



Speeds & Feeds

Product Table: Miniature High Performance Drills - Prehardened Steels
Characteristics: 8x-10x Length of Flute
Series: ADSxxxx-C3, EXPxxxx-C3, HDVxxxx-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)									
	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
CARBON STEELS										
Free-Machining/Low Carbon steels, 10xx-1029 & all 10Lxx, 11xx - 1139 & all 11Lxx, 12xx - 1215 & all 12Lxx	240	.00047	.00098	.00148	.00195	.00246	.00293	.00394	.00589	.00788
1030 - 1095, 1140 - 1151, 13xx, 15xx, 2xxx, 3xxx, 4xxx & 4xLxx, 5xxx & 5xLxx, 50xxx & 50Lxxx, 51xxx & 51Lxxx, 52xxx & 52Lxxx, 6xxx, 8xxx, 9xxx	150	.00043	.00089	.00135	.00179	.00225	.00268	.00360	.00539	.00720
STAINLESS STEELS										
203 EZ, 303 (all types), 416, 416Se, 416 Plus X, 420F, 420FSe, 430F, 430FSe, 440F, 440FSe	180	.00047	.00098	.00148	.00195	.00246	.00293	.00394	.00589	.00788
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	.00043	.00089	.00135	.00179	.00225	.00268	.00360	.00539	.00720
414, 431, 440A, 440B, 440C, 13-8, 15-5, 15-7, 17-4, 17-7	125	.00027	.00056	.00085	.00112	.00140	.00167	.00225	.00337	.00450
TOOL STEELS										
A, L, O, P, W series	125	.00043	.00089	.00135	.00179	.00225	.00268	.00360	.00539	.00720
D, H, M, T, S series	90	.00027	.00056	.00085	.00112	.00140	.00167	.00225	.00337	.00450
TITANIUM ALLOYS										
Inconel, Hastelloy, Waspalloy, Monel, Nimonic, Haynes, Discoloy, Incoloy	100	.00027	.00056	.00085	.00112	.00140	.00167	.00225	.00337	.00450
HIGH TEMP ALLOYS										
Inconel, Hastelloy, Waspalloy, Monel, Nimonic, Haynes, Discoloy, Incoloy	70	.00027	.00056	.00085	.00112	.00140	.00167	.00225	.00337	.00450

MATERIAL	Hardness: 38-45 Rc (353-421 HBn)									
	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
CARBON STEELS										
Free-Machining/Low Carbon steels, 10xx-1029 & all 10Lxx, 11xx - 1139 & all 11Lxx, 12xx - 1215 & all 12Lxx	-	-	-	-	-	-	-	-	-	-
1030 - 1095, 1140 - 1151, 13xx, 15xx, 2xxx, 3xxx, 4xxx & 4xLxx, 5xxx & 5xLxx, 50xxx & 50Lxxx, 51xxx & 51Lxxx, 52xxx & 52Lxxx, 6xxx, 8xxx, 9xxx	-	-	-	-	-	-	-	-	-	-
STAINLESS STEELS										
203 EZ, 303 (all types), 416, 416Se, 416 Plus X, 420F, 420FSe, 430F, 430FSe, 440F, 440FSe	-	-	-	-	-	-	-	-	-	-
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	100	.00035	.00071	.00108	.00143	.00180	.00214	.00288	.00431	.00576
414, 431, 440A, 440B, 440C, 13-8, 15-5, 15-7, 17-4, 17-7	90	.00022	.00045	.00068	.00089	.00112	.00134	.00180	.00269	.00360
TOOL STEELS										
A, L, O, P, W series	100	.00035	.00071	.00108	.00143	.00180	.00214	.00288	.00431	.00576
D, H, M, T, S series	75	.00022	.00045	.00068	.00089	.00112	.00134	.00180	.00269	.00360
TITANIUM ALLOYS										
Inconel, Hastelloy, Waspalloy, Monel, Nimonic, Haynes, Discoloy, Incoloy	75	.00022	.00045	.00068	.00089	.00112	.00134	.00180	.00269	.00360
HIGH TEMP ALLOYS										
Inconel, Hastelloy, Waspalloy, Monel, Nimonic, Haynes, Discoloy, Incoloy	50	.00022	.00045	.00068	.00089	.00112	.00134	.00180	.00269	.00360