

GARR TOOL HTD 12 High Performance Drilling Guide

	ISO Material	HRC	M/Min. (Vc)	CHIPLOAD PER TOOTH (Fz)		
				3.0 - 6.0mm	6.0 - 10.0mm	10.0 - 13.0mm
S	COBALT BASE ALLOYS					
	Haynes 25/188, Stellite 21, Cobalt Chrome	< 40 > 40	33 21	.015 - .041 .010 - .030	.041 - .056 .030 - .046	.056 - .089 .046 - .079
	NICKEL BASE ALLOYS					
	Inconel-625/718, Waspaloy, Invar, Rene, Hastelloy, Monel	< 40 > 40	36 24	.015 - .041 .010 - .030	.041 - .056 .030 - .046	.056 - .089 .046 - .079
	IRON BASE ALLOYS					
	A286, Discaloy, Haynes 556, Carpenter 22, Greek Ascology	< 40 > 40	36 24	.015 - .041 .010 - .030	.041 - .056 .030 - .046	.056 - .089 .046 - .079
	TITANIUM ALLOYS					
Commercially Pure, 6Al-4V, Astm 1/2/3, 6Al-25N-4Zr-2Mo-Si		52	.015 - .066	.066 - .102	.102 - .140	
5553 / Beta Titanium		36	.013 - .058	.058 - .086	.086 - .119	
M	STAINLESS STEELS					
	13/8, 15/5, 17-4, pH Types	< 40 > 40	45 32	.015 - .046 .013 - .033	.046 - .089 .033 - .076	.089 - .124 .076 - .109
	300 Series, 304L, Nitronic 50, Duplex, Super-Austenitic	< 40 > 40	45 32	.015 - .046 .013 - .033	.046 - .089 .033 - .076	.089 - .124 .076 - .109
	400 Series - 403, 405, 420, 455	< 40 > 40	48 32	.015 - .046 .013 - .033	.046 - .089 .033 - .076	.089 - .124 .076 - .109
	HIGH STRENGTH TOOL STEELS					
A2, D2, P20, H13, S7, O1	< 40 > 40	52 32	.020 - .066 .015 - .051	.066 - .097 .051 - .081	.097 - .127 .081 - .109	
P	MEDIUM ALLOY TOOL STEELS					
	4140, 4340, 52100, 6150, 8620	< 40 > 40	79 33	.020 - .066 .015 - .051	.066 - .097 .051 - .081	.097 - .127 .081 - .109
	CARBON STEELS					
1000's - 1018, 1020, 12L14	< 40	97	.020 - .074	.074 - .114	.114 - .152	
K	CAST MATERIAL					
	Ductile Iron		103	.020 - .074	.074 - .114	.114 - .152
	Gray Iron		106	.020 - .074	.074 - .114	.114 - .152
N	NON-FERROUS					
	Aluminum 2014, 2024, 6061-(T1-T6), 7075		122	.041 - .076	.076 - .117	.117 - .157
	Aluminum Die Cast		114	.036 - .069	.069 - .102	.102 - .137
	Magnesium		83	.036 - .066	.066 - .094	.094 - .124
	Copper		76	.033 - .061	.061 - .079	.079 - .112
	Brass		109	.041 - .076	.076 - .112	.112 - .152
Bronze		79	.033 - .061	.061 - .079	.079 - .112	

NOTE - ABOVE ARE STARTING PARAMETERS ONLY. HIGHER RESULTS MAY BE ACHIEVED WITH OPTIMUM CONDITIONS.