

Speeds & Feeds

Product Table: High Helix End Mills for Aluminum Alloys - Ball - Tapered Reach (Mold Cutters) Characteristics: 1.0° Neck Angle Series: 9250xx

Product Notes:

Posted values represent a 5x Reach. Use the table below to adjust Chip Load (IPT) and Depths of Cut for tools with longer reach.

Reach		Profiling		Finishing					
Reach	IPT	Radial DOC*	Axial DOC	IPT	Radial DOC*	Axial DOC			
5x	100%	100%	100%	100%	100%	100%			
8x	83%	100%	100%	83%	100%	100%			
10x	79%	100%	100%	79%	100%	100%			
15x	66%	77%	77%	66%	80%	100%			
20x	59%	77%	77%	59%	80%	100%			
25x	52%	77%	62%	52%	80%	80%			
30x	45%	62%	62%	45%	60%	60%			
40×	45%	62%	38%	45%	60%	50%			
50x	45%	46%	31%	45%	50%	40%			
60x	45%	46%	23%	45%	50%	30%			

options, consult a Cusp Height & Finish chart.

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 \leq 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 appropriate safety equipment in the vicinity of use.

MATERIAL	Hardness: ≤ 28 Rc (≤ 271 HBn)															
	SFM		Chip Load (IPT) by Cutter Diameter											Depth of Cut		
	0111		.015	.031	.047	.062	.078	.093	.125	.187	.250	.312	.375	Radial	Axial	
	750	Profiling	.00043	.00089	.00136	.00179	.00225	.00268	.00361	.00540	.00721	.00900	.01082	.13 x Dia	.13 x Dia	
Casting (2xx, 5xx, 7xx, 8xx)								1		1		· · · · · · · · · · · · · · · · · · ·	1	-		
Wrought (1xxx, 2xxx, 3xxx, 5xxx, 6xxx, 7xxx, 8xxx)	1000	Finishing	.00039	.00081	.00123	.00163	.00205	.00244	.00328	.00490	.00656	.00818	.00984	.10 x Dia	.10 x Dia	
Casting - 3%-5% Si (3xx, A3xx, C3xx, 4xx, A4xx, B4xx)	750	Profiling		.00080	.00122 .00111	.00161	.00203 .00184	.00241	.00325	.00486 .00441	.00649 .00590	.00810	.00974 .00885	.13 x Dia .10 x Dia	.13 x Dia .10 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															
Wrought - 5%-8% Si (4xxx)	1000	Finishing														
Wrought - 8%-12% Si (4xxx)	800															
MAGNESIUM ALLOYS	1500	Profiling	.00043	.00089	.00136	.00179	.00225	.00268	.00361	.00540	.00721	.00900	.01082	.13 x Dia	.13 x Dia	
ZINC ALLOYS	800	Finishing	.00039	.00081	.00123	.00163	.00205	.00244	.00328	.00490	.00656	.00818	.00984	.10 x Dia	.10 x Dia	
COPPER ALLOYS																
High Coppers - 90%+ (C1xxxx)	225	Profiling	ofiling .00035	.00072	.00108	.00143	.00180	.00215	.00289	.00432	.00577	.00720	.00866	.13 x Dia	.13 x Dia	
Brass (Copper Zinc alloys, C2xxxx, C3xxxx, C4xxxx, C66400-C69800)	500															
Phosphor Bronzes (Copper Tin alloys, C5xxxx)	225															
Aluminum Bronzes (Copper Aluminum alloys, C60600-C64200)	500	Finishing														
Silicon Bronzes (Copper Silicon alloys, C64700-C66100)	500		inishing .00031	.00065	.00099	.00130	.00164	.00195	.00262	.00392	.00525	.00655	.00787	.10 x Dia	.10 x Dia	
Copper Nickels, Nickel Silvers (Copper Nickel alloys, C7xxxx)	225															
Cast Copper Alloys (C83300-C86200, C86400-C87900, C92200-C95800, C97300-C97800, C99400-C99700)	550															