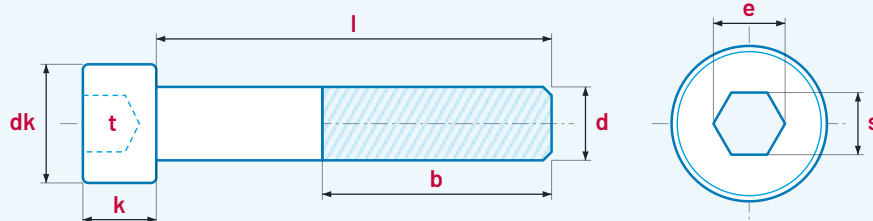


Hexagon socket head cap screws

DIN 912 · ISO 4762



LEGEND

d	Nominal thread diameter
P	Thread pitch, coarse
b	Thread length (reference)
dk	Head diameter
da	Transition diameter
ds	Body diameter
k	Head height
r	Fillet radius
s	Socket size
e	Socket across corners
t	Depth of driving feature
v	Chamfer or radius, max.
w	Thickness between socket and bearing face
dw	Bearing face diameter
l	Bolt length

DIMENSIONS IN MM

THREAD D	M1.6	M2	M2.5	M3	M4	M5	M6	M8	M10	M12	M14	M16	M20	M24	M30	M36	M42	M48	M56	M64
P	0.35	0.4	0.45	0.5	0.7	0.8	1	1.25	1.5	1.75	2	2	2.5	3	3.5	4	4.5	5	5.5	6
b	15	16	17	18	20	22	24	28	32	36	40	44	52	60	72	84	96	108	124	140
dk max.	3	3.8	4.5	5.5	7	8.5	10	13	16	18	21	24	30	36	45	54	63	72	84	96
max., "grooved head"	3.14	3.98	4.68	5.68	7.22	8.72	10.22	13.27	16.27	18.27	21.33	24.33	30.33	36.39	45.39	54.46	63.46	72.46	84.54	96.54
min.	2.86	3.62	4.32	5.32	6.78	8.28	9.78	12.73	15.73	17.73	20.67	23.67	29.67	35.61	44.61	53.54	62.54	71.54	83.46	95.46
da max.	2	2.6	3.1	3.6	4.7	5.7	6.8	9.2	11.2	13.7	15.7	17.7	22.4	26.4	33.4	39.4	45.6	52.6	63	71
ds max.	1.6	2	2.5	3	4	5	6	8	10	12	14	16	20	24	30	36	42	48	56	64
min.	1.46	1.86	2.36	2.86	3.82	4.82	5.82	7.78	9.78	11.73	13.73	15.73	19.67	23.67	29.67	35.61	41.61	47.61	55.54	63.54
e min.	1.73	1.73	2.30	2.87	3.44	4.58	5.72	6.86	9.15	11.43	13.72	16.00	19.44	21.73	25.15	30.85	36.57	41.13	46.83	52.53
h max.	0.34	0.51	0.51	0.51	0.6	0.6	0.68	1.02	1.02	1.45	1.45	1.45	2.04	2.04	2.89	2.89	3.06	3.91	5.95	5.95
k max.	1.6	2	2.5	3	4	5	6	8	10	12	14	16	20	24	30	36	42	48	56	64
min.	1.46	1.86	2.36	2.86	3.82	4.82	5.7	7.64	9.64	11.57	13.57	15.57	19.48	23.48	29.48	35.38	41.38	47.38	55.26	63.26
r min.	0.1	0.1	0.1	0.1	0.2	0.2	0.25	0.4	0.4	0.6	0.6	0.6	0.8	0.8	1	1	1.2	1.6	2	2
s nominal	1.5	1.5	2	2.5	3	4	5	6	8	10	12	14	17	19	22	27	32	36	41	46
max.	1.58	1.58	2.08	2.58	3.08	4.095	5.14	6.14	8.175	10.175	12.212	14.212	17.23	19.275	22.275	27.275	32.33	36.33	41.33	46.33
min.	1.52	1.52	2.02	2.52	3.02	4.02	5.02	6.02	8.025	10.025	12.032	14.032	17.05	19.065	22.065	27.065	32.08	36.08	41.08	46.08
t min.	0.7	1	1.1	1.3	2	2.5	3	4	5	6	7	8	10	12	15.5	19	24	28	34	38
v max.	0.16	0.2	0.25	0.3	0.4	0.5	0.6	0.8	1	1.2	1.4	1.6	2	2.4	3	3.6	4.2	4.8	5.6	6.4
dw min.	2.72	3.48	4.18	5.07	6.53	8.03	9.38	12.33	15.33	17.23	20.17	23.17	28.87	34.81	43.61	52.54	61.34	70.34	82.26	94.26
w min.	0.55	0.55	0.85	1.15	1.4	1.9	2.3	3.3	4	4.8	5.8	6.8	8.6	10.4	13.1	15.3	16.3	17.5	19	22

Shank and grip lengths per length on pages 2 and 3. Grades and finishes: hbsfasteners.nl/products/socket-screws.

Hexagon socket head cap screws

DIN 912 · length table M1.6 – M12

continued

SHANK LENGTH LS MIN. AND GRIP LENGTH LG MAX., IN MM

LENGTH L			M1.6		M2		M2.5		M3		M4		M5		M6		M8		M10		M12	
NOM.	MIN.	MAX.	LS	LG	LS	LG	LS	LG	LS	LG	LS	LG	LS	LG	LS	LG	LS	LG	LS	LG	LS	LG
2.5	2.3	2.7											Fully threaded									
3	2.8	3.2											Fully threaded									
4	3.76	4.24											Fully threaded									
5	4.76	5.24											Fully threaded									
6	5.76	6.24											Fully threaded									
8	7.71	8.29											Fully threaded									
10	9.71	10.29											Fully threaded									
12	11.65	12.35											Fully threaded									
16	15.65	16.35											Fully threaded									
20	19.58	20.42	-	-	2	4	full		-	-	-	-	-	-	-	-	-	-	-	-	-	-
25	24.58	25.42	-	-	-	-	5.75	8	4.5	7	full		-	-	-	-	-	-	-	-	-	-
30	29.58	30.42	-	-	-	-	-	-	9.5	12	6.5	10	4	8	full		-	-	-	-	-	-
35	34.5	35.5	-	-	-	-	-	-	-	-	11.5	15	9	13	6	11	full		-	-	-	-
40	39.5	40.5	-	-	-	-	-	-	-	-	16.5	20	14	18	11	16	5.75	12	full		-	-
45	44.5	45.5	-	-	-	-	-	-	-	-	-	-	19	23	16	21	10.75	17	5.5	13	full	
50	49.5	50.5	-	-	-	-	-	-	-	-	-	-	24	28	21	26	15.75	22	10.5	18	-	-
55	54.4	55.6	-	-	-	-	-	-	-	-	-	-	-	-	26	31	20.75	27	15.5	23	10.25	19
60	59.4	60.6	-	-	-	-	-	-	-	-	-	-	-	-	31	36	25.75	32	20.5	28	15.25	24
65	64.4	65.6	-	-	-	-	-	-	-	-	-	-	-	-	-	-	30.75	37	25.5	33	20.25	29
70	69.4	70.6	-	-	-	-	-	-	-	-	-	-	-	-	-	-	35.75	42	30.5	38	25.25	34
80	79.4	80.6	-	-	-	-	-	-	-	-	-	-	-	-	-	-	45.75	52	40.5	48	35.25	44
90	89.3	90.7	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	50.5	58	45.25	54
100	99.3	100.7	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	60.5	68	55.25	64
110	109.3	110.7	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	65.25	74
120	119.3	120.7	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	75.25	84

Hexagon socket head cap screws

DIN 912 · length table M14 – M64

continued

SHANK LENGTH LS MIN. AND GRIP LENGTH LG MAX., IN MM

LENGTH L			M14		M16		M20		M24		M30		M36		M42		M48		M56		M64	
NOM.	MIN.	MAX.	LS	LG	LS	LG	LS	LG	LS	LG	LS	LG	LS	LG	LS	LG	LS	LG	LS	LG	LS	LG
20	19.58	20.42	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–
25	24.58	25.42	full		full		–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–
30	29.58	30.42	full		full		full		–	–	–	–	–	–	–	–	–	–	–	–	–	–
35	34.5	35.5	full		full		full		–	–	–	–	–	–	–	–	–	–	–	–	–	–
40	39.5	40.5	full		full		full		full		–	–	–	–	–	–	–	–	–	–	–	–
45	44.5	45.5	full		full		full		full		full		–	–	–	–	–	–	–	–	–	–
50	49.5	50.5	full		full		full		full		full		–	–	–	–	–	–	–	–	–	–
55	54.4	55.6	full		full		full		full		full		full		–	–	–	–	–	–	–	–
60	59.4	60.6	10	20	full		full		full		full		full		full		–	–	–	–	–	–
65	64.4	65.6	15	25	11	21	full		full		full		full		full		–	–	–	–	–	–
70	69.4	70.6	20	30	16	26	full		full		full		full		full		full		–	–	–	–
80	79.4	80.6	30	40	26	36	15.5	28	full		full		full		full		full		full		–	–
90	89.3	90.7	40	50	36	46	25.5	38	15	30	full		full		full		full		full		full	
100	99.3	100.7	50	60	46	56	35.5	48	25	40	full		full		full		full		full		full	
110	109.3	110.7	60	70	56	66	45.5	58	35	50	20.5	38	full		full		full		full		full	
120	119.3	120.7	70	80	66	76	55.5	68	45	60	30.5	48	16	36	full		full		full		full	
130	129.2	130.8	80	90	76	86	65.5	78	55	70	40.5	58	26	46	full		full		full		full	
140	139.2	140.8	90	100	86	96	75.5	88	65	80	50.5	68	36	56	21.5	44	full		full		full	
150	149.2	150.8	–	–	96	106	85.5	98	75	90	60.5	78	46	66	31.5	54	full		full		full	
160	159.2	160.8	–	–	106	116	95.5	108	85	100	70.5	88	56	76	41.5	64	27	52	full		full	
180	179.2	180.8	–	–	–	–	115.5	128	105	120	90.5	108	76	96	61.5	84	47	72	28.5	56	full	
200	199.08	200.93	–	–	–	–	135.5	148	125	140	110.5	128	96	116	81.5	104	67	92	48.5	76	30	60
220	219.08	220.93	–	–	–	–	–	–	–	–	–	–	–	–	101.5	124	87	112	68.5	96	50	80
240	239.08	240.93	–	–	–	–	–	–	–	–	–	–	–	–	121.5	144	107	132	88.5	116	70	100
260	258.95	261.05	–	–	–	–	–	–	–	–	–	–	–	–	141.5	164	127	152	108.5	136	90	120
280	278.95	281.05	–	–	–	–	–	–	–	–	–	–	–	–	161.5	184	147	172	128.5	156	110	140
300	298.95	301.05	–	–	–	–	–	–	–	–	–	–	–	–	181.5	204	167	192	148.5	176	130	160