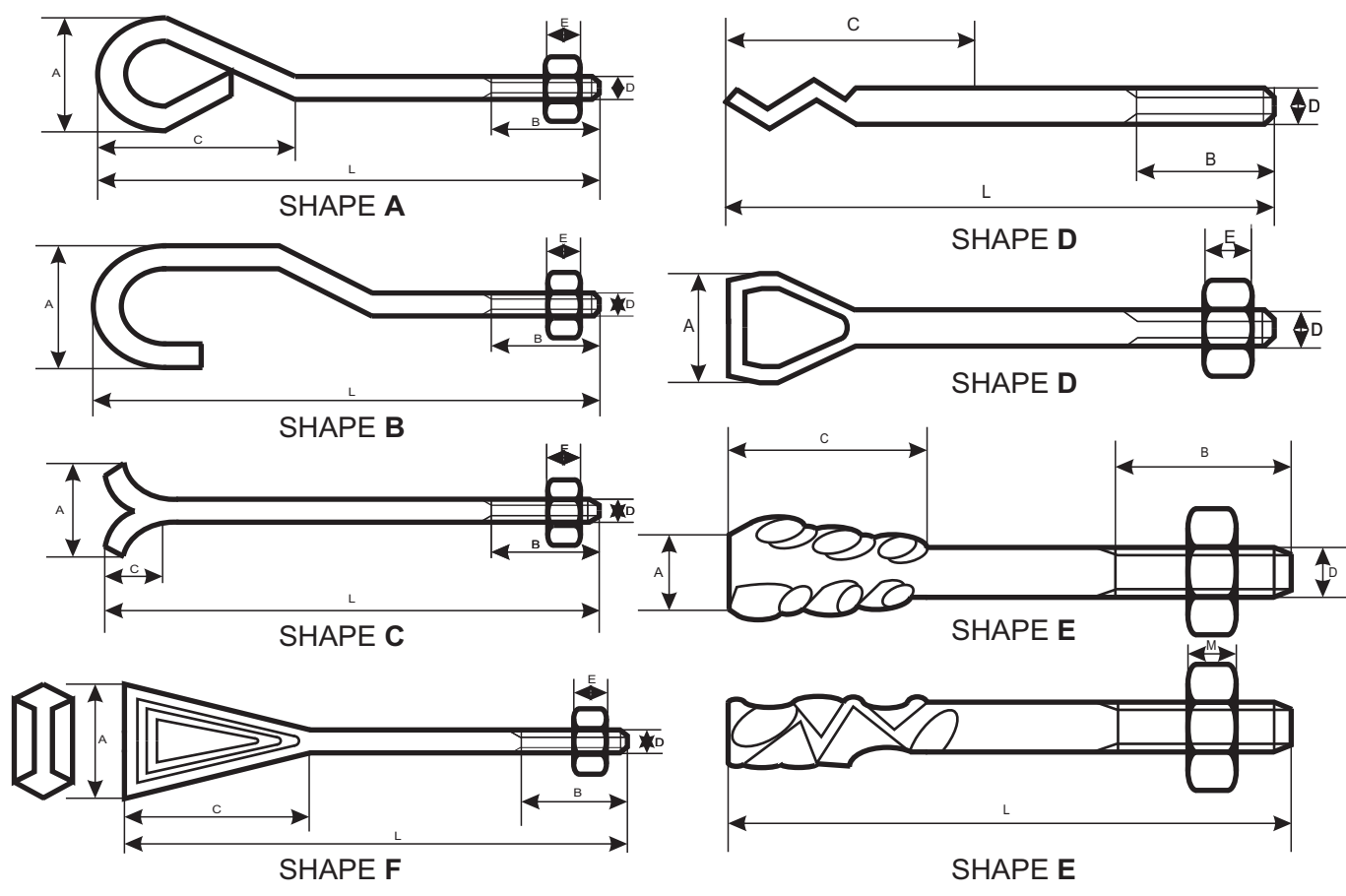
D	1/4	5/16	3/8	7/16	1/2	9/16	5/8	3/4	7/8	1	
THREADS PER "	20	18	16	14	13	12	11	16	9	8	
S	"	7/16	1/2	9/16	5/8	3/4	13/16	15/16	1 1/8	1 5/16	1 1/2
	MM	11.11	12.7	14.29	15.88	19.05	20.64	23.81	28.58	28.58	38.10
E	12.8	14.7	16.5	18.3	22	23.83	27.5	33	38.5	44	
K	4.0	5.2	6.0	7.1	7.9	9.1	9.9	11.9	13.9	15.5	
B	X	FULLY THREADED									
	Y	19	22	25	28	32	35	38	44	51	57
L mm	Weights in kg per 1000 pieces										
1/2	5.4	9	13								
5/8	6.0	10	15								
3/4	6.5	11	16	23	37						
7/8	7.1	12	18	25	40						
1	7.9	13	19	27	42	51	69				
1 1/4	9.4	15	22	31	47	57	77				
1 1/2	11.0	18	26	36	53	64	85	140			
1 3/4	13.0	20	29	40	59	72	94	150			
2	14.0	23	33	45	65	60	100	160	230	320	
2 1/4	16.0	25	36	50	71	68	110	170	250	340	
2 1/2	17.0	28	40	55	77	96	120	190	270	360	
2 3/4	19.0	30	43	60	84	100	130	200	290	380	
3	20.0	32	47	64	90	110	140	220	310	410	
3 1/4		35	50	69	96	120	150	230	330	430	
3 1/2		37	54	74	100	130	160	240	350	460	
3 3/4		40	57	79	110	140	170	260	370	480	
4		42	61	84	120	150	180	270	380	510	
4 1/2		47	68	93	130	160	200	300	420	560	
5		52	75	100	140	180	220	330	460	610	
5 1/2		57	82	110	150	190	240	360	500	660	
6		62	85	120	170	210	260	390	540	710	



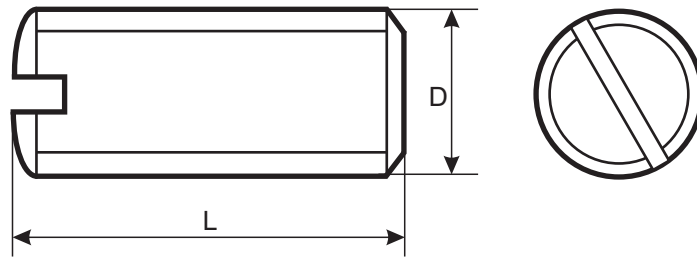
D	1/4	5/16	3/8	7/16	1/2	9/16	5/8	3/4	7/8	1	
THREADS PER "	28	24	24	20	20	18	18	16	9	12	
S	"	7/16	1/2	9/16	5/8	3/4	13/16	16/16	1 1/2	1 5/16	1 1/2
	MM	11.11	12.7	14.29	15.88	19.05	20.64	23.81	38.10	28.58	38.10
E	12.8	14.7	16.5	18.3	22	23.8	27.5	44	38.5	44	
K	4.0	5.2	6.0	7.1	7.9	9.1	9.9	15.5	13.9	15.5	
B	X	FULLY THREADED									
	Y	19	22	25	28	32	35	38	44	51	57
L mm	Weights in kg per 1000 pieces										
1/2	5.6	9.3	14								
5/8	6.0	10.0	15								
3/4	6.9	11.0	17	24	38						
7/8	7.1	12.0	18	25	40						
1	8.3	13	20	28	44	58	72				
1 1/4	9.9	16	23	32	49	60	80				
1 1/2	11.0	18	27	37	55	67	89	140			
1 3/4	13.0	21	30	42	61	75	98	150			
2	15.0	23	34	47	67	83	110	170	240	330	
2 1/4	16.0	26	37	51	74	91	120	180	260	355	
2 1/2	18.0	28	41	56	80	99	130	190	280	380	
2 3/4	19.0	31	44	61	86	110	140	210	300	405	
3	21.0	33	48	66	92	120	150	220	320	430	
3 1/4		35	51	71	96	120	160	240	340	455	
3 1/2		38	55	75	110	130	170	250	360	480	
3 3/4		40	58	80	110	140	180	270	375	505	
4		43	62	85	120	150	190	280	390	530	
4 1/2					130		210	310	430	570	
5					140		230	340	470	630	
5 1/2					160		250	360	510	680	
6					170		260	390	550	730	



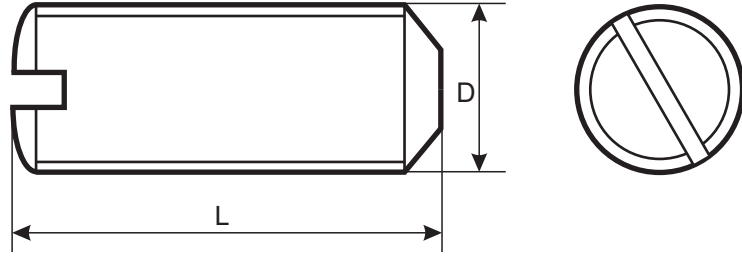
D	M3	M4	M5	M6	M8	M10
L mm	Weights in kg per 1000 pieces					
3	1.1					
4	1.5	2.5				
5	1.9	3.3	5.1			
6	2.3	4.1	6.3	8.7		
8	3.2	5.6	8.8	12.2	22	
10	4.1	7.1	11.3	15.7	29	40
12		8.6	13.8	19.2	36	50
16			18.8	26.2	50	70
20				33.2	64	90
25					82	115
30						140



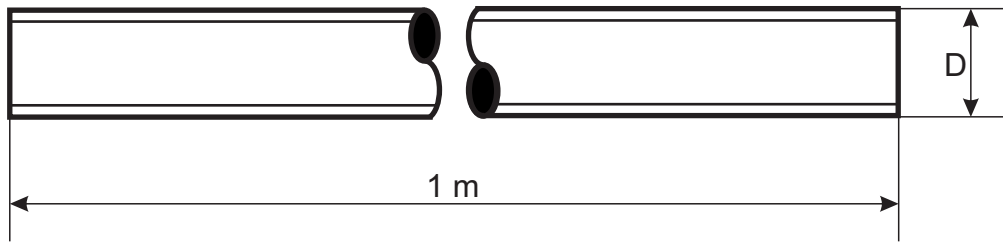
D		M8	M10	M12	M16	M20	M24	M30	M36	M42	M48	M56	M64	M72 X 6
A	SHAPE A	24	30	36	48	60	75	95	115	135	155	180	200	240
	SHAPE B	-	-	-	48	60	75	95	115	135	155	180	200	240
	SHAPE C	24	30	36	48	60	75	95	115	135	155	180	200	240
	SHAPE D	16	20	24	32	40	48	-	-	-	-	-	-	-
	SHAPE E	16	20	24	32	40	48	60	72	85	98	-	-	-
	SHAPE F	14	16	20	25	30	35	45	55	65	75	-	-	-
C	SHAPE A	45	55	65	85	105	125	155	190	220	250	290	335	370
	SHAPE C	12	15	18	24	30	36	45	54	63	72	84	96	110
	SHAPE D	24	30	36	48	60	72	-	-	-	-	-	-	-
	SHAPE E	45	55	70	90	100	135	150	180	260	260	-	-	-
	SHAPE F	50	50	55	85	95	120	130	190	200	220	-	-	-
M		6.5	8	10	13	16	19	24	29	34	38	45	51	58
B		20	25	30	40	50	65	75	90	105	120	140	160	180



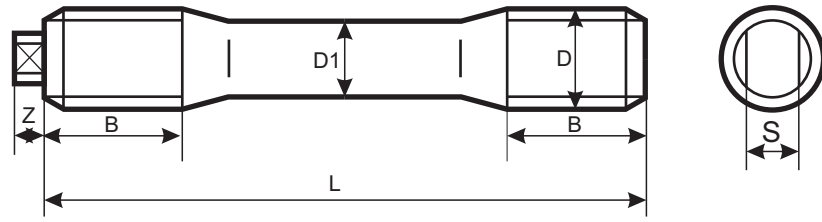
D	M2	M2.5	M3	M4	M5	M6	M8	M10
L mm	Weights in kg per 1000 pieces							
3	0.48	0.75	1.1					
4	0.67	1.1	1.5	2.6	4			
5	0.86	1.4	2	3.4	5.2	7.2		
6	1	1.7	2.4	4.1	6.5	9	16	
8	1.4	2.3	3.3	5.7	9	12.5	23	
10			4.2	7.2	11.5	16	30	42
12				8.7	14	19.5	37	52
16					19	26.5	51	72
20						33.5	65	92
25							83	117
30								142



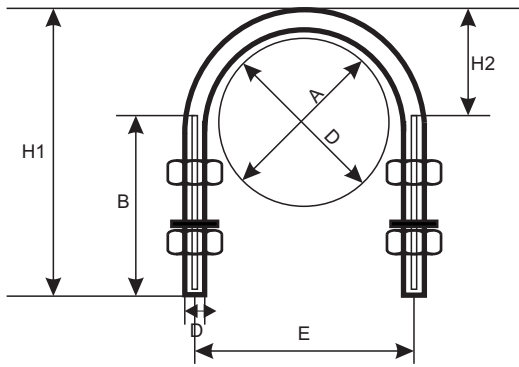
D	M2	M2.5	M3	M4	M5	M6	M8	M10
L mm	Weights in kg per 1000 pieces							
3	0.45	0.70						
4	0.65	1	1.30					
5	0.85	1.30	1.70					
6	1.11	1.60	2.10	3.60				
8	1.40	2.20	2.90	5.10	7.70	10.40		
10		2.80	3.70	6.70	10.20	14.40	26.50	
12			4.50	8.20	12.70	1.40	32.50	46
16				11.20	17.60	26.40	44.50	66
20					22.50	34.40	56.50	86
25							71.50	111
30								136
35								161



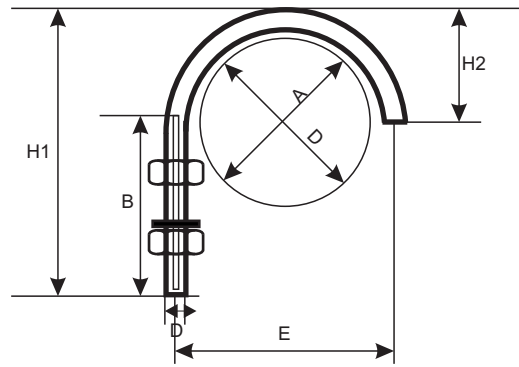
D	WEIGHTS IN KG PER 1000 M	PACKING
M3	44	20
M4	78	
M5	124	
M6	177	
M7	250	
M8	319	
M10	500	5
M12	725	
M14	970	
M16	1330	
M18	1650	
M20	2080	
M22	2450	
M24	3000	
M27	3850	
M30	4750	
M33	5900	
M36	6900	
M39	8200	
M42	9400	



D	M12	M16	M20	M24	M27	M30	M33	M36	M39	M42	M45	M48
D1	8.5	12	15	18	20.5	23	25.5	27.5	30.5	32.5	35.5	37.5
D2	8	12	14	14	18	18	25	25	28	28	32	32
B	0	23	28	32	35	39	33	36	39	42	45	48
S	7	10	11	11	13	13	22	22	24	24	27	27
Z	4	5	6	6	6	6	9	9	10	10	11	11
L mm	Weights in kg per 1000 pieces											
60	40											
70	44	85										
80	49	96	159									
90	53	105	173									
100	58	114	187									
110		123	201									
120		131	215	317								
130			229	337	449							
140			243	357	457	594						
150			257	377	501	627	792					
160			276	397	527	659	832					
170			285	417	553	692	872					
180			299	437	579	725	912	1180				
190				457	605	757	952	1220	1380			
200				477	631	790	992	1270	1440	1670		
210					857	822	1030	1320	1500	1740	2070	
220					683	854	1070	1360	1550	1800	2140	
230					709	886	1110	1410	1610	1870	2220	
240					735	919	1115	1440	1670	1930	2300	2670
250						952	1119	1500	1730	2000	2380	2750

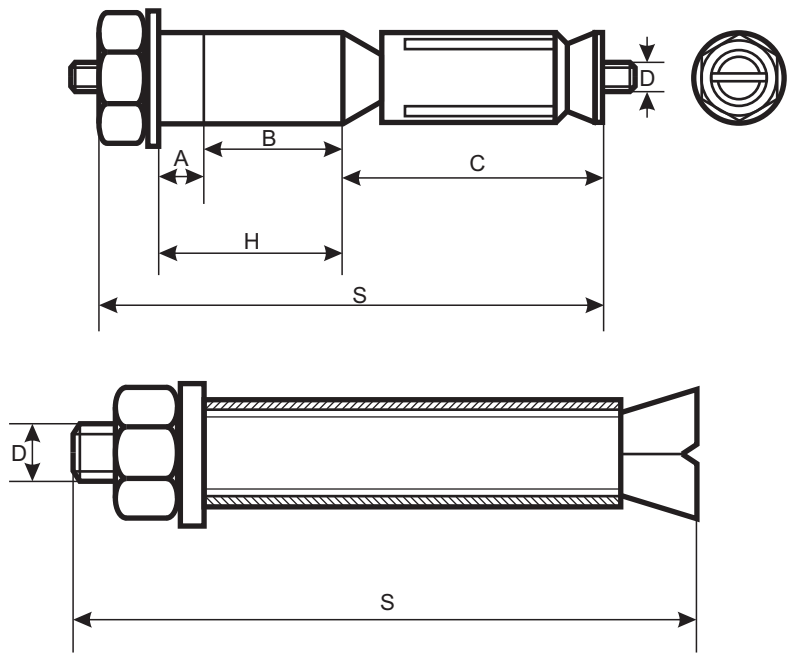


Form A

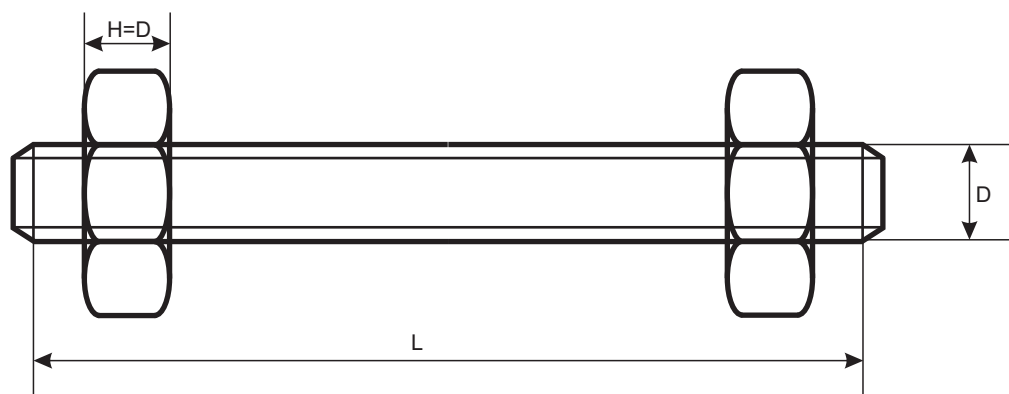


Form B
for tubes to nominal \varnothing
3" of 80 mm.

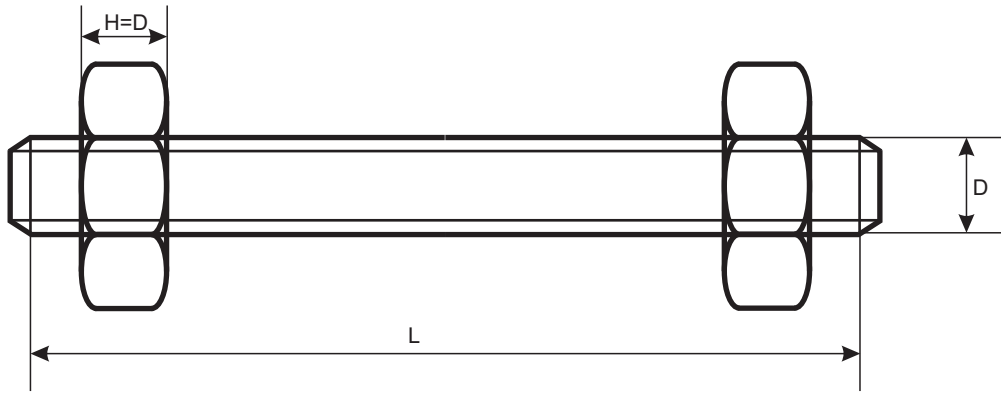
A	D=NOMINAL OF TUBE		D=EFFECTIVE OF TUBE		H1	H2	B	THREAD D	E	WEIGHTS IN KG PER 1000 P. (WITHOUT NUT & WASHER)	
	MM	INCH	METRIC	INCH IN MM						METRIC IN MM	FORM A
30	3/4	20	26.9	25	70	28	40	10	40	94	68
38	1	25	33.7	30	76	31	40	10	48	105	77
46	1 1/4	32	42.4	38	86	37	50	10	56	120	90
52	1 1/2	40	48.4	44.5	92	40	50	10	62	129	97
64	2	50	60.3	57	109	49	50	12	76	222	168
82	2 1/2	65	76.1	76.1	125	57	50	12	94	259	198
94	3	80	88.9	88.9	138	66	50	12	106	288	224
120	4	100	114.3	108	171		60	16	136	640	
148	5	125	139.7	133	191		60	16	164	727	
176	6	150	168.3	159	217		60	16	192	834	
202	7	175	193.7	191	249		60	16	218	958	
228	8	200	219.1	216	283		70	20	248	1698	
282	10	250	273	267	334		70	20	302	2028	
332	12	300	323.9	318	385		70	20	352	2350	
378	14	350	368	355.6	435		70	24	402	3820	
428	18	400	419	406.4	487		40	24	452	4290	
530		500	521	508	589		70	24	554	5220	



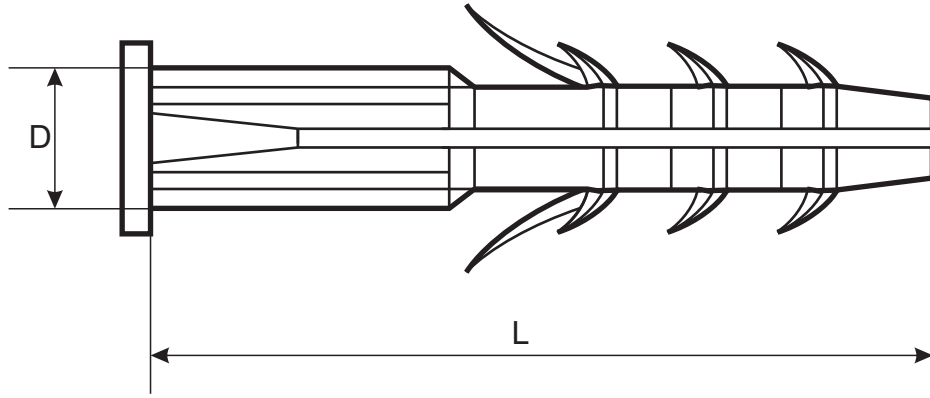
NMG 115	NMG 116	D	DRILL		H	A	B	C	S	TORQUE KGM	WEIGHTS IN KG PER 1000 PCS	
			O MM	DEEP MM								
S10/20	B10/20	6	10	66	20	0	20	27	56	1	410	
S10/35	B10/35				35	15	20	27	71			
S10/60	B10/60				60	40	20	27	96			
	B10/85				85	65	20	27	121			
	B10/100				110	90	20	27	146			
S12/25	B12/25	8	12	70	25	0	25	35	75	2.5	560	
S12/40	B12/40				40	15	25	35	90			
S12/65	B12/65				65	40	25	35	115			
	B12/90				90	65	25	35	140			
	B12/115				115	90	25	35	165			
S15/30	B15/30	10	15	85	30	0	30	42	90	5	890	
S15/45	B15/45				45	15	30	42	105			
S15/70	B15/70				70	40	30	42	130			
	B14/85				95	65	30	42	155			
	B15/120				120	90	30	42	180			
S20/35	B20/35	12	20	95	35	0	35	53	105	8	1280	
S20/50	B20/50				50	15	35	53	120			
S20/75	B20/75				75	40	35	53	145			
S25/40	B25/40	16	25	120	40	0	40	70	135	20	1990	
S25/55	B25/55				55	15	40	70	150			
S25/80	B25/80				80	40	40	70	175			
	B25/105				105	5	40	70	200			
	B25/130				130	90	40	70	225			
S30/50	B30/50	20	30	145	50	0	50	88	165	40	2760	
S30/65					65	15	50	88	180			
S30/90					90	40	50	88	205			
					B30/115	115	65	60	88			230
					B30/140	140	90	50	88			255



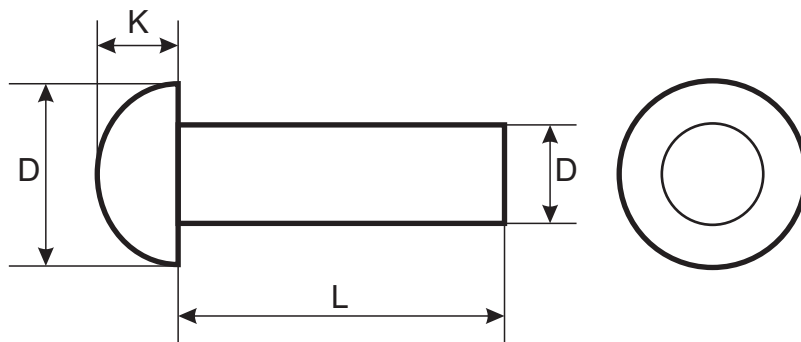
D	1/2	3/8	3/4	7/8	1	1 1/8	1 1/4
THREAD PER "	13	11	10	9	8	8	8
L	Weights in kg per 1000 pieces						
2 1/2	104						
2 3/4	108						
3	112	174					
3 1/4	115	180	307				
3 1/2	123	193	326				
3 3/4	127	200	335				
4	131	206	344	553			
4 1/4		218	363	579			
4 1/2		225	372	592			
4 3/4		231	381	604			
5		249	400	629	791		
5 1/4			409	642	808		
5 1/2			418	655	825		
5 3/4			427	668	842		
6			436	680	858	1140	
6 1/4			455	705	891	1190	
6 1/2			464	718	907	1210	
6 3/4			473	731	924	1230	1570
7				750	957	1270	1630



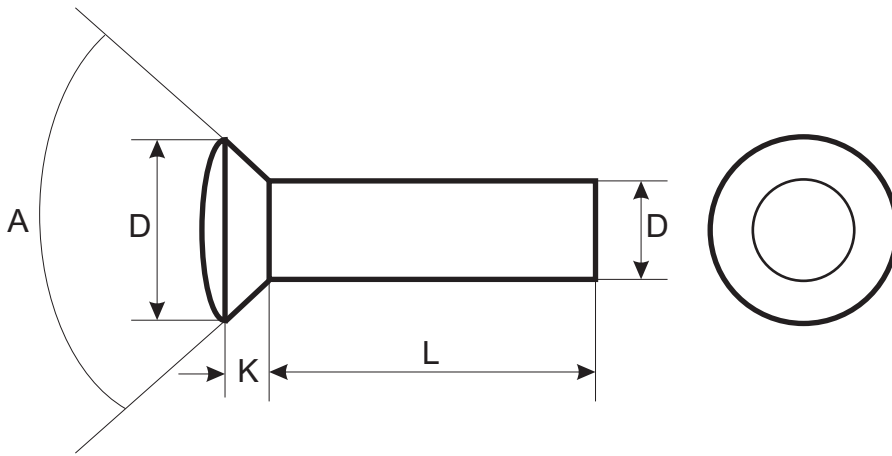
D	M12	M16	M20	M24	M30	M36	M42	M48
L	Weights in kg per 1000 pieces							
60	81	156						
70	89	169						
80	96	182	325					
90	103	196	345					
100	110	210	367	542				
110	117	222	387	582				
120	124	236	407	602	1070			
130	132	249	428	632	1110			
140		262	449	662	1160	1850		
150		275	469	692	1210	1920		
160			490	722	1260	1990	3020	
170			511	752	1300	2060	3120	
180				81	1350	2130	3220	4670
190				811	1400	2190	3320	4800
200				840	1440	2260	3420	1930
210					1490	2330	3520	5060
220					1540	2400	3620	5190
230					1590	2470	3720	5320
240					1640	2530	3820	5450
250						2600	3920	5580



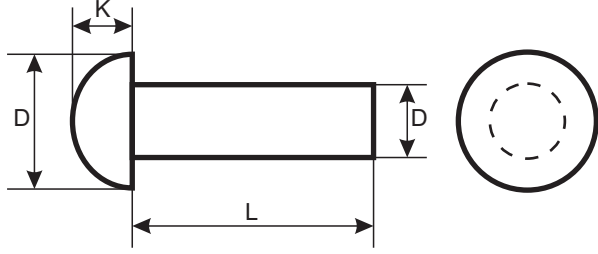
D mm	L mm	SCREW DIA mm	HOLE SIZE mm	WEIGHT IN KG PER 1000 PIECES	PACK
4	20	4	2.0 TO 3.0	0.20	200
5	25	5	3.0 TO 4.5	0.30	100
6	30	6	3.5 TO 5.5	0.50	100
8	40	8	4.5 TO 7.0	0.95	100
10	50	10	6.0 TO 8.0	1.90	50
12	60	12	8.0 TO 11.0	3.00	25
14	80	14	10.0 TO 12.0	4.90	25



D	10	12	16	20	24	30	36
A	16	19	25	32	40	48	58
D1	6.5	7.5	10	13	16	19	23
K	8	9.5	13	16.5	20.5	24.5	30
L mm	Weights in kg per 1000 pieces						
16	16.3						
20	18.9	27.9					
24	20.5	31.5	61.4				
28	23.1	35.1	67.8				
30	24.4	35.9	71	124			
34	28	40.5	77.4	134			
38	30.6	44.1	83.8	144	231		
40	31.9	45.9	87	149	238		
45	35.1	50.4	94.9	161	256		
50	38.3	54.9	103	174	273	441	
55		59.4	111	186	291	469	
60		63.9	119	199	309	496	
65			127	211	327	524	808
70			134	23	345	552	848
75			142	238	362	580	888
80			150	248	380	608	928
85				260	398	635	968
90				273	416	663	1008
95				298	452	719	1048
100				298	452	719	1088

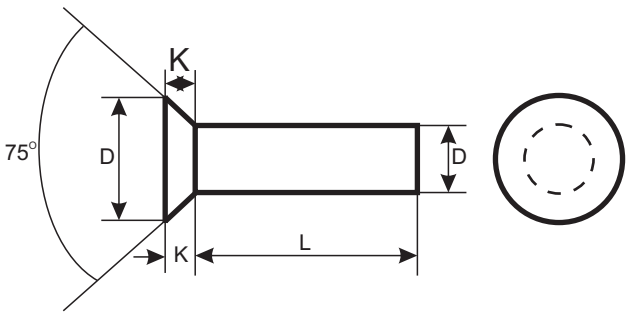


D	10	12	16	20	24	30	36
A	75	75	75	60	60	45	45
D1	14.5	18	26	31.5	38	42.5	51
K	3	4	6.5	10	12	15	18
L mm	Weights in kg per 1000 pieces						
12	9.03						
16	11.5	17.3					
20	14	20.8					
24	16.4	24.4	47.7				
28	18.9	27.9	54.1				
30	20.1	30.7	57.2	94.1			
34	22.9	34.3	63.5	104			
38	25.1	37.8	69.9	114	174		
40	26.3	39.6	73	119	181		
45	29.4	44	80.9	131	198	302	
50	32.5	48.5	88.8	144	216	330	
55		52.9	96.7	156	234	358	524
60		57.4	105	165	252	353	564
65			113	178	269	413	604
70			120	190	287	441	644
75			128	202	305	469	684
80			136	215	323	496	724
85				227	341	524	764
90				239	359	552	804
95				252	377	580	844
100				264	395	607	884



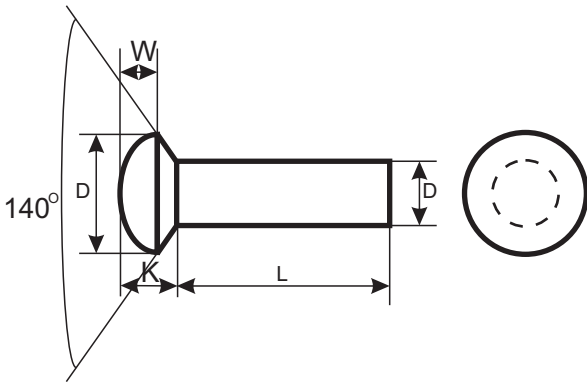
DIN 660

D	3	4	5	6	8
D1	5.2	7	8.8	10.5	14
K	1.8	2.4	3	3.6	4.8
L mm	Weights in kg per 1000 pieces				
6	0.620	1.05	1.81	2.86	
8	0.640	1.25	2.13	3.31	6.69
10	0.753	1.45	2.45	3.76	7.51
12	0.850	1.68	2.77	4.21	8.32
16	1.11	2.06	3.41	5.11	10.0
20	1.33	2.46	4.06	6.01	11.7
25	1.63	2.68	4.82	7.16	13.4
30	1.90	3.49	5.62	8.31	15.8
35		4.00	6.42	9.45	17.7
40		4.50	7.10	10.6	19.7
45		5.00	7.78	11.75	21.2
50		5.50	8.46	12.90	28.8



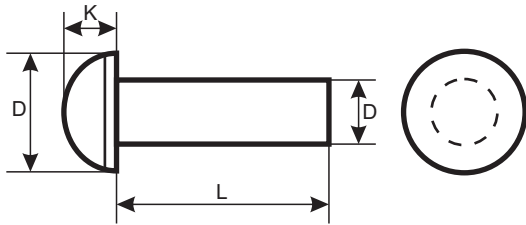
DIN 661

D	3	4	5	6	8
D1	5.2	7	8.8	10.5	14
K	1.5	2	2	3	4
L mm	Weights in kg per 1000 pieces				
6	0.421	0.869			
8	0.537	1.01	1.62		
10	0.650	1.21	1.94	2.91	
12	0.765	1.41	2.25	3.38	6.30
16	0.989	1.82	2.88	4.30	7.94
20		2.22	3.52	5.20	9.60
25		2.72	4.30	6.35	11.5
30		3.22	5.10	7.49	18.8
35		3.72	5.90	8.64	15.6
40		4.22	6.70	9.76	17.7
45		4.73	7.50	10.94	18.7
50		5.24	8.30	12.09	21.8



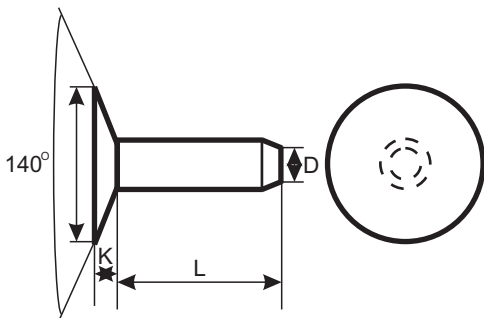
DIN 662
OVAL HEAD RIVET

D	2	2.5	3	4	5	6
D1	4	5	8	8	10	12
K	1	1.2	1.5	2.1	2.5	3
W	0.7	0.8	1	1.4	1.7	2
L mm	Weights in kg per 1000 pieces					
4	0.14					
5	0.17	0.30				
6		0.34	0.53			
8			0.55	1.2		
10				1.4	2.4	
12				1.6	2.7	4.2
14					3	4.7
16					3.3	5.1



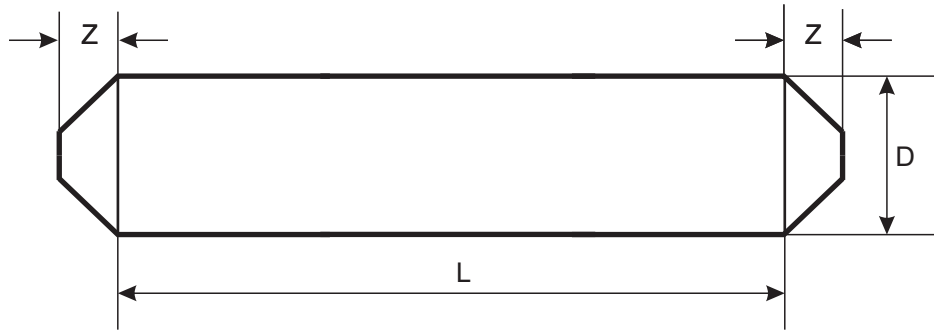
DIN 674
MUSHROOM (TRUSS) HEAD RIVET

D	2	2.5	3	4	5	6
D1	4	5	8	8	10	12
K	1	1.2	1.5	2.1	2.5	3
W						
L mm	Weights in kg per 1000 pieces					
4	0.20					
5	0.23	0.39	0.62			
6	0.25	0.43	0.68			
8	0.30	0.51	0.79	1.6	2.77	
10	0.35	0.58	0.90	1.8	3.08	4.95
12		0.68	1.01	2	3.39	5.40
16			1.23	2.39	4	6.27
20				2.78	4.62	7.17

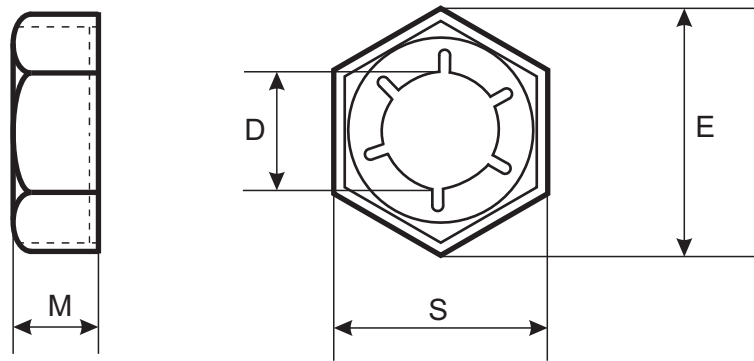


DIN 675
COUNTERSUNK HEAD RIVET , FOR BOLT

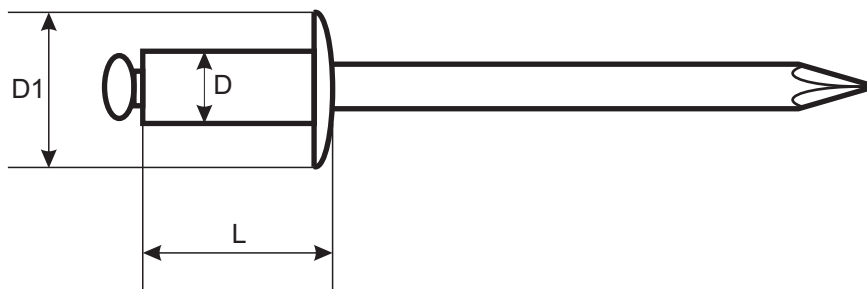
D	3	4	5
D1	8.3	11	13.8
K	1	1.3	1.6
W			
L mm	Weights in kg per 1000 pieces		
6	0.53		
8	0.68		
10	0.79	1.44	2.42
12	0.91	1.67	2.77
16	1.16	2.11	3.46
20	1.42	2.56	4.16
25		3.12	5.03
30			5.90



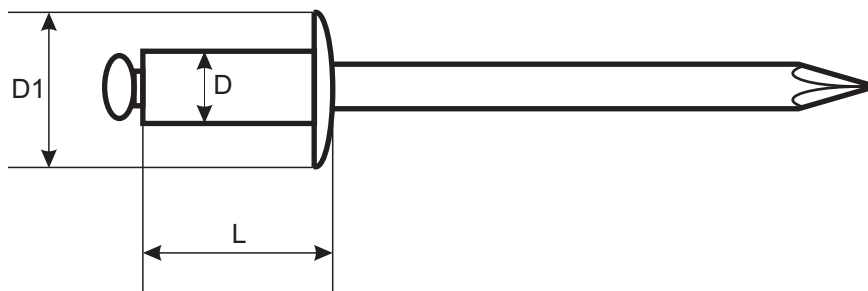
D	8	8	10	12	16	20	25	30	40	50	60
Z	1.5	2	2	2.5	2.5	3	4	4	5	6	6
L mm	Weights in kg per 1000 pieces										
16	3.17	5.45									
20	4.05	7.02	10.5								
25	5.14	8.98	13.5								
30	6.24	10.2	16.6	23.2							
35	7.34	12.8	19.7	27.7	50.7						
40	8.39	14.8	27	32.1	58.6	90					
45	9.49	16.7	25.8	36.5	66.5	102					
50	10.5	18.7	28.8	40.9	74.4	114	175	257			
60	12.7	2.6	35	49.8	90.1	139	214	312			
70		26.6	41.1	58.7	105	163	252	367	644		
80		30.5	47.2	67.5	121	188	291	423	743	1160	
90			53.3	6.4	137	213	329	478	842	1320	1890
100			59.5	85.3	153	37	368	534	940	1470	2110
120				103	184	87	444	645	1140	1780	2560
140						336	621	755	1340	2090	3000
150						361	660	811	1430	2240	3230
160									1530	2400	3450
180									1730	2700	3890
200									1930	3010	4330



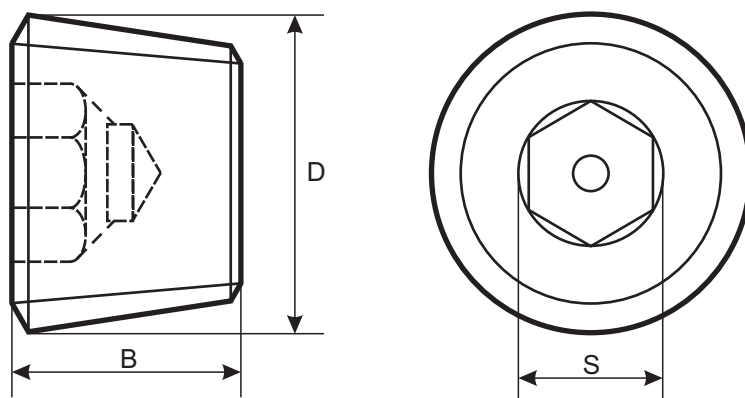
D	S	E	M	WEIGHT IN KG PER 1000 PIECES	PACK
M6	10	11.5	3	0.4	200
M8	13	15	3.5	0.9	
M10	17	19.6	4	1.4	
M12	19	21.9	4.5	1.9	
M14	22	25.4	5	2.5	100
M16	24	27.7	5	3.4	
M20	30	34.6	6	5.8	
M22	32	36.9	6	6.4	
M24	36	41.6	7	9.5	
M27	41	47.3	7	13	
M30	46	53.1	8	17.5	
M36	55	63.5	9	28	
M42	65	75	11	45	
M45	70	80.6	12	64	



NO. NMG	CODE	MATERIAL		DESCRIPTION
		RIVET	NAIL	
351	GORIVET	ALUM	STEEL	CLASSICAL STANDARD RIVET
352	GOSTOP	ALUM	STEEL	CLOSED & RIGHT RIVET
353	GORIVET	ALUM	STEEL	CLASSICAL STANDARD RIVET (SUBSTITUTE FOR NMG 351)
355	GORIVET	STEEL	STEEL	STANDARD RIVET, FULL STEEL
356	GORIVET	COPPER	INOX	STANDARD RIVET, STAINLESS STEEL
357	GORIVET	ALUM	ALUM	STANDARD RIVET, FULL ALUMINIUM
364	GORIVET	BRASS	STEEL	STANDARD RIVET, BRASS
366	GOSTAR	ALUM	STEEL	RIVET FOR SOFT MATERIAL(WOOD, PLASTIC, PLASTER, A.S.O)
373	GORIVET	INOX	INOX	STANDARD RIVET, FULL STAINLESS STEEL (SUBSTITUTE FOR NMG 356)
375	GOSTOP	ALUM	ALUM	CLOSED & TIGHT RIVET, STAINLESS STEEL
376	GOSTOP	COPPER	INOX	CLOSED & TIGHT RIVET, STAINLESS STEEL
377	GOMULTI	ALUM	STEEL	RIVET FOR HEAVY & MULTIPLE THICKNESS
380	GOVIS	ALUM	STEEL	FLUTED RIVET FOR SOFT + MATERIAL AND BLIND HOLES
381	GOMMASSE	ALUM	STEEL	RIVET TO SET EYELETS FOR ELECTRIC CONTACTS
382	GOMMASSE	BRASS	STEEL	RIVET TO SET EYELETS FOR ELECTRIC CONTACTS
354	GORIVET	ALUM	STEEL	CLASSICAL STANDARD RIVET
358	GOSTAR	ALUM	STEEL	RIVET FOR SOFT MATERIAL(WOOD, PLASTIC, PLASTER, A.S.O)
363	GORIVET	ALUM	STEEL	CLASSICAL STANDARD RIVET
378	GOMULTI	ALUM	STEEL	RIVET FOR HEAVY & MULTIPLE THICKNESS
370	GORIVET	ALUM	STEEL	CLASSICAL STANDARD RIVET
374	GOSTOP	ALUM	STEEL	CLOSED & TIGHT RIVET
379	GOMULTI	ALUM	STEEL	RIVET FOR HEAVY & MULTIPLE THICKNESS



D	L	D STANDARD HEAD mm	D LARGE HEAD mm	D EXTRA LARGE HEAD mm	D FLAT HEAD COUNTER. Mm	WEIGHT IN KG PER 1000 PCS	PACK
2.4	4	4.8				0.50	USUALLY 250 TO 500 PIECES
	6					0.60	
	8					0.60	
	10					0.70	
	12					0.80	
3	4	6.2				1.00	
	6					1.05	
	8					1.10	
	10					1.15	
	12					1.20	
3.2	4	6.4	8		6.4	.25	
	6					.05	
	10					.10	
	12					1.15	
	14					1.25	
	16					1.30	
	18					1.40	
	18					1.50	
4	6	8	10	12	8	1.05	
	8					1.10	
	10					1.15	
	12					1.20	
	14					1.40	
	16					1.50	
	18					1.60	
	20					1.80	
	25					2.20	
	30					2.50	
35	2.90						
4.8	8	9.6	14	16	9.6		
6	10	11				2.50	USUALLY 250 PIECES
	12					2.60	
	14					2.70	
	16					2.90	
	18					3.00	
	20					3.10	
	22					3.30	
	25					3.60	
	30					3.70	
	35					4.00	
	35					4.40	
	8					4.80	
	10					5.00	
	12					5.20	
	16					5.80	
18	6.20						
22	6.60						
25	7.00						
30	7.70						
6.4	10	13.5					
	12						
	16						
	20						
	25						



METRIC THREAD

D(NOMINAL)	B	S	WEIGHT IN KG PER 1000 PIECES	PACK
M8*1	8	4	2.07	100
M10*1	8	5	3.38	
M12*1.5	10	6	6.10	
M14*1.5	10	7	8.10	
M16*1.5	10	8	11.0	50
M18*1.5	10	10	14.6	
M20*1.5	10	10	17.6	
M22*1.5	10		22.0	
M24*1.5	12	12	30.8	25
M26*1.5	12	17	38.6	
M30*1.5	12	17	44.0	
M36*1.5	16	19	85.2	
M42*1.5	18	22	135	
M45*1.5	18	22	167	
M48*1.5	20	24	214	

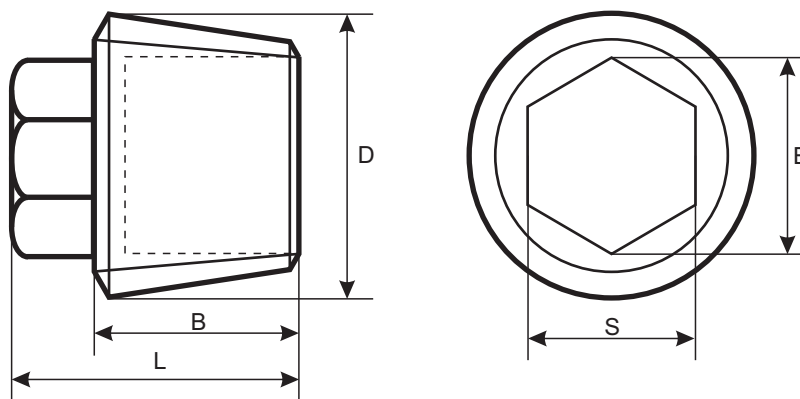
PIPE THREAD (GAS)

D(NOMINAL)	D mm	THREAD PER INCH	B	S	WEIGHT IN KG PER 1000 PIECES	PACK
G 1/8	9.73	28	8	5	3.38	100
G1/4	13.16	19	10	7	7.00	
G3/8	16.66	19	10	8	12.2	
G1/2	20.96	14	10	10	19.0	50
G3/4	26.44	14	12	12	40.2	25
G1 1/4	41.91	11	18	22	135	
G1 1/2	47.80	11	20	24	214	

NPTF THREAD

D(NOMINAL)	D mm	THREAD PER INCH	B	S	WEIGHT IN KG PER 1000 PIECES	PACK
1/16	7.925	27	7.925	5.32	2.07	100
1/8	10.287	27	7.925	3.16	3.3	
1/4	13.176	18	1.100	1/4	7.00	
3/8	17.145	18	2.700	5/16	12.2	50
1/2	1.336	14	14.275	3/8	19.0	25
3/4	26.670	14	15.875	9/16	40.2	



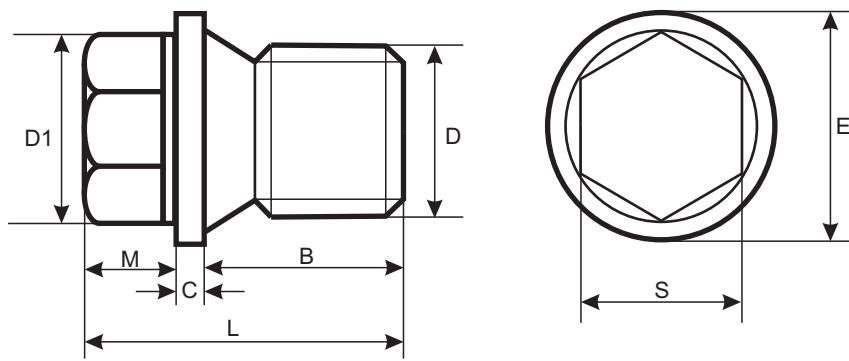


PIPE THREAD (GAS)

D(NOMINAL)	L	B	S	E	WEIGHT IN KG PER 1000 PIECES	PACK
G 1/8	12.5	8	7	7.74	5.72	
G1/4	15	10	9	9.76	12.0	
G3/8	16	10	10	10.89	19.4	
G1/2	17	10	13	14.20	27.2	
G3/4	20	12	17	18.72	51.8	
G1	22	12	19	20.88	76.2	
G1 1/4	30	18	24	26.17	151	
G1 1/2	35	20	30	32.95	230	

METRIC THREAD

D(NOMINAL)	L	B	S	E	WEIGHT IN KG PER 1000 PIECES	PACK
M10*1	12.5	8	7	7.74	5.72	
M12*1.5	15	10	7	7.74	9.10	
M14*1.5	15	10	9	9.76	13.2	
M16*1.5	16	10	10	10.89	17.9	
M18*1.5	16	10	10	10.89	21.9	
M20*1.5	17	10	13	14.20	25.0	
M22*1.5	17	10	13	14.20	29.0	
M24*1.5	20	12	17	18.72	43.8	
M30*1.5	22	12	19	20.88	69.4	
M36*1.5	27	15	24	26.17	118	
M42*1.5	30	18	24	26.17	151	
M45*1.5	30	18	24	26.17	163	
M48*1.5	35	20	30	32.95	230	
M52*1.5	35	20	30	32.95	249	



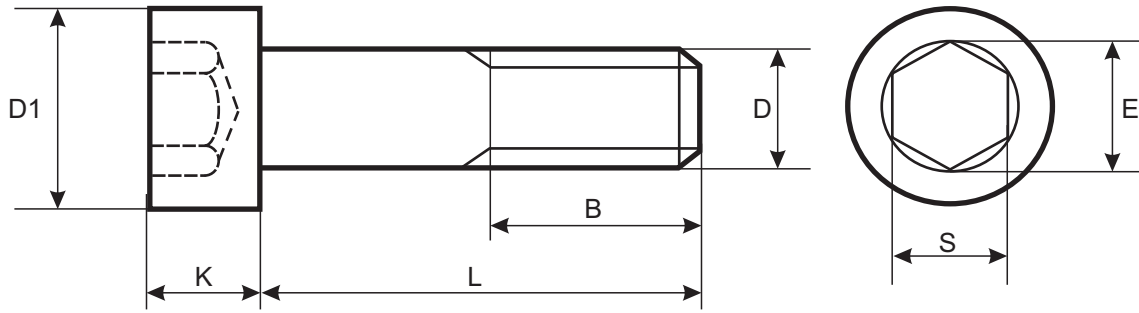
PIPE THREAD (GAS)

D(NOMINAL)	D	L	C	B	M	S	E	WEIGHT IN KG PER 1000 PIECES	PACK
G 1/8	14	7	3	8	6	10	10.89	12.0	100
G1/4	18	21	3	12	6	13	14.20	23.8	
G3/8	22	21	3	12	6	17	18.72	38.1	50
G1/2	26	26	4	14	8	19	20.88	66.6	
G3/4	32	30	4	16	10	24	26.17	27	25
G1	39	32	5	16	11	27	29.56	195	
G1 1/8	44	32	5	16	11	27	29.56	238	
G1 1/4	49	33	5	16	12	30	32.95	300	
G1 1/2	55	33	5	16	12	30	32.95	375	
G2	68	40	5	20	15	36	39.55	695	

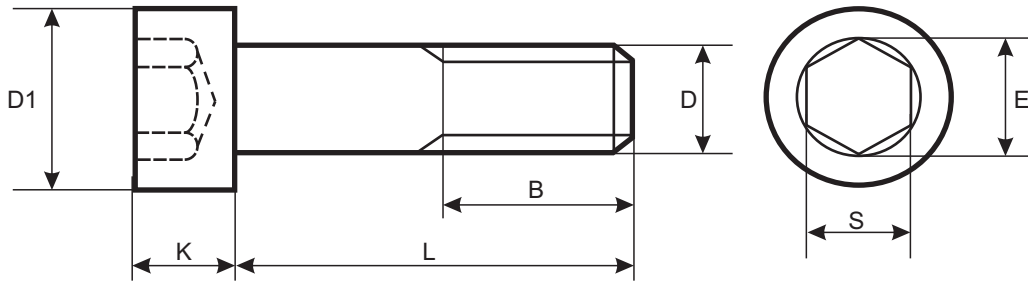
METRIC THREAD

D(NOMINAL)	D	L	C	B	M	S	E	WEIGHT IN KG PER 1000 PIECES	PACK	
M10*1	14	17	3	8	6	10	10.89	12.0	100	
M12*1.5	17	21	3	12	6	13	14.20	20.3		
M14*1.5	19	21	3	12	6	13	14.20	25.0		
M16*1.5	21	21	3	12	6	17	18.72	35.2		
M18*1.5	23	24	4	12	8	17	18.72	48.6	50	
M20*1.5	25	26	4	14	8	19	20.88	64.5		
M2*1.5	27	26	4	14	8	19	0.88	73.4		
M24*1.5	29	27	4	14	9	22	23.91	93.5		
M26*1.5	31	30	4	14	10	24	6.17	120		25
M30*1.5	36	30	4	16	10	24	26.17	148		
M36*1.5	42	33	5	16	11	27	29.56	220	25	
M38*1.5	44	32	5	16	11	27	29.56	238		
M42*1.5	49	33	5	16	12	30	32.95	300		
M45*1.5	52	33	5	16	12	30	32.95	340	25	
M48*1.5	55	33	5	16	12	30	32.95	375		
M52*1.5	60	33	5	16	12	30	32.95	430		

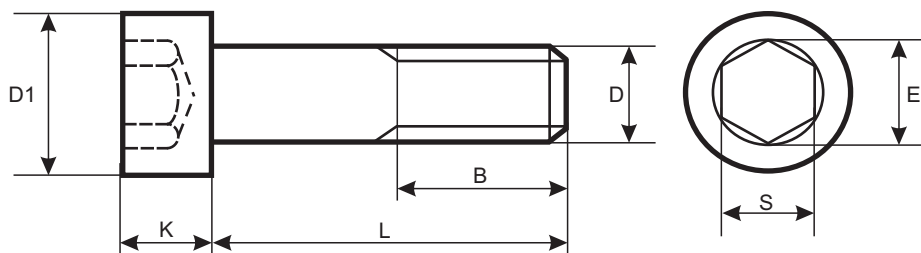




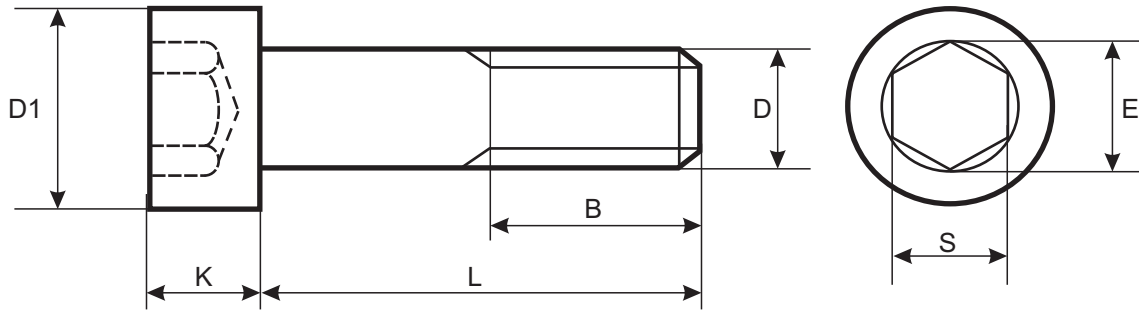
D	M3	M4	M5	M6	M8	M10	M12	M14	M16	M18	M20	M22	M24
D1	5.5	7	8.5	10	13	16	18	21	24	27	30	33	36
K	3	4	5	6	6	10	1	14	16	18	20	2	24
S	2.5	3	4	5	6	8	10	12	14	14	17	17	19
B	FULLY THREADED												
	X	18	20	22	24	28	32	36	40	44	48	52	56
Y													
L mm	Weights in kg per 1000 pieces												
5	0.67												
6	0.71	1.50											
8	0.80	1.65											
10	0.88	1.80	2.70	4.70									
12	0.96	1.95	2.95	5.07									
16	1.16	2.25	3.45	5.75	12.1	20.9							
20	1.36	2.85	4.01	6.53	13.4	22.9	32.1						
25	1.61	3.15	4.78	7.59	15.0	25.9	35.7						
30	1.86	3.65	5.55	8.70	16.9	27.9	39.3	63.0	77.9				
35		4.15	6.32	9.91	18.9	31.0	42.9	58.0	84.4				
40		4.65	7.09	11.0	20.9	34.1	47.3	63.0	94.0	129	150		
45			7.88	12.1	22.9	37.2	51.7	69.0	97.6	137	161		
50			8.63	13.2	24.9	0.3	56.1	75.0	108	147	172	250	300
55				14.3	25.9	43.4	60.5	81.0	114	157	183	263	316
60				15.4	28.9	46.5	64.9	87.0	122	167	195	276	330
65					31.0	46.9	69.3	93.0	130	177	207	291	345
70					33.0	52.7	73.7	9.0	138	187	220	306	363
75					35.0	55.8	78.1	105	146	197	232	321	381
80					37.0	58.9	82.5	111	154	207	244	338	399
90						65.1	91.3	123	170	227	269	366	436
100						71.3	100	135	186	247	294	396	471
110							109	147.3	202	267	319	426	507
120							118	159	218	287	344	458	543
130									234	307	369	486	579
140									250	327	394	516	615
150									266	347	419	546	661
160											444	576	667
160											494	636	759
200												696	820



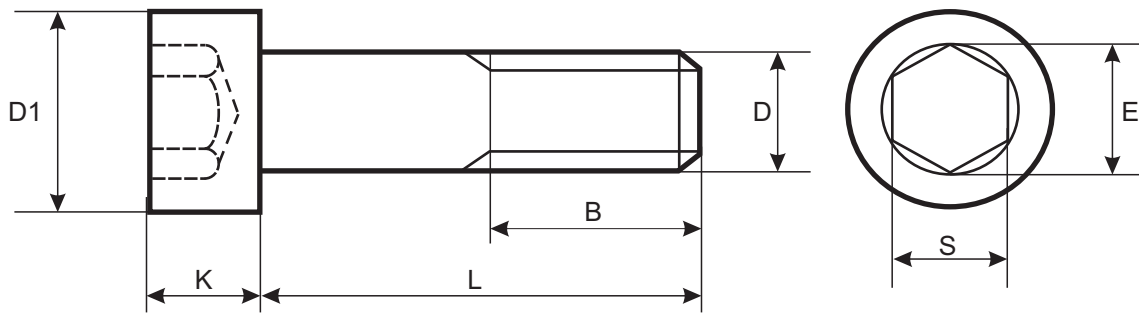
D	M27	M30	M33	M36	M42	M48	M56	M64
D1	40	45	50	54	63	72	84	84
K	27	30	33	36	42	48	56	56
S	19	22	24	27	32	36	41	41
B	FULLY THREADED							
	X							
Y	18	20	22	24	28	32	36	40
L mm	Weights in kg per 1000 pieces							
50								
60								
70	440							
80	484	690						
90	529	745						
100	574	800	970	1230				
110	619	855	1040	1310				
120	664	910	1110	1390	2000			
130	709	965	1180	1470	2100			
140	754	1020	1250	1550	2210	3020		
150	799	1080	1320	1630	2320	3160		
160	844	1130	1390	1710	2420	3300	4880	
180	934	1240	1530	1870	2640	3730	5270	7250
200	1000	1350	1670	2030	2870	3870	5650	7750
220	1110	1460	1810	2190	3080	4150	6040	8250
240	1230	1570	1950	2250	3300	4430	6420	8750
260	1340	1680	2040	2410	3520	4710	6810	9260
280		1790	2180	2570	3740	4990	7200	9760
300		1900	2320	2730	3960	5270	7580	10300



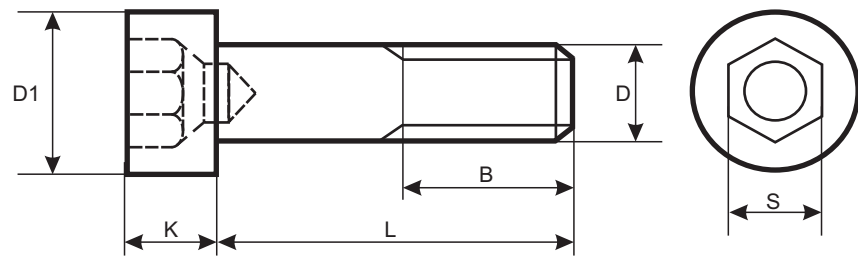
D	3/16	1/4	5/16	7/8	7/16	1/2	5/8	1/4	1/4	1/4
D1	5/16	5/8	7/16	9/16	5/8	3/4	7/8	1	1	1
K	3/16	1/4	5/16	3/8	7/16	1/2	5/8	3/4	3/4	3/4
S	5/32	3/16	7/32	5/16	5/16	3/8	1/2	9/16	9/16	9/16
L "	Weights in kg per 1000 pieces									
3/8	2.4	4.46								
1/2	3.0	5.07	9.02	14.5		32.4				
5/8	3.3	5.67	10.0	16.0		35.0				
3/4		6.25	10.9	17.3		37.6				
	4.0									
1	5.0	7.45	12.9	20.2	29.0	42.8	75.8			
1 1/4	6.0	8.50	14.8	23.0	33.0	48.0	83.4	133	198.6	
1 1/2	7.1	10.6	16.7	33.2	36.5	53.0	91.4	144	213	
1 3/4		11.8	20.0	30.1	44.0	58.1	99.4	156	236	
	7.5									
2	8.6	13.8	21.9	33.0	49.0	63.2	108	168	246	355
2 1/4	9.1	15.0	5.0	37.2	50.0	72.0	116	180	262	376
2 1/2		17.0	26.9	40.1	55.0	77.2	129	192	278	397
2 3/4		18.1	29.9	44.3	60.0	82.1	137	204	296	419
3		20.1	31.8	47.2	64.0	90.9	145	225	311	440
3 1/4		23.7	34.9	51.4	68.0	96.1	154	240	333	464
3 1/2		26.3	36.7	54.9	75.0	101	167	249	355	498
4		28.9	42.5	61.4	83.0	115	188	282	388	541
4 1/2			48.1	68.4	92.0	129	204	306	427	599
5				75.5		139	26	339	466	542
5 1/2						143	247	368	499	690
6				92.5		157	263	395	531	736



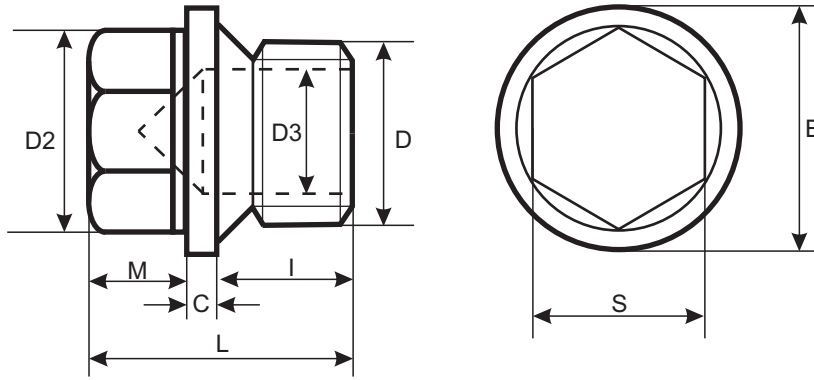
D	6	8	10	1/4	5/16	3/8	7/16	1/2	5/8	3/4	1
THREADS PER "	32	32	24	20	18	16	14	13	11	10	1 5/16
D1	7/32	17/64	5/16	3/8	7/16	9/16	5/8	3/4	7/8	1	1
K	9/64	5/32	3/16	1/4	5/16	3/8	7/16	1/2	5/8	3/4	5/8
S	7/64	1/8	5/32	3/16	7/32	5/16	5/16	3/8	1/2	9/16	
L "	Weights in kg per 1000 pieces										
3/8	1.40	2.08	2.99	4.46							
1/2	1.67	2.35	3.35	5.07	9.02	14.5					
5/8	1.85	2.63	3.67	5.67	10.0	16.0					
3/4	1.99	2.81	3.99	6.25	10.9	17.3	25.0	37.6			
1		2.53	4.98	7.45	12.9	12.9	29.0	42.8	75.3		
1 1/4			5.44	8.66	14.8	23.0	33.0	48.0	83.4	133	
1 1/2			6.35	10.6	16.7	25.8	36.5	53.0	91.4	144	
1 3/4			6.80	11.8	20.0	30.1	40.0	55.4	99.4	156	
2			7.71	13.8	21.9	33.0	44.6	63.2	108	168	355
2 1/4				15.0	25.0	37.2	50.5	72.0	116	180	376
2 1/2				17.0	26.9	40.1	57.0	77.2	129	192	397
2 3/4				18.1	29.9	44.3	61.5	84.0	137	208	418
3				20.1	31.8	47.2	66.0	80.9	145	225	440
3 1/2					36.7	64.3	75.0	101	167	249	490
4						67.6	84.0	129	188	282	541
4 1/2									207	306	599
5									226	339	642
6									264	396	736



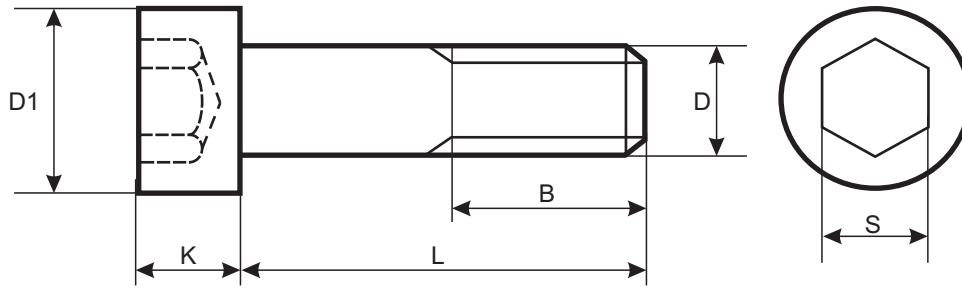
D	10	1/4	5/16	3/8	1/2	5/8	3/4
THREADS PER "	32	25	24	24	20	18	16
D1	5/16	3/8	7/16	9/16	3/4	7/8	1
K	3/16	1/4	5/16	3/8	1/2	5/8	3/4
S	5/32	3/16	7/32	5/16	3/8	1/2	9/16
L "	Weights in kg per 1000 pieces						
3/8	2.99	5.44					
1/2	3.35	6.80	9.02				
5/8	3.67	7.71	10.0				
3/4	3.99	8.16	10.9	19.5			
1	4.98	9.07	12.9	22.6	47.6		
1 1/4	5.44	9.97	14.8	26.3	53.5	83.4	
1 1/2	6.35	12.24	16.7	30.8	58.9	91.4	144
1 3/4	7.03	13.15	20.0	32.6	63.5	99.4	
2	7.71	14.51	21.9	36.2	69.4	108	158
2 1/4		15.87	24.4	39.4	76.1	119	
2 1/2		17.23	26.9	41.7	81.6	129	192
3			32.0	47.2	93.8	150	225
3 1/2				52.7	108		
4					118	192	



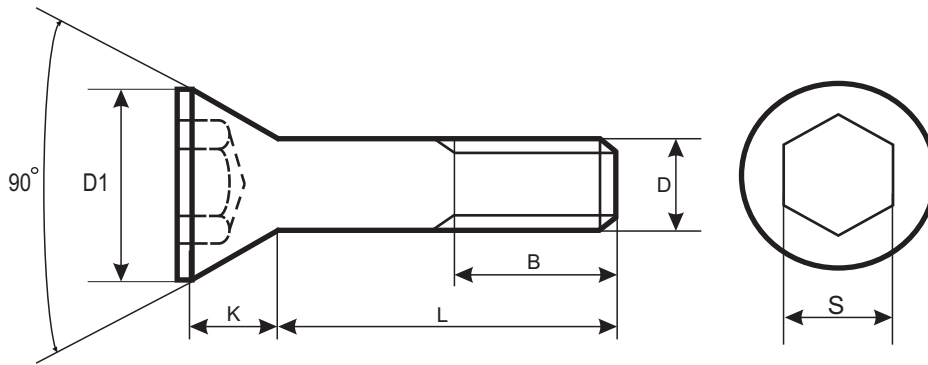
D	4	5	6	8	10	12	14	20	24
D1	-	8.5	10	13	16	18	24	30	36
K	2.8	3.5	4	5	6.5	7.5	10	12	14
S	3	4	5	6	8	10	14	17	19
B	FULLY THREADED								
	X	14	16	18	22	26	30	38	46
Y									
L mm	Weights in kg per 1000 pieces								
10	1.3	2.2	3.6						
12	1.5	2.5	3.9	7.7					
16	1.9	3.1	4.5	8.8	15.5	22.3			
20	2.3	3.7	5.2	10.2	17.9	25.5	52.5		
25	2.7	4.4	6.2	12.5	20.2	29.5	58.5		
30	3.2	5.1	7.3	14	2	32.5	63.0	108	
35	3.4	5.8	8.3	15.7	25.6	36.5	69.7	118	
40	4.2	6.6	9.5	17.5	28.5	40.0	78.7	128	
50	5.2	7.3	11.5	21.5	34.8	50	91.5	150	
60		9.0	13.6	25.3	40.3	57.0	107	172	263
70				29.1	46.0	65.0	122	196	296
80				32.8	52.5	75.0	150	22	333
90				36.0	57.8	85.6	154	45	369
100				40.0	85.0	92.0	160	269	407
10							183	292	439
120							198	316	474



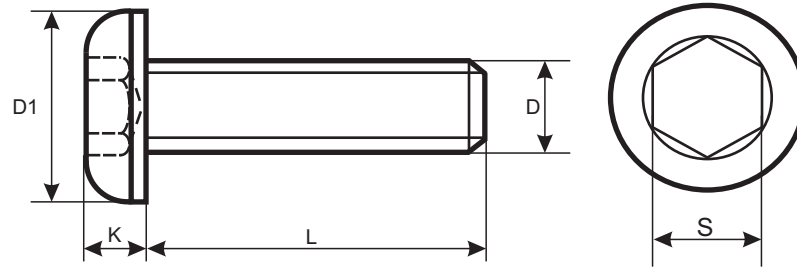
	D	D2	D3	S	E	M	C	I	L	WEIGHT IN KG PER 1000 PCS
FORM A (SHORT THREAD LENGTH)	10*1	14	-	14	15.51	4	0.5	6	10.5	12.8
	12*1.5	17	-	17	18.90	6	0.5	9	15.5	19.2
	14*1.5	19	-	19	21.10	6	0.5	9	15.5	24.6
	16*1.5	21	-	22	24.49	6	0.5	9	15.5	33.4
	18*1.5	23	10	17	18.90	6	2	9	17	27.2
	22*1.5	27	14	19	21.10	6	2	9	17	34.3
	26*1.5	31	16	22	24.49	8	2.5	9	19.5	59.4
	30*1.5	36	20	2	24.49	8	2.5	9	19.5	69.5
	FORM B (LONG THREAD LENGTH)	8*1	1	-	12	13.25	4	0.5	8	12.5
10*1		14	-	14	15.51	4	0.5	8	12.5	9.6
22*1.5		27	14	19	21.10	6	2	12	20	42.5
26*1.5		31	16	2	24.49	8	.5	12	22.5	68.5
30*1.5		36	20	2	24.49	8	2.5	12	2.5	81.0
38*1.5		44	6	2	24.49	8	3	12	23	118
45*1.5		52	32	24	26.75	8	3	12	23	163
52*1.5		60	38	27	30.14	8	3	12	23	205



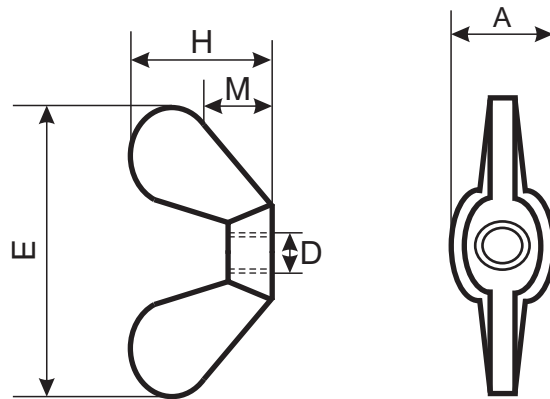
D	3	4	5	6	8	10	12	14	16	20
D1	5.5	7	8.5	10	13	16	18	21	24	30
K	2	2.8	2.5	4	5	6	7	8	9	11
S	2	2.5	3	4	5	7	8	10	12	14
B	FULLY THREADED									
	X	12	14	16	18	22	26	30	34	38
Y										
L mm	Weights in kg per 1000 pieces									
6	0.518	0.955								
8	0.604	1.12								
10	0.690	1.28	2.50	3.59						
12	0.776	1.44	2.74	3.94						
16	0.972	1.76	3.22	4.64	9.25	14.4				
20	1.19	2.15	3.77	5.34	10.5	16.4	24.1			
25	1.40	2.64	4.54	6.45	12.0	19.0	27.7			
30	1.61	3.13	5.31	7.58	14.0	21.6	31.3	46.5	52.1	
35		3.62	6.08	8.67	16.0	24.7	34.9	51.4	68.3	
40		4.11	6.85	9.78	18.0	27.8	39.3	58.3	75.5	130
45			7.62	10.89	20.0	50.9	43.7	62.3	82.2	140
50			8.39	12.0	22.0	34.0	48.1	68.3	92.8	150
55			9.16	13.11	24.0	37.1	52.5	76.3	97.0	160
60			9.93	14.22	26.0	40.2	56.9	80.3	104	172
70				15.33	30.0	46.4	65.8	92.4	119	197
80					34.0	52.6	74.7	105	134	222
90					38.0	58.8	83.6		149	247
100					42.0	65.0	92.5		164	272
110						71.2	101.4		179	
120						77.4	110.3		184	



D	3	4	5	6	8	10	12	14	16	20	24
D1	6	8	10	12	16	4	24	27	30	36	39
K	1.7	2.3	2.8	3.3	4.4	6.5	6.5	7	7.5	8.5	14
S	2	2.5	3	4	5	8	8	10	10	12	14
B	X	FULLY THREADED									
	Y	12	14	16	18	22	26	30	34	38	46
L mm	Weights in kg per 1000 pieces										
6	0.47										
8	0.50	0.92	1.60	2.35							
10	0.56	1.07	1.85	2.70	5.47						
12	0.65	1.23	2.10	3.05	6.10	10.01					
16	0.83	1.53	.59	3.76	7.35	12.1					
20	1.00	1.84	3.09	4.46	8.60	14.1	21.2				
25	35	2.23	3.71	5.34	10.2	16.6	24.8				
30	1.63	2.90	4.33	6.22	11.7	19.1	28.5		51.8		
35		3.40	5.43	7.10	13.3	21.6	32.1		58.4	91.4	
40		3.90	6.20	8.83	14.8	24.1	35.7		65.1	102	
45			6.97	10.56	16.3	26.6	39.3		71.6	1.6	
50			7.74	11.0	19.9	30.1	43.0		78.4	123	179
55				11.44	23.5	3.6	6.7		85.0	133.4	194
60				11.88	27.1	35.7	54.0		91.7	143	209
70					34.3	41.2	62.9		111	164	39
80					41.4	46.7	71.8		127	200	269
90						52.2	80.7		143	26	299
100						57.7	89.6		159	253	365
110							8.5		175	279	431
120							107.4		191	305	497



D	3	4	5	6	8	10	12
D1	5.5	7.5	9.5	10.5	14	18	21
K	1.6	2.1	2.7	3.2	4.3	5.3	8.4
S	2	2.5	3	4	5	6	8
L mm	Weights in kg per 1000 pieces						
6							
8							
10							
12							
16							
20							
25							
30							
35							
40							
45							
50							
55							
60							

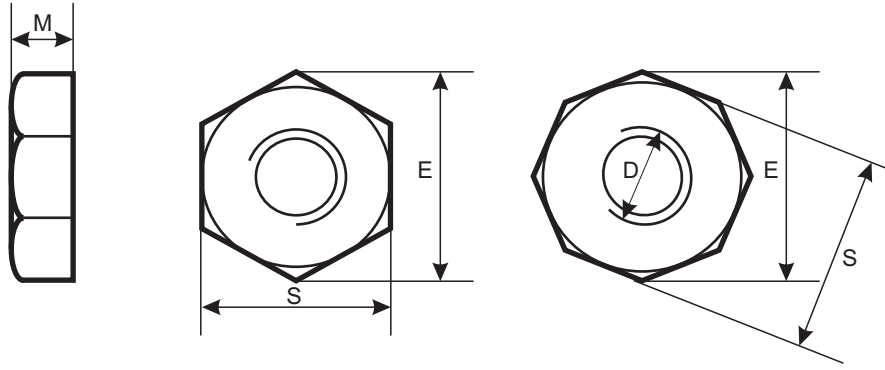


DIN 315, MEDIUM TYPE, MALLEABLE CAST IRON

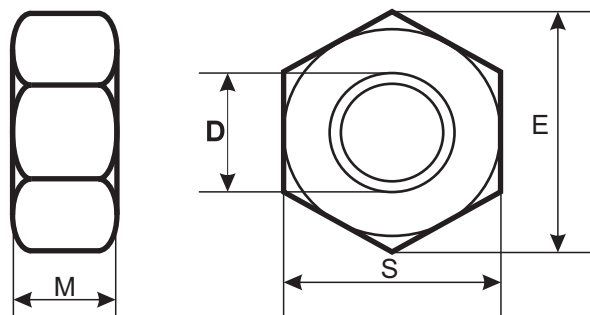
D	A	E	H	M	WEIGHT IN KG PER 1000 PIECES	PACK
6	9.5	5	15	6	4.08	200
8	12	30	18	7.5	6.00	100
10	15	39	25	11	11.3	

DIN 315, HEAVY TYPE, MALLEABLE CAST IRON

D	A	E	H	M	WEIGHT IN KG PER 1000 PIECES	PACK
4	8	20	10	5	2.0	
5	10	25	12	6	4.8	200
6	12	32	16	8	8.0	
8	16	40	20	10	17.0	100
10	20	50	25	12	35.0	
12	23	64	32	14	80.0	
14	23	64	32	14		50
16	28	72	36	16	90.0	20
0	36	90	45	20	180	
22	36	90	45	20		
24	45	112	56	24	260	10



D	M	S	E	WEIGHT IN KG PER 1000 PIECES	PACK
G1/8	6	19 18	20.88 19.85	11.6	
G1/4	6	22 21	23.91 22.78	14.2	
G3/8	7	27	29.56	26.1	
G1/2	8	32 34	35.03 37.29	36.4	
G3/4	9	36	39.55	43.6	
G1	10	46	50.85	81.3	
G1 1/4	11	55	60.79	117	
G1 1/2	12	60	66.44	134	
G	13	75	82.60	77	
G2 1/2	16	95	104.86	49	
G3	19	105	116.16	554	
G4	22	135	149.72	1040	
G5	22	165	183.06	1330	
G6	25	190	209.50	1850	

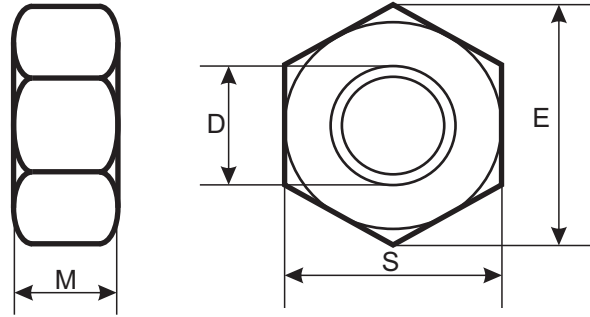


NORMAL METRIC THREAD

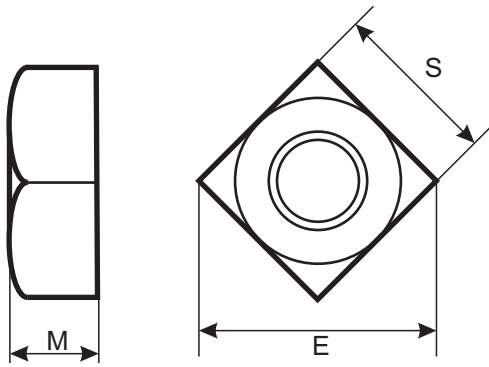
D	S	E	M	WEIGHT IN KG PER 1000 PIECES	PACK
3	5.5	6.08	1.8	0.29	500
4	7	7.74	2.2	0.57	
5	8	8.87	2.7	0.83	
56	10	11.05	3.2	1.6	
8	13	14.38	4	3.2	200
10	17	18.90	5	7.2	100
12	19	21.10	6	10.4	50
16	24	26.75	8	20.5	
0	30	33.53	10	0.2	
24	36	39.98	12	69.5	
30	46	51.28	15	139	50
36	55	61.31	18	244	
42	65	72.61	21	403	
48	75	83.91	24	617	

FINE METRIC THREAD

D	S	E	M	WEIGHT IN KG PER 1000 PIECES	PACK
8	13	14.38	4	3.2	200
10	17	18.90	5	7.2	100
12	19	21.10	6	10.4	50
16	4	25.76	8	20.5	
20	30	35.53	10	40.2	
24	36	39.8	12	69.5	
30	46	51.28	15	139	50
36	55	91.31	18	244	
42	65	72.61	1	403	
48	75	83.91	24	617	

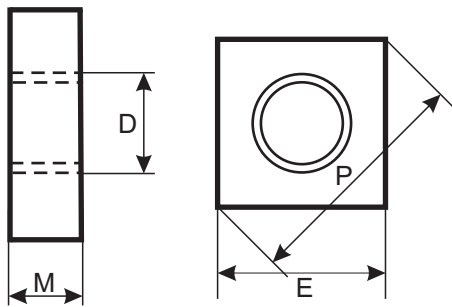


D	S	E	M	WEIGHT IN KG PER 1000 PIECES	PACK
5	8	8.63	4	1.11	
6	10	10.89	5	2.32	500
8	13	4.20	6.5	4.62	200
10	17	18.72	8	10.9	
12	19	0.8	10	15.9	100
14	2	4.97	11	25	
16	24	26.17	13	30.8	
18	27	30.05	15	49.4	
20	30	32.95	16	60.3	
2	32	36.10	18	80.2	50
24	36	39.55	19	103	
27	41	45.20	22	154	
30	46	50.85	24	216	25
33	50	55.37	26	271	
36	55	60.79	29	369	
39	60	66.44	31	472	
42	65	71.3	34	610	
45	70	76.95	36	750	
48	75	82.6	38	924	
52	80	88.5	42	1130	
56	85	93.56	45	1350	
60	90	99.23	48	1600	
64	95	104.86	51	1880	
72	105	116.16	58	2520	
80	15	127.46	64	3260	
90	130	144.08	72	4680	
100	145	161.02	80	6340	



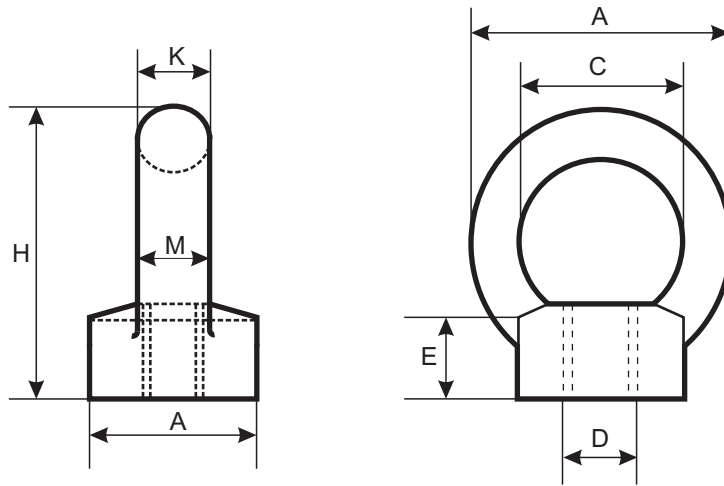
DIN 557

D	S	E	M	WEIGHT IN KG PER 1000 PIECES	PACK
5	8	11.3	4	1.31	
6	10	14.1	5	2.77	500
8	13	18.4	8.5	5.50	200
10	17	14	8	12	
12	19	26.9	10	19.1	100
16	24	33.9	13	38.2	50
20	30	42.4	16	73.5	

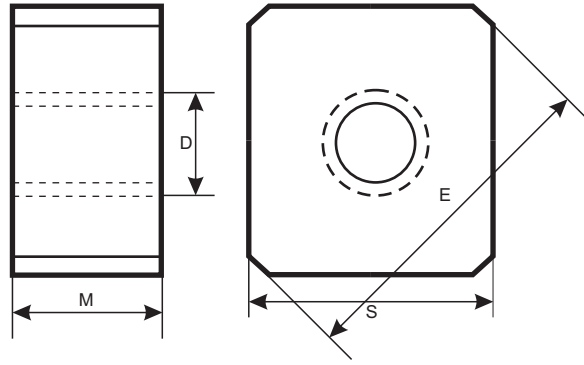


DIN 562

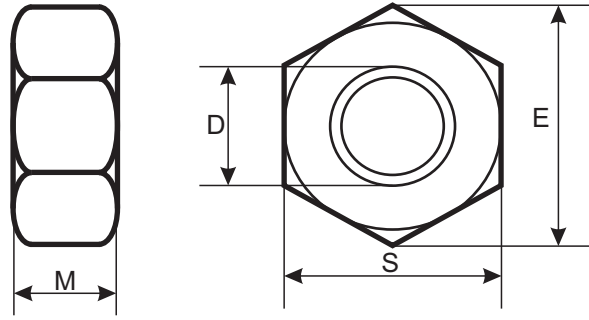
D	S	E	M	WEIGHT IN KG PER 1000 PIECES	PACK
2	4	5	1.2	0.13	
2.5	5	6.3	1.6	0.27	
3	5.5	7	1.8	0.35	500
4	7	8.9	2.2	0.64	
5	8	10.2	2.7	1.06	
6	10	12.7	3.2	1.93	
8	13	16.5	4	4.01	200
10	17	21.6	5	8.80	100



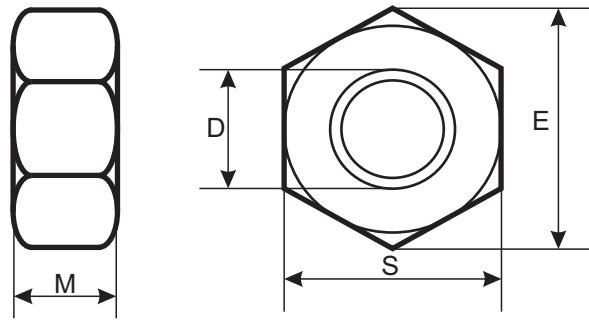
D	A	H	A	C	E	K	M	(1) IN KG STEEL C5	(2) IN KG STEEL C5	WEIGHT IN KG PER 1000 PIECES
8	20	36	36	20	8.5	8	10	140	95	50
10	5	45	45	25	10	10	12	230	170	90
12	30	53	54	30	11	12	14	340	240	160
16	35	62	63	35	13	14	16	700	500	240
20	40	71	72	40	16	16	19	1200	830	360
24	50	90	90	50	20	20	24	1800	1270	720
27	50	90	90	50	20	20	24	1800	1270	700
30	65	109	108	60	25	24	28	3600	2600	1390
33	65	109	108	60	25	24	28	3600	2600	1320
36	75	128	126	70	30	28	32	5100	3700	2080
39	75	128	16	70	30	28	32	5100	3700	035
42	85	147	144	80	35	32	38	7000	5000	3110
45	85	147	144	80	35	32	38	7000	5000	3040
48	100	168	166	90	40	38	46	8600	6100	5020
52	100	168	166	90	40	38	46	8600	6100	4900
56	110	187	184	100	45	42	50	11500	8300	6690
64	120	208	206	110	50	48	58	16000	11000	9300
72	150	260	260	140	60	60	72	21000	15000	18500
80	170	298	295	160	70	68	80	28000	20000	27300
100	190	330	330	180	80	75	88	38000	27000	36400



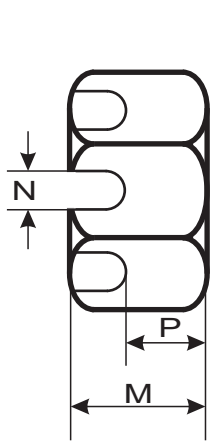
D	S	E	M	WEIGHT IN KG PER 1000 PIECES	PACK
24	50	65	30	495	
30	60	80	38	980	
36	70	92	45	1550	
42	80	105	53	2350	
48	90	118	60	3320	
56	100	132	70	4520	
64	110	145	80	5600	
72*6	120	160	90	7400	
80*6	130	170	100	9500	
90*6	145	190	112	13800	
100*6	165	220	125	19400	



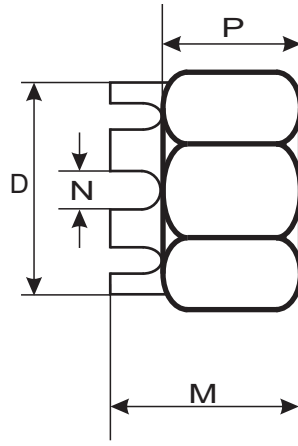
D	S	E	M	WEIGHT IN KG PER 1000 PIECES	PACK
2	4	4.38	1.6	0.14	500
2.5	5	5.51	2	0.28	
3	5.5	6.08	2.4	0.38	
4	7	7.74	3.2	0.81	200
5	8	8.87	4	1.23	
6	10	11.05	5	.50	
7	11	12.12	5.5	3.12	
8	13	14.38	.5	5.20	100
10	17	18.90	8	11.6	
12	19	21.10	10	17.3	
14	22	24.49	11	25.0	
16	24	28.75	13	33.8	50
18	27	30.14	15	49.4	
20	30	33.53	16	64.4	
2	32	35.72	18	79.0	
24	36	39.98	19	110	25
27	41	45.63	22	165	
30	46	51.28	24	223	
33	50	55.80	26	288	
36	55	61.31	29	393	
39	60	66.96	31	502	
42	65	72.61	34	652	
45	70	78.26	36	800	
48	75	83.91	38	977	
52	80	89.56	42	1220	
56	85	95.07	45	1420	
60	90	99.21	48	1690	
64	95	104.86	51	1980	
68	100	10.51	54	300	
72*6	105	116.16	58	2670	
76*6	110	121.81	61	3040	
80*6	115	127.46	64	3440	
85*6	120	133.11	68	3930	
90*6	130	144.08	72	4930	
100*6	145	161.02	80	6820	
110*6	155	172.32	88	8200	
125*6	180	200.57	100	13000	
140*6	200	220.80	112	17500	
160*6	230	254.70	128	26500	



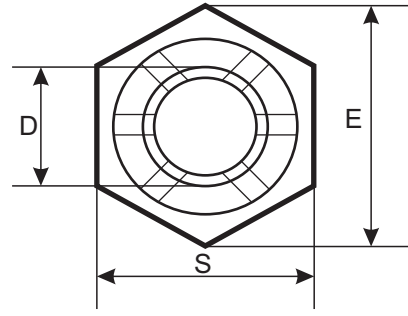
D	S	E	M	WEIGHT IN KG PER 1000 PIECES	PACK
1/8	6	6.92	2.4	0.38	500
5/32	7	8.07	3.2	0.81	
3/16	9	10.4	4	1.23	
1/4	11	12.7	5.5	3.00	
5/16	14	16.2	6.5	.80	200
3/8	17	19.6	8	10.8	
7/16	19	21.9	9.5	15.2	
1/2	22	25.4	11	24.3	
5/8	27	31.2	13	42.3	50
3/4	32	36.9	16	7.8	
7/8	36	41.6	18	98.7	
1	41	47.3	20	139	
1 1/8	46	53.1	22	196	
1 1/4	50	57.7	25	259	
1 3/8	55	63.5	28	354	
1 1/2	60	69.3	30	443	
1 5/8	65	75.0	32	560	
1 3/4	70	80.8	35	709	
1 7/8	75	86.5	38	889	
2	80	92.4	40	1060	



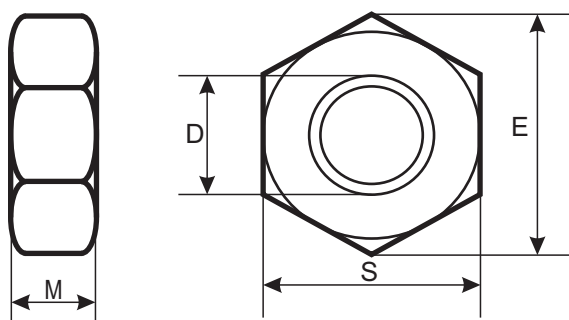
Form A
Up to d=M10



Form B
Up to d=M12



D	D1	M	S	E	N	P	SUFTABLE CUTTER PIN DIN94	WEIGHT IN KG PER 1000 PIECES	PACK
4	-	5	7	7.66	1.2	3.2	1*10	1.12	100
5	-	6	8	8.79	1.4	4	1.2*2	2.3	
6	-	7.5	10	11.05	2	5	1.6*14	3.16	
8	-	9.5	13	14.38	2.5	6.5	2*16	7.35	
10	-	12	17	18.90	2.8	8	2.5*0	15.8	50
12	17	15	19	21.10	3.5	10	3.2*22	20.0	
16	22	19	24	26.75	4.5	13	4*28	38.9	
20	28	22	30	32.95	4.5	16	4*36	75.2	
24	34	27	36	39.55	5.5	19	5*40	131	25
30	42	33	46	50.85	7	24	6.3*50	264	
36	50	38	55	60.79	7	29	6.3*63	447	
42	58	46	65	72.02	9	34	8*71	710	
48	65	50	75	82.60	9	38	8*80	1060	
56	75	57	85	93.56	9	45	8*00	1500	
64	85	66	95	104.86	11	51	10*100	2150	

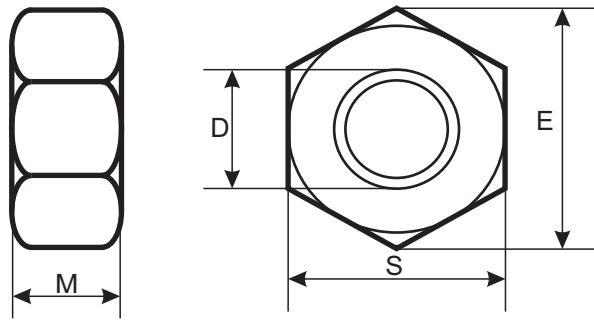


NORMAL METRIC THREAD

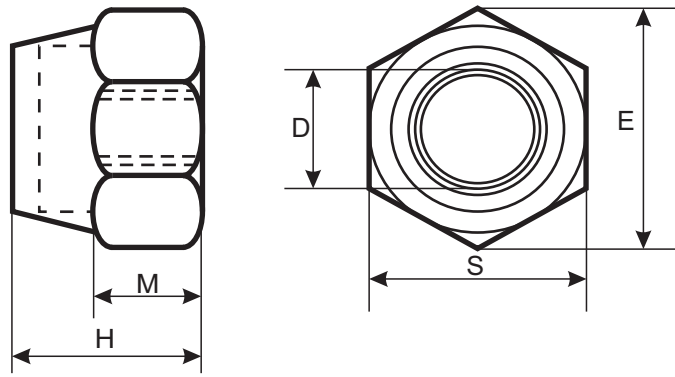
D	S	E	M	WEIGHT IN KG PER 1000 PIECES	PACK
8	13	14.38	5	4.0	200
10	17	18.90	6	8.6	
12	19	21.10	7	12.1	100
16	24	26.75	8	20.1	
20	30	33.53	9	36.3	50
24	36	39.98	10	58	25
30	46	51.28	12	111	
36	55	61.31	14	190	
42	65	72.61	16	307	
48	75	83.91	18	460	

FINE METRIC THREAD

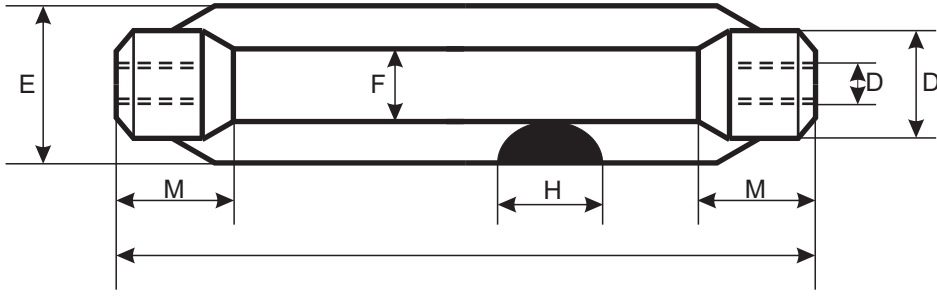
D	S	E	M
8	13	14.38	5
10	17	19.90	6
12	19	21.10	7
16	24	25.75	8
20	30	33.53	9
24	36	39.98	10
30	46	51.28	12
36	55	61.31	14
42	65	72.61	16
48	75	83.91	18



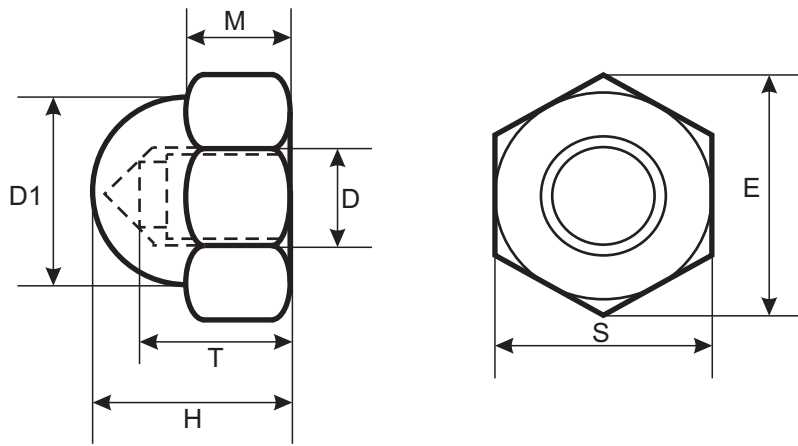
D	S	E	M max.	WEIGHT IN KG PER 1000 PIECES	PACK
1.6	3.2	3.41	1.3	0.08	
2	4	4.32	1.6	0.14	
2.5	5	5.45	2	0.28	
3	5.5	6.01	2.4	0.38	
4	7	7.68	3.2	0.81	
5	8	8.79	4.7	1.45	
6	10	11.05	5.2	2.6	
8	13	14.38	6.8	5.4	
10	16	17.77	8.4	10.6	
11	18	20.03	10.8	16.3	
14	21	23.35	12.8	26.4	
16	24	26.75	14.8	38	
20	30	32.95	18	73	
24	36	39.55	21.5	125	
30	46	50.85	25.6	238	
36	55	60.79	31	420	



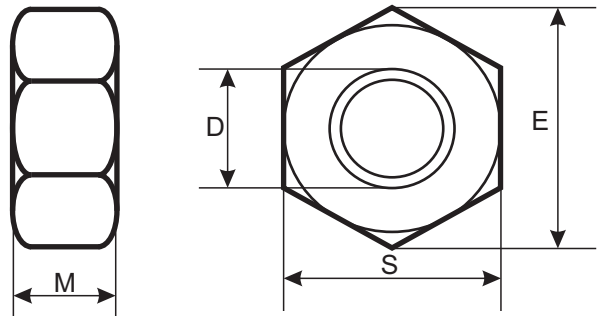
D	S	E	H	M	WEIGHT IN KG PER 1000 PIECES	PACK
M3	5.5	6.01	4	2.4	0.50	200
M4	7	7.66	5	2.9	1.00	
M5	8	8.79	5	3.2	1.40	
M6	10	11.05	6	4	2.40	
M8	13	14.38	8	5.5	5.10	100
M10	17	18.90	10	6.5	10.6	
M12	19	21.10	12	8	17.2	
M14	22	24.49	14	9.5	6.0	
M16	24	26.75	16	10.5	34.0	50
M18	27	29.56	18.5	13	45.0	
M20	30	32.95	20	14	65.0	
M22	32	35.03	22	15	75.0	
M24	36	39.55	24	15	100	25
M27	41	45.02	27	17	162	
M30	46	50.82	30	19	212	
M3	50	55.37	33	22	317	
M36	55	60.79	36	25	415	
M39	60	66.44	39	27	499	
M42	65	72.09	42	29	628	
M45	70	76.95	45	32	771	
M48	75	82.6	48	36	998	



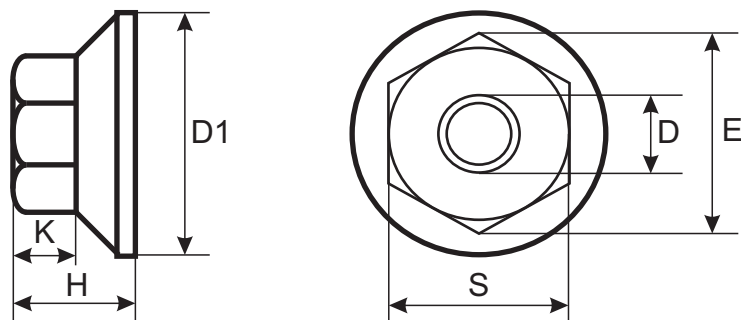
D	8	9	10	12	16	20	24	30	36	42	48	56
D1	12	13	18	21	27	34	39	45	55	63	80	80
L	110	110	125	125	170	200	255	255	295	30	355	355
M	12	15	18	21	27	34	39	45	55	63	78	78
E	19	23	30	34	42	52	60	74	86	104	135	135
F	9	11	14	16	20	24	28	34	40	50	65	65
H	6	8	9	11	14	17	20	23	28	32	40	40
LENTH OF ADJUSTMENT mm	80	75	85	80	110	130	170	160	180	200	195	195



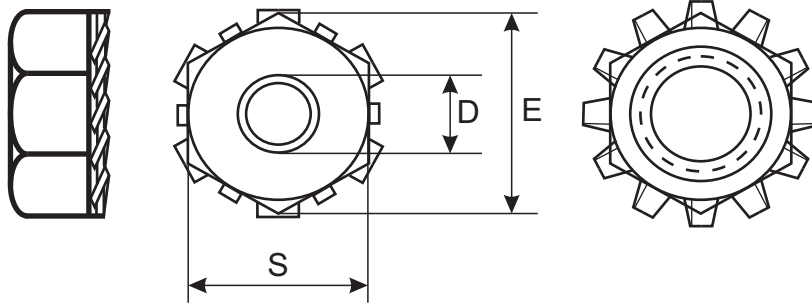
D	S	E	D1	H	T	M	WEIGHT IN KG PER 1000 PIECES	PACK
4	7	7.68	6.5	8	5.5	3.2	-	200
5	8	8.79	7.5	10	7.5	4	-	
6	10	11.05	9.5	12	8	5	4.66	
8	13	14.38	12.5	15	11	6.5	11.0	
10	16/17	17.77/18.90	15/16	18	13	8	20.1	100
12	18/19	20.03/21.10	17/18	22	16	10	28.3	
14	21/22	23.35/24.49	20/21	25	18	11	40	
16	24	26.75	23	28	21	13	54.3	
18	27	30.14	26	32	25	15	95.0	25
20	30	33.53	28	34	26	16	104	
22	32/34	35.72/37.72	31/33	39	29	18	129	
24	36	39.98	34	42	31	19	216	



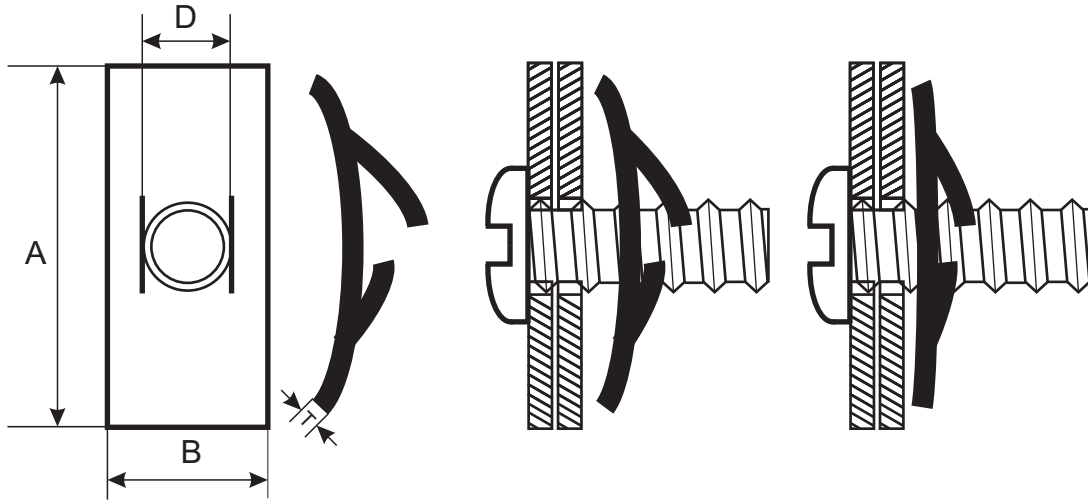
D	S	E	M	WEIGHT IN KG PER 1000 PIECES	PACK
12	22	23.91	10	23.3	
16	27	29.56	13	44.6	
20	32	35.03	16	73.9	
22	36	39.55	18	104	
24	41	45.20	19	155	
27	46	50.85	22	224	
30	50	55.37	24	300	
36	60	66.44	29	515	



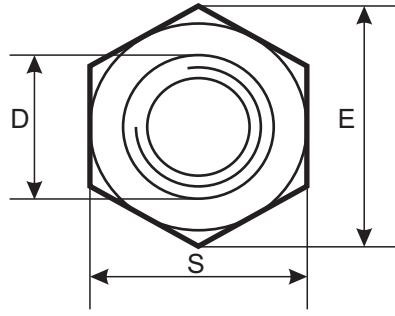
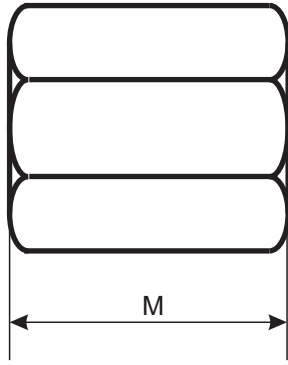
D	D1	S	E	K	H	WEIGHT IN KG PER 1000 PIECES	PACK
3	10	5.5	6.4	2.4	3.7	0.85	
4	12	7	8.1	3.2	4.9	1.6	
5	15	8	9.2	4	6	2.7	
6	18	10	11.5	5	7.5	5.0	
8	23	13	15	6.5	9.7	11.0	
10	28	17	19.6	8	12	22.0	



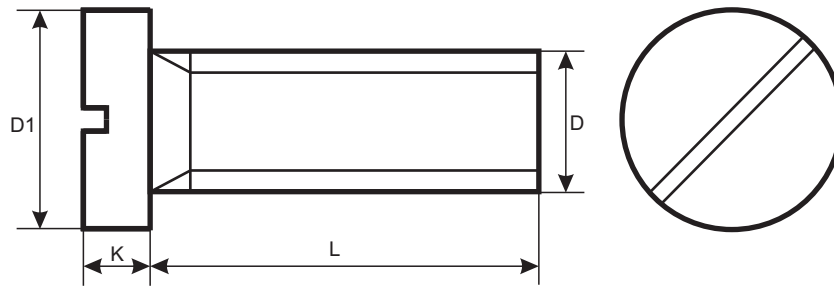
D	S	E	K	H	WEIGHT IN KG PER 1000 PIECES	PACK
3	5.5	6.4	2.75	3.2		
4	7	8.1	3.55	4		
5	8	9.2	4.50	5.1		
6	10	11.5	5.50	6.1		
8	13	15	7.10	7.9		
10	17	19.6	8.70	9.6		
12	19	21.8	10.70	11.6		



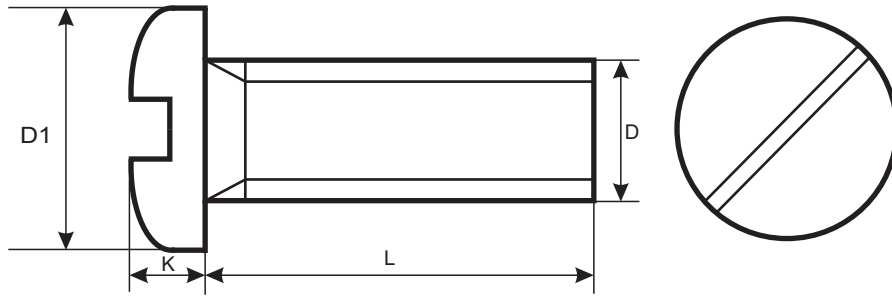
FOR SELF TAPPING SCREW No.	Ø mm	S	B	T	HOLE SIZE DIA.	WEIGHT IN KG PER 1000 PIECES	PACK
4	2.9	14.3	9	0.5	3.2		
6	3.5	13.5	9	0.6	4		
6	3.6	14.3	9	0.6	4		
8	4.2	15.0	9.5	0.6	4.8		
8	4.2	09.0	9.5	0.6	4.8		
10	4.8	16.7	10.3	0.7	5.6		
10	4.8	20.7	10.3	0.7	5.6		
12	5.5	17.5	11.1	0.8	6.4		
12	5.5	20.6	11.1	0.8	6.4		



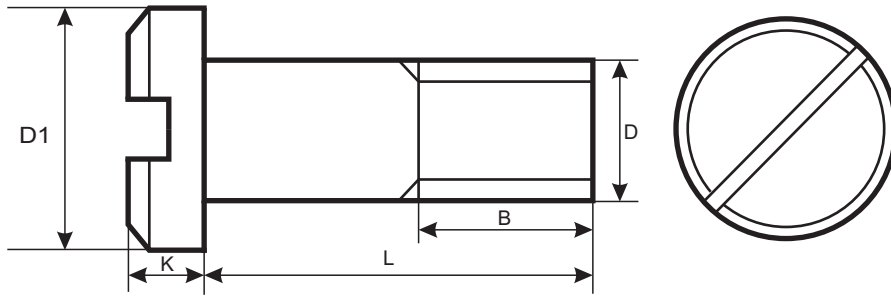
D	S	E	M	WEIGHT IN KG PER 1000 PIECES	PACK
6	10	11.5	18	8	
8	13	15.0	24	19	
10	17	19.6	30	42	
12	19	21.9	38	64	
14	22	25.4	42	95	
16	24	27.7	48	120	
18	27	31.2	54	160	
20	30	36.6	60	240	
22	32	36.9	66	300	
24	36	41.6	72	400	
27	41	47.3	81	600	
30	46	53.1	90	850	
36	55	63.5	108	1470	
42	65	75.0	126	2340	
48	75	86.5	144	3600	



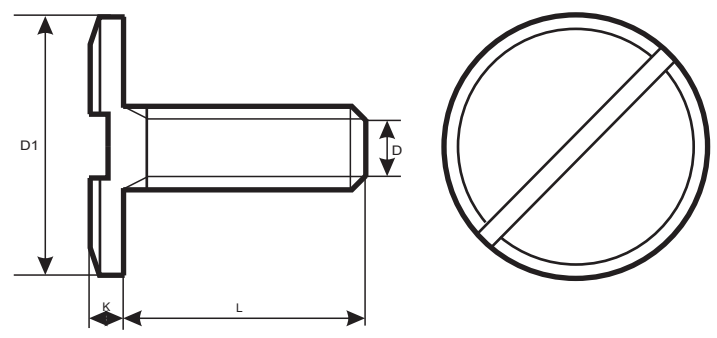
D	2	2.5	3	4	5	6	8	10
D1	3.8	4.5	5.5	7	8.5	10	13	16
K	1.3	1.6	2	2.6	3.3	3.9	5	6
L mm	Weights in kg per 1000 pieces							
4	0.17	0.30	0.51	1.02				
5	0.19	0.33	0.56	1.09				
6	0.21	0.36	0.60	1.17	2.06			
8	0.25	0.42	0.69	1.33	2.20	3.56		
10	0.29	0.48	0.78	1.47	2.55	3.92	7.85	
12	0.32	0.54	0.86	1.63	2.80	4.27	8.49	
16	0.40	0.66	1.04	1.95	3.30	4.98	9.77	
20	0.47	0.78	1.22	2.25	3.78	5.69	11.0	18.6
25			1.44	2.64	4.40	6.65	12.6	21.1
30			1.68	3.02	5.02	7.45	14.2	23.6
35			1.88	3.41	5.62	8.25	15.8	26.1
40			2.10	3.80	6.25	9.20	17.4	28.6
45				4.17	6.88	10.0	18.9	31.1
50				4.57	7.50	10.9	20.6	33.6
60					8.75	12.6	3.8	38.6



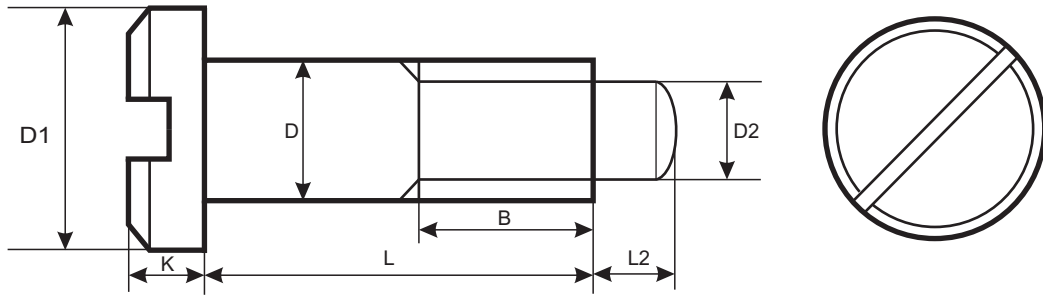
D	3	4	5	6
D1	6	8	10	12
K	1.8	2.4	3	3.6
L mm	Weights in kg per 1000 pieces			
5	0.59	1.24	2.27	
8	0.68	1.39	2.52	4.02
10	0.76	1.55	2.76	4.37
12	0.85	1.70	3.00	4.72
16	1.03	2.01	3.50	5.45
20	1.21	2.32	4.00	6.14
25	1.43	2.71	4.62	7.01
30	1.65	3.10	5.24	7.90
35		3.48	5.86	8.78
40		3.87	6.48	9.66
45			7.10	10.5
50			7.72	11.4



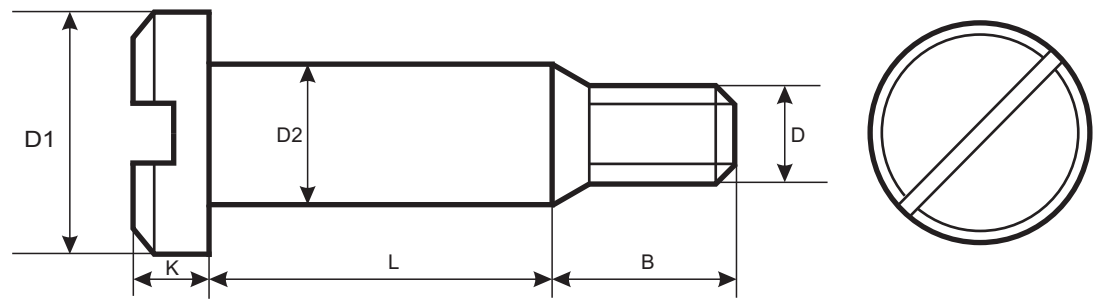
D	2	2.5	3	4	5	6	8	10	
D1	2.8	3.5	4	5.5	6.5	8	10	13	
K	1.2	1.5	1.8	2.4	2.7	3.1	3.8	4.6	
B	X	FULLY THREADED							
	Y	6	7.5	9	12	15	18	24	30
L mm	Weights in kg per 1000 pieces								
3									
4									
5									
6									
8									
10									
12									
16									
20									
5									
30									
35									
40									
45									
50									
60									



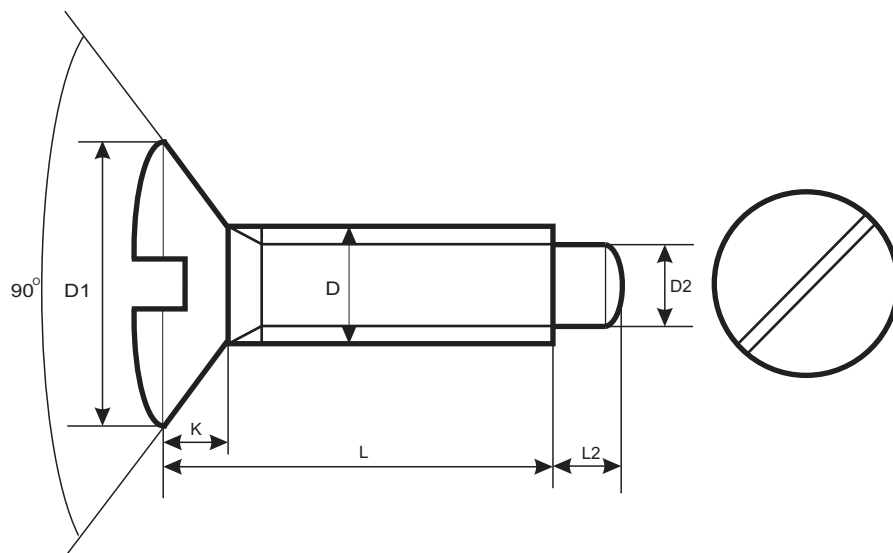
D	2	2.5	3	4	5	6	8	10
D1	6	7	8	12	16	20	25	30
K	1.2	1.5	1.8	2.4	2.7	3.1	3.8	4.6
L mm	Weights in kg per 1000 pieces							
3								
4								
5								
6								
8								
10								
12								
16								
20								



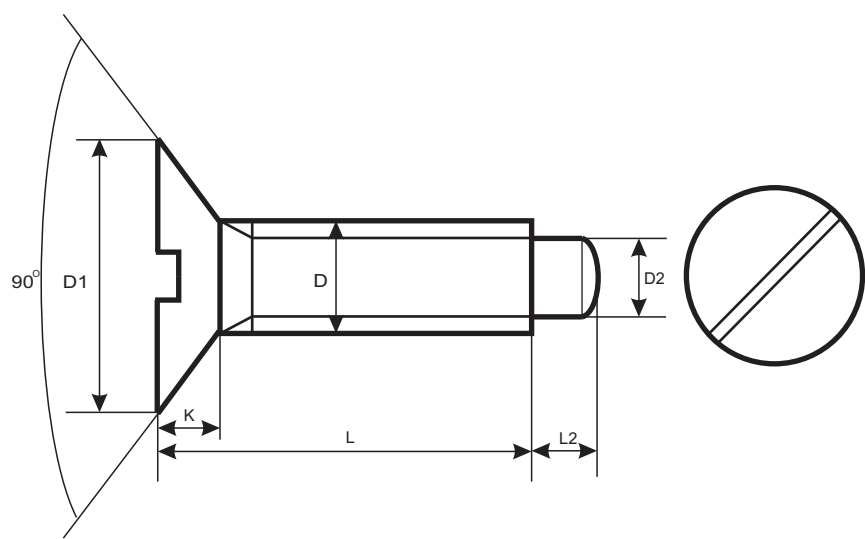
D	2	2.5	3	4	5	6	8	10
D1	2.8	3.5	4	5.5	6.5	8	10	13
K	1.2	1.5	1.8	2.4	2.7	3.1	3.8	4.6
D2	1.2	1.5	2	2.8	3.5	4.5	6	7.5
L mm	Weights in kg per 1000 pieces							
2								
2.5								
4								
6								
10								
16								
20								
L2 mm								
1.6								
2								
2.5								
4								
6								
10								



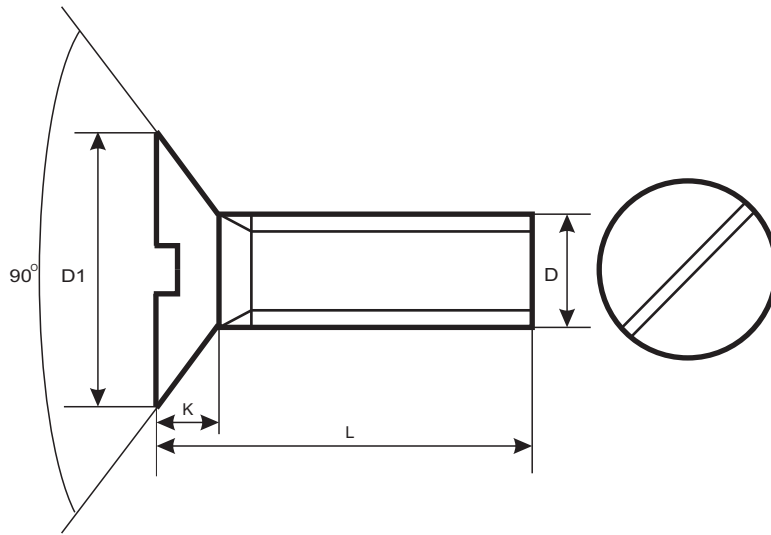
D	2	2.5	3	4	5	6	8	10
D1	4.5	6	7	8.5	11	13	16	20
D	2.8	3.5	4	5.5	7	8	10	13
K	1.2	1.5	1.8	2.4	2.7	3.1	3.8	4.6
B	3	3.5	4.5	6	7	9	11	11.5
L mm	Weights in kg per 1000 pieces							
1								
1.2								
1.4								
1.5								
1.6								
1.8								
2								
2.5								
3								
4								
5								
6								
10								
16								
20								
25								
2.5								
4								
6								
10								
16								
20								



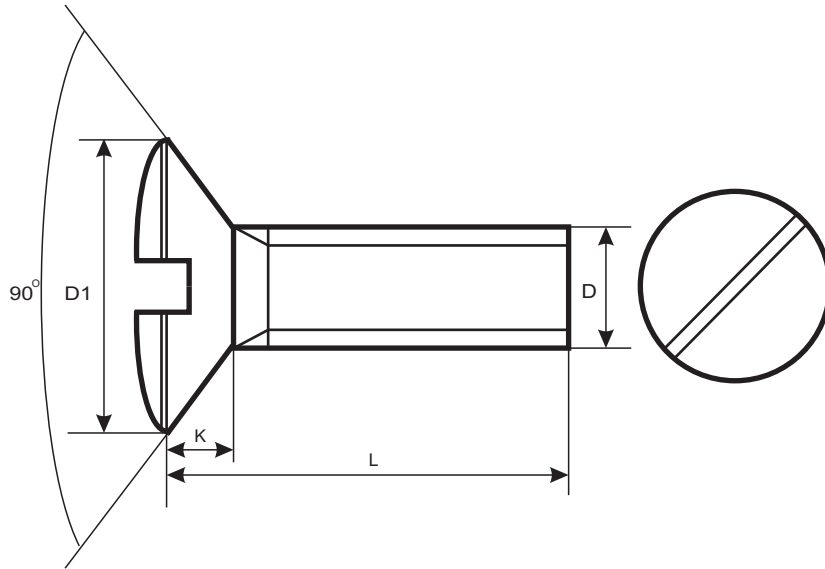
D	1.4	1.6	2	2.5	3
D1	2.6	3	3.6	4.7	5.6
K max	0.84	0.96	1.2	1.5	1.65
D2	0.8	0.8	1.2	1.5	2
L mm	Weights in kg per 1000 pieces				
1.6					
2					
2.5					
3					
4					
5					
6					
8					
L2 mm					
0.6					
1					
1.6					
2					
2.5					
3					
4					



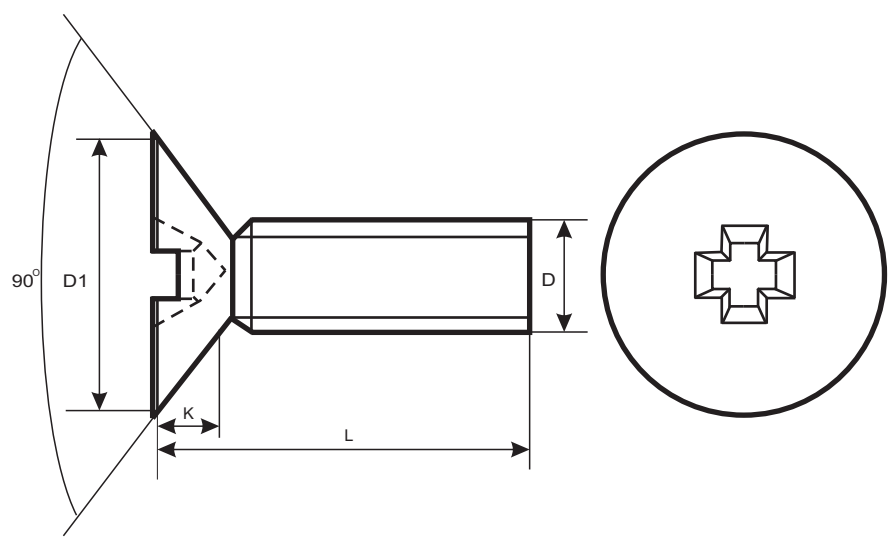
D	1.4	1.6	2	2.6	3
D1	2.6	3	3.8	4.7	5.6
K max	0.84	0.96	1.2	1.5	1.65
D2	0.8	0.8	1.2	1.5	2
L mm	Weights in kg per 1000 pieces				
1.6					
2					
2.5					
3					
4					
5					
6					
8					
L2 mm					
0.6					
1					
1.6					
2					
2.5					
3					
4					



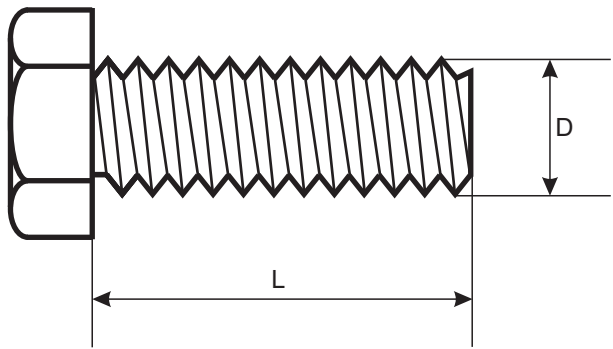
D	2	2.5	3	4	5	6	8	10	12	16	20
D1	3.6	4.7	5.6	7.5	9.2	11	14.5	18	22	29	36
K	1.2	1.5	1.65	2.2	2.5	3	4	5	6	8	10
L mm	Weights in kg per 1000 pieces										
6	0.15	0.26	0.37	0.75	1.21						
8	0.19	0.32	0.46	0.91	1.45	2.19					
10	0.23	0.38	0.55	1.06	1.70	2.54	5.03				
12	0.26	0.44	0.64	1.22	1.95	2.89	5.67	9.59			
16	0.34	0.56	0.82	1.53	2.44	3.60	6.94	11.6			
20		0.68	0.99	1.84	2.94	4.31	8.21	13.6	20.8		
25		0.83	1.22	2.22	3.55	5.19	9.79	16.1	24.4	47.7	
30			1.44	2.61	4.16	6.08	11.4	16.6	28.1	54.4	90.5
35				3.00	4.65	6.96	13.0	21.4	31.7	61.1	101
40				3.38	5.40	7.84	14.6	23.6	35.3	67.8	111
45					6.02	8.73	16.2	26.1	39.0	74.5	122
50					6.65	9.61	17.8	28.6	42.6	81.1	132
60								33.7	49.8	94.4	153
70									57.1	108	174
80									64.4	121	195
90										134	216
100										148	237



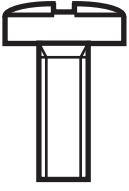
D	2	2.5	3	4	5	6	8	10
D1	3.8	4.7	5.6	7.5	9.2	11	14.5	18
K	1.2	1.5	1.65	2.2	2.5	3	4	5
L mm	Weights in kg per 1000 pieces							
6	0.18	0.30	0.43	0.90	1.49			
8	0.21	0.36	0.52	1.06	1.73	2.66		
10	0.25	0.42	0.61	1.21	1.98	3.01	6.14	
12	0.29	0.48	1.37	1.37	2.23	3.36	6.78	11.7
16	0.36	0.60	1.68	1.68	2.72	4.07	8.05	13.7
20		0.72	1.99	1.99	3.22	4.78	9.32	15.7
25		0.87	2.37	.37	3.3	5.66	10.9	18.2
30			2.76	2.78	4.44	6.55	12.5	20.7
35			3.15	3.15	4.93	7.43	14.1	23.7
40			3.53	3.53	5.68	8.31	15.7	25.7
45					6.30	9.20	17.3	28.2
50					6.93	10.1	18.9	30.7



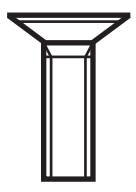
D	2	2.5	3	4	5	6	8	10
D1	3.8	4.7	5.6	7.5	9.2	11	14.5	18
K	1.2	1.5	1.65	2.2	2.5	3	4	5
L mm	Weights in kg per 1000 pieces							
6		0.27	0.38	0.75	1.21			
8		0.33	0.47	0.91	1.45	2.19		
10		0.39	0.56	1.06	1.70	2.54	5.03	
12		0.45	0.64	1.22	1.95	2.89	5.67	9.59
16		0.57	0.82	1.53	2.44	3.60	6.94	11.6
20		0.69	1.00	1.84	2.94	4.31	8.21	13.6
25		0.84	1.22	2.22	3.55	5.19	9.79	16.1
30			1.44	2.6	4.16	6.08	11.4	18.6
35				3.00	4.65	6.96	13.0	21.1
40				3.38	5.40	7.84	4.6	23.6
45					6.02	8.73	16.2	26.1
50					6.65	9.61	17.8	28.6



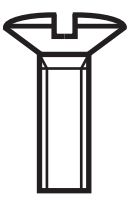
TYPE C
CROSS RECESSED
DIN 7985



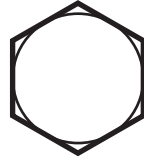
TYPE K
COUNTERSUNK HEAD
CROSS RECESSED
DIN 965



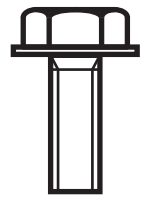
TYPE L
OVERAL HEAD
CROSS RECESSED
DIN 966



TYPE D
HEXAGON HEAD
DIN 933



TYPE M
HEXAGON HEAD
WASHER FACED



D	M3		M4		M5		M6		M8		M10	
	STEEL	ALU	STEEL	ALU	STEEL	ALU	STEEL	ALU	STEEL	ALU	STEEL	ALU
1.5	2.7	2.7	3.6	3.6	4.5	4.5						
2	2.75	2.7	3.6	3.6	4.5	4.5	5.4	5.4				
2.5	2.75	2.75	3.65	3.6	4.5	4.5	5.4	5.4	7.25	7.25	9.2	-
3	2.75	2.75	3.65	3.6	4.5	4.5	5.45	5.45	7.25	7.25	9.2	9.15
3.5	2.75	2.75	3.65	3.65	4.55	4.55	5.45	5.45	7.25	7.25	9.2	9.15
4	2.75	2.75	3.65	3.65	4.55	4.55	5.45	5.45	7.3	7.3	9.3	9.15
5	2.75	2.75	3.7	3.65	4.6	4.6	4.45	5.45	7.4	7.3	9.3	9.2
5.5	2.75	2.75	3.7	3.65	4.6	4.6	5.5	5.5	7.4	7.3	9.3	9.2
6	2.75	2.75	3.7	3.65	4.6	4.6	5.5	5.5	7.4	7.3	9.3	9.2
6.5			3.7	3.7	4.65	4.65	5.5	5.5	7.4	7.35	9.3	9.2
7			3.7	3.7	4.65	4.65	5.5	5.5	7.5	7.4	9.3	9.2
8 A 10					4.65	4.65	5.55	5.55	7.5	7.4	9.4	9.3

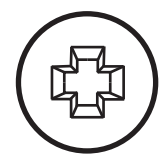
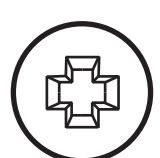
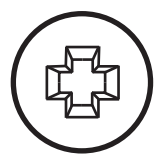
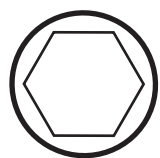
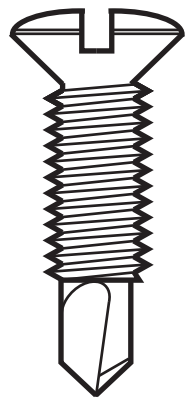
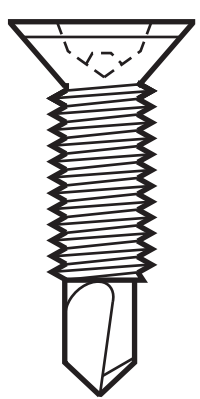
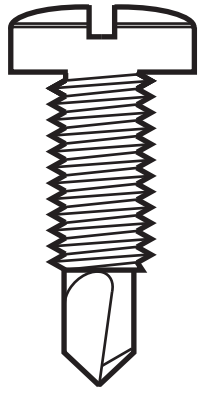
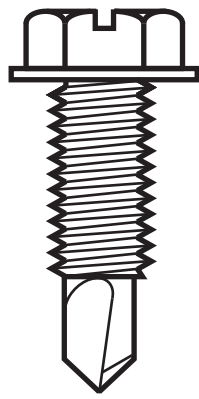
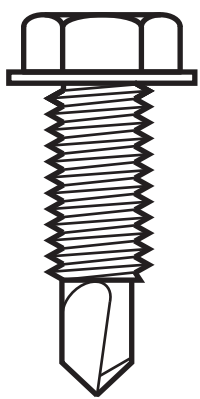
SHAPE K
HEXAGON HEAD
WASHER FACED

SHAPE L
HEXAGON SLOTTED
HEAD, WASHER FACED

SHAPE N
CHESSE HEAD
CROSS RECESSED
DIN 7981

SHAPE P
COUNTERSUNK HEAD
CROSS RECESSED
DIN 7982

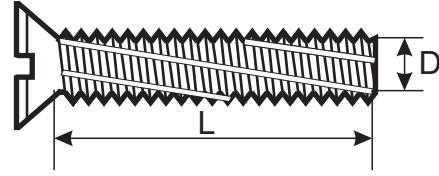
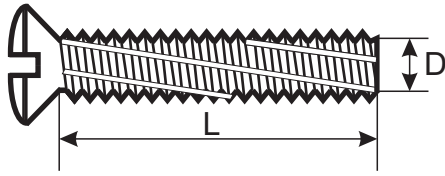
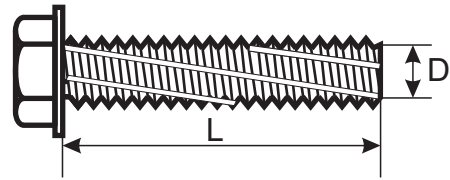
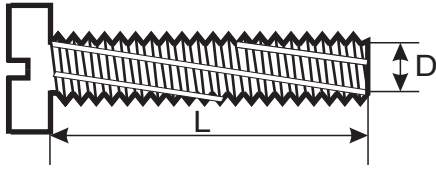
SHAPE Q
OVAL HEAD
CROSS RECESSED
DIN 7983



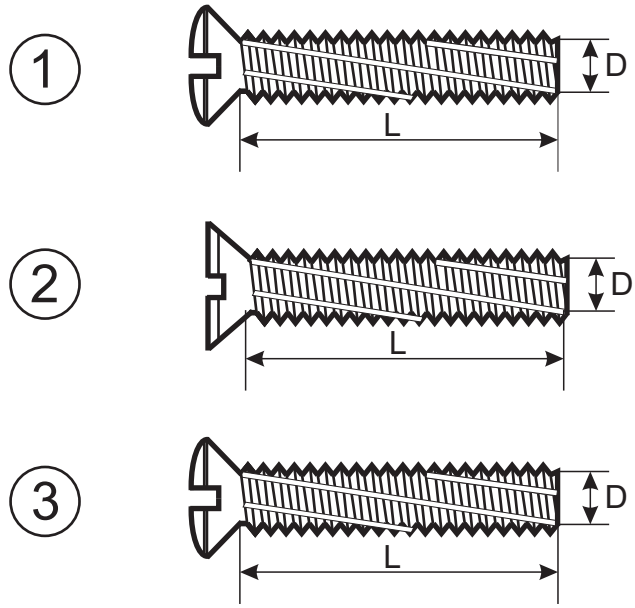
D mm	2.9	3.5	3.9	4.2	4.8	5.5	6.3
MATERIAL THICKNESS(mm)	FROM 0.7 TO 1.9	FROM 0.7 TO 2.25	FROM 0.7 TO 2.4	FROM 1.75 TO 3	FROM 1.75 TO 4.4	FROM 1.75 TO 5.35	FROM 2 TO 6
S	-	5.5	5.5	7	8	8	10
E	-	5.96	5.96	7.59	8.71	8.71	10.95
C	-	0.6	0.6	0.9	0.9	1	1
D	5.5	6.8	7.5	8.0	9.5	10.8	12.4
K min	-	3.2	3.2	4	4.15	5.15	6.15
K2 min	-	1.55	1.55	1.9	2	2.7	3.3
K3	2.2	2.6	2.8	3.05	2.55	3.95	4.55
K4	1.7	2.1	2.3	2.5	3	3.4	3.8
D2 min	-	7.6	7.6	8.2	9.8	10.0	12.2
D3	2.3	2.8	3.1	3.6	4.1	4.8	4.8

USE FULL THREAD LENGTH IN ACCORDANCE WITH GRIP LENGTHV(L2)

LENGTH L	L2						
9.5	3.25	2.85					
13	6.6	6.2	5.8	4.3	4.7		
16	9.6	9.2	8.8	7.3	5.8	5	
19	12.5	12.1	11.7	10.3	8.7	8	7
2		15.1	14.7	13.3	11.7	11	10
25		18.1	17.7	1.3	14.7	14	13
32			24.5	23	21.5	21	20
38			30.5	29	27.5	27	26
45					34.5	34	33
50					39.5	39	38

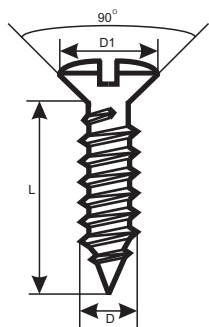
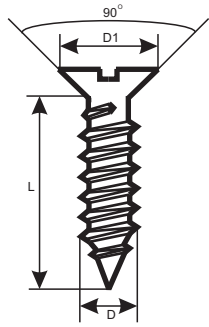
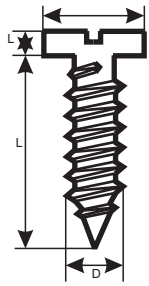


L mm	6	8	10	12	16	20	25	30	35	40	PACK
Ø D	Weights in kg per 1000 pieces										
4			0.64	1.80	2.0	2.41	2.80				200
5			2.63	2.87	3.37	3.87	4.49	5.11			
6				4.42	5.11	5.80	6.65	7.51	8.37		
8					11.1	12.3	13.9	15.5	17.1		
2.5	0.36	0.42	0.48	0.54	0.66	0.78					200
3	0.60	0.69	0.78	0.86	1.04	1.22					
4	1.17	1.33	1.47	1.63	1.95	2.25	2.64	3.02			
5			2.55	2.80	3.30	3.78	4.40	5.02			
6				4.27	4.98	5.69	6.65	7.45	8.25		
2.5		0.32	0.38	0.44	0.56	0.68					200
3		0.46	0.55	0.64	0.82	0.99					
4		0.91	1.06	1.22	1.53	1.84	2.22	2.61			
5			1.95	2.44	2.94	3.55	4.16	4.65	5.40		
6					3.60	4.31	5.19	6.08	6.96	7.84	
2.5		0.36	0.42								200
3		0.52	0.61	0.70	0.88	1.06					
4		1.06	1.21	1.37	1.68	1.99	2.37	2.76			
5				2.23	2.72	3.22	3.83	4.44			
6				3.36	4.07	4.78	5.66	6.55			

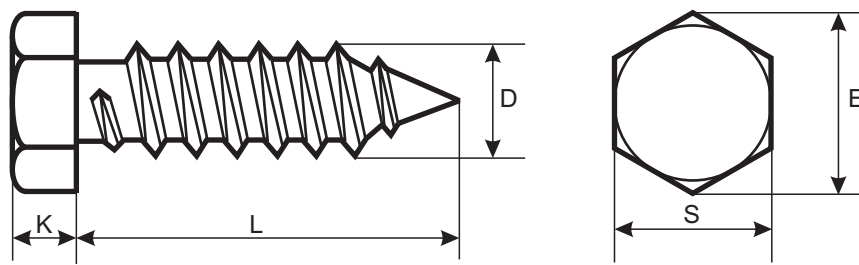


- ①
- ②
- ③

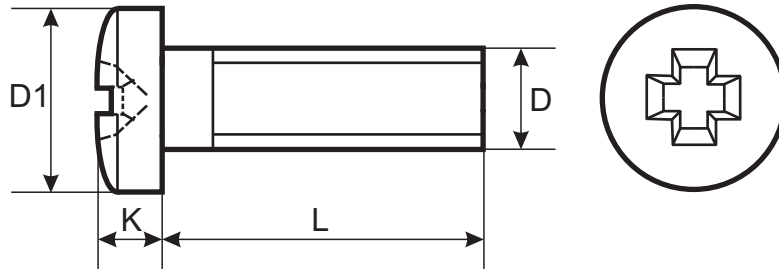
L mm	6	8	10	12	16	20	25	30	35	40	PACK
Ø D	Weights in kg per 1000 pieces										
3	0.60	0.69	0.78	0.6	1.04	1.22					200
4	1.17	1.3	1.47	1.63	1.95	2.25	2.64	3.02			
5			2.55	2.80	3.30	3.78	4.40	4.02			
6				4.27	4.98	5.69	6.56	7.45	8.25		
3		0.46	0.55	0.64	0.82	0.99					200
4		0.91	1.06	1.22	1.53	1.84	2.22	2.61			
5				1.95	2.44	2.94	3.55	4.16	4.65	5.40	
6					3.60	4.31	5.19	6.08	6.96	7.84	
3											200
4		0.52	0.61	0.70	0.88	1.06					
5		1.06	1.21	1.37	1.68	1.99	2.37	2.76			
6				2.23	2.72	3.22	3.83	4.44			
				3.36	4.07	4.78	5.66	6.55			



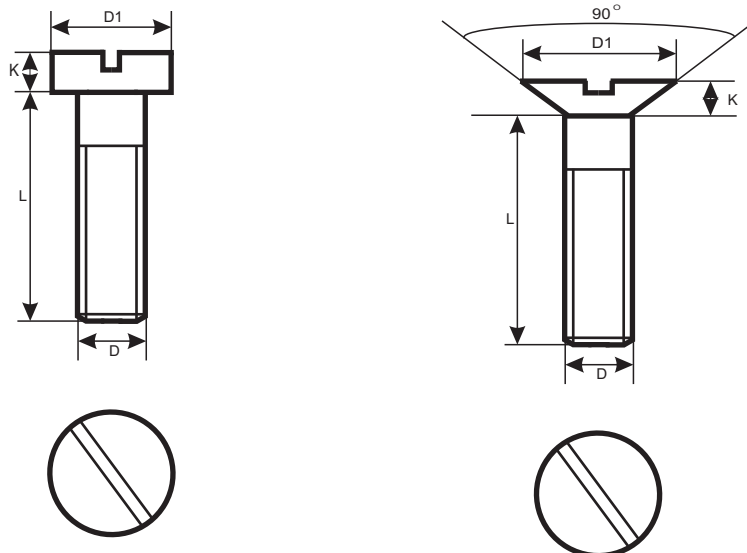
SQ No	4	6	7	8	10	12	14
D mm	2.9	3.5	3.9	4.2	4.8	5.5	6.3
D1	5.6	6.9	7.5	8.2	9.5	10.8	12.5
K	1.75	2.1	2.25	2.45	2.8	3.2	3.65
L mm	Weights in kg per 1000 pieces						
1/4	0.42	0.70	0.85				
3/8	0.53	0.84	1.07	1.26	1.85		
1/2	0.65	1.02	1.29	1.50	2.20	2.95	4.32
5/8	0.76	1.17	1.48	1.71	2.50	3.34	4.86
3/4	0.87	1.32	1.67	1.92	2.80	3.73	5.40
7/8	0.98	1.47	1.66	2.13	3.10	4.12	5.94
1	1.09	1.62	2.05	2.34	3.40	4.51	6.48
1 1/4		1.70	2.50	2.83	4.10	5.42	7.74
1 1/2		2.20	2.80	3.50	4.70	6.20	8.82
1 3/4				3.83	5.40	7.11	10.1
2				4.30	5.90	7.76	11.0
D1	5.5	6.8	7.5	8.1	9.5	10.8	2.4
K	1.7	2.1	2.3	2.5	3	3.4	3.8
L mm	Weights in kg per 1000 pieces						
3/8	0.35	0.54	0.68	0.78	1.10		
1/2	0.47	0.71	0.88	1.02	1.45	2.11	2.53
5/8	0.58	0.87	1.07	1.23	1.75	2.49	3.07
3/4	0.69	1.02	1.26	1.44	2.05	2.87	3.61
7/8	0.90	1.17	1.45	1.65	2.35	3.26	4.15
1	1.00	1.32	1.64	1.86	2.65	3.65	4.69
1 1/4		1.62	2.02	2.35	3.35	4.56	5.95
1 1/2				2.5	3.95	5.34	7.03
1 3/4				3.38	4.65	6.25	8.31
2				3.80	5.15	6.90	9.21
D1	5.5	6.8	7.5	8.1	9.5	10.8	12.4
K	1.7	2.1	2.3	2.5	3	3.4	3.8
L mm	Weights in kg per 1000 pieces						
3/8	0.44	0.72	0.89	1.07	1.88		
1/2	0.56	0.90	1.11	1.32	2.18	3.12	4.00
5/8	0.67	1.05	1.30	1.53	2.48	3.50	4.54
3/4	0.78	1.20	1.49	1.74	2.78	3.89	5.08
7/8		1.35	1.68	1.95	3.08	4.28	5.62
1		1.50	1.87	2.16	3.78	5.19	6.88
1 1/4			2.30	2.65	4.38	5.97	7.96
1 1/2					5.08	6.88	9.24
1 3/4					5.10	7.00	9.50
2					5.58	7.53	10.1



SQ No	4	6	7	8	10	12	14
D mm	2.9	3.5	3.9	4.2	4.8	5.5	6.3
S	5	5.5	7	7	8	8	10
L	5.45	6	7.66	7.66	8.79	8.79	11.5
K	1.5	2.3	2.3	2.8	3	4	4.8
L mm	Weights in kg per 1000 pieces						
1/4	0.32						
3/8	0.43	0.74	1.00	1.29	1.70		
1/2	0.55	0.92	1.29	1.54	2.02	2.72	4.25
5/8	0.66	1.08	1.48	1.76	2.32	3.09	4.77
3/4	0.86	1.23	1.67	1.97	2.61	3.48	5.30
7/8		1.36	1.87	2.19	2.90	3.86	5.82
1		1.54	2.06	2.40	3.19	4.25	6.35
1 1/4				2.91	3.88	5.14	7.57
1 1/2					4.46	5.90	8.63
1 3/4					5.16	6.81	9.89
2					5.66	7.46	10.8



D	3	4	5	6	8	10
D1	6	8	10	12	16	0
K	2.4	3.1	3.8	4.6	6	7.5
CROSS RECESS No	1	2	2	3	4	4
L mm	Weights in kg per 1000 pieces					
6	0.71	1.48	2.66			
8	0.79	1.63	2.91			
10	0.87	1.79	3.16	5.14	10.9	
12	0.95	1.94	3.41	5.49	11.5	21.2
15	1.11	2.25	3.91	5.29	12.8	23.2
20	1.27	2.56	4.41	6.00	14.2	25.2
25	1.47	2.94	5.03	6.87	15.8	27.2
30	1.71	3.44	5.70	7.75	17.5	30.2
35		3.94	6.50	8.60	19.1	32.7
40		4.44	7.30	9.50	20.7	35.2
45			8.00	10.4	2.3	37.7
50			8.70	11.3	3.9	41.2
60					27.0	46.2

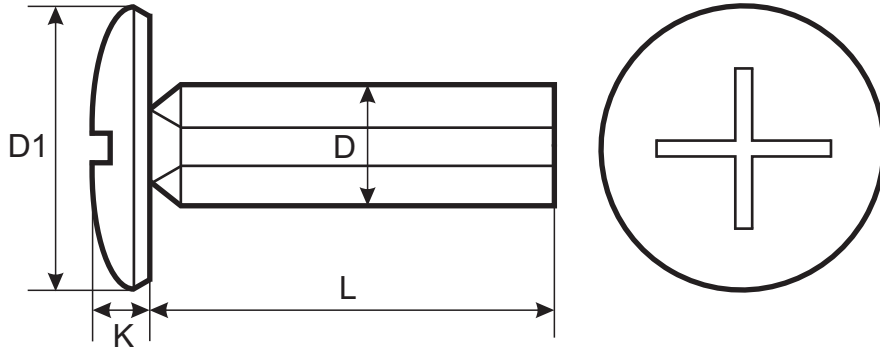


DIN 8243 (with cylindrical head)

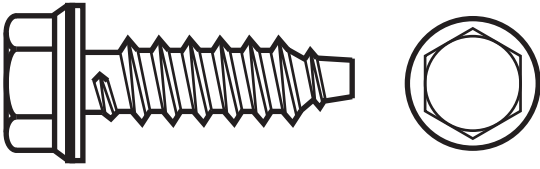
D	0.3	0.4	0.5	0.6	0.7	0.8	0.9	1	1.2	1.4	
D1	SHAPE A	-	0.6	0.7	0.8	1	1.2	1.5	1.6	2	2.3
	SHAPE B	0.5	0.7	0.8	1	1.2	1.5	1.8	-	-	-
	SHAPE C	0.6	0.8	1	1.2	1.5	1.8	2	-	-	-
K	SHAPE A	-	0.23	0.25	0.3	0.35	0.4	0.5	0.6	0.7	0.8
	SHAPE B	0.2	0.23	0.3	0.35	0.4	0.5	0.6	-	-	-
	SHAPE C	0.23	0.3	0.35	0.4	0.5	0.6	0.7	-	-	-
L mm	Weights in kg per 1000 pieces										
0.6											
0.8											
1											
1.2											
1.4											
1.6											
1.8											
2											
2.5											
3											
4											
5											

DIN 8243 (with countersunk head)

D	4	0.5	0.6	0.7	0.6	0.9	1	1.2	1.4
D1	0.7	0.6	0.5	1.1	1.2	1.4	1.6	1.9	2.0
K	0.2	0.25	0.25	0.3	0.35	0.4	0.45	0.5	0.6
L mm	Weights in kg per 1000 pieces								
0.6									
0.8	0.65	0.65							
1	0.9	0.85	0.85	0.85					
1.2	1.1	1.05	1.05	1.05	0.95				
1.4	1.3	1.25	1.25	1.25	1.15	1.15	1.15		
1.6		1.45	1.45	1.45	1.35	1.35	1.35	1.3	1.3
1.8		1.65	1.65	1.65	1.55	1.55	1.55	1.5	1.5
2		1.85	1.85	1.85	1.75	1.75	1.75	1.7	1.7
2.5			2.35	2.35	2.25	2.25	2.25	2.2	2.2
3				2.85	2.75	2.75	2.75	2.7	2.7
4					3.75	3.75	3.75	3.7	3.7
5						4.75	4.75	4.7	4.7

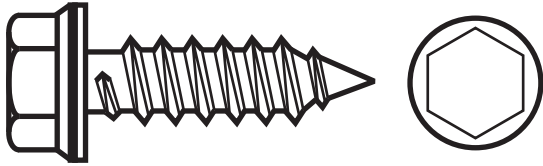


D		4	5	6	8	10	12
D1	MINI	9	11.5	13.5	18	3	27.5
	MAXI	10	12.5	15	20	25	30
K	MINI	1.8	2.3	2.82	3.92	5.02	6.02
	MAXI	2.2	2.7	3.30	4.40	5.50	6.60
L mm		Weights in kg per 1000 pieces					
10	1.67	2.93	4.00				
12	1.83	3.17	5.13				
14	1.98	3.41	5.48				
16	2.13	3.65	5.82	1.26			
20	2.43	4.13	6.51	13.50	24.11		
25	2.80	4.73	7.38	15.07	26.57	42.32	
30	3.18	5.33	8.24	16.63	29.02	45.84	
35	3.56	5.93	9.11	18.052	31.49	49.47	
40	3.92	6.53	9.97	19.76	3.94	53.02	
45	4.30	7.13	10.83	21.32	36.4	56.60	
50	4.68	7.73	11.70	22.88	38.85	60.17	
60	5.42	.93	13.42	26	43.77	67.30	
70		10.13	15.15	29.13	48.69	74.44	
80		11.30	16.80	32.25	53.60	81.58	
90			18.53	35.36	58.51	88.70	
100			20.25	38.41	63.42	95.84	



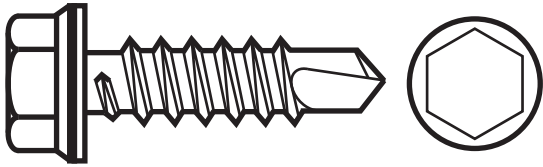
NMG 215 - SELF TAPPING (WITH CONSTANT 6.25 mm) FOR SHEET

L mm	19	25	32	38	50	64	75	90	100	125
Weights in kg per 1000 pieces	6.9	8	9.2	10.3	12.5	15	17	19.7	21.4	27.5



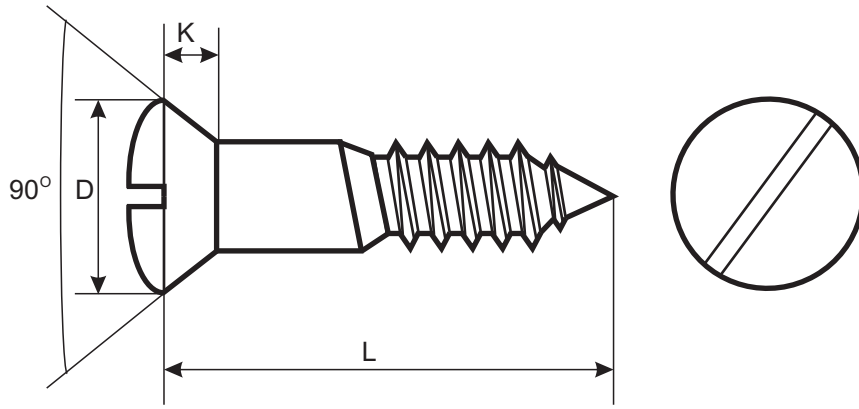
NMG 225 - SELF TAPPING (WITH CONSTANT 6.5 mm) FOR SHEET ON WOOD

L mm	19	25	32	38	50	64	75	90	100	125
Weights in kg per 1000 pieces	6.9	8	9.2	10.3	12.5	15	17	19.7	21.4	27.5

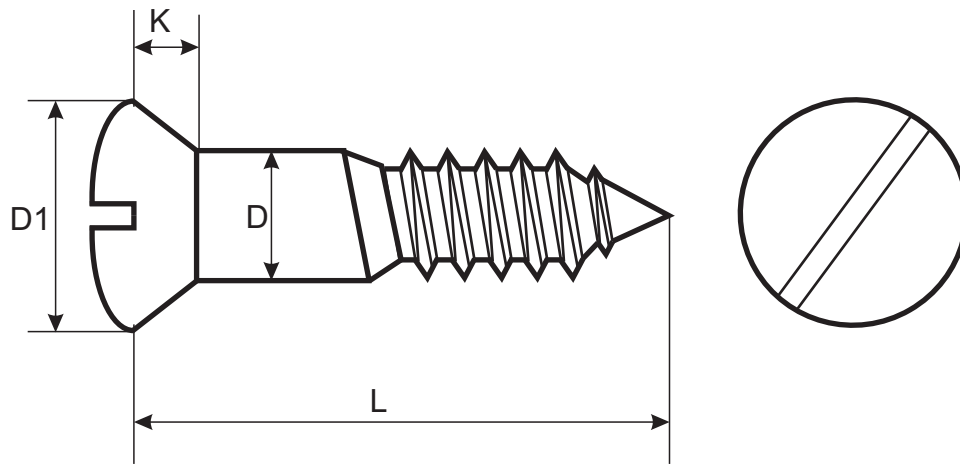


NMG 225 - SELF DRILLING (WITH CONSTANT 6.5 mm) FOR STEEL SHEET

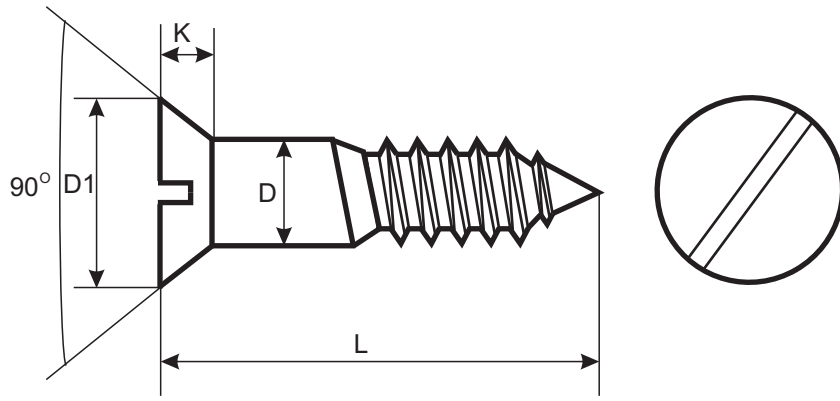
L mm	19	5
L 1	11	17
Weights in kg per 1000 pieces	7.1	9.2



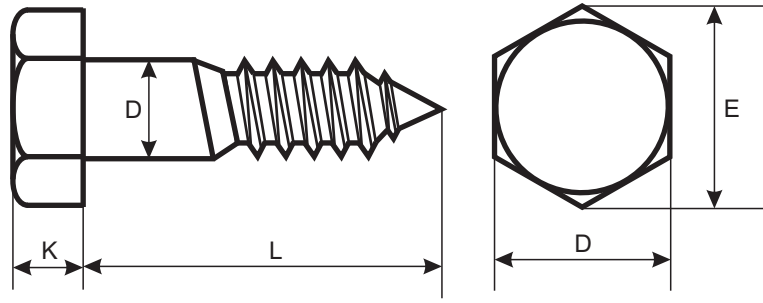
GAUGE No.	16	18	19	20	21	22	23
D mm ±	2.5	3	3.5	4	4.5	5	6
D1	4.7	5.6	6.5	7.5	8.3	9.2	11
K	1.5	1.65	1.93	2.2	2.35	2.5	3
L mm	Weights in kg per 1000 pieces						
10	0.38	0.64	0.84				
12	0.44	0.73	0.97	1.27			
16	0.56	0.92	1.22	1.58	1.89	2.29	
20	0.69	1.10	1.50	1.89	2.27	2.77	
25	0.84	1.35	1.79	2.27	2.76	3.37	
30	1.01	1.59	2.11	2.66	3.26	4.00	
35		1.82	2.44	3.05	3.75	4.56	
40		2.06	2.74	3.45	4.22	5.16	7.60
45		2.29	3.06	3.78	4.73	5.75	8.45
50		2.52	3.37	4.17	5.22	6.35	9.29
60		2.98	3.68	5.04	6.20	7.57	11.0
70		3.44	3.98	5.44	6.70	8.77	12.7



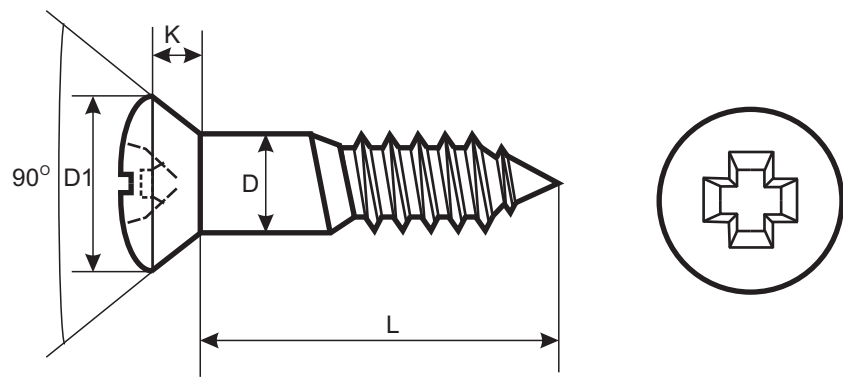
GAUGE No.	14	16	18	19	20	21	22	23
D mm ±	2	2.5	3	3.5	4	4.5	5	6
D1	4	5	6	7	8	9	10	12
K	1.4	1.7	2.1	2.4	2.8	3.1	3.5	4.2
L mm	Weights in kg per 1000 pieces							
10	0.31	0.46	0.76	1.03				
12	0.35	0.52	0.85	1.16	1.63			
16	0.44	0.64	1.04	1.41	1.93	2.51	3.31	
20	0.53	0.76	1.23	1.48	2.24	2.88	3.78	5.83
25		0.91	1.47	1.98	2.62	3.37	4.37	6.66
30		1.06	1.70	2.29	3.01	3.85	5.00	7.50
35			1.94	2.60	3.39	4.34	5.55	8.33
40			2.18	2.91	3.77	4.83	6.14	9.17
45			2.42	3.22	4.12	5.31	6.73	10.0
50			2.66	3.53	4.50	5.80	7.32	10.8
60				4.16	5.26	6.77	8.54	12.5
70				4.78	6.03	7.74	9.72	14.2
80				5.40	6.80	8.71	10.90	16.0
90				6.02	7.58	9.68	12.08	17.7
100				6.64	8.36	10.6	13.26	19.4



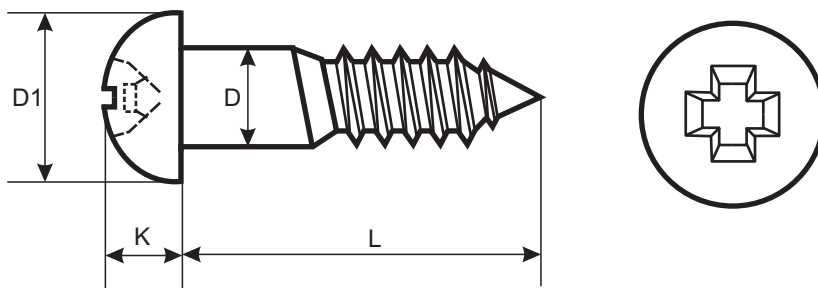
GAUGE No.	14	16	18	19	20	21	22	23	25	26
D mm ±	2	2.5	3	3.5	4	4.5	5	6	7	8
D1	3.8	4.7	5.6	6.5	7.5	8.3	9.2	11	12.5	14.5
K	1.2	1.5	1.65	1.93	2.2	2.35	2.5	3	3.5	4
L mm	Weights in kg per 1000 pieces									
10	0.25	0.37	0.60	0.78						
12	0.30	0.43	0.69	0.91	1.18					
16	0.38	0.55	0.88	1.17	1.49	1.85	2.31			
20	0.48	0.67	1.06	1.43	1.79	2.22	2.55	4.12		
25		0.82	1.30	1.73	2.17	2.71	3.37	4.96		
30		0.97	1.54	2.04	2.55	3.19	4.00	5.80		
35			1.77	2.35	2.94	3.68	4.55	6.63		
40			2.01	2.66	3.32	4.17	5.14	7.46		13.4
45			2.25	2.98	3.66	4.65	5.73	8.29		15.0
50			2.50	3.29	4.05	5.14	6.32	9.12	12.8	16.5
60			2.98	3.91	4.81	6.11	7.54	10.8	15.2	19.6
70				4.53	5.62	7.15	8.72	12.5	17.5	22.7
80						8.12	9.90	14.3	19.8	25.7
90							11.1	16.0	22.1	28.8
100							12.3	17.7	24.5	31.9



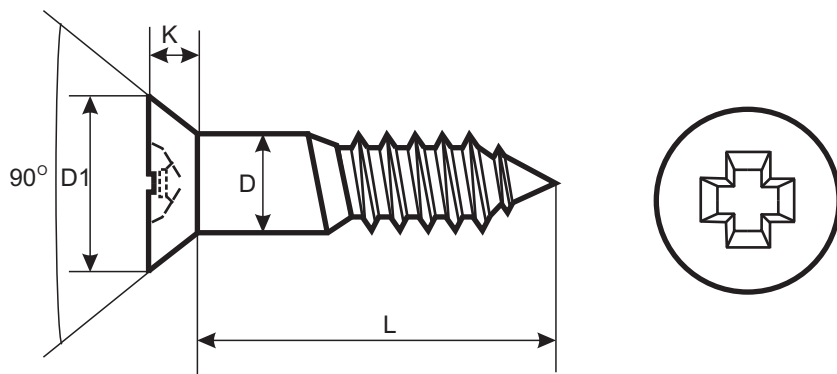
D mm	4	5	6	8	10	12
S	7	8	10	13	17	19
E	7.5	8.63	10.89	14.20	18.72	20.88
K	2.8	3.5	4	5.5	7	8
L mm	Weights in kg per 1000 pieces					
16	1.71	2.92				
20	2.01	.42	5.02			
25	2.41	4.02	5.82	11.5		
30	2.81	4.62	6.62	12.9	23.6	
35	3.11	5	7.42	14.2	25.8	36.2
40	3.51	2	8.22	15.6	28.0	39.2
45		5.82	8.94	16.9	30.0	42.1
50		6.43	9.64	18.2	32.1	45.4
		7.03				
60			11.2	20.9	36.5	51.8
70		8.23	12.6	23.6	40.7	57.8
80			14.4	26.5	45.2	64.5
90			16.0	29.4	49.9	71.0
100			17.6	32.0	54.0	77.1
110				34.6	58.2	83.48
120				37.2	62.5	89.5



GAUGE No.	16	18	19	20	21	22	23
D mm ±	2.5	3	3.5	4	4.5	5	6
D1	4.7	5.6	6.5	7.5	8.3	9.2	11
K	1.5	1.65	1.93	2.2	2.35	2.5	3
L mm	Weights in kg per 1000 pieces						
10	0.39	0.65	0.85				
12	0.45	0.74	0.98	1.27			
16	0.57	0.92	1.22	1.58	1.89	2.29	
20	0.69	1.1	1.50	1.89	2.27	2.77	
25		1.35	1.79	2.27	2.76	3.37	
30		1.59	2.11	2.66	3.26	4.00	
35		1.82	2.44	3.05	3.75	4.56	6.76
40		2.06	2.74	3.45	4.22	5.16	7.60
45			3.06	3.78	4.73	5.75	8.45
50				4.17	5.22	6.35	9.29
60					6.20	7.57	11.0
70						8.77	12.7

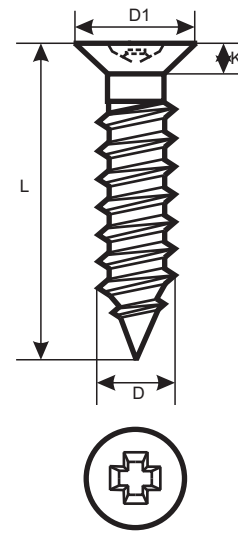


GAUGE No.	16	18	19	20	21	22	23
D mm ±	2.5	3	3.5	4	4.5	5	6
D1	5	6	7	8	9	10	12
K	1.7	2.1	2.4	2.8	3.1	3.5	4.2
L mm	Weights in kg per 1000 pieces						
10	0.46	0.76	1.03				
12	0.52	0.86	1.16	1.63			
16	0.64	1.04	1.41	1.93	2.51	3.31	
20	0.76	1.23	1.68	2.24	2.88	3.78	
25	0.91	1.47	1.98	2.62	3.37	4.37	
30	1.06	1.70	2.29	3.01	3.85	5.00	
35		1.94	2.60	3.39	4.34	5.55	
40		2.18	2.91	3.77	4.38	6.14	9.17
45			3.22	4.12	5.31	6.73	10.0
50				4.50	5.80	7.32	10.8
60					6.77	8.54	12.5
70						9.72	14.2

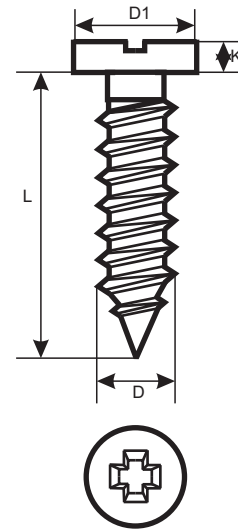


GAUGE No.	16	18	19	20	21	22	23
D mm ±	2.5	3	3.5	4	4.5	5	6
D1	4.7	5.6	6.5	7.5	8.3	9.2	11
K	1.5	1.65	1.93	2.2	2.35	2.5	3
L mm	Weights in kg per 1000 pieces						
10	0.37	0.60	0.79				
12	0.43	0.70	0.91	1.18			
16	0.55	0.88	1.17	1.49	1.85	2.31	
20	0.67	1.06	1.43	1.79	2.22	2.78	4.12
25		1.30	1.73	2.17	2.71	3.37	4.96
30		1.54	2.04	2.55	3.19	4.00	5.80
35		1.77	2.35	2.94	3.68	4.55	6.63
40		2.01	2.66	3.32	4.17	5.14	7.46
45			2.98	3.66	4.65	5.73	8.29
50				4.05	5.14	6.32	9.12
60				4.81	6.11	7.54	10.8
70						8.72	12.5

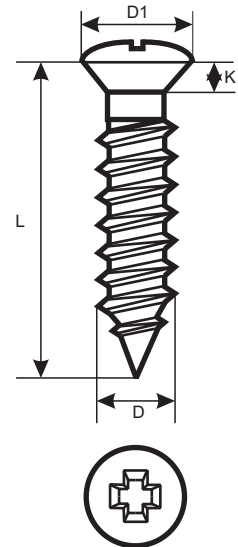
D	3	3.5	4	4.5	5	6
D1	6	7	8	9	10	12
K	2.1	2.5	2.9	3.3	3.45	4
L mm	Weights in kg per 1000 pieces					
12	0.45	0.67	0.92			
16	0.55	0.75	1.09	1.23	1.75	
20	0.65	0.89	0.26	1.52	2.10	
25	0.85	1.06	0.48	1.81	2.46	
30	0.91	1.24	1.69	2.10	2.81	
35	1.04	1.41	1.91	2.38	3.21	
40		1.58	2.12	2.67	3.52	6.53
45			2.55	2.96	3.88	7.10
50				3.25	4.23	7.67
55				3.54	4.59	8.24
60				3.82	43.94	8.80

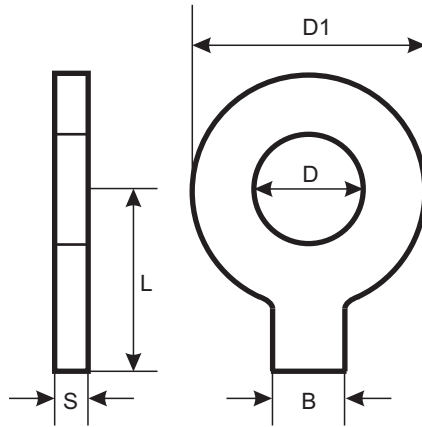


D	3	3.5	4	4.5	5	6
D1	4.9	5.58	6.45	7.5	8.25	10
K	1.5	1.75	2.10	2.25	2.6	3.1
L mm	Weights in kg per 1000 pieces					
12	0.61	0.79	1.07			
16	0.73	0.95	1.28	1.84	2.54	
20	0.86	1.16	.48	2.10	2.91	
25	1.02	1.30	1.74	2.43	3.38	
30	1.17	1.50	2.00	2.77	3.66	
35		1.70	2.26	3.10	4.32	
40		1.89	2.52	3.43	4.81	6.90
45				3.76	5.29	7.50
50					5.77	8.17
55						8.77
60						9.45

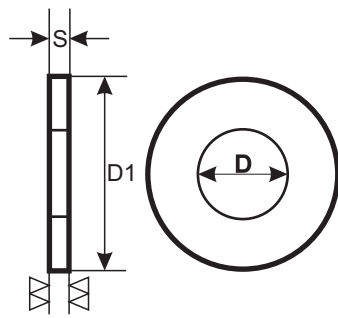


D	3	3.5	4	4.5	5	6
D1	6	7	8	9	10	12
K	2.1	2.5	2.9	3.3	3.45	4
L mm	Weights in kg per 1000 pieces					
12	0.47	0.70	0.97			
16	0.58	0.78	1.14	1.29	1.84	
20	0.68	0.93	1.32	1.60	2.21	
25	0.83	1.11	1.55	1.90	2.58	
30	0.96	1.30	1.77	2.20	2.95	
35		1.45	1.97	2.45	3.30	
40		1.63	2.18	2.75	3.63	6.73
45			2.40	3.04	4.00	7.31
50			2.63	3.35	4.36	7.90
55				3.65	4.73	8.49
60				3.93	5.09	9.06

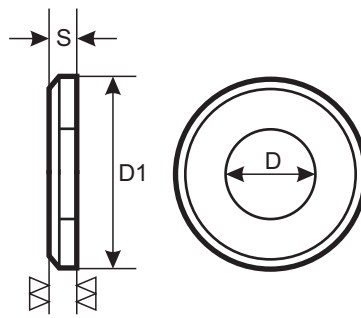




FOR SCREW Ø	D	D1	S	B	L	WEIGHT IN KG PER 1000 PIECES	PACK
5	5.3	17	0.5	6	16	1.05	200
6	6.4	19	0.5	7	18	1.21	
8	8.4	22	0.75	8	20	2.32	
10	10.5	26	0.75	10	22	3.13	
12	13	30	1	12	28	6	
14	15	33	1	12	28	7	
16	17	36	1	15	32	8.5	100
18	19	40	1	18	36	11	
20	21	42	1	18	36	11	
22	23	50	1	20	42	14.8	
24	25	50	1	20	42	14.2	50
30	31	63	1.6	26	52	36.3	
36	37	75	1.6	30	60	51.3	25
39	40	82	1.6	32	64	59.7	
42	43	88	1.6	35	70	69.5	
45	46	95	1.6	38	75	81.2	
48	50	100	1.6	40	80	89	
52	54	105	1.6	44	85	98	

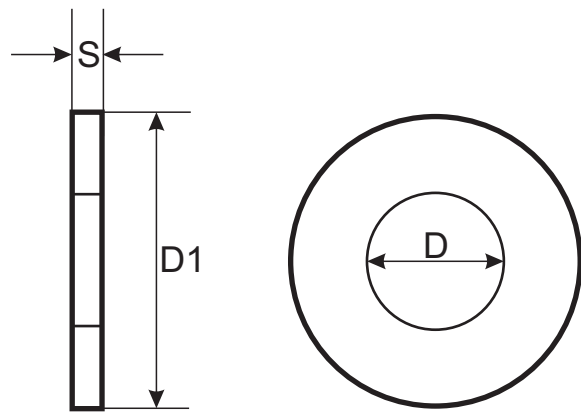


TYPE A
STRAIGHT

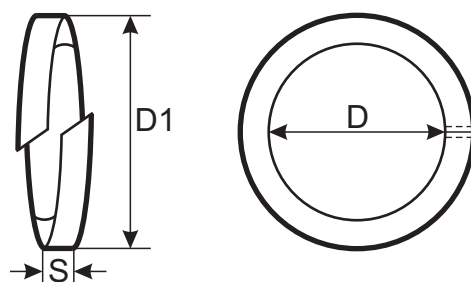


TYPE B
CHAMFERED

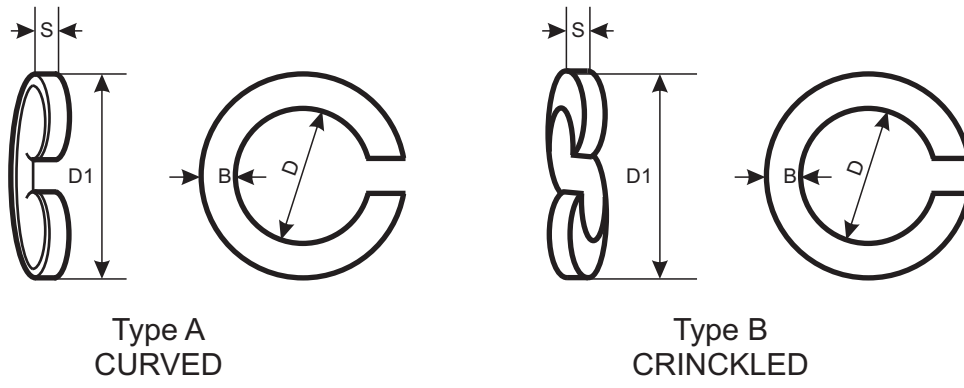
FOR SCREW Ø	D	D1	S	WEIGHT IN KG PER 1000 PIECES	PACK
M3	3.2	7	0.5	0.12	1000
M4	4.3	9	0.8	1.30	
M5	5.3	10	1	0.44	
M6	6.4	12.5	1.6	1.14	500
M7	7.4	14	1.6	1.39	
M8	8.4	17	1.6	2.14	
M10	10.5	21	2	4.08	200
M12	13	24	2.5	6.27	
M14	15	28	2.5	8.60	
M16	17	30	3	11.3	100
M18	19	34	3	14.7	
M20	21	37	3	17.2	
M22	23	39	3	18.4	53
M24	25	44	4	32.3	
M27	28	50	4	42.8	
M30	31	56	4	53.6	
M33	34	60	5	75.4	25
M36	37	66	5	92	
M39	40	72	6	133	
M42	43	78	7	183	
M45	46	85	7	220	
M45	50	92	8	294	
M52	54	98	8	330	
M56	58	105	9	425	
M58	60	110	9	471	
M64	65	115	9	492	
M72	74	125	10	625	



FOR SCREW Ø	D	D1	S	WEIGHT IN KG PER 1000 PIECES	PACK
5	5.5	10	1	0.43	500
6	6.6	12.5	1.6	1.11	
7	7.6	14	1.6	1.36	
8	9	17	1.6	2.05	
10	11	21	2	3.94	200
12	14	24	2.5	5.85	
14	16	28	2.5	8.13	
16	18	30	3	0.6	
18	20	34	3	14.0	100
20	22	37	3	16.4	
22	24	39	3	17.5	
24	26	44	4	31.1	
27	30	50	4	39.4	50
30	33	56	4	50.5	
33	36	60	5	71.0	
36	39	66	5	87.3	
39	42	72	6	126	25
42	45	78	7	175	
45	48	85	7	212	
48	52	92	8	284	
52	56	98	8	319	
56	62	105	9	398	
60	66	110	9	430	
64	70	115	9	462	
72	78	125	10	588	



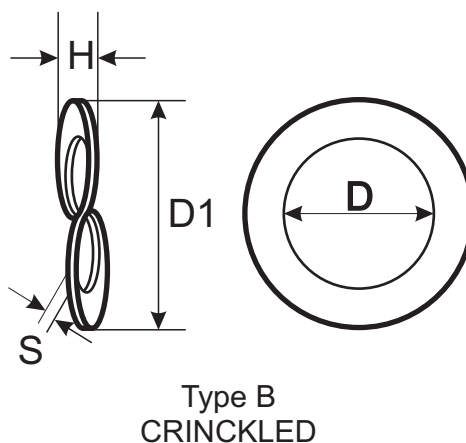
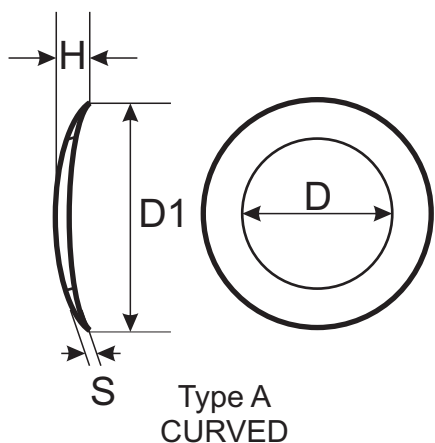
FOR SCREW Ø		D	D1 MAX	B	S	WEIGHT IN KG PER 1000 PIECES	PACK
METR.	WW						
M2		2.1 + 0.3	4.4	0.9 ± 0.1	0.5 ± 0.1	0.03	100
M2.5		2.6 + 0.3	5.1	1 ± 0.1	0.6 ± 0.1	0.05	
M3		3.1 + 0.3	6.2	1.3 ± 0.1	0.8 ± 0.1	0.11	
M3.5	1/8	3.6 + 0.3	6.7	1.3 ± 0.1	0.8 ± 0.1	0.12	500
M4	5.32	4.1 + 0.3	7.6	1.5 ± 0.1	0.9 ± 0.1	0.18	
M5	3.16	5.1 + 0.3	9.2	1.8 ± 0.1	1.2 ± 0.1	0.36	
M6		6.1 + 0.4	11.8	2.5 ± 0.15	1.6 ± 0.1	0.83	
	1/4	6.5 + 0.4	12.2	2.5 ± 0.15	1.6 ± 0.1	0.93	
M7	5/16	7.1 + 0.4	12.8	2.5 ± 0.15	1.6 ± 0.1	0.93	
M8	3/8	8.1 + 0.4	14.8	3 ± 0.15	2 ± 0.1	1.60	200
M10	7/16	10.2 + 0.5	18.1	3.5 ± 0.2	2.2 ± 0.15	2.53	
		11.3 + 0.5	19.2	3.5 ± 0.2	2.2 ± 0.15	3.00	
M12		12.2 + 0.5	21.1	4 ± 0.2	2.5 ± 0.15	3.82	100
		13 + 0.5	21.9	4 ± 0.2	2.5 ± 0.15	3.95	
M14	5/8	14.2 + 0.5	24.1	4.5 ± 0.2	3 ± 0.15	6.01	
M16	3/4	16.2 + 0.8	27.4	5 ± 0.2	3.5 ± 0.2	8.91	50
M18	7/8	18.2 + 0.8	29.4	5 ± 0.2	3.5 ± 0.2	9.73	
M20		20.2 + 1	33.6	6 ± 0.2	4 ± 0.2	15.2	
M2		22.5 + 1	35.9	6 ± 0.2	4 ± 0.2	16.5	
M24	1	24.5 + 1	40	7 ± 0.25	5 ± 0.2	26.2	25
	1 1/8	26.5 + 1	42	7 ± 0.25	5 ± 0.2	27.45	
M27		27.5 + 1	43	7 ± 0.25	5 ± 0.2	28.7	
M30	1 1/4	30.5 + 1	48.2	8 ± 0.25	6 ± 0.2	44.3	
	1 1/2	32.5 + 1.2	50.2	8 ± 0.25	6 ± 0.2	44.3	25
M33	1 5/8	33.5 + 1.2	55.2	10 ± 0.25	6 ± 0.2	63.0	
M36	1 3/4	36.5 + 1.2	58.2	10 ± 0.25	6 ± 0.2	67.3	
M39		39.5 + 1.2	61.2	10 ± 0.25	6 ± 0.2	71.7	123
M42		45.5 + 1.2	68.2	12 ± 0.25	7 ± 0.25	111	
M45		45.5 + 1.2	71.2	12 ± 0.25	7 ± 0.25	117	
M48		49 + 1.5	75	12 ± 0.25	7 ± 0.25	123	152
M50		51 + 1.5	77	12 ± 0.25	7 ± 0.25	152	
M52		59 + 1.5	83	8 ± 0.25	8 ± 0.25	192	



Type A
CURVED

Type B
CRINKLED

FOR SCREW Ø	D	D1 MAX	B	S	WEIGHT IN KG PER 1000 PIECES	PACK
3	3.1 + 0.3	6.2	1.3 ± 0.1	0.7 ± 0.1	0.09	1000
4	4.1 + 0.3	7.6	1.5 ± 0.1	0.8 ± 0.1	0.15	
5	5.1 + 0.3	9.2	1.8 ± 0.1	1 ± 0.1	0.3	
6	6.1 + 0.4	11.8	2.5 ± 0.1	1.3 ± 0.1	0.7	500
8	8.1 + 0.4	14.8	3 ± 0.15	1.6 ± 0.1	1.3	200
10	10.2 + 0.5	18.1	3.5 ± 0.2	1.8 ± 0.1	2.1	
12	12.2 + 0.5	21.1	4 ± 0.2	2.1 ± 0.15	3.2	
14	14.2 + 0.5	24.1	4.9 ± 0.2	2.4 ± 0.15	4.8	
16	16.2 + 0.8	27.4	5 ± 0.25	2.8 ± 0.15	7	100
18	18.2 + 0.8	29.4	5 ± 0.2	2.8 ± 0.15	7.8	
20	20.2 + 1.0	33.6	6 ± 0.2	3.2 ± 0.15	12.2	
22	22.5 + 1.0	35.9	6 ± 0.2	3.2 ± 0.15	13.3	
24	24.5 + 1.0	40	7 ± 0.25	4 ± 0.2	21.5	
27	27.5 + 1.0	43	7 ± 0.25	4 ± 0.2	23.7	50
30	30.5 + 1.2	48.2	8 ± 0.25	6 ± 0.2	42.5	
36	36.5 + 1.2	58.2	10 ± 0.25	6 ± 0.2	68	
42	42.5 + 1.2	68.2	12 ± 0.25	7 ± 0.25	111	
48	49 + 1.5	75	12 ± 0.25	7 ± 0.25	123	25
56	57 + 1.5	87	14 ± 0.25	8 ± 0.25	193	
64	65 + 1.5	95	14 ± 0.25	8 ± 0.25	218	

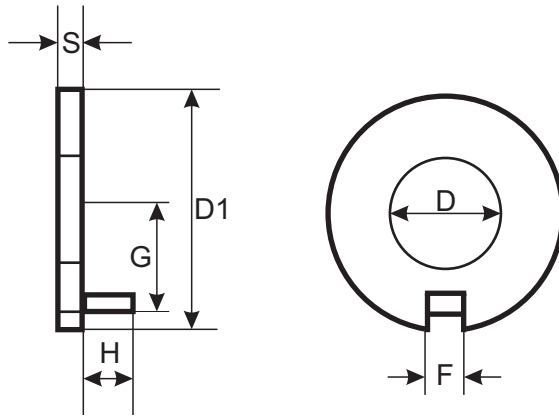


FORM A - CURVED

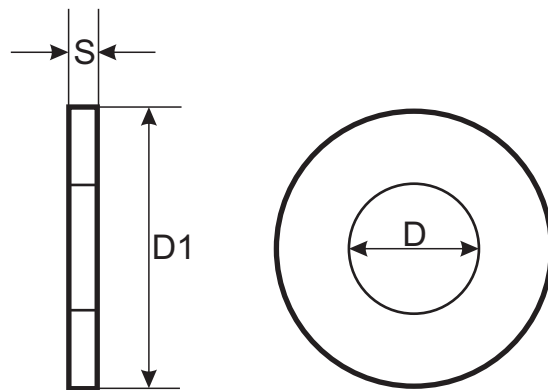
FOR SCREW Ø		D	D1	H		S	WEIGHT IN KG PER 1000 PIECES	PACK
METR.	WW			MIN	MAX			
2		2.2	4.5	0.5	1	0.3	1000	
2.5		2.7	5.5	0.55	1.1	0.3		
3		3.2	6	0.65	1.3	0.4		
3.5	1/8	3.7	7	0.7	1.4	0.4	500	
4	5.32	4.3	8	0.8	1.6	0.5		
5	3.16	5.3	10	0.9	1.8	0.5		
6	1/4	6.4	1	1.1	2.2	0.5	500	
8	5/16	8.4	15	1.7	3.4	0.5		

FORM B - CRINKLED

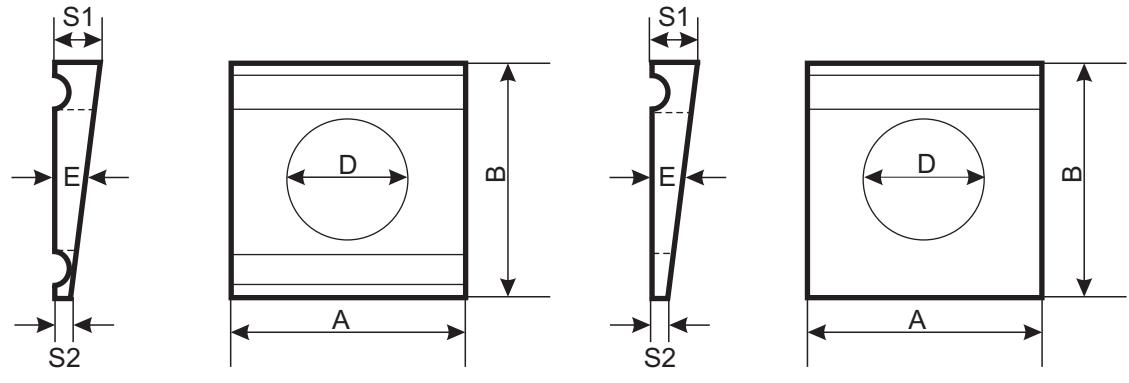
FOR SCREW Ø		D	D1	H		S	WEIGHT IN KG PER 1000 PIECES	PACK
METR.	WW			MIN	MAX			
3		3.2	8	0.8	1.6	0.5	1000	
4	5/32	4.3	9	1	2	0.5		
5	3/16	5.3	11	1.1	2.2	0.5		
6	1/4	6.4	12	1.3	2.6	0.5	500	
8	5/16	8.4	15	1.5	3	0.8		
10	3/4	10.5				3.04		
12	1/2	13					100	
16	5/8	17	30	3.2	6.3	1.6		
18		19	34	3.3	6.5	1.6		
20	3/2	21	36	3.7	7.4	1.6		



FOR SCREW ∅	D	D1	F	H	S	G	WEIGHT IN KG PER 1000 PIECES	PACK
3	3.2	12	2.5	2	0.4	4.5	0.33	100
4	4.3	14	2.5	2	0.4	5.5	0.44	
5	5.3	17	3.5	2.5	0.75	7	1.20	
6	6.4	19	3.5	3	0.75	7.5	1.48	
8	8.4	2	3.5	4	1	8.4	2.54	50
10	10.5	26	4.5	4	1	10	3.49	
12	13	30	4.5	4.5	1.2	12	5.48	
14	15	33	4.5	4.5	1.2	13	6.38	
16	17	36	5.5	4.5	1.2	15	7.45	
18	19	40	6.5	4.5	1.2	18	9.15	
20	21	42	6.5	4.5	1.6	18	13.1	25
22	23	50	7.5	8.5	1.6	20	19.4	
24	25	50	7.5	6.5	1.8	21	16.5	
27	28	58	8.5	9.5	1.8	23	24.8	
30	31	63	8.5	9.5	1.8	25	29.8	
33	34	68	9.5	9.5	1.6	28	34.2	
36	37	75	11	9.5	2	31	52.5	
39	40	82	11	11	2	33	63.3	
42	43	88	11	11	2	36	72.5	
45	46	95	13	12	2	38	85.3	
48	50	100	13	13	2	40	93	
52	54	105	13	13	2	42	100	
56	58	112	16	14	2.5	45	141	
60	62	118	16	13.5	2.5	48	155	



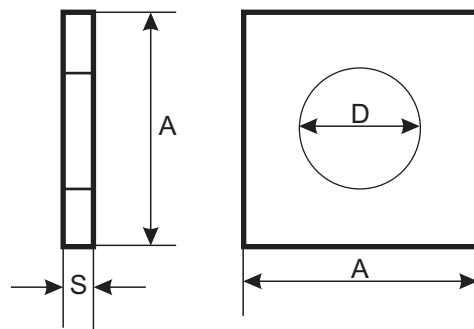
FOR SCREW \varnothing	D	D1	S	WEIGHT IN KG PER 1000 PIECES	PACK
1	1.1	2.5	0.3	0.010	
1.2	1.3	3	0.3	0.013	
1.4	1.5	3	0.3	0.012	
1.6	1.7	3.5	0.3	0.016	
1.8	1.9	4	0.3	0.023	
2	2.2	4.5	0.5	0.047	
2.5	2.7	5	0.5	0.055	
3	3.2	6	0.5	0.080	
3.5	3.7	7	0.5	0.110	
4	4.3	8	0.5	0.140	
5	5.3	9.5	1	0.385	
6	6.4	11	1.6	0.790	
8	8.4	15	1.6	1.52	
10	10.5	18	1.6	2.11	
12	13	20	2	2.85	
14	15	24	2	4.30	
16	17	27	2	5.42	
18	19	30	2.5	8.31	
20	21	33	2.5	9.98	



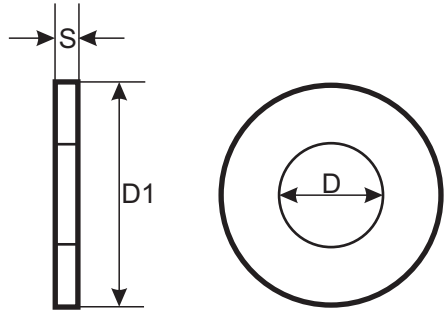
Taper 8%
DIN434 for U section
with 2 slots

Taper 14%
DIN435 for I section
with 1 slots

FOR SCREW ∅	D	A	B	DIN 434			DIN 435			WEIGHT IN KG PER 1000 PIECES		PACK
				S1	E	S2	S1	E	S2	DIN 434	DIN 435	
8	9	22	22	3.8	2.9	2	4.6	3.05	1.5	9.5	10.1	100
10	11	22	22	3.8	2.9	2	4.6	3.05	1.5	8.8	9.4	
12	14	26	30	4.9	3.7	2.5	6.2	4.1	2	18.3	20.1	
16	18	32	36	5.9	4.45	3	7.5	5	2.5	31.4	35.6	
20	22	40	44	7	5.25	3.5	9.2	6.1	3	57	67	50
22	24	44	50	8	6	4	10	6.5	3	82.5	90	
24	26	56	56	8.5	6.25	4	10.8	6.9	3	128	143	
27	30	56	56	8.5	6.25	4	10.8	6.9	3	119	143	

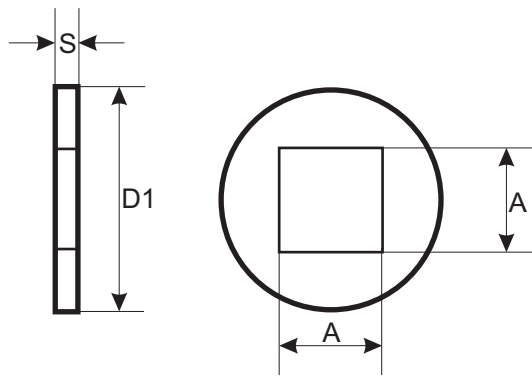


FOR SCREW OR WOOD SCREW NOMINAL \varnothing mm	D	D1	S	WEIGHT IN KG PER 1000 PIECES	PACK
10	11	30	3	18.8	
12	14	40	4	45.4	
16	18	50	5	88.2	
20	22	60	5	126	
22	24	70	6	195	
24	26	80	6	275	
27	30	90	6	348	
30	33	95	6	385	
33	36	100	6	423	
36	39	110	8	685	
39	42	125	8	895	
42	45	135	8	045	
45	48	140	8	1110	
48	52	150	10	1597	
52	56	160	10	1816	



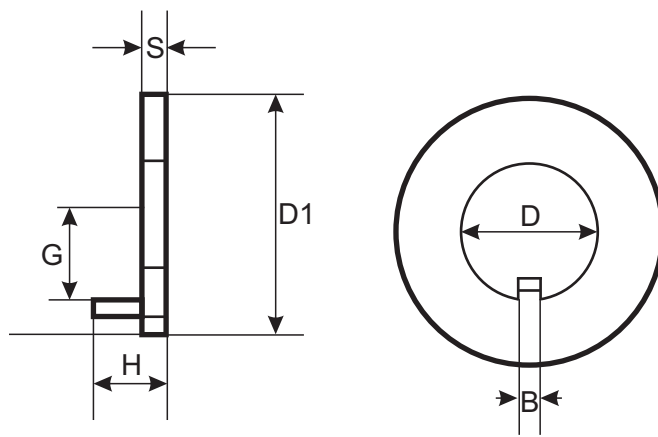
FORM A

FOR BOLT \varnothing	D	D1	S	WEIGHT IN KG PER 1000 PIECES	PACK
5	5.5	18	2	3.58	
6	6.6	22	2	5.36	
8	9	28	3	12.8	
10	11	34	3	18.9	
12	14	45	4	45.1	
16	18	58	5	93.8	
20	22	68	5	126	
24	26	92	6	286	
30	33	105	6	368	
36	39	125	8	695	
42	45	150	8	1012	
48	42	170	10	1630	

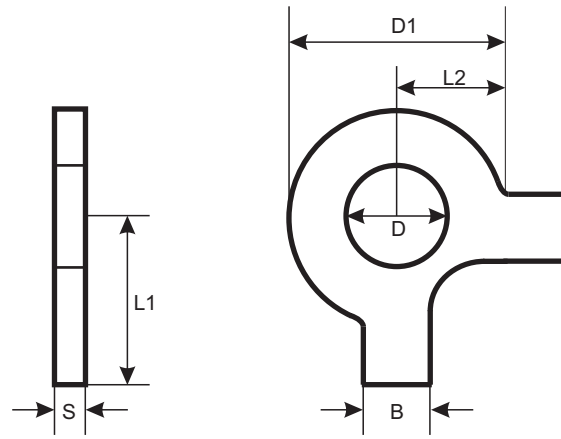


FORM V

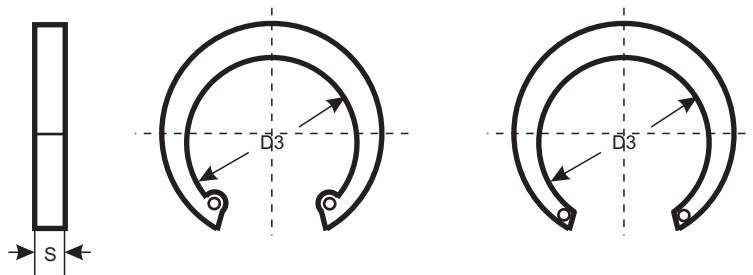
FOR BOLT \varnothing	D	D1	S	WEIGHT IN KG PER 1000 PIECES	PACK
5	5.5	18	2	3.47	
6	6.6	22	2	5.2	
8	9	28	3	12.4	
10	11	34	3	18.3	
12	14	45	4	43.8	
16	18	58	5	90.9	
20	22	68	5	122	



D	D1	S	B	H	G	PACK
10	25	0.8	4	3	7.4	100
12	28	0.8	5	3	9.3	
14	30	0.8	5	3	11.4	
16	32	1	5	3	13.5	50
18	34	1	6	4	15.4	25
20	36	1	6	4	17.5	
22	40	1	6	4	19.5	
24	42	1	6	4	21.6	
26	45	1	7	5	23.5	
28	50	1	7	5	25.5	
30	50	1.2	7	5	27.5	25
32	52	1.2	7	5	29.6	
35	55	1.2	7	5	32.6	
38	58	1.2	8	5	35.3	
40	62	1.2	8	5	37.3	
42	62	1.2	8	5	39.3	
45	68	1.2	8	5	42.4	
48	75	1.2	8	5	45.4	
50	75	1.2	8	5	47.4	
52	80	1.2	10	6	49.3	
55	80	1.2	10	6	52.3	
58	90	1.5	10	6	55.3	
60	90	1.5	10	6	57.3	
62	95	1.5	10	6	59.3	
65	95	1.5	10	6	62.4	
68	100	1.5	10	6	65.4	
70	100	1.5	10	6	67.4	
72	110	1.5	10	6	68.9	



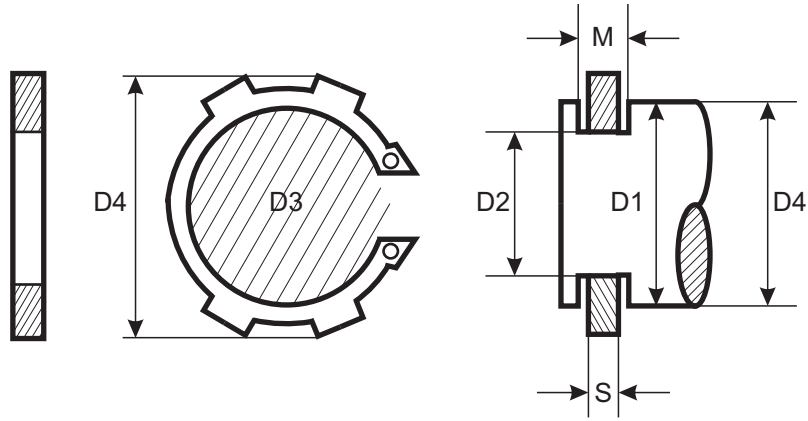
FOR BOLT Ø	D	D1	S	B	L1	L2	WEIGHT IN KG PER 1000 PIECES	PACK
6	6.4	12.5	0.5	7	18	9	0.8	200
8	8.4	17	0.75	8	20	11	1.71	
10	10.5	21	0.75	10	22	13	2.51	100
12	13	24	1	2	28	15	4.41	
14	15	28	1	12	28	16	5.09	
16	17	30	1	15	32	18	6.3	
18	19	34	1	18	36	20	8.24	
20	21	37	1	108	36	21	9	
22	23	39	1	20	42	23	10	50
24	25	44	1	20	42	25	12	
27	28	50	1.6	23	48	29	25.3	
30	31	66	1.6	26	52	32	31.4	25
36	37	66	1.6	30	60	38	42.5	
39	40	72	1.6	32	64	41	79.7	
42	43	78	1.6	35	75	44	59.2	
45	46	85	1.6	38	75	48	70.3	25
48	50	92	1.6	40	80	50	80	



D1	S	D2	D3	D4	M	WEIGHT IN KG PER 1000 PIECES	PACK
8	0.8	8.4	8.7	2.6	0.5	0.14	500
9	0.8	9.4	9.8	3.5	0.9	0.15	
10	1	10.4	10.8	3.7	1.1	0.18	
11	1	11.4	11.8	3.9	1.1	0.31	
12	1	12.5	13	4.7	1.1	0.37	
13	1	13.6	14.1	5.3	1.1	0.42	200
14	1	14.6	15.1	6	1.1	0.52	
15	1	15.7	16.2	7	1.1	0.56	
16	1	16.8	17.3	7.7	1.1	0.60	
17	1	17.8	18.3	4	1.1	0.65	
18	1	19	19.5	8.9	1.1	0.74	100
19	1	20	20.5	9.8	1.1	0.83	
20	1	21	21.5	10.6	1.1	0.90	
21	1	22	2.5	11.6	1.1	1.00	
22	1	23	23.5	12.6	1.1	1.10	
24	1.2	25.2	25.5	14.2	1.3	1.42	50
25	1.2	26.2	6.9	15	1.3	1.50	
26	1.2	27.2	27.9	15.6	1.3	1.60	
28	1.2	29.4	30.1	17.4	1.3	1.80	
30	1.2	31.4	32.1	19.4	1.3	2.06	
32	1.2	33.7	34.4	20.2	.3	2.21	10
34	1.5	35.7	36.5	22.2	1.6	3.20	
35	1.5	37	37.8	23.3	1.6	3.54	
36	1.5	38	38.8	24.2	.6	3.70	
37	1.5	39	39.8	25	1.6	3.74	
38	1.5	40	40.8	26	1.6	3.90	50
40	1.75	42.5	43.5	27.4	1.85	4.70	
42	1.75	44.5	45.5	29.2	1.85	5.40	
45	1.75	47.5	48.5	31.6	1.85	6.00	
47	1.75	49.5	50.5	33.2	1.85	6.10	
48	1.75	50.5	51.5	34.6	1.85	6.70	
50	2	54.2	54.2	38	2.5	7.30	
52	2	56.2	56.2	37.6	2.5	8.20	
55	2	59.2	59.2	40.4	2.5	8.30	
56	2	60.2	60.2	41.4	2.5	8.70	

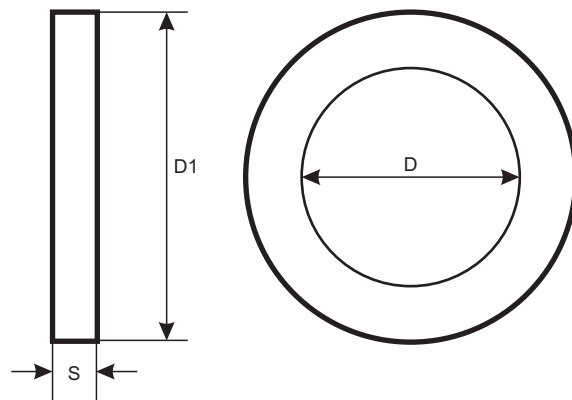
D1	S	D2	D3	D4	M	WEIGHT IN KG PER 1000 PIECES	PACK
58	2	61	62.2	43.2	2.5	10.5	50
60	2	63	64.2	44.4	2.5	11.1	
62	2	65	66.2	46.4	.5	11.	
63	2	66	67.2	47.4	.5	11.7	
65	2.5	68	69.2	48.9	2.65	14.3	
68	2.5	71	72.5	51.4	2.65	16.0	25
70	2.5	73	74.5	53.4	2.65	16.5	
72	2.5	75	76.5	55.4	2.65	18.1	
75	2.5	76	79.5	58.4	2.65	18.8	
78	2.5	81	82.5	60	2.65	20.4	
80	2.5	83.5	85.5	62	2.65	22.6	10
82	2.5	85.5	87.5	64	2.65	24.0	
85	3	88.5	90.5	66.8	3.15	26.3	
88	3	91.5	93.5	69.8	3.15	28.0	
90	3	93.5	95.5	71.6	3.15	31.0	
92	3	95.5	97.5	73.6	3.15	32.0	
95	3	98.5	100.5	76.4	3.15	35.0	10
98	3	101.5	103.5	79	3.15	37.0	
00	3	103.5	105.5	61	3.15	38.0	
102	4	106	108	82.6	3.15	55.0	
106	4	109	112	85.8	4.15	56.0	
110	4	114	117	88.2	4.15	64.5	10
112	4	116	119	90	4.15	72.0	
115	4	119	122	93	4.15	74.5	
120	4	124	127	97	4.15	77.0	
125	4	129	132	102	4.15	79.0	
130	4	134	137	107	4.15	82.0	
140	4	144	147	117	4.15	87.5	10
150	4	155	158	125	4.15	105	
160	4	165	169	135	4.15	110	
170	4	175	179.5	145	4.15	140	
190	4	185	189.5	153	4.15	165	
190	4	195	199.5	162	4.15	175	
200	4	205	209.5	171	4.15	185	



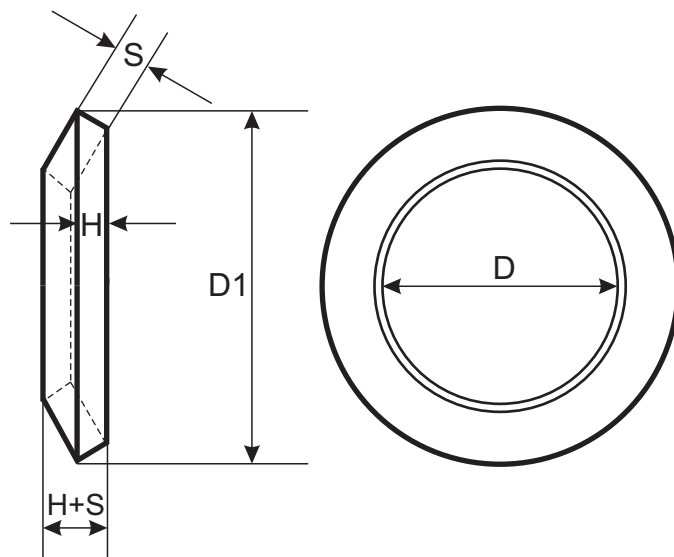


D1	S	D2	D3	D4	M	WEIGHT IN KG PER 1000 PIECES	PACK
16	1	15.2	14.7	23.4	1.1	0.82	
17	1	6.2	15.7	4.6	1.1	0.93	
18	1.2	17	16.5	25.6	1.3	1.24	
19	1.2	18	17.5	26.8	1.3	1.35	
20	1.2	19	18.5	8	1.3	1.45	
22	1.2	21	20.5	30.4	1.3	1.77	
23	1.2	22	21.5	31.6	1.3	1.84	
24	1.2	22.9	2.2	32.8	1.3	1.98	
25	1.2	23.9	23.2	34	1.3	2.12	
26	1.2	24.9	24.2	35.2	1.3	2.18	
28	1.5	26.6	25.9	37.5	1.6	3.15	
30	1.5	28.6	27.9	39.9	1.6	3.65	
32	1.5	30.3	36.9	42.5	1.6	4.00	
35	1.5	33	32.2	45.9	1.6	4.38	
38	1.75	36	35.2	49.6	1.5	6.50	
40	1.75	37.5	36.5	55.1	1.85	7.00	
42	1.75	39.5	38.5	57.1	1.85	7.50	
45	1.75	42.5	41.5	60.1	1.85	8.50	
47	1.75	44.5	43.5	62.1	1.85	8.70	
48	1.75	45.5	44.5	63.1	1.85	8.90	

D1	S	D2	D3	D4	M	WEIGHT IN KG PER 1000 PIECES	PACK
50	2	47	45.8	67.2	2.15	11.5	
55	2	52	50.8	7.2	2.15	13.0	
57	2	54	52.8	74.2	2.15	14.0	
58	2	55	53.8	75.2	2.15	14.3	
60	2	57	55.8	77.2	2.15	14.8	
62	2	59	57.8	79.2	2.15	15.9	
65	2.5	62	60.8	86.4	2.65	21.7	
67	2.5	64	62.5	88.4	2.65	22.6	
68	2.5	65	63.5	89.4	2.65	23.5	
70	2.5	67	65.5	91.4	2.65	25.1	
75	2.5	7	70.5	96.4	2.65	26.2	
80	2.5	76.5	74.5	101.4	2.65	3.8	
85	3	81.5	79.5	106.4	3.15	39.5	
90	3	86.5	84.5	111.4	3.15	47.7	
95	3	91.5	89.5	116.4	3.15	53.0	
100	3	96.5	94.5	121.4	3.15	56.6	
110	4	106	103	135.6	4.15	84.0	
120	4	116	113	149.8	4.15	89.7	
130	4	126	123	159.8	4.15	105	
140	4	136	133	169.8	4.15	115	

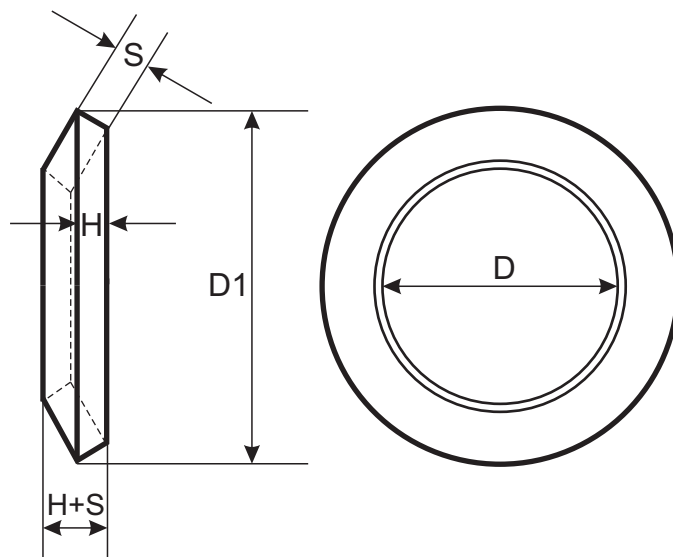


		THICKNESS															
D	D1	0.1	0.2	0.3	0.5	1	1.1	1.2	1.3	1.4	1.5	1.6	1.7	1.8	1.9	2	
3	6	0.016	0.033	0.050	0.083	0.165	0.183	0.200									
4	8	0.030	0.060	0.089	0.148	0.96	0.326	0.355									
5	10	0.046	0.092	0.139	0.234	0.462	0.509	0.554									
6	12	0.067	0.133	0.200	0.333	0.666	0.732	0.880	0.868	0.932							
8	14	0.082	0.163	0.245	0.408	0.615	0.896	0.978	1.06	1.14	1.22	1.30					
10	16	0.096	0.193	0.290	0.481	0.963	1.06	1.15	1.25	1.34	1.44	1.5	1.63	1.73			
12	18	0.111	0.222	0.332	0.555	1.11	1.22	1.33	1.44	1.55	1.56	1.77	1.88	1.99			
14	20	0.126	0.252	0.378	0.630	1.26	1.38	1.51	1.64	1.76	1.89	2.02	2.14	2.27	2.40	2.52	
15	21	0.133	0.266	0.399	0.665	1.33	1.46	1.59	1.72	1.86	1.99	2.12	2.25	2.39	2.52	2.66	
16	22	0.140	0.280	0.420	0.700	1.40	1.54	1.68	1.82	1.96	2.10	2.24	2.36	2.52	2.66	2.80	
18	25	0.185	0.370	0.551	0.925	1.85	2.03	2.22	2.40	2.59	2.77	2.96	3.14	3.33	3.51	3.70	
20	28	0.236	0.472	0.710	1.18	2.36	2.60	2.83	3.07	3.30	3.54	3.77	4.02	4.25	4.48	4.72	
22	30	0.257	0.514	0.770	1.28	.57	2.62	3.08	3.34	3.60	3.86	4.12	4.36	4.62	4.87	5.14	
25	35	0.370	0.740	1.11	1.85	3.70	4.07	4.44	4.81	5.18	5.55	5.92	6.39	6.66	7.03	7.40	
28	40	0.503	1.01	1.51	.51	5.03	5.53	6.04	6.54	7.05	7.55	8.06	8.56	9.07	9.56	10.1	
30	42	0.535	1.07	1.60	2.68	5.35	5.88	6.42	6.95	7.48	8.04	8.56	9.10	9.62	10.1	10.7	
32	45	0.619	1.24	1.86	3.10	6.19	6.81	7.43	8.04	8.66	9.28	9.90	0.5	11.1	11.7	12.4	
35	46	0.496	0.99	1.49	2.48	4.95	5.45	5.94	6.43	6.93	7.42	7.92	8.40	8.91	9.40	9.90	
40	50	0.554	1.11	1.69	2.77	5.54	6.09	6.65	7.20	7.75	8.30	8.86	9.42	9.96	10.5	11.1	
42	52	0.578	1.06	1.73	2.90	5.78	7.51	6.94	8.89	8.10	10.25	9.25	9.85	10.4	11.0	11.5	
45	55	0.620	1.24	1.85	3.10	6.20	7.45	7.45	8.06	8.68	9.30	9.90	10.5	11.2	11.8	12.4	
48	60	0.790	1.58	2.37	3.95	7.90	9.48	9.48	10.3	11.1	11.8	12.6	13.4	14.2	15	15.8	
50	62	0.830	1.66	2.49	4.15	8.30	9.96	9.96	10.1	11.6	12.4	13.3	14.1	17.9	15.7	16.6	
55	68	0.980	1.96	2.93	4.90	4.90	11.7	11.7	12.7	13.7	14.7	15.7	16.6	17.6	18.6	19.6	
60	75	1.25	2.50	3.75	6.25	6.25	15.0	15.0	16.3	17.5	20.0	20.0	21.2	22.5	23.7	25	
65	85	1.85	3.70	5.53	9.25	9.25	22.2	22.2	24.0	25.9	9.6	29.6	31.4	33.5	35.2	37	
70	90	1.97	3.93	5.90	9.85	9.85	3.6	23.6	25.5	27.9	31.5	31.5	33.5	35.4	37.4	39.3	
80	100	2.22	4.44	6.65	11.1	11.1	26.6	26.6	28.8	31.2	35.5	35.5	37.7	40	42.2	44.4	

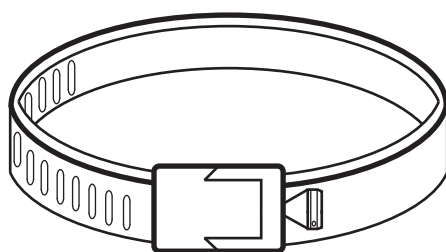


DIMENSIONS					I= 0.25 H		I= 0.5 H		I= 0.75 H		I= H		WEIGHT IN KG PER 1000 PIECES	PACK
D1	D	S	H	H+S	P	I	P	I	P	I	P	I		
8.5	4.2	0.40	0.20	0.60	8.0	0.050	15.0	0.100	21.4	0.150	27.4	0.200	0.21 0.46 0.67	200
10	5.2	0.50	0.25	0.75	12.4	0.063	23.3	0.15	33.2	0.188	42.5	0.250		
12.5	6.2	0.70	0.30	1.00	24.4	0.075	46.6	0.150	67.2	0.225	87.1	0.300		
14	7.2	0.80	0.30	1.10	28.9	0.075	55.8	0.150	81.2	0.225	106	0.300	0.96 1.39 1.89 2.76	100
16	8.2	0.90	0.35	1.25	37.0	0.088	71.1	0.175	103	0.262	134	0.350		
18	9.2	1.00	0.40	1.40	46.0	0.100	88.1	0.200	128	0.300	166	0.400		
20	10.2	1.10	0.45	1.55	55.9	0.113	107	0.225	155	0.337	201	0.450		
22.5	11.2	1.25	0.50	1.75	70.7	0.125	136	0.250	197	0.375	254	0.500		
25	12.2	1.50	0.55	2.05	106	0.138	205	0.275	298	0.413	390	0.550	4.14 5.06 7.37 10.73	50
28	14.2	1.50	0.65	2.15	105	0.163	201	0.325	290	0.488	375	0.650		
31.5	16.2	1.75	0.70	2.45	142	0.175	272	0.350	395	0.526	513	0.700		
35.5	18.3	2.00	0.80	2.80	190	0.200	385	0.400	529	0.600	888	0.800		
40	20.4	2.25	0.90	3.15	238	0.225	457	0.450	663	0.975	562	0.900		
45	22.4	2.50	1.00	3.50	283	0.250	542	0.500	787	0.760	1023	1.000	15.44 22.07 32.25 40.40	50
50	25.4	3.00	1.10	4.10	434	0.275	837	0.550	1221	0.825	1594	0.180		
58	28.5	3.00	1.80	4.30	422	3.325	8.5	0.660	1181	0.795	1504	1.300		
63	31.0	3.50	1.40	4.90	550	0.350	1056	0.700	1532	1.050	199	1.400		
71	36.0	4.00	1.60	5.60	783	0.400	1472	0.800	2093	1.200	2671	1.600		
80	41.0	5.00	1.70	6.70	1245	0.425	2375	0.850	3421	1.275	4414	1.700	81.01 86.82 136.74 173.40	50
90	46.0	5.00	2.00	7.00	1194	0.500	2248	1.000	3186	1.500	4063	2.000		
100	51.0	6.00	2.20	8.20	1810	0.550	3424	1.100	4895	1.650	6276	2.200		
112	57.0	6.00	2.50	8.50	1885	0.625	3150	1.250	4455	1.975	5660	2.500	257.8 323.21 534.53 666.38	50
125	64.0	8.00	2.60	10.60	3172	0.650	6067	1.300	8759	1.950	11312	5.600		
140	72.0	8.00	3.20	11.20	3252	0.800	6112	1.600	8890	2.400	11091	3.200		
160	82.0	10.00	3.50	13.50	3152	0.875	9607	1.750	14101	2.625	18166	3.500		
													1093.95	





DIMENSIONS					F=0.25H		F=0.50H		F=0.75H		F=H		WEIGHT IN KG PER 1000 PIECES	PACK
D1	D	S	H	H=S	P	F	P	F	P	F	P	F		
8	4.2	0.30	0.25	0.55	5.3	0.063	9.1	0.125	12	0.188	14.5	0.25	0.17	200
10	5.	0.40	0.30	0.70	9.0	0.075	15.8	0.150	21.3	0.225	26.2	0.30		
12.5	6.2	0.50	0.35	0.85	12.2	0.088	21.9	0.175	39.9	0.263	37.1	0.35		
14	7.2	0.50	0.40	0.90	1.2	0.100	21.4	0.200	28.5	0.300	34.5	0.40		
16	8.1	0.60	0.45	1.05	17.5	0.113	31.0	0.225	41.8	0.338	51.2	0.45	0.66	100
18	9.2	0.70	0.50	1.20	23.8	1.125	42.5	0.250	57.7	0.375	71.3	0.50		
20	10.2	0.80	0.55	1.35	31.0	0.138	55.7	0.275	76.3	0.413	94.7	0.55		
25	12.2	0.90	0.70	1.60	37.4	0.175	65.7	0.350	87.9	0.525	107	0.70		
28	14.2	1.00	0.80	1.80	8.6	0.200	84.8	0.400	113	0.600	137	0.0		
31.5	16.3	1.25	0.90	2.15	80.6	0.225	144	0.450	195	0.675	241	0.90	5.26	50
35.5	18.3	1.25	1.00	2.25	74.5	0.250	30	0.500	173	0.750	210	1.00	6.70	
40	20.4	1.50	1.15	2.65	113	0.285	199	0.575	267	0.863	326	1.15	10.29	
45	22.4	1.75	.30	3.05	155	0.325	275	0.550	372	0.975	456	1.30	15.45	
50	25.4	2.00	1.40	3.40	199	0.350	356	0.700	485	1.050	601	1.40	1.50	
55	28.5	2.00	1.60	3.60	195	0.400	340	0.800	452	1.200	548	1.60	28.93	50
63	31.0	2.50	1.75	4.25	300	0.438	537	0.875	733	1.313	908	1.75	43.58	
71	36.0	2.50	2.00	4.50	95	0.500	515	1.000	686	1.500	831	2.00	54.26	
80	41.0	3.00	2.30	5.30	454	0.575	799	1.150	1072	1.750	1309	2.30	82.05	
90	46.0	3.50	2.50	6.00	595	0.625	1062	1.250	1444	1.875	1783	2.50	121.38	
100	51.0	3.50	2.80	6.30	573	0.700	1001	1.400	1332	2.100	1615	2.80	150.08	50
112	57.0	4.00	3.20	7.20	835	0.800	1412	1.600	1809	2.400	2105	3.20	215.47	
125	64.0	5.00	3.50	8.50	1328	0.875	310	1.750	3048	2.625	3648	3.50	334.08	
140	72.0	5.00	4.00	9.00	1309	1.000	2217	2.000	2846	3.000	3316	4.00	417.74	
160	82.0	6.00	4.50	10.50	1885	1.125	3224	2.250	4180	3.375	4915	4.50	656.37	

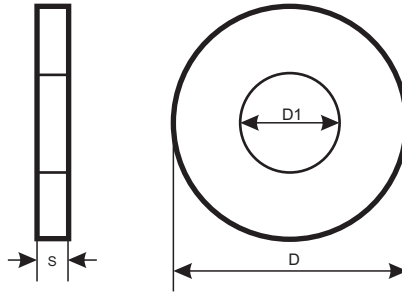


DIN 3017 L (NORMAL SERIES)

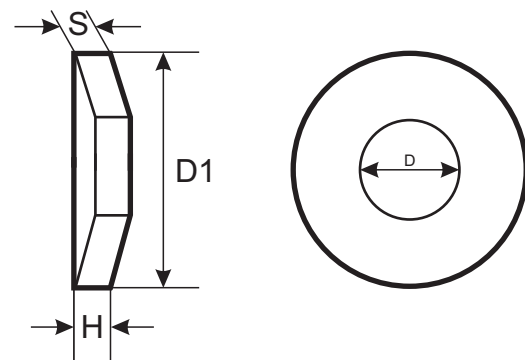
GRIP CAPACITY (DIA.) Mm	WEIGHT IN KG PER 1000 PIECES	PACK
8-14	9.1	50
10-16	9.5	
12-20	9.7	
16-25	10.5	
20-32	11.5	
25-40	12.5	25
32-50	13.8	
40-60	14.9	
50-70	16.4	
60-80	18.9	
70-90	20.4	
80-100	21.5	

DIN 3017 S (HEAVY SERIES)

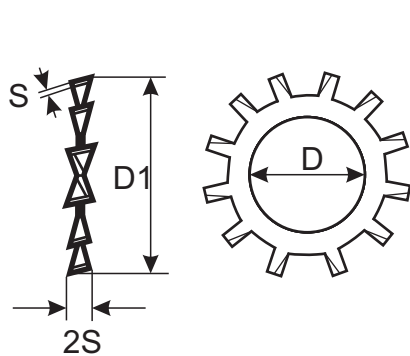
GRIP CAPACITY (DIA.) Mm	WEIGHT IN KG PER 1000 PIECES	PACK
20-32	4.3	50
25-40	26	
32-50	28	
40-60	30.6	
50-70	33	
60-80	35.5	25
70-90	37.6	
80-100	40	
90-110	42.7	
100-125	46	
110-140	49.7	
125-160	54.2	



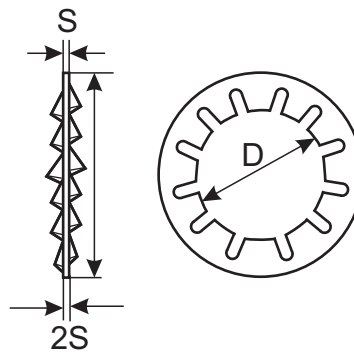
FOR BOLT	D1	D	S	WEIGHT IN KG PER 1000 PIECES	PACK
6	6.4	17	3	4.6	
8	8.4	23	4	11.3	
10	10.5	2	4	16.6	
12	13	35	5	32.5	
16	17	45	6	64.3	
20	21	50	6	76	
24	25	60	8	147	
30	31	68	10	226	



FOR BOLT	D	D1	S	H		WEIGHT IN KG PER 1000 PIECES	PACK
				MAX.	MIN.		
4	4.3	9	1	1.3	1.12	0.38	
5	5.3	11	1.2	1.55	1.35	0.69	
6	6.4	14	1.5	2	1.7	1.43	
8	8.4	18	2	2.6	2.24	3.13	
10	10.5	3	.5	3.2	2.8	2.45	
12	13	29	3	3.95	3.43	12.4	
14	15	35	3.5	4.65	.04	21.6	
16	17	39	4	5.25	4.58	30.4	
18	19	42	4.5	5.8	5.08	38.9	
20	21	45	5	6.4	5.6	48.8	
2	23	49	5.6	7.05	6.15	63.5	
24	25	56	6	7.75	6.77	92.9	
27	28	60	6.5	8.35	7.3	13	
30	31	70	7	9.2	8	170	

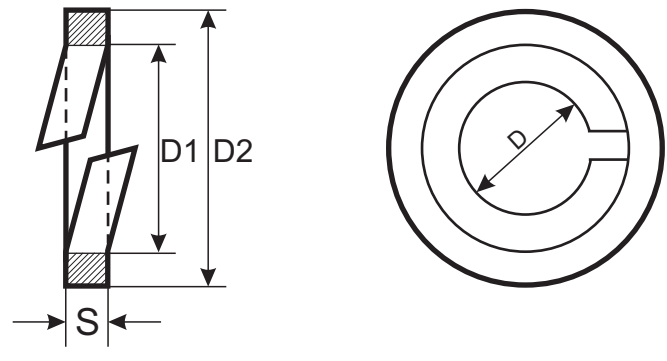


TYPE J
(EXTERNAL TEETH)

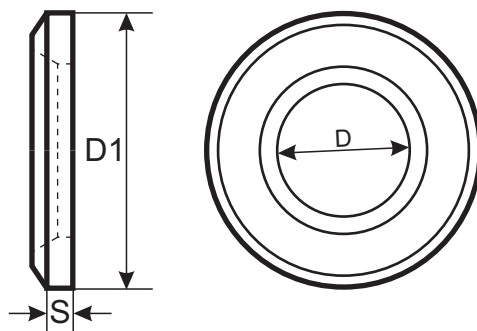


TYPE J
(INTERNAL TEETH)

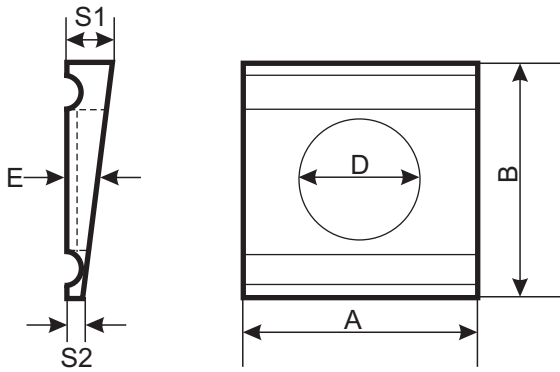
FOR BOLT	D	D1	S	WEIGHT IN KG PER 1000 PIECES		PACK
				A	J	
3	3.2	6	0.4	0.04	0.04	1000
4	4.3	8	0.5	0.09	0.10	
5	5.3	10	0.6	0.18	0.20	
6	6.4	11	0.7	0.22	0.25	500
8	8.4	15	0.8	0.45	0.55	200
10	10.5	18	0.9	0.80	0.90	
12	12.5	20.5	1	1.1	1.3	
16	16.5	26	1.2	2.1	2.5	100
20	21	33	1.4	3.8	4.1	
24	25	38	1.5	6	6.5	



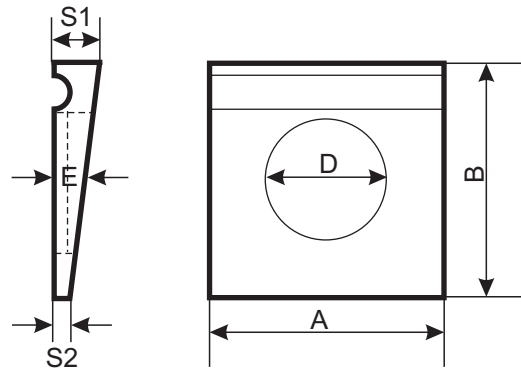
FOR BOLT	D	D1	D2	S	WEIGHT IN KG PER 1000 PIECES	PACK
3	3.1	5.4	7	1.25	0.3	
4	4.1	6.7	9	1.75	0.68	
5	5.1	8.25	11	2	1.18	
6	6.1	9.5	12	2.25	1.49	
8	8.2	12.5	16	3.75	3.18	
10	10.2	15	19	3	4.7	
12	12.2	17.5	22	3.5	7.25	
16	16.	24	30	5	19.8	
20	20.2	30	38	6.1	38.3	
24	24.5	34	42	7.1	46.1	
30	30.5	42	52	7.1	76.3	
33	33.5	48	58	8.1	105	
36	36.5	52	62	9.1	141	
42	42.5	60	75	11.1	269	



FOR BOLT	D	D1	S	WEIGHT IN KG PER 1000 PIECES	PACK
12	13	24	3	7.03	
16	17	30	4	14.6	
20	21	37	4	19.6	
22	23	39	4	24.3	
4	25	44	4	30.6	
27	28	50	5	50.2	
30	31	56	5	63.2	
36	37	66	6	115	

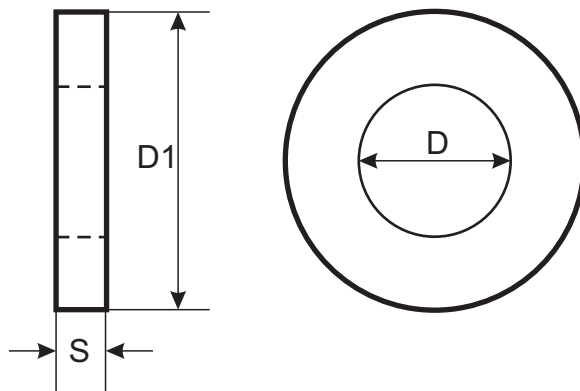


Taper 8%
DIN6918 for U section
with 2 slots

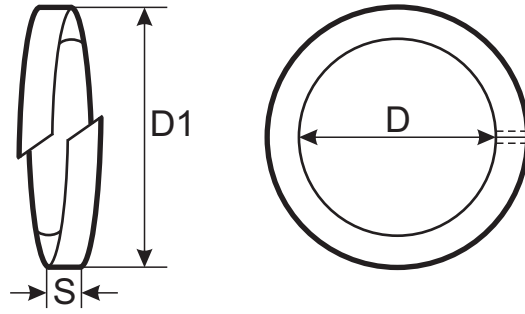


Taper 14%
DIN6917 for I section
with 1 slots

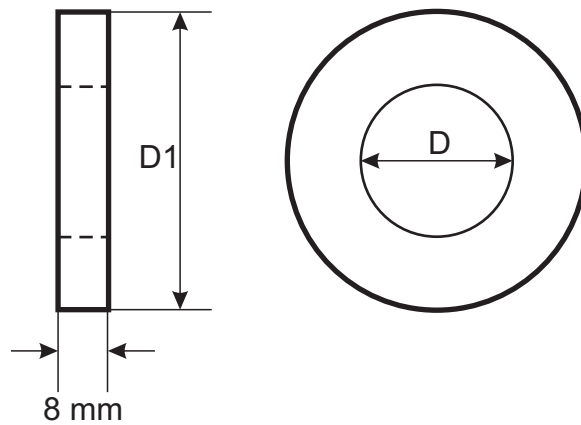
FOR BOLT	D	A	B	DIN 6917			DIN 6918			WEIGHT IN KG PER 1000 PIECES		PACK
				S1	E	S2	S1	E	S2	DIN 6917	DIN 6918	
12	13	26	30	6.2	4.1	2	4.9	3.7	2.5	20.3	18.3	
16	17	32	36	7.5	5	2.5	5.9	4.45	3	35.3	31.5	
20	21	40	44	9.2	6.1	3	7	5.25	3.5	64.8	56.3	
22	23	44	50	0	6.5	3	8	6	4	87.9	81.1	
24	25	56	56	10.8	6.9	3	8.5	6.25	4	140	128	
27	28	56	56	10.8	6.9	3	8.5	6.25	4	126	114	
30	31	62	62	11.7	7.5	3	9	6.5	4	165	141.8	
36	37	68	68	12.5	8	3	9.4	7	4	216	182	



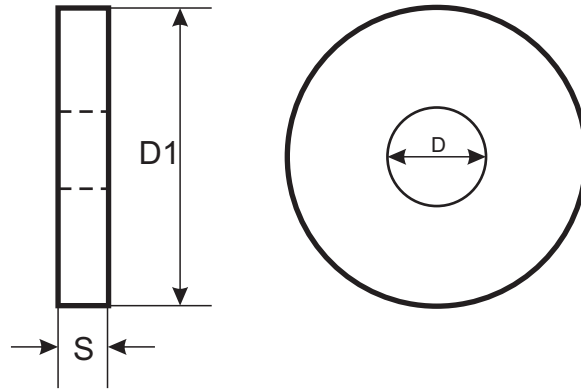
FOR BOLT	D	D1	S	FOR SPRING PIN DIN 1481 NOMINAL \emptyset	WEIGHT IN KG PER 1000 PIECES	PACK
3	3.2	9	1	6	0.436	
4	4.3	12	1.6	8	1.24	
5	5.3	15	2	10	2.43	
6	6.4	17	3	12	4.59	
8	8.4	21	4	16	9.15	
10	10.5	25	4	18	12.7	
12	13	30	6	21	27.1	
14	15	36	6	25	39.6	
16	17	40	6	28	48.5	
18	19	44	8	32	77.4	
20	21	44	8	35	73.4	
22	23	50	8	38	97.1	
24	25	50	10	40	116	
27	28	60	10	45	174	
30	31	68	10	50	226	



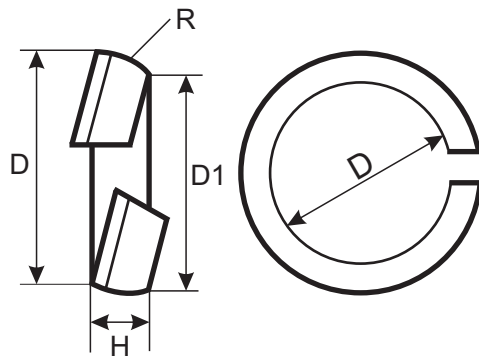
FOR BOLT	D	D1	S	WEIGHT IN KG PER 1000 PIECES	PACK
3	3.1 + 0.3	5.6	1 ± 0.1	0.105	
4	4.1 + 0.3	7	1.2 ± 0.1	0.195	
5	5.1 + 0.2	8.8	1.6 ± 0.1	0.37	
6	6.1 + 0.4	9.9	1.6 ± 0.1	0.425	
8	8.1 + 0.4	12.7	2 ± 0.1	1.05	
10	10.2 + 0.5	16	2.5 ± 0.15	1.96	
12	12.2 + 0.5	18	2.5 ± 0.15	2.28	
14	14.2 + 0.5	21.1	3 ± 0.2	3.8	
16	16.2 + 0.8	24.4	3.5 ± 0.2	5.94	
18	18.2 + 0.8	26.4	3.5 ± 0.2	6.6	
20	20.2 + 1	30.6	4.5 ± 0.2	2.3	
22	2.5 + 1	32.9	4.5 ± 0.2	13.8	
24	4.5 + 1	35.9	5 ± 0.2	18.1	
27	27.5 + 1	38.9	5 ± 0.2	20.6	
30	30.5 + 1.2	44	6 ± 0.2	2	
33	33.5 + 1.2	47.1	6 ± 0.2	35	
36	36.5 + 1.2	52.2	7 ± 0.25	52.5	
42	42.5 + 1.2	60.2	8 ± 0.25	80	
48	49 + 1.5	67	8 ± 0.25	90	



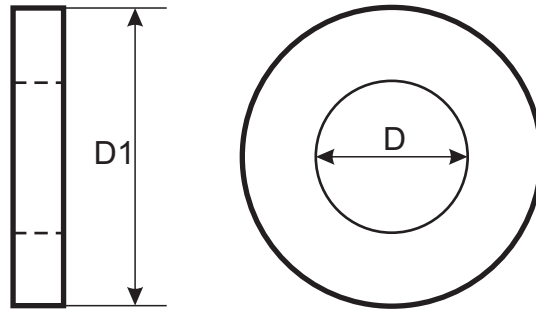
FOR SCREW	D1	D1	WEIGHT IN KG PER 1000 PIECES	PACK
10	11	21	15.7	100
12	14	24	18.8	
16	18	30	28.3	
20	2	37	43.6	
22	4	39	46.2	
24	26	44	61.5	
27	30	50	79.0	
30	33	56	101	
33	36	60	114	
36	39	66	140	



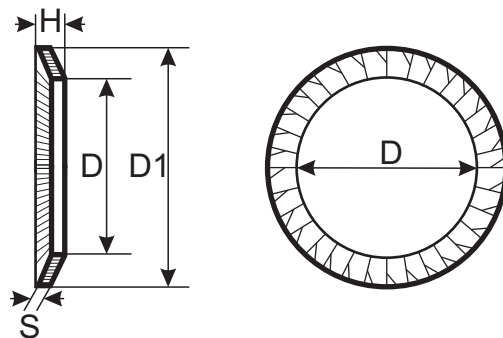
FOR SCREW Ø	D	D1	S	WEIGHT IN KG PER 1000 PIECES	PACK
M3	3.2	9	0.8	0.34	500
M3.5	3.7	11	0.8	0.52	
M4	4.3	12	1	0.77	
M5	5.3	15	1.6	1.94	
M6	6.4	18	1.6	2.79	
M7	7.4	22	2	5.29	200
M8	8.4	25	2	6.84	
M10	10.5	30	2.5	12.2	
M12	13	40	3	26.5	
M14	15	45	3	33.3	100
M16	17	50	3	40.9	
M18	19	56	4	67.4	
M20	21	60	4	78.2	



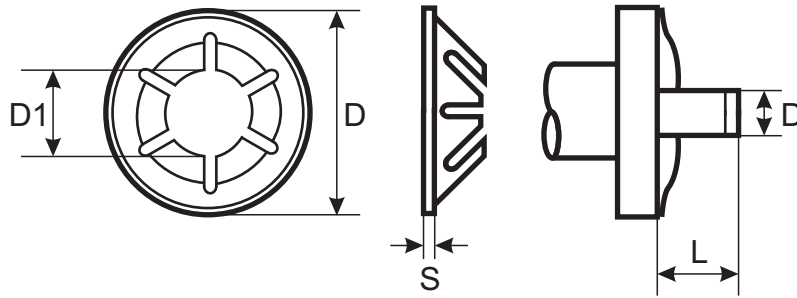
FOR SCREW \emptyset	D	D1	S	WEIGHT IN KG PER 1000 PIECES	PACK
M3	3.2	9	0.8	0.34	500
M3.5	3.7	11	0.8	0.52	
M4	4.3	12	1	0.77	
M5	5.3	15	1.6	1.94	
M6	6.4	18	1.6	2.79	
M7	7.4	22	2	5.29	200
M8	8.4	25	2	6.84	
M10	10.5	30	2.5	12.2	
M12	13	40	3	26.5	
M14	15	45	3	33.3	100
M16	17	50	3	40.9	
M18	19	56	4	67.4	
M20	21	60	4	78.2	



FOR SCREW Ø	D	D1	S	WEIGHT IN KG PER 1000 PIECES	PACK
4	5	10	1	0.46	1000
5	6	12	1	0.66	
6	7	14	1	0.92	
7	8	16	1	1.16	
8	9	18	1.2	1.80	500
10	11	2	1.2	3.33	
16	12	24	1.5	4.00	
12	13	28	1.5	4.70	
1/2	14	28	1.85	6.75	200
14	15	30	1.85	7.70	
16	17	34	2	11.0	
18	19	38	2.25	5.0	
3/4	20	40	1.40	17.6	100
20	21	42	2.40	19.4	
2	23	46	2.70	6.4	
24	25	50	3	31.5	
1	26	52	3	36.5	
27	28	56	3.2	46.1	
30	32	64	3.2	59.8	
1 1/4	33	66	3.2	64.0	
33	35	70	3.2	65.0	
1 3/8	36	72	3.2	76.4	



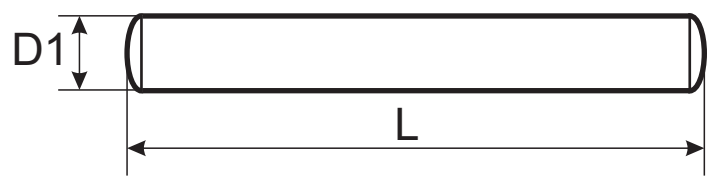
FOR SCREW Ø		D	D1	S	H	WEIGHT IN KG PER 1000 PIECES	PACK
M	INCH	H13	H13				
3	1/8	3.2	5.5	0.45	0.6	0.05	1000
4	5/32	4.3	7	0.5	0.7	0.09	
5	3/16	5.3	9	0.6	0.9	0.18	
6	1/4	6.4	10	0.7	0.9	0.22	500
8		5/16	6.7	9.5	0.7	0.9	
10	3/8	8.4	13	0.8	1.2	0.43	200
12	7/16	10.5	16	1	1.5	0.81	
		11.6	15.9	1	1.5	0.66	
14	1/2	13	18	1	1.5	0.96	
		3.7	19	1	1.6	1.07	
16	5/8	15	22	1	1.8	1.76	
18	3/4	17	24	1.3	1.9	2.12	100
20		19	27	1.5	2.2	3.18	
2	7/8	20	30	1.5	2.3	4.32	
24	1	21	30	1.5	2.2	3.80	50
27		23	33	1.5	2.3	4.83	
30	1 1/8	25.6	36	2	2.6	5.20	
		27	38	2	2.7	6.00	
		28.6	39	2	2.6	7.80	
		31.6	45	2	3.1	10	



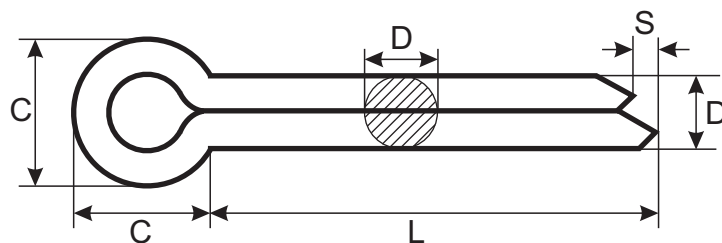
SHAFT Ø D mm	D1	D	S	L		AXIAL LOAD kp	WEIGHT IN KG PER 1000 PIECES	PACK
				MIN.	MAX.			
1	0.85	4	0.2	1.5	-	10	0.013	
1.5	1.3	5	0.2	1.5	-	17	0.015	
2	1.8	7	0.2	2	-	35	0.050	
2.5	2.3	8.5	0.3	2	-	60	0.105	
3	2.8	10.5	0.3	2.5	7	100	0.176	
3.5	3.3	11	0.3	2.5	7	110	0.200	
4	3.75	12	0.3	2.5	7	120	0.200	
4.5	4.25	13	0.3	3	9	120	0.262	
5	4.75	14	0.4	3	9	130	0.420	
5.5	5.25	14	0.4	3	9	130	0.405	
6	5.75	16	0.4	3.5	10	140	0.535	
6.35	6	14	0.4	3.5	10	130		
7	6.7	17	0.4	3.5	10	160	0.535	
8	7.7	18	0.4	3.5	10	270	0.620	
9	8.65	19	0.4	3.5	10	300	0.670	
10	9.65	20	0.4	3.5	10	350	0.680	



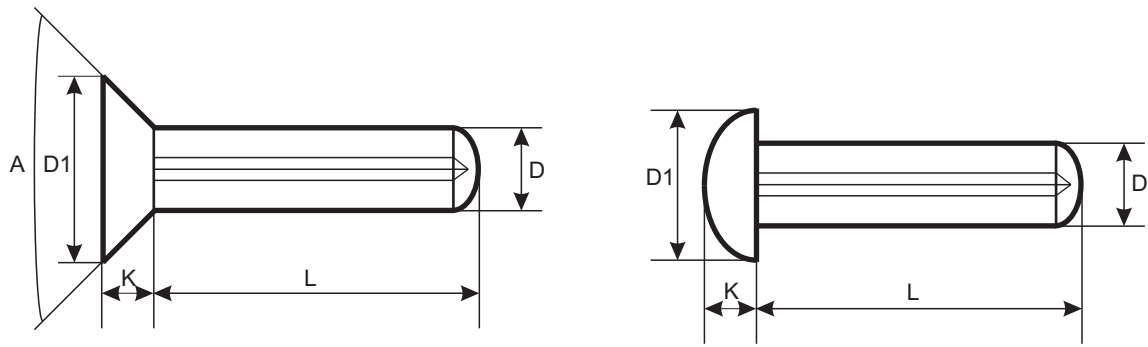
D	1	1.5	2	2.5	3	4	5	6	8	10	12	14	16	
L mm	Weights in kg per 1000 pieces													
8	0.058													
10	0.075	0.16												
12	0.095	0.21	0.34	0.53										
14	0.114	0.24	0.40	0.62	0.88									
16	0.136	0.30	0.47	0.71	1.02	1.78								
18	0.157	0.34	0.53	0.81	1.15	2								
20		0.38	0.61	0.91	1.29	2.23	3.47							
24		0.49	0.75	1.13	1.58	2.72	4.18	6.02						
28			0.91	1.35	1.88	3.22	4.93	7.17	12.3					
32			1.08	1.59	2.2	3.73	5.7	8.35	14	21.9				
36			1.26	1.84	2.55	4.28	6.51	9.5	16	24.8	35.4	47.6		
40				2.1	.8	4.84	7.3	10.3	17.8	27.6	39.6	52.4	69.8	
45					3.35	5.56	8.35	11.7	20.2	31.2	44.6	60	78.6	
50					3.83	6.31	9.45	13.4	22.7	34.9	49.8	66.6	87.4	
55						7.12	10.6	14.7	25.3	38.8	55.2	73.8	96.4	
60						7.94	11.8	16.3	27.6	42.5	60.2	81.2	105	
70							14.2	19.7	33.2	40.4	71.8	95.9	123	
80								24.3	38.6	58.5	83	110	143	
90								28.4	44.5	67	94.5	126	162	
100									50.5	75.7	106	141	181	
110										57	84.7	118	157	02
120										63.5	94	130	173	22
130											104	143	188	244
140											114	157	208	265
150												170	225	267



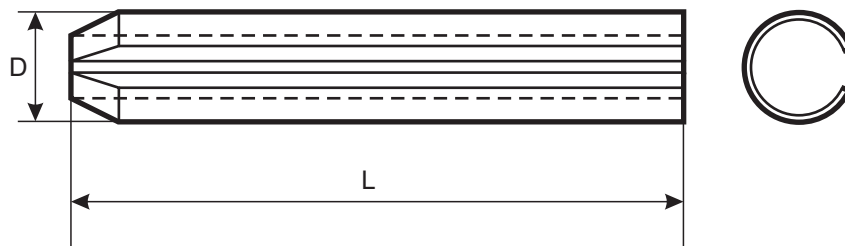
D	2	2.5	3	4	5	6	8	10	12	14	16	20
L mm	Weights in kg per 1000 pieces											
6	0.155	0.243	0.355	0.64	1.02	1.53						
8	0.203	0.320	0.466	0.84	1.33	1.97	3.58					
10	0.253	0.397	0.577	1.04	1.64	.41	4.37	7.01	10.2			
12	0.302	0.474	0.688	1.23	1.95	2.85	5.16	8.24	12.0			
14	0.351	0.550	0.799	1.44	2.26	3.29	5.95	9.47	13.8	19.0		
16	0.401	0.627	0.910	1.63	2.57	3.73	6.74	10.7	15.6	1.4	28.3	
18	0.451	0.705	1.02	1.83	2.88	4.17	7.53	11.9	17.4	23.8	31.5	
20	0.500	0.782	1.13	2.03	3.19	4.61	8.31	13.2	19.2	26.2	34.7	56.4
24		0.937	1.35	2.43	3.80	5.50	9.89	15.6	22.8	31.0	41.1	66.2
28			1.57	2.82	4.42	6.40	11.5	18.0	26.4	35.8	47.5	76.0
32			1.79	3.21	5.03	7.30	13.0	20.6	30.0	40.6	53.9	85.8
36				3.60	5.65	8.19	14.6	23.1	33.6	45.4	60.3	95.6
40				4.00	6.27	9.08	16.2	25.5	37.2	50.2	66.6	105
45					7.03	10.2	18.1	28.6	41.7	56.2	74.5	118
50					7.80	11.3	20.1	31.7	46.2	62.3	82.5	130
55						12.4	22.1	34.8	50.7	68.3	90.4	142
60						13.5	24.0	37.9	55.2	74.4	98.4	155
70							28	4.1	64.1	86.5	114	179
80							32	50.3	73.0	98.6	130	204
90								56.5	82.1	111	146	228
100								62.7	91.0	123	161	253
120									109	147	192	302
140										171	224	351
160										195	256	400



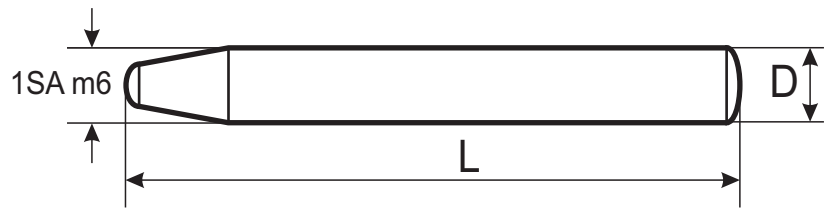
Ø NOMINAL	1	1.5	2	2.5	3.2	4	5	6.3	8	10	13
D MAX.	0.9	1.4	1.8	2.3	2.9	3.7	4.6	5.9	7.5	9.5	12.4
D MIN	0.8	1.3	1.7	2.1	2.7	3.5	4.4	5.7	7.3	9.3	12.1
A	1.6	2.5	2.5	2.5	3.2	4	4	4	4	6.3	6.3
B	3	3.2	4	5	6.4	8	10	12.6	16	20	26
C	1.6	2.4	3.2	4	5.1	6.5	8	10.3	13.1	16.6	17
L mm	Weights in kg per 1000 pieces										
10	0.04	0.15	0.37								
12	0.08	0.16	0.38	0.59	1.01	1.89					
16	0.10	0.22	0.39	0.70	1.09	2.22					
18		0.22	0.40	0.73	1.2	2.36					
20	0.13	0.25	0.45	0.76	1.27	2.36					
22		0.26	0.47		1.4	2.51					
25		0.31	0.54	0.99	1.49	2.84					
28		0.37	0.58	1.01	1.71	2.94	4.84				
32		0.38	0.65	1.18	1.85	3.12	5.36	6.97			
36			0.80	1.28	2.05	3.72	5.92	10.2			
40			0.82	1.38	2.24	4.07	6.41	11.4	20.6		
45				1.57	2.37	4.33	6.82	12.6	21.2		
50				2.00	2.81	4.75	7.87	13.2	23.1		
56					3.10	5.40	8.52	14.6	25.0	40.3	
63					3.50	5.87	9.41	15.7	28.0	44.8	
71						7.09	10.0	17.6	30.4	49.2	
80						7.94	11.5	18.5	33.4	53.3	
90						8.79	12.8	20.8	36.7	58.5	106.9
100							15.7	22.9	41.2	64.1	117.8
112								25.2	47.0	72.0	128.0
125								27.3	48.5	79.0	142.9
140									65.6	97.7	170.0



Ø NOMINAL	2	3	4	5	6	8	10	12	16	20
TOLERANCE D	0	0	0	0	0	0	0	0	0	0
	-0.005	-0.075	-0.10	-0.10	-0.10	-0.15	-0.15	-0.20	-0.20	-0.20
DIN 1476 D	3.5	5.2	7	8.8	10.5	14	16	19	25	32
DIN 1476 K	1.2	1.8	2.4	3	3.6	4.8	6.5	7.5	10	13
DIN 1477 D	3.5	5.2	7	8.8	10.5	14	16	19	26	31.5
DIN 1477 K	1	1.4	2	2.5	3	3.	4	4.6	6.5	9.5
DIN 1477 A	75	75	75	75	75	75	75	75	75	60
L mm	Weights in kg per 1000 pieces									
3										
4										
5										
6										
8										
10										
12										
16										
20										
25										
30										
35										
40										



ØD NOMINAL	1.5	2	2.5	3	3.5	4	5	6	8	10	12
FREE PIN											
ACTUAL Ø	1.7	2.3	2.8	3.3	3.8	4.4	5.4	6.4	8.5	10.5	12.5
S	0.3	2.4	0.5	0.6	0.75	0.8	1	1.25	1.25	2	2.5
L mm	Weights in kg per 1000 pieces										
5	0.04	0.07	0.11	0.17	0.24	0.29	0.47				
6	0.05	0.09	0.14	0.20	0.29	0.35	0.56				
8	0.06	0.1	0.18	0.27	0.39	0.47	0.75				
10	0.08	0.15	0.23	0.34	0.49	0.59	0.94	1.36	2.24	3.69	5.55
12	0.10	0.18	0.28	0.40	0.59	0.71	1.13	1.66	2.86	4.43	6.66
14	0.12	0.21	0.33	0.47	0.68	0.83	1.32	1.94	3.13	5.17	7.78
16	0.13	0.4	0.37	0.54	0.8	0.95	1.51	2.21	3.58	5.90	8.89
18	0.15	0.27	0.42	0.61	0.88	1.07	1.70	2.49	4.03	6.64	10.0
20	0.17	0.30	0.47	0.67	0.98	1.19	1.88	2.77	4.48	7.38	11.1
22		0.33	0.51	0.74	1.08	1.31	2.07	3.04	4.2	8.12	12.2
24		0.36	0.56	0.81	1.18	1.43	2.26	3.32	5.37	8.86	13.3
26		0.39	0.61	0.88	1.28	1.55	2.45	3.60	5.82	9.59	14.4
8		0.42	0.66	0.95	1.38	1.67	2.64	3.87	6.26	10.3	15.6
30		0.45	0.70	1.02	1.48	1.79	2.83	4.15	6.71	11.1	16.7
32				1.09	1.58	1.91	3.02	4.43	7.16	11.8	17.8
36				1.22	1.77	2.18	3.39	4.98	8.06	13.3	20.0
40				1.36	1.97	2.39	3.77	5.54	8.95	14.8	22.2
45						2.68	4.24	6.23	10.1	16.6	25.0
50						2.98	4.71	6.92	11.2	18.4	27.6
55							5.18	7.61	12.3	20.3	30.5
60							5.65	8.30	13.4	2.1	33.3
65							6.12	8.99	14.5	24.0	36.1
70							6.59	9.69	15.7	25.8	38.9
80							7.06	11.1	18.0	29.5	44.4
90							7.54	12.5	20.1	33.2	50.0
100								13.6	22.4	36.9	55.5



D	2	3	4	5	6	8	10	12
L mm	Weights in kg per 1000 pieces							
10	0.24	0.55	0.98	1.5				
12	0.29	0.66	1.18	1.8				
16	0.39	0.88	1.58	2.46	3.55			
20	0.49	1.11	1.97	3.08	4.44	7.89	12.4	
24		1.33	2.37	3.70	5.32	9.46	14.8	21.4
26		1.44	2.57	4.01	5.76	10.23	16.0	23.1
30		1.66	2.96	4.62	6.65	11.80	18.5	26.7
36			3.55	5.54	7.98	14.2	22.2	31.7
40			3.94	6.15	8.86	15.8	24.6	35.5
45				6.93	9.96	17.77	27.7	40.0
50				7.70	11.1	19.7	30.8	44
60					13.3	23.6	37.0	53.3
70						27.6	43.2	62.2
80						31.5	49.4	71.0
100							61.6	88.8

