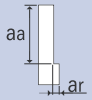
List 8245 - A Brand AE-VMFE: SQ, 4 Flute
List 8246 - A Brand AE-CR-VMFE: CR, 4 Flute

Side Milling

Hardness	–	Up to 30 HRC	–	–	–	–	30-45 HRC
Work Material	Mild Steels Carbon Steels Cast Iron	Tool Steel Alloy Steel	Stainless Steel	Precipitation Stainless Steel	Titanium Alloy	Ni-Based Alloy Inconel 718	Prehardened Steels Hardened Steels
Cutting Speed	330-460 SFM	330-460 SFM	330-460 SFM	330-430 SFM	300-400 SFM	200-260 SFM	330-460 SFM
Depth of Cut	a_a=2.0D a_r=0.1D 						

Mill Dia. (Inch)	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
6.0	6,392	99.7	6,392	89.5	6,392	76.7	6149	64.0	5664	54.4	3722	31.3	6,392	81.8
8.0	4,794	74.8	4,794	67.1	4,794	57.5	4612	48.0	4248	40.8	2791	23.4	4,794	61.4
10.0	3,835	59.8	3,835	53.7	3,835	46.0	3690	38.4	3398	32.6	2233	18.8	3,835	49.1
12.0	3,196	49.9	3,196	44.7	3,196	38.4	3075	32.0	2832	27.2	1861	15.6	3,196	40.9

1. The above milling condition is a guidline for overhang length 5xD.
2. Use a rigid and precise machine and holder.
3. Please use a suitable fluid with high smoke retardant properties.
4. During dry (no fluid) milling, please use air blow to remove chips from the milling area and to eliminate chip packing.
5. Please use water-soluble coolant when machining stainless steel, precipitation stainless steel, titanium alloy, Ni-based alloy.
6. Reduce speed and feed as well as depth of cut when high precision is required.
7. Adjust the speed and feed accordingly when the overhang length is longer than specified (refer to Parameter Reduction Chart below).

Parameter Reduction Chart by Length to Diameter Ratio

Hardness				–		Up to 30 HRC		–		–		–		–		30-45 HRC	
Work Material				Mild Steels Carbon Steels Cast Iron		Tool Steel Alloy Steel		Stainless Steel		Precipitation Stainless Steel		Titanium Alloy		Ni-Based Alloy Inconel 718		Prehardened Steels Hardened Steels	
L/D		Depth of Cut Aa	Depth of Cut Ar	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
Side Milling	6	1.7D	0.08D	80%		80%		80%		80%		80%		80%		80%	
	7	1.6D	0.05D	65%		65%		65%		65%		65%		65%		65%	
	8	1.5D	0.03D	50%		50%		40%		40%		30%		30%		40%	