

# SPEEDS AND FEEDS

## SPEEDS AND FEEDS FOR KEY CUTTERS

MATERIAL	TYPE	SPEED SURFACE FEET PER MINUTE
PLASTIC	TEFLON	200
	NYLON	200
	PHENOLIC	180
	GLASS FILLED	150
MAGNESIUM	AZ, AM, EZ, ZE, HK	300
ALUMINUM	2021 THRU 6061	300
COPPER	101-707	100
	834-978	200
BRASS		250
BRONZE		230
CAST IRON	GRAY	180
	DUCTILE	140
	MALLEABLE	100
STEEL	1005-1029	180
	1030-1055	180
	1060-1095	170
	10L45-10L50	165
	12L13-12L15	160
	41L30-41L50	150
	4140-4150	140
	4140 (35 HRC)	130
	8617-8622	120
	M1-M6	110
	H10-H19	100
	D2-D7	90
	A2-A9, 01-07	80
	W1, W2	70
M-50, 52100	60	
TITANIUM	TI-9AI-6V	90
STAINLESS	201-385	100
	405-446	110
	15-5PH, 16-6PH, 14-4PH	120
NICKEL	NICKEL 200-230	80
MONEL		80
INCONEL		80
WASPALLOY		80
HASTELLOY		80

FORMULA FOR COMPUTING SPINDLE SPEED IS.

SURFACE FEET PER MINUTE FACTOR X 4 = ?

? DIVIDED BY DIAMETER OF CUTTER = \_\_\_ RPM

EXAMPLE CUTTING ALUMINUM  
WITH A 3/4" KEY CUTTER

300 X 4 = 1200 divided by .750 = 1600 RPM

SURFACE FEET

MULTIPLIER

CUTTER DIAMETER

FORMULA FOR COMPUTING TABLE SPEED IS.

.001 X NUMBER OF TEETH IN CUTTER X RPM

EXAMPLE CUTTING ALUMINUM  
WITH A 3/4" KEY CUTTER

.001 X 10 X 1600 = 16

MULTIPLIER

NUMBER OF  
TEETH

RPM

INCHES PER  
MINUTE