



Speeds & Feeds

Product Table: Picatinny Form Cutters - Picatinny Recoil Groove End Mills
Characteristics: 3 Flutes
Series: 8626xx, 8648xx, 8744xx

Product notes:

For cutter diameter .206", increase chip load (IPT) of .187" Cutter Diameter by 10%.
 Cutting transition is meant for slight edge breaks and deburring, use finishing chip loads.

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)													
	SFM	Chip Load (IPT) By Cutter Diameter									Depth of Cut			
		0.047	0.062	0.078	0.093	0.125	0.187	0.250	0.312	0.375	0.500	Radial	Axial	
ALUMINUM ALLOYS	750	Slotting	.00056	.00074	.00093	.00110	.00149	.00222	.00297	.00371	.00446	.00594	1 x Dia	.50 x Dia
Casting (2xx, 5xx, 7xx, 8xx)														
Wrought (1xxx, 2xxx, 3xxx, 5xxx, 6xxx, 7xxx, 8xxx)	1000	Finishing	.00088	.00116	.00146	.00175	.00235	.00351	.00469	.00586	.00704	.00939	.25 x Dia	.50 x Dia
Casting - 9%-5% Si (3xx, A3xx, C3xx, 4xx, A4xx, B4xx)	750	Slotting	.00050	.00066	.00083	.00099	.00134	.00200	.00267	.00334	.00401	.00535	1 x Dia	.50 x Dia
Casting - 5%-8% Si (3xx, A3xx, C3xx, 4xx, A4xx, B4xx)	700													
Casting - 8%-12% Si (3xx, A3xx, C3xx, 4xx, A4xx, B4xx)	650													
Casting - 12%-16% Si (3xx, A3xx, C3xx, 4xx, A4xx, B4xx)	475	Finishing	.00079	.00105	.00132	.00157	.00211	.00316	.00422	.00527	.00634	.00845	.25 x Dia	.50 x Dia
Wrought - 5%-8% Si (4xxx)	1000													
Wrought - 8%-12% Si (4xxx)	800													
MAGNESIUM ALLOYS	1500	Slotting	.00056	.00074	.00093	.00110	.00149	.00222	.00297	.00371	.00446	.00594	1 x Dia	.50 x Dia
ZINC ALLOYS	800	Finishing	.00088	.00116	.00146	.00175	.00235	.00351	.00469	.00586	.00704	.00939	.25 x Dia	.50 x Dia
COPPER ALLOYS	225													
High Coppers - 90%+ (C1xxx)														
Brass (Copper Zinc alloys, C2xxx, C3xxx, C4xxx, C66400-C69800)	500	Slotting	.00045	.00059	.00074	.00088	.00119	.00178	.00238	.00297	.00356	.00475	1 x Dia	.50 x Dia
Phosphor Bronzes (Copper in 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	Finishing	.00071	.00093	.00117	.00140	.00188	.00281	.00375	.00469	.00563	.00751	.25 x Dia	.50 x Dia
Cast Copper Alloys (C83300-C86200, C86400-C87900, C92200-C95800, C97300-C97800, C99400-C99700)	550													

MATERIAL	Hardness: 29-37 Rc (279-344 HBn)													
	SFM	Chip Load (IPT) By Cutter Diameter									Depth of Cut			
		0.047	0.062	0.078	0.093	0.125	0.187	0.250	0.312	0.375	0.500	Radial	Axial	
CARBON STEELS	600	Slotting	.00019	.00025	.00032	.00038	.00051	.00076	.00102	.00127	.00153	.00204	1 x Dia	.50 x Dia
Free-Machining/Low Carbon steels, 10xx - 1029 & all 10Lxx, 11xx - 1139 & all 11Lxx, 12xx - 1215 & all 12Lxx		Finishing	.00028	.00036	.00046	.00055	.00073	.00110	.00147	.00183	.00220	.00293	.25 x Dia	.50 x Dia
1030 - 1095, 1140 - 1151, 13xx, 15xx, 2xxx, 3xxx, 4xxx & 4Lxx, 5xxx & 5Lxx, 50xx & 50Lxx, 51xxx & 51Lxx, 52xxx & 52Lxx, 6xxx, 8xxx, 9xxx	200	Slotting	.00018	.00023	.00029	.00035	.00047	.00070	.00093	.00116	.00140	.00187	1 x Dia	.50 x Dia
		Finishing	.00025	.00033	.00042	.00050	.00067	.00100	.00134	.00167	.00201	.00268	.25 x Dia	.50 x Dia
STAINLESS STEELS	450	Slotting	.00019	.00025	.00032	.00038	.00051	.00076	.00102	.00127	.00153	.00204	1 x Dia	.50 x Dia
203 EZ, 303 (all types), 416, 416Se, 416 Plus X, 420F, 420FSe, 430F, 430FSe, 440F, 440FSe		Finishing	.00028	.00036	.00046	.00055	.00073	.00110	.00147	.00183	.00220	.00293	.25 x Dia	.50 x Dia
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	Slotting	.00018	.00023	.00029	.00035	.00047	.00070	.00093	.00116	.00140	.00187	1 x Dia	.50 x Dia
		Finishing	.00025	.00033	.00042	.00050	.00067	.00100	.00134	.00167	.00201	.00268	.25 x Dia	.50 x Dia
414, 431, 440A, 440B, 440C, 13-8, 15-5, 15-7, 17-4, 17-7	150	Slotting	.00011	.00014	.00018	.00022	.00029	.00044	.00058	.00073	.00087	.00117	1 x Dia	.50 x Dia
		Finishing	.00016	.00021	.00026	.00031	.00042	.00063	.00084	.00105	.00126	.00168	.25 x Dia	.50 x Dia
TOOL STEELS	200	Slotting	.00018	.00023	.00029	.00035	.00047	.00070	.00093	.00116	.00140	.00187	1 x Dia	.50 x Dia
A, L, O, P, W series		Finishing	.00025	.00033	.00042	.00050	.00067	.00100	.00134	.00167	.00201	.00268	.25 x Dia	.50 x Dia
D, H, M, T, S series	150	Slotting	.00011	.00014	.00018	.00022	.00029	.00044	.00058	.00073	.00087	.00117	1 x Dia	.50 x Dia
		Finishing	.00016	.00021	.00026	.00031	.00042	.00063	.00084	.00105	.00126	.00168	.25 x Dia	.50 x Dia
TITANIUM ALLOYS	150	Slotting	.00011	.00014	.00018	.00022	.00029	.00044	.00058	.00073	.00087	.00117	1 x Dia	.50 x Dia
		Finishing	.00016	.00021	.00026	.00031	.00042	.00063	.00084	.00105	.00126	.00168	.25 x Dia	.50 x Dia
HIGH TEMP ALLOYS	70	Slotting	.00011	.00014	.00018	.00022	.00029	.00044	.00058	.00073	.00087	.00117	1 x Dia	.50 x Dia
Inconel, Hastelloy, Waspalloy, Monel, Nimonic, Haynes, Discolor, Incoloy		Finishing	.00016	.00021	.00026	.00031	.00042	.00063	.00084	.00105	.00126	.00168	.25 x Dia	.50 x Dia

MATERIAL	Hardness: 38-45 Rc (353-421 HBn)													
	SFM	Chip Load (IPT) By Cutter Diameter									Depth of Cut			
		0.047	0.062	0.078	0.093	0.125	0.187	0.250	0.312	0.375	0.500	Radial	Axial	
		Slotting	.00009	.00012	.00015	.00017	.00023	.00035	.00047	.00058	.00070	.00093	1 x Dia	.50 x Dia
		Finishing	.00013	.00017	.00021	.00025	.00034	.00051	.00068	.00084	.00101	.00135	.25 x Dia	.50 x Dia
		Slotting	.00005	.00007	.00009	.00011	.00015	.00022	.00029	.00036	.00044	.00058	1 x Dia	.50 x Dia
		Finishing	.00008	.00010	.00013	.00016	.00021	.00032	.00042	.00053	.00063	.00085	.25 x Dia	.50 x Dia
		Slotting	.00009	.00012	.00015	.00017	.00023	.00035	.00047	.00058	.00070	.00093	1 x Dia	.50 x Dia
		Finishing	.00013	.00017	.00021	.00025	.00034	.00051	.00068	.00084	.00101	.00135	.25 x Dia	.50 x Dia
		Slotting	.00005	.00007	.00009	.00011	.00015	.00022	.00029	.00036	.00044	.00058	1 x Dia	.50 x Dia
		Finishing	.00008	.00010	.00013	.00016	.00021	.00032	.00042	.00053	.00063	.00085	.25 x Dia	.50 x Dia
		Slotting	.00005	.00007	.00009	.00011	.00015	.00022	.00029	.00036	.00044	.00058	1 x Dia	.50 x Dia
		Finishing	.00008	.00010	.00013	.00016	.00021	.00032	.00042	.00053	.00063	.00085	.25 x Dia	.50 x Dia
		Slotting	.00005	.00007	.00009	.00011	.00015	.00022	.00029	.00036	.00044	.00058	1 x Dia	.50 x Dia
		Finishing	.00008	.00010	.00013	.00016	.00021	.00032	.00042	.00053	.00063	.00085	.25 x Dia	.50 x Dia