

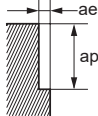
Recommended Cutting Conditions

Use high efficiency cutting conditions when the machine and workpiece rigidity, and chip evacuation properties are sufficient.
Use lower, general-purpose cutting conditions when the mechanical or workpiece rigidity or chip evacuation properties are insufficient.

High Efficiency Conditions

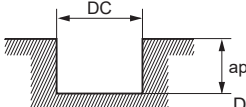
Side Milling

(inch)

| Workpiece Material | | Aluminum Alloys | | | | |
|--------------------|-------------|---|---------------------------------|-----------------|--------------|--------------|
| Dia.DC | | Cutting Speed (SFM) | Revolution (min ⁻¹) | Feed Rate (IPM) | Depth of Cut | Depth of Cut |
| (mm) | (inch) | | | | ae | ap |
| 12 | .472 | 4070 | 33000 | 590.6 | .236 | .472 |
| 16 | .630 | 5445 | 33000 | 787.4 | .315 | .630 |
| 20 | .787 | 6790 | 33000 | 1023.6 | .394 | .787 |
| 25 | .984 | 8495 | 33000 | 1259.8 | .492 | .984 |
| Depth of Cut | |  | | | | |

Slot Milling

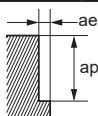
(inch)

| Workpiece Material | | Aluminum Alloys | | | |
|--------------------|--------|--|---------------------------------|-----------------|-----------------|
| Dia.DC | | Cutting Speed (SFM) | Revolution (min ⁻¹) | Feed Rate (IPM) | Depth of Cut ap |
| (mm) | (inch) | | | | |
| 12 | .472 | 4070 | 33000 | 590.6 | .236 |
| 16 | .630 | 5445 | 33000 | 787.4 | .315 |
| 20 | .787 | 6790 | 33000 | 1023.6 | .394 |
| 25 | .984 | 8495 | 33000 | 1259.8 | .492 |
| Depth of Cut | | <div></div> DC:Cutting Dia. | | | |

General-purpose Conditions

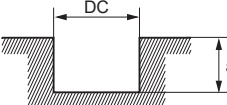
Side Milling

(inch)

| Workpiece Material | | Aluminum Alloys | | | | |
|--------------------|-------------|---|---------------------------------|-----------------|--------------|--------------|
| Dia.DC | | Cutting Speed (SFM) | Revolution (min ⁻¹) | Feed Rate (IPM) | Depth of Cut | Depth of Cut |
| (mm) | (inch) | | | | ae | ap |
| 12 | .472 | 1970 | 16000 | 283.5 | .236 | .472 |
| 16 | .630 | 1970 | 12000 | 283.5 | .315 | .630 |
| 20 | .787 | 1970 | 9500 | 291.3 | .394 | .787 |
| 25 | .984 | 1970 | 7600 | 287.4 | .492 | .984 |
| Depth of Cut | |  | | | | |

Slot Milling

(inch)

| Workpiece Material | | Aluminum Alloys | | | |
|--------------------|--------|--|---------------------------------|-----------------|-----------------|
| Dia.DC | | Cutting Speed (SFM) | Revolution (min ⁻¹) | Feed Rate (IPM) | Depth of Cut ap |
| (mm) | (inch) | | | | |
| 12 | .472 | 1970 | 16000 | 283.5 | .236 |
| 16 | .630 | 1970 | 12000 | 283.5 | .315 |
| 20 | .787 | 1970 | 9500 | 291.3 | .394 |
| 25 | .984 | 1970 | 7600 | 287.4 | .492 |
| Depth of Cut | | <div></div> DC:Cutting Dia. | | | |

Note 1) It is recommended to use a water-soluble coolant. It is also possible to use air blow (external/internal) for DLC coated types.

Note 2) Climb milling is recommended for side cutting.

Note 3) This table shows the cutting condition with less than 4D overhang length. If more than 4D, spindle speed, feed rate and depth of cut should be reduced.

Note 4) When ramping, consider the chip discharge and use a feed rate 50% lower than the slotting conditions above and also use a ramping angle of 5° or less.

Note 5) If the rigidity of the machine or the workpiece materials installation is very low, or chattering and noise are generated, reduce the revolution and feed rate proportionately within the range described in the above table, or reduce the depth and width of cut.