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## 4 Flute Variable Pitch Carbide End Mills Speeds/Feeds



			CLPT					
Material	SFM	1/8" DIA	1/4" DIA	3/8" DIA	1/2" DIA	5/8" DIA	3/4" DIA	
Stainless Steel (300 Series)	175-250	.0003"- .0007"	.0006"- .0012"	.001"- .002"	.001"- .003"	.0015"- .0035"	.0018"- .004"	
Stainless Steel (15-5PH, 17-4PH)	120-225	.0004"- .0006"	.0005"- .0012"	.001"- .0018"	.001"- .0025"	.0015"- .003"	.0015"- .0035"	
Stainless Steel (400 Series)	300-325	.0003"- .0007"	.0006"- .0012"	.001"- .002"	.001"- .003"	.0015"- .0035"	.0018"- .004"	
Carbon Steel (1018, A36, 12L14)	400-450	.0004"- .0011"	.0008"- .0028"	.0015"- .004"	.0018"- .0055"	.002"- .0075"	.0025"- .008"	
Alloy Steel (4140, 4340, 8620)	200-400	.0003"- .0007"	.0006"- .0012"	.001"- .002"	.001"- .003"	.0015"- .0035"	.0018"- .004"	
Tool Steel (A2, D2, H13, P20)	55-325	.0002"- .0006"	.0004"- .0012"	.0006"- .0018"	.001"- .0025"	.0015"- .003"	.0015"- .0035"	
Ductile Iron	275-325	.0003"- .0007"	.0006"- .0012"	.001"- .002"	.001"- .003"	.0015"- .0035"	.0018"- .004"	
Nickel Alloy (Inconel, Hastelloy)	90-175	.0003"- .0006"	.0005"- .0012"	.001"- .0018"	.001"- .0025"	.0015"- .003"	.0015"- .0035"	
Titanium Alloy (6AL4V)	140-200	.0003"- .0006"	.0005"- .0012"	.001"- .0018"	.001"- .0025"	.0015"- .003"	.0015"- .0035"	

Application	ADOC	RDOC	CLPT
Slotting	50% of Tool Diameter	100% of Tool Diameter	Run at Low End of CLPT Given
Roughing	Up to Tool LOC	25%-40% of Tool Diameter	Run at Medium/High End of CLPT Given
Finishing	Up to Tool LOC	4%-6% of Tool Diameter	Run at Low End of CLPT Given

### Formulas

$RPM = 3.82 \times SFM / DIA$	$SFM = .262 \times RPM \times DIA$	$IPM = CLPT \times \# \text{ of Flutes} \times RPM$
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**Contact us with Any Questions or Speeds/Feeds for Special Applications**