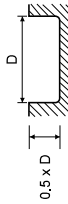


ALU-XP CUTTING CONDITIONS

155303 (2 Flute Corner Radius) **SLOTING**



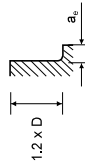
| MATERIAL GROUP | Size (mm) | | | | | | |
|----------------|-----------|-------|-------|-------|-------|-------|-------|
| | 4.0 | 6.0 | 8.0 | 10.0 | 12.0 | 16.0 | 20.0 |
| 61 | 40 | 60 | 60 | 75 | 90 | 95 | 75 |
| 62 | 3120 | 3120 | 2400 | 2400 | 2400 | 1920 | 1200 |
| 63 | 0.038 | 0.049 | 0.075 | 0.092 | 0.114 | 0.132 | 0.167 |
| 64 | 240 | 305 | 360 | 440 | 545 | 505 | 400 |
| 71 | 130 | 195 | 200 | 250 | 300 | 320 | 250 |
| 72 | 10400 | 10400 | 8000 | 8000 | 8000 | 8400 | 4000 |
| 73 | 0.046 | 0.058 | 0.09 | 0.110 | 0.135 | 0.156 | 0.2 |
| 74 | 960 | 1200 | 1440 | 1760 | 2160 | 2000 | 1600 |



155303 (2 Flute Corner Radius) **PROFILING**



| MATERIAL GROUP | Size (mm) | | | | | | |
|----------------|-----------|-------|-------|-------|-------|-------|------|
| | 4.0 | 6.0 | 8.0 | 10.0 | 12.0 | 16.0 | 20.0 |
| 61 | 40 | 60 | 60 | 75 | 90 | 95 | 75 |
| 62 | 3120 | 3120 | 2400 | 2400 | 2400 | 1920 | 1200 |
| 63 | 0.045 | 0.064 | 0.097 | 0.114 | 0.142 | 0.163 | 0.21 |
| 64 | 280 | 400 | 465 | 545 | 680 | 625 | 505 |
| 71 | 130 | 195 | 200 | 250 | 300 | 320 | 250 |
| 72 | 10400 | 10400 | 8000 | 8000 | 8000 | 8400 | 4000 |
| 73 | 0.054 | 0.077 | 0.115 | 0.135 | 0.17 | 0.194 | 0.25 |
| 74 | 1120 | 1600 | 1840 | 2160 | 2720 | 2480 | 2000 |



$a_s : \varnothing 4.0\text{mm} - \varnothing 10.0\text{mm} = 0.25 \times D$
 $a_s : \varnothing 12.0\text{mm} - \varnothing 20.0\text{mm} = 0.5 \times D$

v_c - cutting speed (m/min)
 n - RPM (rev/min)
 f_z - feed rate (mm/tooth)
 f - feed rate (mm/rev)
 z - No. of teeth
 a_p - axial depth of cut
 a_r - radial depth of cut

To calculate RPM from cutting speed: $n = \frac{v_c \times 1000}{\pi \times \varnothing}$

To calculate cutting speed from RPM: $v_c = \frac{n \times \pi \times \varnothing}{1000}$

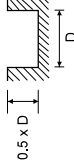
All recommendations are based on ideal machining conditions. Adjustments may need to be made according to your set-up. The recommendations for speeds, feeds and other parameters presented in this chart are nominal recommendations and should be considered only as good starting points.

ALU-XP CUTTING CONDITIONS

143303, 144303, 153303 (3 Flute 45° Helix, Long & Long Series) **SLOTING**



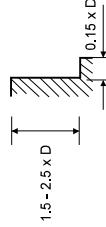
| MATERIAL GROUP | Size (mm) | | | | | | | | |
|----------------|-----------|-------|------|------|-------|-------|-------|-------|------|
| | 3.0 | 4.0 | 5.0 | 6.0 | 8.0 | 10.0 | 12.0 | 16.0 | 20.0 |
| 71 | 65 | 90 | 110 | 130 | 140 | 175 | 210 | 210 | 175 |
| 72 | 7000 | 7000 | 7000 | 7000 | 5600 | 5600 | 4200 | 4200 | 2800 |
| 73 | 0.035 | 0.045 | 0.05 | 0.06 | 0.088 | 0.106 | 0.131 | 0.158 | 0.2 |
| 74 | 730 | 940 | 1050 | 1250 | 1470 | 1780 | 2200 | 1990 | 1680 |



143303, 144303, 153303 (3 Flute 45° Helix, Long & Long Series) **PROFILING**



| MATERIAL GROUP | Size (mm) | | | | | | | | |
|----------------|-----------|-------|-------|-------|-------|-------|-------|------|-------|
| | 3.0 | 4.0 | 5.0 | 6.0 | 8.0 | 10.0 | 12.0 | 16.0 | 20.0 |
| 71 | 65 | 90 | 110 | 130 | 140 | 175 | 210 | 210 | 175 |
| 72 | 7000 | 7000 | 7000 | 7000 | 5600 | 5600 | 4200 | 4200 | 2800 |
| 73 | 0.045 | 0.055 | 0.065 | 0.075 | 0.113 | 0.131 | 0.163 | 0.2 | 0.238 |
| 74 | 940 | 1150 | 1360 | 1580 | 1900 | 2200 | 2740 | 2520 | 2000 |



► The feed rate for long and long reach tools should be reduced by up to 50%

v_c - cutting speed (m/min)
 n - RPM (rev/min)
 f_z - feed rate (mm/tooth)
 f - feed rate (mm/rev)
 z - No. of teeth
 a_p - axial depth of cut
 a_r - radial depth of cut

To calculate RPM from cutting speed: $n = \frac{v_c \times 1000}{\pi \times \varnothing}$

To calculate cutting speed from RPM: $v_c = \frac{n \times \pi \times \varnothing}{1000}$

All recommendations are based on ideal machining conditions. Adjustments may need to be made according to your set-up. The recommendations for speeds, feeds and other parameters presented in this chart are nominal recommendations and should be considered only as good starting points.