

# SPEED & FEED:

2, 3, & 4 FLUTES: AMG, EMG, & CCMG SERIES



MATERIAL	CONDITIONS	START-ING SFM	FL	CUTTING DIAMETER									
				.005 - .015	.015 - .030	.030 - .045	.045 - .060	.060 - .075	.075 - .090	.090 - .105	.105 - .125		
<b>STAINLESS STEELS ISO-M</b>				CHIP PER TOOTH									
<b>Precipitation</b> 13-8, 15-5, 17-4PH	Slotting @ $\leq 10\%$ of D	90	2 or 4	0.0002	0.0002	0.0003	0.0003	0.0004	0.0004	0.0005	0.0005	0.0005	0.0005
	Profiling @ 6% of D Axial / $\leq 20\%$ of D Radial	250	2 or 4	0.0002	0.0002	0.0003	0.0003	0.0004	0.0004	0.0005	0.0005	0.0005	0.0005
<b>Austenitic</b> 302, 303, 304L, 316L	Slotting @ $\leq 15\%$ of D	100	2 or 4	0.0002	0.0002	0.0003	0.0003	0.0004	0.0004	0.0005	0.0005	0.0005	0.0005
	Profiling @ 6% of D Axial / $\leq 30\%$ of D Radial	250	2 or 4	0.0002	0.0002	0.0003	0.0003	0.0004	0.0004	0.0005	0.0005	0.0005	0.0005
<b>Martensitic</b> 403, 410, 416	Slotting @ $\leq 15\%$ x D	100	2 or 4	0.0002	0.0002	0.0003	0.0003	0.0004	0.0004	0.0005	0.0005	0.0005	0.0005
	Profiling @ 6% of D Axial / $\leq 30\%$ of D Radial	250	2 or 4	0.0002	0.0002	0.0003	0.0003	0.0004	0.0004	0.0005	0.0005	0.0005	0.0005
<b>HIGH TEMP ALLOYS ISO-S</b>													
<b>Cobalt Base</b> Stellite, Haynes 25, 188, X-40, L-605	Slotting @ 7% of D	50	2 or 4	0.0001	0.0001	0.0002	0.0002	0.0003	0.0003	0.0004	0.0004	0.0004	0.0004
	Profiling @ 5% of D Axial / $\leq 20\%$ of D Radial	80	2 or 4	0.0001	0.0001	0.0002	0.0002	0.0003	0.0003	0.0004	0.0004	0.0004	0.0004
<b>Nickel Base</b> Inconel 600, 625, 718, Nickel 200, 270, Invar, Monel 400, 405, K-Monel, PermaNickel 300, Incoloy 600	Slotting @ 7% of D	40	2 or 4	0.0001	0.0001	0.0002	0.0002	0.0003	0.0003	0.0004	0.0004	0.0004	0.0004
	Profiling @ 5% of D Axial / $\leq 20\%$ of D Radial	60	2 or 4	0.0001	0.0001	0.0002	0.0002	0.0003	0.0003	0.0004	0.0004	0.0004	0.0004
<b>Iron Base</b> Incoloy 800-802, Multimet N-155, Timken 16-26-6	Slotting @ 7% of D	80	2 or 4	0.0001	0.0001	0.0002	0.0002	0.0003	0.0003	0.0004	0.0004	0.0004	0.0004
	Profiling @ 5% of D Axial / $\leq 20\%$ of D Radial	100	2 or 4	0.0001	0.0001	0.0002	0.0002	0.0003	0.0003	0.0004	0.0004	0.0004	0.0004
<b>STEELS ISO-P</b>													
<b>High Strength Steels</b> 4140, 4340, 52100	Slotting @ $\leq 15\%$ of D	100	2 or 4	0.0002	0.0002	0.0003	0.0003	0.0004	0.0004	0.0005	0.0005	0.0005	0.0005
	Profiling @ 6% of D Axial / $\leq 30\%$ of D Radial	180	2 or 4	0.0002	0.0002	0.0003	0.0003	0.0004	0.0004	0.0005	0.0005	0.0005	0.0005
<b>High Alloy Steels - Mold &amp; Die</b> A-2, P20, 01, 02, D2, H-13	Slotting @ $\leq 10\%$ of D	125	2 or 4	0.0002	0.0002	0.0003	0.0003	0.0004	0.0004	0.0005	0.0005	0.0005	0.0005
	Profiling @ 6% of D Axial / $\leq 20\%$ of D Radial	250	2 or 4	0.0002	0.0002	0.0003	0.0003	0.0004	0.0004	0.0005	0.0005	0.0005	0.0005
<b>Medium Alloy Steels</b> 200, 250, 300	Slotting @ $\leq 15\%$ of D	125	2 or 4	0.0003	0.0003	0.0004	0.0004	0.0005	0.0005	0.0006	0.0006	0.0006	0.0006
	Profiling @ 6% of D Axial / $\leq 30\%$ of D Radial	250	2 or 4	0.0003	0.0003	0.0004	0.0004	0.0005	0.0005	0.0006	0.0006	0.0006	0.0006
<b>Low Alloy Steels-Maraging</b> 10XX, 11XX, 13XX	Slotting @ $\leq 15\%$ of D	150	2 or 4	0.0004	0.0004	0.0005	0.0005	0.0006	0.0006	0.0007	0.0007	0.0007	0.0007
	Profiling @ 6% of D Axial / $\leq 35\%$ of D Radial	300	2 or 4	0.0004	0.0004	0.0005	0.0005	0.0006	0.0006	0.0007	0.0007	0.0007	0.0007
<b>CAST IRONS ISO-K</b>													
<b>Ductile Iron</b> Ductile Cast Iron	Slotting @ 15% of D	100	2 or 4	0.0004	0.0004	0.0005	0.0005	0.0006	0.0006	0.0007	0.0007	0.0007	0.0007
	Profiling @ 10% of D Axial / $\leq 25\%$ of D Radial	250	2 or 4	0.0004	0.0004	0.0005	0.0005	0.0006	0.0006	0.0007	0.0007	0.0007	0.0007
<b>Cast Iron</b> Grey Cast Iron	Slotting @ 25% of D	125	2 or 4	0.0004	0.0004	0.0005	0.0006	0.0008	0.0008	0.0010	0.0010	0.0010	0.0010
	Profiling @ 10% of D Axial / $\leq 35\%$ of D Radial	400	2 or 4	0.0004	0.0004	0.0005	0.0006	0.0008	0.0008	0.0010	0.0010	0.0010	0.0010
<b>TITANIUMS ISO-S</b>													
<b>Titanium Alloys</b> 6AL-4V, ASTM 1, 2, 3, 6AL-2S For 553, decrease SFM and IPM by 25%	Slotting @ $\leq 15\%$ of D	125	2 or 4	0.0002	0.0002	0.0003	0.0003	0.0004	0.0004	0.0005	0.0005	0.0005	0.0005
	Profiling @ 6% of D Axial / $\leq 20\%$ of D Radial	250	2 or 4	0.0002	0.0002	0.0003	0.0003	0.0004	0.0004	0.0005	0.0005	0.0005	0.0005
<b>ALUMINUM ISO-N</b>													
<b>Aluminum Alloys</b> 6061-T6, 7075	Slotting @ $\leq 15\%$ of D	650	2 or 4	0.0004	0.0004	0.0005	0.0006	0.0008	0.0008	0.0010	0.0010	0.0010	0.0010
	Profiling @ 10% of D Axial / $\leq 35\%$ of D Radial	775	2 or 4	0.0004	0.0004	0.0005	0.0006	0.0008	0.0008	0.0010	0.0010	0.0010	0.0010

Note: All technical data provided are suggested starting points. They may be increased or decreased depending on machine condition, depth of cut, finish required, coolant, etc.

