

## Carbide End Mills

### Speeds & Feeds

	Speed SFPM	(Feed Per Tooth) by End Mill Diameter (Inches)						
		1/8"	1/4"	3/8"	1/2"	5/8"	3/4"	1"
<b>Non Ferrous Materials</b>								
Aluminum	500-1800	0.001	0.002	0.003	0.004	0.005	0.006	0.007
Brass/Bronze	750-1000	0.001	0.002	0.003	0.0035	0.004	0.0045	0.005
Copper/Copper Alloys	700-1000	0.001	0.002	0.003	0.0035	0.004	0.0045	0.005
Plastics	300-500	0.001	0.003	0.004	0.006	0.008	0.01	0.014
<b>Cast Iron</b>								
Malleable	200-300	0.0005	0.002	0.003	0.004	0.005	0.006	0.007
Ductile	100-250	0.0005	0.0015	0.002	0.0025	0.0035	0.004	0.005
<b>Steels</b>								
<b>Low Carbon Steels</b>								
<32 Rc	150-350	0.001	0.002	0.0025	0.003	0.004	0.005	0.006
>32Rc	125-250	0.0007	0.0015	0.002	0.0025	0.0035	0.004	0.005
<b>Medium Alloy Steels</b>								
200, 250, 300	150-275	0.001	0.0015	0.002	0.0025	0.0035	0.004	0.005
<b>High Strength Steels</b>								
80-200	0.0005	0.001	0.0015	0.002	0.0025	0.003	0.004	
<b>Stainless Steels</b>								
<b>PH Series</b>								
200-300	0.0005	0.001	0.0015	0.002	0.0025	0.003	0.004	
<b>Austenitic</b>								
175-350	0.0005	0.0015	0.002	0.0025	0.003	0.0035	0.004	
200, 302, 303 304(L), 316(L)								
<b>Martensitic</b>								
125-275	0.0005	0.001	0.0015	0.002	0.0025	0.003	0.004	
403, 410, 416, 420, 440								
<b>High Temp Alloys</b>								
<b>Nickel Base</b>								
60-150	0.0005	0.001	0.001	0.001	0.0015	0.002	0.003	
Inconel 601, 625, 718								
Waspaloy, Hastelloy								
<b>Cobalt Base</b>								
80-150	0.0005	0.001	0.001	0.0015	0.002	0.0025	0.003	
Stellite, Haynes 25								
<b>Iron Base</b>								
80-150	0.0005	0.001	0.0015	0.002	0.0025	0.003	0.004	
Incoloy 800-802,								
Haynes 556								
Titanium	90-120	0.0005	0.0007	0.001	0.001	0.0015	0.0018	0.002

**Notes:** Speeds and Feeds listed are estimated and will vary by application. Reduce Speeds by 20% when slotting. When exceeding 1/2 the end mill diameter while profiling, reduce feed rate by 25%. The use of Long and Extra Long End Mills require a reduction in feed by up to 50%. Optimum performance can be achieved when using coated & stub length tools.