

Technical Section

Carbide Grades:

BXC (P30 - P50, K25 - K40)

PVD TiN coated grade for low cutting speed.
Works well with a wide range of stainless steels.

BMK (K10 - K20)

Sub-micron grade with advanced PVD triple coating. Extremely high heat resistant and smooth cutting operation, for high performance, and normal machining conditions. General purpose for all materials.

K20 (K10 - K30)

Uncoated Carbide grade for non ferrous metals, aluminum and cast iron.



Cutting speed for Tiny Tools

ISO Standard	Material		Condition	Cutting Speed ft/min		
				BXC	BMK	
P	Non-Alloy steel and cast steel, free cutting steel	<0.25%C	Annealed	82-164	98-197	
		≥0.25%C	Annealed			
		<0.55%C	Quenched and tempered			
		≥0.55%C	Annealed			
	Low alloy steel and cast steel (less than 5% alloying elements)		Annealed	66-82	79-98	
			Quenched and tempered			
High alloy steel, cast steel, and tool steel		Annealed	59-66	72-79		
		Quenched and tempered				
M	Stainless steel and cast steel		Ferritic/martensitic	82-98	98-138	
			Martensitic			
			Austenitic			
K	Cast iron nodular (GGG)		Ferritic/pearlitic	56-75	66-92	
			Pearlitic			
	Grey cast iron (GG)		Ferritic	56-75	66-92	
			Pearlitic			
Malleable cast iron		Ferritic	56-75	66-92		
		Pearlitic				
N	Aluminum-wrought alloy		Not cureable	164-230	197-276	
			Cured			
	Aluminum-cast, alloyed	≤12% Si	Not cureable	98-131	118-157	
		>12% Si	Cured			
	Copper alloys	>1% Pb		High temperature	72-82	79-98
				Free cutting		
		Brass				
Non metallic			Electrolytic copper	115-148		
			Duroplastics, fiber plastics			
S	High temp. alloys, Super alloys	Fe based	Annealed	49-66	59-79	
						Cured
		Ni or Co based	Annealed			
			Cured			
	Titanium alloys		Cast	39-59	49-66	
			Alpha+beta alloys cured			
H	Hardened steel		Hardened 45-50 HRc	49-66	59-79	
			Hardened 51-55 HRc			
			Hardened 56-62 HRc			
	Chilled cast iron		Cast	33-46	39-52	
Cast iron		Hardened	26-39	33-46		

Recommended Feed Rate: .0005 - .001 inch/rev

Threading Passes

Pitch:	mm TPI	0.5 48	0.7 36	0.8 32	1.0 24	1.25 20	1.5 16	2-5
Number of Passes		6-12	7-14	7-16	8-18	8-20	10-22	20-38