

Specifying Metric Keyways

Dimensioning and specifying Metric keys and keyways varies significantly from the English system. In the Metric system it is common practice to specify the key size. Referencing Figure 1, the Metric key size is $W \times T$. The keyway dimensions are also different from the English system. Metric keyways are dimensioned by width and depth as measured from the radius of the shaft to the center of the keyway. See dimensions W and h in Figure 1.

Unless otherwise specified, the shaft keyway is assumed to be standard. Also, T_1 and T_2 are not necessarily equal. The Metric system does not refer to keyseat or keyway dimensions as does the English system. Instead, key dimensions are specified. Note that metric keys are rectangular in shape, and not square as in the English system. A list of the standard key sizes and corresponding keyways for Metric shafts are listed below in Table 2. The common specification dimension, Key Size, is highlighted.

Metric Standard Parallel Keyway and Key Sizes					
Shaft Diameter (mm)		Keyway (mm)		Key (mm)*	
From	To	Width (W)	Depth (h)	Width (W)	Depth (T)
6	8	2	1.0	2	2
9	10	3	1.4	3	3
11	12	4	1.8	4	4
13	17	5	2.3	5	5
18	22	6	2.8	6	6
23	30	8	3.3	8	7
31	38	10	3.3	10	8
39	44	12	3.3	12	8
45	50	14	3.8	14	9
51	58	16	4.3	16	10
59	65	18	4.4	18	11
66	75	20	4.9	20	12
76	86	22	5.4	22	14
86	96	25	5.4	25	14
96	110	28	6.4	28	16
111	130	32	7.4	32	18
131	150	36	8.4	36	20
151	170	40	9.4	40	22
171	200	45	10.4	45	25
201	230	50	11.4	50	28
231	260	56	12.4	56	32
261	290	63	12.4	63	32
291	330	70	14.4	70	36
331	380	80	15.4	80	40
381	440	90	17.4	90	45
441	500	100	19.5	100	50

* Common dimension specification

Table 2 - Standard Metric Keyway and Key Dimensions