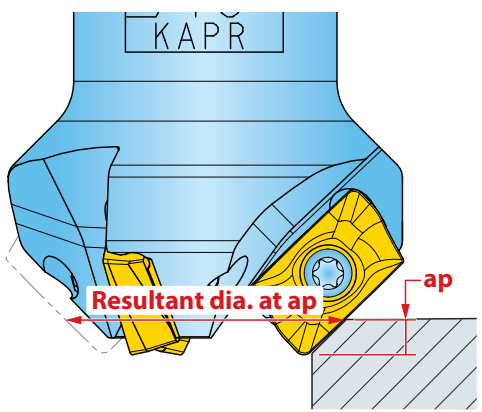


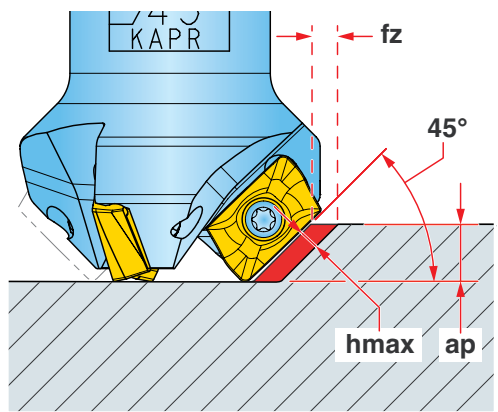
# HIPOST™ OPERATING GUIDELINES - SERIES 12\_1R, 12\_1G

## RPM Calculation



Calculation is to be made using the resultant diameter at ap.

## Chip Thinning



Chip Thinning Calculator is recommended to ensure hmax falls within fz range.

ISO	Mat'l Group #VDI 3323	Materials		V <sub>c</sub> Cutting Speed SFM	f <sub>z</sub> Feed/Tooth (inch)	Harder <-----> Tougher							Coolant		
		Type	Examples			PCD	Cermet	Carbide							
								IN90D	IN0560	IN2504	IN10K	IN2010		IN2540	IN2505
P	1 thru 5	Non-alloy Steel	1018, A36, 1045, A572, 1070	400-1000	.003-.007						4	2	1	3	NO
	6 thru 9	Low-alloy Steel	4140, 4340, P20, 8620, 300M	350-700		1					4	2	1	3	
	10, 11	High-alloy Steel	H13, A2, D2, M2, T1	300-600							4	2	1	3	
				400-800		1									
M	12 thru 13	Stainless Steel (Ferritic & Martensitic)	410, 416, 440	350-600	.003-.006										YES
	14	Stainless Steel (Austenitic)	303, 304, 316, 15-5, 17-4	300-550							3	2	1		May not be required at high speeds
K	15 thru 16	Gray Cast Iron	CLS. 20, 30, 45	500-1000	.003-.007										NO
	17 thru 20	Nodular Cast Iron	60-40-18, 100-70-03	400-800			2	1			3			4	
N	21 thru 30	Aluminum	7075, 6061	1000-3000	.003-.008	1			1						YES
S	31 thru 35	High-Temp Alloys	Inconel, Hastelloy, Nimonic, Monel	65-150	.003-.005							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, 01, 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.