

STANDARD CUTTING CONDITIONS

Chamfering and countersinking (VCA, VCW, VCR)

ISO	Workpiece material	Hardness	Cutting speed Vc (sfm)	Feed f (ipr)	
P	Low carbon steels 1045, 1055, etc.	- 300 HB	197 - 328	0.0024 - 0.0047	
	High carbon steels 4140, etc.	- 300 HB	164 - 262	0.0024 - 0.0047	
	Prehardened steel PX5, NAK80, etc.	30 - 40 HRC	131 - 230	0.0024 - 0.0047	
M	Stainless steels SUS304, SUS316, etc. 304, 316, etc.	- 200 HB	98 - 164	0.0024 - 0.0047	
K	Gray cast irons 250, 300, etc.	150 - 250 HB	262 - 394	0.0024 - 0.0047	
	Ductile cast irons 400-15S, etc.	150 - 250 HB	262 - 394	0.0024 - 0.0047	
N	Aluminum alloys	-	328 - 656	0.0031 - 0.0059	
S	Titanium alloys Ti-6Al-4V, etc.	-	98 - 164	0.0020 - 0.0039	
	Heat-resistant alloys Inconel 718, etc.	-	66 - 131	0.0016 - 0.0031	
H	Hardened steel	H13, etc.	40 - 50 HRC	98 - 164	0.0020 - 0.0039
		D2, etc.	50 - 60 HRC	66 - 131	0.0016 - 0.0031

TOLERANCE OF TOOL DIAMETER

Basic dimensions (in)		Permissible dimensional deviations (µm)						
>	≤	e8	e9	h6	h7	h9	h10	z9
0.236	0.394	-25 -47	-25 -61	0 -9	0 -15	0 -36	0 -58	+78 +42
0.394	0.551	-32 -59	-32 -75	0 -11	0 -18	0 -43	0 -70	+93 +50
0.551	0.709	-32 -59	-32 -75	0 -11	0 -18	0 -43	0 -70	+103 +60
0.709	1.181	-40 -73	-40 -92	0 -13	0 -21	0 -52	0 -84	-

JISB0401-2: 1998 (ISO286-2: 1988) extract

