

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.
- Calculated RPM may exceed the maximum RPM of the cutter body. **WARNING:** Never exceed the maximum RPM rating of the cutter body.

HRNP - Haas Rectangle Negative Positive

				Cutting Data														
			Insert Grade	HP30		HMP20		HMP35		HK25		HN25		HRNP - Haas Rectangle - \ +				
	Workpiece Material	Condition	Hardness HB	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	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	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									
		tempered	350	476	541	443	525	476	541									
	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/Matensitic	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							
	DuctileCast 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					

