

SPEEDS AND FEEDS FOR CARBIDE ENDMILLS
ENDMILL DIAMETER FEED PER TOOTH (INCHES)

MATERIAL	SPEED SURFACE FEET PER MINUTE	ENDMILL DIAMETER FEED PER TOOTH (INCHES)		
		UP TO 1/4"	UP TO 1/2"	UP TO 1"
ALUMINUM / ALUMINUM ALLOYS	600-1300	.0002 - .002	.002 - .004	.004 - .008
BRASS / SOFT BRONZE	400-700	.0005 - .002	.002 - .003	.003 - .005
BRONZE / HIGH TENSILE	250-400	.001 - .002	.002 - .003	.004 - .006
COPPER / COPPER ALLOYS	350-900	.0005 - .002	0.002	.002 - .006
IRON-CAST (SOFT)	200-500	.0005 - .002	.002 - .003	.003 - .006
IRON-CAST (HARD)	100-450	.0003 - .001	.0008 - .002	.003 - .005
IRON-DUCTILE	80-400	.0002 - .001	.001 - .002	.002 - .006
IRON MALLEABLE	250-600	.001 - .002	.001 - .003	.003 - .008
MAGNESIUM / MAGNESIUM ALLOYS	800-1400	.0005 - .002	.002 - .004	.004 - .010
MOLYBDENUM	800-1100	.001 - .002	.002 - .004	.004 - .008
MONEL / HIGH NICKEL STEEL	150-300	.0002 - .001	.001 - .002	.002 - .004
NICKEL BASE HI-TEMP ALLOYS	20-130	.0003 - .0008	.0008 - .001	.001 - .002
PLASTICS	600-1200	.0006 - .003	.003 - .006	.006 - .015
PLASTICS-GLASS FILLED	300-800	.0006 - .003	.003 - .004	.004 - .012
REFRACTORY ALLOYS	80-400	.0002 - .001	0.001	.001 - .002
STEEL-LOW CARBON	250-550	.0002 - .001	.001 - .003	.003 - .007
STEEL-MEDIUM CARBON	100-250	.0004 - .0015	.0015 - .002	.002 - .005
STEEL-UP TO Rc35	150-250	.0005 - .001	.001 - .002	.002 - .003
STEEL-Rc35 - Rc50	80-150	.0003 - .0007	.0007 - .001	.002 - .003
STEEL-Rc50 - Rc60	25-120	.0002 - .0005	.0005 - .001	.001 - .003
STEEL-MOLD	200-350	.0002 - .001	.001 - .002	.002 - .006
STEEL-TOOL	100-300	.0002 - .001	.001 - .002	.002 - .006
STAINLESS STEEL-SOFT	250-400	.0002 - .001	.001 - .002	.002 - .006
STAINLESS STEEL-HARD	50-250	.0002 - .001	.001 - .002	.001 - .005
TITANIUM-SOFT	120-350	.0002 - .001	.001 - .002	.002 - .006
TITANIUM-HARD	30-150	.0002 - .0005	.0005 - .001	.001 - .004

PLUNGE OPERATIONS: REDUCE FEED PER TOOTH 50-65%

SLOTING APPLICATIONS: SURFACE SPEEDS (SFM) SHOULD BE REDUCED APPROXIMATELY 20% OF THE LOWEST VALUE

LIGHT RADIAL: DEPTHS OF CUT, THE HIGHER OF THE RECOMMENDED SURFACE SPEEDS (SFM) SHOULD BE USED

GREATER RADIAL: DEPTHS OF CUT (MORE THAN .5 X DIAMETER) THE LOWER RANGE OF SURFACE SPEEDS (SFM) SHOULD BE USED

AXIAL DEPTH OF CUT: RECOMMENDATIONS ARE NOT TO EXCEED 1-1/2 TIMES THE DIAMETER. IF THIS CONDITION EXISTS,

CONVENTIONAL MILLING SHOULD BE USED AND FEED PER TOOTH SHOULD BE REDUCED BY 50%

PLEASE NOTE: THE ABOVE RECOMMENDATIONS SHOULD BE CONSIDERED ONLY AS A STARTING POINT;
"FINE TUNING" MAY BE REQUIRED IN ORDER TO MAXIMIZE PERFORMANCE