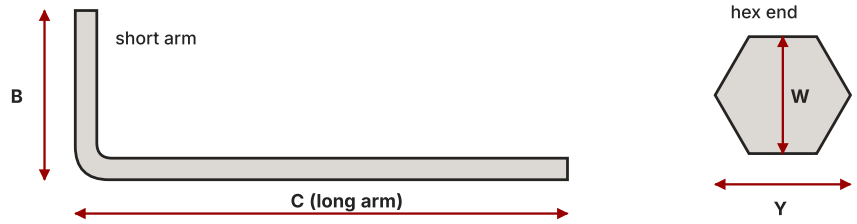
Hex Key Sizes

jandesupply.com/reference-hex-key-sizes.php

J & E Supply & FASTENER CO.

Across-flats size, short arm and long arm lengths for inch hex keys (Allen wrenches, ASME B18.3) and metric hex keys (ISO 2936), and which key fits which socket screw.

A **hex key** (Allen wrench, L-key) is a six-sided bar bent at a right angle. Its size is the distance **across the flats** of the hex, the same as the socket in the screw it turns. Inch keys come in a **short series** and a **long series**: the same hex and short arm, with a longer long arm for reach. Metric keys come in standard, long and extra-long lengths.



The letters match the table columns. Not to scale.

Inch hex keys — ASME B18.3 (inches)

KEY SIZE	ACROSS FLATS W	ACROSS CORNERS Y	SHORT ARM B	LONG ARM C, SHORT SERIES	LONG ARM C, LONG SERIES
.028″	.0280 / .0275	.0314 / .0300	.312 / .125	1.312 / 1.125	2.688 / 2.500
.035″	.0350 / .0345	.0393 / .0378	.438 / .250	1.312 / 1.125	2.766 / 2.578
.050″	.0500 / .0490	.0560 / .0540	.625 / .438	1.750 / 1.562	2.938 / 2.750
1/16″	.0625 / .0615	.0701 / .0680	.656 / .469	1.844 / 1.656	3.094 / 2.906
5/64″	.0781 / .0771	.0880 / .0859	.703 / .516	1.969 / 1.781	3.281 / 3.094
3/32″	.0937 / .0927	.1058 / .1035	.750 / .562	2.094 / 1.906	3.469 / 3.281
7/64″	.1094 / .1079	.1238 / .1210	.797 / .609	2.219 / 2.031	3.656 / 3.469
1/8″	.1250 / .1235	.1418 / .1390	.844 / .656	2.344 / 2.156	3.844 / 3.656
9/64″	.1406 / .1391	.1593 / .1566	.891 / .703	2.469 / 2.281	4.031 / 3.844
5/32″	.1562 / .1547	.1774 / .1745	.938 / .750	2.594 / 2.406	4.219 / 4.031
3/16″	.1875 / .1860	.2135 / .2105	1.031 / .844	2.844 / 2.656	4.594 / 4.406
7/32″	.2187 / .2172	.2490 / .2460	1.125 / .938	3.094 / 2.906	4.969 / 4.781
1/4″	.2500 / .2485	.2845 / .2815	1.219 / 1.031	3.344 / 3.156	5.344 / 5.156
5/16″	.3125 / .3110	.3570 / .3531	1.344 / 1.156	3.844 / 3.656	6.094 / 5.906
3/8″	.3750 / .3735	— / .4238	1.469 / 1.281	4.344 / 4.156	6.844 / 6.656
7/16″	.4375 / .4355	— / .4944	1.594 / 1.406	4.844 / 4.656	7.594 / 7.406
1/2″	.5000 / .4975	— / .5650	1.719 / 1.531	5.344 / 5.156	8.344 / 8.156
9/16″	.5625 / .5600	— / .6356	1.844 / 1.656	5.844 / 5.656	9.094 / 8.906
5/8″	.6250 / .6225	— / .7080	1.969 / 1.781	6.344 / 6.156	9.844 / 9.656
3/4″	.7500 / .7470	— / .8512	2.219 / 2.031	7.344 / 7.156	11.344 / 11.156
7/8″	.8750 / .8720	— / .9931	2.469 / 2.281	8.344 / 8.156	12.844 / 12.656
1″	1.0000 / .9970	1.1470 / 1.1350	2.719 / 2.531	9.344 / 9.156	14.344 / 14.156
1-1/4″	1.2500 / 1.2430	—	3.250 / 2.750	11.500 / 11.000	—
1-1/2″	1.5000 / 1.4930	—	3.750 / 3.250	13.500 / 13.000	—
1-3/4″	—	—	—	—	—
2″	—	—	—	—	—
2-1/4″	—	—	—	—	—
2-3/4″	—	—	—	—	—
3″	—	—	—	—	—

Each cell: maximum / minimum, inches. Short series and long series keys have the same hex and short arm; only the long arm differs. A dash: our sources differ, or only one lists it — give us a call.

Metric hex keys — ISO 2936 (mm)

KEY SIZE	ACROSS FLATS S	ACROSS CORNERS E	SHORT ARM L2	LONG ARM L1, STANDARD	L1, LONG	L1, EXTRA-LONG
0.7 mm	0.71 / 0.70	0.79 / 0.76	7 / 5	33 / 31	—	—
0.9 mm	0.89 / 0.88	0.99 / 0.96	11 / 9	33 / 31	—	—
1.3 mm	1.27 / 1.24	1.42 / 1.37	13 / 11	41 / 39	63.5 / 61.5	81 / 79
1.5 mm	1.50 / 1.48	1.68 / 1.63	15.5 / 13.5	46.5 / 44.5	63.5 / 61.5	91.5 / 89.5

Scan for this page online — plus free guides, charts & calculators at **jandesupply.com**
J & E Supply & Fastener Co. · Oklahoma City **405-670-1234** · Duncan **580-255-2582**

KEY SIZE	ACROSS FLATS S	ACROSS CORNERS E	SHORT ARM L2	LONG ARM L1, STANDARD	L1, LONG	L1, EXTRA-LONG
2 mm	2.00 / 1.96	2.25 / 2.18	18 / 16	52 / 50	77 / 75	102 / 100
2.5 mm	2.50 / 2.46	2.82 / 2.75	20.5 / 18.5	58.5 / 54.5	87.5 / 83.5	114.5 / 110.5
3 mm	3.00 / 2.96	3.39 / 3.31	23 / 21	66 / 62	93 / 89	129 / 125
3.5 mm	3.50 / 3.45	3.96 / 3.91	25.5 / 23.5	69.5 / 65.5	98.5 / 94.5	140 / 136
4 mm	4.00 / 3.95	4.53 / —	29 / 27	74 / 70	104 / 100	144 / 140
4.5 mm	4.50 / 4.45	5.10 / 5.04	30.5 / 28.5	80 / 76	114.5 / 110.5	156 / 152
5 mm	5.00 / 4.95	5.67 / —	33 / 31	85 / 81	120 / 116	165 / 161
6 mm	6.00 / 5.95	6.81 / —	38 / 36	96 / 92	141 / 137	186 / 182
7 mm	7.00 / 6.94	— / 7.85	41 / 39	102 / 96	147 / 141	197 / 191
8 mm	8.00 / 7.94	9.09 / 8.97	44 / 42	108 / 102	158 / 152	208 / 202
9 mm	9.00 / 8.94	10.23 / 10.10	47 / 45	114 / 108	169 / 163	219 / 213
10 mm	10.00 / 9.94	11.37 / 11.23	50 / 48	122 / 116	180 / 174	234 / 228
11 mm	11.00 / 10.89	12.51 / 12.31	53 / 51	129 / 123	191 / 185	247 / 241
12 mm	12.00 / 11.89	13.65 / 13.44	57 / 55	137 / 131	202 / 196	262 / 256
13 mm	13.00 / 12.89	14.79 / —	63 / 60	145 / 138	213 / 206	277 / 270
14 mm	14.00 / 13.89	15.93 / 15.70	70 / 67	154 / 147	229 / 222	294 / 287
15 mm	15.00 / 14.89	17.07 / 16.83	73 / 70	161 / 154	240 / 233	307 / 300
16 mm	16.00 / 15.89	18.21 / —	76 / 73	168 / 161	240 / 233	307 / 300
17 mm	17.00 / 16.89	19.35 / 19.09	80 / 77	177 / 170	262 / 255	337 / 330
18 mm	18.00 / 17.89	20.49 / —	84 / 81	188 / 181	262 / 255	358 / 351
19 mm	19.00 / 18.87	21.63 / 21.32	89 / 86	199 / 192	—	—
21 mm	21.00 / 20.87	23.91 / 23.58	96 / 91	211 / 199	—	—
22 mm	22.00 / 21.87	25.05 / 24.71	102 / 97	222 / 210	—	—
23 mm	23.00 / 22.87	—	108 / 103	233 / 221	—	—
24 mm	24.00 / 23.87	27.33 / 26.97	114 / 109	248 / 236	—	—
27 mm	27.00 / 26.87	30.75 / 30.36	127 / 122	277 / 265	—	—
29 mm	29.00 / 28.87	33.03 / —	141 / 136	311 / 299	—	—
30 mm	30.00 / 29.87	34.17 / 33.75	142 / 137	315 / 303	—	—
32 mm	32.00 / 31.84	36.45 / 35.98	157 / 152	347 / 335	—	—
36 mm	36.00 / 35.84	41.01 / 40.50	176 / 171	391 / 379	—	—

Each cell: maximum / minimum, mm. The short arm is the same for every length. A dash: our sources differ, or the standard doesn't make that length — give us a call.

Which inch hex key fits which screw

KEY SIZE	SOCKET HEAD CAP	BUTTON HEAD	FLAT HEAD	SET SCREW	SHOULDER (SHOULDER DIA)
.028″	—	—	—	#0	—
.035″	—	—	#0	#1, #2	—
.050″	#0	—	#1, #2	#3, #4	—
1/16″	#1	#4	#3, #4	#5, #6	—
5/64″	#2, #3	#6	#5, #6	#8	—
3/32″	#4, #5	#8	#8	#10	—
7/64″	#6	—	—	—	—
1/8″	—	#10	#10	1/4″	1/4″
9/64″	#8	—	—	—	—
5/32″	#10	1/4″	1/4″	5/16″	5/16″
3/16″	1/4″	5/16″	5/16″	3/8″	3/8″
7/32″	—	3/8″	3/8″	7/16″	—
1/4″	5/16″	—	7/16″	1/2″	1/2″
5/16″	3/8″	1/2″	1/2″	5/8″	5/8″
3/8″	7/16″, 1/2″	5/8″	5/8″	3/4″	3/4″
1/2″	5/8″	—	3/4″	7/8″	1″
9/16″	—	—	7/8″	1″, 1-1/8″	—
5/8″	3/4″	—	1″	1-1/4″, 1-3/8″	1-1/4″
3/4″	7/8″, 1″	—	—	1-1/2″	—
7/8″	1-1/8″, 1-1/4″	—	—	—	1-1/2″
1″	1-3/8″, 1-1/2″	—	—	—	1-3/4″
1-1/4″	1-3/4″	—	—	—	2″
1-1/2″	2″	—	—	—	—

Screw sizes, from our socket head, flat and button head, set screw and shoulder screw charts.

Which metric hex key fits which screw

KEY SIZE	SOCKET HEAD CAP (DIN 912)	LOW HEAD (DIN 7984)	FLAT HEAD (DIN 7991)	BUTTON HEAD (ISO 7380)	SET SCREW
0.7 mm	—	—	—	—	M1.6
0.9 mm	—	—	—	—	M2
1.3 mm	—	—	—	—	M2.5
1.5 mm	M2	—	—	—	M3
2 mm	M2.5	M3	M3	M3	M4
2.5 mm	M3	M4	M4	M4	M5
3 mm	M4	M5	M5	M5	M6
4 mm	M5	M6	M6	M6	M8
5 mm	M6	M8	M8	M8	M10
6 mm	M8	—	—	M10	M12
7 mm	—	M10	—	—	—
8 mm	M10	M12	M12	M12	M16
10 mm	M12	M14	M14, M16	M16	M20
12 mm	M14	M16	M20	—	M24
14 mm	M16	M20	M24	—	—
17 mm	M20	—	—	—	—
19 mm	M24	—	—	—	—
22 mm	M30	—	—	—	—
27 mm	M36	—	—	—	—
32 mm	M42	—	—	—	—
36 mm	M48	—	—	—	—

Screw sizes, from our metric socket head, metric flat and button head and metric set screw charts.

Good to know

Inch and metric keys don't mix. A 5/32″ key is .1547″–.1562″ across the flats; a 4 mm key is 3.95–4.00 mm. Close is not the same: the wrong key rocks in the socket and rounds it out. Use the key the screw was made for.

Use the short arm in the screw for the most turning force; the long arm gives reach and speed. A **ball-end** key turns a screw at an angle but carries less force — break it loose and do the final tightening with a straight hex end. Ball-end sizes and torque ratings aren't on our chart — we don't have two sources that agree on them.

Quick answers

What size Allen wrench fits a 1/4-20 socket head cap screw?
A **3/16″** hex key (ASME B18.3).

What size hex key fits an M6 socket head cap screw?
A **5 mm** hex key (DIN 912 / ISO 4762).

What hex key fits each inch socket head cap screw?
#0 screw – .050″ key, #1 screw – 1/16″ key, #2 screw – 5/64″ key, #3 screw – 5/64″ key, #4 screw – 3/32″ key, #5 screw – 3/32″ key, #6 screw – 7/64″ key, #8 screw – 9/64″ key, #10 screw – 5/32″ key, 1/4″ screw – 3/16″ key, 5/16″ screw – 1/4″ key, 3/8″ screw – 5/16″ key, 7/16″ screw – 3/8″ key, 1/2″ screw – 3/8″ key, 5/8″ screw – 1/2″ key, 3/4″ screw – 5/8″ key, 7/8″ screw – 3/4″ key, 1″ screw – 3/4″ key, 1-1/8″ screw – 7/8″ key, 1-1/4″ screw – 7/8″ key, 1-3/8″ screw – 1″ key, 1-1/2″ screw – 1″ key, 1-3/4″ screw – 1-1/4″ key, 2″ screw – 1-1/2″ key.

How long is a 1/4 inch hex key?
Short arm 1.031″–1.219″. Long arm 3.156″–3.344″ (short series) or 5.156″–5.344″ (long series), min–max, ASME B18.3.

Is a 5/32 Allen wrench the same as a 4 mm?
No. A 5/32″ key is .1547″–.1562″ across the flats; a 4 mm key is 3.95–4.00 mm. Use the key the screw was made for.

Reference values drawn from the governing standards. For critical applications, confirm against the standard and the manufacturer's published data. Technical information disclaimer →