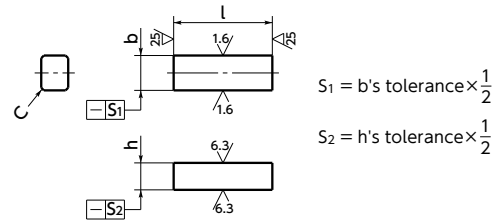


# Key and Their Corresponding Keyways

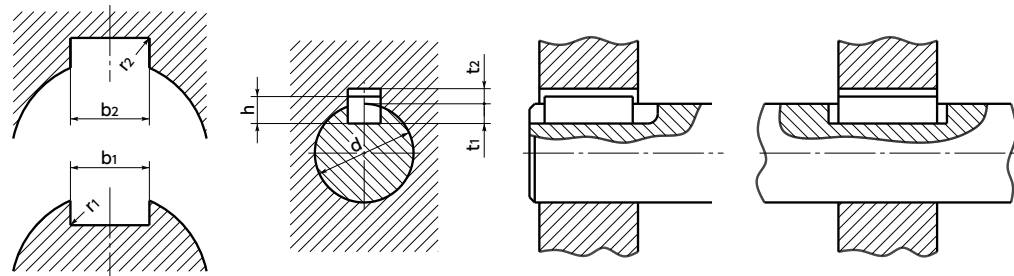
Excerpt from JIS B 1301:1996

## Shape and dimensions of parallel key and keyway

Key body

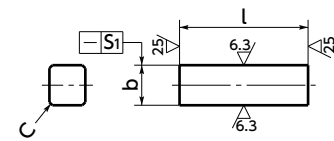


Cross section of keyway

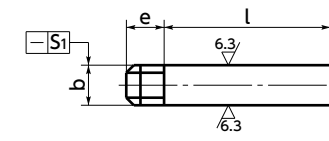


## Shape and dimensions of taper key, headed taper key and keyway

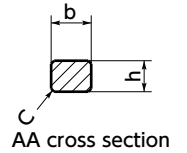
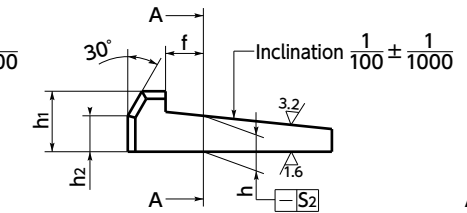
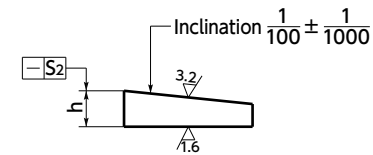
Key body Headless taper key (symbol T)



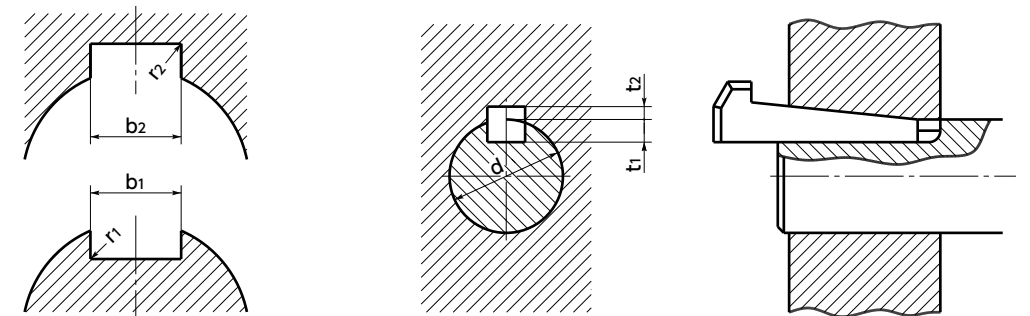
Headless taper key (symbol TG)  $\frac{25}{\sqrt{1.6/3.2/6.3}}$



$h_2 = h, f = h, e = b$   
 $S_1 = b's \text{ tolerance} \times \frac{1}{2}$   
 $S_2 = h's \text{ tolerance} \times \frac{1}{2}$



Cross section of keyway



Unit: mm

Nominal dimension of key b×h	Key dimension				C	l	Keyway dimension										Reference	
	b		h				Basic dimension of b1 and b2	Sliding type		Normal type		Fastening type	r1 and r2	Basic dimension of t1	Basic dimension of t2	Allowance of t1 and t2		Compliant shaft diameter d
	Basic Dimension	Allowance (h9)	Basic Dimension	Allowance				b1	b2	b1	b2							
2×2	2	0	2	0	0.16-0.25	6-20	2	+0.025	+0.060	-0.004	±0.0125	-0.006	-0.031	0.08-0.16	1.2	1.0	+0.1 0	6-8
3×3	3	-0.025	3	-0.025		6-36	3	0	+0.020	-0.029	±0.0125	-0.031	1.8		1.4	8-10		
4×4	4	0	4	0	h9	8-45	4	+0.030	+0.078	0	±0.0150	-0.012	-0.042	0.16-0.25	2.5	1.8	+0.1 0	10-12
5×5	5		-0.030			5	-0.030								10-56	5		0
6×6	6	0	6	0	0.25-0.40	14-70	6	0	+0.078	+0.030	±0.0150	-0.012	-0.042	0.16-0.25	3.5	2.8	+0.1 0	17-22
(7×7)	7		-0.036			7	-0.036								16-80	7		+0.036
8×7	8	-0.036	7	0	h11	18-90	8	0	+0.040	-0.036	±0.0180	-0.015	-0.051	0.16-0.25	4.0	3.3	+0.2 0	22-30
10×8	10		8			8	22-110	10	+0.043	+0.120	0	±0.0215	-0.018		-0.061	0.25-0.40		5.0
12×8	12	0	8	-0.090	0.40-0.60	28-140	12	0						+0.040			-0.036	±0.0215
14×9	14		9			9	36-160		14	0	+0.052	+0.149	0		±0.0260	-0.022		
(15×10)	15	-0.043	10	0	h11	40-180	15	0	+0.050					-0.043			±0.0215	-0.018
16×10	16		10			10	45-180	16	0	+0.052	+0.149	0	±0.0260	-0.022	-0.074	0.40-0.60	6.0	4.3
18×11	18	0	11	-0.110	0.60-0.80	50-200	18	0									+0.052	+0.149
20×12	20		12			12	56-220		20	0	+0.052	+0.149	0	±0.0260	-0.022	-0.074		
22×14	22	0	14	-0.110	h11	63-250	22	0	+0.052								+0.149	0
(24×16)	24		-0.052			16	70-280			24	0	+0.052	+0.149	0	±0.0260	-0.022		
25×14	25	0	14	-0.110	h11	70-280	25	0	+0.052	+0.149							0	±0.0260
28×16	28		16			16	80-320				28	0	+0.052	+0.149	0	±0.0260		
32×18	32	0	18	90-360	32	+0.062	+0.180	0	±0.0310	-0.026	-0.088						11.0	7.4

Unit: mm

Nominal dimension of key b×h	Key dimension				h1	C	l	Keyway dimension				Reference					
	b		h					b1 and b2	r1 and r2	Basic dimension of t1	Basic dimension of t2		Allowance of t1 and t2	Compliant shaft diameter d			
	Basic Dimension	Allowance (h9)	Basic Dimension	Allowance													
2×2	2	0	2	0	-	0.16-0.25	6-30	2	+0.060	0.08-0.16	1.2	0.5	+0.05	6-8			
3×3	3	-0.025	3	-0.025	-		6-36	3	+0.020		1.8	0.9	0	8-10			
4×4	4	0	4	0	h9	0.25-0.40	8-45	4	+0.078	0.16-0.25	2.5	1.2	+0.1 0	10-12			
5×5	5		-0.030				5	-0.030			10-56	5		+0.030	3.0	1.7	12-17
6×6	6	0	6	0	h11	0.40-0.60	14-70	6	+0.098	0.25-0.40	3.5	2.2	+0.1 0	17-22			
(7×7)	7		-0.036				7	-0.036			16-80	7		+0.036	4.0	3.0	20-25
8×7	8	-0.036	7	0	h11	0.40-0.60	18-90	8	+0.098	0.25-0.40	4.0	2.4	+0.2 0	22-30			
10×8	10		8				8	22-110			10	0		+0.043	+0.120	0	±0.0215
12×8	12	0	8	-0.090	h10	0.40-0.60	28-140	12	+0.120	0.25-0.40	5.0		2.4				
14×9	14		9				9	36-160			14	0	+0.043	+0.120	0	±0.0215	-0.018
(15×10)	15	-0.043	10	0	h10	0.40-0.60	40-180	15	+0.120	0.25-0.40	5.0						
16×10	16		10				10	45-180			16	0	+0.043	+0.120	0	±0.0215	-0.018
18×11	18	0	11	-0.110	h11	0.60-0.80	50-200	18	+0.149	0.40-0.60	7.0						
20×12	20		12				12	56-220			20	0	+0.043	+0.120	0	±0.0215	-0.018
22×14	22	0	14	-0.110	h10	0.60-0.80	63-250	22	+0.149	0.40-0.60	9.0						
(24×16)	24		-0.052				16	70-280			24	0	+0.043	+0.120	0	±0.0215	-0.018
25×14	25	0	14	-0.110	h11	0.60-0.80	70-280	25	+0.149	0.40-0.60	9.0						
28×16	28		16				16	80-320			28	0	+0.043	+0.120	0	±0.0215	-0.018
32×18	32	0	18	90-360	32	+0.062	+0.180	0	±0.0310	-0.026	-0.088						