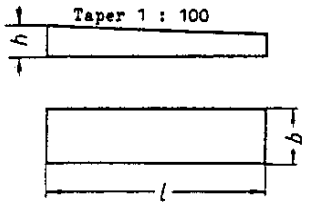
UDC 621.886.6 February 1956x

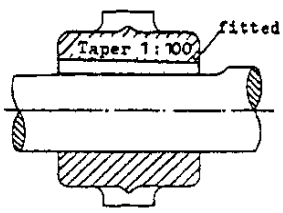
Taper Key Torque Transmission
Parallel Keys
Dimensions and Application

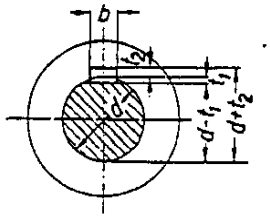
DIN 6883

Spannungsverbindungen mit Anzug; Flachkeile, Abmessungen und Anwendung

Dimensions in mm







Breaking corners

Designation of a parallel key of width b = 10 mm, height h = 6 mm and length l = 50 mm:

Parallel key 10 × 6 × 50 DIN 6883

Chamfering at manufacturer's choice | Radiusing | Radius at bottom of keyway

Key cross-section (Key steel according to DIN 6880)	Width b	8	10	12	14	16	18	20	22	25	28	32	36	40	45	50
	Height h	5	6	6	6	7	7	8	9	9	10	11	12	14	16	18
For shaft diameter d [1]	above	22	30	38	44	50	58	65	75	85	95	110	130	150	170	200
	up to	30	38	44	50	58	65	75	85	95	110	130	150	170	200	230
Depth	t_1 [2]	1,3	1,8	1,8	1,4	1,9	1,9	1,9	1,8	1,9	2,4	2,3	2,8	4	4,7	5,2
	perm.var.	+ 0,1												+ 0,2		
Width of keyway i.hub	b D 10	8	10	12	14	16	18	20	22	25	28	32	36	40	45	50
Depth of keyway in hub	t_2 [2]	3,2	3,7	3,7	4	4,5	4,5	5,5	6,5	6,4	6,9	7,9	8,4	9,1	10,4	11,7
	perm.var.	+ 0,2													+ 0,3	
Bevelling or radiusing	r_1	0,4		0,5				0,6			0,8		1		1,2	
	perm.var.	+ 0,2									+ 0,3				+ 0,4	
Radiusing of bottom of keyway	r_2	0,4		0,5				0,6			0,8		1		1,2	
	perm.var.	− 0,2									− 0,3				− 0,4	

Length l [3]	perm.var.	Weight (7,85 kg/dm³) kg/1000 pieces ≈														
20	−0,2	6,16														
22		6,75														
25		7,65	11,5													
28		8,54	12,9													
32	−0,3	9,73	14,7	17,6												
36		10,8	16,4	19,7	23,0											
40		12,1	18,2	21,8	25,5											
45		13,5	20,4	24,5	28,6	38,3										
50		14,9	22,5	27,1	31,6	42,3	47,7									
56		16,6	25,2	30,2	35,2	47,2	53,2									
63		18,6	28,1	33,7	39,4	52,8	59,5	76,2								
70		20,4	31,0	37,2	43,4	58,4	65,8	84,0	105	119						
80			35,1	42,2	49,3	66,3	74,7	95,5	119	135	169					
90	−0,5		39,2	47,0	54,8	74,0	83,3	107	133	151	189	249				
100				51,8	60,5	81,6	91,8	118	147	167	209	264	324			
110				56,5	66,0	89,0	100	129	160	182	218	289	355	464		
125				63,5	74,0	100	113	145	180	205	258	326	402	524		
140					81,6	111	125	160	200	228	286	362	446	585		
160						124	140	181	228	257	323	410	507	663	860	
180						138	155	201	251	288	360	457	563	740	960	1210
200							170	220	276	314	396	502	620	817	1060	1330
220								238	300	341	432	548	677	892	1155	1460
250									335	380	482	613	758	1000	1300	1640
280										417	530	675	837	1110	1440	1820
315											583	745	927	1230	1610	2030
355												820	1050	1360	1780	2260
400													1130	1510	1980	2510

No figures for permissible variations of tapers on keys and in hub keyways have so far been laid down. If, in special cases, certain prescribed permissible variations must be observed, these must be agreed with the manufacturer when ordering.

Dimension h is the maximum height of the key, dimensions $(d + t_2)$ and t_2 relate to the maximum depth of the keyway in the hub.

Material: St 60 (steel having a tensile strength of at least 60 kg/mm² in the finished condition) alternative materials to be specified in order

[1]) Where corresponding dimensions are involved, particularly for shaft extensions, it is vital that the appropriate key cross-section be assigned to the shaft diameters concerned.

[2]) In workshop drawings the dimensions t_1 and $(d - t_1)$, also t_2 and $(d + t_2)$ may appear side by side; however, in many cases the dimensions $(d - t_1)$ and $(d + t_2)$ will suffice. In this connection it may be necessary to allow for permissible variations and machining allowances on the shaft and hub bore.

[3]) Where intermediate lengths are unavoidable these should be selected according to DIN 3. In all doubtful cases the permissible variation of the next greater length l should be used.