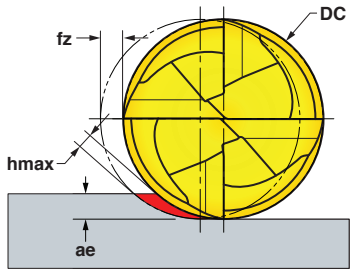
CHIPoSURFER™ TECHNICAL INFORMATION - SERIES 45U, 48U

Chip Thinning



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

Materials				Vc Cutting Speed SFM	fz Feed/Tooth (inch)	Coolant
ISO	Mat'l Group	Type	Examples			
P	1-5	Non-alloy Steel	1018, A36, 1045, A572, 1070	350-600	.002-.004	No
	6-9	Low-alloy Steel	4140, 4340, P20, 8620, 300M			
	10-11	High-alloy Steel	H13, A2, D2, M2, T1	300-500		
M	12-13	Stainless Steel (Ferritic & Martensitic)	410, 416, 440	250-500	.002-.004	Yes
	14	Stainless Steel (Austenitic)	303, 304, 316, 15-5, 17-4			May not be required at high speeds
K	15-16	Gray Cast Iron	CLS. 20, 30, 45	450-700	.003-.005	No
	17-20	Nodular Cast Iron	60-40-18, 100-70-03	400-600	.003-.004	
S	31-35	High-Temp Alloys	Inconel, Hastelloy, Nimonic, Monel	75-125	.002-.004	Yes
	36-37	Titanium Alloys	6Al-4V, 5Al-5Mo-5V-3Cr	125-200		

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.