

# Speeds and Feeds



## How To Use This Chart:

- 1) Select your material in the ISO colored chart
- 2) Start with the recommended SFM (Vc) and feed (inch/tooth)
  - Adjust the SFM and/or feed rate based on your cutting conditions.

## HSNP - Haas Square Negative Positive

		Cutting Data															
		Insert Grade	HP30			HMP20			HMP35			HK25			HSNP - Haas Square - / +		
Workpiece Material	Condition	Hardness HB	Starting SFM			Starting SFM			Starting SFM			Starting SFM			Starting Feed Per Tooth		
			a <sub>e</sub> / D		a <sub>e</sub> / D	a <sub>e</sub> / D		a <sub>e</sub> / D	a <sub>e</sub> / D		a <sub>e</sub> / D	a <sub>e</sub> / D		a <sub>e</sub> / D	Finishing	Medium Cut	Roughing
			1/1	3/4	1/5	1/1	3/4	1/5	1/1	3/4	1/5	1/1	3/4	1/5			
P Steel	Unalloyed Steel	0.15% C annealed	125	853	984	804	935	853	984						0.0087	0.0100	
		0.45% C annealed	190	738	836	689	804	738	836								
		0.45% C tempered	250	689	787	656	754	689	787								
		0.75% C annealed	270	607	689	574	656	607	689								
		0.75% C tempered	300	558	640	525	623	558	640								
	Low-alloyed Steel	annealed	180	738	836	689	804	738	836					0.0081	0.0093		
		tempered	275	607	689	574	656	607	689								
		tempered	300	558	640	525	623	558	640								
		tempered	350	476	541	443	525	476	541								
	High-Alloyed Steel and Tool Steel	annealed	200	426	492	410	476	426	492					0.0076	0.0088		
hardened and tempered		325	312	344	295	328	312	344									
M Stainless Steel	Stainless Steel	Ferritic/Martensitic	200			410	476	426	492					0.0061	0.0070		
		Martensitic	240			344	394	361	426								
		Austenitic	180			426	508	459	525								
		Austenitic/Ferritic	240			344	394	361	426								
K Cast Iron	Grey Cast Iron	Perlitic/Ferritic	180			886	1033			1050	1214		0.0095	0.0110			
		Perlitic/Martensitic	260			525	623			623	722						
	Ductile Cast Iron	Ferritic	160			607	705			722	836		0.0087	0.0100			
		Perlitic	250			410	476			476	558						
	Malleable Cast Iron	Ferritic	130			738	853			869	1000		0.0087	0.0100			
		Perlitic	230			492	574			574	672						

