



# SFPM / Chipload Chart

PERFORMANCE YOU CAN TRUST, QUALITY YOU CAN MEASURE

Materials	Aluminum	Carbon Steels	Alloy Steel	Stainless				Cast Iron		High Temp Alloys			Tool Steels		Mold Steel
	Description	2024, 6061, 7075	10XX, 11XX, 13XX, 15XX	40XX, 41XX, 42XX, 43XX, 44XX, 86XX Series	303	304, 304L, 316, 316L	410, 416, 420, 430F, 440C	13-8PH, 15-4PH, 16-6PH, 17-4PH	Gray	Ductile	Inconel 600 / 718, A286, Haynes	Pure Titanium	Wrought/ Cast 6AL4, ASTM 1, 2 & 3 Alpha - Beta	A2, S7, H1, H13	D2
SFPM <32RC	800-2000	200 - 450	150 - 300	150 - 350	150 - 250	200 - 450	80 - 250	250 - 450	120 - 350	70 - 120	140 - 220	140 - 200	90 - 140	250 - 450	150 - 250
SFPM >32RC		100 - 250	80 - 200	80 - 200		100 - 250	90 - 125	130 - 300	80 - 140	40 - 90	90 - 160	90 - 160	80 - 120	100 - 160	80 - 160
1/4"	S	.0030	.0014	.0012	.0013	.0012	.0013	.0012	.0012	.0008	.0012	.0012	.0008	.0008	.0010
	HP	.0040	.0017	.0012	.0013	.0012	.0013	.0010	.0013	.0014	.0009	.0014	.0012	.0010	.0012
	LP	.0060	.0019	.0016	.0013	.0012	.0014	.0013	.0013	.0015	.0012	.0014	.0014	.0012	.0013
3/8"	S	.0050	.0018	.0016	.0016	.0015	.0016	.0015	.0015	.0018	.0014	.0016	.0015	.0015	.0015
	HP	.0060	.0018	.0016	.0018	.0015	.0015	.0015	.0016	.0018	.0014	.0016	.0016	.0016	.0016
	LP	.0080	.0025	.0022	.0022	.0016	.0016	.0016	.0016	.0018	.0015	.0022	.0018	.0018	.0018
1/2"	S	.0060	.0030	.0025	.0027	.0025	.0025	.0025	.0025	.0027	.0020	.0026	.0025	.0025	.0025
	HP	.0070	.0030	.0030	.0032	.0030	.0030	.0028	.0028	.0030	.0022	.0025	.0025	.0026	.0020
	LP	.0120	.0035	.0032	.0035	.0035	.0038	.0035	.0038	.0040	.0025	.0030	.0030	.0030	.0030
5/8"	S	.0070	.0035	.0030	.0030	.0030	.0030	.0030	.0030	.0035	.0025	.0035	.0030	.0030	.0030
	HP	.0090	.0038	.0035	.0030	.0030	.0030	.0030	.0035	.0035	.0028	.0035	.0030	.0030	.0025
	LP	.0150	.0040	.0040	.0040	.0040	.0040	.0040	.0040	.0044	.0030	.0040	.0038	.0038	.0030
3/4"	S	.0080	.0040	.0040	.0040	.0035	.0035	.0035	.0035	.0040	.0028	.0040	.0038	.0038	.0032
	HP	.0150	.0050	.0040	.0043	.0040	.0040	.0040	.0040	.0045	.0035	.0040	.0040	.0040	.0035
	LP	.0200	.0060	.0050	.0050	.0045	.0040	.0040	.0040	.0045	.0040	.0050	.0045	.0050	.0045
1"	S	.0100	.0050	.0040	.0040	.0040	.0040	.0040	.0040	.0050	.0038	.0050	.0042	.0042	.0040
	HP	.0150	.0060	.0060	.0050	.0050	.0050	.0045	.0045	.0050	.0040	.0050	.0045	.0045	.0040
	LP	.0200	.0070	.0060	.0065	.0060	.0060	.0060	.0060	.0070	.0055	.0070	.0060	.0060	.0050
Stub and Regular Length				S = Slotting Axial Depth up to .5 X Diameter				HP = Heavy Peripheral Axial DOC = LOC Radial DOC = .5 X Diameter				LP = Light Profile Axial DOC = LOC Radial WOC = .15 X Diameter			
Medium Length				S = Slotting Not Recommended				HP = Heavy Peripheral Axial DOC = up to 1 X Diameter Radial DOC = .2 X Diameter				LP = Light Profile Axial DOC = up to 1.5 X Diameter Radial WOC = .1 X Diameter			