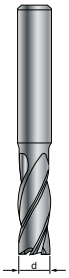
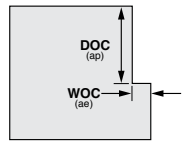
GS100 A (Rough-Tech Alu), GS100 U (Rough-Tech 48), GS100 H (Rough-Tech 56)

INCH





$$RPM = \frac{SFM}{d_1} \times 3.82$$

IPM = No. of teeth x IPT x RPM

For finishing use WOC (ae) .01 up to .1xd, use SFM from .25xd column, do not increase IPT from table values

Material	Hard-ness	TYPE	Surface feet per minute - SFM					Feed Rate Inch per Tooth - IPT							
			High Speed Milling			Rough	Slot	d1 End Mill Diameter							
			DOC 2xd			DOC 1xd									
			WOC .05xd	WOC .1xd	WOC .25xd	WOC .4 to .9xd	WOC 1xd	1/8 3.17mm	1/4 6.35mm	5/16 7.94mm	3/8 9.52mm	1/2 12.70mm	5/8 15.87mm	3/4 19.05mm	1 25.40mm
			2.5	2.3	1.5	1	1	Multiply IPT x this factor based on WOC							
Structural + free-cutting steels, unalloyed heat-treatable + case hardened steels A283, 1151, 1215, L10, 10Lxx, 11Lxx, 12Lxx, 41Lxx, 51Lxx, 86Lxx, 86Lxx, 10xx	up to 28 HRc	U	820	740	625	460	390	.0003	.0007	.0009	.0011	.0015	.0020	.0023	.0032
Free-cutting steels, unalloyed case hardened steels, nitriding steels 1151, 1215, L10, 10Lxx, 11Lxx, 12Lxx, 41Lxx, 51Lxx, 86Lxx, 86Lxx, 10xx, 11xx	28 to 38 HRc	U	690	630	530	390	330	.0003	.0007	.0009	.0011	.0015	.0020	.0023	.0032
Alloyed heat-treatable, tool and high speed steels 13xx, 2340, 31xx, 32xx, 33xx, 34xx, 40xx, 41xx, 43xx, 4640, 50xx, 51xx, 61xx, 71xx, 86xx, 87xx, 92xx, 98xx, 98xx, Ax, Ox, Dx, Hxx, Lx, Wx, Mx, Tx	28 to 44 HRc	U H	620	560	470	360	295	.0003	.0006	.0008	.0011	.0014	.0016	.0023	.0028
Hardened Steels Carbon and Alloy Steels, Tool & Die Steels	Up to 54 HRc	H	350	315	265	230	165	.0002	.0005	.0005	.0008	.0010	.0012	.0015	.0020
Stainless steel 303, 410, 420F, 430, 430F, 416	Up to 28 HRc	U	545	495	400	330	260	.0003	.0006	.0008	.0011	.0014	.0016	.0023	.0028
Stainless steel 304, 304L, 420, 17-4PH, 17-7PH, 15-5PH, 13-8PH	up tp 28 HRc	U	380	340	325	230	180	.0003	.0005	.0007	.0009	.0013	.0016	.0019	.0024
Stainless steel 310, 316, 316B, 316L, 317, Duplex	over 28 HRc	U	350	315	265	230	165	.0003	.0005	.0006	.0008	.0011	.0016	.0015	.0024
Titanium Alloys 6Al-4V, 5Al-2.5 Sn, 6Al-2Sn-4Zr-6Mo, 3Ai-8V-6Cr4Mo-4Zr, 10V-2Fe-3Ai, 13V-11Cr-3Ai	up to 42 HRc	U	315	285	250	195	150	.0003	.0005	.0006	.0008	.0011	.0016	.0015	.0024
High-Temperature Alloys Inconel, Nimonic, Monel, Hastelloy, Waspalloy, A286, Rene 41, Udimet, Stellite	up to 42 HRc	U	135	125	120	100	65	.0002	.0005	.0005	.0008	.0010	.0012	.0015	.0020
Cast iron, grey cast iron, spheroidal graphite and malleable cast iron 0.6010 EN-GL100 (GG10), 0.6020 EN-GJL-200 (GG20), 0.7050 EN-GJS-500-7 (GGG50), 0.8535 EN-GJMW-350-4 (GTW35)	up to 240 HB 30	U	695	625	530	395	330	.0003	.0007	.0009	.0011	.0015	.0020	.0023	.0032
Cast iron, grey cast iron, spheroidal graphite and malleable cast iron 0.6025 EN-GL250 (GG25), 0.6035 EN-GJL-350 (GG35), 0.7070 EN-GJS-700-2 (GGG70), 0.8170 EN-GJMB-700-2 (GTS70)	over 240 HB 30	H	620	560	470	360	295	.0003	.0006	.0008	.0011	.0014	.0016	.0023	.0028
Aluminum, Al-wrought alloys, Al-alloys 2024, 6061, 7075, 1050, 6351, 5005, 2017, 7075	up to 3% Si	A	2420	2185	1840	1345	1150	.0004	.0008	.0010	.0013	.0018	.0023	.0026	.0036
Aluminium-cast alloys 3.2131 G-AlSi5Cu1, 3.2153 G-AlSi7Cu3, 3.2573 G-AlSi9, 3.2581 G-AlSi12, 3.2583 G-AlSi12Cu, - G-AlSi12CuNiMg	over 3% Si	A	1240	1120	945	690	590	.0004	.0008	.0009	.0012	.0016	.0020	.0023	.0032
Magnesium-alloys MgMn2, G-MgAl8Zn1, G-MgAl6Zn3	–	A	830	750	630	460	395	.0004	.0008	.0009	.0012	.0016	.0020	.0023	.0032
Non-ferrous metals (copper, short- or long-chipping brass or bronze)	up to 28 HRc	A	1240	1120	945	690	590	.0004	.0008	.0009	.0012	.0016	.0020	.0023	.0032