



Speeds & Feeds

Product Table: Variable Helix End Mills for Aluminum Alloys - Ball

Characteristics: 4x Length of Cut

Series: 7911xx, 7912xx, 7911xx-C8, 7912xx-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	750	Slotting	.00015	.00031	.00047	.00061	.00077	.00092	.00124	.00185	.00248	.00324	.00390	.00520	1x Dia	.5x Dia
	Casting (2xx, 5xx, 7xx, 8xx)																
	Wrought (1xxx, 2xxx, 3xxx, 5xxx, 6xxx, 7xxx, 8xxx)	1000	Roughing	.00017	.00036	.00054	.00072	.00090	.00107	.00144	.00216	.00289	.00378	.00455	.00606	.5x 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	225	Slotting	.00012	.00025	.00037	.00049	.00062	.00074	.00099	.00148	.00198	.00259	.00312	.00416	1x Dia	.5x Dia
	High Coppers - 90%+ (C1xxxx)																
	Brass (Copper Zinc alloys, C2xxxx, C3xxxx, C4xxxx, C66400-C69800)	500	Roughing														
	Phosphor Bronzes (Copper Tin alloys, C5xxxx)	225															
	Aluminum Bronzes (Copper Aluminum alloys, C60600-C64200)	500															
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															
Cast Copper Alloys (C83300-C86200, C86400-C87900, C92200-C95800, C97300-C97800, C99400-C99700)	550																
TiB2	ALUMINUM ALLOYS	1000	Slotting	.00019	.00040	.00060	.00080	.00100	.00120	.00161	.00241	.00322	.00422	.00507	.00676	1x Dia	.5x Dia
	Casting (2xx, 5xx, 7xx, 8xx)																
	Wrought (1xxx, 2xxx, 3xxx, 5xxx, 6xxx, 7xxx, 8xxx)	1400	Roughing	.00023	.00047	.00071	.00093	.00117	.00140	.00188	.00281	.00375	.00492	.00591	.00788	.5x 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)	2500	Slotting	.00016	.00034	.00051	.00068	.00085	.00101	.00136	.00204	.00272	.00357	.00429	.00572	1x Dia	.4x Dia
	Casting - 3%-5% Si (3xx, A3xx, C3xx, 4xx, A4xx, B4xx)																
	Casting - 5%-8% Si (3xx, A3xx, C3xx, 4xx, A4xx, B4xx)	2000	Roughing														
	Casting - 8%-12% Si (3xx, A3xx, C3xx, 4xx, A4xx, B4xx)	1500															
	Casting - 12%-16% Si (3xx, A3xx, C3xx, 4xx, A4xx, B4xx)	1000	Finishing	.00020	.00042	.00064	.00084	.00106	.00127	.00170	.00255	.00340	.00446	.00536	.00715	.1x Dia	.5x - 1x Dia
	Wrought - 5%-8% Si (4xxx)	2200	Max														
	Wrought - 8%-12% Si (4xxx)	1700															
	COPPER ALLOYS	800	Slotting	.00013	.00027	.00041	.00054	.00068	.00081	.00109	.00163	.00218	.00285	.00343	.00457	1x Dia	.4x Dia
	High Coppers - 90%+ (C1xxxx)																
	Brass (Copper Zinc alloys, C2xxxx, C3xxxx, C4xxxx, C66400-C69800)	1500	Roughing														
	Phosphor Bronzes (Copper Tin alloys, C5xxxx)	800															
	Aluminum Bronzes (Copper Aluminum alloys, C60600-C64200)	1000	Finishing														
Silicon Bronzes (Copper Silicon alloys, C64700-C66100)	1000																
Copper Nickels, Nickel Silvers (Copper Nickel alloys, C7xxxx)	800	Max															
Cast Copper Alloys (C80100-C82800, C86300, C90200-C91700, C96200-C96600, C99300)	150																
Cast Copper Alloys (C83300-C86200, C86400-C87900, C92200-C95800, C97300-C97800, C99400-C99700)	750																

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.