

Operating Guidelines

ISO	Material Group No.	Condition	Hardness HB	Vc Cutting Speed SFM	Feed vs. Drill Diameter inch/rev (mm/rev)				
					.157-.197"	.198-.236"	.237-.315"	.316-.394"	.395-.472"
					4-5 mm	5.1-6 mm	6.1-8 mm	8.1-10 mm	10.1-12 mm
P	1	Low carbon steels (C < 0.3)	125	262-459	.006-.010	.008-.014	.010-.018	.012-.022	.014-.024
	2		190	262-427					
	3	Carbon steels (C > 0.3)	250	262-294					
	4		220	230-361					
	5		300	154-295					
	6	Low alloy steels	200	262-394			.010-.016	.012-.020	.014-.022
	7		275	230-361					
	8		300	154-295					
	9		350	131-230					
	10	Alloy steels	200	154-295	.006-.008	.008-.012	.010-.014	.012-.018	.014-.020
	11		325	131-262					
K	15	Gray cast iron	160	262-459	.008-.012	.010-.018	.014-.022	.016-.024	.018-.026
	16		250	230-394					
	17	Nodular cast iron	180	262-394		.008-.016	.012-.020	.014-.022	.016-.024
	18		260	230-361					
	19	Malleable cast iron	130	262-394					
	20		230	230-361					

Note: Feed and speed recommendations are starting operating parameters. They are only guidelines from which further optimization should take place. Operating parameters are influenced by many machining variables. These variables may cause for reductions in feeds and speed or dramatic increases. Additionally, DOC and WOC may need to be revised to optimize the tools performance.