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.

HPAL2 - Haas Sq Shoulder Positive, Positive (Inch)

				Cutting Data				
			Insert Grade	HN30		HPAL2 - Haas Sq Shoulder +\ +		
	Workpiece Material	Condition	Hardness HB	Starting SFM		Starting Feed Per Tooth		
				a_e / D	a_e / D			
				1/1 | 3/4	1/5	Finishing	Medium Cut	Roughing
N Non-Ferrous	Aluminum Alloys Wrought	Cannot be hardened		2952 - 5904	4920 - 7216	0.0039 - 0.0472	0.0039 - 0.0315	0.0039 - 0.0196
		hardened		2296 - 4920	2624 - 5904	0.0039 - 0.0315	0.0039 - 0.0196	0.0039 - 0.0196
	Cast Aluminum Alloys	≤ 12% Si, not hardened		2296 - 4920	2624 - 5904	0.0039 - 0.0315	0.0039 - 0.0196	0.0039 - 0.0196
		≤ 12% Si, hardened		2296 - 4920	2624 - 5904	0.0039 - 0.0315	0.0039 - 0.0196	0.0039 - 0.0196
		> 12% Si, not hardened		1968 - 4264	2296 - 4920	0.0039 - 0.0315	0.0039 - 0.0196	0.0039 - 0.0196
	Copper and Copper Alloys (bronze/brass)	machining steel, Pb> 1%		2296 - 4920	2952 - 5904	0.0039 - 0.0196	0.0039 - 0.0196	0.0039 - 0.0157
		CuZn, CuSnZn		2296 - 4920	2952 - 5904	0.0039 - 0.0196	0.0039 - 0.0196	0.0039 - 0.0157
		CuSn, Pb-free copper, electrolytic copper		2296 - 4920	2952 - 5904	0.0039 - 0.0196	0.0039 - 0.0196	0.0039 - 0.0157