Product Table: Miniature High Performance Drills - Prehardened Steels Characteristics: 3x-5x Length of Flute

Series: BVTxxx-C3, DHExxxx-C3, FKBxxxx-C3, GKTxxxx-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 | SFM Chip Load (IPR - Inches Per Revolution) By Drill Diameter | | | | | | | | | | | | | |
| | | 0.015 | 0.031 | 0.047 | 0.062 | 0.078 | 0.093 | 0.125 | 0.187 | 0.250 | 0.375 | 0.500 | | 0.015 | 0.031 | 0.047 | 0.062 | 0.078 | 0.093 | 0.125 | 0.187 | 0.250 | 0.375 | 0.500 | |
| 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 | .01575 | .02100 | - | - | - | - | - | - | - | - | - | - | - | - | |
| 1030 - 1095, 1140 - 1151, 13xx, 15xx, 2xxx, 3xxx, 4xxx & 4xLxx, 5xxx & 5xLxx, 50xx & 50Lxxx, 51xx & 51Lxxx, 52xx & 52Lxxx, 6xxx, 6xxx, 9xxx | 150 | .00058 | .00119 | .00180 | .00238 | .00300 | .00357 | .00480 | .00718 | .00960 | .01440 | .01920 | - | - | - | - | - | - | - | - | - | - | - | - | |
| 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 | .01575 | .02100 | - | - | - | - | - | - | - | - | - | - | - | - | |
| 201, 202, 203, 205, 301, 302, 304, 304L, 308, 309, 310, 314, 316, 316L, 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 | .01440 | .01920 | 100 | .00046 | .00095 | .00144 | .00190 | .00240 | .00286 | .00384 | .00574 | .00768 | .01152 | .01536 | |
| 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 | .00900 | .01200 | 90 | .00029 | .00060 | .00090 | .00119 | .00150 | .00179 | .00240 | .00359 | .00480 | .00720 | .00960 | |
| TOOL STEELS | | | | | | | | | | | | | | | | | | | | | | | | | |
| A, L, O, P, W series | 125 | .00058 | .00119 | .00180 | .00238 | .00300 | .00357 | .00480 | .00718 | .00960 | .01440 | .01920 | 100 | .00046 | .00095 | .00144 | .00190 | .00240 | .00286 | .00384 | .00574 | .00768 | .01152 | .01536 | |
| D, H, M, T, S series | 90 | .00036 | .00074 | .00113 | .00149 | .00187 | .00223 | .00300 | .00449 | .00600 | .00900 | .01200 | 75 | .00029 | .00060 | .00090 | .00119 | .00150 | .00179 | .00240 | .00359 | .00480 | .00720 | .00960 | |
| TITANIUM ALLOYS | 100 | .00036 | .00074 | .00113 | .00149 | .00187 | .00223 | .00300 | .00449 | .00600 | .00900 | .01200 | 75 | .00029 | .00060 | .00090 | .00119 | .00150 | .00179 | .00240 | .00359 | .00480 | .00720 | .00960 | |
| HIGH TEMP ALLOYS Inconel, Hastelloy, Waspalloy, Monel, Nimonic, Haynes, Discoloy, Incoloy | 70 | .00036 | .00074 | .00113 | .00149 | .00187 | .00223 | .00300 | .00449 | .00600 | .00900 | .01200 | 50 | .00029 | .00060 | .00090 | .00119 | .00150 | .00179 | .00240 | .00359 | .00480 | .00720 | .00960 | |