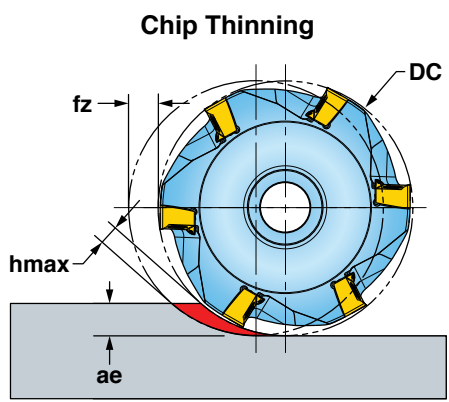




HIPOST™ OPERATING GUIDELINES: SERIES 12J1G, 12L1G, 12N1G, 2J1G & 2L1G



* When ae is less than 25% DC, recommend use of Chip Thinning Calculator to ensure hmax falls within fz range.

ISO	Mat'l Group #VDI 3323	Materials		V _c Cutting Speed SFM	f _z Feed/Tooth (inch)	Harder <-----> Tougher											Coolant								
						PCD		Carbide										DLC							
						IN93D	IN3310	IN2504	IN6515	IN2540	IN10K	IN2510	IN2505	IN2005	IN4030	IN2530			IN1030	IN7036	IN2036	IN6537			
P	1 thru 5	Non-alloy Steel	1018, A36, 1045, A572, 1070	400-1000																					
	6 thru 9	Low-alloy Steel	4140, 4340, P20, 8620, 300M	350-700	.003-.008			5		4			2	1							3			NO	
	10, 11	High-alloy Steel	H13, A2, D2, M2, T1	300-600																					
M	12 thru 13	Stainless Steel (Ferritic & Martensitic)	410, 416, 440	350-600	.003-.007																			YES	
	14		Stainless Steel (Austenitic)	303, 304, 316, 15-5, 17-4		300-550				4			3	2	1										May not be required at high speeds
K	15 thru 16	Gray Cast Iron	CLS. 20, 30, 45	500-1000	.003-.008																				
	17 thru 20	Nodular Cast Iron	60-40-18, 100-70-03	400-800				3	2			1	4										5		NO
N	21 thru 30	Aluminum	7075, 6061	1000-3000	.003-.009	1					1													YES	
				1500-4500		1																			
S	31 thru 35	High-Temp Alloys	Inconel, Hastelloy, Nimonic, Monel	65-150	.003-.006									2	3	1								YES	
	36 thru 37	Titanium Alloys	6AL-4V, 5Al-5Mo-5V-3Cr	85-200										3	2	1									
H	38 thru 39	Hardened Steel >48	A2, O1, D2	130-250	.003-.004			1						2										NO	

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.