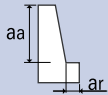
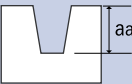


**List 595: 5° Taper on Side - 3 Flute**  
**List 596: 7° Taper on Side - 3 Flute**

**Side Milling**

| Hardness      | <145 Brinell  |             | <20 HRC   |             | 20-30 HRC   |             | 30-40 HRC  |             | 40-50 HRC  |             | -                           |             |
|---------------|---|-------------|---|-------------|---|-------------|--|-------------|--|-------------|-----------------------------|-------------|
| Work Material | Mild Steels<br>Hard Brass<br>Bronze<br>Cast Iron  |             | Med. Carbon Steels<br>Med. Strength<br>Titanium Alloys<br>Med. Strength<br>Stainless Steels |             | High Carbon Steel<br>Titanium Alloys<br>High Strength<br>Stainless Steels |             | Heat Resistant<br>High Alloys<br>Austenitic Alloys<br>Nickel Base Alloys |             | Heat Resistant<br>High Alloys<br>Austenitic Alloys<br>Nickel Base Alloys |             | Aluminum<br>Aluminum Alloys |             |
| Cutting Speed | 130-165 SFM   |             | 105-125 SFM   |             | 65-80 SFM   |             | 20-50 SFM  |             | 15-20 SFM  |             | 400-590 SFM                 |             |
| Depth of Cut  | $a_a = 1.5D$<br>$a_r = 0.1D$  |             |   |             |   |             |  |             |  |             |                             |             |
| Mill Dia.     | Speed RPM   | Feed in/min | Speed RPM   | Feed in/min | Speed RPM   | Feed in/min | Speed RPM  | Feed in/min | Speed RPM  | Feed in/min | Speed RPM                   | Feed in/min |
| 5/64          | 7,210   | 10.9        | 5,625   | 8.0         | 3,545   | 5.0         | 1,710  | 2.4         | 855  | 1.1         | 24,200                      | 36.4        |
| 3/32          | 6,010   | 8.4         | 4,685   | 6.5         | 2,955   | 4.2         | 1,425  | 2.1         | 715  | 0.9         | 20,170                      | 28.4        |
| 1/8           | 4,510   | 10.6        | 3,515   | 8.3         | 2,215   | 5.2         | 1,070  | 2.5         | 535  | 1.1         | 15,130                      | 35.5        |
| 3/16          | 3,000   | 9.9         | 2,345   | 7.5         | 1,470   | 4.8         | 715  | 2.3         | 355  | 1.1         | 10,085                      | 33.1        |
| 1/4           | 2,250   | 8.5         | 1,760   | 5.8         | 1,110   | 3.9         | 535  | 2.0         | 270  | 0.9         | 7,565                       | 28.5        |
| 3/8           | 1,500   | 14.1        | 1,170   | 10.8        | 740   | 6.9         | 355  | 3.2         | 180  | 1.5         | 5,040                       | 47.5        |
| 1/2           | 1,125   | 13.2        | 880   | 9.4         | 555   | 6.2         | 270  | 2.9         | 135  | 1.3         | 3,780                       | 44.3        |

**Slotting**

| Hardness      | <145 Brinell  |             | <20 HRC   |             | 20-30 HRC   |             | 30-40 HRC  |             | 40-50 HRC  |             | -                           |             |
|---------------|---|-------------|---|-------------|---|-------------|--|-------------|--|-------------|-----------------------------|-------------|
| Work Material | Mild Steels<br>Hard Brass<br>Bronze<br>Cast Iron  |             | Med. Carbon Steels<br>Med. Strength<br>Titanium Alloys<br>Med. Strength<br>Stainless Steels |             | High Carbon Steel<br>Titanium Alloys<br>High Strength<br>Stainless Steels |             | Heat Resistant<br>High Alloys<br>Austenitic Alloys<br>Nickel Base Alloys |             | Heat Resistant<br>High Alloys<br>Austenitic Alloys<br>Nickel Base Alloys |             | Aluminum<br>Aluminum Alloys |             |
| Cutting Speed | 80-120 SFM  |             | 60-80 SFM   |             | 45-60 SFM   |             | 8 - 15 SFM   |             | 5 - 10 SFM   |             | 150-350 SFM                 |             |
| Depth of Cut  | $a_a = 1/3D$  |             |   |             |   |             |  |             |  |             |                             |             |
| Mill Dia.     | Speed RPM   | Feed in/min | Speed RPM   | Feed in/min | Speed RPM   | Feed in/min | Speed RPM  | Feed in/min | Speed RPM  | Feed in/min | Speed RPM                   | Feed in/min |
| 5/64          | 4,890   | 3.3         | 3,420   | 2.4         | 2,570   | 1.6         | 565  | 0.4         | 365  | 0.2         | 12,225                      | 7.4         |
| 3/32          | 4,075   | 3.2         | 2,855   | 2.3         | 2,140   | 1.5         | 470  | 0.3         | 300  | 0.2         | 10,190                      | 7.6         |
| 1/8           | 3,055   | 3.1         | 2,140   | 2.5         | 1,600   | 2.0         | 350  | 0.4         | 230  | 0.2         | 7,640                       | 8.2         |
| 3/16          | 2,040   | 3.9         | 1,425   | 3.2         | 1,070   | 2.4         | 235  | 0.4         | 150  | 0.2         | 5,095                       | 9.9         |
| 1/4           | 1,530   | 5.1         | 1,070   | 4.6         | 800   | 3.0         | 175  | 0.3         | 115  | 0.1         | 3,820                       | 10.0        |
| 3/8           | 1,020   | 4.7         | 715   | 3.6         | 535   | 2.5         | 120  | 0.6         | 75   | 0.3         | 2,545                       | 10.7        |
| 1/2           | 765   | 4.1         | 535   | 2.8         | 400   | 2.4         | 90   | 0.5         | 60   | 0.2         | 1,910                       | 9.5         |