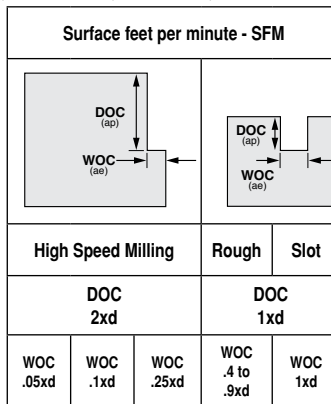
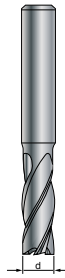


FEEDS & SPEEDS FOR RF100 U/HF, VA/NF, A/WF, RS100 U, F

INCH



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

$$IPM = \text{No. of teeth} \times IPT \times RPM$$

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

Material	Hardness	TYPE	DOC					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	Multiply IPT x this factor based on WOC	
			2.5	2.3	1.5	1	1										
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	VA/NF	920	840	700	520	440	.0004	.0008	.0001	.0012	.0016	.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	VA/NF	820	740	620	460	390	.0004	.0008	.0001	.0012	.0016	.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/HF	700	625	525	390	330	.0003	.0005	.0009	.0012	.0016	.0020	.0023	.0032		
Hardened Steels Carbon and Alloy Steels, Tool & Die Steels	Up to 54 HRc	U/HF	425	400	290	260	180	.0003	.0005	.0006	.0008	.0011	.0016	.0015	.0024		
Stainless steel 303, 410, 420F, 430, 430F, 416	Up to 28 HRc	VA/NF	630	570	360	360	300	.0003	.0007	.0009	.0011	.0015	.0020	.0023	.0032		
Stainless steel 304, 304L, 420, 17-4PH, 17-7PH, 15-5PH, 13-8PH	up to 28 HRc	VA/NF	440	400	260	260	210	.0003	.0006	.0008	.0011	.0014	.0016	.0023	.0028		
Stainless steel 310, 316, 316B, 316L, 317, Duplex	over 28 HRc	VA/NF	380	340	230	230	180	.0003	.0005	.0007	.0009	.0013	.0016	.0019	.0024		
Titanium Alloys 6Al-4V, 5Al-2.5 Sn, 6Al-2Sn-4Zr-6Mo, 3Al-6V-6Cr4Mo-4Zr, 10V-2Fe-3Al, 13V-11Cr-3Al	up to 42 HRc	U/HF VA/NF	340	300	325	230	160	.0003	.0005	.0007	.0009	.0013	.0016	.0019	.0024		
High-Temperature Alloys Inconel, Nimonic, Monel, Hastelloy, Waspalloy, A286, Rene 41, Udimet, Stellite	up to 42 HRc	U/HF	170	150	130	130	80	.0003	.0005	.0006	.0008	.0011	.0016	.0015	.0024		
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	VA/NF	820	740	620	460	390	.0004	.0008	.0009	.0012	.0016	.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	U/HF	710	650	540	430	340	.0003	.0007	.0009	.0011	.0015	.0020	.0019	.0032		
Aluminum, Al-wrought alloys, Al-alloys 2024, 6061, 7075, 1050, 6351, 5005, 2017, 7075	up to 3% Si	A/WF	2600	2350	2000	1440	1230	.0005	.0009	.0011	.0014	.0018	.0023	.0026	.0036		
Aluminium-cast alloys 3.2131 G-AISI5Cu1, 3.2153 G-AISI7Cu3, 3.2573 G-AISI9, 3.2581 G-AISI12, 3.2583 G-AISI12Cu, - G-AISI12CuNiMg	over 3% Si	A/WF	1250	1100	950	690	590	.0004	.0008	.0010	.0013	.0018	.0023	.0026	.0036		
Magnesium-alloys MgMn2, G-MgAl6Zn1, G-MgAl6Zn3	-	A/WF	1000	875	740	560	460	.0004	.0008	.0010	.0013	.0018	.0023	.0026	.0036		
Non-ferrous metals (copper, short- or long-chipping brass or bronze)	up to 28 HRc	VA/NF	1375	1250	1050	750	660	.0004	.0008	.0010	.0013	.0018	.0023	.0026	.0036		