

Series 12J1D, 22J3D, 12P1D, 12N1D, 12M1D					Grades			
Material	Brinell Hardness	SFM	Feed per Insert	IN05S	IN200S/IN250S	IN1030	IN2030	Coolant
Aluminum	6061 T-6, 7075 T-6, 2024	-	1000-8000	.003-.008	1	2		Yes
Cast Iron	Gray	150-250	500-1200	.002-.004		1	2	1
	Nodular		400-800					
Steel	Low Carbon 1018-8620	150-250	600-1200	.002-.004		3	1	2
	High Carbon F-6180, Nitralloy 52100	250-400	400-600					
	Alloyed Steel 4140, 4340, 6150	150-300	400-800			3	2	1
	Tool Steel A-6, D-1, D-2, P-20	Up to 300						
Stainless Steel	300 Series, 304, 316	-	400-800	.002-.004		2	1	1
	400 Series 15-5 PH, 17-4 PH	Up to 320	500-1000					May not be required at high speeds
	13-8 PH	-	200-400					Yes
Nickel Alloys	Inconel, Hastelloy, Waspalloy	-	75-120	.002-.003	2	3	1	Yes
Titanium	6AL-4V	-	80-150	.002-.003	2	1	1	Yes

Series 15J1H					Grades		
Material	Brinell Hardness	SFM	Feed per Insert	IN15K	IN1540	Coolant	
Aluminum	6061 T-6, 7075 T-6	-	1000-8000	.003-.005	1	Yes	
Steel	Low Carbon 1018-8620	100-250	400-1000	.003-.006		Yes	
	High Carbon F-6180, Nitralloy 52100	250-400	300-500				
	Alloyed Steel 4140, 4340, 6150	150-300	300-700				1
	Tool Steel A-6, D-1, D-2, P-20	Up to 300					
Stainless Steel	300 Series, 304, 316	-	300-700	.003-.006		May not be required at high speeds	
	400 Series 15-5 PH, 17-4 PH	-	400-900				1
	13-8 PH	-	200-400				

The success of any cutter application is a function of many variables. Our initial preference of grade is based on applying a more tough grade.