

## Rectangular Keyways

Metric:  
W x H Key  
W x T2 Keyway

### ISO Standard — mm

Shaft Diameter		Groove Width	H	T1	T2*
D					
≤	>	W			
6	8	2	2	1.2	1
8	10	3	3	1.8	1.4
10	12	4	4	2.5	1.8
12	17	5	5	3.0	2.3
17	22	6	6	3.5	2.8
22	30	8	7	4.0	3.3
30	38	10	8	5.0	3.3
38	44	12	8	5.0	3.3
44	50	14	9	5.5	3.8
50	58	16	10	6.0	4.3
58	65	18	11	7.0	4.4
65	75	20	12	7.5	4.9
75	85	22	14	9.0	5.4
85	95	25	14	9.0	5.4
95	110	28	16	10.0	6.4
110	130	32	18	11.0	7.4
130	150	36	20	12.0	8.4
150	170	40	22	13.0	9.4
170	200	45	25	15.0	10.4
200	230	50	28	17.0	11.4
230	260	56	32	20.0	12.4
260	290	63	32	20.0	12.4
290	330	70	36	22.0	14.4
330	380	80	40	25.0	15.4
380	440	90	45	28.0	17.4
440	500	100	50	31.0	19.5

\* Groove dimensions for woodruff keys DIN 6888 in accordance with DIN 6885 Sheet 1 (with black clearance).

BS 4235 Pt. 1 - 1972

In the absence of specific details, manufacturing will be based upon DIN 6885 - T1

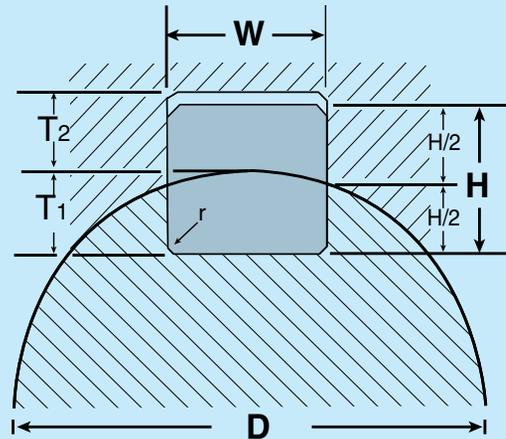
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## Shaft Keyseats/Hub Keyways

### Standard Keyseats/Keyways

Shaft Size	W width	D, d Depth		R R Cutter Run-out
		Regular	Shallow	
5/16 to 7/16	3/32	3/64	-	1/2
1/2 to 3/16	1/8	1/16	-	9/16
5/8 to 7/8	3/16	3/32	-	11/16
13/16 to 1-1/4	1/4	1/8	-	13/16
1-5/16 to 1-3/8	5/16	3/32	-	15/16
1-7/16 to 1-3/4	3/8	3/16	-	1-1/16
1-13/16 to 2-1/4	1/2	1/4	1/8	1-3/16
2-5/16 to 2-3/4	5/8	5/16	3/16	1-5/16
2-15/16 to 3-1/4	3/4	3/8	3/16	1-9/16
3-5/16 to 3-3/4	7/8	7/16	1/4	1-11/16
3-13/16 to 4-1/2	1	1/2	1/4	1-3/4
4-9/16 to 5-1/2	1-1/4	5/8	1/4	1-15/16
5-9/16 to 6-1/2	1-1/2	3/4	1/4	2-1/8
6-9/16 to 7-1/2	1-3/4	3/4	1/4	2-1/8
7-9/16 to 9	2	3/4	3/8	2-1/8
9-1/16 to 11	2-1/2	7/8	3/8	2-5/16
11-1/16 to 13	3	1	3/8	2-7/16

## Square Keyways



Metric:  
W x H Key  
W x T2 Keyway

### American Standard — Inches

Shaft Diameter		Groove Width	H	T1#	T2#
D					
		W			
7/16	9/16	1/8	1/8	-	-
9/16	7/8	3/16	3/16	-	-
7/8	1-1/4	1/4	1/4	-	-
1-1/4	1-3/8	5/16	5/16	-	-
1-3/8	1-3/4	3/8	3/8	-	-
1-3/4	2-1/4	1/2	1/2	-	-
2-1/4	2-3/4	5/8	5/8	-	-
2-3/4	3-1/4	3/4	3/4	-	-
3-1/4	3-3/4	7/8	7/8	-	-
3-3/4	4-1/2	1	1	-	-
4-1/2	5-1/2	1-1/4	1-1/4	-	-
5-1/2	6-1/2	1-1/2	1-1/2	-	-
6-1/2	7-1/2	1-3/4	1-1/2	-	-
7-1/2	9	2	1-1/2	-	-
9	11	2-1/2	1-3/4	-	-
11	13	3	2	-	-
13	15	3-1/2	2-1/2	-	-
15	18	4	3	-	-
18	22	5	3-1/2	-	-
22	26	6	4	-	-
26	30	7	5	-	-

# Tolerance each on T1 and T2 is -.000/+0.010.

$$T1 = \frac{D - SD^2 - W^2}{2} - \frac{H}{2}$$

$$T2 = \frac{H}{2} - \frac{D - SD^2 - W^2}{2}$$

# Keyway & Key Dimensions / Tap & Drill Sizes

## STANDARD KEYWAY AND KEY DIMENSIONS

Bores	Keyway	Key
7/8"	3/16" x 3/32"	3/16" x 3/16"
15/16" - 1 1/4"	1/4" x 1/8"	1/4" x 1/4"
1 5/16" - 1 3/8"	5/16" x 5/32"	5/16" x 5/16"
1 7/16" - 1 3/4"	3/8" x 3/16"	3/8" x 3/8"
1 13/16" - 2 1/4"	1/2" x 1/4"	1/2" x 1/2"
2 5/16" - 2 3/4"	5/8" x 5/16"	5/8" x 5/8"
2 13/16" - 3 1/4"	3/4" x 3/8"	3/4" x 3/4"
3 5/16" - 3 3/4"	7/8" x 7/16"	7/8" x 7/8"
3 13/16" - 4 1/2"	1" x 1/2"	1" x 1"
4 9/16" - 5 1/2"	1 1/4" x 5/8"	1 1/4" x 1 1/4"
5 9/16" - 6 1/2"	1 1/2" x 3/4"	1 1/2" x 1 1/2"
6 9/16" - 7 1/2"	1 3/4" x 3/4"	1 3/4" x 1 1/2"
7 9/16" - 9"	2" x 3/4"	2" x 1 1/2"
9 1/16" - 11"	2 1/2" x 7/8"	---
11 1/16" - 13"	3" x 1"	---

## STANDARD ANSI TAP/DRILL SIZES

Tap Size	Drill Size	Tap Size	Drill Size
# 0 - 80	3/64	# 1 - 72	# 53
# 1 - 64	# 53	# 2 - 64	# 50
# 2 - 56	# 51	# 3 - 56	# 46
# 3 - 48	5/64"	# 4 - 48	# 42
# 4 - 40	# 43	# 5 - 44	# 37
# 5 - 40	# 39	# 6 - 40	# 33
# 6 - 32	# 36	# 8 - 36	# 29
# 8 - 32	# 29	# 10 - 32	# 21
# 10 - 24	# 25	# 12 - 28	# 15
# 12 - 24	# 17	1/4" - 28	# 3
1/4" - 20	# 7	5/16" - 24	I
5/16" - 18	F	3/8" - 24	Q
3/8" - 16	5/16"	7/16" - 20	W
7/16" - 14	U	1/2" - 20	29/64"
1/2" - 13	27/64"	9/16" - 18	33/64"
9/16" - 12	31/64"	5/8" - 18	37/64"
5/8" - 11	17/32"	3/4" - 16	11/16"
3/4" - 10	21/32"	7/8" - 14	13/16"
7/8" - 9	49/64"	1" - 12	15/16"
1" - 8	7/8"	1 1/8" - 12	13/64"
1 1/8" - 7	63/64"	1 1/4" - 12	111/64"
1 1/4" - 7	17/64"	1 1/2" - 12	127/64"
1 1/2" - 6	111/32"	1 3/4" - 12	143/64"
1 3/4" - 5	135/64"	2" - 12	159/64"
2" - 4 1/2	125/32"	—	—

## STANDARD METRIC ISO TAP/DRILL SIZES

Tap Size	Drill Size	Tap Size	Drill Size
1 mm X .25	.75 mm	4 mm x .35	3.6 mm
1.1 x .25	.85	4 x .5	3.5
1.2 x .25	.95	5 x .5	4.5
1.4 x .3	1.1	6 x .5	5.5
1.6 x .35	1.25	6 x .75	5.25
1.7 x .35	1.3	7 x .75	6.25
1.8 x .35	1.45	8 x .5	7.5
2 x .4	1.6	8 x .75	7.25
2.2 x .45	1.75	8 x 1	7
2.5 x .45	2.05	9 x 1	8
3 x .5	2.5	10 x .75	9.25
3.5 x .6	2.9	10 x 1	9
4 x .7	3.3	10 x 1.25	8.8
4.5 x .75	3.7	11 x 1	10
5 x .8	4.2	12 x .75	11.25
6 x 1	5	12 x 1	11
7 x 1	6	12 x 1.5	10.5
8 x 1.25	6.8	14 x 1	13
9 x 1.25	7.8	14 x 1.25	12.8
10 x 1.5	8.5	14 x 1.5	12.5
11 x 1.5	9.5	16 x 1	15
12 x 1.75	10.2	16 x 1.5	14.5
14 x 2	12	18 x 1	17
16 x 2	14	18 x 2	16
18 x 2.5	15.5	20 x 1	19
20 x 2.5	17.5	20 x 1.5	18.5
22 x 2.5	19.5	20 x 2	18
24 x 3	21	22 x 1	21

