

												
Series 52, 54 Metric		Flutes	Ae x D ₁	Ap x D ₁	Vc (m/min)	Diameter (D ₁) (mm)						
						3	6	10	12	20	25	
N	ALUMINUM ALLOYS 2024, 5052, 5086, 6061, 6063, 7075		Profile		415	RPM	43947	21973	13184	10987	6592	5274
						Fz	0.0166	0.043	0.091	0.110	0.147	0.160
						Feed	1459	1890	2399	2417	1938	1688
						(mm/min)	2918	3779	4799	4834	3876	3375
			Slot		332	RPM	35222	17611	10567	8806	5283	4227
						Fz	0.0151	0.041	0.085	0.101	0.133	0.148
						Feed	1064	1444	1796	1779	1405	1251
						(mm/min)	2127	2888	3593	3557	2811	2502
					(266-399)	Fz	1064	1444	1796	1779	1405	1251
						Feed	2127	2888	3593	3557	2811	2502
						(mm/min)						
N	ALUMINUM DIE CAST ALLOYS (HIGH SILICON) A-390, A-392, B-390		Profile		155	RPM	16480	8240	4944	4120	2472	1978
						Fz	0.0166	0.043	0.091	0.110	0.147	0.160
						Feed	547	709	900	906	727	633
						(mm/min)	1094	1417	1800	1813	1454	1266
			Slot		125	RPM	13249	6624	3975	3312	1987	1590
						Fz	0.0151	0.041	0.085	0.101	0.133	0.148
						Feed	400	543	676	669	529	471
						(mm/min)	800	1086	1351	1338	1057	941
					(100-150)	Fz	400	543	676	669	529	471
						Feed	800	1086	1351	1338	1057	941
						(mm/min)						
N	COPPER ALLOYS Aluminum Bronze, Nuntz Brass, Naval, Brass, Red Brass		Profile		180	RPM	19065	9533	5720	4766	2860	2288
						Fz	0.0094	0.024	0.053	0.062	0.083	0.093
						Feed	358	458	606	591	475	426
						(mm/min)	717	915	1213	1182	949	851
			Slot		145	RPM	15349	7675	4605	3837	2302	1842
						Fz	0.0086	0.024	0.048	0.058	0.077	0.085
						Feed	264	368	442	445	355	313
						(mm/min)	528	737	884	890	709	626
					(116-174)	Fz	264	368	442	445	355	313
						Feed	528	737	884	890	709	626
						(mm/min)						
N	COPPER ALLOYS Beryllium Copper, C110, Manganese Bronze, Tin Bronze		Profile		72	RPM	7594	3797	2278	1898	1139	911
						Fz	0.0094	0.024	0.053	0.062	0.083	0.093
						Feed	143	182	241	235	189	169
						(mm/min)	286	365	483	471	378	339
			Slot		58	RPM	6140	3070	1842	1535	921	737
						Fz	0.0086	0.024	0.048	0.058	0.077	0.085
						Feed	106	147	177	178	142	125
						(mm/min)	211	295	354	356	284	250
					(46-69)	Fz	106	147	177	178	142	125
						Feed	211	295	354	356	284	250
						(mm/min)						
	PLASTICS ABS, Polycarbonate, PVC, Polypropylene		Profile		488	RPM	51702	25851	15511	12926	7755	6204
						Fz	0.0264	0.072	0.149	0.178	0.237	0.250
						Feed	2730	3723	4622	4601	3676	3102
						(mm/min)	5460	7445	9244	9203	7352	6204
			Slot		390	RPM	41362	20681	12409	10340	6204	4963
						Fz	0.0240	0.065	0.136	0.163	0.210	0.238
						Feed	1985	2689	3375	3371	2606	2363
						(mm/min)	3971	5377	6750	6742	5212	4725
					(312-468)	Fz	1985	2689	3375	3371	2606	2363
						Feed	3971	5377	6750	6742	5212	4725
						(mm/min)						
	PLASTICS Fiberglass, Glass Filled		Profile		219	RPM	23266	11633	6980	5816	3490	2792
						Fz	0.0197	0.053	0.109	0.132	0.173	0.190
						Feed	917	1233	1522	1536	1208	1061
						(mm/min)	1833	2466	3043	3071	2415	2122
			Slot		175	RPM	18580	9290	5574	4645	2787	2230
						Fz	0.0180	0.048	0.101	0.120	0.160	0.175
						Feed	669	892	1126	1115	892	780
						(mm/min)	1338	1784	2252	2230	1784	1561
					(140-210)	Fz	669	892	1126	1115	892	780
						Feed	1338	1784	2252	2230	1784	1561
						(mm/min)						

rpm = sfm x 3.82 / D1

ipm = (inch / flute) x number of flutes x rpm

reduce speed and feed for materials harder than listed

reduce feed and Ae when finish milling (.02 x D1 maximum)

refer to the SGS Tool Wizard for complete technical information ()