

# Speeds and Feeds



Carbide Grade C5 for Steel

ISO	VDI 3323	Material Description	Composition/Structure/Heat Treatment		HB	HRc	Speed(SFM)	Feed (IPR)				
								3/8 ~ 1/2	33/64 ~ 11/16	45/64 ~ 15/16	31/32 ~ 1-3/8	1-13/32 ~ 1-7/8
P	1	Non-alloyed steel	About 0.15% C	Annealed	125		390	0.008	0.009	0.012	0.017	0.018
	2		About 0.45% C	Annealed	190	13	315	0.006	0.009	0.011	0.014	0.016
	3		About 0.45% C	Quenched&tempered	250	25	276	0.006	0.009	0.011	0.014	0.016
	4		About 0.75% C	Annealed	270	28	276	0.006	0.009	0.011	0.014	0.016
	6	Low-alloyed Steel		Annealed	180	10	289	0.006	0.009	0.011	0.015	0.017
	7			Quenched&tempered	275	29	266	0.006	0.008	0.011	0.015	0.016
	8			Quenched&tempered	300	32	256	0.005	0.008	0.011	0.013	0.016
	9			Quenched&tempered	350	38	210	0.004	0.007	0.009	0.012	0.015
	10	High-alloyed steel, and tool steel		Annealed	200	15	220	0.004	0.007	0.009	0.011	0.012
	11			Quenched&tempered	325	35	164	0.004	0.007	0.009	0.011	0.012

