

Solid Carbide Endmills

SPEED AND FEED RECOMMENDATIONS



	Speed (m/min)	Endmill Diameter Feed per Tooth (millimetres)			Speed (S.F.M.)	Endmill Diameter Feed per Tooth (inches)		
		Up to 6mm	Up to 12 mm	Up to 25mm		Up to 1/4"	Up to 1/2"	Up to 1"
Aluminium/ Aluminium Alloys	183-365	.0050-.0500	.0500-.1015	.1015-.2030	600-1200	.0002-.0020	.0020-.0040	.0040-.0080
Brass/ Bronze	60-107	.0125-.0500	.0500-.0760	.0760-.1250	200-350	.0005-.0020	.0020-.0030	.0030-.0050
Copper/ Copper Alloys	107-275	.0125-.0500	0.0500	.0500-.1525	350-900	.0005-.0020	0.002	.0020-.0060
Iron-Cast (soft)	60-153	.0125-.0500	.0500-.0760	.0760-.2030	200-500	.0005-.0020	.0020-.0030	.0030-.0080
Iron-Cast (hard)	24-107	.0075-.0200	.0200-.0500	.0500-.1015	80-350	.0003-.0008	.0008-.0020	.0020-.0040
Iron-Ductile	24-122	.0050-.0250	.0250-.0500	.0500-.1525	80-400	.0002-.0010	.0010-.0020	.0020-.0040
Iron-Maleable	122-183	.0050-.0250	.0250-.0760	.0760-.1780	200-600	.0002-.0010	.0010-.0030	.0030-.0070
Magnesium/ Magnesium Alloys	245-427	.0125-.0500	.0500-.1015	.1015-.2540	800-1400	.0005-.0020	.0020-.0040	.0040-.0100
Monel/ High Nickel Steel	45-90	.0050-.0250	.0250-.0500	.0500-.1015	150-300	.0002-.0010	.0010-.0020	.0020-.0040
Temperature Nickel Base High Alloys	6-30	.0075-.0200	.0200-.0250	.0250-.0500	20-130	.0003-.0008	.0008-.0010	.0010-.0020
Plastics	183-365	.0150-.0750	.0760-.1525	.1525-.3800	600-1200	.0006-.0030	.0030-.0060	.0060-.0150
Plastics-Glass Filled	90-245	.0150-.0750	.0760-.1015	.1015-.3045	300-800	.0006-.0030	.0030-.0040	.0040-.0120
Refractory Alloys	24-122	.0050-.0250	0.0250	.0250-.0500	80-400	.0020-.0010	0.001	.0010-.0020
Steel-Low Carbon	60-153	.0050-.0250	.0250-.0760	.0760-.1780	200-500	.0002-.0010	.0010-.0030	.0030-.0070
Steel-Medium Carbon	30-75	.0100-.0380	.0380-.0500	.0500-.1250	100-250	.0004-.0015	.0015-.0020	.0020-.0050
Steel Hardened	7-37	.0050-.0125	.0125-.0250	.0250-.0760	25-120	.0002-.0005	.0005-.0010	.0010-.0030
Steel-Mould	60-107	.0050-.0250	.0250-.0500	.0500-.1525	200-350	.0002-.0010	.0010-.0020	.0020-.0060
Steel-Tool	30-90	.0050-.0250	.0250-.0500	.0500-.1525	100-300	.0002-.0010	.0010-.0020	.0020-.0060
Stainless Steel (Soft)	45-107	.0050-.0250	.0250-.0500	.0500-.1525	150-350	.0002-.0010	.0010-.0020	.0020-.0060
Stainless Steel (Hard)	15-60	.0050-.0125	.0125-.0250	.0250-.1250	50-200	.0002-.0005	.0005-.0010	.0010-.0050
Titanium - Soft	35-107	.0050-.0250	.0250-.0500	.0500-.1525	12-350	.0002-.0010	.0010-.0020	.0020-.0060
Titanium - Hard	9-45	.0050-.0125	.0125-.0250	.0250-.1015	30-150	.0002-.0005	.0005-.0010	.0010-.0040

For lighter radial depths of cut - higher range of recommended surface speeds should be used.
 For greater radial depths of cut - lower range of recommended surface speeds should be used.
 For slotting applications - speeds should be reduced approximately by 20% of the lowest range value.
 Axial depth of cut - recommendations are not to exceed 1.5 times of the cutter diameter.
 The above recommendation should be used only as a starting point, with possible variations to achieve optimum results.