



the mark of performance

RECOMMENDED STARTING SPEEDS AND FEEDS RATES FOR RAPTOR 3/6 (ALTiN COATING)

-MEDIUM TO LIGHT PROFILING-

Materials Group (Under 32 HRC)	Speed SFM	Feed (Inch / Tooth) End Mill							
		1/8"	3/16"	1/4"	3/8"	1/2"	5/8"	3/4"	1"
STAINLESS STEEL									
Precipitation PH 13-8 MO, 15-5 PH, AM 350-355	250	.0003	.0005	.001	.002	.0025	.003	.0035	.004
Austenitic 200 Series, 302, 303, 304L, 316L	300	.0003	.0005	.001	.002	.0025	.003	.0035	.004
Martensitic 403, 410, 416	400	.0003	.0005	.001	.002	.0025	.003	.0035	.004
HIGH TEMP ALLOYS									
Cobalt Base Stellite, HS-21, Haynes 25/188, x-40, L-605	120	.0002	.0004	.0008	.0015	.002	.0025	.003	.0035
Nickel Base INCONEL 600/625, Nickel 200-270, Monel 400-405 K-Monel, PermaNickel300, Incoly 600-800	110	.0002	.0004	.0008	.0015	.002	.0025	.003	.0035
Iron Base Incoly 600-802, Multimet N-155, Timken 16-25-6	120	.0002	.0004	.0008	.0015	.002	.0025	.003	.0035
STEELS									
High Steels Strength 4340, 6150, 52100, H-11, H13	400	.0003	.0005	.001	.002	.0025	.003	.003	.004
High Alloy Steels Mold & Die A-2/6/10, P-3/10, 01, 02, 06	180	.0003	.0005	.001	.002	.0025	.003	.0035	.004
Medium Alloy Steels 200, 250, 300	400	.0003	.0005	.001	.002	.0025	.003	.004	.005
Low Alloy Steels Maraging 10XX, 11XX, 13XX	500	.0004	.0006	.0015	.0025	.003	.0035	.005	.005
CAST IRON									
Ductile Iron Ductile Cast Iron	500	.0004	.0006	.0015	.0025	.003	.0035	.004	.005
Cast Iron Grey Cast Iron	500	.0004	.0006	.0015	.0025	.003	.0035	.004	.005
TITANIUM									
Titanium Alloys Commercially Pure, 6AL-4V, ASTM 1/2/3, 6AL-25N-4Zr-2Mo-Si	300	.0003	.001	.0015	.002	.0025	.003	.0035	.004
Materials Group (Over 32 HRC)	Speed SFM	Feed (Inch / Tooth) End Mill							
		1/8"	3/16"	1/4"	3/8"	1/2"	5/8"	3/4"	1"
STAINLESS STEEL									
Precipitation 17/4, 17/7, AF-71, Custom 450/635, 15/7Mo, 21-6-9	180	.0003	.0005	.001	.002	.0025	.003	.0035	.004
Austenitic 304, 310, 314, 316, 321, 330, 347, 348, 21-6-9	200	.0003	.0005	.001	.002	.0025	.003	.0035	.004
Martensitic 420, 430F, 440C, 446	250	.0003	.0005	.001	.002	.0025	.003	.0035	.004
HIGH TEMP ALLOYS									
Cobalt Base AirResist 13/21/215, Haynes 21/36, NASA Co-W-Re	90	.0002	.0004	.0008	.0015	.002	.0025	.003	.0035
Nickel Base Hastelloy-C/B/G/X, INCONEL 718/X/W, Waspaloy, Rene 41-95, Nimonic 75-80, M-252, Astrology 90-263	75	.0002	.0004	.0008	.0015	.002	.0025	.003	.0035
Iron Base A-286, Haynes 556, Discaloy, V-57	90	.0002	.0004	.0003	.0015	.002	.0025	.003	.0035
STEELS									
High Steels Strength 4340M, EDT-150, 300M, D6-Ac, 11-1C	300	.0003	.0005	.001	.002	.0025	.003	.0035	.004
High Alloy Steels Mold & Die Hy-Tugg, Stressproof, ArmorPlate	150	.0003	.0005	.001	.002	.0025	.003	.0035	.004
Medium Alloy Steels 200, 250, 300	300	.0003	.0005	.001	.002	.0025	.003	.0035	.004
Low Alloy Steels Maraging 23XX, 31XX	400	.0004	.0006	.0015	.0025	.003	.0035	.004	.005
CAST IRON									
Ductile Iron Ductile Cast Iron	250	.0004	.0006	.0015	.0025	.003	.0035	.004	.005
Cast Iron Malleable, Chilled	250	.0004	.0006	.0015	.0025	.003	.0035	.004	.005
TITANIUM									
Titanium Alloys 5AL-2.5n-Eli, 8Al-1, Mo-1V	180	.0003	.0005	.001	.002	.0025	.003	.0035	.004