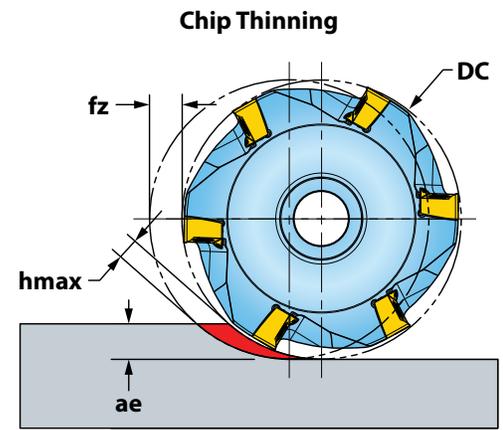# ISOPLUS™ DJ_T / DL_T OPERATING GUIDELINES

Chip Thinning

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

ISO	Mat'l Group #VDI 3323	Type	Examples	Vc Cutting Speed SFM	fz* Feed/Tooth (inch)	Ceramic IN71N	IN2540	IN2510	IN4015 IN6515	IN2505	IN2530 IN4030	Coolant
P	1 - 5	Non-alloy Steel	1018, A36, 1045, A572, 1070	400-1000	.003-.015		3			2	1	No
	6 - 9	Low-alloy Steel	4140, 4340, P20, 8620, 300M	350-700								
	10 - 11	High-alloy Steel	H13, A2, D2, M2, T1	300-600								
M	12 - 13	Stainless Steel (Ferritic & Martensitic)	410, 416, 440	400-700	.003-.008		3			2	1	May not be required at high speeds
	14	Stainless Steel (Austenitic)	303, 304, 316, 15-5, 17-4	300-600								
K	15 - 16	Gray Cast Iron	CLS. 20, 30, 45	500-1000	.003-.010			1	2	3	4	No
				1800-3000	.003-.008	1						
	17 - 20	Nodular Cast Iron	60-40-18, 100-70-03	400-800	.003-.009			2	1	3	4	No
				1500-2500	.003-.007	1						
S	31 - 35	High-Temp Alloys	Inconel, Hastelloy, Nimonic, Monel	75-120	.003-.006					2	1	Yes
	36 - 37	Titanium Alloys	6Al-4V, 5Al-5Mo-5V-3Cr	100-150	.004-.007					1	2	

Materials | | | | Harder <----------------------------> Tougher (Carbide)

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.

Member IMC Group
Ingersoll Cutting Tools