

2.6.14 SYNCHROBELT® HTD toothed pulleys: preferred sizes

Tooth pitch 3 mm

Dimensions in millimetres

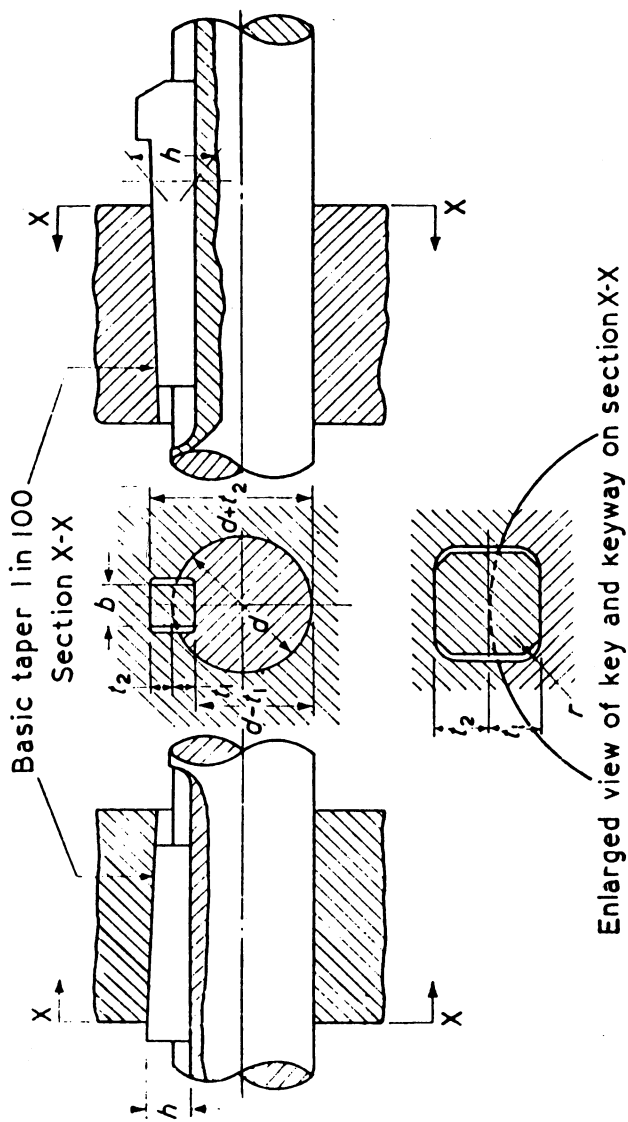
No. of teeth z	Pitch dia. d_w	Outside dia. d_a	Flanged pulley dia. d_b	Stock bore dia. d_v	Finished bore dia. $d_{F \max}$
10	9.55	8.79	12	3	3
12	11.46	10.70	14	3	4
14	13.37	12.61	16	3	6
15	14.32	13.56	16	3	6
16	15.28	14.52	18	3	8
17	16.23	15.47	20	4	8
18	17.19	16.43	20	4	8
19	18.14	17.38	21	4	8
20	19.10	18.34	23	4	10
22	21.01	20.25	25	4	10
24	22.94	22.16	26	4	12
26	24.83	24.07	28	4	14
28	26.74	25.98	30	4	15
30	28.65	27.89	33	6	17
32	30.56	29.80	34	6	19
34	32.47	31.71	36	6	20
36	34.38	33.62	38	6	20
38	36.29	35.53	42	6	25
40	38.20	37.44	42	6	25
44	42.02	41.26	47	8	28
50	47.75	46.99	51	8	32
56	53.48	52.72	59	8	36
62	59.21	58.45	64	8	42
72	68.75	67.99	73	8	50

The relationship between standard belt width and pulley width:

Dimensions in millimetres

Standard belt width b	Pulley width = toothing width w/o flanged pulleys	Toothed width for flanged pulleys
6	11	≈ 9
9	14	≈ 12
15	20	≈ 18

2.7.3 Square and rectangular taper keys, metric series



Dimensions in millimetres

Width h Nom.	Tol. (h9)	Height h_1		Diameter D		Chamfer s	
		Nom.	Tol. (h11)	Nom.	Tol. (h12)	Min.	Max.
				0			
1.0		1.4	0	4	-0.120	0.16	0.25
1.5		2.6	-0.060	7		0.16	0.25
2.0	0	2.6		7	0	0.16	0.25
2.0	-0.025	3.7	0	10	-0.150	0.16	0.25
2.5		3.7	-0.075	10		0.16	0.25
3.0		5.0		13	0	0.16	0.25
3.0		6.5		16	-0.180	0.16	0.25
4.0		6.5		16		0.25	0.40
4.0		7.5		19	0	0.25	0.40
				-0.210			
				0			
5.0		6.5	0	16	-0.180	0.25	0.40
5.0	0	7.5	-0.090	19		0.25	0.40
5.0	-0.030	9.0		22	0	0.25	0.40
6.0		9.0		22	-0.210	0.25	0.40
6.0		10.0		25		0.25	0.40
8.0	0	11.0	0	28		0.40	0.60
10.0	-0.036	13.0	-0.110	32	0	0.40	0.60
				-0.250			

*A tolerance closer than h9 may be adopted subject to agreement between interested parties.

For further information see BS 4235 : Pt 2 : 1977.

Note

The Whitney form should only be adopted by agreement between the interested parties. In this case h_2 of the Whitney form key shall equal 0.8 times the height h_1 of the normal form Woodruff key, i.e. $h_2 = 0.8 h_1$. The calculated values shall be rounded off to the nearest 0.1 mm.