

Keyway Size Chart - DIN 6885-1 parallel keys and ANSI B17.1 square keys

Key width b, key height h, keyway depth t1 in the shaft and t2 in the hub, the d - t1 check dimension (what a caliper reads) and the standard key-length range for each section. The key is the constant (h9); the keyway width carries the fit: H9/D10 sliding, N9/JS9 normal, P9/P9 tight.

EKINSUN LTD - shafts, hubs and keys machined to drawing or from a worn sample, MOQ 1 - <https://www.ekinsun.com/custom-fasteners/keyway-size-chart/>

Metric parallel keys - DIN 6885-1 (same sections as ISO 773 / BS 4235)

Shaft D (mm)	b x h	t1 shaft	t2 hub	d - t1	Key lengths
>6-8	2 x 2	1.2	1	6.8 at D8	6-20
>8-10	3 x 3	1.8	1.4	8.2 at D10	6-36
>10-12	4 x 4	2.5	1.8	9.5 at D12	8-45
>12-17	5 x 5	3	2.3	14 at D17	10-56
>17-22	6 x 6	3.5	2.8	18.5 at D22	14-70
>22-30	8 x 7	4	3.3	26 at D30	18-90
>30-38	10 x 8	5	3.3	33 at D38	22-110
>38-44	12 x 8	5	3.3	39 at D44	28-140
>44-50	14 x 9	5.5	3.8	44.5 at D50	36-160
>50-58	16 x 10	6	4.3	52 at D58	45-180
>58-65	18 x 11	7	4.4	58 at D65	50-200
>65-75	20 x 12	7.5	4.9	67.5 at D75	56-220
>75-85	22 x 14	9	5.4	76 at D85	63-250
>85-95	25 x 14	9	5.4	86 at D95	70-280
>95-110	28 x 16	10	6.4	100 at D110	80-320
>110-130	32 x 18	11	7.4	119 at D130	90-360
>130-150	36 x 20	12	8.4	138 at D150	100-400
>150-170	40 x 22	13	9.4	157 at D170	100-400
>170-200	45 x 25	15	10.4	185 at D200	110-450
>200-230	50 x 28	17	11.4	213 at D230	125-500
>230-260	56 x 32	20	12.4	240 at D260	140-500
>260-290	63 x 32	20	12.4	270 at D290	160-500
>290-330	70 x 36	22	14.4	308 at D330	180-500
>330-380	80 x 40	25	15.4	355 at D380	200-500
>380-440	90 x 45	28	17.4	412 at D440	220-500
>440-500	100 x 50	31	19.5	469 at D500	250-500

Inch keys - ANSI B17.1 (depth = half the key height, shaft and hub)

Shaft D (in)	Square key	Depth	Rectangular key	Depth
>5/16-7/16	3/32 sq	3/64	-	-
>7/16-9/16	1/8 sq	1/16	1/8 x 3/32	3/64
>9/16-7/8	3/16 sq	3/32	3/16 x 1/8	1/16
>7/8-1-1/4	1/4 sq	1/8	1/4 x 3/16	3/32
>1-1/4-1-3/8	5/16 sq	5/32	5/16 x 1/4	1/8
>1-3/8-1-3/4	3/8 sq	3/16	3/8 x 1/4	1/8
>1-3/4-2-1/4	1/2 sq	1/4	1/2 x 3/8	3/16
>2-1/4-2-3/4	5/8 sq	5/16	5/8 x 7/16	7/32
>2-3/4-3-1/4	3/4 sq	3/8	3/4 x 1/2	1/4
>3-1/4-3-3/4	7/8 sq	7/16	7/8 x 5/8	5/16
>3-3/4-4-1/2	1 sq	1/2	1 x 3/4	3/8
>4-1/2-5-1/2	1-1/4 sq	5/8	1-1/4 x 7/8	7/16
>5-1/2-6-1/2	1-1/2 sq	3/4	1-1/2 x 1	1/2

Keyway width tolerance (key width h9 in every case)

Fit	Shaft keyway	Hub keyway	Use
Sliding	H9	D10	hub slides axially on the shaft
Normal	N9	JS9	the default one-direction drive

Tight	P9	P9	reversing or shock loads
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Notes: DIN 6885-1 is the high form; DIN 6885-3 (low form) has shallower depths. Ranges are over-to: a 30 mm shaft is the top of the 22-30 step and takes 8 x 7. Put d - t1 on the drawing, not only t1, and add a symmetry tolerance of the keyway to the shaft axis. The current edition of each standard governs.