

# THREAD CUTTING DATA



WORK PIECE MATERIAL		HARDNESS HB	SURFACE SPEED COATED m/min	SURFACE SPEED UNCOATED m/min
<b>P</b> <b>STEEL</b>	Carbon Steel	Low Carbon (C=0.1-0.25 %)	125	115-190
		Medium Carbon (C=0.25-0.55 %)	150	100-175
		High Carbon (C=0.55-0.85 %)	170	90-165
	Low Alloy Steel (Alloying Elements ≤ 5%)	Non Hardened	180	100-180
		Hardened	275	75-140
		Hardened	350	70-135
	High Alloy Steel (Alloying Elements > 5%)	Annealed	200	80-120
		Hardened	325	50-100
Cast Steel	Low Alloy (Alloying Elements <5%)	200	70-130	
	High Alloy (Alloying Elements >5%)	225	60-120	
<b>M</b> <b>STAINLESS STEEL</b>	Stainless Steel Ferritic	Non Hardened	200	70-130
		Hardened	330	60-117
	Stainless Steel Austenitic	Austenitic	180	90-140
		Super Austenitic	200	40-110
	Stainless Steel Cast Ferritic	Non Hardened	200	90-120
		Hardened	330	65-110
	Stainless Steel Cast Austenitic	Austenitic	200	85-110
		Hardened	330	60-100
<b>K</b> <b>CAST IRON</b>	Malleable Cast Iron	Ferritic (Short Chips)	130	60-70
		Pearlitic (Long Chips)	230	60-145
	Gray Cast Iron	Low Tensile Strength	180	70-130
		High Tensile Strength	260	60-115
	Nodular Sg Iron	Ferritic	160	126-160
		Pearlitic	260	90-120
<b>N</b> <b>NON-FERROUS</b>	Aluminum Alloy Wrought	Non Aging	60	100-365
		Aged	100	80-220
	Aluminium Alloy	Cast	75	200-400
		Cast & Aged	90	200-280
		Cast Si 13-22%	130	60-180
	Copper & Copper Alloy	Brass	90	80-225
		Bronze & Non Leaded Copper	100	80-255
	<b>S</b> <b>HRSA</b>	High Temperature Alloy	Annealed (Iron Based)	200
Aged (Iron Based)			280	30-50
Annealed (Nickel Or Cobalt Based)			250	20-30
Aged (Nickel Or Cobalt Based)			350	15-25
Titanium Alloy		Pure 99.5 Ti	400Rm	140-170
		A+B Alloys	1050Rm	50-70
<b>H</b> <b>HARD MATERIALS</b>	Hardened Steel	Hardened & Tempered Steel	45-50HRc	45-60
			51-55HRc	40-50

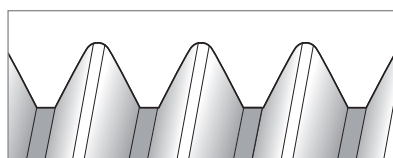
## Calculating RPM

•RPM

$$n = \frac{vc \times 1000}{\pi \times Dia}$$

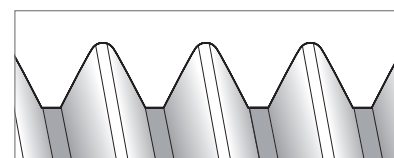
## Thread Hand

### LEFT-HAND THREAD



A thread which when viewed axially, winds in an anti-clockwise and receding direction (LH).

### RIGHT-HAND THREAD



A thread which when viewed axially, winds in a clockwise and receding direction (RH).