

 $\begin{tabular}{ll} \textbf{Product Table:} & \textbf{Miniature High Performance Drills - Prehardened Steels} \\ \textbf{Characteristics:} & 3x-5x & \textbf{Length of Flute} \\ \end{tabular}$

Series: BVTxxx-C3, DHExxxx-C3

Product Notes:

Pecking cycles are recommended to avoid chip packing and breakage.

- For steels at 29-37 Rc, an initial peck should be 2-3x Diameter, and each subsequent peck should be 1-2x Diameter.
- For harder steels at 38-45 Rc, 1-2x Diameter is recommended for an initial peck, and each subsequent peck should be .5-1x Diameter.

General Notes:

All posted speed and feed parameters are suggested starting values that may be increased given optimal setup conditions.

If you require additional information, Harvey Tool has a team of technical experts available to assist you through even the most challenging applications. Please contact us at 800-645-5609 or Harveytech@harveyperformance.com.

WARNING: Cutting tools may shatter under improper use. Government regulations require use of safety glasses and other appropriate safety equipment in the vicinity of use.

MATERIAL		Hardness: 29-37 Rc (279-344 HBn)											Hardness: 38-45 Rc (353-421 HBn)									
	SFM	Chip Load (IPR - Inches Per Revolution) By Drill Diameter									SFM Chip Load (IPR - Inches Per Revolution) By Drill Diameter											
	J	0.015	0.031	0.047	0.062	0.078	0.093	0.125	0.187	0.250	J	0.015	0.031	0.047	0.062	0.078	0.093	0.125	0.187	0.250		
CARBON STEELS Free-Machining/Low Carbon steels, 10xx 1029 & all 10Lxx, 11xx - 1139 & all 11Lxx, 12xx - 1215 & all 12Lxx	240	.00063	.00130	.00197	.00260	.00328	.00391	.00525	.00785	.01050	-	-	-	-	-	-	-	-	-	-		
1030 - 1095, 1140 - 1151, 13xx, 15xx, 2xxx, 3xxx, 4xxx & 4xLxx, 5xxx & 5xLxx, 50xx & 50Lxx, 51xxx & 51Lxxx, 52xxx & 52Lxxx, 6xxx, 6xxx, 9xxx	150	.00058	.00119	.00180	.00238	.00300	.00357	.00480	.00718	.00960	-	-	-	-	-	-	-	-	-	-		
STAINLESS STEELS																						
203 EZ, 303 (all types), 416, 416Se, 416 Plus X, 420F, 420FSe, 430F, 430FSe, 440F, 440FSe	180	.00063	.00130	.00197	.00260	.00328	.00391	.00525	.00785	.01050	=	-	-	-	-	-	-	-	-	-		
201, 202, 203, 205, 301, 302, 304, 304, 304, 309, 310, 314, 316, 316, 317, 321, 329, 330, 347, 348, 385, 403, 405, 409, 410, 413, 420, 429, 430, 434, 436, 442, 446, 501, 502	150	.00058	.00119	.00180	.00238	.00300	.00357	.00480	.00718	.00960	100	.00046	.00095	.00144	.00190	.00240	.00286	.00384	.00574	.00768		
414, 431, 440A, 440B, 440C, 13-8, 15-5, 15-7, 17-4, 17-7	125	.00036	.00074	.00113	.00149	.00187	.00223	.00300	.00449	.00600	90	.00029	.00060	.00090	.00119	.00150	.00179	.00240	.00359	.00480		
TOOL STEELS																						
A, L, O, P, W series	125	.00058	.00119	.00180	.00238	.00300	.00357	.00480	.00718	.00960	100	.00046	.00095	.00144	.00190	.00240	.00286	.00384	.00574	.00768		
D, H, M, T, S series	90	.00036	.00074	.00113	.00149	.00187	.00223	.00300	.00449	.00600	75	.00029	.00060	.00090	.00119	.00150	.00179	.00240	.00359	.00480		
TITANIUM ALLOYS	100	.00036	.00074	.00113	.00149	.00187	.00223	.00300	.00449	.00600	75	.00029	.00060	.00090	.00119	.00150	.00179	.00240	.00359	.00480		
HIGH TEMP ALLOYS																						
Inconel, Hastelloy, Waspalloy, Monel, Nimonic, Haynes, Discoloy, Incoloy	70	.00036	.00074	.00113	.00149	.00187	.00223	.00300	.00449	.00600	50	.00029	.00060	.00090	.00119	.00150	.00179	.00240	.00359	.00480		