



### VI-Pro Variable Index End Mills - 4 Flute

Material Guide		HRc	SFM		FEED PER TOOTH									
			Stub, Reg Length	Long, Xlong Length	1/8"	3/16"	1/4"	5/16"	3/8"	7/16"	1/2"	5/8"	3/4"	1"
COBALT BASE ALLOYS	Stellite, HS - 21, Haynes 25/188, X - 40, L - 605	under 32	275 - 350	220 - 280	.0004	.0005	.0009	.0010	.0012	.0014	.0016	.0019	.0024	.0029
		over 32	175 - 250	140 - 200	.0008	.0011	.0016	.0018	.0019	.0021	.0028	.0031	.0037	.0041
NICKEL BASE ALLOYS	Inconel - 625/718, Waspalloy, Rene, Hastelloy	under 32	200 - 300	160 - 240	.0004	.0005	.0009	.0010	.0012	.0014	.0016	.0019	.0024	.0029
		over 32	125 - 200	100 - 160	.0008	.0011	.0016	.0018	.0019	.0021	.0028	.0031	.0037	.0041
IRON BASE ALLOYS	Incoloy 800 - 802, Multimet N - 155, Timkin 16 - 25 - 6, Carpeneter 22 - b3	under 32	250 - 350	200 - 280	.0004	.0005	.0009	.0010	.0012	.0014	.0016	.0019	.0024	.0029
		over 32	200 - 250	160 - 200	.0008	.0011	.0016	.0018	.0019	.0021	.0028	.0031	.0037	.0041
MONEL	Monel - 65% Nickel		275 - 350	220 - 280	.0004	.0009	.0014	.0015	.0017	.0019	.0026	.0029	.0035	.0039
					.0008	.0011	.0016	.0017	.0019	.0021	.0028	.0031	.0037	.0041
TITANIUM ALLOYS	Commercially Pure, 6AL - 4V, Astm 1/2/3, 6Al - 25N - 4Zr - 2Mo - Si		250 - 400	200 - 320	.0004	.0009	.0014	.0015	.0017	.0019	.0026	.0029	.0035	.0039
					.0008	.0011	.0016	.0017	.0019	.0021	.0028	.0031	.0037	.0041
STAINLESS STEEL (PRECIPITATION)	13/8, 15/5, 17 - 4, AM - 350/355	under 32	250 - 300	200 - 240	.0004	.0009	.0014	.0016	.0017	.0019	.0026	.0029	.0035	.0039
		over 32	200 - 250	160 - 200	.0008	.0011	.0016	.0020	.0025	.0031	.0032	.0037	.0039	.0041
STAINLESS STEEL (AUSTENITIC)	200 Series, 302, 303, 304, 304L, 316, 316L	under 32	250 - 375	200 - 300	.0004	.0009	.0014	.0016	.0017	.0019	.0026	.0029	.0035	.0039
		over 32	200 - 250	160 - 200	.0008	.0011	.0016	.0020	.0025	.0031	.0032	.0037	.0039	.0041
STAINLESS STEEL (MARTENSITIC)	403, 410, 416, 440		250 - 300	200 - 240	.0004	.0009	.0014	.0016	.0017	.0019	.0026	.0029	.0035	.0039
					.0008	.0011	.0016	.0020	.0025	.0031	.0032	.0037	.0039	.0041
HIGH STRENGTH TOOL STEELS	4140, 4340, 6150, 5210, A2, D2 P20, H11, H13, S2, O1	under 32	250 - 350	200 - 280	.0004	.0009	.0014	.0016	.0017	.0019	.0026	.0029	.0035	.0039
		over 32	150 - 200	120 - 160	.0008	.0011	.0016	.0020	.0025	.0031	.0032	.0037	.0039	.0041
MEDIUM ALLOY STEELS	200, 250, 300	under 32	210 - 300	170 - 240	.0004	.0009	.0014	.0016	.0017	.0019	.0026	.0029	.0035	.0039
		over 32	130 - 170	100 - 135	.0008	.0011	.0016	.0020	.0025	.0031	.0032	.0037	.0039	.0041
CARBON STEELS	1000's, 1100's, 1300's		420 - 450	335 - 360	.0004	.0011	.0018	.0024	.0030	.0033	.0035	.0039	.0041	.0054
					.0008	.0013	.0020	.0026	.0032	.0035	.0037	.0041	.0043	.0056
DUCTILE	Ductile Cast Irons		420 - 450	335 - 360	.0004	.0011	.0018	.0024	.0030	.0033	.0035	.0039	.0041	.0054
					.0008	.0013	.0020	.0026	.0032	.0035	.0037	.0041	.0043	.0056
CAST IRONS	Gray Cast Irons		420 - 450	335 - 360	.0004	.0011	.0018	.0024	.0030	.0033	.0035	.0039	.0041	.0054
					.0008	.0013	.0020	.0026	.0032	.0035	.0037	.0041	.0043	.0056