



The AMA series is designed for outstanding performance in nickel and cobalt based high temperature alloys, as well as other difficult to machine materials. The corrosion and heat resistance of the nickel and cobalt based metals give rise to corresponding machining challenges. Examples of frequently encountered nickel based alloys include Waspalloy, Hastelloy, Inconel 718 and Inconel 625. Cobalt based alloys include, but are not limited to, Stellite, Haynes 188 and Haynes 230.

Carbide Feeds and Speeds Chart for High Temp Alloys

	Materials	Iron Based	Iron-Nickel Based	Nickel-Iron Based	Cobalt Based
	DESCRIPTION	A286, Discaloy, Incoloy 801, ASTM A297	Hastelloy X, N-155, Inconel 718	Inconel 600/625, Rene Alloys, Waspalloy, Monel, Invar	Stellite, Haynes 188, Haynes 230, AiResist 13
	SFM < 32 Rc	70 - 120	70 - 120	60 - 110	60 - 110
	SFM > 32 Rc	40 - 90	40 - 90	40 - 90	40 - 90
1/8	S	0.0006	0.0006	0.0005	0.0005
	HP	0.0008	0.0008	0.0007	0.0007
	LP	0.0010	0.0010	0.0008	0.0008
	F	0.0018	0.0018	0.0014	0.0014
3/16	S	0.0007	0.0007	0.0006	0.0006
	HP	0.0010	0.0010	0.0008	0.0008
	LP	0.0011	0.0011	0.0009	0.0009
	F	0.0020	0.0020	0.0016	0.0016
1/4"	S	0.0009	0.0009	0.0007	0.0007
	HP	0.0012	0.0012	0.0010	0.0010
	LP	0.0014	0.0014	0.0011	0.0011
	F	0.0025	0.0025	0.0020	0.0020
5/16"	S	0.0011	0.0011	0.0009	0.0009
	HP	0.0016	0.0016	0.0013	0.0013
	LP	0.0019	0.0019	0.0015	0.0015
	F	0.0033	0.0033	0.0026	0.0026
3/8"	S	0.0015	0.0015	0.0012	0.0012
	HP	0.0021	0.0021	0.0017	0.0017
	LP	0.0025	0.0025	0.0020	0.0020
	F	0.0045	0.0045	0.0036	0.0036
1/2"	S	0.0018	0.0018	0.0014	0.0014
	HP	0.0024	0.0024	0.0019	0.0019
	LP	0.0026	0.0026	0.0021	0.0021
	F	0.0047	0.0047	0.0038	0.0038
5/8"	S	0.0025	0.0025	0.0020	0.0020
	HP	0.0036	0.0036	0.0029	0.0029
	LP	0.0050	0.0050	0.0040	0.0040
	F	0.0080	0.0080	0.0064	0.0064
3/4"	S	0.0028	0.0028	0.0022	0.0022
	HP	0.0040	0.0040	0.0032	0.0032
	LP	0.0053	0.0053	0.0042	0.0042
	F	0.0085	0.0085	0.0068	0.0068
1"	S	0.0035	0.0035	0.0028	0.0028
	HP	0.0043	0.0043	0.0034	0.0034
	LP	0.0060	0.0060	0.0048	0.0048
	F	0.0108	0.0108	0.0086	0.0086

S = SLOTTING
Axial Depth up to
1.0 x Diameter
Radial width .5 x Diameter

HP = HEAVY PERIPHERAL
Axial Depth up to
1.5 - 2.0 x Diameter
Radial width .3 x Diameter

LP = LIGHT PERIPHERAL
Axial Depth up to
Effective Length of Cut
Radial width .02 x Diameter

FINISH = FINISH OPERATION
Axial Depth up to
Effective Length of Cut
Radial width .02 x Diameter