



Speeds & Feeds

Product Table: Variable Helix End Mills for Aluminum Alloys - Square
Characteristics: 4x Length of Cut
Series: 7700xx, 8572xx, 8573xx, 7700xx-C8 8572xx-C8, 8573xx-C8

Cutter Series	MATERIAL	SFM	Chip Load (IPT) By Cutter Diameter												Depth of Cut			
			0.015	0.031	0.047	0.062	0.078	0.093	0.125	0.187	0.250	0.312	0.375	0.500	Radial	Axial		
Uncoated	ALUMINUM ALLOYS Casting (2xx, 5xx, 7xx, 8xx)	750	Slotting	.00015	.00031	.00047	.00061	.00077	.00092	.00124	.00185	.00248	.00324	.00390	.00520	1x Dia	.35x Dia	
	Wrought (1xxx, 2xxx, 3xxx, 5xxx, 6xxx, 7xxx, 8xxx)	1000	Roughing	.00017	.00036	.00054	.00072	.00090	.00107	.00144	.00216	.00289	.00378	.00455	.00606	.35x Dia	.5x - 1x Dia	
	MAGNESIUM ALLOYS	1500	Finishing	.00019	.00038	.00058	.00077	.00097	.00115	.00155	.00231	.00309	.00405	.00487	.00650	.1x Dia	.5x - 1x Dia	
	ZINC ALLOYS	800	Max	.00020	.00041	.00062	.00082	.00103	.00123	.00165	.00247	.00330	.00432	.00520	.00693	-	-	
	COPPER ALLOYS High Coppers - 90%+ (C1xxxx)	225	Slotting	.00012	.00025	.00037	.00049	.00062	.00074	.00099	.00148	.00198	.00259	.00312	.00416	1x Dia	.35x Dia	
	Brass (Copper Zinc alloys, C2xxxx, C3xxxx, C4xxxx, C66400-C69800)	500		.00012	.00025	.00037	.00049	.00062	.00074	.00099	.00148	.00198	.00259	.00312	.00416	1x Dia	.35x Dia	
	Phosphor Bronzes (Copper Tin alloys, C5xxxx)	225		Roughing	.00014	.00029	.00043	.00057	.00072	.00086	.00116	.00173	.00231	.00303	.00364	.00485	.35x Dia	.5x - 1x Dia
	Aluminum Bronzes (Copper Aluminum alloys, C60600-C64200)	500			.00014	.00029	.00043	.00057	.00072	.00086	.00116	.00173	.00231	.00303	.00364	.00485	.35x Dia	.5x - 1x Dia
	Silicon Bronzes (Copper Silicon alloys, C64700-C66100)	500		Finishing	.00015	.00031	.00047	.00061	.00077	.00092	.00124	.00185	.00248	.00324	.00390	.00520	.1x Dia	.5x - 1x Dia
	Copper Nickels, Nickel Silvers (Copper Nickel alloys, C7xxxx)	225	Max	.00016	.00033	.00050	.00065	.00082	.00098	.00132	.00197	.00264	.00346	.00416	.00554	-	-	
Cast Copper Alloys (C83300-C86200, C86400-C87900, C92200-C95800, C97300-C97800, C99400-C99700)	550	.00016		.00033	.00050	.00065	.00082	.00098	.00132	.00197	.00264	.00346	.00416	.00554	-	-		
TiB2	ALUMINUM ALLOYS Casting (2xx, 5xx, 7xx, 8xx)	1000	Slotting	.00019	.00040	.00060	.00080	.00100	.00120	.00161	.00241	.00322	.00422	.00507	.00676	1x Dia	.35x Dia	
	Wrought (1xxx, 2xxx, 3xxx, 5xxx, 6xxx, 7xxx, 8xxx)	1400	Roughing	.00023	.00047	.00071	.00093	.00117	.00140	.00188	.00281	.00375	.00492	.00591	.00788	.35x Dia	.5x - 1x Dia	
	MAGNESIUM ALLOYS	2000	Finishing	.00024	.00050	.00076	.00100	.00125	.00150	.00201	.00301	.00402	.00527	.00633	.00845	.1x Dia	.5x - 1x Dia	
	ZINC ALLOYS	1100	Max	.00026	.00053	.00081	.00106	.00134	.00160	.00215	.00321	.00429	.00562	.00676	.00901			
Amorphous Diamond	ALUMINUM (High Silicon) Casting - 3%-5% Si (3xx, A3xx, C3xx, 4xx, A4xx, B4xx)	2500	Slotting	.00016	.00034	.00051	.00068	.00085	.00101	.00136	.00204	.00272	.00357	.00429	.00572	1x Dia	.3x Dia	
	Casting - 5%-8% Si (3xx, A3xx, C3xx, 4xx, A4xx, B4xx)	2000		Roughing	.00019	.00039	.00060	.00079	.00099	.00118	.00159	.00238	.00318	.00416	.00500	.00667	.3x Dia	.3x - .8x Dia
	Casting - 8%-12% Si (3xx, A3xx, C3xx, 4xx, A4xx, B4xx)	1500	Finishing		.00020	.00042	.00064	.00084	.00106	.00127	.00170	.00255	.00340	.00446	.00536	.00715	.1x Dia	.5x - 1x Dia
	Casting - 12%-16% Si (3xx, A3xx, C3xx, 4xx, A4xx, B4xx)	1000			Max	.00022	.00045	.00068	.00090	.00113	.00135	.00182	.00272	.00363	.00476	.00572	.00762	-
	Wrought - 5%-8% Si (4xxx)	2200	Max	.00022		.00045	.00068	.00090	.00113	.00135	.00182	.00272	.00363	.00476	.00572	.00762	-	-
	Wrought - 8%-12% Si (4xxx)	1700		Slotting	.00013	.00027	.00041	.00054	.00068	.00081	.00109	.00163	.00218	.00285	.00343	.00457	1x Dia	.3x Dia
	COPPER ALLOYS High Coppers - 90%+ (C1xxxx)	800	Roughing		.00015	.00032	.00048	.00063	.00079	.00095	.00127	.00190	.00254	.00333	.00400	.00534	.3x Dia	.3x - .8x Dia
	Brass (Copper Zinc alloys, C2xxxx, C3xxxx, C4xxxx, C66400-C69800)	1500		Finishing	.00016	.00034	.00051	.00068	.00085	.00101	.00136	.00204	.00272	.00357	.00429	.00572	.1x Dia	.5x - 1x Dia
	Phosphor Bronzes (Copper Tin alloys, C5xxxx)	800	Max		.00017	.00036	.00055	.00072	.00091	.00108	.00145	.00217	.00290	.00381	.00457	.00610	-	-
	Aluminum Bronzes (Copper Aluminum alloys, C60600-C64200)	1000		Max	.00017	.00036	.00055	.00072	.00091	.00108	.00145	.00217	.00290	.00381	.00457	.00610	-	-
Silicon Bronzes (Copper Silicon alloys, C64700-C66100)	1000	Max	.00017		.00036	.00055	.00072	.00091	.00108	.00145	.00217	.00290	.00381	.00457	.00610	-	-	
Copper Nickels, Nickel Silvers (Copper Nickel alloys, C7xxxx)	800		Max	.00017	.00036	.00055	.00072	.00091	.00108	.00145	.00217	.00290	.00381	.00457	.00610	-	-	
Cast Copper Alloys (C80100-C82800, C86300, C90200-C91700, C96200-C96600, C99300)	150	Max		.00017	.00036	.00055	.00072	.00091	.00108	.00145	.00217	.00290	.00381	.00457	.00610	-	-	
Cast Copper Alloys (C83300-C86200, C86400-C87900, C92200-C95800, C97300-C97800, C99400-C99700)	750		Max	.00017	.00036	.00055	.00072	.00091	.00108	.00145	.00217	.00290	.00381	.00457	.00610	-	-	

Please note:

All posted speed and feed parameters are suggested starting values that may be increased given optimal setup conditions. If less than minimum Axial or Radial DOC values are used, increased feed rates are possible. If greater than maximum Axial or Radial DOC values are used, decreased feed rates may be needed.

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.