

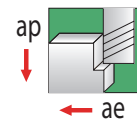
GARR TOOL High Performance Milling Guide for VRX-6 (HIGH EFFICIENCY MILLING)

NOTE - DATA DOES NOT REFLECT CHIP THINNING.

SPINDLE INTERFACE MUST BE SCRUTINIZED WHEN USING 16mm DIAMETER AND LARGER END MILLS

	ISO Material	HRC	M/Min. (Vc)	CHIPLOAD PER TOOTH (Fz)						
				6.0mm	8.0mm	10.0mm	12.0mm	16.0mm	20.0mm	25.0mm
S	COBALT BASE ALLOYS									
	Haynes 25/188, Stellite 21, Cobalt Chrome	< 40 > 40	35 - 70 30 - 57	.015 - .030 .010 - .025	.015 - .033 .010 - .030	.015 - .036 .013 - .033	.028 - .058 .020 - .051	.028 - .058 .023 - .053	.030 - .071 .025 - .066	.056 - .117 .041 - .102
	NICKEL BASE ALLOYS									
	Inconel-625/718, Waspaloy, Invar, Rene, Hastelloy, Monel	< 40 > 40	35 - 70 30 - 57	.015 - .033 .008 - .018	.020 - .035 .013 - .028	.020 - .041 .018 - .038	.030 - .061 .020 - .051	.030 - .064 .028 - .056	.041 - .081 .036 - .076	.061 - .122 .041 - .102
	IRON BASE ALLOYS									
	A286, Discaloy, Haynes 556, Carpenter 22, Greek Ascocolloy	< 40 > 40	35 - 70 30 - 57	.015 - .030 .008 - .018	.020 - .033 .010 - .025	.020 - .036 .013 - .033	.028 - .058 .018 - .048	.030 - .061 .025 - .056	.041 - .071 .025 - .066	.056 - .117 .036 - .097
	TITANIUM ALLOYS									
	Commercially Pure, 6Al-4V, Astm 1/2/3, 6Al-25N-4Zr-2Mo-Si		75 - 140	.025 - .038	.030 - .050	.038 - .064	.051 - .076	.064 - .089	.076 - .127	.102 - .152
	5553 / Beta Titanium		57 - 110	.020 - .036	.025 - .046	.030 - .056	.041 - .071	.058 - .086	.061 - .112	.081 - .142
	M	STAINLESS STEELS								
13/8, 15/5, 17-4, pH Types		< 40 > 40	85 - 140 65 - 105	.020 - .038 .015 - .033	.023 - .040 .020 - .038	.025 - .043 .023 - .041	.041 - .076 .030 - .066	.046 - .079 .033 - .071	.051 - .086 .046 - .081	.081 - .152 .061 - .132
300 Series, 304L, Nitronic 50, Duplex, Super-Austenitic		< 40 > 40	95 - 150 65 - 105	.020 - .038 .015 - .033	.023 - .040 .018 - .035	.025 - .043 .020 - .038	.041 - .076 .030 - .066	.043 - .071 .036 - .061	.051 - .086 .041 - .076	.081 - .152 .056 - .097
400 Series - 403, 405, 420, 455		< 40 > 40	85 - 160 65 - 125	.020 - .041 .015 - .036	.023 - .043 .020 - .040	.025 - .046 .023 - .043	.041 - .081 .030 - .071	.051 - .089 .033 - .076	.051 - .091 .046 - .086	.081 - .163 .061 - .142
HIGH STRENGTH TOOL STEELS										
A2, D2, P20, H13, S7, O1	< 40 > 40	85 - 150 57 - 125	.020 - .038 .015 - .033	.025 - .048 .022 - .042	.033 - .058 .030 - .051	.046 - .061 .041 - .056	.061 - .086 .051 - .071	.086 - .112 .061 - .081	.091 - .122 .076 - .102	
P	MEDIUM ALLOY TOOL STEELS									
	4140, 4340, 52100, 6150, 8620	< 40 > 40	130 - 190 95 - 140	.025 - .041 .018 - .030	.029 - .051 .025 - .041	.033 - .061 .030 - .051	.046 - .061 .041 - .056	.061 - .086 .051 - .071	.086 - .112 .061 - .081	.091 - .122 .076 - .102
	CARBON STEELS									
1000's - 1018, 1020, 12L14	< 40	140 - 230	.025 - .043	.029 - .053	.033 - .064	.046 - .061	.061 - .086	.086 - .112	.091 - .122	
K	CAST MATERIAL									
	Ductile Iron		130 - 200	.030 - .048	.034 - .056	.038 - .066	.061 - .097	.066 - .127	.076 - .132	.122 - .193
	Gray Iron		170 - 225	.033 - .053	.037 - .061	.041 - .069	.066 - .107	.071 - .132	.081 - .163	.132 - .213

	Profile/Trochoidal Milling
Axial (ap)	up to 2xD
Radial (ae)	5% - 15% of Dia.



NOTE - ABOVE ARE STARTING PARAMETERS ONLY. HIGHER RESULTS MAY BE ACHIEVED WITH OPTIMUM CONDITIONS.