



Cobalt Roughing										
Material Guide		Conditions	SFM	Suggested Chip Load Per Tooth						
				1/4	1/2	3/4	1	1 1/4	1 1/2	2
COBALT BASE ALLOYS	Stellite, HS-21, Haynes 25/188, X-40, L-605	Slotting Axial 1 x D	5-25	.0011	.0014	.0018	.0026	.0033	.0040	.0053
		Heavy Profiling		.0011	.0014	.0020	.0029	.0037	.0045	.0059
NICKEL BASE ALLOYS	Inconel-625/718, Waspalloy, Rene, Hastelloy	Slotting Axial 1 x D	10-20	.0011	.0014	.0018	.0026	.0033	.0040	.0053
		Heavy Profiling		.0011	.0014	.0020	.0029	.0037	.0045	.0059
IRON BASE ALLOYS	Incoloy 800-802, Multimet N-155, Timkin 16-25-6, Carpeneter 22-b3	Slotting Axial 1 x D	15-35	.0011	.0014	.0018	.0026	.0033	.0040	.0053
		Heavy Profiling		.0011	.0014	.0020	.0029	.0037	.0045	.0059
MONEL	Monel-65% Nickel	Slotting Axial 1 x D	10-20	.0011	.0014	.0018	.0026	.0033	.0040	.0053
		Heavy Profiling		.0011	.0014	.0020	.0029	.0037	.0045	.0059
TITANIUM ALLOYS	Commercially Pure, 6AL-4V, Astm 1/2/3, 6Al-25N-4Zr-2Mo-Si	Slotting Axial 1 x D	50-90	.0015	.0020	.0028	.0040	.0052	.0062	.0080
		Heavy Profiling		.0017	.0022	.0030	.0045	.0057	.0067	.0090
STAINLESS STEEL (PRECIPITATION)	13/8, 15/5, 17-4, AM-350/355	Slotting Axial 1 x D	60-80	.0015	.0020	.0026	.0036	.0046	.0054	.0070
		Heavy Profiling		.0015	.0020	.0029	.0040	.0050	.0060	.0075
STAINLESS STEEL (AUSTENITIC)	200 Series, 302, 303, 304, 316, 304L, 316L	Slotting Axial 1 x D	60-80	.0015	.0020	.0030	.0045	.0056	.0067	.0090
		Heavy Profiling		.0019	.0025	.0034	.0049	.0061	.0074	.0098
STAINLESS STEEL (MARTENSITIC)	403, 410, 416, 440	Slotting Axial 1 x D	60-100	.0015	.0020	.0030	.0045	.0056	.0067	.0090
		Heavy Profiling		.0019	.0025	.0034	.0049	.0061	.0074	.0098
HIGH STRENGTH TOOL STEELS	4140, 4340, 6150, 5210, A2 D2 P20, H11, H13, S2, O1	Slotting Axial 1 x D	50-80	.0015	.0020	.0025	.0035	.0045	.0053	.0071
		Heavy Profiling		.0015	.0020	.0028	.0039	.0050	.0059	.0079
MEDIUM ALLOY STEELS	200, 250, 300	Slotting Axial 1 x D	60-120	.0016	.0023	.0033	.0050	.0032	.0075	.0093
		Heavy Profiling		.0020	.0027	.0040	.0054	.0070	.0082	.0110
LOW CARBON STEELS	A36, 12L14, 12L15, 1005, 1018, 1020, 1108-1119, 1213-1215, 1513-1518, 4012, 5015, 9310	Slotting Axial 1 x D	70-150	.0018	.0025	.0037	.0053	.0068	.0080	.0100
		Heavy Profiling		.0022	.0029	.0042	.0059	.0074	.0090	.0115
DUCTILE	Ductile Cast Irons	Slotting Axial 1 x D	40-80	.0015	.0019	.0030	.0042	.0056	.0065	.0087
		Heavy Profiling		.0018	.0024	.0034	.0048	.0061	.0073	.0093
CAST IRONS	Gray Cast Irons	Slotting Axial 1 x D	60-150	.0014	.0018	.0024	.0034	.0044	.0053	.0070
		Heavy Profiling		.0014	.0018	.0027	.0038	.0050	.0058	.0078
ALUMINUM	2014, 2024, 6061-(T1-T6), 7075 Die Cast, Extruded	Slotting Axial 1 x D	400-650	.0024	.0058	.0067	.0103	.0112	.0180	.0210
		Heavy Profiling		.0027	.0058	.0076	.1100	.0120	.0205	.0260

THESE VALUES ARE A STARTING POINT BASED ON A UNCOATED TOOL.
FOR AITIN COATED TOOLS INCREASE VALUES BY UP TO +40%