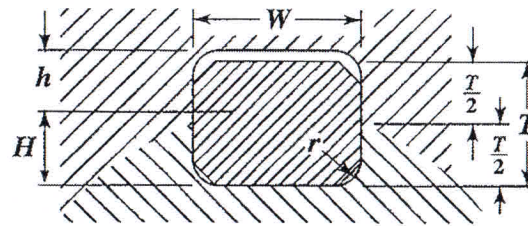


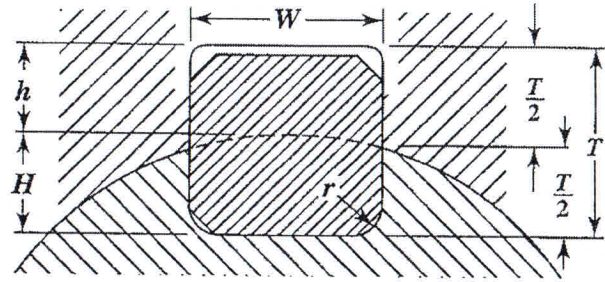
Table 1. British Standard Rectangular Parallel Keys, Keyways, and Keybars B.S. 46: Part I: 1958



Diameter of Shaft		Key Size $W \times T$	Key				Keyway in Shaft				Keyway in Hub				Nominal Keyway Radius, ^a	Keybar			
Over	Up to and Including		Width, W		Thickness, T		Width W_s		Depth H		Width W_h		Depth h			Width W		Thickness T	
			Max.	Min.	Max.	Min.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.		Max.	Min.	Max.	Min.
1	1¼	5/16 × 1/4	0.314	0.312	0.253	0.250	0.311	0.312	0.146	0.152	0.312	0.313	0.112	0.118	0.010	0.314	0.312	0.253	0.250
1¼	1½	3/8 × 1/4	0.377	0.375	0.253	0.250	0.374	0.375	0.150	0.156	0.375	0.376	0.108	0.114	0.010	0.377	0.375	0.253	0.250
1½	1¾	7/16 × 3/16	0.440	0.438	0.315	0.312	0.437	0.438	0.186	0.192	0.438	0.439	0.135	0.141	0.020	0.440	0.438	0.315	0.312
1¾	2	1/2 × 3/16	0.502	0.500	0.315	0.312	0.499	0.500	0.190	0.196	0.500	0.501	0.131	0.137	0.020	0.502	0.500	0.315	0.312
2	2½	5/8 × 7/16	0.627	0.625	0.441	0.438	0.624	0.625	0.260	0.266	0.625	0.626	0.185	0.191	0.020	0.627	0.625	0.441	0.438
2½	3	3/4 × 1/2	0.752	0.750	0.503	0.500	0.749	0.750	0.299	0.305	0.750	0.751	0.209	0.215	0.020	0.752	0.750	0.503	0.500
3	3½	7/8 × 5/8	0.877	0.875	0.629	0.625	0.874	0.875	0.370	0.376	0.875	0.876	0.264	0.270	0.062	0.877	0.875	0.629	0.625
3½	4	1 × 3/4	1.003	1.000	0.754	0.750	0.999	1.000	0.441	0.447	1.000	1.001	0.318	0.324	0.062	1.003	1.000	0.754	0.750
4	5	1¼ × 7/8	1.253	1.250	0.879	0.875	1.248	1.250	0.518	0.524	1.250	1.252	0.366	0.372	0.062	1.253	1.250	0.879	0.875
5	6	1½ × 1	1.504	1.500	1.006	1.000	1.498	1.500	0.599	0.605	1.500	1.502	0.412	0.418	0.062	1.504	1.500	1.006	1.000
6	7	1¾ × 1¼	1.754	1.750	1.256	1.250	1.748	1.750	0.740	0.746	1.750	1.752	0.526	0.532	0.125				
7	8	2 × 1½	2.005	2.000	1.381	1.375	1.998	2.000	0.818	0.824	2.000	2.002	0.573	0.579	0.125				
8	9	2¼ × 1½	2.255	2.250	1.506	1.500	2.248	2.250	0.897	0.905	2.250	2.252	0.619	0.627	0.125				
9	10	2½ × 1¾	2.505	2.500	1.631	1.625	2.498	2.500	0.975	0.983	2.500	2.502	0.666	0.674	0.187				
10	11	2¾ × 1¾	2.755	2.750	1.881	1.875	2.748	2.750	1.114	1.122	2.750	2.752	0.777	0.785	0.187				
11	12	3 × 2	3.006	3.000	2.008	2.000	2.998	3.000	1.195	1.203	3.000	3.002	0.823	0.831	0.187				
12	13	3¼ × 2¼	3.256	3.250	2.133	2.125	3.248	3.250	1.273	1.281	3.250	3.252	0.870	0.878	0.187				
13	14	3½ × 2½	3.506	3.500	2.383	2.375	3.498	3.500	1.413	1.421	3.500	3.502	0.980	0.988	0.250				
14	15	3¾ × 2½	3.756	3.750	2.508	2.500	3.748	3.750	1.492	1.502	3.750	3.752	1.026	1.036	0.250				
15	16	4 × 2¾	4.008	4.000	2.633	2.625	3.998	4.000	1.571	1.581	4.000	4.002	1.072	1.082	0.250				
16	17	4¼ × 2¾	4.258	4.250	2.883	2.875	4.248	4.250	1.711	1.721	4.250	4.252	1.182	1.192	0.312				
17	18	4½ × 3	4.508	4.500	3.010	3.000	4.498	4.500	1.791	1.801	4.500	4.502	1.229	1.239	0.312				
18	19	4¾ × 3¼	4.758	4.750	3.135	3.125	4.748	4.750	1.868	1.878	4.750	4.752	1.277	1.287	0.312				
19	20	5 × 3½	5.008	5.000	3.385	3.375	4.998	5.000	2.010	2.020	5.000	5.002	1.385	1.395	0.312				

^aThe key chamfer shall be the minimum to clear the keyway radius. Nominal values are given.

Table 2. British Standard Square Parallel Keys, Keyways, and Keybars B.S. 46: Part I: 1958

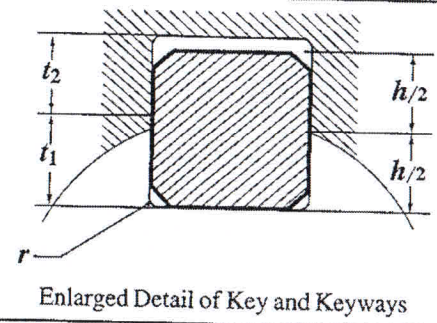
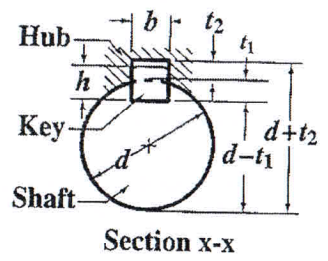
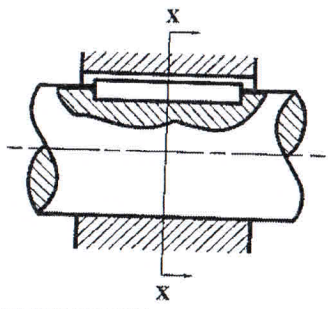


Diameter of Shaft		Key Size, W × T	Key		Keyway in Shaft				Keyway in Hub				Nominal Keyway Radius, r ^a	Bright Keybar	
Over	Up to and Including		Width, W and Thickness, T		Width, W _s		Depth, H		Width, W _h		Depth, h			Width, W and Thickness, T	
			Max.	Min.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.		Max.	Min.
¼	½	⅛ × ⅛	0.127	0.125	0.124	0.125	0.072	0.078	0.125	0.126	0.060	0.066	0.010	0.127	0.125
½	¾	⅜ × ⅜	0.190	0.188	0.187	0.188	0.107	0.113	0.188	0.189	0.088	0.094	0.010	0.190	0.188
¾	1	½ × ¼	0.252	0.250	0.249	0.250	0.142	0.148	0.250	0.251	0.115	0.121	0.010	0.252	0.250
1	1¼	⅝ × ⅝	0.314	0.312	0.311	0.312	0.177	0.183	0.312	0.313	0.142	0.148	0.010	0.314	0.312
1¼	1½	¾ × ¾	0.377	0.375	0.374	0.375	0.213	0.219	0.375	0.376	0.169	0.175	0.010	0.377	0.375
1½	1¾	⅞ × ⅞	0.440	0.438	0.437	0.438	0.248	0.254	0.438	0.439	0.197	0.203	0.020	0.440	0.438
1¾	2	1 × ½	0.502	0.500	0.499	0.500	0.283	0.289	0.500	0.501	0.224	0.230	0.020	0.502	0.500
2	2½	⅞ × ⅞	0.627	0.625	0.624	0.625	0.354	0.360	0.625	0.626	0.278	0.284	0.020	0.627	0.625
2½	3	¾ × ¾	0.752	0.750	0.749	0.750	0.424	0.430	0.750	0.751	0.333	0.339	0.020	0.752	0.750
3	3½	⅞ × ⅞	0.877	0.875	0.874	0.875	0.495	0.501	0.875	0.876	0.387	0.393	0.062	0.877	0.875
3½	4	1 × 1	1.003	1.000	0.999	1.000	0.566	0.572	1.000	1.001	0.442	0.448	0.062	1.003	1.000
4	5	1¼ × 1¼	1.253	1.250	1.248	1.250	0.707	0.713	1.250	1.252	0.551	0.557	0.062	1.253	1.250
5	6	1½ × 1½	1.504	1.500	1.498	1.500	0.848	0.854	1.500	1.502	0.661	0.667	0.062	1.504	1.500

^aThe key chamfer shall be the minimum to clear the keyway radius. Nominal values are given. All dimensions in inches.

Table 1. British Standard Metric Keyways for Square and Rectangular Parallel Keys BS 4235:Part 1:1972 (1986)

Shaft		Key Size, $b \times h$	Keyway															
Nominal Diameter d			Width, b							Depth				Radius r				
Over	Up to and Incl.		Nom.	Free Fit		Normal Fit		Close Fit	Shaft t_1		Hub t_2		Max.	Min.				
		Shaft (H9)		Hub (D10)	Shaft (N9)	Hub (J_59) ^a	Shaft and Hub (P9)	Nom.	Tol.	Nom.	Tol.							
Tolerances																		
Keyways for Square Parallel Keys																		
6	8	2 × 2	2	+0.025	+0.060	-0.004	+0.012	-0.006	1.2	} +0.1 0	1	} +0.1 0	0.16	0.08				
8	10	3 × 3	3	0	+0.020	-0.029	-0.012	-0.031	1.8		1.4		0.16	0.08				
10	12	4 × 4	4	} +0.030 0	+0.078	0	+0.015	-0.012	2.5	} +0.1 0	1.8	} +0.1 0	0.16	0.08				
12	17	5 × 5	5						0		-0.030		-0.015	-0.042	3	2.3	0.25	0.16
17	22	6 × 6	6						+0.030		-0.030		-0.015	-0.042	3.5	2.8	0.25	0.16



KEYS AND KEYSEATS

Table 1. (Continued) British Standard Metric Keyways for Square and Rectangular Parallel Keys BS 4235:Part 1:1972 (1986)

Shaft		Key		Keyway										
Nominal Diameter d		Size, $b \times h$	Nom.	Width, b					Depth				Radius r	
Over	Up to and Incl.			Free Fit		Normal Fit		Close Fit	Shaft t_1		Hub t_2		Max.	Min.
				Shaft (H9)	Hub (D10)	Shaft (N9)	Hub (J _s 9) ^a	Shaft and Hub (P9)	Nom.	Tol.	Nom.	Tol.		
Tolerances														
Keyways for Rectangular Parallel Keys														
22	30	8 × 7	8	+0.036	+0.098	0	+0.018	-0.015	4	} +0.2 0	3.3	} +0.2 0	0.25	0.16
30	38	10 × 8	10	0	+0.040	-0.036	-0.018	-0.051	5		3.3		0.40	0.25
38	44	12 × 8	12	} +0.043	+0.120	0	+0.021	-0.018	5		3.3		0.40	0.25
44	50	14 × 9	14						5.5		3.8		0.40	0.25
50	58	16 × 10	16						6		4.3		0.40	0.25
58	65	18 × 11	18	} +0.052	+0.149	0	+0.026	-0.022	7		4.4		0.40	0.25
65	75	20 × 12	20						7.5		4.9		0.60	0.40
75	85	22 × 14	22						9		5.4		0.60	0.40
85	95	25 × 14	25	} +0.062	+0.180	0	+0.031	-0.026	9		5.4		0.60	0.40
95	110	28 × 16	28						9		5.4		0.60	0.40
110	130	32 × 18	32						10		6.4		0.60	0.40
130	150	36 × 20	36	} +0.074	+0.220	0	+0.037	-0.032	11		7.4		0.60	0.40
150	170	40 × 22	40						12	8.4	1.00	0.70		
170	200	45 × 25	45						13	9.4	1.00	0.70		
200	230	50 × 28	50	} +0.087	+0.260	0	+0.043	-0.037	15	10.4	1.00	0.70		
230	260	56 × 32	56						17	11.4	1.00	0.70		
260	290	63 × 32	63						20	12.4	1.60	1.20		
290	330	70 × 36	70	} 0	+0.100	-0.074	-0.037	-0.106	20	12.4	1.60	1.20		
330	380	80 × 40	80						22	14.4	1.60	1.20		
380	440	90 × 45	90						25	15.4	2.50	2.00		
440	500	100 × 50	100	} 0	+0.120	-0.087	-0.043	-0.124	28	17.4	2.50	2.00		
									31	19.5	2.50	2.00		

^a Tolerance limits J_s9 are quoted from BS 4500, "ISO Limits and Fits," to three significant figures. All dimensions in millimeters.