



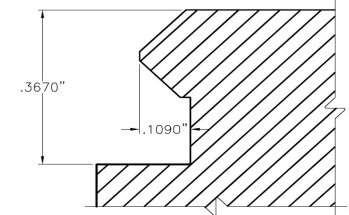
Product Table: Picatinny Form Cutters - Picatinny Rail Form Cutters
Characteristics: 4 Flutes
Series: 8300xx, 8756xx

Product notes:

To achieve Picatinny Form standard, total radial step over is .1090" to create form, independent of cutter diameter.

Chip loads are based off of Cutter Diameter.

Depth of Cut is shown as number of radial passes with each pass resulting in a descending stepover



Chip Loads are given 2 ways:

Double Chamfer - Engaged on either or both chamfer angles only

Full Form - Engaged on the chamfer angles and end length simultaneously

Use double chamfer chiploads for first pass to hog the chamfer profile before full engagement

General notes:

All posted speed and feed parameters are suggested starting values that may be increased given optimal setup conditions. Chip loads reflect uncoated cutters and may be increased 10%-20% if coated. For ferrous materials with hardness ≤ 28 Rc, chip loads can be increased 10%-20%.

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

MATERIAL	Hardness: ≤ 28 Rc (≤ 271 HBn)									Depth of Cut Passes
	SFM	Chip Load (IPT) By Cutter Diameter								
		0.250	0.312	0.375	0.500	0.625	0.750	1.000		
ALUMINUM ALLOYS										
Castings (2xx, 5xx, 7xx, 8xx)	750	Double Chamfer	.00220	.00275	.00330	.00440	.00550	.00660	.00880	2
Wrought (1xxx, 2xxx, 3xxx, 5xxx, 6xxx, 7xxx, 8xxx)	1000	Full Form	.00154	.00192	.00231	.00308	.00385	.00462	.00616	2
Castings - 3%-5% Si (3xx, A3xx, C3xx, 4xx, A4xx, B4xx)	750	Double Chamfer	.00198	.00247	.00297	.00396	.00495	.00594	.00792	2
Castings - 5%-8% Si (3xx, A3xx, C3xx, 4xx, A4xx, B4xx)	700									
Castings - 8%-12% Si (3xx, A3xx, C3xx, 4xx, A4xx, B4xx)	650									
Castings - 12%-16% Si (3xx, A3xx, C3xx, 4xx, A4xx, B4xx)	475	Full Form	.00139	.00173	.00208	.00277	.00347	.00416	.00554	2
Wrought - 5%-8% Si (4xxx)	1000	Full Form	.00123	.00154	.00185	.00246	.00308	.00370	.00493	2
Wrought - 8%-12% Si (4xxx)	800									
MAGNESIUM ALLOYS	1500	Double Chamfer	.00220	.00275	.00330	.00440	.00550	.00660	.00880	2
ZINC ALLOYS	800	Full Form	.00154	.00192	.00231	.00308	.00385	.00462	.00616	2
COPPER ALLOYS										
High Coppers - 90%+ (C1xxx)	225	Double Chamfer	.00176	.00220	.00264	.00352	.00440	.00528	.00704	2
Brass (Copper Zinc alloys, C2xxx, C3xxx, C4xxx, C6400-C69800)	500									
Phosphor Bronzes (Copper Tin alloys, C5xxx)	225									
Aluminum Bronzes (Copper Aluminum alloys, C60600-C64200)	500									
Silicon Bronzes (Copper Silicon alloys, C64700-C66100)	500									
Copper Nickels, Nickel Silvers (Copper Nickel alloys, C7xxx)	225									
Cast Copper Alloys (C83300-C86200, C86400-C87900, C92200-C95800, C97300-C97800, C99400-C99700)	550	Full Form	.00123	.00154	.00185	.00246	.00308	.00370	.00493	2

MATERIAL	Hardness: 29-37 Rc (279-344 HBn)									Depth of Cut Passes
	SFM	Chip Load (IPT) By Cutter Diameter								
		0.250	0.312	0.375	0.500	0.625	0.750	1.000		
CARBON STEELS										
Free-Machining/Low Carbon steels, 10xx - 1029 & all 10Lxx, 11xx - 1139 & all 11Lxx, 12xx - 1215 & all 12Lxx	600	Double Chamfer	.00095	.00118	.00142	.00189	.00236	.00284	.00378	3
		Full Form	.00066	.00083	.00099	.00132	.00165	.00198	.00265	3
1030 - 1095, 1140 - 1151, 13xx, 15xx, 2xxx, 3xxx, 4xxx & 4Lxx, 5xxx & 5Lxx, 50xxx & 50Lxx, 51xxx & 51Lxx, 52xxx & 52Lxx, 6xxx, 8xxx, 9xxx	200	Double Chamfer	.00086	.00108	.00130	.00173	.00216	.00259	.00346	3
		Full Form	.00060	.00075	.00091	.00121	.00151	.00181	.00242	3
STAINLESS STEELS										
203 EZ, 303 (all types), 416, 416Se, 416 Plus X, 420F, 420FSe, 430F, 430FSe, 440F, 440FSe	450	Double Chamfer	.00095	.00118	.00142	.00189	.00236	.00284	.00378	3
		Full Form	.00066	.00083	.00099	.00132	.00165	.00198	.00265	3
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	200	Double Chamfer	.00086	.00108	.00130	.00173	.00216	.00259	.00346	3
		Full Form	.00060	.00075	.00091	.00121	.00151	.00181	.00242	3
414, 431, 440A, 440B, 440C, 13-8, 15-5, 15-7, 17-4, 17-7	150	Double Chamfer	.00054	.00067	.00081	.00108	.00135	.00162	.00216	3
		Full Form	.00038	.00047	.00057	.00076	.00095	.00113	.00151	3
TOOL STEELS										
A, L, O, P, W series	200	Double Chamfer	.00086	.00108	.00130	.00173	.00216	.00259	.00346	3
		Full Form	.00060	.00075	.00091	.00121	.00151	.00181	.00242	3
D, H, M, T, S series	150	Double Chamfer	.00054	.00067	.00081	.00108	.00135	.00162	.00216	3
		Full Form	.00038	.00047	.00057	.00076	.00095	.00113	.00151	3
TITANIUM ALLOYS										
	150	Double Chamfer	.00054	.00067	.00081	.00108	.00135	.00162	.00216	3
		Full Form	.00038	.00047	.00057	.00076	.00095	.00113	.00151	3
HIGH TEMP ALLOYS										
Inconel, Hastelloy, Waspalloy, Monel, Nimonic, Haynes, Incoloy	70	Double Chamfer	.00054	.00067	.00081	.00108	.00135	.00162	.00216	3
		Full Form	.00038	.00047	.00057	.00076	.00095	.00113	.00151	3

MATERIAL	Hardness: 38-45 Rc (353-421 HBn)									Depth of Cut Passes
	SFM	Chip Load (IPT) By Cutter Diameter								
		0.250	0.312	0.375	0.500	0.625	0.750	1.000		
			-	-	-	-	-	-	-	-
			-	-	-	-	-	-	-	-
			-	-	-	-	-	-	-	-
			-	-	-	-	-	-	-	-
			-	-	-	-	-	-	-	-
	100	Double Chamfer	.00086	.00108	.00130	.00173	.00216	.00259	.00346	3
		Full Form	.00060	.00075	.00091	.00121	.00151	.00181	.00242	3
	90	Double Chamfer	.00054	.00067	.00081	.00108	.00135	.00162	.00216	3
		Full Form	.00038	.00047	.00057	.00076	.00095	.00113	.00151	3
	100	Double Chamfer	.00086	.00108	.00130	.00173	.00216	.00259	.00346	3
		Full Form	.00060	.00075	.00091	.00121	.00151	.00181	.00242	3
	90	Double Chamfer	.00054	.00067	.00081	.00108	.00135	.00162	.00216	3
		Full Form	.00038	.00047	.00057	.00076	.00095	.00113	.00151	3
	75	Double Chamfer	.00054	.00067	.00081	.00108	.00135	.00162	.00216	3
		Full Form	.00038	.00047	.00057	.00076	.00095	.00113	.00151	3
	50	Double Chamfer	.00054	.00067	.00081	.00108	.00135	.00162	.00216	3
		Full Form	.00038	.00047	.00057	.00076	.00095	.00113	.00151	3