



CUTTING CONDITIONS

Milling | Endmills | Cutting conditions

EPL-HI-EMS

|  | Carbon Steel / Allowed Steel / Tool Steel | | | | | | | | | | | |
|-----------------------------------------------------------------------------------|-------------------------------------------|--------|---------------------------|---------------|-------------|--------|---------------------------|---------------|-------------|--------|---------------------------|---------------|
| | ~ 20 HRC | | | | 20 - 35 HRC | | | | 35 - 45 HRC | | | |
| | Ø | Vc | S (min ⁻¹) | F (mm/min) | fz (mm) | Vc | S (min ⁻¹) | F (mm/min) | fz (mm) | Vc | S (min ⁻¹) | F (mm/min) |
| 4 | 180 | 14.320 | 1.720 | 0.03 | 160 | 12.730 | 1.370 | 0.03 | 140 | 11.140 | 1.080 | 0.02 |
| 5 | 180 | 11.460 | 1.380 | 0.03 | 160 | 10.190 | 1.220 | 0.03 | 140 | 8.920 | 1.070 | 0.03 |
| 6 | 180 | 9.550 | 1.240 | 0.03 | 160 | 8.490 | 990 | 0.03 | 140 | 7.430 | 780 | 0.03 |
| 8 | 180 | 7.160 | 1.110 | 0.04 | 160 | 6.370 | 890 | 0.03 | 140 | 5.570 | 700 | 0.03 |
| 10 | 180 | 5.730 | 1.110 | 0.05 | 160 | 5.090 | 890 | 0.04 | 140 | 4.460 | 700 | 0.04 |
| 12 | 180 | 4.770 | 1.110 | 0.06 | 160 | 4.240 | 890 | 0.05 | 140 | 3.710 | 700 | 0.05 |
| 16 | 180 | 3.580 | 1.020 | 0.07 | 160 | 3.180 | 820 | 0.06 | 140 | 2.790 | 640 | 0.06 |
| 20 | 180 | 2.860 | 960 | 0.08 | 141 | 2.250 | 770 | 0.09 | 140 | 2.230 | 610 | 0.07 |

|  | GG / GGG / GTW | | | | INOX | | | | Aluminium / Mg | | | |
|-----------------------------------------------------------------------------------|----------------|--------|---------------------------|---------------|------------|-------|---------------------------|---------------|----------------|--------|---------------------------|---------------|
| | Unalloyed | | | | ~ 20 HRC | | | | Wrought alloy | | | |
| | Ø | Vc | S (min ⁻¹) | F (mm/min) | fz (mm) | Vc | S (min ⁻¹) | F (mm/min) | fz (mm) | Vc | S (min ⁻¹) | F (mm/min) |
| 4 | 145 | 11.540 | 1.300 | 0.03 | 45 | 3.580 | 310 | 0.02 | 180 | 14.320 | 1.720 | 0.03 |
| 5 | 145 | 9.240 | 1.110 | 0.03 | 45 | 2.870 | 230 | 0.02 | 180 | 11.460 | 1.380 | 0.03 |
| 6 | 145 | 7.690 | 1.100 | 0.04 | 45 | 2.390 | 230 | 0.02 | 180 | 9.550 | 1.240 | 0.03 |
| 8 | 145 | 5.770 | 1.000 | 0.04 | 45 | 1.790 | 200 | 0.03 | 180 | 7.160 | 1.110 | 0.04 |
| 10 | 145 | 4.620 | 1.000 | 0.05 | 45 | 1.430 | 200 | 0.03 | 180 | 5.730 | 1.110 | 0.05 |
| 12 | 145 | 3.850 | 1.000 | 0.06 | 45 | 1.190 | 200 | 0.04 | 180 | 4.770 | 1.110 | 0.06 |
| 16 | 145 | 2.880 | 900 | 0.08 | 45 | 900 | 190 | 0.05 | 180 | 3.580 | 1.020 | 0.07 |
| 20 | 147 | 2.340 | 800 | 0.09 | 45 | 720 | 180 | 0.06 | 180 | 2.860 | 960 | 0.08 |