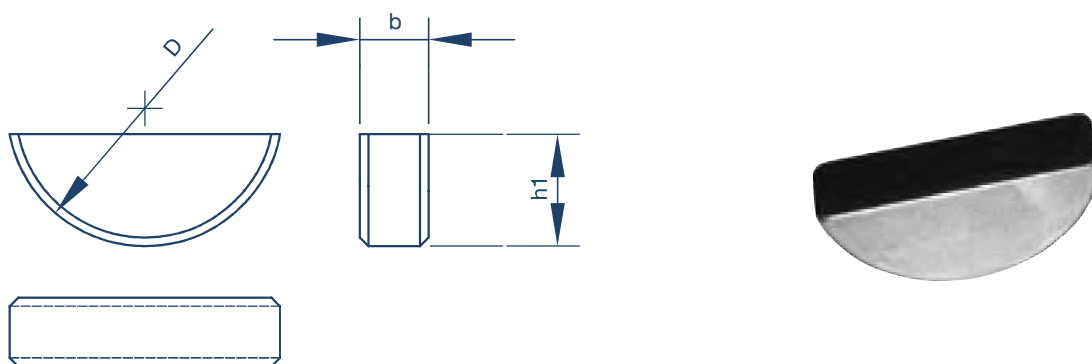


Dimensional tolerances for woodruff keys according to ISO 3912-DIN 6888- UNI 6606 standards



Dimensions mm

Shaft diameter d				standard keys b x h x D or equivalent form	key							
torque transmission		for positioning			Base b		height h ₁		Diameter D		chamfer/radius	
≥	≤	≥	≤		nom.	tol. h ₉	nom.	Tol. h ₁₁	nom.	tol. h ₁₂	min.	max.
3	4	3	4	1,0x1,4x 4	1,0	0 -0,025	1,4	0 -0,060	4	0 -0,120	0,16	0,25
4	5	4	6	1,5x2,6x7	1,5		2,6		7	0 -0,150		
5	6	6	8	2x2,6x7	2,0		3,7	0 -0,075	10			
6	7	8	10	2x3,7x10	2,5				5,0	13		
8	10	12	15	3x5x13	3,0		6,5	0 -0,090	16	0 -0,210		
10	12	15	18	3x6,5x16	4,0				7,5			
12	14	18	20	4x6,5x16	5,0	0 -0,030	9,0	16	0 -0,210	0,25	0,40	
14	16	20	22	4x7,5x19				6,5				19
16	18	22	25	5x6,5x16				7,5				22
18	20	25	28	5x7,5x19				9,0				25
20	22	28	32	5x9,0x22	6,0	0 -0,036	11,0	0 -0,110	0 -0,210	0,4	0,6	
22	25	32	36	6x9,0x22								10,0
25	28	36	40	6x10x25	8,0	11,0	28	32	0 -0,210	0,4	0,6	
28	32	40	-	8x11x28	10,0	13,0	11,0	32	0 -0,210	0,4	0,6	
32	38	-	-	10x13x32	10,0	13,0	13,0	32	0 -0,210	0,4	0,6	

For no standard dimension keys, the referred tolerances remain the same

MATERIAL

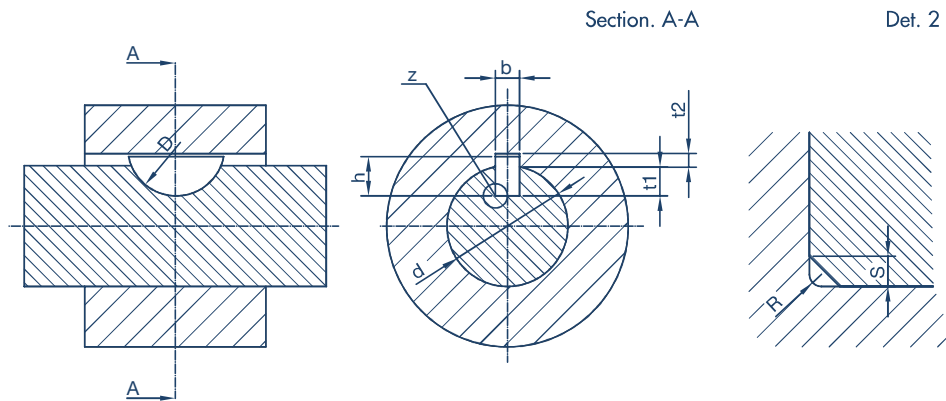
steel C45 (1.1191) with $R_z \geq 59$ daN/mm² cold drawn UNI EN 100083-1 norm

The relation between the shaft diameter and the key section, indicated in the dimensional tables, is referred to the standard use

It is possible to use smaller keys sections, if their resistance is enough for the torque to be transmitted

The use of keys with bigger sections is not recommended

Dimensional tolerances of the keyway for the woodruff keys according to ISO 3912 DIN 6888 UNI 6606

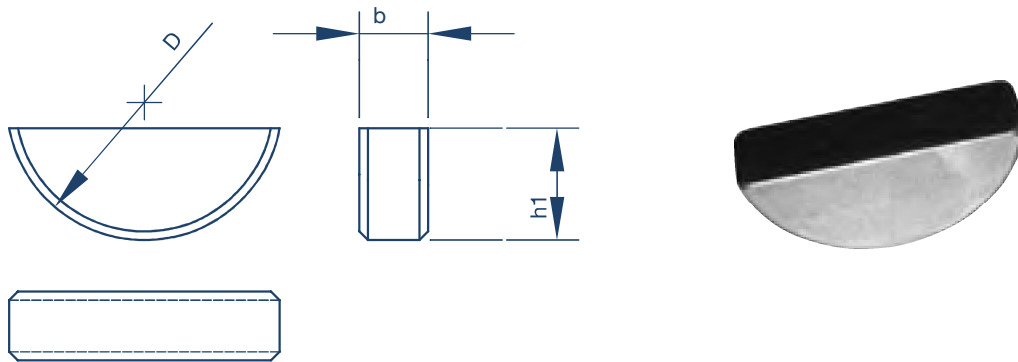


Dimensions mm

Shaft diameter d				standard keys b x h x D or equivalent	keyway									
transmiss. torque		For positioning			Base b			Depth				Radius R		
≥	≤	≥	≤		nom.	type of coupling			shaft		hub		max.	min.
						normal fit		close fit	t1		t2			
						shaft	hub	shaft/hub	nom.	tol.	nom.	tol.		
				Tol. N9	Tol. Js9	Tol. P9	nom.	tol.	nom.	tol.				
3	4	3	4	1,0x1,4x 4	1,0	-0,004 -0,029	±0,012	-0,006 -0,031	1	+0,1 0	0,6	0,16	0,08	
4	5	4	6	1,5x2,6x7	1,5				2		0,8			
5	6	6	8	2x2,6x7	2,0				1,8		1			
6	7	8	10	2x3,7x10	2,5				2,9		1,2			
7	8	10	12	2,5x3,7x10	2,5				2,7		1,2			
8	10	12	15	3x5x13	3,0				3,8	1,4				
10	12	15	18	3x6,5x16	3,0				5,3	1,4	+0,1 0			
12	14	18	20	4x6,5x16	4,0	0 -0,030	±0,015	-0,012 -0,042	5	+0,2 0	1,8	0,25	0,16	
14	16	20	22	4x7,5x19	4,0				6		2,3			
16	18	22	25	5x6,5x16	5,0				4,5		2,3			
18	20	25	28	5x7,5x19	5,0				5,5	2,3				
20	22	28	32	5x9,0x22	5,0				7	2,3				
22	25	32	36	6x9,0x22	6,0	6,5	2,8	+0,3 0						
25	28	36	40	6x10x25	6,0	7,5	2,8							
28	32	40	-	8x11x28	8,0	0 -0,036	±0,018	-0,015 -0,051	8	+0,2 0	3,3	0,40	0,25	
32	38	-	-	10x13x32	10,0				8		3,3	0,40	0,25	

For no standard dimension keys, the tolerances remain the same

WOODRUFF KEYS ISO 3912 - UNI 6606 - DIN 6888



DESIGNATION	b	h1	L	D	weight
	h9	h11		h12	[kg]
KEY 1,5X2,6	1,5	2,6	6,76	7	0,012
KEY 2X2,6	2,0	2,6	6,76	7	0,017
KEY 2X3,7	2,0	3,7	9,66	10	0,034
KEY 2,5X3,7	2,5	3,7	9,66	10	0,047
KEY 3X3,7	3,0	3,7	9,66	10	0,060
KEY 2X5	2,0	5,0	12,65	13	0,070
KEY 3X5	3,0	5,0	12,65	13	0,108
KEY 4X5	4,0	5,0	12,65	13	0,141
KEY 3X6,5	3,0	6,5	15,72	16	0,171
KEY 4X6,5	4,0	6,5	15,72	16	0,231
KEY 5X6,5	5,0	6,5	15,72	16	0,290
KEY 3X7,5	3,0	7,5	18,57	19	0,234
KEY 4X7,5	4,0	7,5	18,57	19	0,308
KEY 5X7,5	5,0	7,5	18,57	19	0,397
KEY 4X9	4,0	9,0	21,63	22	0,442
KEY 5X9	5,0	9,0	21,63	22	0,556
KEY 6X9	6,0	9,0	21,63	22	0,556
KEY 5X10	5,0	10,0	24,49	25	0,704
KEY 6X10	6,0	10,0	24,49	25	0,837
KEY 6X11	6,0	11,0	27,35	28	1,390
KEY 8X11	8,0	11,0	27,35	28	1,850
KEY 6X13	6,0	13,0	31,42	32	1,400
KEY 8X13	8,0	13,0	31,42	32	1,420
KEY 8X15	8,0	15,0	37,15	38	2,500
KEY 8X16	8,0	16,0	43,08	45	3,100
KEY 10X16	10,0	16,0	43,08	45	4,120

Note: mass volume 7,85 kg/mm³

Technical reading from page 89 to page 90