

TABLE OF CONTENTS

MISCELLANEOUS INFORMATION		i to iii
NUMERIC STANDARD LISTING		iv to v
SECTION 1	SOCKET PRODUCTS	1-1 to 1-11
SECTION 2	HEXHEAD CAP SCREWS	2-1 to 2-11
SECTION 3	JIS	3-1 to 3-2
SECTION 4	NUTS	4-1 to 4-11
SECTION 5	WASHERS	5-1 to 5-8
SECTION 6	MACHINE SCREWS	6-1 to 6-6
SECTION 7	PINS	7-1 to 7-3
SECTION 8	MISCELLANEOUS FASTENERS	8-1 to 8-4

**TECHNICAL SPECIFICATIONS SUPPLIED FOR INFORMATIONAL PURPOSES ONLY
WITHOUT ANY RESPONSIBILITY FOR ACCURACY ON OUR PART**

QUICK REFERENCE AND CONVERSIONS PERTAINING TO METRIC FASTENERS

	KNOWN	FACTOR	RESULT
LENGTH	INCH MILLIMETER	MULTIPLY by 25.4 DIVIDE by 25.4	MILLIMETER INCH
THREAD	THREAD PER INCH (TPI) METRIC THREAD PITCH	25.4 DIVIDE by TPI 25.4 DIVIDE by PITCH	METRIC THREAD PITCH THREAD PER INCH (TPI)
STRENGTH (YIELD AND TENSILE)	POUND/ SQUARE INCH(PSI) MEGA PASCAL (MPa)	DIVIDE by 145 MULTIPLY by 145	MEGA PASCAL (MPa) POUND/SQUARE INCH (PSI)
TORQUE	FOOT POUND NEWTON METER (Nm)	MULTIPLY by 1.356 MULTIPLY by .738	NEWTON METER (Nm) FOOT POUND
	INCH POUND NEWTON METER (Nm)	MULTIPLY by .113 MULTIPLY by 8.85	NEWTON METER (Nm) INCH POUND
WEIGHT	POUND KILO	DIVIDE by 2.2 MULTIPLY by 2.2	KILO POUND
STRENGTH CLASS	CLASS 8.8 CLASS 10.9 CLASS 12.9	SAME AS SAME AS ALLOY STEEL AS PER	GRADE 5 GRADE 8 ASTM A 574

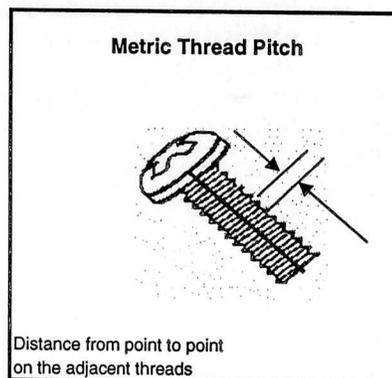
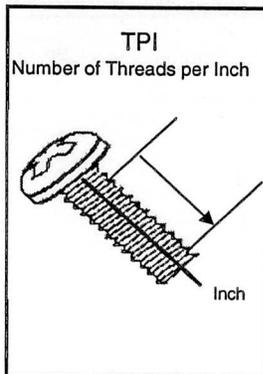
TAP DRILL FORMULA	DEDUCT THREAD PITCH FROM NOMINAL BOLT DIAMETER i.e. - M6 x 1.0 DEDUCT 1.0 (PITCH) FROM M6 (NOM. BOLT DIA.) = 5mm DRILL SIZE
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DIAMETER / THREAD PITCH COMBINATIONS

DIA	COARSE	FINE	VERY FINE	EXTRA FINE
M1	0.25			
M1.2	0.25			
M1.4	0.30			
M1.6	0.35			
M1.7	0.35			
M2	0.40	0.25		
M2.2	0.45			
M2.3	0.40			
M2.5	0.45	0.35		
M2.6	0.45	0.35		
M3	0.50	0.35		
M3.5	0.60	0.35		
M4	0.70	0.50		
M4.5	0.75	0.50		
M5	0.80	0.75	0.50	
M5.5	0.90			
M6	1.00	0.75	0.50	
M7	1.00	0.75	0.50	
M8	1.25	1.00	0.75	
M9	1.25	1.00	0.75	
M10	1.50	1.25	1.00	0.75
M11	1.50	1.25	1.00	0.75
M12	1.75	1.50	1.25	1.00
M14	2.00	1.50	1.25	1.00
M15		1.50	1.00	
M16	2.00	1.50	1.25	1.00
M18	2.50	2.00	1.50	1.25
M20	2.50	2.00	1.50	1.00
M22	2.50	2.00	1.50	1.25
M24	3.00	2.00	1.50	1.25

DIA	COARSE	FINE	VERY FINE	EXTRA FINE
M27	3.00	2.00	1.50	1.00
M28		2.00	1.50	1.00
M30	3.50	2.00	1.50	1.00
M32		2.00	1.50	
M33	3.50	2.00	1.50	
M34		1.50		
M35		1.50		
M36	4.00	3.00	2.00	1.50
M39	4.00	3.00	1.50	
M42	4.50	3.00	2.00	1.50
M45	4.50	3.00	1.50	
M48	5.00	3.00	1.50	
M50			1.50	
M52	5.00	3.00	1.50	
M56	5.50	4.00	2.00	
M60	5.50	4.00	2.00	
M64	6.00	4.00	2.00	
M68	6.00	4.00	2.00	
M72	6.00	4.00	2.00	
M76	6.00	4.00	2.00	
M80	6.00	4.00	2.00	

Metric Thread Pitch	Approx TPI
.25	102
.3	85
.35	73
.4	64
.45	56
.5	51
.6	42
.7	36
.75	34
.8	32
1.0	25
1.25	20
1.5	17
1.75	15
2.0	13
2.5	10
3.0	8.5
.5	7.5
4.0	6.5
4.5	5.5
5.0	5
5.5	4.5
6.0	4



DECIMAL EQUIVALENTS METRIC CONVERSION

MM	INCHES	MM	INCHES	MM	INCHES	MM	INCHES	MM	INCHES
1	0.0394	21	0.8268	41	1.6142	61	2.4016	81	3.1890
2	0.0787	22	0.8661	42	1.6535	62	2.4410	82	3.2283
3	0.1181	23	0.9055	43	1.6929	63	2.4803	83	3.2677
4	0.1575	24	0.9449	44	1.7323	64	2.5197	84	3.3071
5	0.1969	25	0.9843	45	1.7717	65	2.5591	85	3.3465
6	0.2362	26	1.0236	46	1.8110	66	2.5984	86	3.3858
7	0.2756	27	1.0630	47	1.8504	67	2.6378	87	0.3425
8	0.3150	28	1.1024	48	1.8898	68	2.6772	88	3.4646
9	0.3543	29	1.1417	49	1.9291	69	2.7165	89	3.5039
10	0.3937	30	1.1811	50	1.9685	70	2.7559	90	3.5433
11	0.4331	31	1.2205	51	2.0079	71	2.7953	91	3.5827
12	0.4724	32	1.2598	52	2.0472	72	2.8347	92	3.6220
13	0.5118	33	1.2992	53	2.0866	73	2.8740	93	3.6114
14	0.5512	34	1.3386	54	2.1260	74	2.9134	94	3.7008
15	0.5906	35	1.3780	55	2.1654	75	2.9528	95	3.7402
16	0.6299	36	1.4173	56	2.2047	76	2.9921	96	3.7795
17	0.6693	37	1.4567	57	2.2441	77	3.0315	97	3.8189
18	0.7087	38	1.4961	58	2.2835	78	3.0709	98	3.8583
19	0.7480	39	1.5354	59	2.3228	79	3.1102	99	3.8976
20	0.7874	40	1.5748	60	2.3622	80	3.1496	100	3.9370

NUMERIC STANDARD LISTING					
DIN			ISO		PAGE #
84			1207	SLOTTED CHEESE MACHINE SCREW	6-1
85			1580	SLOTTED PAN MACHINE SCREW	6-2
94				COTTER PIN	7-3
125		7089/7090		FLAT WASHER	5-1
127				SPLIT LOCKWASHER	5-2
137				SPRING WASHER	5-3
315				WING NUT	4-9
433			7092	SMALL OD FLATWASHER	5-5
439	B		4035	HEX JAM NUT	4-3
471				EXTERNAL RETAINING RING	5-7
472				INTERNAL RETAINING RING	5-7
557				SQUARE NUT	4-9
562				SQUARE NUT - THIN TYPE	4-9
580				LIFTING EYE BOLTS	8-2
582				LIFTING EYE NUTS	8-2
603			8677	CARRIAGE BOLTS	8-3
906				HEX SOCKET PIPE PLUG	1-9
906				BSPT - BRITISH	1-10
908				HEX SOCKET PIPE PLUG	1-9
908				BSP - BRITISH	1-10
910				HEX HEAD PIPE PLUG	1-9
910				BSP - BRITISH	1-10
911				HEX KEY	1-11
912	12.9		4762	SOCKET HEAD CAPSCREW	1-1
912	8.8		4762	SOCKET HEAD CAPSCREW	1-2
912	8.8	ZN	4762	SOCKET HEAD CAPSCREW	1-3
912	A2		4762	SOCKET HEAD CAPSCREW	1-4
916			4029	SOCKET SET SCREW	1-7
929				HEX WELD NUT	4-10
931	8.8	PL		HEX HEAD CAPSCREW	2-1
931	8.8	ZN		HEX HEAD CAPSCREW	2-2
931	8.8	ZYD		HEX HEAD CAPSCREW	2-5
931	A2			HEX HEAD CAPSCREW	2-5
931	10.9	PL		HEX HEAD CAPSCREW	2-6
931	10.9	ZYD		HEX HEAD CAPSCREW	2-8
933	8.8	PL		HEX HEAD CAPSCREW	2-3
933	8.8	ZN		HEX HEAD CAPSCREW	2.4
933	8.8	ZYD		HEX HEAD CAPSCREW	2-5
933	A2			HEX HEAD CAPSCREW	2-5
933	10.9	PL		HEX HEAD CAPSCREW	2-7
933	10.9	ZYD		HEX HEAD CAPSCREW	2-8
934				HEX NUT M2 THRU M27	4-1
934				HEX NUT M30 THRU M80	4-2
935				CASTLE NUT	4-7
936	17H			HEX JAM NUT	4-4
937				CASTLE NUT - THIN TYPE	4-7
939				STUDS	8-3
960	8.8	PL		HEX HEAD CAPSCREW	2-9
960	8.8	ZN		HEX HEAD CAPSCREW	2-10
960	10.9	PL		HEX HEAD CAPSCREW	2-11
961	8.8	PL		HEX HEAD CAPSCREW	2-9
961	8.8	ZN		HEX HEAD CAPSCREW	2-10
961	10.9	PL		HEX HEAD CAPSCREW	2-11

NUMERIC STANDARD LISTING

DIN		ISO		PAGE #
963		2009	SLOTTED FLAT MACHINE SCREW	6-3
965		7046	PHILLIPS FLAT MACHINE SCREW	6-4
966		7047	PHILLIPS OVAL MACHINE SCREW	6-5
975			THREADED ROD	8-1
980	V		LOCK NUT	4-5
982	10		LOCK NUT HEAVY NYLON INSERT	4-6
985			LOCK NUT NYLON INSERT	4-6
1481		8752	SPLIT ROLL PIN	7-1
1587			ACORN NUT	4-11
6325		8734	DOWEL PIN	7-2
6334			HEX COUPLING NUT	4-11
6797			TOOTHED LOCKWASHER	5-8
6798			SERRATED LOCKWASHER	5-8
6799			E CLIPS FOR SHAFTS	5-7
6880			KEY STOCK	8-1
6888			WOODRUFF KEY	8-3
6915	10		HEAVY HEX NUT	4-8
6916			CONSTRUCTION WASHER	5-5
6921			FLANGE BOLT	8-4
6923	10		HEX FLANGE NUT	4-8
6927			HEX FLANGE LOCKNUT	4-8
7349			HEAVY FLATWASHER	5-5
7603			SEALING RINGS	5-6
7978	A		TAPER PIN W/ INTERNAL THREAD	7-3
7979	D	8735	PULL DOWEL	7-3
7980			HI COLLAR LOCKWASHER	5-4
7981	C	7049	PHILLIPS PAN TAPPING SCREW	8-4
7984			LOW HEAD SOCKET CAPSCREW	1-5
7985		7045	PHILLIPS PAN MACHINE SCREW	6-6
7991			FLAT HEAD SOCKET CAPSCREW	1-6
9021		7093	LARGE OD FLAT WASHER	5-5
ISO				
			SOCKET SHOULDER SCREW	1-8
			BUTTON HEAD SOCKET SCREW	1-8
JIS				
B1111			PHILLIPS PAN MACHINE SCREW	3-2
B1111-T			PHILLIPS TRUSS MACHINE SCREW	3-2
B1180			HEX BOLT	3-1
B1181			HEX NUT	3-1
B1189			HEX FLANGE BOLT	3-1
B1190	8		HEX FLANGE NUT - NON SERRATED	3-1
B1190	10		HEX FLANGE NUT - SERRATED	3-1
UNI				
			HEAVY HEX NUT	4-8
FUJILOCK NUTS				
				4-9
GREASE FITTINGS				
				8-3
SCHNORR RIBBED LOCKWASHERS				
				5-4
TEE NUTS			FOUR PRONG	4-10
WING NUTS - AMERICAN FORM				
				4-9

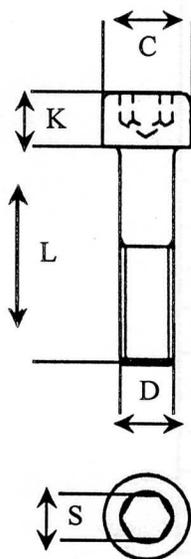
SECTION 1

SOCKET PRODUCTS

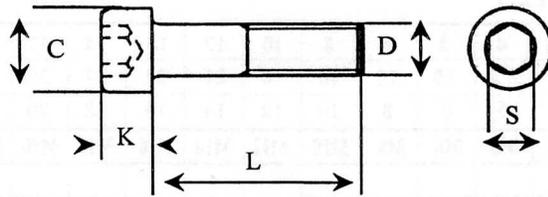
◆	SOCKET HEAD CAPSCREWS	
	DIN 912 CLASS 12.9	1-1
	DIN 912 CLASS 8.8 PLAIN	1-2
	DIN 912 CLASS 8.8 ZINC	1-3
	DIN 912 A2 STAINLESS STEEL	1-4
◆	LOW HEAD SOCKET CAPSCREWS	
	DIN 7984 CLASS 8.8	1-5
◆	FLAT HEAD SOCKET CAPSCREWS	
	DIN 7991- CLASS 10.9	1-6
◆	SOCKET SET SCREWS	
	DIN 916 – 45H CUP POINT.....	1-7
◆	SOCKET SHOULDER SCREWS	
	ISO 7379 – CLASS 12.9.....	1-8
◆	BUTTON HEAD SOCKET SCREW	
	ISO 7380 - CLASS 10.9.....	1-8
◆	PIPE PLUGS	
	DIN 906 HEX SOCKET PIPE PLUG	1-9
	DIN 908 HEX SOCKET PIPE PLUG.....	1-9
	DIN 910 HEX HEAD PIPE PLUG	1-9
	DIN 906 BSPT BRITISH	1-10
	DIN 908 BSP BRITISH.....	1-10
	DIN 910 BSP BRITISH	1-10
◆	HEX KEYS	
	DIN 911 SHORT ARM.....	1-11
	DIN 911 LONG ARM	1-11
	DIN 911 9pc SET ON A RING.....	1-11

DIN 912 - 12.9

Socket Head Capscrews



S	2.5	3	4	5	6	8	10	12	14	14	17	17	19	19	22	24	27
C	5.5	7	8.5	10	13	16	18	21	24	27	30	33	36	40	45	50	54
K	3	4	5	6	8	10	12	14	16	18	20	22	24	27	30	33	36
L ^D	M3	M4	M5	M6	M8	M10	M12	M14	M16	M18	M20	M22	M24	M27	M30	M33	M36
4	X																
5	X																
6	X	X	X														
8	X	X	X	X													
10	X	X	X	X	X												
12	X	X	X	X	X	X											
14	X	X	X	X	X												
16	X	X	X	X	X	X	X										
18	X	X	X	X	X	X											
20	X	X	X	X	X	X	X	X	X								
22	X	X	X	X	X	X											
25	X	X	X	X	X	X	X	X	X								
30	X	X	X	X	X	X	X	X	X			X					
35	X	X	X	X	X	X	X	X	X			X					
40	X	X	X	X	X	X	X	X	X	X				X			
45		X	X	X	X	X	X	X	X	X				X			
50		X	X	X	X	X	X	X	X	X	X			X			
55		X	X	X	X	X	X	X	X	X	X	X		X			
60		X	X	X	X	X	X	X	X	X	X	X	X	X			
65			X	X	X	X	X	X	X	X	X	X	X	X			
70			X	X	X	X	X	X	X	X	X	X	X	X	X		
75			X	X	X	X	X	X	X	X	X			X			
80			X	X	X	X	X	X	X	X	X	X	X	X	X	X	X
85			X	X	X	X	X		X								
90			X	X	X	X	X	X	X	X	X	X	X	X	X	X	X
95				X	X	X	X		X								
100			X	X	X	X	X	X	X	X	X	X	X	X	X	X	X
110			X	X	X	X	X	X	X	X	X	X	X	X	X	X	X
120			X	X	X	X	X	X	X	X	X	X	X	X	X	X	X
130				X	X	X	X	X	X	X	X	X	X	X	X	X	X
140				X	X	X	X	X	X	X	X	X	X	X	X	X	X
150					X	X	X	X	X	X	X	X	X	X	X	X	X
160					X	X	X	X	X	X	X	X	X	X	X	X	X
170					X	X	X	X	X	X	X	X	X	X	X	X	X
180					X	X	X	X	X	X	X	X	X	X	X	X	X
190						X	X	X	X	X	X	X	X	X	X	X	X
200					X	X	X	X	X	X	X	X	X	X	X	X	X
220						X	X	X	X	X	X	X	X	X	X	X	X
240						X	X	X	X	X	X	X	X	X	X	X	X
250																X	
260						X	X	X	X	X	X	X	X	X	X	X	X
280						X	X	X	X	X	X	X	X	X	X	X	X
300						X	X	X	X	X	X	X	X	X	X	X	X
320									X		X		X		X		X
340									X		X		X		X		X
360									X		X		X		X		X
380									X		X		X		X		X
400									X		X		X		X		X

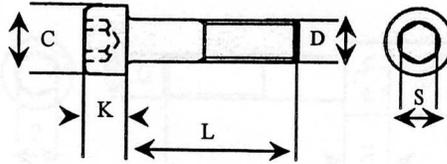


DIN 912 - 8.8

Socket Head Capscrews

S	2.5	3	4	5	6	8	10	14	17	19
C	5.5	7	8.5	10	13	16	18	24	30	36
K	3	4	5	6	8	10	12	16	20	24
L \ D	M3	M4	M5	M6	M8	M10	M12	M16	M20	M24
5	X									
6	X	X								
8	X	X								
10	X	X	X	X	X					
12	X	X	X	X	X					
14	X	X	X	X	X					
16	X	X	X	X	X	X				
18	X	X	X	X	X					
20	X	X	X	X	X	X	X			
22		X	X	X	X					
25	X	X	X	X	X	X	X			
30	X	X	X	X	X	X	X			
35	X	X	X	X	X	X	X			
40	X	X	X	X	X	X	X	X		
45		X	X	X	X	X	X			
50		X	X	X	X	X	X	X	X	X
55		X	X	X	X	X	X			
60		X	X	X	X	X	X	X	X	X
65			X	X	X	X	X			
70			X	X	X	X	X	X	X	X
75			X	X	X	X	X		X	
80			X	X	X	X	X	X	X	X
90			X	X	X	X	X	X	X	X
100			X	X	X	X	X	X	X	X
110						X	X			X
120				X	X	X	X	X	X	X
130										X
140					X	X	X	X	X	X
150					X	X	X	X	X	X
160										X
180							X			X
200										X

Stock Range

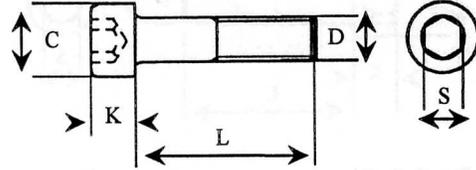


DIN 912 - 8.8 Zinc

Socket Head Capscrews

S	2.5	3	4	5	6	8	10	14
C	5.5	7	8.5	10	13	16	18	24
K	3	4	5	6	8	10	12	16
L \ D	M3	M4	M5	M6	M8	M10	M12	M16
5	X							
6	X	X						
8	X	X						
10	X	X	X	X	X			
12	X	X	X	X	X			
14	X	X	X	X	X			
16	X	X	X	X	X	X		
18	X	X	X	X	X			
20	X	X	X	X	X	X	X	
22		X	X	X	X			
25	X	X	X	X	X	X	X	
30	X	X	X	X	X	X	X	
35	X	X	X	X	X	X	X	
40	X	X	X	X	X	X	X	X
45		X	X	X	X		X	
50		X	X	X	X	X	X	X
55		X	X	X	X	X	X	
60		X	X	X	X	X	X	X
65			X	X	X	X	X	
70			X	X	X	X	X	X
75			X	X	X	X	X	
80			X	X	X	X	X	X
90			X	X	X	X	X	X
100			X	X	X	X	X	X
120				X	X	X	X	X

Stock Range

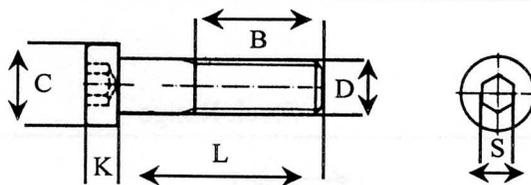


Socket Head
Capscrew

DIN 912 - A2 Stainless

S	2.5	3	4	5	6	8	10	14
C	5.5	7	8.5	10	13	16	18	24
K	3	4	5	6	8	10	12	16
L \ D	M3	M4	M5	M6	M8	M10	M12	M16
6	X	X						
8	X	X	X					
10	X	X	X	X				
12	X	X	X	X				
16	X	X	X	X	X			
20	X	X	X	X	X	X		
25	X	X	X	X	X	X	X	
30	X	X	X	X	X	X	X	X
35		X	X	X	X	X	X	X
40		X	X	X	X	X	X	X
45			X	X	X	X	X	X
50			X	X	X	X	X	X
55					X	X	X	X
60				X	X	X	X	X
70					X	X	X	X
80					X	X	X	X
90						X	X	X
100						X	X	X

Stock Range

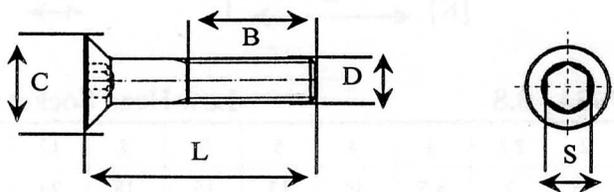


DIN 7984 - 8.8

Low Head Socket Capcrew

S	2	2.5	3	4	5	7	8	12	14	17
C	5.5	7	8.5	10	13	16	18	24	30	36
K	2	2.8	3.5	4	5	6	7	9	11	13
B	12	14	16	18	22	26	30	38	46	54
L \ D	M3	M4	M5	M6	M8	M10	M12	M16	M20	M24
6	X	X	X							
8	X	X	X	X						
10	X	X	X	X	X					
12	X	X	X	X	X					
14	X	X	X	X	X					
16	X	X	X	X	X	X				
18	X		X	X	X	X				
20	X	X	X	X	X	X				
22	X	X		X						
25	X	X	X	X	X	X	X	X		
30		X	X	X	X	X	X	X	X	
35				X	X	X	X	X		
40			X	X	X	X	X	X	X	X
45				X	X	X	X	X	X	
50			X	X	X	X	X	X	X	X
55						X		X		
60				X	X	X	X	X	X	X
65				X		X	X			
70				X	X	X	X	X	X	X
75						X	X			
80						X	X	X	X	X
90						X	X		X	
100							X	X	X	X
110								X	X	X
120							X	X		
130								X		

Stock Range

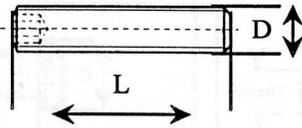


DIN 7991 - 10.9

Flat Head
Socket Cap Screw

B	12	14	16	18	22	26	30	34	38	46	54
C	6	8	10	12	16	20	24	27	30	36	39
S	2	2.5	3	4	5	6	8	10	10	12	14
L \ D	M3	M4	M5	M6	M8	M10	M12	M14	M16	M20	M24
6	X	X									
8	X	X	X								
10	X	X	X	X	X						
12	X	X	X	X	X						
14	X	X	X	X	X						
16	X	X	X	X	X	X					
18	X	X	X	X	X						
20	X	X	X	X	X	X	X				
22			X	X	X						
25	X	X	X	X	X	X	X				
30	X	X	X	X	X	X	X	X	X		
35		X	X	X	X	X	X	X	X		
40		X	X	X	X	X	X	X	X	X	
45		X	X	X	X	X	X	X	X	X	
50		X	X	X	X	X	X	X	X	X	X
55							X			X	
60				X	X	X	X	X	X	X	X
70					X	X	X	X	X	X	X
75										X	
80					X	X	X		X	X	X
90									X		X
100									X	X	X
120										X	X
150										X	

Stock Range



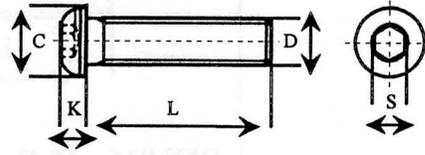
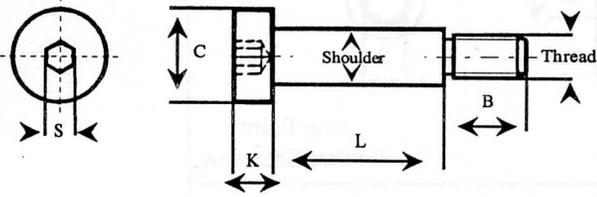
DIN 916 - 45 H

Cup Point
Socket Setscrew

S	1.5	2	2.5	3	4	5	6	6	8	10
L \ D	M3	M4	M5	M6	M8	M10	M12	M14	M16	M20
3	X									
4	X	X								
5	X	X	X							
6	X	X	X	X						
8	X	X	X	X	X					
10	X	X	X	X	X	X				
12	X	X	X	X	X	X	X			
14	X	X	X	X	X	X	X			
16	X	X	X	X	X	X	X		X	
18	X	X	X	X	X	X	X			
20	X	X	X	X	X	X	X	X	X	X
22							X			
25		X	X	X	X	X	X		X	X
30			X	X	X	X	X	X	X	X
35			X	X	X	X	X		X	X
40			X	X	X	X	X	X	X	X
45				X	X	X	X		X	X
50				X	X	X	X	X	X	X
55					X					
60				X	X	X	X		X	X
70					X	X	X		X	X
80					X	X	X		X	X
90						X	X		X	X
100						X	X		X	X

Stock Range

Stock Range



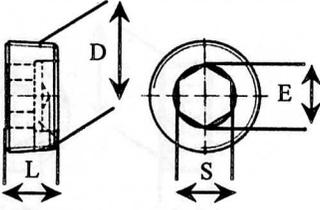
ISO 7379 - 12.9 Socket Shoulder Screw

ISO 7380 - 10.9 Button Head Socket Screw

	3	4	5	6	8	10
S	3	4	5	6	8	10
C	10	13	16	18	24	30
K	4.5	5.5	7	8	10	14
B	9.5	11	13	16	18	22
Shoulder Diam	6	8	10	12	16	20
Thread Diam	M5	M6	M8	M10	M12	M16
10	X					
12	X	X				
16	X	X	X	X		
20	X	X	X	X		
25	X	X	X	X		
30	X	X	X	X	X	
40	X	X	X	X	X	X
50	X	X	X	X	X	X
60			X	X	X	X
70			X	X	X	X
80			X	X	X	X
90				X	X	X
100				X	X	X
120					X	X

C	5.5	7.5	9.5	10.5	14	18	21
K	1.6	2.1	2.7	3.2	4.3	5.3	6.6
S	2	2.5	3	4	5	6	8
L \ D	M3	M4	M5	M6	M8	M10	M12
6	X	X	X				
8	X	X	X	X			
10	X	X	X	X	X		
12	X	X	X	X	X		
14	X	X	X	X			
16	X	X	X	X	X	X	
18	X	X	X	X	X		
20	X	X	X	X	X	X	X
22				X			
25	X	X	X	X	X	X	X
30	X	X	X	X	X	X	X
35		X	X	X	X	X	X
40		X	X	X	X	X	X
45				X			X
50				X	X	X	X
60					X	X	X

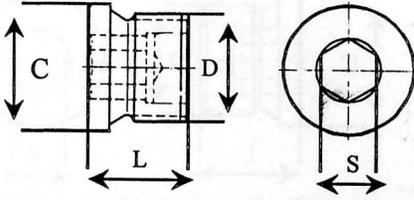
Stock Range



DIN 906 Hex Socket Pipe Plugs

DIAM	M8x1	M10x1	M12x1.5	M14x1.5	M16x1.5	M18x1.5	M20x1.5	M22x1.5	M24x1.5	M26x1.5	M30x1.5	M36x1.5
L	8	8	10	10	10	10	10	10	12	12	12	15
S	4	5	6	7	8	8	10	10	12	12	17	19
E	4.7	5.9	7	8.1	9.4	9.4	11.7	11.7	14	14	19.8	22.1
STOCK	X	X	X	X	X	X	X	X	X	X	X	X

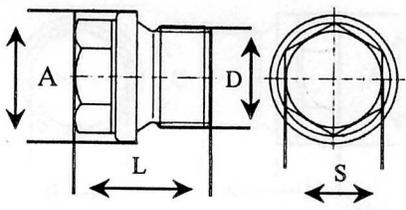
Stock Range



DIN 908 Hex Socket Pipe Plugs

DIAM	M10x1	M12x1.5	M14x1.5	M16x1.5	M18x1.5	M20x1.5	M22x1.5	M24x1.5	M26x1.5	M30x1.5	M36x1.5
L	11	15	15	15	16	18	18	18	20	20	21
S	5	6	6	8	8	10	10	12	12	17	19
C	14	17	19	21	23	25	27	29	31	36	42
STOCK	X	X	X	X	X	X	X	X	X	X	X

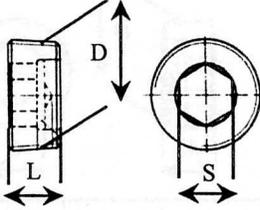
Stock Range



DIN 910 Hex Head Pipe Plugs

DIAM	M10x1	M12x1.5	M14x1.5	M16x1.5	M18x1.5	M20x1.5	M22x1.5	M24x1.5	M26x1.5	M30x1.5	M36x1.5
L	17	21	21	21	24	26	26	27	30	30	32
S	10	13	13	17	17	19	19	22	24	24	27
A	14	17	19	21	23	25	27	29	31	36	42
STOCK	X	X	X	X	X	X	X	X	X	X	X

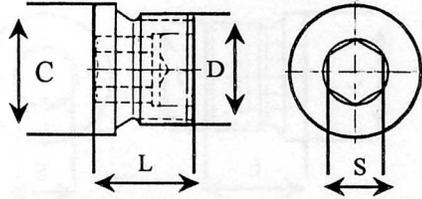
Stock Range



BSPT - DIN 906 Hex Socket Pipe Plugs

DIAM	R 1/8"	R 1/4"	R 3/8"	R 1/2"	R 3/4"	R 1"	R 1 1/8"	R 1 1/4"	R 1 1/2"
L	8	10	10	10	12	12		18	20
S	5	7	8	10	12	17		22	24
STOCK	X	X	X	X	X	X	X	X	X

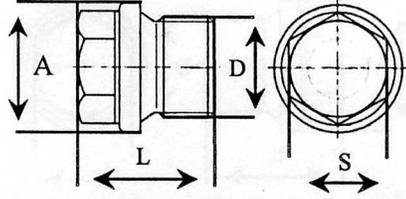
Stock Range



BSP - DIN 908 Hex Socket Pipe Plugs

DIAM	G 1/8"	G 1/4"	G 3/8"	G 1/2"	R 3/4"	G 1"	G 1 1/8"	G 1 1/4"	G 1 1/2"
L	11	15	15	18	20	21	21	21	21
S	5	6	8	10	12	17	19	22	24
C	14	18	22	26	32	39	44	49	55
STOCK	X	X	X	X	X	X	X	X	X

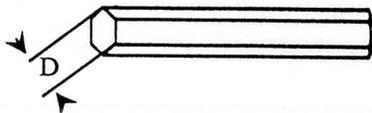
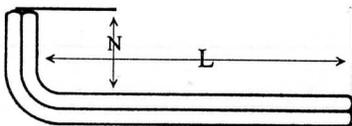
Stock Range



BSP - DIN 910 Hex Head Pipe Plugs

DIAM	G 1/8"	G 1/4"	G 3/8"	G 1/2"	G 3/4"	G 1"	G 1 1/8"	G 1 1/4"	G 1 1/2"
L	17	21	21	26	30	32	32	33	33
S	10	13	17	19	24	27	27	30	30
A	14	18	22	26	32	39	44	49	55
STOCK	X	X	X	X	X	X	X	X	X

Stock Range

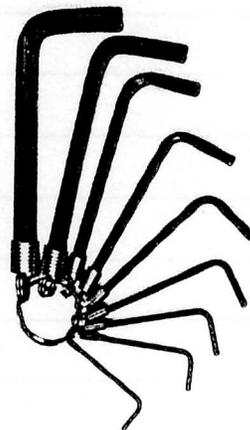


DIN 911

Hex Key

Diameter	N	Stock SHORT ARM	L	Stock LONG ARM	L
1.3	13.5	X	42		
1.5	14	X	45	X	78
2	16	X	50	X	83
2.5	18	X	56	X	90
3	20	X	63	X	100
4	25	X	70	X	106
5	28	X	80	X	118
6	32	X	90	X	140
7	34	X	95	X	150
8	36	X	100	X	160
10	40	X	112	X	170
12	45	X	125	X	212
14	55	X	140	X	236
17	60	X	160	X	250
19	70	X	180	X	280
22	80	X	200		
24	90	X	224		
27	100	X	250		
32	125	X	315		
36	140	X	355		

Item 911-9R:
9 Piece Hex Key Set on Ring
Includes: 1.5, 2, 2.5, 3, 4, 5, 6, 8, 10



SECTION 2

HEX HEAD CAPSCREWS

◆ HEX HEAD CAPSCREWS

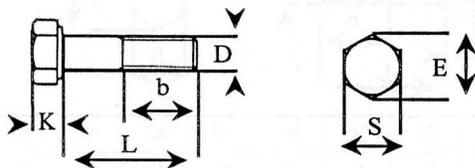
DIN 931 CLASS 8.8 PLAIN	2-1
DIN 931 CLASS 8.8 ZINC	2-2
DIN 933 CLASS 8.8 PLAIN	2-3
DIN 933 CLASS 8.8 ZINC	2-4
DIN 931 – 933 CLASS 8.8 ZINC YELLOW	2-5
DIN 931 – 933 A2 STAINLESS STEEL	2-5
DIN 931 CLASS 10.9 PLAIN	2-6
DIN 933 CLASS 10.9 PLAIN	2-7
DIN 931-933 CLASS 10.9 ZINC YELLOW	2-8
DIN 960 – 961 CLASS 8.8 PLAIN	2-9
DIN 960 – 961 CLASS 8.8 ZINC	2-10
DIN 960 – 961 CLASS 10.9 PLAIN	2-11

Stock Range

DIN 931 - 8.8		Hex Head Capscrew Partial Thread															
b¹	14	16	18	20	22	26	30	34	38	42	46	50	54	60	66	78	90
b²			24		28	32	36	40	44	48	52	56	60	66	72	84	96
b³						45	49	53	57	61	65	69	73	79	85	97	109
K	2.8	3.5	4	5	5.3	6.4	7.5	8.8	10	11.5	12.5	14	15	17	18.7	22.5	26
E	7.66	8.79	11.05	12.12	14.38	18.9	21.1	24.49	26.75	30.14	33.53	35.72	39.98	45.2	50.85	60.79	71.3
S	7	8	10	11	13	17	19	22	24	27	30	32	36	41	46	55	65
L \ D	M4	M5	M6	M7	M8	M10	M12	M14	M16	M18	M20	M22	M24	M27	M30	M36	M42
25			X														
30		X	X		X												
35	X	X	X		X	X											
40	X	X	X		X	X	X										
45	X	X	X	X	X	X	X										
50	X	X	X	X	X	X	X										
55		X	X	X	X	X	X	X	X								
60		X	X	X	X	X	X	X	X								
65		X	X		X	X	X	X	X	X	X						
70		X	X	X	X	X	X	X	X	X	X	X					
75		X	X		X	X	X	X	X	X	X		X				
80		X	X		X	X	X	X	X	X	X	X	X				
85			X		X	X	X	X	X	X	X		X				
90			X		X	X	X	X	X	X	X	X	X	X			
95					X	X	X	X	X	X	X		X				
100			X		X	X	X	X	X	X	X	X	X	X			
110			X		X	X	X	X	X	X	X	X	X	X	X		
120			X		X	X	X	X	X	X	X	X	X	X	X		
130			X		X	X	X	X	X	X	X	X	X	X	X		
140			X		X	X	X	X	X	X	X	X	X	X	X	X	X
150			X		X	X	X	X	X	X	X	X	X	X	X	X	
160			X		X	X	X	X	X	X	X	X	X	X	X	X	X
170			X			X	X	X	X	X	X	X	X	X	X		
180			X		X	X	X	X	X	X	X	X	X	X	X	X	X
190			X			X	X	X	X	X	X	X	X	X	X		
200			X		X	X	X	X	X	X	X	X	X	X	X	X	X
220						X	X	X	X	X	X	X	X	X	X	X	X
240						X	X	X	X	X	X	X	X	X	X	X	X
260						X	X	X	X	X	X	X	X	X	X	X	X
280						X	X	X	X	X	X	X	X	X	X	X	X
300						X	X	X	X	X	X	X	X	X	X	X	X

* b¹ - For L up to 125mm
 ** b² - For L 126 - 200mm
 *** b³ - For L 201 - 300mm

Stock Range



DIN 931 - 8.8 Zinc

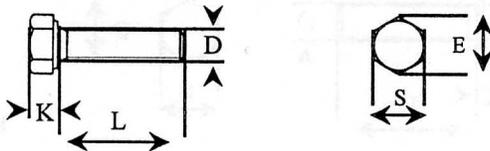
Hex Head Capscrew
Partial Thread

b¹	14	16	18	20	22	26	30	34	38	42	46	50	54
b²			24	26	28	32	36	40	44	48	52	56	60
K	2.8	3.5	4	5	5.3	6.4	7.5	8.8	10	11.5	12.5	14	15
E	7.66	8.79	11.05	12.12	14.38	18.9	21.1	24.49	26.75	30.14	33.53	35.72	39.98
S	7	8	10	11	13	17	19	22	24	27	30	32	36
L \ D	M4	M5	M6	M7	M8	M10	M12	M14	M16	M18	M20	M22	M24
30		X	X										
35		X	X		X								
40	X	X	X		X	X							
45	X	X	X	X	X	X	X						
50	X	X	X	X	X	X	X						
55		X	X		X	X	X	X	X				
60		X	X	X	X	X	X	X	X				
65		X	X		X	X	X	X	X	X	X		
70		X	X	X	X	X	X	X	X	X	X	X	
75		X	X		X	X	X	X	X	X	X		X
80		X	X		X	X	X	X	X	X	X	X	X
85			X		X	X	X	X	X	X	X		X
90			X		X	X	X	X	X	X	X	X	X
95					X	X	X	X	X				
100			X		X	X	X	X	X	X	X	X	X
110			X		X	X	X	X	X	X	X	X	X
120			X		X	X	X	X	X	X	X	X	X
130			X		X	X	X	X	X	X	X	X	X
140			X		X	X	X	X	X	X	X	X	X
150			X		X	X	X	X	X	X	X	X	X
160			X		X	X	X	X	X	X	X	X	X
170			X										
180			X		X	X	X	X	X	X	X	X	X
190			X										
200			X		X	X	X	X	X	X	X	X	X

*b¹ - For L up to 125mm

**b² - For L 126 - 200mm

Stock Range

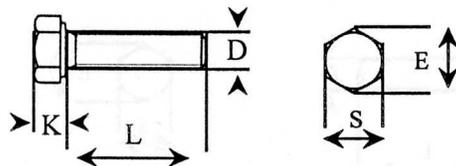


DIN 933 - 8.8

Hex Head Capscrew
Full Thread

K	2	2.8	3.5	4	5	5.3	6.4	7.5	8.8	10	11.5	12.5	14	15	17	18.7	22.5	26
E	6.01	7.66	8.79	11.05	12.12	14.38	18.9	21.1	24.49	26.75	30.14	33.53	35.03	39.55	45.2	50.85	60.79	71.3
S	5.5	7	8	10	11	13	17	19	22	24	27	30	32	36	41	46	55	65
L \ D	M3	M4	M5	M6	M7	M8	M10	M12	M14	M16	M18	M20	M22	M24	M27	M30	M36	M42
5	X																	
6	X	X	X	X														
8	X	X	X	X		X												
10	X	X	X	X		X	X											
12	X	X	X	X	X	X	X											
14	X	X	X	X	X	X	X											
16	X	X	X	X	X	X	X	X										
18	X	X	X	X		X												
20	X	X	X	X	X	X	X	X	X	X		X						
22	X	X	X	X	X	X	X											
25	X	X	X	X	X	X	X	X	X	X		X						
30		X	X	X	X	X	X	X	X	X	X	X						
35		X	X	X	X	X	X	X	X	X	X	X						
40		X	X	X	X	X	X	X	X	X	X	X	X	X				
45			X	X		X	X	X	X	X	X	X	X	X				
50		X	X	X		X	X	X	X	X	X	X	X	X	X			
55				X		X	X	X	X	X	X	X	X	X		X		
60				X		X	X	X	X	X	X	X	X	X	X	X	X	
65				X		X	X	X	X	X	X	X	X	X		X		
70				X		X	X	X	X	X	X	X	X	X	X	X	X	
75				X		X	X	X	X	X	X	X	X	X		X		
80				X		X	X	X	X	X	X	X	X	X	X	X	X	X
85																X		
90				X		X	X	X	X	X	X	X	X	X	X	X	X	X
100				X		X	X	X	X	X	X	X	X	X	X	X	X	X
110						X	X	X	X	X	X	X	X	X		X		
120							X	X	X	X	X	X	X	X	X	X	X	X
130							X	X	X	X	X	X	X	X		X		
140							X	X	X	X	X	X	X	X		X	X	
150							X	X	X	X	X	X	X	X		X		
160								X	X	X	X	X	X	X		X	X	
180								X	X	X	X	X	X	X		X	X	
200								X	X	X	X	X	X	X		X	X	

Stock Range

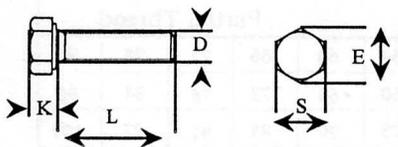


Hex Head Capscrew
Full Thread

DIN 933 - 8.8 ZINC

K	2	2.8	3.5	4	5	5.3	6.4	7.5	8.8	10	11.5	12.5	14	15
E	6.01	7.66	8.79	11.05	12.12	14.38	18.9	21.1	24.49	26.75	30.14	33.53	35.03	39.55
S	5.5	7	8	10	11	13	17	19	22	24	27	30	32	36
L \ D	M3	M4	M5	M6	M7	M8	M10	M12	M14	M16	M18	M20	M22	M24
5	X													
6	X	X	X	X										
8	X	X	X	X		X								
10	X	X	X	X		X	X							
12	X	X	X	X	X	X	X							
14	X	X	X	X		X	X							
16	X	X	X	X	X	X	X	X						
18	X	X	X	X		X								
20	X	X	X	X	X	X	X	X	X	X		X		
22	X	X	X	X	X	X	X							
25	X	X	X	X	X	X	X	X	X	X		X		
30		X	X	X	X	X	X	X	X	X	X	X		
35		X	X	X	X	X	X	X	X	X	X	X		
40		X	X	X	X	X	X	X	X	X	X	X	X	X
45			X	X		X	X	X	X	X	X	X	X	X
50		X	X	X		X	X	X	X	X	X	X	X	X
55				X		X	X	X	X	X	X	X	X	X
60				X		X	X	X	X	X	X	X	X	X
65				X		X	X	X	X	X	X	X	X	X
70				X		X	X	X	X	X	X	X	X	X
75				X		X	X	X	X	X	X	X	X	X
80				X		X	X	X	X	X	X	X	X	X
90				X		X	X	X	X	X	X	X	X	X
100				X		X	X	X	X	X	X	X	X	X
110				X		X	X	X	X	X	X	X	X	X
120						X	X	X	X	X	X	X	X	X
130							X	X	X	X	X	X	X	X
140							X	X	X	X	X	X	X	X
150							X	X	X	X	X	X	X	X

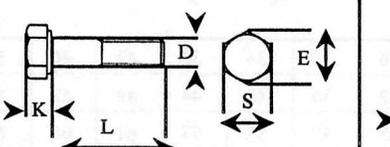
Stock Range



DIN 933 - 8.8 Hex Head Capscrew
Zinc Yellow Full Thread

K	3.5	4	5.3	6.4	7.5
E	8.79	11.05	14.38	18.9	21.1
S	8	10	13	17	19
L \ D	M5	M6	M8	M10	M12
10	X	X			
12	X	X	X		
16	X	X	X	X	
20	X	X	X	X	X
25	X	X	X	X	X
30	X	X	X	X	X
35		X	X	X	X
40		X	X	X	X
45		X	X	X	X
50		X	X	X	X
55	Available in 931 zinc yellow these sizes only		X		
60			X	X	

Stock Range

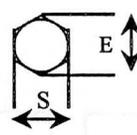
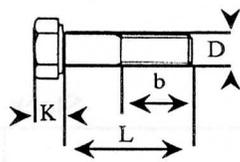


DIN 931 Partial Thread **DIN 933 Full Thread**

DIN 931 - 933 A2 Stainless Hex Head Capscrew

K	2	2.8	3.5	4	5.3	6.4	7.5	10	12.5
E	6.01	7.66	8.79	11.05	14.38	18.9	21.1	26.75	33.53
S	5.5	7	8	10	13	17	19	24	30
L \ D	M3	M4	M5	M6	M8	M10	M12	M16	M20
6	X								
8	X	X	X		X				
10	X	X	X	X	X				
12	X	X	X	X	X				
16	X	X	X	X	X	X			
20	X	X	X	X	X	X	X	X	
25	X	X	X	X	X	X	X	X	
30	X	X	X	X	X	X	X	X	X
35			X	X	X	X	X	X	X
40			X	X	X	X	X	X	X
45				X	X	X			
50				X	X	X	X	X	X
55				X	X	X	X	X	
60				X	X	X	X	X	X
70				X	X	X	X	X	X
75				X					
80				X	X	X	X	X	X
90				X	X	X	X	X	X
100				X	X	X	X	X	X
120						X	X		X

* Above line -- 933 full thread
** Below line -- 931 partial thread



Stock
Range

DIN 931 - 10.9

Hex Head Capscrew
Partial Thread

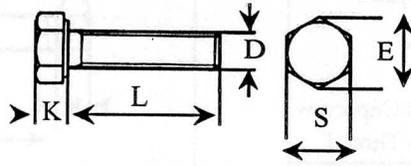
b¹	18	22	26	30	34	38	42	46	50	54	60	66	72	78	90
b²	24	28	32	36	40	44	48	52	56	60	66	72	78	84	96
b³			45	49	53	57	61	65	69	73	79	85	91	97	109
K	4	5.3	6.4	7.5	8.8	10	11.5	12.5	14	15	17	18.7	21	22.5	26
E	11.05	14.38	18.9	21.1	24.49	26.75	30.14	33.53	35.72	39.98	45.2	50.85	55.80	60.79	71.3
S	10	13	17	19	22	24	27	30	32	36	41	46	50	55	65
L ^D	M6	M8	M10	M12	M14	M16	M18	M20	M22	M24	M27	M30	M33	M36	M42
30	X														
35	X	X													
40	X	X	X												
45	X	X	X	X											
50	X	X	X	X											
55	X	X	X	X	X	X									
60	X	X	X	X	X	X									
65	X	X	X	X	X	X	X	X							
70	X	X	X	X	X	X	X	X	X						
75	X	X	X	X	X	X	X	X	X						
80	X	X	X	X	X	X	X	X	X	X					
85		X	X	X	X	X		X		X					
90	X	X	X	X	X	X	X	X	X	X					
95			X	X	X	X				X					
100	X	X	X	X	X	X	X	X	X	X	X				
110	X	X	X	X	X	X	X	X	X	X	X	X	X		
120	X	X	X	X	X	X	X	X	X	X	X	X	X		
130	X	X	X	X	X	X	X	X	X	X	X	X	X		
140	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X
150	X	X	X	X	X	X	X	X	X	X	X	X	X	X	
160	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X
170	X			X	X	X	X	X	X	X	X				
180	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X
190	X			X	X	X	X	X	X	X	X				
200	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X
220			X	X	X	X	X	X	X	X	X	X	X	X	X
240			X	X	X	X	X	X	X	X	X	X	X	X	X
260			X	X	X	X	X	X	X	X	X	X	X	X	X
280			X	X	X	X	X	X	X	X	X	X	X	X	X
300			X	X	X	X	X	X	X	X	X	X	X	X	X
320						X		X		X		X	X	X	X
340						X		X	X	X	X	X	X		X
360						X		X		X	X	X	X	X	X
380						X		X		X	X	X	X	X	X
400								X		X		X	X	X	X

*b¹ - For L up to 125mm

**b² - For L 126-200mm

***b³ - For L over 200mm

Stock Range

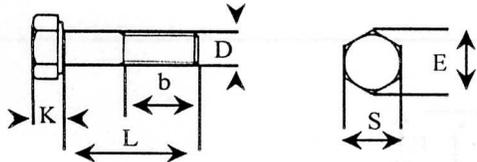


DIN 933 - 10.9

Hex Head Capscrew
Full Thread

K	4	5.3	6.4	7.5	8.8	10	11.5	12.5	14	15	17	18.7	21	22.5	26
E	11.05	14.38	18.9	21.1	24.49	26.75	30.14	33.53	35.03	39.55	45.2	50.85	55.80	60.79	71.3
S	10	13	17	19	22	24	27	30	32	36	41	46	50	55	65
L \ D	M6	M8	M10	M12	M14	M16	M18	M20	M22	M24	M27	M30	M33	M36	M42
10	X	X													
12	X	X	X												
14	X														
16	X	X	X	X											
18	X	X													
20	X	X	X	X											
22		X		X											
25	X	X	X	X	X	X									
30		X	X	X	X	X	X	X							
35			X	X	X	X		X							
40				X	X	X	X	X	X	X					
45					X	X	X	X	X	X					
50					X	X	X	X	X	X	X				
55							X	X	X	X	X				
60							X	X	X	X	X	X	X	X	
65									X	X	X				
70										X	X	X	X	X	
75										X	X	X			
80						X	X	X		X	X	X	X	X	
90											X	X	X	X	X
100						X		X		X		X	X	X	X
110								X							
120						X		X		X				X	X
130								X							
140						X		X		X					
150						X		X		X					

Stock Range



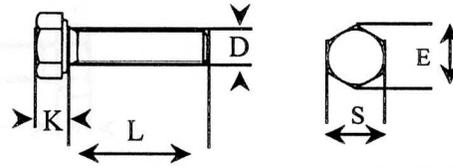
DIN 931 - 10.9 Hex Head Capscrew
Zinc Yellow Partial Thread

b¹	18	22	26	30	38	46	54
b²	24	28	32	36	44	52	60
K	4	5.3	6.4	7.5	10	12.5	15
E	11.05	14.38	18.9	21.1	26.75	33.53	39.98
S	10	13	17	19	24	30	36
L \ D	M6	M8	M10	M12	M16	M20	M24
30	X						
35	X	X					
40	X	X	X				
45	X	X	X	X			
50	X	X	X	X			
55		X	X	X	X		
60	X	X	X	X	X		
65	X	X	X	X	X	X	
70	X	X	X	X	X	X	
75	X	X	X	X	X	X	
80	X	X	X	X	X	X	X
90	X	X	X	X	X	X	X
100	X	X	X	X	X	X	X
110	X	X	X	X	X	X	X
120	X	X	X	X	X	X	X
130	X	X	X	X	X	X	X
140	X	X	X	X	X	X	X
150	X	X	X	X	X	X	X
160	X	X	X	X	X	X	X
170	X						
180	X	X	X	X	X	X	X
190	X						
200	X	X	X	X	X		

*b¹ - For L up to 125mm

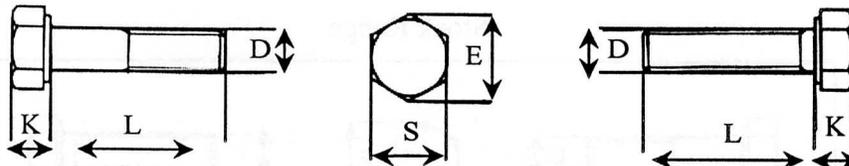
**b² - For L 126 - 200mm

Stock Range



DIN 933 - 10.9 Hex Head Capscrew
Zinc Yellow Full Thread

K	4	5.3	6.4	7.5	10	12.5	15
E	11.05	14.38	18.9	21.1	26.75	33.53	39.55
S	10	13	17	19	24	30	36
L \ D	M6	M8	M10	M12	M16	M20	M24
12	X						
16	X	X	X				
20	X	X	X	X			
25	X	X	X	X	X		
30		X	X	X	X	X	
35			X	X	X	X	
40				X	X	X	X
45					X	X	X
50					X	X	X
55						X	X
60						X	X
65							X
70							X
75							X



DIN 960-961 - 8.8

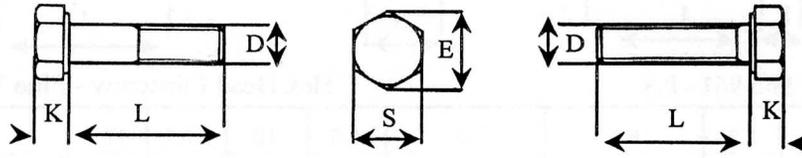
Hex Head Capscrew - Fine Thread

k	5.3	6.4	7.5	8.8	10	11.5	12.5	14	15		
e	14.38	18.9	21.1	24.49	26.75	30.14	33.53	35.72	39.98		
s	13	17	19	22	24	27	30	32	36		
L \ D	M8	M10		M12		M14	M16	M18	M20	M22	M24
PITCH	1.0	1.25	1.0	1.5	1.25	1.5	1.5	1.5	1.5	1.5	2.0
10	X										
12	X										
16	X	X	X								
20	X	X	X	X	X	X					
25	X	X	X	X	X	X	X				
30	X	X	X	X	X	X	X				
35	X	X	X	X	X	X	X	X			
40	X	X	X	X	X	X	X	X	X		
45	X	X	X	X	X	X	X	X	X		
50	X	X	X	X	X	X	X	X	X	X	X
55	X	X		X	X	X	X	X	X		
60	X	X	X	X	X	X	X	X	X	X	X
65	X	X		X	X	X	X	X	X		
70	X	X	X	X	X	X	X	X	X	X	X
75	X	X		X	X	X	X	X	X	X	X
80	X	X	X	X	X	X	X	X	X	X	X
90	X	X	X	X	X	X	X	X	X	X	X
100	X	X	X	X	X	X	X	X	X	X	X
110		X		X	X	X	X	X	X	X	X
120		X	X	X	X	X	X	X	X	X	X
130		X		X	X	X	X	X	X	X	X
140		X		X	X	X	X	X	X	X	X
150		X		X	X	X	X	X	X	X	X
160					X	X	X	X	X	X	X
180					X	X	X	X	X	X	X
200					X	X	X	X	X	X	X

*** Above line -- 961 full thread

*** Below line -- 960 partial thread

Stock Range

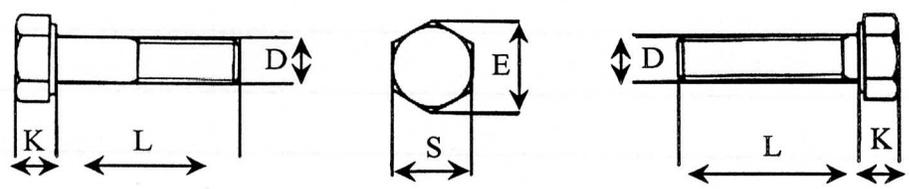


DIN 960-961 - 8.8 Zinc Hex Head Capscrew - Fine Thread

K	5.3	6.4	7.5	8.8	10	11.5	12.5		
E	14.38	18.9	21.1	24.49	26.75	30.14	33.53		
S	13	17	19	22	24	27	30		
L \ D	M8	M10		M12		M14	M16	M18	M20
PITCH	1.0	1.25	1.0	1.5	1.25	1.5	1.5	1.5	1.5
10	X								
12	X								
16	X	X							
20	X	X	X	X	X				
25	X	X	X	X	X	X	X		
30	X	X	X	X	X	X	X		
35	X	X	X	X	X	X	X	X	
40	X	X	X	X	X	X	X	X	X
45	X	X	X	X	X	X	X	X	X
50	X	X	X	X	X	X	X	X	X
55		X		X	X	X	X	X	X
60		X		X	X	X	X	X	X
65		X		X	X	X	X	X	X
70		X		X	X	X	X	X	X
75		X		X	X	X	X	X	X
80		X		X	X	X	X	X	X
90		X		X	X	X	X	X	X
100		X		X	X	X	X	X	X

*** Above line -- 961 full thread

*** Below line -- 960 partial thread



DIN 960-961 - 10.9

Hex Head Capscrew - Fine Thread

k	5.3	6.4	7.5	8.8	10	11.5	12.5	14	15		
e	14.38	18.9	21.1	24.49	26.75	30.14	33.53	35.72	39.98		
s	13	17	19	22	24	27	30	32	36		
L \ D	M8	M10		M12		M14	M16	M18	M20	M22	M24
PITCH	1.0	1.25	1.0	1.5	1.25	1.5	1.5	1.5	1.5	1.5	2.0
16	X	X									
20	X	X	X	X	X						
25	X	X	X	X	X						
30	X	X	X	X	X	X					
35	X	X	X	X	X	X	X				
40	X	X	X	X	X	X	X	X	X	X	
45	X	X	X	X	X	X	X	X	X	X	X
50	X	X	X	X	X	X	X	X	X	X	X
55	X	X	X	X	X	X	X	X	X	X	X
60	X	X	X	X	X	X	X	X	X	X	X
65	X	X		X	X	X	X	X	X	X	X
70	X	X	X	X	X	X	X	X	X	X	X
75		X		X	X	X	X	X	X	X	X
80	X	X	X	X	X	X	X	X	X	X	X
90		X	X	X	X	X	X	X	X	X	X
100		X	X	X	X	X	X	X	X	X	X
110		X		X	X	X	X	X	X	X	X
120		X		X	X	X	X	X	X	X	X
130		X		X	X	X	X	X	X	X	X
140		X		X	X	X	X	X	X	X	X
150		X		X	X	X	X	X	X	X	X
160										X	X
180										X	X
200										X	X

*** Above line -- 961 full thread

*** Below line -- 960 partial thread

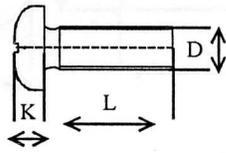
SECTION 3

JIS

◆ HEX BOLTS	
JIS B1180 CLASS 8.8 ZINC	3-1
◆ HEX FLANGE BOLTS	
JIS B1189 CLASS 10.9 ZINC	3-1
◆ HEX NUTS	
JIS B1181 CLASS 8 ZINC	3-1
◆ HEX FLANGE NUTS	
JIS B1190 CLASS 8 - NON-SERRATED.....	3-1
PLAIN & ZINC	
JIS B1190 CLASS 10 - SERRATED	3-1
ZINC & ZINC YELLOW	
◆ MACHINE SCREWS	
JIS B1111 PHILLIPS PAN CLASS 4.8 ZINC	3-2
JIS B1111 T PHILLIPS TRUSS CLASS 4.8 ZINC	3-2

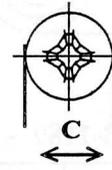
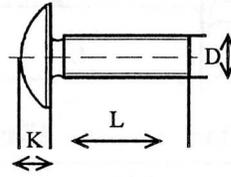
JIS B-1189 - 10.9 Zinc Flange Bolt					JIS B-1180 - 8.8 Zinc Hex Bolt						
PITCH	1	1.25	1.25	PITCH		1.25	1.25	1.25			
S	10	12	14	S		12	14	17			
A (max)	14	17.5	21	K		5.5	7	8			
K (max)	6	8	10	L \ D		M8	M10	M12			
L \ D	M6	M8	M10	L \ D		M8	M10	M12			
10	X			12		X					
12	X	X		16		X					
16	X	X	X	20		X	X	X			
20	X	X	X	25		X	X	X			
25	X	X	X	30		X	X	X			
30	X	X	X	35		X	X	X			
35	X	X	X	40		X	X	X			
40	X	X	X	45		X	X				
45	X	X	X	50		X	X	X			
50	X	X	X	55		X	X				
60		X	X	60		X	X	X			
70		X	X	70		X	X	X			
				80		X	X	X			
				90		X	X	X			
				100		X	X	X			
				110			X				
JIS B-1190 - 8 & 10					JIS B-1181 - 8 Zinc Hex Nut						
Serrated & Non-Serrated Plain & Zinc											
DIAMETER	M4	M5	M6	M8	M10	DIAM		M8	M10	M12	
PITCH	.7	.8	1	1.25	1.25	PITCH		1.25	1.25	1.5	1.25
S	7	8	10	12	14	S		12	14	14	17
A (max)	10.5	12	14	17.5	21	M		6.5	8	8	10
M (max)	4.2	5	6	8	10	STOCK		X	X	X	X
SERRATED CLASS 10 ZINC		X	X	X	X						
SERRATED CLASS 10 Zinc Yellow			X	X	X						
NON-SERRATED CLASS 8 ZINC	X			X	X						
NON-SERRATED CLASS 8 PLAIN	X			X							

Stock Range



JIS B1111 Pan 4.8 Zinc

Phillips Pan Head Machine Screw



JIS B1111 T 4.8 Zinc

Phillips Truss Head Machine Screw

C	5.5	7	9	10.5
K	2	2.6	3.3	3.9
Driver	2	2	2	3
L \ D	M3	M4	M5	M6
3	X			
4	X			
5	X			
6	X	X	X	
8	X	X	X	
10	X	X	X	X
12	X	X	X	X
14		X	X	X
16	X	X	X	X
18		X	X	X
20	X	X	X	X
22		X		X
25	X	X	X	X
30	X	X	X	X
35		X	X	X
40		X	X	X
45		X		X
50		X	X	X
55		X	X	X
60		X	X	X
65				X
70				X
75				
80				X
85				X
90				X
100				X

C	6.9	9.4	11.8	14
K	1.9	2.5	3.1	3.7
Driver	2	2	2	3
L \ D	M3	M4	M5	M6
6	X	X		
8	X	X	X	
10	X	X	X	X
12	X	X	X	X
16	X	X	X	X
20	X	X	X	X
25	X	X	X	X
30	X	X	X	X
35		X	X	X
40		X	X	X
50				X