NEW PREMIUM TOOL LINE!

ZEPHYR3™

ADVANCED VARIABLE GEOMETRY

AMERICAN MADE

GLOBALLY RENOWNED

HIGH PERFORMANCE END MILLS

FOR CHATTER-FREE MACHINING OF NON-FERROUS MATERIALS

GLOBAL™ CUTTING TOOLS

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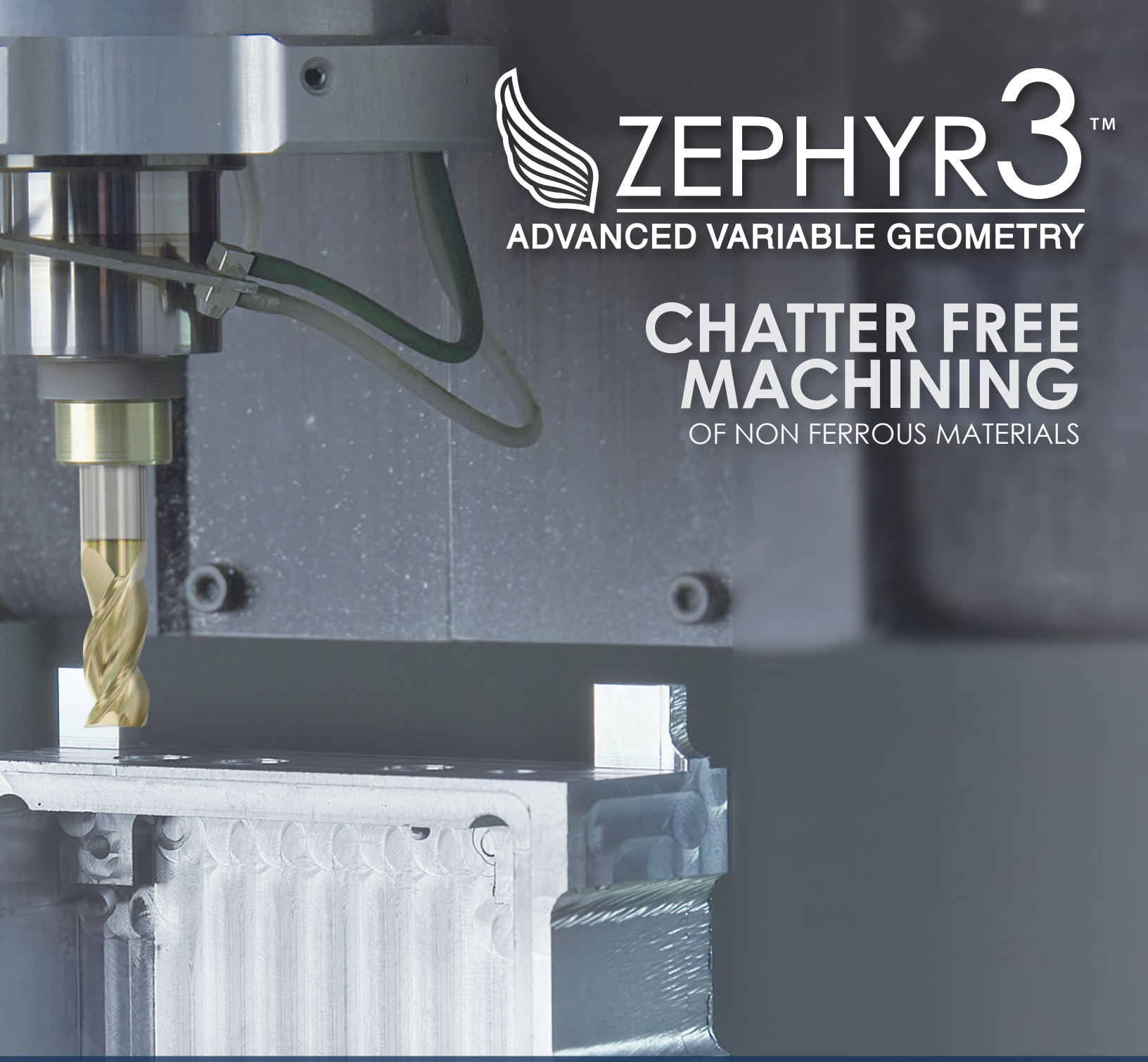

ZEPHYR3™

ADVANCED VARIABLE GEOMETRY

CHATTER FREE MACHINING

OF NON FERROUS MATERIALS

FEATURES & BENEFITS

The Zephyr3 3 flute is yet another testament to the adaptability of Global Cutting Tools. We are proud to boast about the fact this tool increased performance in tests by over 50%, while leaving exemplary surface finishes. The Zephyr3 is a trifecta of strength, endurance and rapid material removal. The eccentric relief and variable pitch design of this end mill enable operations at vastly improved speeds and feeds. This tool has standard ZrN coating for added lubricity and hardness, giving the tool a pale gold coloration.

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Custom Tooling:
E: quotes@conicaltool.com
W: conicalendmills.com/custom-tool-ordering

GLOBAL™
CUTTING TOOLS

SERIES: AVX

For high feed / material removal rate of aluminum and non-ferrous materials to maximize productivity and surface finish while roughing, slotting, pocketing and finishing ; wet or dry; aluminum, magnesium, and copper alloys, composites, plastics and fiberglass.

Square end option to create sharp corners in finishing operations

Coated for heat resistance, wear resistance and increased lubricity

Three flute design improves chip formation and evacuation

Cylindrical land for excellent surface finishes

High strength flutes reduce edge chipping, built up edge and extends tool life

Corner radius option protects corners in roughing operations and difficult to machine materials by preventing corner chipping and tool failure

Ball end option for high performance contour milling in finishing operations

Premium micro-grain carbide substrate resists chipping, tool deflection, and has a high transverse rupture strength for greater feeds and speeds

Odd number of flutes reduce harmonics by staggering the entry and exit of the cutting edges

Immediate 50% increase in performance over 2 flute designs

TIP OPTIONS

SHANK OPTIONS

FLUTE OPTIONS

MATERIALS

CB SUB-MICRO GRAIN CARBIDE

COATING

ZrN

RESULTS

At Global we know results are all that matter. The Zephyr3 offers multiple end, shank and length configurations, to turn materials like copper, magnesium and any grade of aluminum into a job well done. The advantage of a better tool is never taken for granted by our end users.

The HPAluminum3 end mills increase machine time utilization and lower tooling costs by increasing rigidity, stability, and chip evacuation at high speeds, or when the cutter is fully engaged. Run this end mill with any plastics, or fiberglass, but be prepared to get the work done a little quicker than usual.

Series AVX: Micro-Grain Carbide, 3 Flute, Advanced Variable Geometry, ZrN Coated
Subseries: AVXSR, AVXCR, AVXBR
Configuration: Variable Pitch 30-48°; Stub, Regular & Long Lengths;
Variable Helix; Square End, Corner Radius & Ball End

ZEPHYR3

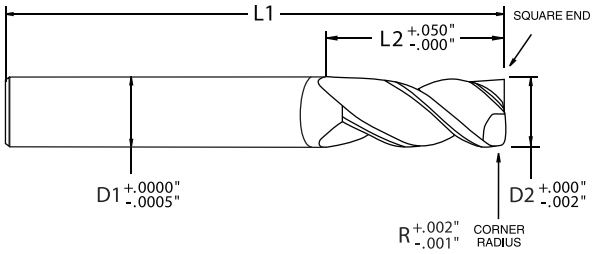
GLOBAL™

SERIES AVX - *CARBIDE, 3 FLUTE, ADVANCED VARIABLE GEOMETRY*

ADVANCED MACHINING

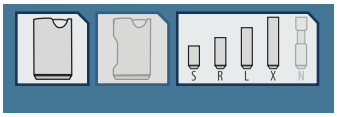
Our proprietary design uses the most advanced machining and coating processes, combined with an innovative advanced variable geometry, to create the ultimate aluminum and non-ferrous material end mill.

- Square end option to create sharp corners in finishing operations
- Three flute design improves chip formation and evacuation
- Cylindrical land for excellent surface finishes
- High strength flutes reduce edge chipping, built up edge and extends tool life

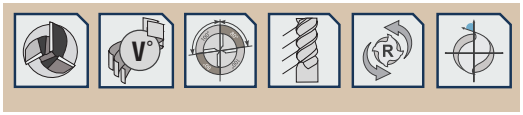


TIP & END

SHANK & LENGTH



FLUTE CONFIGURATION



MATERIAL

COATING

SERIES AVX - *SQUARE END & CORNER RADIUS, PLAIN SHANK*

SHANK DIAMETER (D1)		CUTTER DIAMETER (D2)		FLUTE LENGTH (L2)		OVERALL LENGTH (L1)		SQUARE END		CORNER RADIUS .015 (R)		.030 (R)		.060 (R)		.090 (R)	
								PART #	EDP #	PART #	EDP #	PART #	EDP #	PART #	EDP #	PART #	EDP #
1/8	0.125	1/8	0.125	3/8	0.375	2	2.000	AVX-0206-SQ	A001S	AVX-0206-R1	A0011	—	—	—	—	—	—
				5/8	0.625	2	2.000	AVX-0210-SQ	A002S	AVX-0210-R1	A0021	—	—	—	—	—	—
3/16	0.188	3/16	0.188	3/8	0.375	2	2.000	AVX-0306-SQ	A003S	AVX-0306-R1	A0031	AVX-0306-R3	A0013	—	—	—	—
				5/8	0.625	2	2.000	AVX-0310-SQ	A004S	AVX-0310-R1	A0041	AVX-0310-R3	A0023	—	—	—	—
1/4	0.250	1/4	0.250	3/8	0.375	2	2.000	AVX-0406-SQ	A005S	AVX-0406-R1	A0051	AVX-0406-R3	A0033	AVX-0406-R6	A0016	—	—
				7/8	0.875	2 1/2	2.500	AVX-0414-SQ	A006S	AVX-0414-R1	A0061	AVX-0414-R3	A0043	AVX-0414-R6	A0026	—	—
				1 3/8	1.375	3	3.000	AVX-0422-SQ	A007S	AVX-0422-R1	A0071	AVX-0422-R3	A0053	AVX-0422-R6	A0036	—	—
5/16	0.313	5/16	0.313	1/2	0.500	2	2.000	AVX-0508-SQ	A008S	AVX-0508-R1	A0081	AVX-0508-R3	A0063	AVX-0508-R6	A0046	—	—
				7/8	0.875	2 1/2	2.500	AVX-0514-SQ	A009S	AVX-0514-R1	A0091	AVX-0514-R3	A0073	AVX-0514-R6	A0056	—	—
				1 3/8	1.375	3	3.000	AVX-0522-SQ	A010S	AVX-0522-R1	A0101	AVX-0522-R3	A0083	AVX-0522-R6	A0066	—	—
3/8	0.375	3/8	0.375	5/8	0.625	2	2.000	AVX-0610-SQ	A011S	AVX-0610-R1	A0111	AVX-0610-R3	A0093	AVX-0610-R6	A0076	AVX-0610-R9	A0017
				7/8	0.875	2 1/2	2.500	AVX-0614-SQ	A012S	AVX-0614-R1	A0121	AVX-0614-R3	A0103	AVX-0614-R6	A0086	AVX-0614-R9	A0027
				1 3/8	1.375	3	3.000	AVX-0622-SQ	A013S	AVX-0622-R1	A0131	AVX-0622-R3	A0113	AVX-0622-R6	A0096	AVX-0622-R9	A0037
				1 7/8	1.875	3 1/2	3.500	AVX-0630-SQ	A014S	AVX-0630-R1	A0141	AVX-0630-R3	A0123	AVX-0630-R6	A0106	AVX-0630-R9	A0047
				2 1/8	2.125	4	4.000	AVX-0634-SQ	A015S	AVX-0634-R1	A0151	AVX-0634-R3	A0133	AVX-0634-R6	A0116	AVX-0634-R9	A0057
7/16	0.438	7/16	0.438	5/8	0.625	2 1/2	2.500	AVX-0710-SQ	A016S	AVX-0710-R1	A0161	AVX-0710-R3	A0143	AVX-0710-R6	A0126	AVX-0710-R9	A0067
				1 1/8	1.125	3	3.000	AVX-0718-SQ	A017S	AVX-0718-R1	A0171	AVX-0718-R3	A0153	AVX-0718-R6	A0136	AVX-0718-R9	A0077
				2 1/8	2.125	4	4.000	AVX-0734-SQ	A018S	AVX-0734-R1	A0181	AVX-0734-R3	A0163	AVX-0734-R6	A0146	AVX-0734-R9	A0087
1/2	0.500	1/2	0.500	5/8	0.625	2 1/2	2.500	AVX-0810-SQ	A019S	AVX-0810-R1	A0191	AVX-0810-R3	A0173	AVX-0810-R6	A0156	AVX-0810-R9	A0097
				1 1/8	1.125	3	3.000	AVX-0818-SQ	A020S	AVX-0818-R1	A0201	AVX-0818-R3	A0183	AVX-0818-R6	A0166	AVX-0818-R9	A0107
				1 5/8	1.625	3 1/2	3.500	AVX-0826-SQ	A021S	AVX-0826-R1	A0211	AVX-0826-R3	A0193	AVX-0826-R6	A0176	AVX-0826-R9	A0117
				2 1/8	2.125	4	4.000	AVX-0834-SQ	A022S	AVX-0834-R1	A0221	AVX-0834-R3	A0203	AVX-0834-R6	A0186	AVX-0834-R9	A0127
				2 5/8	2.625	5	5.000	AVX-0842-SQ	A023S	AVX-0842-R1	A0231	AVX-0842-R3	A0213	AVX-0842-R6	A0196	AVX-0842-R9	A0137
				3 3/8	3.375	6	6.000	AVX-0854-SQ	A024S	AVX-0854-R1	A0241	AVX-0854-R3	A0223	AVX-0854-R6	A0206	AVX-0854-R9	A0147
5/8	0.625	5/8	0.625	7/8	0.875	3	3.000	AVX-1014-SQ	A025S	—	—	AVX-1014-R3	A0233	AVX-1014-R6	A0216	AVX-1014-R9	A0157
				1 5/8	1.625	3 1/2	3.500	AVX-1026-SQ	A026S	—	—	AVX-1026-R3	A0243	AVX-1026-R6	A0226	AVX-1026-R9	A0167
				2 1/8	2.125	4	4.000	AVX-1034-SQ	A027S	—	—	AVX-1034-R3	A0253	AVX-1034-R6	A0236	AVX-1034-R9	A0177
				2 5/8	2.625	5	5.000	AVX-1042-SQ	A028S	—	—	AVX-1042-R3	A0263	AVX-1042-R6	A0246	AVX-1042-R9	A0187
				3 3/8	3.375	6	6.000	AVX-1054-SQ	A029S	—	—	AVX-1054-R3	A0273	AVX-1054-R6	A0256	AVX-1054-R9	A0197
3/4	0.750	3/4	0.750	1 1/8	1.125	3	3.000	AVX-1218-SQ	A030S	—	—	AVX-1218-R3	A0283	AVX-1218-R6	A0266	AVX-1218-R9	A0207
				1 5/8	1.625	4	4.000	AVX-1226-SQ	A031S	—	—	AVX-1226-R3	A0293	AVX-1226-R6	A0276	AVX-1226-R9	A0217
				2 5/8	2.625	5	5.000	AVX-1242-SQ	A032S	—	—	AVX-1242-R3	A0303	AVX-1242-R6	A0286	AVX-1242-R9	A0227
				3 3/8	3.375	6	6.000	AVX-1254-SQ	A033S	—	—	AVX-1254-R3	A0313	AVX-1254-R6	A0296	AVX-1254-R9	A0237
				4 1/8	4.125	7	7.000	AVX-1266-SQ	A034S	—	—	AVX-1266-R3	A0323	AVX-1266-R6	A0306	AVX-1266-R9	A0247
1	1.000	1	1.000	1 5/8	1.625	4	4.000	AVX-1626-SQ	A035S	—	—	AVX-1626-R3	A0333	AVX-1626-R6	A0316	AVX-1626-R9	A0257
				2 1/8	2.125	4	4.000	AVX-1634-SQ	A036S	—	—	AVX-1634-R3	A0343	AVX-1634-R6	A0326	AVX-1634-R9	A0267
				2 5/8	2.625	5	5.000	AVX-1642-SQ	A037S	—	—	AVX-1642-R3	A0353	AVX-1642-R6	A0336	AVX-1642-R9	A0277
				3 3/8	3.375	6	6.000	AVX-1654-SQ	A038S	—	—	AVX-1654-R3	A0363	AVX-1654-R6	A0346	AVX-1654-R9	A0287
				4 3/8	4.375	7	7.000	AVX-1670-SQ	A039S	—	—	AVX-1670-R3	A0613	AVX-1670-R6	A0356	AVX-1670-R9	A0297

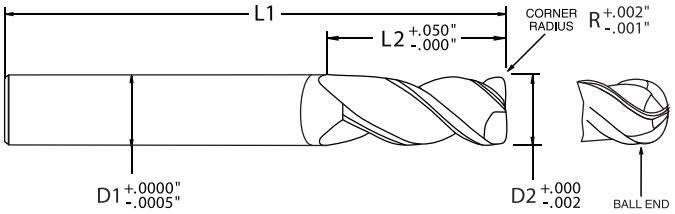
(continued)

SERIES AVX - *CARBIDE, 3 FLUTE, ADVANCED VARIABLE GEOMETRY*

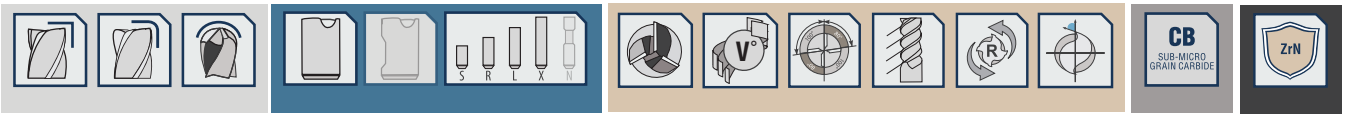
EXCEPTIONAL PERFORMANCE

A variable pitch, variable index, variable core design combines with the strength of our eccentric relief, to create an exceptional performing tool, in all non-ferrous materials.

- Corner radius option protects corners in roughing operations and difficult to machine materials by preventing corner chipping and tool failure
- Ball end option for high performance contour milling in finishing operations
- Odd number of flutes reduce harmonics by staggering the entry and exit of the cutting edges



TIP & END | SHANK & LENGTH | FLUTE CONFIGURATION | MATERIAL | COATING



SERIES AVX - *CORNER RADIUS & BALL END, PLAIN SHANK*

SHANK DIAMETER (D1)		CUTTER DIAMETER (D2)		FLUTE LENGTH (L2)		OVERALL LENGTH (L1)		CORNER RADIUS .125 (R) PART #	EDP #	.156 (R) PART #	EDP #	.190 (R) PART #	EDP #	.250 (R) PART #	EDP #	BALL END PART #	EDP #
1/8	0.125	1/8	0.125	3/8	0.375	2	2.000	—	—	—	—	—	—	—	—	—	—
				5/8	0.625	2	2.000	—	—	—	—	—	—	—	—	AVX-0210-BE	A201B
3/16	0.188	3/16	0.188	3/8	0.375	2	2.000	—	—	—	—	—	—	—	—	—	—
				5/8	0.625	2	2.000	—	—	—	—	—	—	—	—	AVX-0310-BE	A202B
1/4	0.250	1/4	0.250	3/8	0.375	2	2.000	—	—	—	—	—	—	—	—	—	—
				7/8	0.875	2 1/2	2.500	—	—	—	—	—	—	—	—	AVX-0414-BE	A203B
				1 3/8	1.375	3	3.000	—	—	—	—	—	—	—	—	—	—
5/16	0.313	5/16	0.313	1/2	0.500	2	2.000	—	—	—	—	—	—	—	—	—	—
				7/8	0.875	2 1/2	2.500	—	—	—	—	—	—	—	—	AVX-0514-BE	A204B
				1 3/8	1.375	3	3.000	—	—	—	—	—	—	—	—	—	—
3/8	0.375	3/8	0.375	5/8	0.625	2	2.000	—	—	—	—	—	—	—	—	—	—
				7/8	0.875	2 1/2	2.500	—	—	—	—	—	—	—	—	AVX-0614-BE	A205B
				1 3/8	1.375	3	3.000	—	—	—	—	—	—	—	—	—	—
				1 7/8	1.875	3 1/2	3.500	—	—	—	—	—	—	—	—	—	—
				2 1/8	2.125	4	4.000	—	—	—	—	—	—	—	—	—	—
7/16	0.438	7/16	0.438	5/8	0.625	2 1/2	2.500	—	—	—	—	—	—	—	—	—	—
				1 1/8	1.125	3	3.000	—	—	—	—	—	—	—	—	AVX-0718-BE	A206B
				2 1/8	2.125	4	4.000	—	—	—	—	—	—	—	—	—	—
1/2	0.500	1/2	0.500	5/8	0.625	2 1/2	2.500	AVX-0810-R12	A0018	—	—	—	—	—	—	—	—
				1 1/8	1.125	3	3.000	AVX-0818-R12	A0028	—	—	—	—	—	—	AVX-0818-BE	A207B
				1 5/8	1.625	3 1/2	3.500	AVX-0826-R12	A0038	—	—	—	—	—	—	—	—
				2 1/8	2.125	4	4.000	AVX-0834-R12	A0048	—	—	—	—	—	—	—	—
				2 5/8	2.625	5	5.000	AVX-0842-R12	A0058	—	—	—	—	—	—	—	—
				3 3/8	3.375	6	6.000	AVX-0854-R12	A0068	—	—	—	—	—	—	—	—
5/8	0.625	5/8	0.625	7/8	0.875	3	3.000	AVX-1014-R12	A0078	—	—	—	—	—	—	—	—
				1 5/8	1.625	3 1/2	3.500	AVX-1026-R12	A0088	—	—	—	—	—	—	AVX-1026-BE	A208B
				2 1/8	2.125	4	4.000	AVX-1034-R12	A0098	—	—	—	—	—	—	—	—
				2 5/8	2.625	5	5.000	AVX-1042-R12	A0108	—	—	—	—	—	—	—	—
				3 3/8	3.375	6	6.000	AVX-1054-R12	A0118	—	—	—	—	—	—	—	—
3/4	0.750	3/4	0.750	1 1/8	1.125	3	3.000	AVX-1218-R12	A0128	AVX-1218-R15	A0019	AVX-1218-R19	A0010	—	—	—	—
				1 5/8	1.625	4	4.000	AVX-1226-R12	A0138	AVX-1226-R15	A0029	AVX-1226-R19	A0020	—	—	AVX-1226-BE	A209B
				2 5/8	2.625	5	5.000	AVX-1242-R12	A0148	AVX-1242-R15	A0039	AVX-1242-R19	A0030	—	—	—	—
				3 3/8	3.375	6	6.000	AVX-1254-R12	A0158	AVX-1254-R15	A0049	AVX-1254-R19	A0040	—	—	—	—
				4 1/8	4.125	7	7.000	AVX-1266-R12	A0168	AVX-1266-R15	A0059	AVX-1266-R19	A0050	—	—	—	—
1	1.000	1	1.000	1 5/8	1.625	4	4.000	AVX-1626-R12	A0178	AVX-1626-R15	A0069	AVX-1626-R19	A0060	AVX-1626-R25	A0110	—	—
				2 1/8	2.125	4	4.000	AVX-1634-R12	A0188	AVX-1634-R15	A0079	AVX-1634-R19	A0070	AVX-1634-R25	A0120	AVX-1634-BE	A210B
				2 5/8	2.625	5	5.000	AVX-1642-R12	A0198	AVX-1642-R15	A0089	AVX-1642-R19	A0080	AVX-1642-R25	A0130	—	—
				3 3/8	3.375	6	6.000	AVX-1654-R12	A0208	AVX-1654-R15	A0099	AVX-1654-R19	A0090	AVX-1654-R25	A0140	—	—
				4 3/8	4.375	7	7.000	AVX-1670-R12	A0218	AVX-1670-R15	A0109	AVX-1670-R19	A0100	AVX-1670-R25	A0150	—	—

AVX APPLICATION GUIDE • SPEED & FEED

	WORK MATERIAL	TYPE OF CUT	AXIAL DOC	RADIAL DOC	NO. OF FLUTES	SPEED (SFM)	FEED (INCHES PER TOOTH) 1/8" (2 & 3 FL)	1/4" (2 & 3 FL)	3/8" (2 & 3 FL)	1/2" (2 & 3 FL)	5/8" (2 & 3 FL)	3/4" (2 & 3 FL)	1" (2 & 3 FL)
ALUMINUM	ALUMINUM ALLOYS Low Silicon Content 20xx; 50xx; 60xx; 70xx	Slotting	1 x D	1 x D	3	905 - 1040	0.0014 - 0.0016	0.0027 - 0.0031	0.0041 - 0.0047	0.0054 - 0.0062	0.0067 - 0.0077	0.0081 - 0.0093	0.0108 - 0.0124
		Roughing	1 x D	.75 x D	3	1115 - 1280	0.0017 - 0.0021	0.0033 - 0.0038	0.0049 - 0.0057	0.0066 - 0.0076	0.0082 - 0.0095	0.0099 - 0.0114	0.0131 - 0.0152
		High Effeciency (HEM)	2 x D	.2 x D	3	1395 - 1550	0.0031 - 0.0034	0.0061 - 0.0067	0.0091 - 0.0101	0.0121 - 0.0134	0.0151 - 0.0168	0.0182 - 0.0201	0.0242 - 0.0269
		Finishing	1.5 x D	.01 x D	3	1330 - 1460	0.0020 - 0.0024	0.0039 - 0.0044	0.0059 - 0.0066	0.0078 - 0.0087	0.0098 - 0.0109	0.0117 - 0.0131	0.0156 - 0.0175
	ALUMINUM DIE CAST ALLOY High Silicon Content A-38x; A-39x; B39x	Slotting	.75 x D	1 x D	3	760 - 870	0.0012 - 0.0014	0.0023 - 0.0027	0.0035 - 0.0041	0.0046 - 0.0054	0.0057 - 0.0067	0.0069 - 0.0081	0.0092 - 0.0108
		Roughing	1 x D	.5 x D	3	935 - 1075	0.0015 - 0.0019	0.0029 - 0.0034	0.0043 - 0.0051	0.0058 - 0.0068	0.0072 - 0.0085	0.0087 - 0.0102	0.0115 - 0.0136
		High Effeciency (HEM)	2 x D	.15 x D	3	1170 - 1300	0.0024 - 0.0027	0.0048 - 0.0054	0.0071 - 0.0081	0.0094 - 0.0107	0.0117 - 0.0134	0.0141 - 0.0160	0.0188 - 0.0215
		Finishing	1.5 x D	.01 x D	3	1140 - 1250	0.0018 - 0.0022	0.0035 - 0.0040	0.0053 - 0.0060	0.0070 - 0.0079	0.0088 - 0.0099	0.0105 - 0.0119	0.0140 - 0.0159
NONFERROUS	MAGNESIUM ALLOYS ≤ 38 HRc	Slotting	1 x D	1 x D	3	905 - 1040	0.0014 - 0.0016	0.0027 - 0.0031	0.0041 - 0.0047	0.0054 - 0.0062	0.0067 - 0.0077	0.0081 - 0.0093	0.0108 - 0.0124
		Roughing	1 x D	.75 x D	3	1115 - 1280	0.0017 - 0.0021	0.0033 - 0.0038	0.0049 - 0.0057	0.0066 - 0.0076	0.0082 - 0.0095	0.0099 - 0.0114	0.0131 - 0.0152
		High Effeciency (HEM)	2 x D	.2 x D	3	1395 - 1550	0.0033 - 0.0036	0.0064 - 0.0070	0.0096 - 0.0106	0.0127 - 0.0140	0.0158 - 0.0175	0.0191 - 0.0210	0.0254 - 0.0281
		Finishing	1.5 x D	.01 x D	3	1330 - 1460	0.0021 - 0.0025	0.0041 - 0.0046	0.0062 - 0.0069	0.0082 - 0.0091	0.0103 - 0.0114	0.0123 - 0.0137	0.0164 - 0.0183
	COPPER ALLOYS, BRASS & BRONZE 39 to 48 HRc Manganese Bronze, Tin Bronze, Beryllium	Slotting	1 x D	1 x D	3	760 - 870	0.0012 - 0.0014	0.0023 - 0.0027	0.0035 - 0.0041	0.0046 - 0.0054	0.0057 - 0.0067	0.0069 - 0.0081	0.0092 - 0.0108
		Roughing	1 x D	.75 x D	3	935 - 1075	0.0015 - 0.0019	0.0029 - 0.0034	0.0043 - 0.0051	0.0058 - 0.0068	0.0072 - 0.0085	0.0087 - 0.0102	0.0115 - 0.0136
		High Effeciency (HEM)	2 x D	.2 x D	3	1170 - 1300	0.0028 - 0.0031	0.0055 - 0.0061	0.0082 - 0.0092	0.0108 - 0.0121	0.0135 - 0.0152	0.0163 - 0.0182	0.0217 - 0.0244
		Finishing	1.5 x D	.01 x D	3	1140 - 1250	0.0018 - 0.0022	0.0035 - 0.0040	0.0053 - 0.0060	0.0070 - 0.0079	0.0088 - 0.0099	0.0105 - 0.0119	0.0140 - 0.0159
	COMPOSITES, PLASTICS & FIBERGLASS 48 to 57 HRc ABS, Polycarbonate, PVC, Polypropylene	Slotting	1 x D	1 x D	3	760 - 870	0.0012 - 0.0014	0.0023 - 0.0027	0.0035 - 0.0041	0.0046 - 0.0054	0.0057 - 0.0067	0.0069 - 0.0081	0.0092 - 0.0108
		Roughing	1 x D	.75 x D	3	935 - 1075	0.0015 - 0.0019	0.0029 - 0.0034	0.0043 - 0.0051	0.0058 - 0.0068	0.0072 - 0.0085	0.0087 - 0.0102	0.0115 - 0.0136
		High Effeciency (HEM)	2 x D	.2 x D	3	1170 - 1300	0.0028 - 0.0031	0.0055 - 0.0061	0.0082 - 0.0092	0.0108 - 0.0121	0.0135 - 0.0152	0.0163 - 0.0182	0.0217 - 0.0244
		Finishing	1.5 x D	.01 x D	3	1140 - 1250	0.0018 - 0.0022	0.0035 - 0.0040	0.0053 - 0.0060	0.0070 - 0.0079	0.0088 - 0.0099	0.0105 - 0.0119	0.0140 - 0.0159

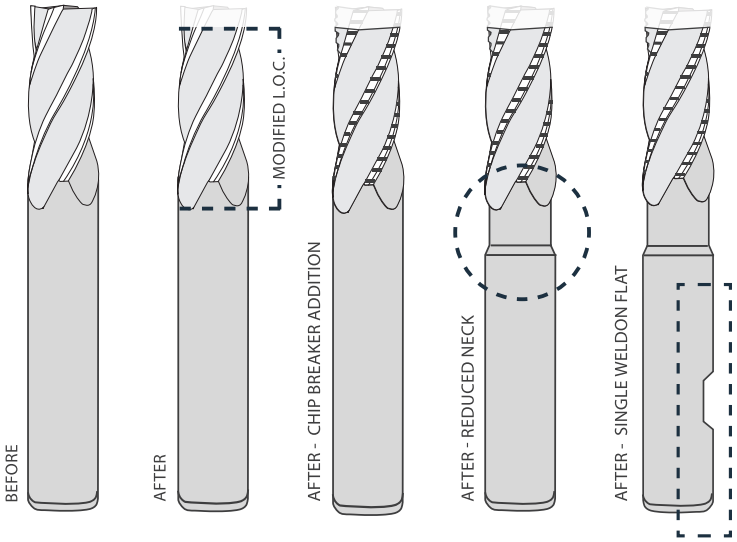
MODIFICATION PROGRAM

MODIFICATION OF IN-STOCK TOOLS

WE CAN MODIFY MOST ANY TOOL

We can modify our standard tools or manufacture a highly specialized tool to your exact specifications. Modifications ensure fast delivery of your tool (subject to availability) and decrease costs on small batch runs. Most modifications ship within 2 - 3 business days. Please allow additional time when adding coatings. If you need assistance with modification selection or have any questions, please contact us.

SEE PAGE 16 - 21 FOR DETAILS



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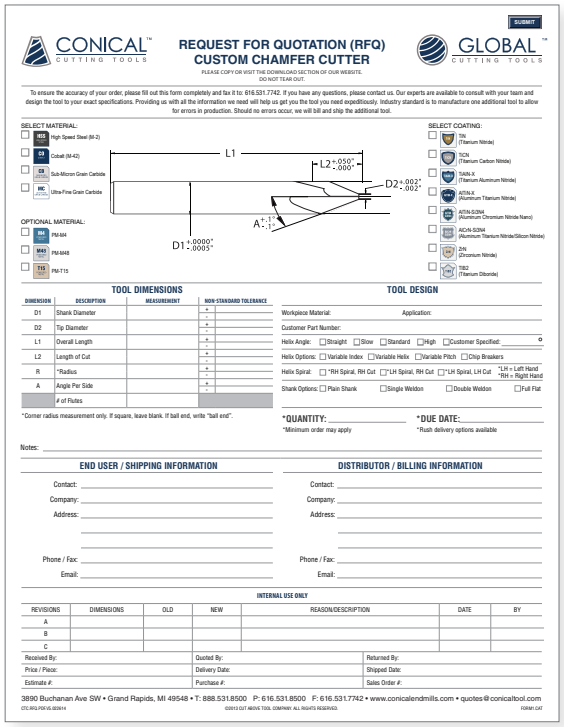
WE'LL HELP YOU FIND THE SOLUTION

Along with our standard tool offerings, Conical Tool Company manufactures custom carbide and high speed steel end mills and cutters. Whether a variation of a standard tool or specialized tool meant to combine multiple processes into one pass, our custom tools improve performance and reduce cycle time at the best value in the industry.



SUBMIT

CONICAL™ CUTTING TOOLS

REQUEST FOR QUOTATION (RFQ)
CUSTOM CHAMFER CUTTER

PLEASE COPY OR VISIT THE DOWNLOAD SECTION OF OUR WEBSITE.
DO NOT TEAR OUT.

GLOBAL™ CUTTING TOOLS

To ensure the accuracy of your order, please fill out this form completely and fax it to: 616.531.7742. If you have any questions, please contact us. Our experts are available to consult with your team and design the tool to your exact specifications. Providing us with all the information we need will help us get you the tool you need expeditiously. Industry standard is to manufacture one additional tool to allow for errors in production. Should no errors occur, we will bill and ship the additional tool.

SELECT MATERIAL:
- ☐ HSS High Speed Steel (M-2)
- ☐ S7 Cobalt (M-42)
- ☐ S9 Sub-Micron Grain Carbide
- ☐ MC Ultra-Fine Grain Carbide

OPTIONAL MATERIAL:
- ☐ PM-M4
- ☐ PM-M4B
- ☐ PM-T15

L1
L2 +.050" -.000"
D2 +.002" -.002"
A +1° -1°
D1 +.0000" -.0005"

SELECT COATING:
- ☐ TiN (Titanium Nitride)
- ☐ TiCN (Titanium Carbon Nitride)
- ☐ TiAlN-X (Titanium Aluminum Nitride)
- ☐ AlTiN-X (Aluminum Titanium Nitride)
- ☐ AlTiN-SCNM (Aluminum Chromium Nitride Nano)
- ☐ AlCrN-SCNM (Aluminum Titanium Nitride/Silicon Nitride)
- ☐ ZrN (Zirconium Nitride)
- ☐ TiB2 (Titanium Diboride)

TOOL DIMENSIONS

DIMENSION	DESCRIPTION	MEASUREMENT	NON-STANDARD TOLERANCE
D1	Shank Diameter		+ / -
D2	Tip Diameter		+ / -
L1	Overall Length		+ / -
L2	Length of Cut		+ / -
R	*Radius		+ / -
A	Angle Per Side		+ / -
	# of Flutes		

*Corner radius measurement only. If square, leave blank. If ball end, write "ball end".

TOOL DESIGN

Workpiece Material: Application:
Customer Part Number:
Helix Angle: ☐Straight ☐Slow ☐Standard ☐High ☐Customer Specified: °
Helix Options: ☐Variable Index ☐Variable Helix ☐Variable Pitch ☐Chip Breakers
Helix Spiral: ☐*RH Spiral, RH Cut ☐*LH Spiral, RH Cut ☐*LH Spiral, LH Cut *LH = Left Hand *RH = Right Hand
Shank Options: ☐Plain Shank ☐Single Weldon ☐Double Weldon ☐Full Flat

*QUANTITY: _____ *DUE DATE: _____
*Minimum order may apply *Rush delivery options available

Notes: _____

END USER / SHIPPING INFORMATION

Contact:
Company:
Address:
Phone / Fax:
Email:

DISTRIBUTOR / BILLING INFORMATION

Contact:
Company:
Address:
Phone / Fax:
Email:

INTERNAL USE ONLY

REVISIONS	DIMENSIONS	OLD	NEW	REASON/DESCRIPTION	DATE	BY
A						
B						
C						

Received By:	Quoted By:	Returned By:
Price / Piece:	Delivery Date:	Shipped Date:
Estimate #:	Purchase #:	Sales Order #:

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We can modify our standard tools or manufacture a highly specialized tool to your exact specifications. Request for Quote documents for custom tools are on the following pages. We cannot process your quote without this form. RFQ's are typically returned within 24 hours. A full list of definitions and acronyms can be found on pages 80-81. If you need assistance with your custom tool design or have any questions, please contact us.

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GLOBAL™ CUTTING TOOLS

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Achieving an average performance improvement of over 50% in field tests, our customers swear by the Zephyr3. Our proprietary design uses the most advanced machining and coating processes, combined with an innovative advanced variable geometry, to create the ultimate aluminum and non-ferrous material end mill.

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We encourage customers to test our end mills for performance and production enhancements against any manufacturer. For over 70 years, we've been creating and innovating the best specialty and performance cutting tools in the market. It is never easy staying ahead of the competition, but having the experience and investing in the latest technologies gives us an edge in the market today.

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