

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.

HOP- Haas Octagon Positive

Workpiece Material	Condition	Insert Grade	Hardness HB	Cutting Data												HOP - Haas Octagon Positive					
				HP30			HMP20			HMP35			HK25						HN25		
				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	a _e /D	a _e /D	1/1	3/4	1/5	Finishing	Medium Cut	Roughing
P Steel	Unalloyed Steel	0.15% C annealed	125	804	935	754	869	804	935							0.0079	0.0098				
		0.45% C annealed	190	689	804	656	754	689	804												
		0.45% C tempered	250	656	754	607	705	656	754												
		0.75% C annealed	270	574	656	541	623	574	656												
		0.75% C tempered	300	525	623	492	574	525	623												
	Low-alloyed Steel	annealed	180	689	804	656	754	689	804							0.0073	0.0092				
		tempered	275	574	656	541	623	574	656												
		tempered	300	525	623	492	574	525	623												
		tempered	350	443	525	426	492	443	525												
	High-Alloyed Steel and Tool Steel	annealed	200	410	476	377	443	410	476							0.0069	0.0087				
hardened and tempered		325	295	328	279	312	295	328													
M Stainless Steel	Stainless Steel	Ferritic/Martensitic	200			377	443	410	476							0.0055	0.0069				
		Martensitic	240			328	377	344	394												
		Austenitic	180			410	476	426	508												
		Austenitic/Ferritic	240			328	377	344	394												
K Cast Iron	Grey Cast Iron	Perlitic/Ferritic	180			836	968			886	1033				0.0087	0.0108					
		Perlitic/Martensitic	260			492	574			525	623										
	Ductile Cast Iron	Ferritic	160			574	656			607	705				0.0079	0.0098					
		Perlitic	250			377	443			410	476										
	Malleable Cast Iron	Ferritic	130			689	787			738	853				0.0079	0.0098					
		Perlitic	230			459	525			492	574										
N Non-Ferrous	Aluminum Alloys Wrought	Cannot be hardened													0.0067	0.0084					
		hardened																			
	Cast Aluminum Alloys	≤ 12% Si, not hardened														0.0067	0.0084				
		≤ 12% Si, hardened																			
		> 12% Si, not hardened																			
	Copper and Copper Alloys (bronze/brass)	machining steel, PB> 1%														0.006	0.0075				
		CuZn, CuSnZn																			
		CuSn, Pb-free copper, electrolytic copper																			

