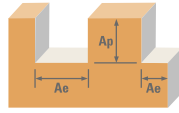


Series
43CR, 43CB, 43LC,
43, 43L, 43LCB, 43B,
43LB, 43ELB, 43EC
Fractional



| Material | Hardness | Ae x DC | Ap x DC | Vc (sfm) | DC • in | | | | | | | |
|---|-----------------------------|-----------|-------------|-------------|------------|--------|--------|--------|--------|--------|--------|--------|
| | | | | | 1/8 | 1/4 | 3/8 | 1/2 | 5/8 | 3/4 | 1 | |
| ALUMINUM ALLOYS 2024, 5052, 5086, 6061, 6073, 7075 | ≤ 150 Bhn or ≤ 7 HRc | Slot 1 | ≤ 1 | 1600 | RPM | 48896 | 24448 | 16299 | 12224 | 9779 | 8149 | 6112 |
| | | | | (1280-1920) | Fz | 0.0009 | 0.0025 | 0.0045 | 0.0060 | 0.0065 | 0.0070 | 0.0085 |
| | | | | | Feed (ipm) | 132 | 183 | 220 | 220 | 191 | 171 | 156 |
| | Profile ≤ 0.5 | ≤ 1.5 | 2000 | RPM | 61120 | 30560 | 20373 | 15280 | 12224 | 10187 | 7640 | |
| | | | (1600-2400) | Fz | 0.0009 | 0.0025 | 0.0045 | 0.0060 | 0.0065 | 0.0070 | 0.0085 | |
| | | | | Feed (ipm) | 165 | 229 | 275 | 275 | 238 | 214 | 195 | |
| | HSM ≤ 0.05 | ≤ 2 | 3300 | RPM | 100848 | 50424 | 33616 | 25212 | 20170 | 16808 | 12606 | |
| | | | (2640-3960) | Fz | 0.0021 | 0.0055 | 0.0105 | 0.0140 | 0.0150 | 0.0165 | 0.0195 | |
| | | | | Feed (ipm) | 635 | 832 | 1059 | 1059 | 908 | 832 | 737 | |
| ALUMINUM DIE CAST ALLOYS (HIGH SILICONE) A-390, A-392, B- 390 | ≤ 125 Bhn or ≤ 77 HRb | Slot 1 | ≤ 1 | 600 | RPM | 18336 | 9168 | 6112 | 4584 | 3667 | 3056 | 2292 |
| | | | | (480-720) | Fz | 0.0009 | 0.0025 | 0.0045 | 0.0060 | 0.0065 | 0.0070 | 0.0085 |
| | | | | | Feed (ipm) | 50 | 69 | 83 | 83 | 72 | 64 | 58 |
| | Profile ≤ 0.5 | ≤ 1.5 | 750 | RPM | 22920 | 11460 | 7640 | 5730 | 4584 | 3820 | 2865 | |
| | | | (600-900) | Fz | 0.0009 | 0.0025 | 0.0045 | 0.0060 | 0.0065 | 0.0070 | 0.0085 | |
| | | | | Feed (ipm) | 62 | 86 | 103 | 103 | 89 | 80 | 73 | |
| | HSM ≤ 0.05 | ≤ 2 | 1240 | RPM | 37894 | 18947 | 12631 | 9474 | 7579 | 6316 | 4737 | |
| | | | (992-1488) | Fz | 0.0021 | 0.0055 | 0.0105 | 0.0140 | 0.0150 | 0.0165 | 0.0195 | |
| | | | | Feed (ipm) | 239 | 313 | 398 | 398 | 341 | 313 | 277 | |
| COPPER ALLOYS Aluminum Bronze Brass Naval Brass Red Brass | ≤ 140 Bhn or ≤ 3 HRc | Slot 1 | ≤ 1 | 865 | RPM | 26434 | 13217 | 8811 | 6609 | 5287 | 4406 | 3304 |
| | | | | (692-1038) | Fz | 0.0008 | 0.0020 | 0.0040 | 0.0050 | 0.0055 | 0.0060 | 0.0070 |
| | | | | | Feed (ipm) | 63 | 79 | 106 | 99 | 87 | 79 | 69 |
| | Profile ≤ 0.5 | ≤ 1.5 | 1080 | RPM | 33005 | 16502 | 11002 | 8251 | 6601 | 5501 | 4126 | |
| | | | (864-1296) | Fz | 0.0008 | 0.0020 | 0.0040 | 0.0050 | 0.0055 | 0.0060 | 0.0070 | |
| | | | | Feed (ipm) | 79 | 99 | 132 | 124 | 109 | 99 | 87 | |
| | HSM ≤ 0.05 | ≤ 2 | 1780 | RPM | 54397 | 27198 | 18132 | 13599 | 10879 | 9066 | 6800 | |
| | | | (1424-2136) | Fz | 0.0017 | 0.0045 | 0.0085 | 0.0115 | 0.0125 | 0.0140 | 0.0160 | |
| | | | | Feed (ipm) | 277 | 367 | 462 | 469 | 408 | 381 | 326 | |
| COPPER ALLOYS Beryllium Copper C110, Malleable Bronze, Tin Bronze | ≤ 200 Bhn or ≤ 23 HRc | Slot 1 | ≤ 1 | 345 | RPM | 10543 | 5272 | 3514 | 2636 | 2109 | 1757 | 1318 |
| | | | | (276-414) | Fz | 0.0008 | 0.0020 | 0.0040 | 0.0050 | 0.0055 | 0.0060 | 0.0070 |
| | | | | | Feed (ipm) | 25 | 32 | 42 | 40 | 35 | 32 | 28 |
| | Profile ≤ 0.5 | ≤ 1.5 | 430 | RPM | 13141 | 6570 | 4380 | 3285 | 2628 | 2190 | 1643 | |
| | | | (344-516) | Fz | 0.0008 | 0.0020 | 0.0040 | 0.0050 | 0.0055 | 0.0060 | 0.0070 | |
| | | | | Feed (ipm) | 32 | 39 | 53 | 49 | 43 | 39 | 34 | |
| | HSM ≤ 0.05 | ≤ 2 | 710 | RPM | 21698 | 10849 | 7233 | 5424 | 4340 | 3616 | 2712 | |
| | | | (568-852) | Fz | 0.0017 | 0.0045 | 0.0085 | 0.0115 | 0.0125 | 0.0140 | 0.0160 | |
| | | | | Feed (ipm) | 111 | 146 | 184 | 187 | 163 | 152 | 130 | |
| PLASTICS ABS, Polycarbonate, PVC, Polypropylene | ≤ 150 Bhn or ≤ 7 HRc | Slot 1 | ≤ 1 | 1600 | RPM | 48896 | 24448 | 16299 | 12224 | 9779 | 8149 | 6112 |
| | | | | (1280-1920) | Fz | 0.0015 | 0.0040 | 0.0075 | 0.0100 | 0.0110 | 0.0120 | 0.0140 |
| | | | | | Feed (ipm) | 220 | 293 | 367 | 367 | 323 | 293 | 257 |
| | Profile ≤ 0.5 | ≤ 1.5 | 2000 | RPM | 61120 | 30560 | 20373 | 15280 | 12224 | 10187 | 7640 | |
| | | | (1600-2400) | Fz | 0.0015 | 0.0040 | 0.0075 | 0.0100 | 0.0110 | 0.0120 | 0.0140 | |
| | | | | Feed (ipm) | 275 | 367 | 458 | 458 | 403 | 367 | 321 | |
| | HSM ≤ 0.05 | ≤ 2 | 3300 | RPM | 100848 | 50424 | 33616 | 25212 | 20170 | 16808 | 12606 | |
| | | | (2640-3960) | Fz | 0.0034 | 0.0090 | 0.0170 | 0.0230 | 0.0250 | 0.0275 | 0.0320 | |
| | | | | Feed (ipm) | 1029 | 1361 | 1714 | 1740 | 1513 | 1387 | 1210 | |

Bhn (Brinell) HRc (Rockwell C) HRb (Rockwell B) HSM (High Speed Machining)
 rpm = Vc x 3.82 / DC
 ipm = Fz x 3 x rpm
 reduce speed and feed for materials harder than listed
 reduce cut depth and feed by 50% for long flute and long reach tools
 reduce feed and Ae when finish milling (.02 x DC maximum)
 refer to the SGS Tool Wizard® for complete technical information (www.kyocera-sgstool.com)