



Speeds & Feeds

**Product Table:** Variable Helix End Mills for Aluminum Alloys - Square

**Characteristics:** 8x Length of Cut

**Series:** 7460xx, 7461xx, 7460xx-C8, 7461xx-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	<b>ALUMINUM ALLOYS</b>																
	Casting (2xx, 5xx, 7xx, 8xx)	750	Slotting	.00011	.00023	.00034	.00045	.00057	.00068	.00091	.00136	.00182	.00238	.00286	.00381	1x Dia	.28x Dia
	Wrought (1xxx, 2xxx, 3xxx, 5xxx, 6xxx, 7xxx, 8xxx)	1000	Roughing	.00013	.00026	.00040	.00053	.00066	.00079	.00106	.00158	.00212	.00277	.00334	.00445	.28x Dia	.5x - 1x Dia
	<b>MAGNESIUM ALLOYS</b>	1500	Finishing	.00014	.00028	.00043	.00056	.00071	.00084	.00113	.00170	.00227	.00297	.00357	.00476	.1x Dia	.5x - 1x Dia
	<b>ZINC ALLOYS</b>	800	Max	.00015	.00030	.00045	.00060	.00076	.00090	.00121	.00181	.00242	.00317	.00381	.00508	-	-
	<b>COPPER ALLOYS</b>																
	High Coppers - 90%+ (C1xxxx)	225	Slotting	.00009	.00018	.00027	.00036	.00045	.00054	.00073	.00109	.00145	.00190	.00229	.00305	1x Dia	.28x Dia
	Brass (Copper Zinc alloys, C2xxxx, C3xxxx, C4xxxx, C66400-C69800)	500	Roughing	.00010	.00021	.00032	.00042	.00053	.00063	.00085	.00127	.00169	.00222	.00267	.00356	.28x Dia	.5x - 1x Dia
	Phosphor Bronzes (Copper Tin alloys, C5xxxx)	225		.00010	.00021	.00032	.00042	.00053	.00063	.00085	.00127	.00169	.00222	.00267	.00356	.28x Dia	.5x - 1x Dia
	Aluminum Bronzes (Copper Aluminum alloys, C66600-C64200)	500		.00011	.00023	.00034	.00045	.00057	.00068	.00091	.00136	.00182	.00238	.00286	.00381	.1x Dia	.5x - 1x Dia
	Silicon Bronzes (Copper Silicon alloys, C64700-C66100)	500		.00011	.00023	.00034	.00045	.00057	.00068	.00091	.00136	.00182	.00238	.00286	.00381	.1x Dia	.5x - 1x Dia
	Copper Nickels, Nickel Silvers (Copper Nickel alloys, C7xxxx)	225	Max	.00012	.00024	.00036	.00048	.00060	.00072	.00097	.00145	.00194	.00254	.00305	.00407	-	-
Cast Copper Alloys (C83300-C86200, C86400-C87900, C92200-C95800, C97300-C97800, C99400-C99700)	550	.00012		.00024	.00036	.00048	.00060	.00072	.00097	.00145	.00194	.00254	.00305	.00407	-	-	
TiB2	<b>ALUMINUM ALLOYS</b>																
	Casting (2xx, 5xx, 7xx, 8xx)	1000	Slotting	.00014	.00029	.00044	.00059	.00074	.00088	.00118	.00176	.00236	.00309	.00372	.00495	1x Dia	.28x Dia
	Wrought (1xxx, 2xxx, 3xxx, 5xxx, 6xxx, 7xxx, 8xxx)	1400	Roughing	.00017	.00034	.00052	.00068	.00086	.00102	.00138	.00206	.00275	.00361	.00434	.00578	.28x Dia	.5x - 1x Dia
	<b>MAGNESIUM ALLOYS</b>	2000	Finishing	.00018	.00037	.00055	.00073	.00092	.00110	.00147	.00221	.00295	.00386	.00465	.00619	.1x Dia	.5x - 1x Dia
<b>ZINC ALLOYS</b>	1100	Max	.00019	.00039	.00059	.00078	.00098	.00117	.00157	.00235	.00315	.00412	.00495	.00661	-	-	
Amorphous Diamond	<b>ALUMINUM (High Silicon)</b>																
	Casting - 3%-5% Si (3xx, A3xx, C3xx, 4xx, A4xx, B4xx)	2500	Slotting	.00012	.00025	.00038	.00050	.00062	.00074	.00100	.00149	.00200	.00262	.00314	.00419	1x Dia	.22x Dia
	Casting - 5%-8% Si (3xx, A3xx, C3xx, 4xx, A4xx, B4xx)	2000	Roughing	.00014	.00029	.00044	.00058	.00073	.00087	.00116	.00174	.00233	.00305	.00367	.00489	.22x Dia	.3x - .8x Dia
	Casting - 8%-12% Si (3xx, A3xx, C3xx, 4xx, A4xx, B4xx)	1500		.00014	.00029	.00044	.00058	.00073	.00087	.00116	.00174	.00233	.00305	.00367	.00489	.22x Dia	.3x - .8x Dia
	Casting - 12%-16% Si (3xx, A3xx, C3xx, 4xx, A4xx, B4xx)	1000	Finishing	.00015	.00031	.00047	.00062	.00078	.00093	.00125	.00187	.00250	.00327	.00393	.00524	.1x Dia	.5x - 1x Dia
	Wrought - 5%-8% Si (4xxx)	2200	Max	.00016	.00033	.00050	.00066	.00083	.00099	.00133	.00199	.00266	.00349	.00419	.00559	-	-
	Wrought - 8%-12% Si (4xxx)	1700		.00016	.00033	.00050	.00066	.00083	.00099	.00133	.00199	.00266	.00349	.00419	.00559	-	-
	<b>COPPER ALLOYS</b>																
	High Coppers - 90%+ (C1xxxx)	800	Slotting	.00010	.00020	.00030	.00040	.00050	.00059	.00080	.00119	.00160	.00209	.00252	.00335	1x Dia	.22x Dia
	Brass (Copper Zinc alloys, C2xxxx, C3xxxx, C4xxxx, C66400-C69800)	1500	Roughing	.00011	.00023	.00035	.00046	.00058	.00069	.00093	.00139	.00186	.00244	.00293	.00391	.22x Dia	.3x - .8x Dia
	Phosphor Bronzes (Copper Tin alloys, C5xxxx)	800		.00011	.00023	.00035	.00046	.00058	.00069	.00093	.00139	.00186	.00244	.00293	.00391	.22x Dia	.3x - .8x Dia
	Aluminum Bronzes (Copper Aluminum alloys, C66600-C64200)	1000		.00012	.00025	.00038	.00050	.00062	.00074	.00100	.00149	.00200	.00262	.00314	.00419	.1x Dia	.5x - 1x Dia
Silicon Bronzes (Copper Silicon alloys, C64700-C66100)	1000	.00012		.00025	.00038	.00050	.00062	.00074	.00100	.00149	.00200	.00262	.00314	.00419	.1x Dia	.5x - 1x Dia	
Copper Nickels, Nickel Silvers (Copper Nickel alloys, C7xxxx)	800	Max	.00013	.00026	.00040	.00053	.00066	.00079	.00106	.00159	.00213	.00279	.00335	.00447	-	-	
Cast Copper Alloys (C80100-C82800, C86300, C90200-C91700, C96200-C96600, C99300)	150		.00013	.00026	.00040	.00053	.00066	.00079	.00106	.00159	.00213	.00279	.00335	.00447	-	-	
Cast Copper Alloys (C83300-C86200, C86400-C87900, C92200-C95800, C97300-C97800, C99400-C99700)	750	.00013	.00026	.00040	.00053	.00066	.00079	.00106	.00159	.00213	.00279	.00335	.00447	-	-		

**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.