

Turning Guideline (> 0.5mm DOC)

	Workpiece Material		Hardness approx.	Grade	V m/min		f mm/rev		Edge P rep.	V m/min		f mm/rev						
Ferrous	Soft cast iron	Gray cast iron	<HB200	SB100	500	-	1500	0.20	-	0.80	chamfer	1640	-	4921	0.008	-	0.031	
				SB95	400	-	1000	0.20	-	0.80	chamfer	1312	-	3281	0.008	-	0.031	
				SB90	400	-	800	0.20	-	1.00	chamfer	1312	-	2625	0.008	-	0.039	
		Ductile cast iron		>HB200	SB100	150	-	500	0.10	-	0.40	chamfer	492	-	1640	0.004	-	0.016
					SB95	100	-	350	0.10	-	0.40	chamfer	328	-	1148	0.004	-	0.016
					SB90	100	-	350	0.10	-	0.40	chamfer	328	-	1148	0.004	-	0.016
	Hard cast iron	white/chill Alloyed cast iron (Ni hard)	HRC 59		SB100	50	-	150	0.10	-	1.00	chamfer	164	-	492	0.004	-	0.039
					SB95	50	-	150	0.10	-	0.50	chamfer	164	-	492	0.004	-	0.020
	Hardened steels	Cold work tool steel	HRC 60		SB95	80	-	160	0.10	-	0.25	chamfer	262	-	525	0.004	-	0.010
				SB60	80	-	140	0.10	-	0.25	chamfer	262	-	459	0.004	-	0.010	
		High speed steel	HRC 63	SB95	60	-	140	0.10	-	0.25	chamfer	197	-	459	0.004	-	0.010	
				SB60	60	-	130	0.10	-	0.25	chamfer	197	-	427	0.004	-	0.010	
		Bearing steel	HRC 60	SB95	100	-	150	0.10	-	0.25	chamfer	328	-	492	0.004	-	0.010	
				SB60	90	-	140	0.10	-	0.25	chamfer	295	-	459	0.004	-	0.010	
		Hot work tool steel	HRC 54	SB95	100	-	140	0.10	-	0.25	chamfer	328	-	459	0.004	-	0.010	
				SB60	90	-	140	0.10	-	0.25	chamfer	295	-	459	0.004	-	0.010	
		Case hardend steel	HRC 60	SB95	100	-	200	0.10	-	0.25	chamfer	328	-	656	0.004	-	0.010	
				SB60	90	-	140	0.10	-	0.25	chamfer	295	-	459	0.004	-	0.010	
	P/M parts(Metals)	Ferrous sintered parts	HRC 35	SB95	90	-	200	0.05	-	0.25	chamfer	295	-	656	0.002	-	0.010	
		Heat resistance sintered steel	HRC 45	SB95	50	-	100	0.05	-	0.20	chamfer	164	-	328	0.002	-	0.008	
SB60				50	-	100	0.05	-	0.20	chamfer	164	-	328	0.002	-	0.008		
Superalloys	Co based	HRC 35	SB95	50	-	100	0.05	-	0.20	chamfer/Hone	164	-	328	0.002	-	0.008		
			SB80	50	-	100	0.05	-	0.20	chamfer/Hone	164	-	328	0.002	-	0.008		
	Ni based	HRC 36	SB95	120	-	150	0.05	-	0.20	chamfer/Hone	394	-	492	0.002	-	0.008		
			SB80	120	-	150	0.05	-	0.20	chamfer/Hone	394	-	492	0.002	-	0.008		
	Fe based	HRC 37	SB95	130	-	150	0.05	-	0.20	chamfer/Hone	427	-	492	0.002	-	0.008		
			SB80	130	-	150	0.05	-	0.20	chamfer/Hone	427	-	492	0.002	-	0.008		
Hard facing alloy	Co based	HRC 35	SB95	150	-	200	0.02	-	0.40	chamfer	492	-	656	0.001	-	0.016		
	Ni based	HRC 36	SB95	120	-	150	0.02	-	0.40	chamfer	394	-	492	0.001	-	0.016		