

Speeds and Feeds



How To Use This Chart:

! 5 X 'hi \gh AU'b X Z Z Y X U V g Y X ic iWf h Wc b [X] h] c b g "

K 5 F B = B ; - Never exceed the maximum RPM rating of the cutter body.

HRNP - Haas Rectangle Negative Positive

Workpiece Material	Condition	Insert Grade	Cutting Data												HRNP - Haas Rectangle - \ +			
			HP30		HMP20		HMP35		HK25		HN25		Starting SFM					
			Starting SFM		Starting SFM		Starting SFM		Starting SFM		Starting SFM		Starting					
			a _e /D	a _e /D	a _e /D	a _e /D	a _e /D	a _e /D	a _e /D	a _e /D	a _e /D	a _e /D	Feed Per Tooth					
1/1	3/4	1/5	1/1	3/4	1/5	1/1	3/4	1/5	1/1	3/4	1/5	1/1	3/4	1/5	Finishing	Medium Cut	Roughing	
P Steel	Unalloyed Steel	0.15% C annealed	125	853	984	804	935	853	984							0.0098		
		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							0.0092		
		tempered	275	607	689	574	656	607	689									
		tempered	300	558	640	525	623	558	640									
High-Alloyed Steel and Tool Steel	annealed	200	426	492	410	476	426	492							0.0087			
	hardened and tempered	325	312	344	295	328	312	344										
M Stainless Steel	Stainless Steel	Ferritic/Martensitic	200			410	476	426	492							0.0069		
		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				0.0108			
		Perlitic/Martensitic	260			525	623			623	722							
	Ductile Cast Iron	Ferritic	160			607	705			722	836				0.0098			
		Perlitic	250			410	476			476	558							
	Malleable Cast Iron	Ferritic	130			738	853			869	1000				0.0098			
Perlitic	230			492	574			574	672									
N Non-Ferrous	Aluminum Alloys Wrought	Cannot be hardened										4936	5691	0.0084				
		hardened										4018	4658					
	Cast Aluminum Alloys	≤ 12% Si, not hardened											1771	2034	0.0084			
		≤ 12% Si, hardened											1427	1656				
		> 12% Si, not hardened											722	836				
	Copper and Copper Alloys (bronze/brass)	machining steel, PB> 1%											558	640	0.0075			
		CuZn, CuSnZn											689	804				
	CuSn, Pb-free copper, electrolytic copper											1263	1460					

