

## SPEEDS & FEEDS (Miniature High Performance Drills – Hardened Steels)

**Important Note:** Values in table are in inches and are based on 3x and 5x drill lengths. For longer lengths, table values of IPR must be reduced (for 8x and 10x, reduce to 75%. For 12x, reduce to 65%). Pecking cycles are recommended to avoid chip piling and breakage. For materials at 38-45 Rc, initial peck depth should be 1-2x Diameter with each subsequent peck at .5-1x Diameter. For higher hardness materials, peck depths should be .5-1x Diameter. For complete speeds and feeds charts, please go to [www.harveytool.com](http://www.harveytool.com).

Material	Hardness	SFM	Chip Load IPR (Inches Per Revolution) By Drill Diameter									
			.015	.031	.047	.062	.078	.093	.125	.187	.250	.375
Hardened Steels	38-45 Rc	150	.00029	.00060	.00090	.00119	.00150	.00179	.00240	.00359	.00480	.00720
	46-55 Rc	90	.00022	.00045	.00068	.00089	.00112	.00134	.00180	.00269	.00360	.00540
	56-68 Rc	40	.00014	.00030	.00045	.00060	.00075	.00089	.00120	.00180	.00240	.00360