




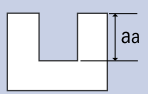
## List VG446: 4 Flute - Reduced Neck

## List VG464: 4 Flute - Extended Length

### Side Milling

Hardness	<25 HRC		25-30 HRC		30-35 HRC		35-45 HRC		45-50 HRC		< 40 HRC		< 45 HRC	
Work Material	Mild Steels Carbon Steels Cast Iron		400 Stainless Steels Alloy Steels Tool Steels		300 Stainless Steels Hardened Steels Pre-hardened Steels		PH Stainless Steels Hardened Steels		Hardened Steels		Titanium Alloys		High Temp. Alloys Inconel Hastelloy	
Cutting Speed	400-500 SFM		300-400 SFM		200-350 SFM		200-250 SFM		175-225 SFM		150-250 SFM		100-135 SFM	
Depth of Cut	$Aa=1D$ $Ar=0.4D$ 						$Aa=0.75D$ $Ar=0.35D$		$Aa=0.75D$ $Ar=0.15D$		$Aa=0.75D$ $Ar=0.35D$		$Aa=0.75D$ $Ar=0.15D$	
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	Speed RPM	Feed in/min
1/4	6,875	46.8	5,350	31.1	4,200	20.3	3,440	16.7	3,050	16.8	3,050	13.9	1,835	11.2
3/8	4,585	47.1	3,565	30.5	2,800	20.6	2,290	16.9	2,040	16.3	2,040	14.6	1,220	11.1
1/2	3,440	45.4	2,675	29.2	2,100	19.5	1,720	15.9	1,525	15.7	1,525	13.9	915	10.8
5/8	2,750	40.6	2,140	27.7	1,700	19.0	1,375	15.4	1,225	14.7	1,225	12.5	730	9.9
3/4	2,290	37.3	1,785	25.3	1,400	16.8	1,150	13.8	1,025	13.5	1,025	11.8	610	9.3
1	1,720	33.0	1,340	22.8	1,050	14.9	860	12.2	765	12.2	765	10.6	460	8.4

### Slotting

Hardness	<25 HRC		25-30 HRC		30-35 HRC		35-45 HRC		45-50 HRC		<40 HRC		<45 HRC	
Work Material	Mild Steels Carbon Steels Cast Iron		400 Stainless Steels Alloy Steels Tool Steels		300 Stainless Steels Hardened Steels Pre-hardened Steels		PH Stainless Steels Hardened Steels		Hardened Steels		Titanium Alloys		High Temp. Alloys Inconel Hastelloy	
Cutting Speed	325-400 SFM		250-325 SFM		175-275 SFM		160-200 SFM		140-180 SFM		125-200 SFM		75-100 SFM	
Depth of Cut	$Aa=0.6D$ 						$Aa=0.4D$		$Aa=0.25D$		$Aa=0.4D$		$Aa=0.15D$	
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	Speed RPM	Feed in/min
1/4	5,620	37.9	4,430	25.5	3,450	17.2	2,750	12.2	2,445	14.0	2,550	11.8	1,375	8.1
3/8	3,750	38.2	2,955	25.5	2,300	17.5	1,835	12.2	1,630	12.8	1,700	11.6	915	8.3
1/2	2,810	37.2	2,215	24.2	1,700	16.1	1,375	11.5	1,225	12.8	1,300	12.1	690	8.1
5/8	2,250	33.1	1,775	22.5	1,400	15.9	1,100	11.0	975	11.6	1,000	10.0	550	7.6
3/4	1,875	31.1	1,480	20.9	1,150	14.4	920	10.0	815	10.5	850	9.4	460	6.9
1	1,405	26.7	1,110	18.7	875	12.6	685	8.6	610	9.8	650	9.0	345	6.5

