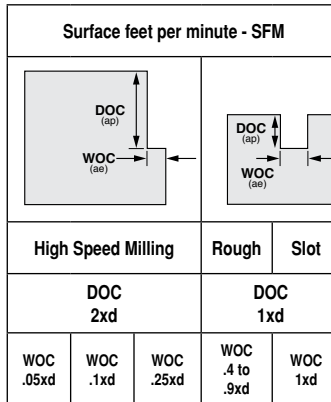
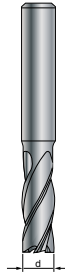


GS100 A (Rough-Tech Alu), GS100 U (Rough-Tech 48), GS100 H (Rough-Tech 56)

INCH



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

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

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

| Feed Rate Inch per Tooth - IPT | | | | | | | |
|---|---------------|----------------|---------------|----------------|----------------|----------------|--------------|
| d1 End Mill Diameter | | | | | | | |
| 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 | | | | | | | |

| Material | Hardness | TYPE | SFM | | | | |
|----------|----------|------|-----|-----|-----|---|---|
| | | | 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 | U | 820 | 740 | 625 | 460 | 390 |
| 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 |
| 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 |
| Hardened Steels Carbon and Alloy Steels, Tool & Die Steels | Up to 54 HRc | H | 350 | 315 | 265 | 230 | 165 |
| Stainless steel 303, 410, 420F, 430, 430F, 416 | Up to 28 HRc | U | 545 | 495 | 400 | 330 | 260 |
| Stainless steel 304, 304L, 420, 17-4PH, 17-7PH, 15-5PH, 13-8PH | up to 28 HRc | U | 380 | 340 | 325 | 230 | 180 |
| Stainless steel 310, 316, 316B, 316L, 317, Duplex | over 28 HRc | U | 350 | 315 | 265 | 230 | 165 |
| Titanium Alloys 6Al-4V, 5Al-2.5 Sn, 6Al-2Sn-4Zr-6Mo, 3Al-8V-6Cr-4Mo-4Zr, 10V-2Fe-3Al, 13V-11Cr-3Al | up to 42 HRc | U | 315 | 285 | 250 | 195 | 150 |
| High-Temperature Alloys Inconel, Nimonic, Monel, Hastelloy, Waspalloy, A286, Rene 41, Udimet, Stellite | up to 42 HRc | U | 135 | 125 | 120 | 100 | 65 |
| 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 |
| 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 |
| Aluminum, Al-wrought alloys, Al-alloys 2024, 6061, 7075, 1050, 6351, 5005, 2017, 7075 | up to 3% Si | A | 2420 | 2185 | 1840 | 1345 | 1150 |
| 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 | 1240 | 1120 | 945 | 690 | 590 |
| Magnesium-alloys MgMn2, G-MgAl8Zn1, G-MgAl6Zn3 | - | A | 830 | 750 | 630 | 460 | 395 |
| Non-ferrous metals (copper, short- or long-chipping brass or bronze) | up to 28 HRc | A | 1240 | 1120 | 945 | 690 | 590 |

| | | | | | | | |
|-------|-------|-------|-------|-------|-------|-------|-------|
| .0003 | .0007 | .0009 | .0011 | .0015 | .0020 | .0023 | .0032 |
| .0003 | .0007 | .0009 | .0011 | .0015 | .0020 | .0023 | .0032 |
| .0003 | .0006 | .0008 | .0011 | .0014 | .0016 | .0023 | .0028 |
| .0002 | .0005 | .0005 | .0008 | .0010 | .0012 | .0015 | .0020 |
| .0003 | .0006 | .0008 | .0011 | .0014 | .0016 | .0023 | .0028 |
| .0003 | .0005 | .0007 | .0009 | .0013 | .0016 | .0019 | .0024 |
| .0003 | .0005 | .0006 | .0008 | .0011 | .0016 | .0015 | .0024 |
| .0003 | .0005 | .0006 | .0008 | .0011 | .0016 | .0015 | .0024 |
| .0002 | .0005 | .0005 | .0008 | .0010 | .0012 | .0015 | .0020 |
| .0003 | .0007 | .0009 | .0011 | .0015 | .0020 | .0023 | .0032 |
| .0003 | .0006 | .0008 | .0011 | .0014 | .0016 | .0023 | .0028 |
| .0004 | .0008 | .0010 | .0013 | .0018 | .0023 | .0026 | .0036 |
| .0004 | .0008 | .0009 | .0012 | .0016 | .0020 | .0023 | .0032 |
| .0004 | .0008 | .0009 | .0012 | .0016 | .0020 | .0023 | .0032 |
| .0004 | .0008 | .0009 | .0012 | .0016 | .0020 | .0023 | .0032 |