Milling with ISCAR

FLASHSOLID

ECO SOLID LINE

Member IMC Group

ISCAR

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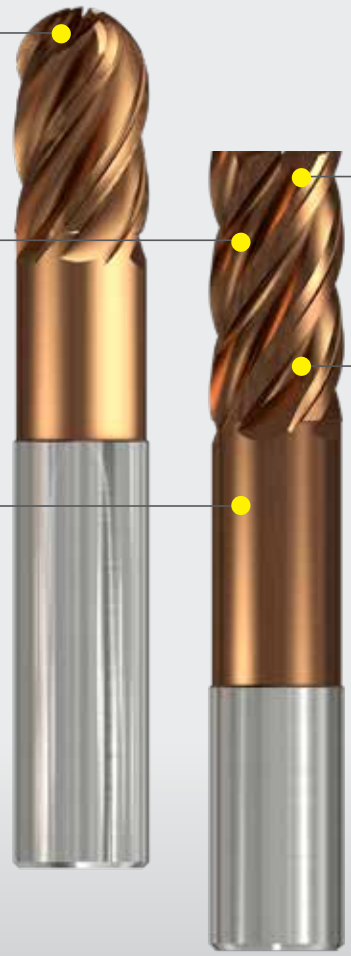
ECI-4/5/6/7-VF & EBI-4/5/6-VF



Square or Ball Type

VF Form

Variable pitch with 38° continuous helix to mitigate vibration, improving performance. Ideal for HEM (trochoidal) operations.

Extended Reach

Many relieved neck options for deep shouldering and pocketing applications.

Corner Radius

Available in a wide range of popular radii.

V910 Coating

TiAlCN PVD nanolayered structure provides excellent wear resistance and is ideal for HEM (trochoidal) operations in hardened steel (up to 60 HRc). Also excellent for low and high alloyed steels with or without coolant.

ECI-4/5/6/7-VF

Longer Tool Life

Higher Speed & Feed

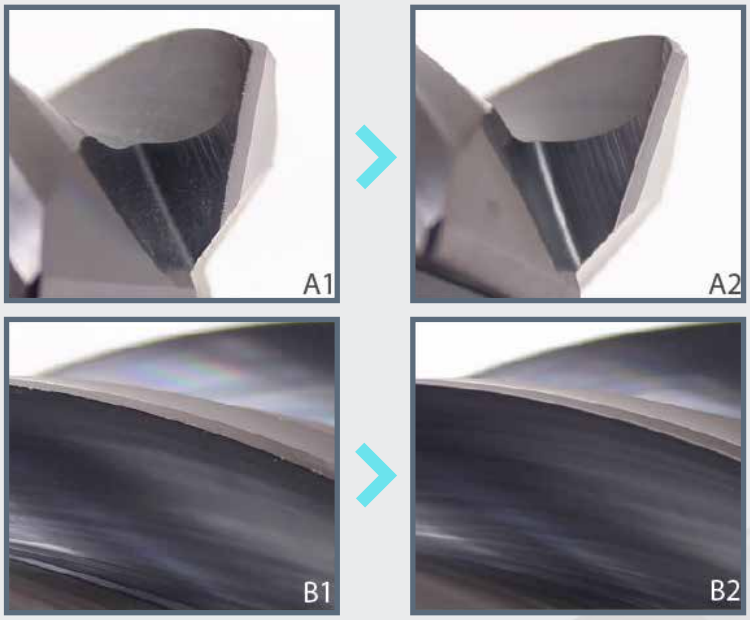
Superior Surface Finish

Stronger Cutting Edge

Easy Chip Evacuation

Reduced Cycle Time

Before **After**



Cutting Edge Preparation

Superior cutting performance

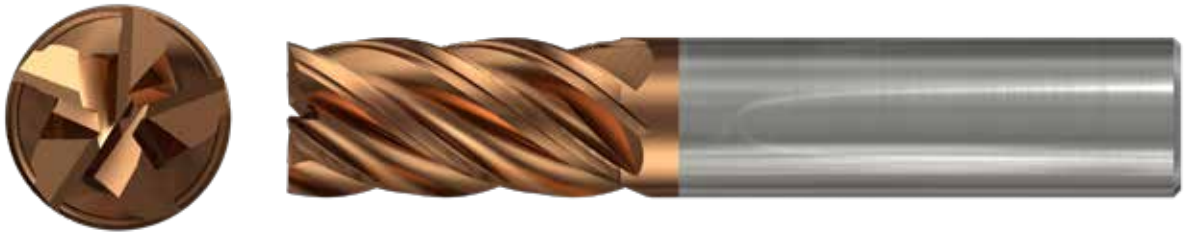
Identification Code

E C I - 4 - 625 - 1.0 / 4.0 C 125 VF 6

E	Endmill Solid Carbide
C	C- Square B - Ball-Nose
I	I - Inch Units
4	No. of Flutes
625	Cutting Diameter
1.0	Length of Cut
4.0	Reach Length
C	Cylindrical Shank
125	Radius
VF	Variable Pitch
6	Overall Length

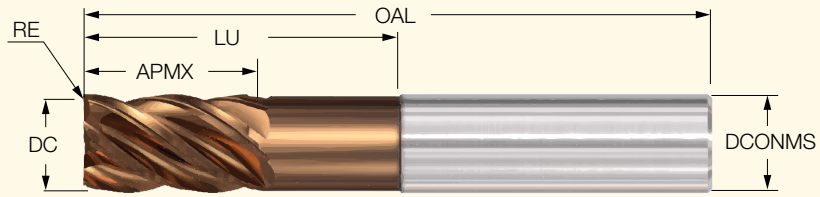
Tolerances:

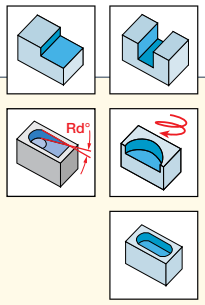
Cutting Diameter Dc: .000/-.002
Shank Diameter DCONMS: +.0001/-.0004
Corner Radius Re: +/-.003
Overall length OAL: +/-.062
Length of cut APMX: +.062/-.000
Total Indicated Runout TIR: .0005 max.



ECI-4-VF

4 Flute Endmill With and Without Relieved Necks, Assorted Radii and Variable Pitch for Chatter Dampening





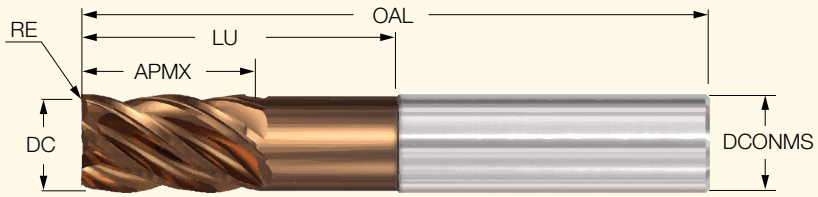
Designation	Dimensions							V910
	DC	APMX	LU	RE	DCONMS	OAL	NOF(1)	
ECI-4 125-500C0VF1.5	.125	.5000	.5000	.0000	.125	1.500	4	•
ECI-4 125-500C015VF1.5	.125	.5000	.5000	.0150	.125	1.500	4	•
ECI-4 125-500C030VF1.5	.125	.5000	.5000	.0300	.125	1.500	4	•
ECI-4 187-625C0VF2	.188	.6250	.6250	.0000	.188	2.000	4	•
ECI-4 187-625C015VF2	.188	.6250	.6250	.0150	.188	2.000	4	•
ECI-4 187-625C030VF2	.188	.6250	.6250	.0300	.188	2.000	4	•
ECI-4 250-375C0VF2	.250	.3750	.3750	.0000	.250	2.000	4	•
ECI-4 250-375C015VF2	.250	.3750	.3750	.0150	.250	2.000	4	•
ECI-4 250-375C030VF2	.250	.3750	.3750	.0300	.250	2.000	4	•
ECI-4 250-375C06VF2	.250	.3750	.3750	.0600	.250	2.000	4	•
ECI-4 250-500/1.25C0VF3	.250	.5000	1.2500	.0000	.250	3.000	4	•
ECI-4 250-500C015VF3	.250	.5000	1.2500	.0150	.250	3.000	4	•
ECI-4 250-500/1.25C03VF3	.250	.5000	1.2500	.0300	.250	3.000	4	•
ECI-4 250-500/1.25C06VF3	.250	.5000	1.2500	.0600	.250	3.000	4	•
ECI-4 250-500/2.12C0VF4	.250	.5000	2.1250	.0000	.250	4.000	4	•
ECI-4 250-500/125C015VF4	.250	.5000	2.1250	.0150	.250	4.000	4	•
ECI-4 250-500/2.12C03VF4	.250	.5000	2.1250	.0300	.250	4.000	4	•
ECI-4 250-500/2.12C06VF4	.250	.5000	2.1250	.0600	.250	4.000	4	•
ECI-4 250-750C0VF2.5	.250	.7500	.7500	.0000	.250	2.500	4	•
ECI-4 250-750C015VF2.5	.250	.7500	.7500	.0150	.250	2.500	4	•
ECI-4 250-750C03VF2.5	.250	.7500	.7500	.0300	.250	2.500	4	•
ECI-4 250-750C06VF2.5	.250	.7500	.7500	.0600	.250	2.500	4	•
ECI-4 250-1.0C0VF3	.250	1.0000	1.0000	.0000	.250	3.000	4	•
ECI-4 250-1.0C015VF3	.250	1.0000	1.0000	.0150	.250	3.000	4	•
ECI-4 250-1.0C03VF3	.250	1.0000	1.0000	.0300	.250	3.000	4	•
ECI-4 250-1.0C06VF3	.250	1.0000	1.0000	.0600	.250	3.000	4	•
ECI-4 250-1.25C0VF4	.250	1.2500	1.2500	.0000	.250	4.000	4	•
ECI-4 250-1.25C015VF4	.250	1.2500	1.2500	.0150	.250	4.000	4	•
ECI-4 250-1.25C03VF4	.250	1.2500	1.2500	.0300	.250	4.000	4	•
ECI-4 250-1.25C06VF4	.250	1.2500	1.2500	.0600	.250	4.000	4	•
ECI-4 250-1.75C0VF4	.250	1.7500	1.7500	.0000	.250	4.000	4	•
ECI-4 250-1.75C015VF4	.250	1.7500	1.7500	.0150	.250	4.000	4	•
ECI-4 250-1.75C03VF4	.250	1.7500	1.7500	.0300	.250	4.000	4	•
ECI-4 250-1.75C06VF4	.250	1.7500	1.7500	.0600	.250	4.000	4	•
ECI-4 312-500C015VF2	.313	.5000	.5000	.0150	.313	2.000	4	•
ECI-4 312-500C03VF2	.313	.5000	.5000	.0300	.313	2.000	4	•
ECI-4 312-500C06VF2	.313	.5000	.5000	.0600	.313	2.000	4	•
ECI-4 312-500C0VF2	.313	.5000	.5000	.0000	.313	2.000	4	•
ECI-4 312-875C015VF2.5	.313	.8750	.8750	.0150	.313	2.500	4	•
ECI-4 312-875C03VF2.5	.313	.8750	.8750	.0300	.313	2.500	4	•
ECI-4 312-875C06VF2.5	.313	.8750	.8750	.0600	.313	2.500	4	•
ECI-4 312-875C0VF2.5	.313	.8750	.8750	.0000	.313	2.500	4	•
ECI-4 312-1.0C015VF3	.313	1.0000	1.0000	.0150	.313	3.000	4	•
ECI-4 312-1.0C03VF3	.313	1.0000	1.0000	.0300	.313	3.000	4	•
ECI-4 312-1.0C06VF3	.313	1.0000	1.0000	.0600	.313	3.000	4	•
ECI-4 312-1.0C0VF3	.313	1.0000	1.0000	.0000	.313	3.000	4	•
ECI-4 312-1.25C015VF4	.313	1.2500	1.2500	.0150	.313	4.000	4	•
ECI-4 312-1.25C03VF4	.313	1.2500	1.2500	.0300	.313	4.000	4	•
ECI-4 312-1.25C06VF4	.313	1.2500	1.2500	.0600	.313	4.000	4	•
ECI-4 312-1.25C0VF4	.313	1.2500	1.2500	.0000	.313	4.000	4	•

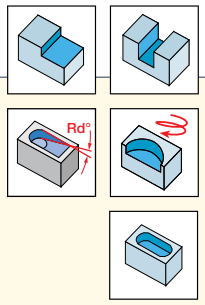
(1) Number of flutes

- Each item is also available with a Weldon shank. Simply substitute a W in place of the C in the listed designations (example - ECI-4 375-1.0C03VF2.5 = cylindrical type; ECI-4 375-1.0W03VF2.5 = Weldon type

ECI-4-VF (continued)

4 Flute Endmill With and Without Relieved Necks, Assorted Radii and Variable Pitch for Chatter Dampening





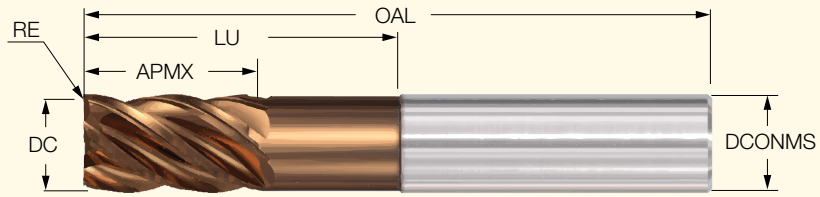
Designation	Dimensions							V910
	DC	APMX	LU	RE	DCONMS	OAL	NOF(1)	
ECI-4 312-1.625C015VF4	.313	1.6250	1.6250	.0150	.313	4.000	4	•
ECI-4 312-1.62C03VF4	.313	1.6250	1.6250	.0300	.313	4.000	4	•
ECI-4 312-1.62C06VF4	.313	1.6250	1.6250	.0600	.313	4.000	4	•
ECI-4 312-1.62C0VF4	.313	1.6250	1.6250	.0000	.313	4.000	4	•
ECI-4 375-500C0VF2	.375	.5000	.5000	.0000	.375	2.000	4	•
ECI-4 375-500C015VF2	.375	.5000	.5000	.0150	.375	2.000	4	•
ECI-4 375-500C03VF2	.375	.5000	.5000	.0300	.375	2.000	4	•
ECI-4 375-500C06VF2	.375	.5000	.5000	.0600	.375	2.000	4	•
ECI-4 375-750/1.25C0VF3	.375	.7500	1.2500	.0000	.375	3.000	4	•
ECI-4 375-750/125C015VF3	.375	.7500	1.2500	.0150	.375	3.000	4	•
ECI-4 375-750/1.2C03VF3	.375	.7500	1.2500	.0300	.375	3.000	4	•
ECI-4 375-750/1.25C06VF3	.375	.7500	1.2500	.0600	.375	3.000	4	•
ECI-4 375-750/2.12C0VF4	.375	.7500	2.1250	.0000	.375	4.000	4	•
ECI-4 375-750/212C015VF4	.375	.7500	2.1250	.0150	.375	4.000	4	•
ECI-4 375-750/2.12C03VF4	.375	.7500	2.1250	.0300	.375	4.000	4	•
ECI-4 375-750/2.12C06VF4	.375	.7500	2.1250	.0600	.375	4.000	4	•
ECI-4 375-1.0C0VF2.5	.375	1.0000	1.0000	.0000	.375	2.500	4	•
ECI-4 375-1.0C0VF3	.375	1.0000	1.0000	.0000	.375	3.000	4	•
ECI-4 375-1.0C015VF2	.375	1.0000	1.0000	.0150	.375	2.500	4	•
ECI-4 375-1.0C015VF3	.375	1.0000	1.0000	.0150	.375	3.000	4	•
ECI-4 375-1.0C03VF2.5	.375	1.0000	1.0000	.0300	.375	2.500	4	•
ECI-4 375-1.0C03VF3	.375	1.0000	1.0000	.0300	.375	3.000	4	•
ECI-4 375-1.0C06VF2.5	.375	1.0000	1.0000	.0600	.375	2.500	4	•
ECI-4 375-1.0C06VF3	.375	1.0000	1.0000	.0600	.375	3.000	4	•
ECI-4 375-1.5C0VF4	.375	1.5000	1.5000	.0000	.375	4.000	4	•
ECI-4 375-1.5C015VF4	.375	1.5000	1.5000	.0150	.375	4.000	4	•
ECI-4 375-1.5C03VF4	.375	1.5000	1.5000	.0300	.375	4.000	4	•
ECI-4 375-1.5C06VF4	.375	1.5000	1.5000	.0600	.375	4.000	4	•
ECI-4 375-2.4C0VF5	.375	2.5000	2.5000	.0000	.375	5.000	4	•
ECI-4 375-2.5C015VF5	.375	2.5000	2.5000	.0150	.375	5.000	4	•
ECI-4 375-2.5C03VF5	.375	2.5000	2.5000	.0300	.375	5.000	4	•
ECI-4 375-2.5C06VF5	.375	2.5000	2.5000	.0600	.375	5.000	4	•
ECI-4 437-625C0VF2.75	.437	.6250	.6250	.0000	.437	2.750	4	•
ECI-4 437-625C015VF2.7	.437	.6250	.6250	.0150	.437	2.750	4	•
ECI-4 437-625C03VF2.7	.437	.6250	.6250	.0300	.437	2.750	4	•
ECI-4 437-625C06VF2.75	.437	.6250	.6250	.0600	.437	2.750	4	•
ECI-4 437-1.0C0VF2.75	.437	1.0000	1.0000	.0000	.437	2.750	4	•
ECI-4 437-1.0C015VF2.7	.437	1.0000	1.0000	.0150	.437	2.750	4	•
ECI-4 437-1.0C03VF2.7	.437	1.0000	1.0000	.0300	.437	2.750	4	•
ECI-4 437-1.0C06VF2.75	.437	1.0000	1.0000	.0600	.437	2.750	4	•
ECI-4 437-1.5C0VF4	.437	1.5000	1.5000	.0000	.437	4.000	4	•
ECI-4 437-1.5C015VF4	.437	1.5000	1.5000	.0150	.437	4.000	4	•
ECI-4 437-1.5C03VF4	.437	1.5000	1.5000	.0300	.437	4.000	4	•
ECI-4 437-1.5C06VF4	.437	1.5000	1.5000	.0600	.437	4.000	4	•
ECI-4 437-3.0C0VF6	.437	3.0000	3.0000	.0000	.437	6.000	4	•
ECI-4 437-3.0C015VF6	.437	3.0000	3.0000	.0150	.437	6.000	4	•
ECI-4 437-3.0C03VF6	.437	3.0000	3.0000	.0300	.437	6.000	4	•
ECI-4 437-3.0C06VF6	.437	3.0000	3.0000	.0600	.437	6.000	4	•
ECI-4 500-625C0VF2.5	.500	.6250	.6250	.0000	.500	2.500	4	•
ECI-4 500-625C015VF2.5	.500	.6250	.6250	.0150	.500	2.500	4	•

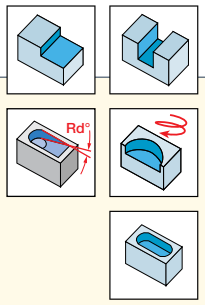
(1) Number of flutes

- Each item is also available with a Weldon shank. Simply substitute a W in place of the C in the listed designations (example - ECI-4 375-1.0C03VF2.5 = cylindrical type; ECI-4 375-1.0W03VF2.5 = Weldon type

ECI-4-VF (continued)

4 Flute Endmill With and Without Relieved Necks, Assorted Radii and Variable Pitch for Chatter Dampening





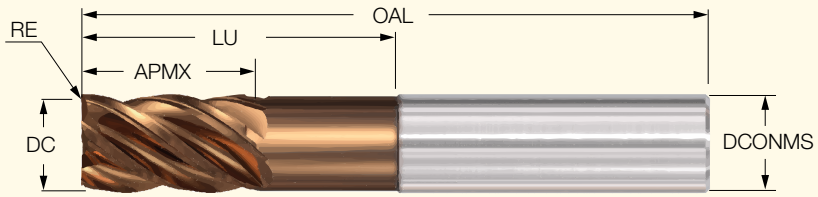
Designation	Dimensions							V910
	DC	APMX	LU	RE	DCONMS	OAL	NOF(1)	
ECI-4 500-625C03VF2.5	.500	.6250	.6250	.0300	.500	2.500	4	•
ECI-4 500-625C06VF2.5	.500	.6250	.6250	.0600	.500	2.500	4	•
ECI-4 500-625C09VF2.5	.500	.6250	.6250	.0900	.500	2.500	4	•
ECI-4 500-625C125VF2.5	.500	.6250	.6250	.1250	.500	2.500	4	•
ECI-4 500-875/1.37C0VF3	.500	.8750	1.3750	.0000	.500	3.000	4	•
ECI-4 500-875/1.37C015VF3	.500	.8750	1.3750	.0150	.500	3.000	4	•
ECI-4 500-875/1.37C03VF3	.500	.8750	1.3750	.0300	.500	3.000	4	•
ECI-4 500-875/1.37C06VF3	.500	.8750	1.3750	.0600	.500	3.000	4	•
ECI-4 500-875/1.37C09VF3	.500	.8750	1.3750	.0900	.500	3.000	4	•
ECI-4 500-875/1.37C125VF3	.500	.8750	1.3750	.1250	.500	3.000	4	•
ECI-4 500-875/2.12C0VF4	.500	.8750	2.1250	.0000	.500	4.000	4	•
ECI-4 500-875/2.12C015VF4	.500	.8750	2.1250	.0150	.500	4.000	4	•
ECI-4 500-875/2.12C03VF4	.500	.8750	2.1250	.0300	.500	4.000	4	•
ECI-4 500-875/2.12C06VF4	.500	.8750	2.1250	.0600	.500	4.000	4	•
ECI-4 500-875/2.12C09VF4	.500	.8750	2.1250	.0900	.500	4.000	4	•
ECI-4 500-875/2.12C125VF4	.500	.8750	2.1250	.1250	.500	4.000	4	•
ECI-4 500-875/4.12C0VF6	.500	.8750	4.1250	.0000	.500	6.000	4	•
ECI-4 500-875/4.12C015VF6	.500	.8750	4.1250	.0150	.500	6.000	4	•
ECI-4 500-875/4.12C03VF6	.500	.8750	4.1250	.0300	.500	6.000	4	•
ECI-4 500-875/4.12C06VF6	.500	.8750	4.1250	.0600	.500	6.000	4	•
ECI-4 500-875/4.12C09VF6	.500	.8750	4.1250	.0900	.500	6.000	4	•
ECI-4 500-875/4.12C125VF6	.500	.8750	4.1250	.1250	.500	6.000	4	•
ECI-4 500-1.0C0VF3	.500	1.0000	1.0000	.0000	.500	3.000	4	•
ECI-4 500-1.0C015VF3	.500	1.0000	1.0000	.0150	.500	3.000	4	•
ECI-4 500-1.0C03VF3	.500	1.0000	1.0000	.0300	.500	3.000	4	•
ECI-4 500-1.0C06VF3	.500	1.0000	1.0000	.0600	.500	3.000	4	•
ECI-4 500-1.0C09VF3	.500	1.0000	1.0000	.0900	.500	3.000	4	•
ECI-4 500-1.0C125VF3	.500	1.0000	1.0000	.1250	.500	3.000	4	•
ECI-4 500-1.25C0VF3	.500	1.2500	1.2500	.0000	.500	3.000	4	•
ECI-4 500-1.25C015VF3	.500	1.2500	1.2500	.0150	.500	3.000	4	•
ECI-4 500-1.25C03VF3	.500	1.2500	1.2500	.0300	.500	3.000	4	•
ECI-4 500-1.25C06VF3	.500	1.2500	1.2500	.0600	.500	3.000	4	•
ECI-4 500-1.25C09VF3	.500	1.2500	1.2500	.0900	.500	3.000	4	•
ECI-4 500-1.25C125VF3	.500	1.2500	1.2500	.1250	.500	3.000	4	•
ECI-4 500-1.5C0VF4	.500	1.5000	1.5000	.0000	.500	4.000	4	•
ECI-4 500-1.5C015VF4	.500	1.5000	1.5000	.0150	.500	4.000	4	•
ECI-4 500-1.5C03VF4	.500	1.5000	1.5000	.0300	.500	4.000	4	•
ECI-4 500-1.5C06VF4	.500	1.5000	1.5000	.0600	.500	4.000	4	•
ECI-4 500-1.5C09VF4	.500	1.5000	1.5000	.0900	.500	4.000	4	•
ECI-4 500-1.5C125VF4	.500	1.5000	1.5000	.1250	.500	4.000	4	•
ECI-4 500-2.0C0VF4	.500	2.0000	2.0000	.0000	.500	4.000	4	•
ECI-4 500-2.0C015VF4	.500	2.0000	2.0000	.0150	.500	4.000	4	•
ECI-4 500-2.0C03VF4	.500	2.0000	2.0000	.0300	.500	4.000	4	•
ECI-4 500-2.0C06VF4	.500	2.0000	2.0000	.0600	.500	4.000	4	•
ECI-4 500-2.0C09VF4	.500	2.0000	2.0000	.0900	.500	4.000	4	•
ECI-4 500-2.0C125VF4	.500	2.0000	2.0000	.1250	.500	4.000	4	•
ECI-4 500-2.5C0VF5	.500	2.5000	2.5000	.0000	.500	5.000	4	•
ECI-4 500-2.5C015VF5	.500	2.5000	2.5000	.0150	.500	5.000	4	•
ECI-4 500-2.12C03VF5	.500	2.5000	2.5000	.0300	.500	5.000	4	•
ECI-4 500-2.5C06VF5	.500	2.5000	2.5000	.0600	.500	5.000	4	•

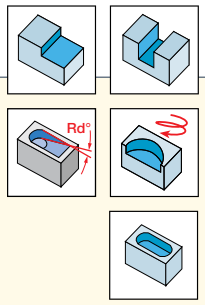
(1) Number of flutes

- Each item is also available with a Weldon shank. Simply substitute a W in place of the C in the listed designations (example - ECI-4 375-1.0C03VF2.5 = cylindrical type; ECI-4 375-1.0W03VF2.5 = Weldon type

ECI-4-VF (continued)

4 Flute Endmill With and Without Relieved Necks, Assorted Radii and Variable Pitch for Chatter Dampening





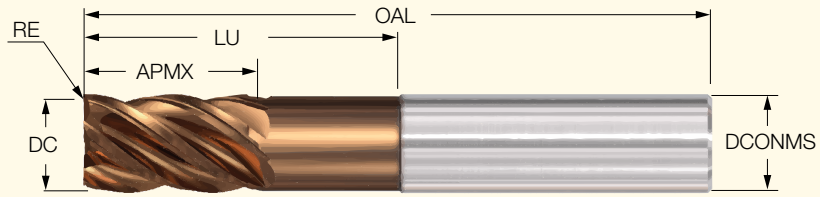
Designation	Dimensions							V910
	DC	APMX	LU	RE	DCONMS	OAL	NOF[1]	
ECI-4 500-2.5C09VF5	.500	2.5000	2.5000	.0900	.500	5.000	4	•
ECI-4 500-2.5C125VF5	.500	2.5000	2.5000	.1250	.500	5.000	4	•
ECI-4 500-3.0C0VF6	.500	3.0000	3.0000	.0000	.500	6.000	4	•
ECI-4 500-3.0C015VF6	.500	3.0000	3.0000	.0150	.500	6.000	4	•
ECI-4 500-3.0C03VF6	.500	3.0000	3.0000	.0300	.500	6.000	4	•
ECI-4 500-3.0C06VF6	.500	3.0000	3.0000	.0600	.500	6.000	4	•
ECI-4 500-3.0C09VF6	.500	3.0000	3.0000	.0900	.500	6.000	4	•
ECI-4 500-3.0C125VF6	.500	3.0000	3.0000	.1250	.500	6.000	4	•
ECI-4 625-750C0VF3	.625	.7500	.7500	.0000	.625	3.000	4	•
ECI-4 625-750C015VF3	.625	.7500	.7500	.0150	.625	3.000	4	•
ECI-4 625-750C03VF3	.625	.7500	.7500	.0300	.625	3.000	4	•
ECI-4 625-750C06VF3	.625	.7500	.7500	.0600	.625	3.000	4	•
ECI-4 625-750C09VF3	.625	.7500	.7500	.0900	.625	3.000	4	•
ECI-4 625-750C125VF3	.625	.7500	.7500	.1250	.625	3.000	4	•
ECI-4 625-1.0/2.0C0VF4	.625	1.0000	2.0000	.0000	.625	4.000	4	•
ECI-4 625-1.0/2.0C015VF4	.625	1.0000	2.0000	.0150	.625	4.000	4	•
ECI-4 625-1.0/2.0C03VF4	.625	1.0000	2.0000	.0300	.625	4.000	4	•
ECI-4 625-1.0/2.0C06VF4	.625	1.0000	2.0000	.0600	.625	4.000	4	•
ECI-4 625-1.0/2.0C09VF4	.625	1.0000	2.0000	.0900	.625	4.000	4	•
ECI-4 625-1.0/2.0C125VF4	.625	1.0000	2.0000	.1250	.625	4.000	4	•
ECI-4 625-1.0/3.0C0VF5	.625	1.0000	3.0000	.0000	.625	5.000	4	•
ECI-4 625-1.0/3.0C015VF5	.625	1.0000	3.0000	.0150	.625	5.000	4	•
ECI-4 625-1.0/3.0C03VF5	.625	1.0000	3.0000	.0300	.625	5.000	4	•
ECI-4 625-1.0/3.0C06VF5	.625	1.0000	3.0000	.0600	.625	5.000	4	•
ECI-4 625-1.0/3.0C09VF5	.625	1.0000	3.0000	.0900	.625	5.000	4	•
ECI-4 625-1.0/3.0C125VF5	.625	1.0000	3.0000	.1250	.625	5.000	4	•
ECI-4 625-1.0/4.0C0VF6	.625	1.0000	4.0000	.0000	.625	6.000	4	•
ECI-4 625-1.0/4.0C015VF6	.625	1.0000	4.0000	.0150	.625	6.000	4	•
ECI-4 625-1.0/4.0C03VF6	.625	1.0000	4.0000	.0300	.625	6.000	4	•
ECI-4 625-1.0/4.0C06VF6	.625	1.0000	4.0000	.0600	.625	6.000	4	•
ECI-4 625-1.0/4.0C09VF6	.625	1.0000	4.0000	.0900	.625	6.000	4	•
ECI-4 625-1.0/4.0C125VF6	.625	1.0000	4.0000	.1250	.625	6.000	4	•
ECI-4 625-1.25C0VF3.5	.625	1.2500	1.2500	.0000	.625	3.500	4	•
ECI-4 625-1.2C015VF3.5	.625	1.2500	1.2500	.0150	.625	3.500	4	•
ECI-4 625-1.25C03VF3.5	.625	1.2500	1.2500	.0300	.625	3.500	4	•
ECI-4 625-1.25C06VF3.5	.625	1.2500	1.2500	.0600	.625	3.500	4	•
ECI-4 625-1.25C09VF3.5	.625	1.2500	1.2500	.0900	.625	3.500	4	•
ECI-4 625-1.25C125VF3.5	.625	1.2500	1.2500	.1250	.625	3.500	4	•
ECI-4 625-1.75C0VF4	.625	1.7500	1.7500	.0000	.625	4.000	4	•
ECI-4 625-1.75C015VF4	.625	1.7500	1.7500	.0150	.625	4.000	4	•
ECI-4 625-1.75C03VF4	.625	1.7500	1.7500	.0300	.625	4.000	4	•
ECI-4 625-1.75C06VF4	.625	1.7500	1.7500	.0600	.625	4.000	4	•
ECI-4 625-1.75C09VF4	.625	1.7500	1.7500	.0900	.625	4.000	4	•
ECI-4 625-1.75C125VF4	.625	1.7500	1.7500	.1250	.625	4.000	4	•
ECI-4 625-2.25C0VF5	.625	2.2500	2.2500	.0000	.625	5.000	4	•
ECI-4 625-2.25C015VF5	.625	2.2500	2.2500	.0150	.625	5.000	4	•
ECI-4 625-2.25C03VF5	.625	2.2500	2.2500	.0300	.625	5.000	4	•
ECI-4 625-2.25C06VF5	.625	2.2500	2.2500	.0600	.625	5.000	4	•
ECI-4 625-2.25C09VF5	.625	2.2500	2.2500	.0900	.625	5.000	4	•
ECI-4 625-2.25C125VF5	.625	2.2500	2.2500	.1250	.625	5.000	4	•

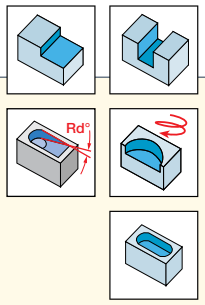
[1] Number of flutes

- Each item is also available with a Weldon shank. Simply substitute a W in place of the C in the listed designations (example - ECI-4 375-1.0C03VF2.5 = cylindrical type; ECI-4 375-1.0W03VF2.5 = Weldon type

ECI-4-VF (continued)

4 Flute Endmill With and Without Relieved Necks, Assorted Radii and Variable Pitch for Chatter Dampening





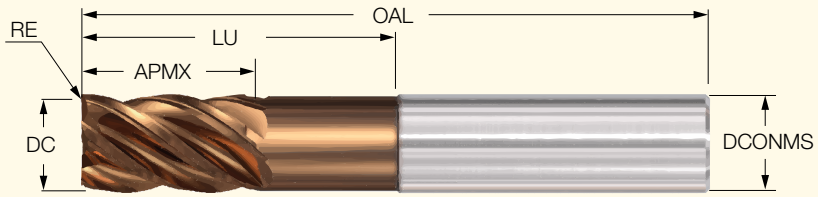
Designation	Dimensions							V910
	DC	APMX	LU	RE	DCONMS	OAL	NOF[1]	
ECI-4 625-3.0C0VF6	.625	3.0000	3.0000	.0000	.625	6.000	4	•
ECI-4 625-3.0C015VF6	.625	3.0000	3.0000	.0150	.625	6.000	4	•
ECI-4 625-3.0C03VF6	.625	3.0000	3.0000	.0300	.625	6.000	4	•
ECI-4 625-3.0C06VF6	.625	3.0000	3.0000	.0600	.625	6.000	4	•
ECI-4 625-3.0C09VF6	.625	3.0000	3.0000	.0900	.625	6.000	4	•
ECI-4 625-3.0C125VF6	.625	3.0000	3.0000	.1250	.625	6.000	4	•
ECI-4 750-875C0VF3	.750	.8750	.8750	.0000	.750	3.000	4	•
ECI-4 750-875C015VF3	.750	.8750	.8750	.0150	.750	3.000	4	•
ECI-4 750-875C03VF3	.750	.8750	.8750	.0300	.750	3.000	4	•
ECI-4 750-875C06VF3	.750	.8750	.8750	.0600	.750	3.000	4	•
ECI-4 750-875C09VF3	.750	.8750	.8750	.0900	.750	3.000	4	•
ECI-4 750-875C125VF3	.750	.8750	.8750	.1250	.750	3.000	4	•
ECI-4 750-1.25/2.0C0VF4	.750	1.2500	2.0000	.0000	.750	4.000	4	•
ECI-4 750-1.2/2.0C015VF4	.750	1.2500	2.0000	.0150	.750	4.000	4	•
ECI-4 750-1.25/2.0C03VF4	.750	1.2500	2.0000	.0300	.750	4.000	4	•
ECI-4 750-1.25/2.0C06VF4	.750	1.2500	2.0000	.0600	.750	4.000	4	•
ECI-4 750-1.25/2.0C09VF4	.750	1.2500	2.0000	.0900	.750	4.000	4	•
ECI-4 750-1.25/2.0C125VF4	.750	1.2500	2.0000	.1250	.750	4.000	4	•
ECI-4 750-1.25/3.0C0VF5	.750	1.2500	3.0000	.0000	.750	5.000	4	•
ECI-4 750-1.2/3.0C015VF5	.750	1.2500	3.0000	.0150	.750	5.000	4	•
ECI-4 750-1.25/3.0C03VF5	.750	1.2500	3.0000	.0300	.750	5.000	4	•
ECI-4 750-1.25/3.0C06VF5	.750	1.2500	3.0000	.0600	.750	5.000	4	•
ECI-4 750-1.25/3.0C09VF5	.750	1.2500	3.0000	.0900	.750	5.000	4	•
ECI-4 750-1.25/3.0C125VF5	.750	1.2500	3.0000	.1250	.750	5.000	4	•
ECI-4 750-1.25/4.0C0VF6	.750	1.2500	4.0000	.0000	.750	6.000	4	•
ECI-4 750-1.2/4.0C015VF6	.750	1.2500	4.0000	.0150	.750	6.000	4	•
ECI-4 750-1.25/4.0C03VF6	.750	1.2500	4.0000	.0300	.750	6.000	4	•
ECI-4 750-1.25/4.0C06VF6	.750	1.2500	4.0000	.0600	.750	6.000	4	•
ECI-4 750-1.25/4.0C09VF6	.750	1.2500	4.0000	.0900	.750	6.000	4	•
ECI-4 750-1.25/4.0C125VF6	.750	1.2500	4.0000	.1250	.750	6.000	4	•
ECI-4 750-1.5C0VF4	.750	1.5000	1.5000	.0000	.750	4.000	4	•
ECI-4 750-1.5C015VF4	.750	1.5000	1.5000	.0150	.750	4.000	4	•
ECI-4 750-1.5C03VF4	.750	1.5000	1.5000	.0300	.750	4.000	4	•
ECI-4 750-1.5C06VF4	.750	1.5000	1.5000	.0600	.750	4.000	4	•
ECI-4 750-1.5C09VF4	.750	1.5000	1.5000	.0900	.750	4.000	4	•
ECI-4 750-1.5C125VF4	.750	1.5000	1.5000	.1250	.750	4.000	4	•
ECI-4 750-1.62C0VF4	.750	1.6250	1.6250	.0000	.750	4.000	4	•
ECI-4 750-1.62C015VF4	.750	1.6250	1.6250	.0150	.750	4.000	4	•
ECI-4 750-1.62C03VF4	.750	1.6250	1.6250	.0300	.750	4.000	4	•
ECI-4 750-1.62C06VF4	.750	1.6250	1.6250	.0600	.750	4.000	4	•
ECI-4 750-1.62C09VF4	.750	1.6250	1.6250	.0900	.750	4.000	4	•
ECI-4 750-1.62C125VF4	.750	1.6250	1.6250	.1250	.750	4.000	4	•
ECI-4 750-2.25C0VF5	.750	2.2500	2.2500	.0000	.750	5.000	4	•
ECI-4 750-2.25C015VF5	.750	2.2500	2.2500	.0150	.750	5.000	4	•
ECI-4 750-2.25C03VF5	.750	2.2500	2.2500	.0300	.750	5.000	4	•
ECI-4 750-2.25C06VF5	.750	2.2500	2.2500	.0600	.750	5.000	4	•
ECI-4 750-2.25C09VF5	.750	2.2500	2.2500	.0900	.750	5.000	4	•
ECI-4 750-2.25C125VF5	.750	2.2500	2.2500	.1250	.750	5.000	4	•
ECI-4 750-3.0C0VF6	.750	3.0000	3.0000	.0000	.750	6.000	4	•
ECI-4 750-3.0C015VF6	.750	3.0000	3.0000	.0150	.750	6.000	4	•

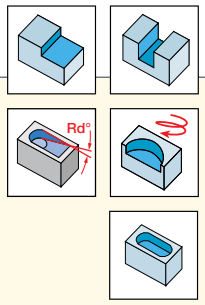
[1] Number of flutes

- Each item is also available with a Weldon shank. Simply substitute a W in place of the C in the listed designations (example - ECI-4 375-1.0C03VF2.5 = cylindrical type; ECI-4 375-1.0W03VF2.5 = Weldon type

ECI-4-VF (continued)

4 Flute Endmill With and Without Relieved Necks, Assorted Radii and Variable Pitch for Chatter Dampening





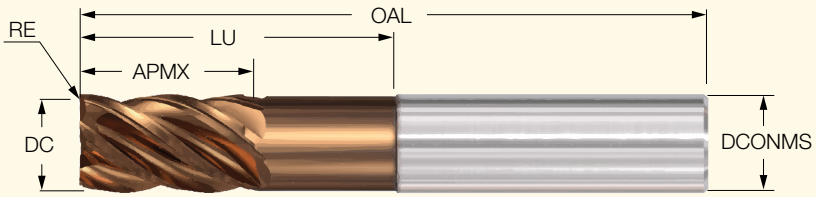
Designation	Dimensions							V910
	DC	APMX	LU	RE	DCONMS	OAL	NOF(1)	
ECI-4 750-3.0C03VF6	.750	3.0000	3.0000	.0300	.750	6.000	4	•
ECI-4 750-3.0C06VF6	.750	3.0000	3.0000	.0600	.750	6.000	4	•
ECI-4 750-3.0C09VF6	.750	3.0000	3.0000	.0900	.750	6.000	4	•
ECI-4 750-3.0C125VF6	.750	3.0000	3.0000	.1250	.750	6.000	4	•
ECI-4 750-4.0C0VF7	.750	4.0000	4.0000	.0000	.750	7.000	4	•
ECI-4 750-4.0C015VF7	.750	4.0000	4.0000	.0150	.750	7.000	4	•
ECI-4 750-4.0C03VF7	.750	4.0000	4.0000	.0300	.750	7.000	4	•
ECI-4 750-4.0C06VF7	.750	4.0000	4.0000	.0600	.750	7.000	4	•
ECI-4 750-4.0C09VF7	.750	4.0000	4.0000	.0900	.750	7.000	4	•
ECI-4 750-4.0C125VF7	.750	4.0000	4.0000	.1250	.750	7.000	4	•
ECI-4 1.0-1.5C0VF4	1.000	1.5000	1.5000	.0000	1.000	4.000	4	•
ECI-4 1.0-1.5C015VF4	1.000	1.5000	1.5000	.0150	1.000	4.000	4	•
ECI-4 1.0-1.5C03VF4	1.000	1.5000	1.5000	.0300	1.000	4.000	4	•
ECI-4 1.0-1.5C06VF4	1.000	1.5000	1.5000	.0600	1.000	4.000	4	•
ECI-4 1.0-1.5C09VF4	1.000	1.5000	1.5000	.0900	1.000	4.000	4	•
ECI-4 1.0-1.5C125VF4	1.000	1.5000	1.5000	.1250	1.000	4.000	4	•
ECI-4 1.0-1.5/3.0C0VF5	1.000	1.5000	3.0000	.0000	1.000	5.000	4	•
ECI-4 1.0-1.5/3.0C015VF5	1.000	1.5000	3.0000	.0150	1.000	5.000	4	•
ECI-4 1.0-1.5/3.0C03VF5	1.000	1.5000	3.0000	.0300	1.000	5.000	4	•
ECI-4 1.0-1.5/3.0C06VF5	1.000	1.5000	3.0000	.0600	1.000	5.000	4	•
ECI-4 1.0-1.5/3.0C09VF5	1.000	1.5000	3.0000	.0900	1.000	5.000	4	•
ECI-4 1.0-1.5/3.0C125VF5	1.000	1.5000	3.0000	.1250	1.000	5.000	4	•
ECI-4 1.0-1.5/4.0C0VF6	1.000	1.5000	4.0000	.0000	1.000	6.000	4	•
ECI-4 1.0-1.5/4.0C015VF6	1.000	1.5000	4.0000	.0150	1.000	6.000	4	•
ECI-4 1.0-1.5/4.0C03VF6	1.000	1.5000	4.0000	.0300	1.000	6.000	4	•
ECI-4 1.0-1.5/4.0C06VF6	1.000	1.5000	4.0000	.0600	1.000	6.000	4	•
ECI-4 1.0-1.5/4.0C09VF6	1.000	1.5000	4.0000	.0900	1.000	6.000	4	•
ECI-4 1.0-1.5/4.0C125VF6	1.000	1.5000	4.0000	.1250	1.000	6.000	4	•
ECI-4 1.0-1.5/5.0C0VF7	1.000	1.5000	5.0000	.0000	1.000	7.000	4	•
ECI-4 1.0-1.5/5.0C015VF7	1.000	1.5000	5.0000	.0150	1.000	7.000	4	•
ECI-4 1.0-1.5/5.0C03VF7	1.000	1.5000	5.0000	.0300	1.000	7.000	4	•
ECI-4 1.0-1.5/5.0C06VF7	1.000	1.5000	5.0000	.0600	1.000	7.000	4	•
ECI-4 1.0-1.4/5.0C09VF7	1.000	1.5000	5.0000	.0900	1.000	7.000	4	•
ECI-4 1.0-1.5/5.0C125VF7	1.000	1.5000	5.0000	.1250	1.000	7.000	4	•
ECI-4 1.0-2.0C0VF4.5	1.000	2.0000	2.0000	.0000	1.000	4.500	4	•
ECI-4 1.0-2.0C015VF4.5	1.000	2.0000	2.0000	.0150	1.000	4.500	4	•
ECI-4 1.0-2.0C03VF4.5	1.000	2.0000	2.0000	.0300	1.000	4.500	4	•
ECI-4 1.0-2.0C06VF4.5	1.000	2.0000	2.0000	.0600	1.000	4.500	4	•
ECI-4 1.0-2.0C09VF4.5	1.000	2.0000	2.0000	.0900	1.000	4.500	4	•
ECI-4 1.0-2.0C125VF4.5	1.000	2.0000	2.0000	.1250	1.000	4.500	4	•
ECI-4 1.0-2.25C0VF5	1.000	2.2500	2.2500	.0000	1.000	5.000	4	•
ECI-4 1.0-2.25C015VF5	1.000	2.2500	2.2500	.0150	1.000	5.000	4	•
ECI-4 1.0-2.25C03VF5	1.000	2.2500	2.2500	.0300	1.000	5.000	4	•
ECI-4 1.0-2.25C06VF5	1.000	2.2500	2.2500	.0600	1.000	5.000	4	•
ECI-4 1.0-2.25C09VF5	1.000	2.2500	2.2500	.0900	1.000	5.000	4	•
ECI-4 1.0-2.25C125VF5	1.000	2.2500	2.2500	.1250	1.000	5.000	4	•
ECI-4 1.0-3.0C0VF6	1.000	3.0000	3.0000	.0000	1.000	6.000	4	•
ECI-4 1.0-3.0C015VF6	1.000	3.0000	3.0000	.0150	1.000	6.000	4	•
ECI-4 1.0-3.0C03VF6	1.000	3.0000	3.0000	.0300	1.000	6.000	4	•
ECI-4 1.0-3.0C06VF6	1.000	3.0000	3.0000	.0600	1.000	6.000	4	•
ECI-4 1.0-3.0C09VF6	1.000	3.0000	3.0000	.0900	1.000	6.000	4	•

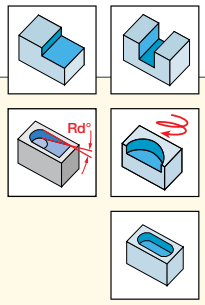
(1) Number of flutes

- Each item is also available with a Weldon shank. Simply substitute a **W** in place of the **C** in the listed designations (example - ECI-4 375-1.0**C**03VF2.5 = cylindrical type; ECI-4 375-1.0**W**03VF2.5 = Weldon type

ECI-4-VF (continued)

4 Flute Endmill With and Without Relieved Necks, Assorted Radii and Variable Pitch for Chatter Dampening





Designation	Dimensions DC	APMX	LU	RE	DCONMS	OAL	NOF[1]	V910
ECI-4 1.0-3.0C125VF6	1.000	3.0000	3.0000	.1250	1.000	6.000	4	•
ECI-4 1.0-4.0C0VF7	1.000	4.0000	4.0000	.0000	1.000	7.000	4	•
ECI-4 1.0-4.0C015VF7	1.000	4.0000	4.0000	.0150	1.000	7.000	4	•
ECI-4 1.0-4.0C03VF7	1.000	4.0000	4.0000	.0300	1.000	7.000	4	•
ECI-4 1.0-4.0C06VF7	1.000	4.0000	4.0000	.0600	1.000	7.000	4	•
ECI-4 1.0-4.0C09VF7	1.000	4.0000	4.0000	.0900	1.000	7.000	4	•
ECI-4 1.0-4.0C125VF7	1.000	4.0000	4.0000	.1250	1.000	7.000	4	•

[1] Number of flutes

- Each item is also available with a Weldon shank. Simply substitute a **W** in place of the **C** in the listed designations (example - ECI-4 375-1.0**C**03VF2.5 = cylindrical type; ECI-4 375-1.0**W**03VF2.5 = Weldon type

Slotting

ISO	Material No.	Material		Condition	Cutting Speed Recommendations (V_c) SFM	Hardness HB	Cutting Diameter Feed (IPT) 1/8	3/16	1/4	5/16	3/8	7/16	1/2	5/8	3/4	1	Slotting Axial $a_{p\ max}$
P	1	Non-alloy steel and cast steel, free cutting steel	<.25%C	Annealed	740-800	125	.0003	.0004	.0006	.0007	.0009	.0010	.0012	.0015	.0018	.0024	1xD
P	2			Annealed	590-680	190	.0003	.0004	.0006	.0007	.0009	.0010	.0012	.0015	.0018	.0024	1xD
P	3			Quench and tempered	475-650	250	.0003	.0004	.0006	.0007	.0009	.0010	.0012	.0015	.0018	.0024	1xD
P	4		>=.55%C	Annealed	475-650	220	.0003	.0004	.0006	.0007	.0009	.0010	.0012	.0015	.0018	.0024	1xD
P	5		>=.55%C	Quenched & tempered	420-530	300	.0003	.0004	.0006	.0007	.0009	.0010	.0012	.0015	.0018	.0024	1xD
P	6	Low alloy & cast steel (less than 5% of alloying elements)		Annealed	475-650	200	.0003	.0004	.0006	.0007	.0009	.0010	.0012	.0015	.0018	.0024	1xD
P	7			Quenched & tempered	355-530	275	.0003	.0004	.0006	.0007	.0009	.0010	.0012	.0015	.0018	.0024	1xD
P	8			Quenched & tempered	380-530	300	.0003	.0004	.0006	.0007	.0009	.0010	.0012	.0015	.0018	.0024	1xD
P	9			Quenched & tempered	415-530	350	.0003	.0004	.0006	.0007	.0009	.0010	.0012	.0015	.0018	.0024	1xD
P	10	High alloyed steel, cast steel and tool steel		Annealed	380-530	200	.0003	.0004	.0006	.0007	.0009	.0010	.0012	.0015	.0018	.0024	1xD
P	11			Quenched & tempered	200-360	325	.0003	.0004	.0006	.0007	.0009	.0010	.0012	.0015	.0018	.0024	1xD
P	12	Stainless steel and cast steel		Ferritic/martensitic	230-475	200	.0003	.0004	.0006	.0007	.0009	.0020	.0012	.0015	.0018	.0024	1xD
P	13			Martensitic	175-440	240	.0003	.0004	.0006	.0007	.0009	.0020	.0012	.0015	.0018	.0024	1xD
M	14	Stainless steel and cast steel		Austenitic	175-360	180	.0003	.0004	.0006	.0007	.0009	.0020	.0012	.0015	.0018	.0024	1xD
K	15	Grey cast iron (GG)		Pearlitic/ferritic	235-740	180	.0003	.0004	.0006	.0007	.0009	.0030	.0012	.0015	.0018	.0024	1xD
K	16			Pearlitic/martensitic	380-700	260	.0003	.0004	.0006	.0007	.0009	.0030	.0012	.0015	.0018	.0024	1xD
K	17	Nodular cast iron (GGG)		Ferritic	440-800	160	.0003	.0004	.0006	.0007	.0009	.0010	.0012	.0015	.0018	.0024	1xD
K	18			Pearlitic	440-800	250	.0003	.0004	.0006	.0007	.0009	.0010	.0012	.0015	.0018	.0024	1xD
K	19	Malleable cast iron		Ferritic	440-800	130	.0003	.0004	.0006	.0007	.0009	.0010	.0012	.0015	.0018	.0024	1xD
K	20			Pearlitic	415-710	230	.0003	.0004	.0006	.0007	.0009	.0010	.0012	.0015	.0018	.0024	1xD
S	31	High temp. alloys	Fe based	Annealed	60-120	200	.0003	.0004	.0006	.0007	.0009	.0010	.0012	.0015	.0018	.0024	1xD
S	32			Cured	60-90	280	.0003	.0004	.0006	.0007	.0009	.0010	.0012	.0015	.0018	.0024	1xD
S	33		Ni or Co based	Annealed	60-90	250	.0003	.0004	.0006	.0007	.0009	.0010	.0012	.0015	.0018	.0024	1xD
S	34			Cured	60-90	350	.0003	.0004	.0006	.0007	.0009	.0010	.0012	.0015	.0018	.0024	1xD
S	35			Cast	60-90	320	.0003	.0004	.0006	.0007	.0009	.0010	.0012	.0015	.0018	.0024	1xD
S	36	Titanium Ti alloys		Pure	90-235	310	.0003	.0004	.0006	.0007	.0009	.0020	.0012	.0015	.0018	.0024	1xD
S	37			Alpha+beta alloys cured	80-235	310	.0003	.0004	.0006	.0007	.0009	.0010	.0012	.0015	.0018	.0024	1xD

Roughing

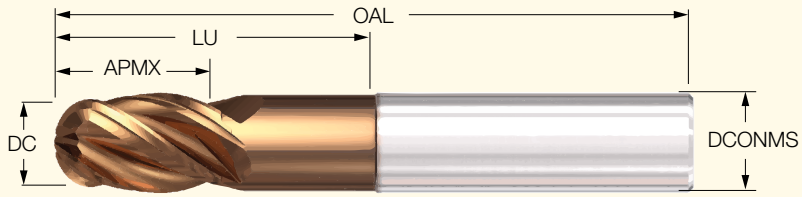
ISO	Material No.	Material		Condition	Cutting Speed Recommendations (V_c) SFM	Hardness HB	Cutting Diameter Feed (IPT)										Profiling Radial	
							1/8	3/16	1/4	5/16	3/8	7/16	1/2	5/8	3/4	1	a_p	a_e
P	1	Non-alloy steel and cast steel, free cutting steel	<.25%C	Annealed	985-1000	125	.00035-.0004	.0005-.0006	.0007-.0008	.0008-.001	.001-.0012	.0011-.0014	.0013-.0016	.0016-.002	.0019-.0024	.0026-.0031	.75xD-1.5xD	.25xD-.4xD
P	2	Non-alloy steel and cast steel, free cutting steel	>=.25%C	Annealed	785-850	190	.00035-.0004	.0005-.0006	.0007-.0008	.0008-.001	.001-.0012	.0011-.0014	.0013-.0016	.0016-.002	.0019-.0024	.0026-.0031	.75xD-1.5xD	.25xD-.4xD
P	3	Non-alloy steel and cast steel, free cutting steel	<.55%C	Quench and tempered	630-810	250	.00035-.0004	.0005-.0006	.0007-.0008	.0008-.001	.001-.0012	.0011-.0014	.0013-.0016	.0016-.002	.0019-.0024	.0026-.0031	.75xD-1.5xD	.25xD-.4xD
P	4	Non-alloy steel and cast steel, free cutting steel	>=.55%C	Annealed	630-810	220	.00035-.0004	.0005-.0006	.0007-.0008	.0008-.001	.001-.0012	.0011-.0014	.0013-.0016	.0016-.002	.0019-.0024	.0026-.0031	.75xD-1.5xD	.25xD-.4xD
P	5	Non-alloy steel and cast steel, free cutting steel	>=.55%C	Quenched & tempered	560-660	300	.00035-.0004	.0005-.0006	.0007-.0008	.0008-.001	.001-.0012	.0011-.0014	.0013-.0016	.0016-.002	.0019-.0024	.0026-.0031	.75xD-1.5xD	.25xD-.4xD
P	6	Low alloy & cast steel (less than 5% of alloying elements)		Annealed	630-810	200	.00035-.0004	.0005-.0006	.0007-.0008	.0008-.001	.001-.0012	.0011-.0014	.0013-.0016	.0016-.002	.0019-.0024	.0026-.0031	.75xD-1.5xD	.25xD-.4xD
P	7	Low alloy & cast steel (less than 5% of alloying elements)		Quenched & tempered	470-660	275	.00035-.0004	.0005-.0006	.0007-.0008	.0008-.001	.001-.0012	.0011-.0014	.0013-.0016	.0016-.002	.0019-.0024	.0026-.0031	.75xD-1.5xD	.25xD-.4xD
P	8	Low alloy & cast steel (less than 5% of alloying elements)		Quenched & tempered	500-660	300	.00035-.0004	.0005-.0006	.0007-.0008	.0008-.001	.001-.0012	.0011-.0014	.0013-.0016	.0016-.002	.0019-.0024	.0026-.0031	.75xD-1.5xD	.25xD-.4xD
P	9	Low alloy & cast steel (less than 5% of alloying elements)		Quenched & tempered	550-660	350	.00035-.0004	.0005-.0006	.0007-.0008	.0008-.001	.001-.0012	.0011-.0014	.0013-.0016	.0016-.002	.0019-.0024	.0026-.0031	.75xD-1.5xD	.25xD-.4xD
P	10	High alloyed steel, cast steel and tool steel		Annealed	500-660	200	.00035-.0004	.0005-.0006	.0007-.0008	.0008-.001	.001-.0012	.0011-.0014	.0013-.0016	.0016-.002	.0019-.0024	.0026-.0031	.75xD-1.5xD	.25xD-.4xD
P	11	High alloyed steel, cast steel and tool steel		Quenched & tempered	270-450	325	.00035-.0004	.0005-.0006	.0007-.0008	.0008-.001	.001-.0012	.0011-.0014	.0013-.0016	.0016-.002	.0019-.0024	.0026-.0031	.75xD-1.5xD	.25xD-.4xD
P	12	Stainless steel and cast steel		Ferritic/ martensitic	310-590	200	.00035-.0004	.0005-.0006	.0007-.0008	.0008-.001	.001-.0012	.0011-.0014	.0013-.0016	.0016-.002	.0019-.0024	.0026-.0031	.75xD-1.5xD	.25xD-.4xD
P	13	Stainless steel and cast steel		Martensitic	235-550	240	.00035-.0004	.0005-.0006	.0007-.0008	.0008-.001	.001-.0012	.0011-.0014	.0013-.0016	.0016-.002	.0019-.0024	.0026-.0031	.75xD-1.5xD	.25xD-.4xD
M	14	Stainless steel and cast steel		Austenitic	235-450	180	.00035-.0004	.0005-.0006	.0007-.0008	.0008-.001	.001-.0012	.0011-.0014	.0013-.0016	.0016-.002	.0019-.0024	.0026-.0031	.75xD-1.5xD	.25xD-.4xD
K	15	Grey cast iron (GG)		Pearlitic/ ferritic	310-925	180	.00035-.0004	.0005-.0006	.0007-.0008	.0008-.001	.001-.0012	.0011-.0014	.0013-.0016	.0016-.002	.0019-.0024	.0026-.0031	.75xD-1.5xD	.25xD-.4xD
K	16	Grey cast iron (GG)		Pearlitic/ martensitic	500-875	260	.00035-.0004	.0005-.0006	.0007-.0008	.0008-.001	.001-.0012	.0011-.0014	.0013-.0016	.0016-.002	.0019-.0024	.0026-.0031	.75xD-1.5xD	.25xD-.4xD
K	17	Nodular cast iron (GGG)		Ferritic	590-1000	160	.00035-.0004	.0005-.0006	.0007-.0008	.0008-.001	.001-.0012	.0011-.0014	.0013-.0016	.0016-.002	.0019-.0024	.0026-.0031	.75xD-1.5xD	.25xD-.4xD
K	18	Nodular cast iron (GGG)		Pearlitic	590-1000	250	.00035-.0004	.0005-.0006	.0007-.0008	.0008-.001	.001-.0012	.0011-.0014	.0013-.0016	.0016-.002	.0019-.0024	.0026-.0031	.75xD-1.5xD	.25xD-.4xD
K	19	Malleable cast iron		Ferritic	590-1000	130	.00035-.0004	.0005-.0006	.0007-.0008	.0008-.001	.001-.0012	.0011-.0014	.0013-.0016	.0016-.002	.0019-.0024	.0026-.0031	.75xD-1.5xD	.25xD-.4xD
K	20	Malleable cast iron		Pearlitic	550-890	230	.00035-.0004	.0005-.0006	.0007-.0008	.0008-.001	.001-.0012	.0011-.0014	.0013-.0016	.0016-.002	.0019-.0024	.0026-.0031	.75xD-1.5xD	.25xD-.4xD
S	31	High temp. alloys	Fe based	Annealed	80-150	200	.00035-.0004	.0005-.0006	.0007-.0008	.0008-.001	.001-.0012	.0011-.0014	.0013-.0016	.0016-.002	.0019-.0024	.0026-.0031	.75xD-1.5xD	.25xD-.4xD
S	32	High temp. alloys	Fe based	Cured	80-115	280	.00035-.0004	.0005-.0006	.0007-.0008	.0008-.001	.001-.0012	.0011-.0014	.0013-.0016	.0016-.002	.0019-.0024	.0026-.0031	.75xD-1.5xD	.25xD-.4xD
S	33	High temp. alloys	Ni or Co based	Annealed	80-115	250	.00035-.0004	.0005-.0006	.0007-.0008	.0008-.001	.001-.0012	.0011-.0014	.0013-.0016	.0016-.002	.0019-.0024	.0026-.0031	.75xD-1.5xD	.25xD-.4xD
S	34	High temp. alloys	Ni or Co based	Cured	80-115	350	.00035-.0004	.0005-.0006	.0007-.0008	.0008-.001	.001-.0012	.0011-.0014	.0013-.0016	.0016-.002	.0019-.0024	.0026-.0031	.75xD-1.5xD	.25xD-.4xD
S	35	High temp. alloys	Ni or Co based	Cast	80-115	320	.00035-.0004	.0005-.0006	.0007-.0008	.0008-.001	.001-.0012	.0011-.0014	.0013-.0016	.0016-.002	.0019-.0024	.0026-.0031	.75xD-1.5xD	.25xD-.4xD
S	36	Titanium Ti alloys		Pure	120-295	310	.00035-.0004	.0005-.0006	.0007-.0008	.0008-.001	.001-.0012	.0011-.0014	.0013-.0016	.0016-.002	.0019-.0024	.0026-.0031	.75xD-1.5xD	.25xD-.4xD
S	37	Titanium Ti alloys		Alpha+beta alloys cured	110-220	310	.00035-.0004	.0005-.0006	.0007-.0008	.0008-.001	.001-.0012	.0011-.0014	.0013-.0016	.0016-.002	.0019-.0024	.0026-.0031	.75xD-1.5xD	.25xD-.4xD
H	38	Hardened Steel		Hardened	110-210	55 HRC	.00035-.0004	.0005-.0006	.0007-.0008	.0008-.001	.001-.0012	.0011-.0014	.0013-.0016	.0016-.002	.0019-.0024	.0026-.0031	.75xD-1.5xD	.02xD
H	39	Hardened Steel		Hardened	110-145	60 HRC	.00035-.0004	.0005-.0006	.0007-.0008	.0008-.001	.001-.0012	.0011-.0014	.0013-.0016	.0016-.002	.0019-.0024	.0026-.0031	.75xD-1.5xD	.02xD
H	40	Chilled Cast Iron		Cast	250-320	400	.00035-.0004	.0005-.0006	.0007-.0008	.0008-.001	.001-.0012	.0011-.0014	.0013-.0016	.0016-.002	.0019-.0024	.0026-.0031	.75xD-1.5xD	.02xD
H	41	Cast Iron		Hardened	110-210	55 HRC	.00035-.0004	.0005-.0006	.0007-.0008	.0008-.001	.001-.0012	.0011-.0014	.0013-.0016	.0016-.002	.0019-.0024	.0026-.0031	.75xD-1.5xD	.02xD

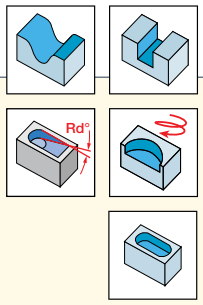
Semi-Finish

ISO	Material No.	Material		Condition	Cutting Speed Recommendations (V_c) SFM	Hardness HB	Cutting Diameter Feed (IPT)										Profiling Radial	
							1/8	3/16	1/4	5/16	3/8	7/16	1/2	5/8	3/4	1	a_p	a_e
P	1	Non-alloy steel and cast steel, free cutting steel	>=.25%C	Annealed	1230	125	.0009	.0013	.0017	.0021	.0025	.0030	.0034	.0042	.0050	.0068	1xD	.05xD
	2			Annealed	1015	190	.0009	.0013	.0017	.0021	.0025	.0030	.0034	.0042	.0050	.0068	1xD	.05xD
	3		<.55%C	Quench and tempered	900	250	.0009	.0013	.0017	.0021	.0025	.0030	.0034	.0042	.0050	.0068	1xD	.05xD
	4		>=.55%C	Annealed	900	220	.0009	.0013	.0017	.0021	.0025	.0030	.0034	.0042	.0050	.0068	1xD	.05xD
	5		>=.55%C	Quenched & tempered	760	300	.0009	.0013	.0017	.0021	.0025	.0030	.0034	.0042	.0050	.0068	1xD	.05xD
	6			Annealed	900	200	.0009	.0013	.0017	.0021	.0025	.0030	.0034	.0042	.0050	.0068	1xD	.05xD
	7	Low alloy & cast steel (less than 5% of alloying elements)		Quenched & tempered	710	275	.0009	.0013	.0017	.0021	.0025	.0030	.0034	.0042	.0050	.0068	1xD	.05xD
	8			Quenched & tempered	730	300	.0009	.0013	.0017	.0021	.0025	.0030	.0034	.0042	.0050	.0068	1xD	.05xD
	9			Quenched & tempered	760	350	.0009	.0013	.0017	.0021	.0025	.0030	.0034	.0042	.0050	.0068	1xD	.05xD
	10	High alloyed steel, cast steel and tool steel		Annealed	730	200	.0009	.0013	.0017	.0021	.0025	.0030	.0034	.0042	.0050	.0068	1xD	.05xD
	11			Quenched & tempered	450	325	.0009	.0013	.0017	.0021	.0025	.0030	.0034	.0042	.0050	.0068	1xD	.05xD
	12	Stainless steel and cast steel		Ferritic/ martensitic	570	200	.0009	.0013	.0017	.0021	.0025	.0030	.0034	.0042	.0050	.0068	1xD	.05xD
	13			Martensitic	490	240	.0009	.0013	.0017	.0021	.0025	.0030	.0034	.0042	.0050	.0068	1xD	.05xD
M	14	Stainless steel and cast steel		Austenitic	425	180	.0009	.0013	.0017	.0021	.0025	.0030	.0034	.0042	.0050	.0068	1xD	.05xD
K	15	Grey cast iron (GG)		Pearlitic/ferritic	780	180	.0009	.0013	.0017	.0021	.0025	.0030	.0034	.0042	.0050	.0068	1xD	.05xD
	16			Pearlitic/ martensitic	870	260	.0009	.0013	.0017	.0021	.0025	.0030	.0034	.0042	.0050	.0068	1xD	.05xD
	17	Nodular cast iron (GGG)		Ferritic	990	160	.0009	.0013	.0017	.0021	.0025	.0030	.0034	.0042	.0050	.0068	1xD	.05xD
	18			Pearlitic	990	250	.0009	.0013	.0017	.0021	.0025	.0030	.0034	.0042	.0050	.0068	1xD	.05xD
	19	Malleable cast iron		Ferritic	990	130	.0009	.0013	.0017	.0021	.0025	.0030	.0034	.0042	.0050	.0068	1xD	.05xD
	20			Pearlitic	900	230	.0009	.0013	.0017	.0021	.0025	.0030	.0034	.0042	.0050	.0068	1xD	.05xD
S	31	High temp. alloys	Fe based	Annealed	145	200	.0009	.0013	.0017	.0021	.0025	.0030	.0034	.0042	.0050	.0068	1xD	.05xD
	32			Cured	120	280	.0009	.0013	.0017	.0021	.0025	.0030	.0034	.0042	.0050	.0068	1xD	.05xD
	33		Ni or Co based	Annealed	120	250	.0009	.0013	.0017	.0021	.0025	.0030	.0034	.0042	.0050	.0068	1xD	.05xD
	34			Cured	120	350	.0009	.0013	.0017	.0021	.0025	.0030	.0034	.0042	.0050	.0068	1xD	.05xD
	35			Cast	120	320	.0009	.0013	.0017	.0021	.0025	.0030	.0034	.0042	.0050	.0068	1xD	.05xD
	36	Titanium Ti alloys		Pure	260	310	.0009	.0013	.0017	.0021	.0025	.0030	.0034	.0042	.0050	.0068	1xD	.05xD
	37			Alpha+beta alloys cured	250	310	.0009	.0013	.0017	.0021	.0025	.0030	.0034	.0042	.0050	.0068	1xD	.05xD
H	38	Hardened Steel		Hardened	110-210	55 HRC	.0009	0.001	.0017	.0021	.0025	.0030	.0034	.0042	.0050	.0068	1xD	.02xD
	39			Hardened	110-145	60 HRC	.0009	0.001	.0017	.0021	.0025	.0030	.0034	.0042	.0050	.0068	1xD	.02xD
	40	Chilled Cast Iron		Cast	250-320	400	.0009	0.001	.0017	.0021	.0025	.0030	.0034	.0042	.0050	.0068	1xD	.02xD
	41	Cast Iron		Hardened	110-210	55 HRC	.0009	0.001	.0017	.0021	.0025	.0030	.0034	.0042	.0050	.0068	1xD	.02xD

EBI-4-VF

4 Flute Ball Nose Endmills With and Without Relieved Necks





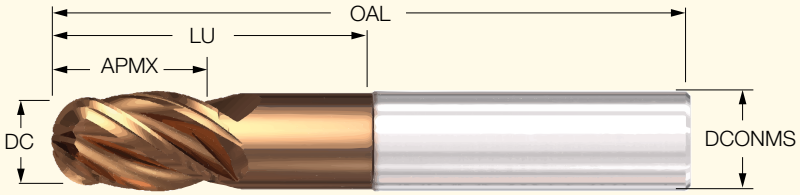
Designation	Dimensions						V910
	DC	APMX	LU	DCONMS	OAL	NOF[1]	
EBI-4 125-500VF1.5	.125	.6500	.6500	.125	1.500	4	●
EBI-4 187-625CVF2	.188	.6250	.6250	.188	2.000	4	●
EBI-4 250-375CVF2	.250	.3750	.3750	.250	2.000	4	●
EBI-4 250-500/1.25CVF3	.250	.6500	1.2500	.250	3.000	4	●
EBI-4 250-400/2.12CVF4	.250	.6500	2.1250	.250	4.000	4	●
EBI-4 250-750CVF2.5	.250	.7500	.7500	.250	2.500	4	●
EBI-4 250-1.0CVF3	.250	1.0000	1.0000	.250	3.000	4	●
EBI-4 250-1.25CVF4	.250	1.2500	1.2500	.250	4.000	4	●
EBI-4 250-1.75CVF4	.250	1.7500	1.7500	.250	4.000	4	●
EBI-4 312-500CVF2	.313	.6500	.6500	.313	2.000	4	●
EBI-4 312-875CVF2.5	.313	.8750	.8750	.313	2.500	4	●
EBI-4 312-1.0CVF3	.313	1.0000	1.0000	.313	3.000	4	●
EBI-4 312-1.25CVF4	.313	1.2500	1.2500	.313	4.000	4	●
EBI-4 312-1.62CVF4	.313	1.6250	1.6250	.313	4.000	4	●
EBI-4 375-500CVF2	.375	.6500	.6500	.375	2.000	4	●
EBI-4 375-750/1.25CVF3	.375	.7500	1.2500	.375	3.000	4	●
EBI-4 375-750/2.12CVF4	.375	.7500	2.1250	.375	4.000	4	●
EBI-4 375-1.0CVF2.5	.375	1.0000	1.0000	.375	2.500	4	●
EBI-4 375-1.0CVF3	.375	1.0000	1.0000	.375	3.000	4	●
EBI-4 375-1.5CVF4	.375	1.5000	1.5000	.375	4.000	4	●
EBI-4 375-2.5CVF5	.375	2.5000	2.5000	.375	5.000	4	●
EBI-4 437-625CVF2.75	.437	.6250	.6250	.437	2.750	4	●
EBI-4 437-1.0CVF2.75	.437	1.0000	1.0000	.437	2.750	4	●
EBI-4 437-1.5CVF4	.437	1.5000	1.5000	.437	4.000	4	●
EBI-4 437-3.0CVF6	.437	3.0000	3.0000	.437	6.000	4	●
EBI-4 500-625CVF2.5	.500	.6250	.6250	.500	2.500	4	●
EBI-4 500-875/1.37CVF3	.500	.8750	1.3750	.500	3.000	4	●
EBI-4 500-875/2.12CVF4	.500	.8750	2.1250	.500	4.000	4	●
EBI-4 500-875/4.12CVF6	.500	.8750	4.1250	.500	6.000	4	●
EBI-4 500-1.0CVF3	.500	1.0000	1.0000	.500	3.000	4	●
EBI-4 500-1.25CVF3	.500	1.2500	1.2500	.500	3.000	4	●
EBI-4 500-1.5CVF4	.500	1.5000	1.5000	.500	4.000	4	●
EBI-4 500-2.0CVF4	.500	2.0000	2.0000	.500	4.000	4	●
EBI-4 500-2.5CVF5	.500	2.5000	2.5000	.500	5.000	4	●
EBI-4 500-3.0CVF6	.500	3.0000	3.0000	.500	6.000	4	●
EBI-4 625-750CVF3	.625	.7500	.7500	.625	3.000	4	●
EBI-4 625-1.0/2.0CVF4	.625	1.0000	2.0000	.625	4.000	4	●
EBI-4 625-1.0/3.0CVF5	.625	1.0000	3.0000	.625	5.000	4	●
EBI-4 625-1.0/4.0CVF6	.625	1.0000	4.0000	.625	6.000	4	●
EBI-4 625-1.25CVF3.5	.625	1.2500	1.2500	.625	3.500	4	●
EBI-4 625-1.75CVF4	.625	1.7500	1.7500	.625	4.000	4	●
EBI-4 625-2.25CVF5	.625	2.2500	2.2500	.625	5.000	4	●
EBI-4 625-3.0CVF6	.625	3.0000	3.0000	.625	6.000	4	●
EBI-4 750-875CVF3	.750	.8750	.8750	.750	3.000	4	●
EBI-4 750-1.25/2.0CVF4	.750	1.2500	2.0000	.750	4.000	4	●
EBI-4 750-1.25/3.0CVF5	.750	1.2500	3.0000	.750	5.000	4	●
EBI-4 750-1.25/4.0CVF6	.750	1.2500	4.0000	.750	6.000	4	●

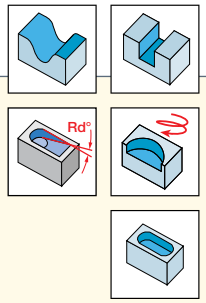
[1] Number of flutes

- Each item is also available with a Weldon shank. Simply substitute a W in place of the C in the listed designations (example - ECI-4 375-1.0C03VF2.5 = cylindrical type; ECI-4 375-1.0W03VF2.5 = Weldon type

EBI-4-VF (continued)

4 Flute Ball Nose Endmills With and Without Relieved Necks





Designation	Dimensions						V910
	DC	APMX	LU	DCONMS	OAL	NOF[1]	
EBI-4 750-1.5CVF4	.750	1.5000	1.5000	.750	4.000	4	•
EBI-4 750-1.62CVF4	.750	1.6250	1.6250	.750	4.000	4	•
EBI-4 750-2.25CVF5	.750	2.2500	2.2500	.750	5.000	4	•
EBI-4 750-3.0CVF6	.750	3.0000	3.0000	.750	6.000	4	•
EBI-4 750-4.0CVF7	.750	4.0000	4.0000	.750	7.000	4	•
EBI-4 1.0-1.5CVF4	1.000	1.5000	1.5000	1.000	4.000	4	•
EBI-4 1.0-1.5/3.0CVF5	1.000	1.5000	3.0000	1.000	5.000	4	•
EBI-4 1.0-1.5/4.0CVF6	1.000	1.5000	4.0000	1.000	6.000	4	•
EBI-4 1.0-1.5/5.0CVF7	1.000	1.5000	5.0000	1.000	7.000	4	•
EBI-4 1.0-2.0CVF4.5	1.000	2.0000	2.0000	1.000	4.500	4	•
EBI-4 1.0-2.25CVF5	1.000	2.2500	2.2500	1.000	5.000	4	•
EBI-4 1.0-3.0CVF6	1.000	3.0000	3.0000	1.000	6.000	4	•
EBI-4 1.0-4.0CVF7	1.000	4.0000	4.0000	1.000	7.000	4	•

[1] Number of flutes

- Each item is also available with a Weldon shank. Simply substitute a W in place of the C in the listed designations (example - ECI-4 375-1.0C03VF2.5 = cylindrical type; ECI-4 375-1.0W03VF2.5 = Weldon type

Slotting

ISO	Material No.	Material		Condition	Cutting Speed Recommendations (V_c) SFM	Hardness HB	Cutting Diameter Feed (IPT) 1/8	3/16	1/4	5/16	3/8	7/16	1/2	5/8	3/4	1	Slotting Axial $a_{p\ max}$
P	1	Non-alloy steel and cast steel, free cutting steel	<0.25%C	Annealed	740-800	125	.001	.001	.001	.001	.001	.001	.002	.002	.003	0.004	1xD
	2		>=0.25%C	Annealed	590-680	190	.001	.001	.001	.001	.001	.001	.002	.002	.003	0.004	1xD
	3		<0.55%C	Quench and tempered	475-650	250	.001	.001	.001	.001	.001	.001	.002	.002	.003	0.004	1xD
	4		>=0.55%C	Annealed	475-650	220	.001	.001	.001	.001	.001	.001	.002	.002	.003	0.004	1xD
	5		>=0.55%C	Quenched & tempered	420-530	300	.001	.001	.001	.001	.001	.001	.002	.002	.003	0.004	1xD
	6	Low alloy & cast steel (less than 5% of alloying elements)		Annealed	475-650	200	.001	.001	.001	.001	.001	.001	.002	.002	.003	0.004	1xD
	7			Quenched & tempered	355-530	275	.001	.001	.001	.001	.001	.001	.002	.002	.003	0.004	1xD
	8			Quenched & tempered	380-530	300	.001	.001	.001	.001	.001	.001	.002	.002	.003	0.004	1xD
	9			Quenched & tempered	415-530	350	.001	.001	.001	.001	.001	.001	.002	.002	.003	0.004	1xD
	10	High alloyed steel, cast steel and tool steel		Annealed	380-530	200	.001	.001	.001	.001	.001	.001	.001	.001	.002	0.003	1xD
	11			Quenched & tempered	200-360	325	.001	.001	.001	.001	.001	.001	.001	.001	.002	0.003	1xD
	12	Stainless steel and cast steel		Ferritic/martensitic	230-475	200	.001	.001	.001	.001	.002	.002	.002	.003	.003	0.004	1xD
	13			Martensitic	175-440	240	.001	.001	.001	.001	.002	.002	.002	.003	.003	0.004	1xD
M	14	Stainless steel and cast steel		Austenitic	175-360	180	.001	.001	.001	.001	.001	.002	.002	.002	.003	0.004	1xD
K	15	Grey cast iron (GG)		Pearlitic/ferritic	235-740	180	.001	.001	.002	.002	.003	.003	.004	.005	.006	0.008	1xD
	16			Pearlitic/martensitic	380-700	260	.001	.001	.002	.002	.003	.003	.004	.005	.006	0.008	1xD
	17	Nodular cast iron (GGG)		Ferritic	440-800	160	.001	.001	.001	.001	.001	.001	.002	.002	.003	0.004	1xD
	18			Pearlitic	440-800	250	.001	.001	.001	.001	.001	.001	.002	.002	.003	0.004	1xD
	19	Malleable cast iron		Ferritic	440-800	130	.001	.001	.001	.001	.001	.001	.002	.002	.003	0.004	1xD
	20			Pearlitic	415-710	230	.001	.001	.001	.001	.001	.001	.002	.002	.003	0.004	1xD
S	31	High temp. alloys	Fe based	Annealed	60-120	200	.001	.001	.001	.001	.001	.001	.002	.002	.003	0.004	1xD
	32			Cured	60-90	280	.001	.001	.001	.001	.001	.001	.002	.002	.003	0.004	1xD
	33		Ni or Co based	Annealed	60-90	250	.001	.001	.001	.001	.001	.001	.002	.002	.003	0.004	1xD
	34			Cured	60-90	350	.001	.001	.001	.001	.001	.001	.002	.002	.003	0.004	1xD
	35			Cast	60-90	320	.001	.001	.001	.001	.001	.001	.002	.002	.003	0.004	1xD
	36	Titanium Ti alloys		Pure	90-235	310	.001	.001	.001	.001	.002	.002	.003	.003	.003	0.004	1xD
	37			Alpha+beta alloys cured	80-235	310	.001	.001	.001	.001	.001	.001	.002	.002	.003	0.004	1xD

Roughing

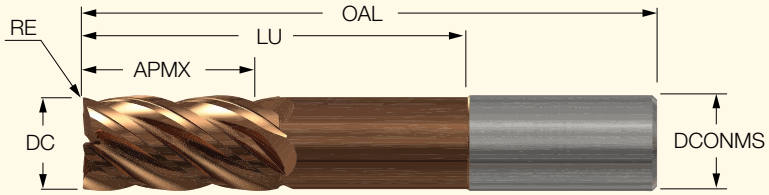
ISO	Material No.	Material		Condition	Cutting Speed Recommendations V_c (sfm)	Hardness HB	Cutting Diameter Feed (IPT) 1/8	3/16	1/4	5/16	3/8	7/16	1/2	5/8	3/4	1	Profiling Radial a_p	a_e
P	1	Non-alloy steel and cast steel, free cutting steel	<0.25%C	Annealed	985-1000	125	.001	.001	.001	.001	.002	.002	.003	.003	.004	.005	.75xD-1.5xD	.25xD-.4xD
	2		>=0.25%C	Annealed	785-850	190	.001	.001	.001	.001	.002	.002	.003	.003	.004	.005	.75xD-1.5xD	.25xD-.4xD
	3		<0.55%C	Quench and tempered	630-810	250	.001	.001	.001	.001	.002	.002	.003	.003	.004	.005	.75xD-1.5xD	.25xD-.4xD
	4		>=0.55%C	Annealed	630-810	220	.001	.001	.001	.001	.002	.002	.003	.003	.004	.005	.75xD-1.5xD	.25xD-.4xD
	5		>=0.55%C	Quenched & tempered	560-660	300	.001	.001	.001	.001	.002	.002	.003	.003	.004	.005	.75xD-1.5xD	.25xD-.4xD
	6	Low alloy & cast steel (less than 5% of alloying elements)		Annealed	630-810	200	.001	.001	.001	.001	.002	.002	.003	.003	.004	.005	.75xD-1.5xD	.25xD-.4xD
	7			Quenched & tempered	470-660	275	.0006	.001	.001	.001	.002	.002	.002	.003	.004	.005	.75xD-1.5xD	.25xD-.4xD
	8			Quenched & tempered	500-660	300	.0006	.001	.001	.001	.002	.002	.002	.003	.004	.005	.75xD-1.5xD	.25xD-.4xD
	9			Quenched & tempered	550-660	350	.0006	.001	.001	.001	.002	.002	.002	.003	.004	.005	.75xD-1.5xD	.25xD-.4xD
	10	High alloyed steel, cast steel and tool steel		Annealed	500-660	200	.0004	.0007	.001	.001	.001	.001	.002	.002	.003	.003	.75xD-1.5xD	.25xD-.4xD
	11			Quenched & tempered	270-450	325	.0004	.0007	.001	.001	.001	.001	.002	.002	.003	.003	.75xD-1.5xD	.25xD-.4xD
	12	Stainless steel and cast steel		Ferritic/ martensitic	310-590	200	.0007	.001	.001	.002	.002	.002	.003	.004	.004	.006	.75xD-1.5xD	.25xD-.4xD
	13			Martensitic	235-550	240	.0007	.001	.001	.002	.002	.002	.003	.004	.004	.006	.75xD-1.5xD	.25xD-.4xD
M	14	Stainless steel and cast steel		Austenitic	235-450	180	.0005	.0007	.001	.001	.001	.002	.002	.002	.003	.004	.75xD-1.5xD	.25xD-.4xD
K	15	Grey cast iron (GG)		Pearlitic/ferritic	310-925	180	.001	.001	.001	.002	.003	.003	.004	.005	.006	.008	.75xD-1.5xD	.25xD-.4xD
	16			Pearlitic/ martensitic	500-875	260	.001	.001	.001	.002	.003	.003	.004	.003	.006	.008	.75xD-1.5xD	.25xD-.4xD
	17	Nodular cast iron (GGG)		Ferritic	590-1000	160	.0006	.001	.001	.002	.003	.002	.002	.003	.004	.005	.75xD-1.5xD	.25xD-.4xD
	18			Pearlitic	590-1000	250	.0006	.001	.001	.001	.002	.002	.002	.003	.004	.005	.75xD-1.5xD	.25xD-.4xD
	19	Malleable cast iron		Ferritic	590-1000	130	.0006	.001	.001	.001	.002	.002	.002	.003	.004	.005	.75xD-1.5xD	.25xD-.4xD
	20			Pearlitic	550-890	230	.0006	.001	.001	.001	.002	.002	.002	.003	.004	.005	.75xD-1.5xD	.25xD-.4xD
S	31	High temp. alloys	Fe based	Annealed	80-150	200	.0007	.001	.001	.001	.002	.002	.003	.003	.004	.005	.75xD-1.5xD	.25xD-.4xD
	32			Cured	80-115	280	.0007	.001	.001	.001	.002	.002	.003	.003	.004	.005	.75xD-1.5xD	.25xD-.4xD
	33		Ni or Co based	Annealed	80-115	250	.0007	.001	.001	.001	.002	.002	.003	.003	.004	.005	.75xD-1.5xD	.25xD-.4xD
	34			Cured	80-115	350	.0007	.001	.001	.001	.002	.002	.003	.003	.004	.005	.75xD-1.5xD	.25xD-.4xD
	35			Cast	80-115	320	.0007	.001	.001	.001	.002	.002	.003	.003	.004	.005	.75xD-1.5xD	.25xD-.4xD
	36	Titanium Ti alloys		Pure	120-295	310	.0006	.001	.001	.001	.002	.002	.002	.002	.003	.004	.75xD-1.5xD	.25xD-.4xD
	37			Alpha+beta alloys cured	110-220	310	.0006	.001	.001	.001	.002	.002	.002	.002	.003	.004	.75xD-1.5xD	.25xD-.4xD
H	38	Hardened Steel		Hardened	110-210	55 HRC	0.001	0.001	0.001	0.001	0.002	0.002	0.003	0.003	0.004	0.005	.75xD-1.5xD	.02xD
	39			Hardened	110-145	60 HRC	0.001	0.001	0.001	0.001	0.002	0.002	0.003	0.003	0.004	0.005	.75xD-1.5xD	.02xD
	40	Chilled Cast Iron		Cast	250-320	400	0.001	0.001	0.001	0.001	0.002	0.002	0.003	0.003	0.004	0.005	.75xD-1.5xD	.02xD
	41	Cast Iron		Hardened	110-210	55 HRC	0.001	0.001	0.001	0.001	0.002	0.002	0.003	0.003	0.004	0.005	.75xD-1.5xD	.02xD

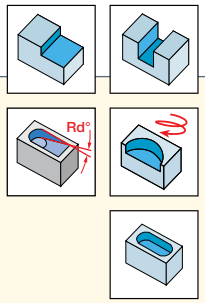
Semi-Finish

ISO	Material No.	Material		Condition	Cutting Speed Recommendations V_c (sfm)	Hardness HB	Cutting Diameter Feed (IPT) 1/8	3/16	1/4	5/16	3/8	7/16	1/2	5/8	3/4	1	Profiling Radial a_p	a_e
P	1	Non-alloy steel and cast steel, free cutting steel	<0.25%C	Annealed	1230	125	.0005	.0008	.001	.001	.001	.001	.002	.002	.002	.003	1xD	.05xD
	2		>=0.25%C	Annealed	1015	190	.0005	.0008	.001	.001	.001	.001	.002	.002	.002	.003	1xD	.05xD
	3		<0.55%C	Quench and tempered	900	250	.0005	.0008	.001	.001	.001	.001	.002	.002	.002	.003	1xD	.05xD
	4		>=0.55%C	Annealed	900	220	.0005	.0008	.001	.001	.001	.001	.002	.002	.002	.003	1xD	.05xD
	5		>=0.55%C	Quenched & tempered	760	300	.0005	.0008	.001	.001	.001	.001	.002	.002	.002	.003	1xD	.05xD
	6	Low alloy & cast steel (less than 5% of alloying elements)		Annealed	900	200	.0005	.0008	.001	.001	.001	.001	.002	.002	.002	.003	1xD	.05xD
	7			Quenched & tempered	710	275	.0005	.0007	.001	.001	.001	.001	.002	.002	.003	.004	1xD	.05xD
	8			Quenched & tempered	730	300	.0005	.0007	.001	.001	.001	.001	.002	.002	.003	.004	1xD	.05xD
	9			Quenched & tempered	760	350	.0005	.0007	.001	.001	.001	.001	.002	.002	.003	.004	1xD	.05xD
	10	High alloyed steel, cast steel and tool steel		Annealed	730	200	.0003	.0004	.0005	.0006	.0008	.0009	.001	.001	.001	.002	1xD	.05xD
	11			Quenched & tempered	450	325	.0003	.0004	.0005	.0006	.0008	.0009	.001	.001	.001	.002	1xD	.05xD
	12	Stainless steel and cast steel		Ferritic/ martensitic	570	200	.0004	.0007	.001	.001	.001	.001	.002	.002	.003	.003	1xD	.05xD
	13			Martensitic	490	240	.0004	.0007	.001	.001	.001	.001	.002	.002	.003	.003	1xD	.05xD
	14	Stainless steel and cast steel		Austenitic	425	180	.0004	.0005	.0007	.001	.001	.001	.001	.001	.002	.003	1xD	.05xD
K	15	Grey cast iron (GG)		Pearlitic/ ferritic	780	180	.001	.001	.002	.002	.003	.003	.003	.004	.005	.007	1xD	.05xD
	16			Pearlitic/ martensitic	870	260	.001	.001	.002	.002	.003	.003	.003	.004	.005	.007	1xD	.05xD
	17	Nodular cast iron (GGG)		Ferritic	990	160	.0004	.0006	.0008	.001	.001	.001	.001	.002	.002	.003	1xD	.05xD
	18			Pearlitic	990	250	.0004	.0006	.0008	.001	.001	.001	.001	.002	.002	.003	1xD	.05xD
	19	Malleable cast iron		Ferritic	990	130	.0004	.0006	.0008	.001	.001	.001	.001	.002	.002	.003	1xD	.05xD
	20			Pearlitic	900	230	.0004	.0006	.0008	.001	.001	.001	.001	.002	.002	.003	1xD	.05xD
S	31	High temp. alloys	Fe based	Annealed	145	200	.0003	.0004	0.006	.0007	.0008	.001	.001	.001	.002	.002	1xD	.05xD
	32			Cured	120	280	.0003	.0004	0.006	.0007	.0008	.001	.001	.001	.002	.002	1xD	.05xD
	33		Ni or Co based	Annealed	120	250	.0003	.0004	0.006	.0007	.0008	.001	.001	.001	.002	.002	1xD	.05xD
	34			Cured	120	350	.0003	.0004	0.006	.0007	.0008	.001	.001	.001	.002	.002	1xD	.05xD
	35			Cast	120	320	.0003	.0004	0.006	.0007	.0008	.001	.001	.001	.002	.002	1xD	.05xD
	36	Titanium Ti alloys		Pure	260	310	.0003	.0004	0.006	.0007	.001	.001	.001	.001	.002	.002	1xD	.05xD
	37			Alpha+beta alloys cured	250	310	.0003	.0004	0.006	.0007	.001	.001	.001	.001	.002	.002	1xD	.05xD
H	38	Hardened Steel		Hardened	110-210	55 HRC	.0003	.0004	0.006	.0007	.0008	.001	.001	.001	.002	.002	1xD	.02xD
	39			Hardened	110-145	60 HRC	.0003	.0004	0.006	.0007	.0008	.001	.001	.001	.002	.002	1xD	.02xD
	40	Chilled Cast Iron		Cast	250-320	400	.0003	.0004	0.006	.0007	.0008	.001	.001	.001	.002	.002	1xD	.02xD
	41	Cast Iron		Hardened	110-210	55 HRC	.0003	.0004	0.006	.0007	.0008	.001	.001	.001	.002	.002	1xD	.02xD

ECI-5-VF

5 Flute Endmill With and Without Relieved Neck, Assorted Radii and Variable Pitch for Chatter Dampening





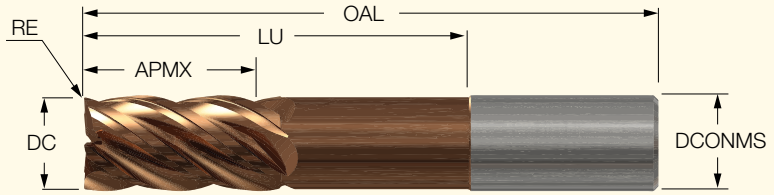
Designation	Dimensions							V910
	DC	APMX	LU	RE	DCONMS	OAL	NOF(1)	
ECI-5 .25-.5C0VF2.	.250	.5000	.5000	.0000	.250	2.000	5	•
ECI-5 .25-.5C.015VF2.	.250	.5000	.5000	.0150	.250	2.000	5	•
ECI-5 .25-.5C.03VF2.	.250	.5000	.5000	.0300	.250	2.000	5	•
ECI-5 .25-.5C.06VF2.	.250	.5000	.5000	.0600	.250	2.000	5	•
ECI-5 .25-.5/2.13CVF4.	.250	.5000	2.1250	.0000	.250	4.000	5	•
ECI-5 .25-.5/2.1C.015VF4.	.250	.5000	2.1250	.0150	.250	4.000	5	•
ECI-5 .25-.5/2.13C.03VF4.	.250	.5000	2.1250	.0300	.250	4.000	5	•
ECI-5 .25-.5/2.13C.06VF4.	.250	.5000	2.1250	.0600	.250	4.000	5	•
ECI-5 .25-.75C0VF2.5	.250	.7500	.7500	.0000	.250	2.500	5	•
ECI-5 .25-.75C.015VF2.5	.250	.7500	.7500	.0150	.250	2.500	5	•
ECI-5 .25-.75C.03VF2.5	.250	.7500	.7500	.0300	.250	2.500	5	•
ECI-5 .25-.75C.06VF2.5	.250	.7500	.7500	.0600	.250	2.500	5	•
ECI-5 .25-1.C0VF3.	.250	1.0000	1.0000	.0000	.250	3.000	5	•
ECI-5 .25-1.C.015VF3.	.250	1.0000	1.0000	.0150	.250	3.000	5	•
ECI-5 .25-1.C.03VF3.	.250	1.0000	1.0000	.0600	.250	3.000	5	•
ECI-5 .375-.5C0VF2.	.375	.5000	.5000	.0000	.375	2.000	5	•
ECI-5 .375-.5C.015VF2.	.375	.5000	.5000	.0150	.375	2.000	5	•
ECI-5 .375-.5C.03VF2.	.375	.5000	.5000	.0300	.375	2.000	5	•
ECI-5 .375-.5C.06VF2.	.375	.5000	.5000	.0600	.375	2.000	5	•
ECI-5 .375-.5C.09VF2.	.375	.5000	.5000	.0900	.375	2.000	5	•
ECI-5 .375-.5C.125VF2.	.375	.5000	.5000	.1250	.375	2.000	5	•
ECI-5 .375-.75/2.13CVF4.	.375	.7500	2.1250	.0000	.375	4.000	5	•
ECI-5 .375-.8/2.C.015VF4.	.375	.7500	2.1250	.0150	.375	4.000	5	•
ECI-5 .375-.8/2.1C.03VF4.	.375	.7500	2.1250	.0300	.375	4.000	5	•
ECI-5 .375-.8/2.1C.06VF4.	.375	.7500	2.1250	.0600	.375	4.000	5	•
ECI-5 .375-1.C0VF2.5	.375	1.0000	1.0000	.0000	.375	2.500	5	•
ECI-5 .375-1.C0VF3.	.375	1.0000	1.0000	.0000	.375	3.000	5	•
ECI-5 .375-1.C.015VF2.5	.375	1.0000	1.0000	.0150	.375	2.500	5	•
ECI-5 .375-1.C.015VF3.	.375	1.0000	1.0000	.0150	.375	3.000	5	•
ECI-5 .375-1.C.03VF2.5	.375	1.0000	1.0000	.0300	.375	2.500	5	•
ECI-5 .375-1.C.03VF3.	.375	1.0000	1.0000	.0300	.375	3.000	5	•
ECI-5 .375-1.C.06VF2.5	.375	1.0000	1.0000	.0600	.375	2.500	5	•
ECI-5 .375-1.C.06VF3.	.375	1.0000	1.0000	.0600	.375	3.000	5	•
ECI-5 .375-1.C.09VF2.5	.375	1.0000	1.0000	.0900	.375	2.500	5	•
ECI-5 .375-1.C.09VF3.	.375	1.0000	1.0000	.0900	.375	3.000	5	•
ECI-5 .375-1.C.125VF2.5	.375	1.0000	1.0000	.1250	.375	2.500	5	•
ECI-5 .375-1.C.125VF3.	.375	1.0000	1.0000	.1250	.375	3.000	5	•
ECI-5 .375-1.5C0VF4.	.375	1.5000	1.5000	.0000	.375	4.000	5	•
ECI-5 .375-1.5C.015VF4.	.375	1.5000	1.5000	.0150	.375	4.000	5	•
ECI-5 .375-1.5C.03VF4.	.375	1.5000	1.5000	.0300	.375	4.000	5	•
ECI-5 .375-1.5C.06VF4.	.375	1.5000	1.5000	.0600	.375	4.000	5	•
ECI-5 .375-1.5C.09VF4.	.375	1.5000	1.5000	.0900	.375	4.000	5	•
ECI-5 .375-1.5C.125VF4.	.375	1.5000	1.5000	.1250	.375	4.000	5	•
ECI-5 .5-.63C0VF2.5	.500	.6250	.6250	.0000	.500	2.500	5	•
ECI-5 .5-.63C.015VF2.5	.500	.6250	.6250	.0150	.500	2.500	5	•
ECI-5 .5-.63C.03VF2.5	.500	.6250	.6250	.0300	.500	2.500	5	•
ECI-5 .5-.63C.06VF2.5	.500	.6250	.6250	.0600	.500	2.500	5	•
ECI-5 .5-.63C.09VF2.5	.500	.6250	.6250	.0900	.500	2.500	5	•
ECI-5 .5-.63C.125VF2.5	.500	.6250	.6250	.1250	.500	2.500	5	•
ECI-5 .5-.88/1.38CVF3.	.500	.8750	1.3750	.0000	.500	3.000	5	•

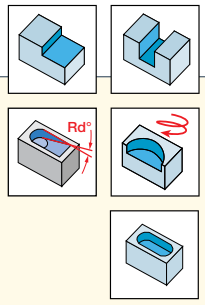
(1) Number of flutes

- Each item is also available with a Weldon shank. Simply substitute a W in place of the C in the listed designations (example - ECI-4 375-1.0C03VF2.5 = cylindrical type; ECI-4 375-1.0W03VF2.5 = Weldon type

ECI-5-VF (continued)

5 Flute Endmill With and Without Relieved Neck, Assorted Radii and Variable Pitch for Chatter Dampening





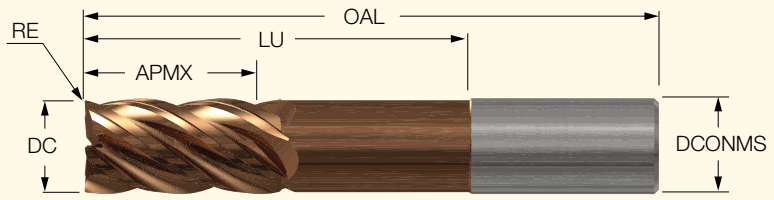
Designation	Dimensions							V910
	DC	APMX	LU	RE	DCONMS	OAL	NOF[1]	
ECI-5 .5-.88/1.4C.015VF3.	.500	.8750	1.3750	.0150	.500	3.000	5	•
ECI-5 .5-.88/1.38C.03VF3.	.500	.8750	1.3750	.0300	.500	3.000	5	•
ECI-5 .5-.88/1.38C.06VF3.	.500	.8750	1.3750	.0600	.500	3.000	5	•
ECI-5 .5-.88/1.38C.09VF3.	.500	.8750	1.3750	.0900	.500	3.000	5	•
ECI-5 .5-.88/1.4C.125VF3.	.500	.8750	1.3750	.1250	.500	3.000	5	•
ECI-5 .5-.88/2.13CVF4.	.500	.8750	2.1250	.0000	.500	4.000	5	•
ECI-5 .5-.88/2.1C.015VF4.	.500	.8750	2.1250	.0150	.500	4.000	5	•
ECI-5 .5-.88/2.13C.03VF4.	.500	.8750	2.1250	.0300	.500	4.000	5	•
ECI-5 .5-.88/2.13C.03VF5.	.500	.8750	2.1250	.0300	.500	5.000	5	•
ECI-5 .5-.88/2.13C.06VF4.	.500	.8750	2.1250	.0600	.500	4.000	5	•
ECI-5 .5-.88/2.13C.09VF4.	.500	.8750	2.1250	.0900	.500	4.000	5	•
ECI-5 .5-.88/2.1C.125VF4.	.500	.8750	2.1250	.1250	.500	4.000	5	•
ECI-5 .5-.88/3.13CVF5.	.500	.8750	3.1250	.0000	.500	5.000	5	•
ECI-5 .5-.88/3.1C.015VF5.	.500	.8750	3.1250	.0150	.500	5.000	5	•
ECI-5 .5-.88/3.13C.06VF5.	.500	.8750	3.1250	.0600	.500	5.000	5	•
ECI-5 .5-.88/3.13C.09VF5.	.500	.8750	3.1250	.0900	.500	5.000	5	•
ECI-5 .5-.88/3.1C.125VF5.	.500	.8750	3.1250	.1250	.500	5.000	5	•
ECI-5 .5-.88/4.13CVF6.	.500	.8750	4.1250	.0000	.500	6.000	5	•
ECI-5 .5-.88/4.1C.015VF6.	.500	.8750	4.1250	.0150	.500	6.000	5	•
ECI-5 .5-.88/4.13C.03VF6.	.500	.8750	4.1250	.0300	.500	6.000	5	•
ECI-5 .5-.88/4.13C.06VF6.	.500	.8750	4.1250	.0600	.500	6.000	5	•
ECI-5 .5-.88/4.13C.09VF6.	.500	.8750	4.1250	.0900	.500	6.000	5	•
ECI-5 .5-.88/4.1C.125VF6.	.500	.8750	4.1250	.1250	.500	6.000	5	•
ECI-5 .5-1.25C0VF3.	.500	1.2500	1.2500	.0000	.500	3.000	5	•
ECI-5 .5-1.25C.015VF3.	.500	1.2500	1.2500	.0150	.500	3.000	5	•
ECI-5 .5-1.25C.03VF3.	.500	1.2500	1.2500	.0300	.500	3.000	5	•
ECI-5 .5-1.25C.06VF3.	.500	1.2500	1.2500	.0600	.500	3.000	5	•
ECI-5 .5-1.25C.09VF3.	.500	1.2500	1.2500	.0900	.500	3.000	5	•
ECI-5 .5-1.25C.125VF3.	.500	1.2500	1.2500	.1250	.500	3.000	5	•
ECI-5 .5-1.63C0VF4.	.500	1.6250	1.6250	.0000	.500	4.000	5	•
ECI-5 .5-1.63C.015VF4.	.500	1.6250	1.6250	.0150	.500	4.000	5	•
ECI-5 .5-1.63C.03VF4.	.500	1.6250	1.6250	.0300	.500	4.000	5	•
ECI-5 .5-1.63C.06VF4.	.500	1.6250	1.6250	.0600	.500	4.000	5	•
ECI-5 .5-1.63C.09VF4.	.500	1.6250	1.6250	.0900	.500	4.000	5	•
ECI-5 .5-1.63C.125VF4.	.500	1.6250	1.6250	.1250	.500	4.000	5	•
ECI-5 .5-2.C0VF4.	.500	2.0000	2.0000	.0000	.500	4.000	5	•
ECI-5 .5-2.C.015VF4.	.500	2.0000	2.0000	.0150	.500	4.000	5	•
ECI-5 .5-2.C.03VF4.	.500	2.0000	2.0000	.0300	.500	4.000	5	•
ECI-5 .5-2.C.06VF4.	.500	2.0000	2.0000	.0600	.500	4.000	5	•
ECI-5 .5-2.C.09VF4.	.500	2.0000	2.0000	.0900	.500	4.000	5	•
ECI-5 .5-2.C.125VF4.	.500	2.0000	2.0000	.1250	.500	4.000	5	•
ECI-5 .5-2.5C0VF5.	.500	2.5000	2.5000	.0000	.500	5.000	5	•
ECI-5 .5-2.5C.015VF5.	.500	2.5000	2.5000	.0150	.500	5.000	5	•
ECI-5 .5-2.5C.03VF5.	.500	2.5000	2.5000	.0300	.500	5.000	5	•
ECI-5 .5-2.5C.06VF5.	.500	2.5000	2.5000	.0600	.500	5.000	5	•
ECI-5 .5-2.5C.09VF5.	.500	2.5000	2.5000	.0900	.500	5.000	5	•
ECI-5 .5-2.5C.125VF5.	.500	2.5000	2.5000	.1250	.500	5.000	5	•
ECI-5 .5-3.13C0VF6.	.500	3.1250	3.1250	.0000	.500	6.000	5	•
ECI-5 .5-3.13C.015VF6.	.500	3.1250	3.1250	.0150	.500	6.000	5	•
ECI-5 .5-3.13C.03VF6.	.500	3.1250	3.1250	.0300	.500	6.000	5	•

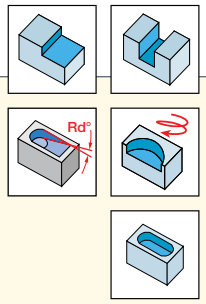
[1] Number of flutes

- Each item is also available with a Weldon shank. Simply substitute a W in place of the C in the listed designations (example - ECI-4 375-1.0C03VF2.5 = cylindrical type; ECI-4 375-1.0W03VF2.5 = Weldon type

ECI-5-VF (continued)

5 Flute Endmill With and Without Relieved Neck, Assorted Radii and Variable Pitch for Chatter Dampening





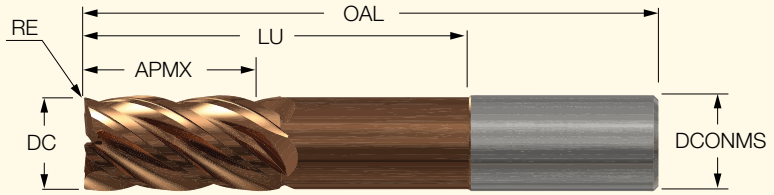
Designation	Dimensions DC	APMX	LU	RE	DCONMS	OAL	NOF(1)	V910
ECI-5 .5-3.13C.06VF6.	.500	3.1250	3.1250	.0600	.500	6.000	5	•
ECI-5 .5-3.13C.09VF6.	.500	3.1250	3.1250	.0900	.500	6.000	5	•
ECI-5 .5-3.13C.125VF6.	.500	3.1250	3.1250	.1250	.500	6.000	5	•
ECI-5 .625-.75C0VF3.	.625	.7500	.7500	.0000	.625	3.000	5	•
ECI-5 .625-.75C.015VF3.	.625	.7500	.7500	.0150	.625	3.000	5	•
ECI-5 .625-.75C.03VF3.	.625	.7500	.7500	.0300	.625	3.000	5	•
ECI-5 .625-.75C.06VF3.	.625	.7500	.7500	.0600	.625	3.000	5	•
ECI-5 .625-.75C.09VF3.	.625	.7500	.7500	.0900	.625	3.000	5	•
ECI-5 .625-.75C.125VF3.	.625	.7500	.7500	.1250	.625	3.000	5	•
ECI-5 .625-1./2.CVF4.	.625	1.0000	2.0000	.0000	.625	4.000	5	•
ECI-5 .625-1./2.C.015VF4.	.625	1.0000	2.0000	.0150	.625	4.000	5	•
ECI-5 .625-1./2.C.03VF4.	.625	1.0000	2.0000	.0300	.625	4.000	5	•
ECI-5 .625-1./2.C.06VF4.	.625	1.0000	2.0000	.0600	.625	4.000	5	•
ECI-5 .625-1./2.C.09VF4.	.625	1.0000	2.0000	.0900	.625	4.000	5	•
ECI-5 .625-1./2.C.125VF4.	.625	1.0000	2.0000	.1250	.625	4.000	5	•
ECI-5 .625-1./3.CVF5.	.625	1.0000	3.0000	.0000	.625	5.000	5	•
ECI-5 .625-1./3.C.015VF5.	.625	1.0000	3.0000	.0150	.625	5.000	5	•
ECI-5 .625-1./3.C.03VF5.	.625	1.0000	3.0000	.0300	.625	5.000	5	•
ECI-5 .625-1./3.C.06VF5.	.625	1.0000	3.0000	.0600	.625	5.000	5	•
ECI-5 .625-1./3.C.09VF5.	.625	1.0000	3.0000	.0900	.625	5.000	5	•
ECI-5 .625-1./3.C.125VF5.	.625	1.0000	3.0000	.1250	.625	5.000	5	•
ECI-5 .625-1./4.CVF6.	.625	1.0000	4.0000	.0000	.625	6.000	5	•
ECI-5 .625-1./4.C.015VF6.	.625	1.0000	4.0000	.0150	.625	6.000	5	•
ECI-5 .625-1./4.C.03VF6.	.625	1.0000	4.0000	.0300	.625	6.000	5	•
ECI-5 .625-1./4.C.06VF6.	.625	1.0000	4.0000	.0600	.625	6.000	5	•
ECI-5 .625-1./4.C.09VF6.	.625	1.0000	4.0000	.0900	.625	6.000	5	•
ECI-5 .625-1./4.C.125VF6.	.625	1.0000	4.0000	.1250	.625	6.000	5	•
ECI-5 .625-1.63C0VF3.5	.625	1.6250	1.6250	.0000	.625	3.500	5	•
ECI-5 .625-1.63C.015VF3.5	.625	1.6250	1.6250	.0150	.625	3.500	5	•
ECI-5 .625-1.63C.03VF3.5	.625	1.6250	1.6250	.0300	.625	3.500	5	•
ECI-5 .625-1.63C.06VF3.5	.625	1.6250	1.6250	.0600	.625	3.500	5	•
ECI-5 .625-1.63C.09VF3.5	.625	1.6250	1.6250	.0900	.625	3.500	5	•
ECI-5 .625-1.63C.125VF3.5	.625	1.6250	1.6250	.1250	.625	3.500	5	•
ECI-5 .625-2.5C0VF5.	.625	2.5000	2.5000	.0000	.625	5.000	5	•
ECI-5 .625-2.5C.015VF5.	.625	2.5000	2.5000	.0150	.625	5.000	5	•
ECI-5 .625-2.5C.03VF5.	.625	2.5000	2.5000	.0300	.625	5.000	5	•
ECI-5 .625-2.5C.06VF5.	.625	2.5000	2.5000	.0600	.625	5.000	5	•
ECI-5 .625-2.5C.09VF5.	.625	2.5000	2.5000	.0900	.625	5.000	5	•
ECI-5 .625-2.5C.125VF5.	.625	2.5000	2.5000	.1250	.625	5.000	5	•
ECI-5 .625-3.C0VF6.	.625	3.0000	3.0000	.0000	.625	6.000	5	•
ECI-5 .625-3.C.015VF6.	.625	3.0000	3.0000	.0150	.625	6.000	5	•
ECI-5 .625-3.C.03VF6.	.625	3.0000	3.0000	.0300	.625	6.000	5	•
ECI-5 .625-3.C.06VF6.	.625	3.0000	3.0000	.0600	.625	6.000	5	•
ECI-5 .625-3.C.09VF6.	.625	3.0000	3.0000	.0900	.625	6.000	5	•
ECI-5 .625-3.C.125VF6.	.625	3.0000	3.0000	.1250	.625	6.000	5	•
ECI-5 .75-1.C0VF3.	.750	1.0000	1.0000	.0000	.750	3.000	5	•
ECI-5 .75-1.C.015VF3.5	.750	1.0000	1.0000	.0150	.750	3.000	5	•
ECI-5 .75-1.C.03VF3.	.750	1.0000	1.0000	.0300	.750	3.000	5	•
ECI-5 .75-1.C.06VF3.	.750	1.0000	1.0000	.0600	.750	3.000	5	•
ECI-5 .75-1.C.09VF3.	.750	1.0000	1.0000	.0900	.750	3.000	5	•

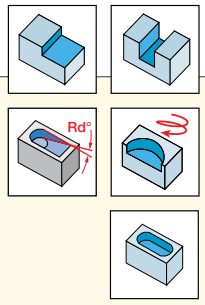
(1) Number of flutes

- Each item is also available with a Weldon shank. Simply substitute a W in place of the C in the listed designations (example - ECI-4 375-1.0C03VF2.5 = cylindrical type; ECI-4 375-1.0W03VF2.5 = Weldon type

ECI-5-VF (continued)

5 Flute Endmill With and Without Relieved Neck, Assorted Radii and Variable Pitch for Chatter Dampening





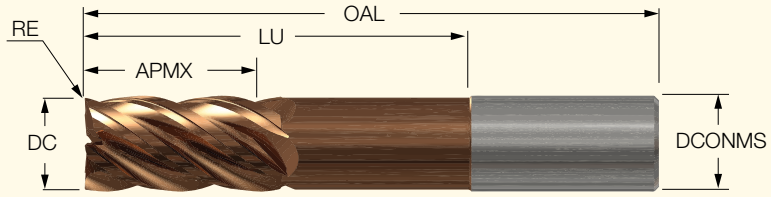
Designation	Dimensions							V910
	DC	APMX	LU	RE	DCONMS	OAL	NOF[1]	
ECI-5 .75-1.C.125VF3.5	.750	1.0000	1.0000	.1250	.750	3.000	5	•
ECI-5 .75-1.25/2.CVF4.	.750	1.2500	2.0000	.0000	.750	4.000	5	•
ECI-5 .75-1.3/2.C.015VF4.	.750	1.2500	2.0000	.0150	.750	4.000	5	•
ECI-5 .75-1.25/2.C.03VF4.	.750	1.2500	2.0000	.0300	.750	4.000	5	•
ECI-5 .75-1.25/2.C.06VF4.	.750	1.2500	2.0000	.0600	.750	4.000	5	•
ECI-5 .75-1.25/2.C.09VF4.	.750	1.2500	2.0000	.0900	.750	4.000	5	•
ECI-5 .75-1.3/2.C.125VF4.	.750	1.2500	2.0000	.1250	.750	4.000	5	•
ECI-5 .75-1.25/3.CVF5.	.750	1.2500	3.0000	.0000	.750	5.000	5	•
ECI-5 .75-1.3/3.C.015VF5.	.750	1.2500	3.0000	.0150	.750	5.000	5	•
ECI-5 .75-1.25/3.C.03VF5.	.750	1.2500	3.0000	.0300	.750	5.000	5	•
ECI-5 .75-1.25/3.C.06VF5.	.750	1.2500	3.0000	.0600	.750	5.000	5	•
ECI-5 .75-1.25/3.C.09VF5.	.750	1.2500	3.0000	.0900	.750	5.000	5	•
ECI-5 .75-1.3/3.C.125VF5.	.750	1.2500	3.0000	.1250	.750	5.000	5	•
ECI-5 .75-1.25/4.CVF6.	.750	1.2500	4.0000	.0000	.750	6.000	5	•
ECI-5 .75-1.3/4.C.015VF6.	.750	1.2500	4.0000	.0150	.750	6.000	5	•
ECI-5 .75-1.25/4.C.03VF6.	.750	1.2500	4.0000	.0300	.750	6.000	5	•
ECI-5 .75-1.25/4.C.06VF6.	.750	1.2500	4.0000	.0600	.750	6.000	5	•
ECI-5 .75-1.25/4.C.09VF6.	.750	1.2500	4.0000	.0900	.750	6.000	5	•
ECI-5 .75-1.3/4.C.125VF6.	.750	1.2500	4.0000	.1250	.750	6.000	5	•
ECI-5 .75-1.63C0VF4.	.750	1.6250	1.6250	.0000	.750	4.000	5	•
ECI-5 .75-1.63C.015VF4.	.750	1.6250	1.6250	.0150	.750	4.000	5	•
ECI-5 .75-1.63C.03VF4.5	.750	1.6250	1.6250	.0300	.750	4.000	5	•
ECI-5 .75-1.63C.06VF4.	.750	1.6250	1.6250	.0600	.750	4.000	5	•
ECI-H5 .75-1.63C.09VF3.5	.750	1.6250	1.6250	.0900	.750	4.000	5	•
ECI-5 .75-1.63C.125VF4.	.750	1.6250	1.6250	.1250	.750	4.000	5	•
ECI-5 .75-2.25C0VF5.	.750	2.2500	2.2500	.0000	.750	5.000	5	•
ECI-5 .75-2.25C.015VF5.	.750	2.2500	2.2500	.0150	.750	5.000	5	•
ECI-5 .75-2.25C.03VF5.	.750	2.2500	2.2500	.0300	.750	5.000	5	•
ECI-5 .75-2.25C.06VF5.	.750	2.2500	2.2500	.0600	.750	5.000	5	•
ECI-5 .75-2.25C.09VF5.	.750	2.2500	2.2500	.0900	.750	5.000	5	•
ECI-5 .75-2.25C.125VF5.	.750	2.2500	2.2500	.1250	.750	5.000	5	•
ECI-5 .75-3.25C0VF6.	.750	3.2500	3.2500	.0000	.750	6.000	5	•
ECI-5 .75-3.25C.015VF6.	.750	3.2500	3.2500	.0150	.750	6.000	5	•
ECI-5 .75-3.25C.03VF6.	.750	3.2500	3.2500	.0300	.750	6.000	5	•
ECI-5 .75-3.25C.06VF6.	.750	3.2500	3.2500	.0600	.750	6.000	5	•
ECI-5 .75-3.25C.09VF6.	.750	3.2500	3.2500	.0900	.750	6.000	5	•
ECI-5 .75-3.25C.125VF6.	.750	3.2500	3.2500	.1250	.750	6.000	5	•
ECI-5 .75-4.13C0VF7.	.750	4.1250	4.1250	.0000	.750	7.000	5	•
ECI-5 .75-4.13C.015VF7.	.750	4.1250	4.1250	.0150	.750	7.000	5	•
ECI-5 .75-4.13C.03VF7.	.750	4.1250	4.1250	.0300	.750	7.000	5	•
ECI-5 .75-4.13C.06VF7.	.750	4.1250	4.1250	.0600	.750	7.000	5	•
ECI-5 .75-4.13C.09VF7.	.750	4.1250	4.1250	.0900	.750	7.000	5	•
ECI-5 .75-4.13C.125VF7.	.750	4.1250	4.1250	.1250	.750	7.000	5	•
ECI-5 1.-1.5C0VF4.	1.000	1.5000	1.5000	.0000	1.000	4.000	5	•
ECI-5 1.-1.5C.015VF4.	1.000	1.5000	1.5000	.0150	1.000	4.000	5	•
ECI-5 1.-1.5C.03VF4.	1.000	1.5000	1.5000	.0300	1.000	4.000	5	•
ECI-5 1.-1.5C.06VF4.	1.000	1.5000	1.5000	.0600	1.000	4.000	5	•
ECI-5 1.-1.5C.09VF4.	1.000	1.5000	1.5000	.0900	1.000	4.000	5	•
ECI-5 1.-1.5C.125VF4.	1.000	1.5000	1.5000	.1250	1.000	4.000	5	•
ECI-5 1.-1.5/3.CVF5.	1.000	1.5000	3.0000	.0000	1.000	5.000	5	•

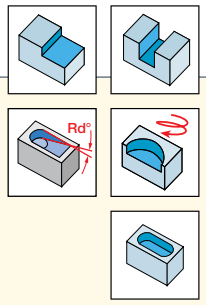
[1] Number of flutes

- Each item is also available with a Weldon shank. Simply substitute a W in place of the C in the listed designations (example - ECI-4 375-1.0C03VF2.5 = cylindrical type; ECI-4 375-1.0W03VF2.5 = Weldon type

ECI-5-VF (continued)

5 Flute Endmill With and Without Relieved Neck, Assorted Radii and Variable Pitch for Chatter Dampening





Designation	Dimensions							V910
	DC	APMX	LU	RE	DCONMS	OAL	NOF(1)	
ECI-5 1.-1.5/3.C.015VF5.	1.000	1.5000	3.0000	.0150	1.000	5.000	5	•
ECI-5 1.-1.5/3.C.03VF5.	1.000	1.5000	3.0000	.0300	1.000	5.000	5	•
ECI-5 1.-1.5/3.C.06VF5.	1.000	1.5000	3.0000	.0600	1.000	5.000	5	•
ECI-5 1.-1.5/3.C.09VF5.	1.000	1.5000	3.0000	.0900	1.000	5.000	5	•
ECI-5 1.-1.5/3.C.125VF5.	1.000	1.5000	3.0000	.1250	1.000	5.000	5	•
ECI-5 1.-1.5/4.CVF6.	1.000	1.5000	4.0000	.0000	1.000	6.000	5	•
ECI-5 1.-1.5/4.C.015VF6.	1.000	1.5000	4.0000	.0150	1.000	6.000	5	•
ECI-5 1.-1.5/4.C.03VF6.	1.000	1.5000	4.0000	.0300	1.000	6.000	5	•
ECI-5 1.-1.5/4.C.06VF6.	1.000	1.5000	4.0000	.0600	1.000	6.000	5	•
ECI-5 1.-1.5/4.C.09VF6.	1.000	1.5000	4.0000	.0900	1.000	6.000	5	•
ECI-5 1.-1.5/4.C.125VF6.	1.000	1.5000	4.0000	.1250	1.000	6.000	5	•
ECI-5 1.-1.5/5.CVF7.	1.000	1.5000	5.0000	.0000	1.000	7.000	5	•
ECI-5 1.-1.5/5.C.015VF7.	1.000	1.5000	5.0000	.0150	1.000	7.000	5	•
ECI-5 1.-1.5/5.C.03VF7.	1.000	1.5000	5.0000	.0300	1.000	7.000	5	•
ECI-5 1.-1.5/5.C.06VF7.	1.000	1.5000	5.0000	.0600	1.000	7.000	5	•
ECI-5 1.-1.5/5.C.09VF7.	1.000	1.5000	5.0000	.0900	1.000	7.000	5	•
ECI-5 1.-1.5/5.C.125VF7.	1.000	1.5000	5.0000	.1250	1.000	7.000	5	•
ECI-5 1.-2.C0VF4.5	1.000	2.0000	2.0000	.0000	1.000	4.500	5	•
ECI-5 1.-2.C.015VF4.5	1.000	2.0000	2.0000	.0150	1.000	4.500	5	•
ECI-5 1.-2.C.03VF4.5	1.000	2.0000	2.0000	.0300	1.000	4.500	5	•
ECI-5 1.-2.C.06VF4.5	1.000	2.0000	2.0000	.0600	1.000	4.500	5	•
ECI-5 1.-2.C.09VF4.5	1.000	2.0000	2.0000	.0900	1.000	4.500	5	•
ECI-5 1.-2.C.125VF4.5	1.000	2.0000	2.0000	.1250	1.000	4.500	5	•
ECI-5 1.-2.25C0VF5.	1.000	2.2500	2.2500	.0000	1.000	5.000	5	•
ECI-5 1.-2.25C.015VF5.	1.000	2.2500	2.2500	.0150	1.000	5.000	5	•
ECI-5 1.-2.25C.03VF5.	1.000	2.2500	2.2500	.0300	1.000	5.000	5	•
ECI-5 1.-2.25C.06VF5.	1.000	2.2500	2.2500	.0600	1.000	5.000	5	•
ECI-5 1.-2.25C.09VF5.	1.000	2.2500	2.2500	.0900	1.000	5.000	5	•
ECI-5 1.-2.25C.125VF5.	1.000	2.2500	2.2500	.1250	1.000	5.000	5	•
ECI-5 1.-3.25C0VF6.	1.000	3.2500	3.2500	.0000	1.000	6.000	5	•
ECI-5 1.-3.25C.015VF6.	1.000	3.2500	3.2500	.0150	1.000	6.000	5	•
ECI-5 1.-3.25C.03VF6.	1.000	3.2500	3.2500	.0300	1.000	6.000	5	•
ECI-5 1.-3.25C.06VF6.	1.000	3.2500	3.2500	.0600	1.000	6.000	5	•
ECI-5 1.-3.25C.09VF6.	1.000	3.2500	3.2500	.0900	1.000	6.000	5	•
ECI-5 1.-3.25C.125VF6.	1.000	3.2500	3.2500	.1250	1.000	6.000	5	•
ECI-5 1.-4.13C0VF7.	1.000	4.1250	4.1250	.0000	1.000	7.000	5	•
ECI-5 1.-4.13C.015VF7.	1.000	4.1250	4.1250	.0150	1.000	7.000	5	•
ECI-5 1.-4.13C.03VF7.	1.000	4.1250	4.1250	.0300	1.000	7.000	5	•
ECI-5 1.-4.13C.06VF7.	1.000	4.1250	4.1250	.0600	1.000	7.000	5	•
ECI-5 1.-4.13C.09VF7.	1.000	4.1250	4.1250	.0900	1.000	7.000	5	•
ECI-5 1.-4.13C.125VF7.	1.000	4.1250	4.1250	.1250	1.000	7.000	5	•

(1) Number of flutes

- Each item is also available with a Weldon shank. Simply substitute a W in place of the C in the listed designations (example - ECI-4 375-1.0C03VF2.5 = cylindrical type; ECI-4 375-1.0W03VF2.5 = Weldon type

Slotting

ISO	Material No.	Material		Condition	Cutting Speed Recommendations (V_c) SFM	Hardness HB	Cutting Diameter Feed (IPT) 1/8	3/16	1/4	5/16	3/8	7/16	1/2	5/8	3/4	1	Slotting Axial $a_{p\ max}$
P	1	Non-alloy steel and cast steel, free cutting	<.25%C	Annealed	890-960	125	.0003	.0004	.0006	.0007	.0009	.0010	.0012	.0015	.0018	.0024	1xD
P	2			Annealed	710-815	190	.0003	.0004	.0006	.0007	.0009	.0010	.0012	.0015	.0018	.0024	1xD
P	3			Quench and tempered	570-780	250	.0003	.0004	.0006	.0007	.0009	.0010	.0012	.0015	.0018	.0024	1xD
P	4		>=.55%C	Annealed	570-780	220	.0003	.0004	.0006	.0007	.0009	.0010	.0012	.0015	.0018	.0024	1xD
P	5		>=.55%C	Quenched & tempered	500-635	300	.0003	.0004	.0006	.0007	.0009	.0010	.0012	.0015	.0018	.0024	1xD
P	6	Low alloy & cast steel (less than 5% of alloying elements)		Annealed	570-780	200	.0003	.0004	.0006	.0007	.0009	.0010	.0012	.0015	.0018	.0024	1xD
P	7			Quenched & tempered	425-635	275	.0003	.0004	.0006	.0007	.0009	.0010	.0012	.0015	.0018	.0024	1xD
P	8			Quenched & tempered	450-635	300	.0003	.0004	.0006	.0007	.0009	.0010	.0012	.0015	.0018	.0024	1xD
P	9			Quenched & tempered	500-635	350	.0003	.0004	.0006	.0007	.0009	.0010	.0012	.0015	.0018	.0024	1xD
P	10	High alloyed steel, cast steel and tool steel		Annealed	450-635	200	.0003	.0004	.0006	.0007	.0009	.0010	.0012	.0015	.0018	.0024	1xD
P	11			Quenched & tempered	240-425	325	.0003	.0004	.0006	.0007	.0009	.0010	.0012	.0015	.0018	.0024	1xD
P	12	Stainless steel and cast steel		Ferritic/martensitic	280-570	200	.0003	.0004	.0006	.0007	.0009	.0020	.0012	.0015	.0018	.0024	1xD
P	13			Martensitic	210-530	240	.0003	.0004	.0006	.0007	.0009	.0020	.0012	.0015	.0018	.0024	1xD
M	14	Stainless steel and cast steel		Austenitic	210-425	180	.0003	.0004	.0006	.0007	.0009	.0020	.0012	.0015	.0018	.0024	1xD
K	15	Grey cast iron (GG)		Pearlitic/ferritic	280-890	180	.0003	.0004	.0006	.0007	.0009	.0030	.0012	.0015	.0018	.0024	1xD
K	16			Pearlitic/martensitic	450-850	260	.0003	.0004	.0006	.0007	.0009	.0030	.0012	.0015	.0018	.0024	1xD
K	17	Nodular cast iron (GGG)		Ferritic	530-960	160	.0003	.0004	.0006	.0007	.0009	.0010	.0012	.0015	.0018	.0024	1xD
K	18			Pearlitic	530-960	250	.0003	.0004	.0006	.0007	.0009	.0010	.0012	.0015	.0018	.0024	1xD
K	19	Malleable cast iron		Ferritic	530-960	130	.0003	.0004	.0006	.0007	.0009	.0010	.0012	.0015	.0018	.0024	1xD
K	20			Pearlitic	500-850	230	.0003	.0004	.0006	.0007	.0009	.0010	.0012	.0015	.0018	.0024	1xD
S	31	High temp. alloys	Fe based	Annealed	70-145	200	.0003	.0004	.0006	.0007	.0009	.0010	.0012	.0015	.0018	.0024	1xD
S	32			Cured	70-110	280	.0003	.0004	.0006	.0007	.0009	.0010	.0012	.0015	.0018	.0024	1xD
S	33		Ni or Co based	Annealed	70-110	250	.0003	.0004	.0006	.0007	.0009	.0010	.0012	.0015	.0018	.0024	1xD
S	34			Cured	70-110	350	.0003	.0004	.0006	.0007	.0009	.0010	.0012	.0015	.0018	.0024	1xD
S	35			Cast	70-110	320	.0003	.0004	.0006	.0007	.0009	.0010	.0012	.0015	.0018	.0024	1xD
S	36	Titanium Ti alloys		Pure	110-280	310	.0003	.0004	.0006	.0007	.0009	.0020	.0012	.0015	.0018	.0024	1xD
S	37			Alpha+beta	80-280	310	.0003	.0004	.0006	.0007	.0009	.0010	.0012	.0015	.0018	.0024	1xD

Roughing

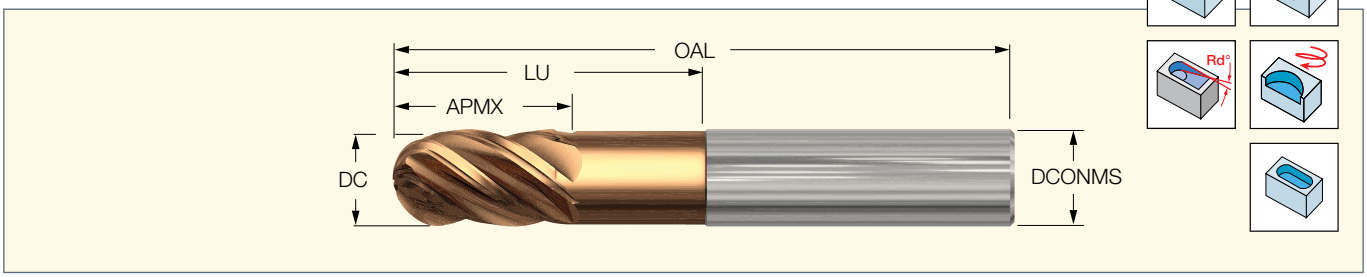
ISO	Material No.	Material		Condition	Cutting Speed Recommendations (V_c) SFM	Hardness HB	Cutting Diameter Feed (IPT) 1/8	3/16	1/4	5/16	3/8	7/16	1/2	5/8	3/4	1	Profiling Radial a_p	a_e
P	1	Non-alloy steel and cast steel, free cutting steel	<.25%C	Annealed	890-960	125	.00035-.0004	.0005-.0006	.0007-.0008	.0008-.001	.001-.0012	.0011-.0014	.0013-.0016	.0016-.002	.0019-.0024	.0026-.0031	.75xD-1.5xD	.25xD-.4xD
P	2	Non-alloy steel and cast steel, free cutting steel	>=.25%C	Annealed	710-815	190	.00035-.0004	.0005-.0006	.0007-.0008	.0008-.001	.001-.0012	.0011-.0014	.0013-.0016	.0016-.002	.0019-.0024	.0026-.0031	.75xD-1.5xD	.25xD-.4xD
P	3	Non-alloy steel and cast steel, free cutting steel	<.55%C	Quench and tempered	570-780	250	.00035-.0004	.0005-.0006	.0007-.0008	.0008-.001	.001-.0012	.0011-.0014	.0013-.0016	.0016-.002	.0019-.0024	.0026-.0031	.75xD-1.5xD	.25xD-.4xD
P	4	Non-alloy steel and cast steel, free cutting steel	>=.55%C	Annealed	570-780	220	.00035-.0004	.0005-.0006	.0007-.0008	.0008-.001	.001-.0012	.0011-.0014	.0013-.0016	.0016-.002	.0019-.0024	.0026-.0031	.75xD-1.5xD	.25xD-.4xD
P	5	Non-alloy steel and cast steel, free cutting steel	>=.55%C	Quenched & tempered	500-635	300	.00035-.0004	.0005-.0006	.0007-.0008	.0008-.001	.001-.0012	.0011-.0014	.0013-.0016	.0016-.002	.0019-.0024	.0026-.0031	.75xD-1.5xD	.25xD-.4xD
P	6	Low alloy & cast steel (less than 5% of alloying elements)		Annealed	570-780	200	.00035-.0004	.0005-.0006	.0007-.0008	.0008-.001	.001-.0012	.0011-.0014	.0013-.0016	.0016-.002	.0019-.0024	.0026-.0031	.75xD-1.5xD	.25xD-.4xD
P	7	Low alloy & cast steel (less than 5% of alloying elements)		Quenched & tempered	425-635	275	.00035-.0004	.0005-.0006	.0007-.0008	.0008-.001	.001-.0012	.0011-.0014	.0013-.0016	.0016-.002	.0019-.0024	.0026-.0031	.75xD-1.5xD	.25xD-.4xD
P	8	Low alloy & cast steel (less than 5% of alloying elements)		Quenched & tempered	450-635	300	.00035-.0004	.0005-.0006	.0007-.0008	.0008-.001	.001-.0012	.0011-.0014	.0013-.0016	.0016-.002	.0019-.0024	.0026-.0031	.75xD-1.5xD	.25xD-.4xD
P	9	Low alloy & cast steel (less than 5% of alloying elements)		Quenched & tempered	500-635	350	.00035-.0004	.0005-.0006	.0007-.0008	.0008-.001	.001-.0012	.0011-.0014	.0013-.0016	.0016-.002	.0019-.0024	.0026-.0031	.75xD-1.5xD	.25xD-.4xD
P	10	High alloyed steel, cast steel and tool steel		Annealed	450-635	200	.00035-.0004	.0005-.0006	.0007-.0008	.0008-.001	.001-.0012	.0011-.0014	.0013-.0016	.0016-.002	.0019-.0024	.0026-.0031	.75xD-1.5xD	.25xD-.4xD
P	11	High alloyed steel, cast steel and tool steel		Quenched & tempered	240-425	325	.00035-.0004	.0005-.0006	.0007-.0008	.0008-.001	.001-.0012	.0011-.0014	.0013-.0016	.0016-.002	.0019-.0024	.0026-.0031	.75xD-1.5xD	.25xD-.4xD
P	12	Stainless steel and cast steel		Ferritic/ martensitic	280-570	200	.00035-.0004	.0005-.0006	.0007-.0008	.0008-.001	.001-.0012	.0011-.0014	.0013-.0016	.0016-.002	.0019-.0024	.0026-.0031	.75xD-1.5xD	.25xD-.4xD
P	13	Stainless steel and cast steel		Martensitic	210-530	240	.00035-.0004	.0005-.0006	.0007-.0008	.0008-.001	.001-.0012	.0011-.0014	.0013-.0016	.0016-.002	.0019-.0024	.0026-.0031	.75xD-1.5xD	.25xD-.4xD
M	14	Stainless steel and cast steel		Austenitic	210-425	180	.00035-.0004	.0005-.0006	.0007-.0008	.0008-.001	.001-.0012	.0011-.0014	.0013-.0016	.0016-.002	.0019-.0024	.0026-.0031	.75xD-1.5xD	.25xD-.4xD
K	15	Grey cast iron (GG)		Pearlitic/ ferritic	280-890	180	.00035-.0004	.0005-.0006	.0007-.0008	.0008-.001	.001-.0012	.0011-.0014	.0013-.0016	.0016-.002	.0019-.0024	.0026-.0031	.75xD-1.5xD	.25xD-.4xD
K	16	Grey cast iron (GG)		Pearlitic/ martensitic	450-850	260	.00035-.0004	.0005-.0006	.0007-.0008	.0008-.001	.001-.0012	.0011-.0014	.0013-.0016	.0016-.002	.0019-.0024	.0026-.0031	.75xD-1.5xD	.25xD-.4xD
K	17	Nodular cast iron (GGG)		Ferritic	530-960	160	.00035-.0004	.0005-.0006	.0007-.0008	.0008-.001	.001-.0012	.0011-.0014	.0013-.0016	.0016-.002	.0019-.0024	.0026-.0031	.75xD-1.5xD	.25xD-.4xD
K	18	Nodular cast iron (GGG)		Pearlitic	530-960	250	.00035-.0004	.0005-.0006	.0007-.0008	.0008-.001	.001-.0012	.0011-.0014	.0013-.0016	.0016-.002	.0019-.0024	.0026-.0031	.75xD-1.5xD	.25xD-.4xD
K	19	Malleable cast iron		Ferritic	530-960	130	.00035-.0004	.0005-.0006	.0007-.0008	.0008-.001	.001-.0012	.0011-.0014	.0013-.0016	.0016-.002	.0019-.0024	.0026-.0031	.75xD-1.5xD	.25xD-.4xD
K	20	Malleable cast iron		Pearlitic	500-850	230	.00035-.0004	.0005-.0006	.0007-.0008	.0008-.001	.001-.0012	.0011-.0014	.0013-.0016	.0016-.002	.0019-.0024	.0026-.0031	.75xD-1.5xD	.25xD-.4xD
S	31	High temp. alloys	Fe based	Annealed	70-145	200	.00035-.0004	.0005-.0006	.0007-.0008	.0008-.001	.001-.0012	.0011-.0014	.0013-.0016	.0016-.002	.0019-.0024	.0026-.0031	.75xD-1.5xD	.25xD-.4xD
S	32	High temp. alloys	Fe based	Cured	70-110	280	.00035-.0004	.0005-.0006	.0007-.0008	.0008-.001	.001-.0012	.0011-.0014	.0013-.0016	.0016-.002	.0019-.0024	.0026-.0031	.75xD-1.5xD	.25xD-.4xD
S	33	High temp. alloys	Ni or Co based	Annealed	70-110	250	.00035-.0004	.0005-.0006	.0007-.0008	.0008-.001	.001-.0012	.0011-.0014	.0013-.0016	.0016-.002	.0019-.0024	.0026-.0031	.75xD-1.5xD	.25xD-.4xD
S	34	High temp. alloys	Ni or Co based	Cured	70-110	350	.00035-.0004	.0005-.0006	.0007-.0008	.0008-.001	.001-.0012	.0011-.0014	.0013-.0016	.0016-.002	.0019-.0024	.0026-.0031	.75xD-1.5xD	.25xD-.4xD
S	35	High temp. alloys	Ni or Co based	Cast	70-110	320	.00035-.0004	.0005-.0006	.0007-.0008	.0008-.001	.001-.0012	.0011-.0014	.0013-.0016	.0016-.002	.0019-.0024	.0026-.0031	.75xD-1.5xD	.25xD-.4xD
S	36	Titanium Ti alloys		Pure	110-280	310	.00035-.0004	.0005-.0006	.0007-.0008	.0008-.001	.001-.0012	.0011-.0014	.0013-.0016	.0016-.002	.0019-.0024	.0026-.0031	.75xD-1.5xD	.25xD-.4xD
S	37	Titanium Ti alloys		Alpha+beta alloys cured	80-280	310	.00035-.0004	.0005-.0006	.0007-.0008	.0008-.001	.001-.0012	.0011-.0014	.0013-.0016	.0016-.002	.0019-.0024	.0026-.0031	.75xD-1.5xD	.25xD-.4xD
H	38	Hardened Steel		Hardened	110-210	55 HRC	.00035-.0004	.0005-.0006	.0007-.0008	.0008-.001	.001-.0012	.0011-.0014	.0013-.0016	.0016-.002	.0019-.0024	.0026-.0031	.75xD-1.5xD	.02xD
H	39	Hardened Steel		Hardened	110-145	60 HRC	.00035-.0004	.0005-.0006	.0007-.0008	.0008-.001	.001-.0012	.0011-.0014	.0013-.0016	.0016-.002	.0019-.0024	.0026-.0031	.75xD-1.5xD	.02xD
H	40	Chilled Cast Iron		Cast	250-320	400	.00035-.0004	.0005-.0006	.0007-.0008	.0008-.001	.001-.0012	.0011-.0014	.0013-.0016	.0016-.002	.0019-.0024	.0026-.0031	.75xD-1.5xD	.02xD
H	41	Cast Iron		Hardened	110-210	55 HRC	.00035-.0004	.0005-.0006	.0007-.0008	.0008-.001	.001-.0012	.0011-.0014	.0013-.0016	.0016-.002	.0019-.0024	.0026-.0031	.75xD-1.5xD	.02xD

Semi-Finish

ISO	Material No.	Material		Condition	Cutting Speed Recommendations (V_c) SFM	Hardness HB	Cutting Diameter Feed (IPT)										Profiling Radial	
							1/8	3/16	1/4	5/16	3/8	7/16	1/2	5/8	3/4	1	a_p	a_e
P	1	Non-alloy steel and cast steel, free cutting steel	>=.25%C	Annealed	890-960	125	.0009	.0013	.0017	.0021	.0025	.0030	.0034	.0042	.0050	.0068	1xD	.05xD
P	2	Non-alloy steel and cast steel, free cutting steel	>=.25%C	Annealed	710-815	190	.0009	.0013	.0017	.0021	.0025	.0030	.0034	.0042	.0050	.0068	1xD	.05xD
P	3	Non-alloy steel and cast steel, free cutting steel	<.55%C	Quench and tempered	570-780	250	.0009	.0013	.0017	.0021	.0025	.0030	.0034	.0042	.0050	.0068	1xD	.05xD
P	4	Non-alloy steel and cast steel, free cutting steel	>=.55%C	Annealed	570-780	220	.0009	.0013	.0017	.0021	.0025	.0030	.0034	.0042	.0050	.0068	1xD	.05xD
P	5	Non-alloy steel and cast steel, free cutting steel	>=.55%C	Quenched & tempered	500-635	300	.0009	.0013	.0017	.0021	.0025	.0030	.0034	.0042	.0050	.0068	1xD	.05xD
P	6	Non-alloy steel and cast steel, free cutting steel	>=.55%C	Annealed	570-780	200	.0009	.0013	.0017	.0021	.0025	.0030	.0034	.0042	.0050	.0068	1xD	.05xD
P	7	Low alloy & cast steel (less than 5% of alloying elements)		Quenched & tempered	425-635	275	.0009	.0013	.0017	.0021	.0025	.0030	.0034	.0042	.0050	.0068	1xD	.05xD
P	8	Low alloy & cast steel (less than 5% of alloying elements)		Quenched & tempered	450-635	300	.0009	.0013	.0017	.0021	.0025	.0030	.0034	.0042	.0050	.0068	1xD	.05xD
P	9	Low alloy & cast steel (less than 5% of alloying elements)		Quenched & tempered	500-635	350	.0009	.0013	.0017	.0021	.0025	.0030	.0034	.0042	.0050	.0068	1xD	.05xD
P	10	High alloyed steel, cast steel and tool steel		Annealed	450-635	200	.0009	.0013	.0017	.0021	.0025	.0030	.0034	.0042	.0050	.0068	1xD	.05xD
P	11	High alloyed steel, cast steel and tool steel		Quenched & tempered	240-425	325	.0009	.0013	.0017	.0021	.0025	.0030	.0034	.0042	.0050	.0068	1xD	.05xD
P	12	Stainless steel and cast steel		Ferritic/martensitic	280-570	200	.0009	.0013	.0017	.0021	.0025	.0030	.0034	.0042	.0050	.0068	1xD	.05xD
P	13	Stainless steel and cast steel		Martensitic	210-530	240	.0009	.0013	.0017	.0021	.0025	.0030	.0034	.0042	.0050	.0068	1xD	.05xD
M	14	Stainless steel and cast steel		Austenitic	210-425	180	.0009	.0013	.0017	.0021	.0025	.0030	.0034	.0042	.0050	.0068	1xD	.05xD
K	15	Grey cast iron (GG)		Pearlitic/ferritic	280-890	180	.0009	.0013	.0017	.0021	.0025	.0030	.0034	.0042	.0050	.0068	1xD	.05xD
K	16	Grey cast iron (GG)		Pearlitic/martensitic	450-850	260	.0009	.0013	.0017	.0021	.0025	.0030	.0034	.0042	.0050	.0068	1xD	.05xD
K	17	Nodular cast iron (GGG)		Ferritic	530-960	160	.0009	.0013	.0017	.0021	.0025	.0030	.0034	.0042	.0050	.0068	1xD	.05xD
K	18	Nodular cast iron (GGG)		Pearlitic	530-960	250	.0009	.0013	.0017	.0021	.0025	.0030	.0034	.0042	.0050	.0068	1xD	.05xD
K	19	Malleable cast iron		Ferritic	530-960	130	.0009	.0013	.0017	.0021	.0025	.0030	.0034	.0042	.0050	.0068	1xD	.05xD
K	20	Malleable cast iron		Pearlitic	500-850	230	.0009	.0013	.0017	.0021	.0025	.0030	.0034	.0042	.0050	.0068	1xD	.05xD
S	31	High temp. alloys	Fe based	Annealed	70-145	200	.0009	.0013	.0017	.0021	.0025	.0030	.0034	.0042	.0050	.0068	1xD	.05xD
S	32	High temp. alloys	Fe based	Cured	70-110	280	.0009	.0013	.0017	.0021	.0025	.0030	.0034	.0042	.0050	.0068	1xD	.05xD
S	33	High temp. alloys	Ni or Co based	Annealed	70-110	250	.0009	.0013	.0017	.0021	.0025	.0030	.0034	.0042	.0050	.0068	1xD	.05xD
S	34	High temp. alloys	Ni or Co based	Cured	70-110	350	.0009	.0013	.0017	.0021	.0025	.0030	.0034	.0042	.0050	.0068	1xD	.05xD
S	35	High temp. alloys	Ni or Co based	Cast	70-110	320	.0009	.0013	.0017	.0021	.0025	.0030	.0034	.0042	.0050	.0068	1xD	.05xD
S	36	Titanium Ti alloys		Pure	110-280	310	.0009	.0013	.0017	.0021	.0025	.0030	.0034	.0042	.0050	.0068	1xD	.05xD
S	37	Titanium Ti alloys		Alpha+beta alloys cured	80-280	310	.0009	.0013	.0017	.0021	.0025	.0030	.0034	.0042	.0050	.0068	1xD	.05xD
H	38	Hardened Steel		Hardened	110-210	55 HRC	.0009	.0013	.0017	.0021	.0025	.0030	.0034	.0042	.0050	.0068	1xD	.02xD
H	39	Hardened Steel		Hardened	110-145	60 HRC	.0009	.0013	.0017	.0021	.0025	.0030	.0034	.0042	.0050	.0068	1xD	.02xD
H	40	Chilled Cast Iron		Cast	250-320	400	.0009	.0013	.0017	.0021	.0025	.0030	.0034	.0042	.0050	.0068	1xD	.02xD
H	41	Cast Iron		Hardened	110-210	55 HRC	.0009	.0013	.0017	.0021	.0025	.0030	.0034	.0042	.0050	.0068	1xD	.02xD

EBI-5-VF

5 Flute Ball Nose Endmills With and Without Relieved Necks



Designation	Dimensions						V910
	DC	APMX	LU	DCONMS	OAL	NOF(1)	
EBI-5 .25-.5CVF2.	.250	.5000	.5000	.250	2.000	5	•
EBI-5 .25-.5/2.13CVF4.	.250	.5000	2.1250	.250	4.000	5	•
EBI-5 .25-.75CVF2.5	.250	.7500	.7500	.250	2.500	5	•
EBI-5 .25-1.CVF3.	.250	1.0000	1.0000	.250	3.000	5	•
EBI-5 .375-.5CVF2.	.375	.5000	.5000	.375	2.000	5	•
EBI-5 .375-.75/2.13CVF4.	.375	.7500	2.1250	.375	4.000	5	•
EBI-5 .375-1.CVF2.5	.375	1.0000	1.0000	.375	2.500	5	•
EBI-5 .375-1.CVF3.	.375	1.0000	1.0000	.375	3.000	5	•
EBI-5 .375-1.5CVF4.	.375	1.5000	1.5000	.375	4.000	5	•
EBI-5 .5-.63CVF2.5	.500	.6250	.6250	.500	2.500	5	•
EBI-5 .5-.88/1.38CVF3.	.500	.8750	1.3750	.500	3.000	5	•
EBI-5 .5-.88/2.13CVF4.	.500	.8750	2.1250	.500	4.000	5	•
EBI-5 .5-.88/3.13CVF5.	.500	.8750	3.1250	.500	5.000	5	•
EBI-5 .5-.88/4.13CVF6.	.500	.8750	4.1250	.500	6.000	5	•
EBI-5 .5-1.25CVF3.	.500	1.2500	1.2500	.500	3.000	5	•
EBI-5 .5-1.63CVF4.	.500	1.6250	1.6250	.500	4.000	5	•
EBI-5 .5-2.CVF4.	.500	2.0000	2.0000	.500	4.000	5	•
EBI-5 .5-2.5CVF5.	.500	2.5000	2.5000	.500	5.000	5	•
EBI-5 .5-3.13CVF6.	.500	3.1250	3.1250	.500	6.000	5	•
EBI-5 .625-.75CVF3.	.625	.7500	.7500	.625	3.000	5	•
EBI-5 .625-1./2.CVF4.	.625	1.0000	2.0000	.625	4.000	5	•
EBI-5 .625-1./3.CVF5.	.625	1.0000	3.0000	.625	5.000	5	•
EBI-5 .625-1./4.CVF6.	.625	1.0000	4.0000	.625	6.000	5	•
EBI-5 .625-1.63CVF3.5	.625	1.6250	1.6250	.625	3.500	5	•
EBI-5 .625-2.5CVF5.	.625	2.5000	2.5000	.625	5.000	5	•
EBI-5 .625-3.CVF6.	.625	3.0000	3.0000	.625	6.000	5	•
EBI-5 .75-1.CVF3.	.750	1.0000	1.0000	.750	3.000	5	•
EBI-5 .75-1.25/2.CVF4.	.750	1.2500	2.0000	.750	4.000	5	•
EBI-5 .75-1.25/3.CVF5.	.750	1.2500	3.0000	.750	5.000	5	•
EBI-5 .75-1.25/4.CVF6.	.750	1.2500	4.0000	.750	6.000	5	•
EBI-5 .75-1.63CVF4.	.750	1.6250	1.6250	.750	4.000	5	•
EBI-5 .75-2.25CVF5.	.750	2.2500	2.2500	.750	5.000	5	•
EBI-5 .75-3.25CVF6.	.750	3.2500	3.2500	.750	6.000	5	•
EBI-5 .75-4.13CVF7.	.750	4.1250	4.1250	.750	7.000	5	•
EBI-5 1.-1.5CVF4.	1.000	1.5000	1.5000	1.000	4.000	5	•
EBI-5 1.-1.5/3.CVF5.	1.000	1.5000	3.0000	1.000	5.000	5	•
EBI-5 1.-1.5/4.CVF6.	1.000	1.5000	4.0000	1.000	6.000	5	•
EBI-5 1.-1.5/5.CVF7.	1.000	1.5000	5.0000	1.000	7.000	5	•
EBI-5 1.-2.CVF4.5	1.000	2.0000	2.0000	1.000	4.500	5	•
EBI-5 1.-2.25CVF5.	1.000	2.2500	2.2500	1.000	5.000	5	•
EBI-5 1.-3.25CVF6.	1.000	3.2500	3.2500	1.000	6.000	5	•
EBI-5 1.-4.13CVF7.	1.000	4.1250	4.1250	1.000	7.000	5	•

(1) Number of flutes

- Each item is also available with a Weldon shank. Simply substitute a W in place of the C in the listed designations (example - ECI-4 375-1.0C03VF2.5 = cylindrical type; ECI-4 375-1.0W03VF2.5 = Weldon type

Slotting

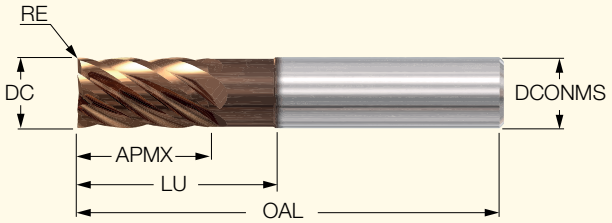
ISO	Material No.	Material	Condition	Cutting Speed Recommendations V_c (SFM)	Hardness HB	Cutting Diameter Feed (IPT) 3/16	1/4	5/16	3/8	1/2	5/8	3/4	1	Slotting Axial $a_{p\ max}$
P	1	Non-alloy steel and cast steel, free cutting steel <0.25%C	Annealed	1020-1100	125	.001	.002	.002	.003	.003	.004	.004	.005	1xD
P	2	Non-alloy steel and cast steel, free cutting steel >=0.25%C	Annealed	820-940	190	.001	.002	.002	.003	.003	.004	.004	.005	1xD
P	3	Non-alloy steel and cast steel, free cutting steel <0.55%C	Quench and tempered	650-890	250	.001	.002	.002	.003	.003	.004	.004	.005	1xD
P	4	Non-alloy steel and cast steel, free cutting steel >=0.55%C	Annealed	650-890	220	.001	.002	.002	.003	.003	.004	.004	.005	1xD
P	5	Non-alloy steel and cast steel, free cutting steel >=0.55%C	Quenched & tempered	570-730	300	.001	.002	.002	.003	.003	.004	.004	.005	1xD
P	6	Low alloy & cast steel (less than 5% of alloying elements)	Annealed	650-890	200	.001	.002	.002	.003	.003	.004	.004	.005	1xD
P	7	Low alloy & cast steel (less than 5% of alloying elements)	Quenched & tempered	490-730	275	.001	.002	.002	.002	.003	.003	.004	.004	1xD
P	8	Low alloy & cast steel (less than 5% of alloying elements)	Quenched & tempered	520-730	300	.001	.002	.002	.002	.003	.003	.004	.004	1xD
P	9	Low alloy & cast steel (less than 5% of alloying elements)	Quenched & tempered	570-730	350	.001	.002	.002	.002	.003	.003	.004	.004	1xD
P	10	High alloyed steel, cast steel and tool steel	Annealed	520-730	200	.001	.001	.002	.002	.003	.003	.003	.003	1xD
P	11	High alloyed steel, cast steel and tool steel	Quenched & tempered	280-490	325	.001	.001	.002	.002	.003	.003	.003	.003	1xD
P	12	Stainless steel and cast steel	Ferritic/martensitic	320-650	200	.001	.001	.002	.002	.002	.003	.003	.004	1xD
P	13	Stainless steel and cast steel	Martensitic	240-610	240	.001	.001	.001	.001	.002	.002	.003	.003	1xD
M	14	Stainless steel and cast steel	Austenitic	240-490	180	.001	.002	.002	.002	.003	.003	.003	.004	1xD
K	15	Grey cast iron (GG)	Pearlitic/ferritic	320-1020	180	.001	.002	.003	.003	.003	.004	.004	.005	1xD
K	16	Grey cast iron (GG)	Pearlitic/martensitic	520-980	260	.001	.002	.003	.003	.003	.004	.004	.005	1xD
K	17	Nodular cast iron (GGG)	Ferritic	610-1100	160	.001	.002	.002	.002	.003	.003	.004	.005	1xD
K	18	Nodular cast iron (GGG)	Pearlitic	610-1100	250	.001	.002	.002	.002	.003	.003	.004	.005	1xD
K	19	Malleable cast iron	Ferritic	610-1100	130	.001	.002	.002	.002	.003	.003	.004	.005	1xD
K	20	Malleable cast iron	Pearlitic	570-980	230	.001	.002	.002	.002	.003	.003	.004	.005	1xD
S	31	High temp. alloys Fe based	Annealed	80-160	200	.001	.002	.002	.003	.003	.003	.004	.005	1xD
S	32	High temp. alloys Fe based	Cured	80-120	280	.001	.002	.002	.003	.003	.003	.004	.005	1xD
S	33	High temp. alloys Ni or Co based	Annealed	80-120	250	.001	.001	.001	.002	.002	.002	.002	.002	1xD
S	34	High temp. alloys Ni or Co based	Cured	80-120	350	.001	.001	.001	.002	.002	.002	.002	.002	1xD
S	35	High temp. alloys Ni or Co based	Cast	80-120	320	.001	.001	.001	.002	.002	.002	.002	.002	1xD
S	36	Titanium Ti alloys	Pure	120-320	310	.001	.001	.001	.002	.002	.003	.003	.003	1xD
S	37	Titanium Ti alloys	Alpha+beta alloys cured	90-320	310	.001	.001	.001	.002	.002	.003	.003	.003	1xD

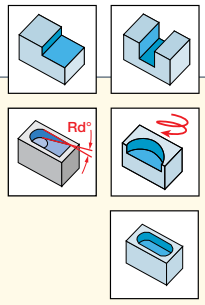
Semi-Finish

ISO	Material No.	Material		Condition	Cutting Speed Recommendations V_c (sfm)	Hardness HB	Cutting Diameter Feed (IPT) 3/16	1/4	5/16	3/8	1/2	5/8	3/4	1	Profiling Radial a_p	a_e
P	1	Non-alloy steel and cast steel, free cutting steel	<0.25%C	Annealed	1020-1100	125	.001	.002	.002	.003	.003	.004	.004	.005	1.25xD	.05xD
	2		>=0.25%C	Annealed	820-940	190	.001	.002	.002	.003	.003	.004	.004	.005	1.25xD	.05xD
	3		<0.55%C	Quench and tempered	650-890	250	.001	.002	.002	.003	.003	.004	.004	.005	1.25xD	.05xD
	4		>=0.55%C	Annealed	650-890	220	.001	.002	.002	.003	.003	.004	.004	.005	1.25xD	.05xD
	5		>=0.55%C	Quenched & tempered	570-730	300	.001	.002	.002	.003	.003	.004	.004	.005	1.25xD	.05xD
	6	Low alloy & cast steel (less than 5% of alloying elements)		Annealed	650-890	200	.001	.002	.002	.003	.003	.004	.004	.005	1.25xD	.05xD
	7			Quenched & tempered	490-730	275	.001	.002	.002	.002	.003	.003	.004	.004	1.25xD	.05xD
	8			Quenched & tempered	520-730	300	.001	.002	.002	.002	.003	.003	.004	.004	1.25xD	.05xD
	9			Quenched & tempered	570-730	350	.001	.002	.002	.002	.003	.003	.004	.004	1.25xD	.05xD
	10	High alloyed steel, cast steel and tool steel		Annealed	520-730	200	.001	.001	.002	.002	.003	.003	.003	.003	1.25xD	.05xD
	11			Quenched & tempered	280-490	325	.001	.001	.002	.002	.003	.003	.003	.003	1.25xD	.05xD
	12	Stainless steel and cast steel		Ferritic/martensitic	320-650	200	.001	.001	.002	.002	.002	.003	.003	.004	1.25xD	.05xD
	13			Martensitic	240-610	240	.001	.001	.001	.001	.002	.002	.003	.003	1.25xD	.05xD
M	14	Stainless steel and cast steel		Austenitic	240-490	180	.001	.002	.002	.002	.003	.003	.003	.004	1.25xD	.05xD
K	15	Grey cast iron (GG)		Pearlitic/ferritic	320-1020	180	.001	.002	.003	.003	.003	.004	.004	.005	1.25xD	.05xD
	16			Pearlitic/martensitic	520-980	260	.001	.002	.003	.003	.003	.004	.004	.005	1.25xD	.05xD
	17	Nodular cast iron (GGG)		Ferritic	610-1100	160	.001	.002	.002	.002	.003	.003	.004	.005	1.25xD	.05xD
	18			Pearlitic	610-1100	250	.001	.002	.002	.002	.003	.003	.004	.005	1.25xD	.05xD
	19	Malleable cast iron		Ferritic	610-1100	130	.001	.002	.002	.002	.003	.003	.004	.005	1.25xD	.05xD
	20			Pearlitic	570-980	230	.001	.002	.002	.002	.003	.003	.004	.005	1.25xD	.05xD
S	31	High temp. alloys	Fe based	Annealed	80-160	200	.001	.002	.002	.003	.003	.003	.004	.005	1.25xD	.05xD
	32			Cured	80-120	280	.001	.002	.002	.003	.003	.003	.004	.005	1.25xD	.05xD
	33		Ni or Co based	Annealed	80-120	250	.001	.001	.001	.002	.002	.002	.002	.002	1.25xD	.05xD
	34			Cured	80-120	350	.001	.001	.001	.002	.002	.002	.002	.002	1.25xD	.05xD
	35			Cast	80-120	320	.001	.001	.001	.002	.002	.002	.002	.002	1.25xD	.05xD
	36	Titanium Ti alloys		Pure	120-320	310	.001	.001	.001	.002	.002	.003	.003	.003	1.25xD	.05xD
	37			Alpha+beta alloys cured	90-320	310	.001	.001	.001	.002	.002	.003	.003	.003	1.25xD	.05xD
H	38	Hardened steel		Hardened	120-240	55 HRC	.001	.001	.002	.002	.002	.003	.003	.004	1.25xD	.02xD
	39			Hardened	120-160	60 HRC	.001	.001	.002	.002	.002	.003	.003	.004	1.25xD	.02xD
	40	Chilled cast iron		Cast	290-370	400	.001	.001	.002	.002	.002	.003	.003	.004	1.25xD	.02xD
	41	Cast iron		Hardened	120-240	55 HRC	.001	.001	.002	.002	.002	.003	.003	.004	1.25xD	.02xD

ECI-6-VF

6 Flute Endmill With and Without Relieved Neck, Assorted Radii and Variable Pitch for Chatter Dampening



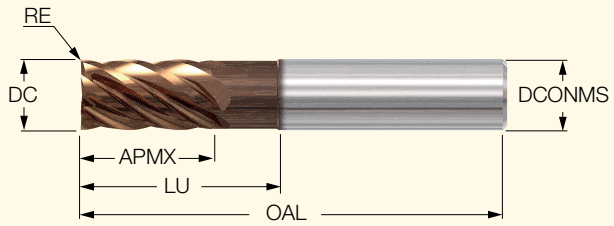


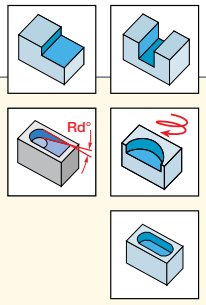
Designation	Dimensions								V910
	D_C	APMX	L_U	R_E	DCONMS	OAL	NOF[1]	Shank	
ECI-6 250-500/2.125C0VF4	.250	.5000	2.1250	.0000	.250	4.000	6	C	•
ECI-6 250-500/2.13C015VF4	.250	.5000	2.1300	.0150	.250	4.000	6	C	•
ECI-6 250-500/2.13C030VF4	.250	.5000	2.1300	.0300	.250	4.000	6	C	•
ECI-6 250-500/2.13C060VF4	.250	.5000	2.1300	.0600	.250	4.000	6	C	•
ECI-6 250-500C0VF2	.250	.5000	.5000	.0000	.250	2.000	6	C	•
ECI-6 250-500C015VF2	.250	.5000	.5000	.0150	.250	2.000	6	C	•
ECI-6 250-500C030VF2	.250	.5000	.5000	.0300	.250	2.000	6	C	•
ECI-6 250-500C060VF2	.250	.5000	.5000	.0600	.250	2.000	6	C	•
ECI-6 250-750C0VF2.5	.250	.7500	.7500	.0000	.250	2.500	6	C	•
ECI-6 250-750C015VF2.5	.250	.7500	.7500	.0150	.250	2.500	6	C	•
ECI-6 250-750C030VF2.5	.250	.7500	.7500	.0300	.250	2.500	6	C	•
ECI-6 250-750C060VF2.5	.250	.7500	.7500	.0600	.250	2.500	6	C	•
ECI-6 250-1C0VF3	.250	1.0000	1.0000	.0000	.250	3.000	6	C	•
ECI-6 250-1C015VF3	.250	1.0000	1.0000	.0150	.250	3.000	6	C	•
ECI-6 250-1C030VF3	.250	1.0000	1.0000	.0300	.250	3.000	6	C	•
ECI-6 250-1C060VF3	.250	1.0000	1.0000	.0600	.250	3.000	6	C	•
ECI-6 312-500C0VF2	.312	.5000	.5000	.0000	.312	2.000	6	C	•
ECI-6 312-500C015VF2	.312	.5000	.5000	.0150	.312	2.000	6	C	•
ECI-6 312-500C030VF2	.312	.5000	.5000	.0300	.312	2.000	6	C	•
ECI-6 312-875C0VF2.5	.312	.8750	.8750	.0000	.312	2.500	6	C	•
ECI-6 312-875C015VF2.5	.312	.8750	.8750	.0150	.312	2.500	6	C	•
ECI-6 312-875C030VF2.5	.312	.8750	.8750	.0300	.312	2.500	6	C	•
ECI-6 312-1C0VF3	.312	1.0000	1.0000	.0000	.312	3.000	6	C	•
ECI-6 312-1C015VF3	.312	1.0000	1.0000	.0150	.312	3.000	6	C	•
ECI-6 312-1C030VF3	.312	1.0000	1.0000	.0300	.312	3.000	6	C	•
ECI-6 312-1.5C0VF4	.312	1.5000	1.5000	.0000	.312	4.000	6	C	•
ECI-6 312-1.5C015VF4	.312	1.5000	1.5000	.0150	.312	4.000	6	C	•
ECI-6 312-1.5C030VF4	.312	1.5000	1.5000	.0300	.312	4.000	6	C	•
ECI-6 375-500C0VF2	.375	.5000	.5000	.0000	.375	2.000	6	C	•
ECI-6 375-500C015VF2	.375	.5000	.5000	.0150	.375	2.000	6	C	•
ECI-6 375-500C030VF2	.375	.5000	.5000	.0300	.375	2.000	6	C	•
ECI-6 375-500C060VF2	.375	.5000	.5000	.0600	.375	2.000	6	C	•
ECI-6 375-500C090VF2	.375	.5000	.5000	.0900	.375	2.000	6	C	•
ECI-6 375-500C125VF2	.375	.5000	.5000	.1250	.375	2.000	6	C	•
ECI-6 375-750/2.125C0VF4	.375	.7500	2.1250	.0000	.375	4.000	6	C	•
ECI-6 375-750/2.13C015VF4	.375	.7500	2.1300	.0150	.375	4.000	6	C	•
ECI-6 375-750/2.13C030VF4	.375	.7500	2.1300	.0300	.375	4.000	6	C	•
ECI-6 375-750/2.13C060VF4	.375	.7500	2.1300	.0600	.375	4.000	6	C	•
ECI-6 375-1C0VF2.5	.375	1.0000	1.0000	.0000	.375	2.500	6	C	•
ECI-6 375-1C0VF3	.375	1.0000	1.0000	.0000	.375	3.000	6	C	•
ECI-6 375-1C015VF2.5	.375	1.0000	1.0000	.0150	.375	2.500	6	C	•
ECI-6 375-1C015VF3	.375	1.0000	1.0000	.0150	.375	3.000	6	C	•
ECI-6 375-1C030VF2.5	.375	1.0000	1.0000	.0300	.375	2.500	6	C	•
ECI-6 375-1C030VF3	.375	1.0000	1.0000	.0300	.375	3.000	6	C	•
ECI-6 375-1C060VF2.5	.375	1.0000	1.0000	.0600	.375	2.500	6	C	•
ECI-6 375-1C060VF3	.375	1.0000	1.0000	.0600	.375	3.000	6	C	•
ECI-6 375-1C090VF2.5	.375	1.0000	1.0000	.0900	.375	2.500	6	C	•
ECI-6 375-1C090VF3	.375	1.0000	1.0000	.0900	.375	3.000	6	C	•
ECI-6 375-1C125VF2.5	.375	1.0000	1.0000	.1250	.375	2.500	6	C	•

[1] Number of flutes

ECI-6-VF (continued)

6 Flute Endmill With and Without Relieved Neck, Assorted Radii and Variable Pitch for Chatter Dampening



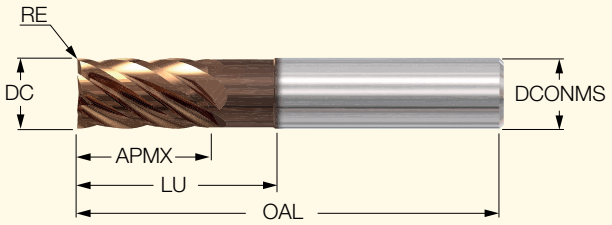


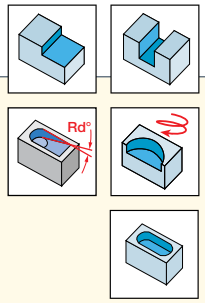
Designation	Dimensions								V910
	D_C	APMX	L_U	R_E	DCONMS	OAL	NOF(1)	Shank	
ECI-6 375-1C125VF3	.375	1.0000	1.0000	.1250	.375	3.000	6	C	•
ECI-6 375-1.5C0VF4	.375	1.5000	1.5000	.0000	.375	4.000	6	C	•
ECI-6 375-1.5C015VF4	.375	1.5000	1.5000	.0150	.375	4.000	6	C	•
ECI-6 375-1.5C030VF4	.375	1.5000	1.5000	.0300	.375	4.000	6	C	•
ECI-6 375-1.5C060VF4	.375	1.5000	1.5000	.0600	.375	4.000	6	C	•
ECI-6 375-1.5C090VF4	.375	1.5000	1.5000	.0900	.375	4.000	6	C	•
ECI-6 375-1.5C125VF4	.375	1.5000	1.5000	.1250	.375	4.000	6	C	•
ECI-6 500-625C0VF2.5	.500	.6250	.6250	.0000	.500	2.500	6	C	•
ECI-6 500-625C015VF2.5	.500	.6250	.6250	.0150	.500	2.500	6	C	•
ECI-6 500-625C030VF2.5	.500	.6250	.6250	.0300	.500	2.500	6	C	•
ECI-6 500-625C060VF2.5	.500	.6250	.6250	.0600	.500	2.500	6	C	•
ECI-6 500-625C090VF2.5	.500	.6250	.6250	.0900	.500	2.500	6	C	•
ECI-6 500-625C125VF2.5	.500	.6250	.6250	.1250	.500	2.500	6	C	•
ECI-6 500-875/1.375C0VF3	.500	.8750	1.3750	.0000	.500	3.000	6	C	•
ECI-6 500-875/1.38C015VF3	.500	.8750	1.3800	.0150	.500	3.000	6	C	•
ECI-6 500-875/1.38C030VF3	.500	.8750	1.3800	.0300	.500	3.000	6	C	•
ECI-6 500-875/1.38C060VF3	.500	.8750	1.3800	.0600	.500	3.000	6	C	•
ECI-6 500-875/1.38C090VF3	.500	.8750	1.3800	.0900	.500	3.000	6	C	•
ECI-6 500-875/1.38C125VF3	.500	.8750	1.3800	.1250	.500	3.000	6	C	•
ECI-6 500-875/2.125C0VF4	.500	.8750	2.1250	.0000	.500	4.000	6	C	•
ECI-6 500-875/2.13C015VF4	.500	.8750	2.1300	.0150	.500	4.000	6	C	•
ECI-6 500-875/2.13C030VF4	.500	.8750	2.1300	.0300	.500	4.000	6	C	•
ECI-6 500-875/2.13C060VF4	.500	.8750	2.1300	.0600	.500	4.000	6	C	•
ECI-6 500-875/2.13C090VF4	.500	.8750	2.1300	.0900	.500	4.000	6	C	•
ECI-6 500-875/2.13C125VF4	.500	.8750	2.1300	.1250	.500	4.000	6	C	•
ECI-6 500-875/3.125C0VF5	.500	.8750	3.1250	.0000	.500	5.000	6	C	•
ECI-6 500-875/3.13C015VF5	.500	.8750	3.1250	.0150	.500	5.000	6	C	•
ECI-6 500-875/3.13C030VF5	.500	.8750	3.1250	.0300	.500	5.000	6	C	•
ECI-6 500-875/3.13C060VF5	.500	.8750	3.1250	.0600	.500	5.000	6	C	•
ECI-6 500-875/3.13C090VF5	.500	.8750	3.1250	.0900	.500	5.000	6	C	•
ECI-6 500-875/3.13C125VF5	.500	.8750	3.1250	.1250	.500	5.000	6	C	•
ECI-6 500-875/4.125C0VF6	.500	.8750	4.1250	.0000	.500	6.000	6	C	•
ECI-6 500-875/4.13C015VF6	.500	.8750	4.1250	.0150	.500	6.000	6	C	•
ECI-6 500-875/4.13C030VF6	.500	.8750	4.1250	.0300	.500	6.000	6	C	•
ECI-6 500-875/4.13C060VF6	.500	.8750	4.1250	.0600	.500	6.000	6	C	•
ECI-6 500-875/4.13C090VF6	.500	.8750	4.1250	.0900	.500	6.000	6	C	•
ECI-6 500-875/4.13C125VF6	.500	.8750	4.1250	.1250	.500	6.000	6	C	•
ECI-6 500-1.25C0VF3	.500	1.2500	1.2500	.0000	.500	3.000	6	C	•
ECI-6 500-1.25C015VF3	.500	1.2500	1.2500	.0150	.500	3.000	6	C	•
ECI-6 500-1.25C030VF3	.500	1.2500	1.2500	.0300	.500	3.000	6	C	•
ECI-6 500-1.25C060VF3	.500	1.2500	1.2500	.0600	.500	3.000	6	C	•
ECI-6 500-1.25C090VF3	.500	1.2500	1.2500	.0900	.500	3.000	6	C	•
ECI-6 500-1.25C125VF3	.500	1.2500	1.2500	.1250	.500	3.000	6	C	•
ECI-6 500-1.62C0VF4	.500	1.6250	1.6250	.0000	.500	4.000	6	C	•
ECI-6 500-1.62C015VF4	.500	1.6250	1.6250	.0150	.500	4.000	6	C	•
ECI-6 500-1.62C030VF4	.500	1.6250	1.6250	.0300	.500	4.000	6	C	•
ECI-6 500-1.62C060VF4	.500	1.6250	1.6250	.0600	.500	4.000	6	C	•
ECI-6 500-1.62C090VF4	.500	1.6250	1.6250	.0900	.500	4.000	6	C	•
ECI-6 500-1.62C125VF4	.500	1.6250	1.6250	.1250	.500	4.000	6	C	•

(1) Number of flutes

ECI-6-VF (continued)

6 Flute Endmill With and Without Relieved Neck, Assorted Radii and Variable Pitch for Chatter Dampening



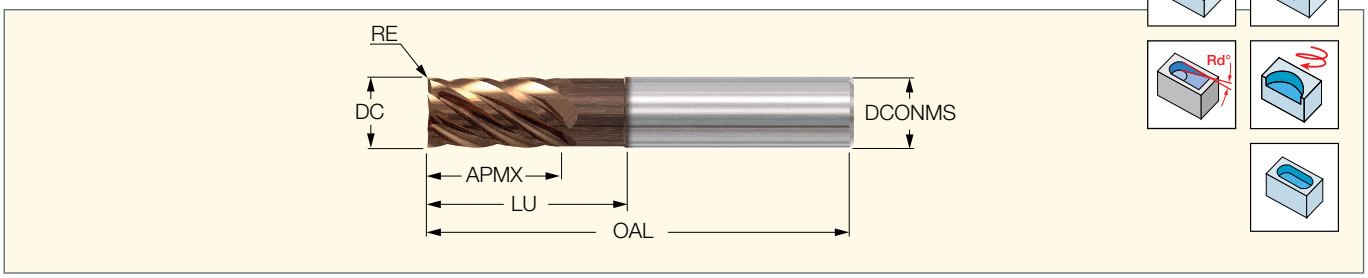


Designation	Dimensions								V910
	D_C	APMX	L_U	R_E	DCONMS	OAL	NOF[1]	Shank	
ECI-6 500-2C0VF4	.500	2.0000	2.0000	.0000	.500	4.000	6	C	•
ECI-6 500-2C015VF4	.500	2.0000	2.0000	.0150	.500	4.000	6	C	•
ECI-6 500-2C030VF4	.500	2.0000	2.0000	.0300	.500	4.000	6	C	•
ECI-6 500-2C060VF4	.500	2.0000	2.0000	.0600	.500	4.000	6	C	•
ECI-6 500-2C090VF4	.500	2.0000	2.0000	.0900	.500	4.000	6	C	•
ECI-6 500-2C125VF4	.500	2.0000	2.0000	.1250	.500	4.000	6	C	•
ECI-6 500-2.5C0VF5	.500	2.5000	2.5000	.0000	.500	5.000	6	C	•
ECI-6 500-2.5C015VF5	.500	2.5000	2.5000	.0150	.500	5.000	6	C	•
ECI-6 500-2.5C030VF5	.500	2.5000	2.5000	.0300	.500	5.000	6	C	•
ECI-6 500-2.5C060VF5	.500	2.5000	2.5000	.0600	.500	5.000	6	C	•
ECI-6 500-2.5C090VF5	.500	2.5000	2.5000	.0900	.500	5.000	6	C	•
ECI-6 500-2.5C125VF5	.500	2.5000	2.5000	.1250	.500	5.000	6	C	•
ECI-6 500-3.12C0VF6	.500	3.1250	3.1250	.0000	.500	6.000	6	C	•
ECI-6 500-3.12C015VF6	.500	3.1250	3.1250	.0150	.500	6.000	6	C	•
ECI-6 500-3.12C030VF6	.500	3.1250	3.1250	.0300	.500	6.000	6	C	•
ECI-6 500-3.12C060VF6	.500	3.1250	3.1250	.0600	.500	6.000	6	C	•
ECI-6 500-3.12C090VF6	.500	3.1250	3.1250	.0900	.500	6.000	6	C	•
ECI-6 500-3.12C125VF6	.500	3.1250	3.1250	.1250	.500	6.000	6	C	•
ECI-6 625-750C0VF3	.625	.7500	.7500	.0000	.625	3.000	6	C	•
ECI-6 625-750C015VF3	.625	.7500	.7500	.0150	.625	3.000	6	C	•
ECI-6 625-750C030VF3	.625	.7500	.7500	.0300	.625	3.000	6	C	•
ECI-6 625-750C060VF3	.625	.7500	.7500	.0600	.625	3.000	6	C	•
ECI-6 625-750C090VF3	.625	.7500	.7500	.0900	.625	3.000	6	C	•
ECI-6 625-750C125VF3	.625	.7500	.7500	.1250	.625	3.000	6	C	•
ECI-6 625-1/2C0VF4	.625	1.0000	2.0000	.0000	.625	4.000	6	C	•
ECI-6 625-1/2C015VF4	.625	1.0000	2.0000	.0150	.625	4.000	6	C	•
ECI-6 625-1/2C030VF4	.625	1.0000	2.0000	.0300	.625	4.000	6	C	•
ECI-6 625-1/2C060VF4	.625	1.0000	2.0000	.0600	.625	4.000	6	C	•
ECI-6 625-1/2C090VF4	.625	1.0000	2.0000	.0900	.625	4.000	6	C	•
ECI-6 625-1/2C125VF4	.625	1.0000	2.0000	.1250	.625	4.000	6	C	•
ECI-6 625-1/3C0VF5	.625	1.0000	3.0000	.0000	.625	5.000	6	C	•
ECI-6 625-1/3C015VF5	.625	1.0000	3.0000	.0150	.625	5.000	6	C	•
ECI-6 625-1/3C030VF5	.625	1.0000	3.0000	.0300	.625	5.000	6	C	•
ECI-6 625-1/3C060VF5	.625	1.0000	3.0000	.0600	.625	5.000	6	C	•
ECI-6 625-1/3C090VF5	.625	1.0000	3.0000	.0900	.625	5.000	6	C	•
ECI-6 625-1/3C125VF5	.625	1.0000	3.0000	.1250	.625	5.000	6	C	•
ECI-6 625-1/4C0VF6	.625	1.0000	4.0000	.0000	.625	6.000	6	C	•
ECI-6 625-1/4C015VF6	.625	1.0000	4.0000	.0150	.625	6.000	6	C	•
ECI-6 625-1/4C030VF6	.625	1.0000	4.0000	.0300	.625	6.000	6	C	•
ECI-6 625-1/4C060VF6	.625	1.0000	4.0000	.0600	.625	6.000	6	C	•
ECI-6 625-1/4C090VF6	.625	1.0000	4.0000	.0900	.625	6.000	6	C	•
ECI-6 625-1/4C125VF6	.625	1.0000	4.0000	.1250	.625	6.000	6	C	•
ECI-6 625-1.62C0VF3.5	.625	1.6250	1.6250	.0000	.625	3.500	6	C	•
ECI-6 625-1.62C015VF3.5	.625	1.6250	1.6250	.0150	.625	3.500	6	C	•
ECI-6 625-1.62C030VF3.5	.625	1.6250	1.6250	.0300	.625	3.500	6	C	•
ECI-6 625-1.62C060VF3.5	.625	1.6250	1.6250	.0600	.625	3.500	6	C	•
ECI-6 625-1.62C090VF3.5	.625	1.6250	1.6250	.0900	.625	3.500	6	C	•
ECI-6 625-1.62C125VF3.5	.625	1.6250	1.6250	.1250	.625	3.500	6	C	•
ECI-6 625-2.5C0VF5	.625	2.5000	2.5000	.0000	.625	5.000	6	C	•

[1] Number of flutes

ECI-6-VF (continued)

6 Flute Endmill With and Without Relieved Neck, Assorted Radii and Variable Pitch for Chatter Dampening

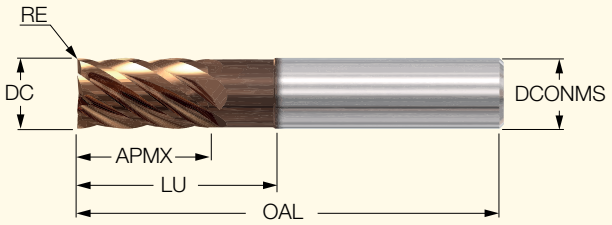


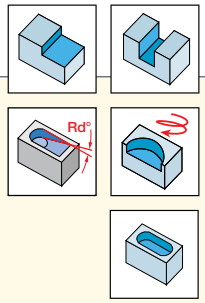
Designation	Dimensions								V910
	D_C	APMX	L_U	R_E	DCONMS	OAL	NOF[1]	Shank	
ECI-6 625-2.5C015VF5	.625	2.5000	2.5000	.0150	.625	5.000	6	C	•
ECI-6 625-2.5C030VF5	.625	2.5000	2.5000	.0300	.625	5.000	6	C	•
ECI-6 625-2.5C060VF5	.625	2.5000	2.5000	.0600	.625	5.000	6	C	•
ECI-6 625-2.5C090VF5	.625	2.5000	2.5000	.0900	.625	5.000	6	C	•
ECI-6 625-2.5C125VF5	.625	2.5000	2.5000	.1250	.625	5.000	6	C	•
ECI-6 625-3C0VF6	.625	3.0000	3.0000	.0000	.625	6.000	6	C	•
ECI-6 625-3C015VF6	.625	3.0000	3.0000	.0150	.625	6.000	6	C	•
ECI-6 625-3C030VF6	.625	3.0000	3.0000	.0300	.625	6.000	6	C	•
ECI-6 625-3C060VF6	.625	3.0000	3.0000	.0600	.625	6.000	6	C	•
ECI-6 625-3C090VF6	.625	3.0000	3.0000	.0900	.625	6.000	6	C	•
ECI-6 625-3C125VF6	.625	3.0000	3.0000	.1250	.625	6.000	6	C	•
ECI-6 750-1C0VF3	.750	1.0000	1.0000	.0000	.750	3.000	6	C	•
ECI-6 750-1C015VF3	.750	1.0000	1.0000	.0150	.750	3.000	6	C	•
ECI-6 750-1C030VF3	.750	1.0000	1.0000	.0300	.750	3.000	6	C	•
ECI-6 750-1C060VF3	.750	1.0000	1.0000	.0600	.750	3.000	6	C	•
ECI-6 750-1C090VF3	.750	1.0000	1.0000	.0900	.750	3.000	6	C	•
ECI-6 750-1C125VF3	.750	1.0000	1.0000	.1250	.750	3.000	6	C	•
ECI-6 750-1.25/2C0VF4	.750	1.2500	2.0000	.0000	.750	4.000	6	C	•
ECI-6 750-1.25/2C015VF4	.750	1.2500	2.0000	.0150	.750	4.000	6	C	•
ECI-6 750-1.25/2C030VF4	.750	1.2500	2.0000	.0300	.750	4.000	6	C	•
ECI-6 750-1.25/2C060VF4	.750	1.2500	2.0000	.0600	.750	4.000	6	C	•
ECI-6 750-1.25/2C090VF4	.750	1.2500	2.0000	.0900	.750	4.000	6	C	•
ECI-6 750-1.25/2C125VF4	.750	1.2500	2.0000	.1250	.750	4.000	6	C	•
ECI-6 750-1.25/3C0VF5	.750	1.2500	3.0000	.0000	.750	5.000	6	C	•
ECI-6 750-1.25/3C015VF5	.750	1.2500	3.0000	.0150	.750	5.000	6	C	•
ECI-6 750-1.25/3C030VF5	.750	1.2500	3.0000	.0300	.750	5.000	6	C	•
ECI-6 750-1.25/3C060VF5	.750	1.2500	3.0000	.0600	.750	5.000	6	C	•
ECI-6 750-1.25/3C090VF5	.750	1.2500	3.0000	.0900	.750	5.000	6	C	•
ECI-6 750-1.25/3C125VF5	.750	1.2500	3.0000	.1250	.750	5.000	6	C	•
ECI-6 750-1.25/4C0VF6	.750	1.2500	4.0000	.0000	.750	6.000	6	C	•
ECI-6 750-1.25/4C015VF6	.750	1.2500	4.0000	.0150	.750	6.000	6	C	•
ECI-6 750-1.25/4C030VF6	.750	1.2500	4.0000	.0300	.750	6.000	6	C	•
ECI-6 750-1.25/4C060VF6	.750	1.2500	4.0000	.0600	.750	6.000	6	C	•
ECI-6 750-1.25/4C090VF6	.750	1.2500	4.0000	.0900	.750	6.000	6	C	•
ECI-6 750-1.25/4C125VF6	.750	1.2500	4.0000	.1250	.750	6.000	6	C	•
ECI-6 750-1.62C0VF4	.750	1.6250	1.6250	.0000	.750	4.000	6	C	•
ECI-6 750-1.62C015VF4	.750	1.6250	1.6250	.0150	.750	4.000	6	C	•
ECI-6 750-1.62C030VF4	.750	1.6250	1.6250	.0300	.750	4.000	6	C	•
ECI-6 750-1.62C060VF4	.750	1.6250	1.6250	.0600	.750	4.000	6	C	•
ECI-6 750-1.62C090VF4	.750	1.6250	1.6250	.0900	.750	4.000	6	C	•
ECI-6 750-1.62C125VF4	.750	1.6250	1.6250	.1250	.750	4.000	6	C	•
ECI-6 750-2.25C0VF5	.750	2.2500	2.2500	.0000	.750	5.000	6	C	•
ECI-6 750-2.25C015VF5	.750	2.2500	2.2500	.0150	.750	5.000	6	C	•
ECI-6 750-2.25C030VF5	.750	2.2500	2.2500	.0300	.750	5.000	6	C	•
ECI-6 750-2.25C060VF5	.750	2.2500	2.2500	.0600	.750	5.000	6	C	•
ECI-6 750-2.25C090VF5	.750	2.2500	2.2500	.0900	.750	5.000	6	C	•
ECI-6 750-2.25C125VF5	.750	2.2500	2.2500	.1250	.750	5.000	6	C	•
ECI-6 750-3.25C0VF6	.750	3.2500	3.2500	.0000	.750	6.000	6	C	•
ECI-6 750-3.25C015VF6	.750	3.2500	3.2500	.0150	.750	6.000	6	C	•

[1] Number of flutes

ECI-6-VF (continued)

6 Flute Endmill With and Without Relieved Neck, Assorted Radii and Variable Pitch for Chatter Dampening



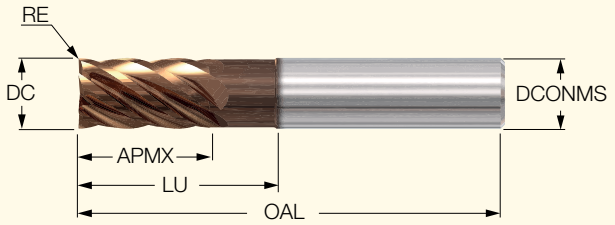


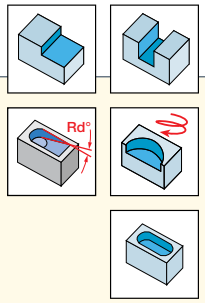
Designation	Dimensions								V910
	D_C	APMX	L_U	R_E	DCONMS	OAL	NOF[1]	Shank	
ECI-6 750-3.25C030VF6	.750	3.2500	3.2500	.0300	.750	6.000	6	C	•
ECI-6 750-3.25C060VF6	.750	3.2500	3.2500	.0600	.750	6.000	6	C	•
ECI-6 750-3.25C090VF6	.750	3.2500	3.2500	.0900	.750	6.000	6	C	•
ECI-6 750-3.25C125VF6	.750	3.2500	3.2500	.1250	.750	6.000	6	C	•
ECI-6 750-4.12C0VF7	.750	4.1250	4.1250	.0000	.750	7.000	6	C	•
ECI-6 750-4.12C015VF7	.750	4.1250	4.1250	.0150	.750	7.000	6	C	•
ECI-6 750-4.12C030VF7	.750	4.1250	4.1250	.0300	.750	7.000	6	C	•
ECI-6 750-4.12C060VF7	.750	4.1250	4.1250	.0600	.750	7.000	6	C	•
ECI-6 750-4.12C090VF7	.750	4.1250	4.1250	.0900	.750	7.000	6	C	•
ECI-6 750-4.12C125VF7	.750	4.1250	4.1250	.1250	.750	7.000	6	C	•
ECI-6 1-1.5/3C0VF5	1.000	1.5000	3.0000	.0000	1.000	5.000	6	C	•
ECI-6 1-1.5/3C015VF5	1.000	1.5000	3.0000	.0150	1.000	5.000	6	C	•
ECI-6 1-1.5/3C030VF5	1.000	1.5000	3.0000	.0300	1.000	5.000	6	C	•
ECI-6 1-1.5/3C060VF5	1.000	1.5000	3.0000	.0600	1.000	5.000	6	C	•
ECI-6 1-1.5/3C090VF5	1.000	1.5000	3.0000	.0900	1.000	5.000	6	C	•
ECI-6 1-1.5/3C125VF5	1.000	1.5000	3.0000	.1250	1.000	5.000	6	C	•
ECI-6 1-1.5/4C0VF6	1.000	1.5000	4.0000	.0000	1.000	6.000	6	C	•
ECI-6 1-1.5/4C015VF6	1.000	1.5000	4.0000	.0150	1.000	6.000	6	C	•
ECI-6 1-1.5/4C030VF6	1.000	1.5000	4.0000	.0300	1.000	6.000	6	C	•
ECI-6 1-1.5/4C060VF6	1.000	1.5000	4.0000	.0600	1.000	6.000	6	C	•
ECI-6 1-1.5/4C090VF6	1.000	1.5000	4.0000	.0900	1.000	6.000	6	C	•
ECI-6 1-1.5/4C125VF6	1.000	1.5000	4.0000	.1250	1.000	6.000	6	C	•
ECI-6 1-1.5/5C0VF7	1.000	1.5000	5.0000	.0000	1.000	7.000	6	C	•
ECI-6 1-1.5/5C015VF7	1.000	1.5000	5.0000	.0150	1.000	7.000	6	C	•
ECI-6 1-1.5/5C030VF7	1.000	1.5000	5.0000	.0300	1.000	7.000	6	C	•
ECI-6 1-1.5/5C060VF7	1.000	1.5000	5.0000	.0600	1.000	7.000	6	C	•
ECI-6 1-1.5/5C090VF7	1.000	1.5000	5.0000	.0900	1.000	7.000	6	C	•
ECI-6 1-1.5/5C125VF7	1.000	1.5000	5.0000	.1250	1.000	7.000	6	C	•
ECI-6 1-1.5C0VF4	1.000	1.5000	1.5000	.0000	1.000	4.000	6	C	•
ECI-6 1-1.5C015VF4	1.000	1.5000	1.5000	.0150	1.000	4.000	6	C	•
ECI-6 1-1.5C030VF4	1.000	1.5000	1.5000	.0300	1.000	4.000	6	C	•
ECI-6 1-1.5C060VF4	1.000	1.5000	1.5000	.0600	1.000	4.000	6	C	•
ECI-6 1-1.5C090VF4	1.000	1.5000	1.5000	.0900	1.000	4.000	6	C	•
ECI-6 1-1.5C125VF4	1.000	1.5000	1.5000	.1250	1.000	4.000	6	C	•
ECI-6 1-2C0VF4.5	1.000	2.0000	2.0000	.0000	1.000	4.500	6	C	•
ECI-6 1-2C015VF4.5	1.000	2.0000	2.0000	.0150	1.000	4.500	6	C	•
ECI-6 1-2C030VF4.5	1.000	2.0000	2.0000	.0300	1.000	4.500	6	C	•
ECI-6 1-2C060VF4.5	1.000	2.0000	2.0000	.0600	1.000	4.500	6	C	•
ECI-6 1-2C090VF4.5	1.000	2.0000	2.0000	.0900	1.000	4.500	6	C	•
ECI-6 1-2C125VF4.5	1.000	2.0000	2.0000	.1250	1.000	4.500	6	C	•
ECI-6 1-2.25C0VF5	1.000	2.2500	2.2500	.0000	1.000	5.000	6	C	•
ECI-6 1-2.25C015VF5	1.000	2.2500	2.2500	.0150	1.000	5.000	6	C	•
ECI-6 1-2.25C030VF5	1.000	2.2500	2.2500	.0300	1.000	5.000	6	C	•
ECI-6 1-2.25C060VF5	1.000	2.2500	2.2500	.0600	1.000	5.000	6	C	•
ECI-6 1-2.25C090VF5	1.000	2.2500	2.2500	.0900	1.000	5.000	6	C	•
ECI-6 1-2.25C125VF5	1.000	2.2500	2.2500	.1250	1.000	5.000	6	C	•
ECI-6 1-3.25C0VF6	1.000	3.2500	3.2500	.0000	1.000	6.000	6	C	•
ECI-6 1-3.25C015VF6	1.000	3.2500	3.2500	.0150	1.000	6.000	6	C	•

[1] Number of flutes

ECI-6-VF (continued)

6 Flute Endmill With and Without Relieved Neck, Assorted Radii and Variable Pitch for Chatter Dampening





Designation	Dimensions								V910
	D_C	APMX	L_U	R_E	DCONMS	OAL	NOF[1]	Shank	
ECI-6 1-3.25C030VF6	1.000	3.2500	3.2500	.0300	1.000	6.000	6	C	•
ECI-6 1-3.25C060VF6	1.000	3.2500	3.2500	.0600	1.000	6.000	6	C	•
ECI-6 1-3.25C090VF6	1.000	3.2500	3.2500	.0900	1.000	6.000	6	C	•
ECI-6 1-3.25C125VF6	1.000	3.2500	3.2500	.1250	1.000	6.000	6	C	•
ECI-6 1-4.12C0VF7	1.000	4.1250	4.1250	.0000	1.000	7.000	6	C	•
ECI-6 1-4.12C015VF7	1.000	4.1250	4.1250	.0150	1.000	7.000	6	C	•
ECI-6 1-4.12C030VF7	1.000	4.1250	4.1250	.0300	1.000	7.000	6	C	•
ECI-6 1-4.12C060VF7	1.000	4.1250	4.1250	.0600	1.000	7.000	6	C	•
ECI-6 1-4.12C090VF7	1.000	4.1250	4.1250	.0900	1.000	7.000	6	C	•
ECI-6 1-4.12C125VF7	1.000	4.1250	4.1250	.1250	1.000	7.000	6	C	•

[1] Number of flutes

Roughing

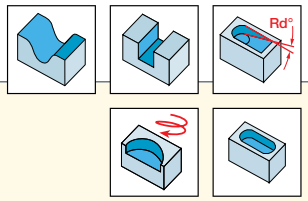
ISO	Material No.	Material		Condition	Cutting Speed Recommendations V_c (SFM)	Hardness HB	Cutting Diameter Feed (IPT)								Roughing	
							3/16	1/4	5/16	3/8	1/2	5/8	3/4	1	a_p	a_e
P	1	Non-alloy steel and cast steel, free cutting steel	<.25%C	Annealed	890-960	125	.0008-.0015	.001-.002	.0013-.0025	.0015-.003	.002-.004	.0025-.005	.003-.006	.004-.008	3xD	.12xD
P	2	Non-alloy steel and cast steel, free cutting steel	>=.25%C	Annealed	710-815	190	.0008-.0015	.001-.002	.0013-.0025	.0015-.003	.002-.004	.0025-.005	.003-.006	.004-.008	3xD	.12xD
P	3	Non-alloy steel and cast steel, free cutting steel	<.55%C	Quenched & tempered	570-780	250	.0008-.0015	.001-.002	.0013-.0025	.0015-.003	.002-.004	.0025-.005	.003-.006	.004-.008	3xD	.12xD
P	4	Non-alloy steel and cast steel, free cutting steel	>=.55%C	Annealed	570-780	220	.0008-.0015	.001-.002	.0013-.0025	.0015-.003	.002-.004	.0025-.005	.003-.006	.004-.008	3xD	.12xD
P	5	Non-alloy steel and cast steel, free cutting steel	>=.55%C	Quenched & tempered	500-635	300	.0008-.0015	.001-.002	.0013-.0025	.0015-.003	.002-.004	.0025-.005	.003-.006	.004-.008	3xD	.12xD
P	6	Low alloy & cast steel (less than 5% of alloying elements)		Annealed	570-780	200	.0007-.0014	.001-.0019	.0013-.0023	.0014-.0028	.002-.0038	.0026-.0046	.0028-.0056	.004-.0076	3xD	.10xD
P	7	Low alloy & cast steel (less than 5% of alloying elements)		Quenched & tempered	425-635	275	.0007-.0014	.001-.0019	.0013-.0023	.0014-.0028	.002-.0038	.0026-.0046	.0028-.0056	.004-.0076	3xD	.10xD
P	8	Low alloy & cast steel (less than 5% of alloying elements)		Quenched & tempered	450-635	300	.0007-.0014	.001-.0019	.0013-.0023	.0014-.0028	.002-.0038	.0026-.0046	.0028-.0056	.004-.0076	3xD	.10xD
P	9	Low alloy & cast steel (less than 5% of alloying elements)		Quenched & tempered	500-635	350	.0007-.0014	.001-.0019	.0013-.0023	.0014-.0028	.002-.0038	.0026-.0046	.0028-.0056	.004-.0076	3xD	.10xD
P	10	High alloyed steel, cast steel and tool steel		Annealed	450-635	200	.0007-.0014	.001-.0019	.0013-.0023	.0014-.0028	.002-.0038	.0026-.0046	.0028-.0056	.004-.0076	3xD	.10xD
P	11	High alloyed steel, cast steel and tool steel		Quenched & tempered	240-425	325	.0009-.0016	.0012-.0022	.0015-.0028	.0018-.0032	.0024-.0044	.003-.0056	.0036-.0064	.0048-.0088	3xD	.07xD
P	12	Stainless steel and cast steel		Ferritic/ martensitic	280-570	200	.0009-.0016	.0012-.0022	.0015-.0028	.0018-.0032	.0024-.0044	.003-.0056	.0036-.0064	.0048-.0088	3xD	.07xD
P	13	Stainless steel and cast steel		Martensitic	210-530	240	.0009-.0016	.0012-.0022	.0015-.0028	.0018-.0032	.0024-.0044	.003-.0056	.0036-.0064	.0048-.0088	3xD	.07xD
M	14	Stainless steel and cast steel		Austenitic	210-425	180	.0008-.0015	.0011-.0021	.0013-.0025	.0016-.003	.0022-.0042	.0025-.005	.0032-.006	.0044-.0084	3xD	.08xD
K	15	Grey cast iron (GG)		Pearlitic/ ferritic	280-890	180	.0007-.0014	.001-.0019	.0013-.0023	.0014-.0028	.002-.0038	.0026-.0046	.0028-.0056	.004-.0076	3xD	.10xD
K	16	Grey cast iron (GG)		Pearlitic/ martensitic	450-850	260	.0007-.0014	.001-.0019	.0013-.0023	.0014-.0028	.002-.0038	.0026-.0046	.0028-.0056	.004-.0076	3xD	.10xD
K	17	Nodular cast iron (GGG)		Ferritic	530-960	160	.0007-.0014	.001-.0019	.0013-.0023	.0014-.0028	.002-.0038	.0026-.0046	.0028-.0056	.004-.0076	3xD	.10xD
K	18	Nodular cast iron (GGG)		Pearlitic	530-960	250	.0007-.0014	.001-.0019	.0013-.0023	.0014-.0028	.002-.0038	.0026-.0046	.0028-.0056	.004-.0076	3xD	.10xD
K	19	Malleable cast iron		Ferritic	530-960	130	.0007-.0014	.001-.0019	.0013-.0023	.0014-.0028	.002-.0038	.0026-.0046	.0028-.0056	.004-.0076	3xD	.10xD
K	20	Malleable cast iron		Pearlitic	500-850	230	.0007-.0014	.001-.0019	.0013-.0023	.0014-.0028	.002-.0038	.0026-.0046	.0028-.0056	.004-.0076	3xD	.10xD
S	31	High temp. alloys	Fe based	Annealed	125-200	200	.0009-.0016	.0012-.0022	.0015-.0028	.0018-.0032	.0024-.0044	.003-.0056	.0036-.0064	.0048-.0088	3xD	.07xD
S	32	High temp. alloys	Fe based	Cured	125-200	280	.0009-.0016	.0012-.0022	.0015-.0028	.0018-.0032	.0024-.0044	.003-.0056	.0036-.0064	.0048-.0088	3xD	.07xD
S	33	High temp. alloys	Ni or Co based	Annealed	70-125	250	.001-.0018	.0013-.0024	.0013-.0025	.002-.0036	.0026-.0048	.0025-.005	.004-.0072	.0052-.0096	3xD	.06xD
S	34	High temp. alloys	Ni or Co based	Cured	70-125	350	.001-.0018	.0013-.0024	.0013-.0025	.002-.0036	.0026-.0048	.0025-.005	.004-.0072	.0052-.0096	3xD	.06xD
S	35	High temp. alloys	Ni or Co based	Cast	70-125	320	.001-.0018	.0013-.0024	.0013-.0025	.002-.0036	.0026-.0048	.0025-.005	.004-.0072	.0052-.0096	3xD	.06xD
S	36	Titanium Ti alloys		Pure	325	310	.001-.0018	.0013-.0024	.0013-.0025	.002-.0036	.0026-.0048	.0025-.005	.004-.0072	.0052-.0096	3xD	.06xD
S	37	Titanium Ti alloys		Alpha + beta alloys cured	165-325	310	.0007-.0014	.001-.0019	.0013-.0023	.0014-.0028	.002-.0038	.0026-.0046	.0028-.0056	.004-.0076	3xD	.10xD
H	38	Hardened steel		Hardened	110-210	55 HRC	.0012-.0021	.0016-.0029	.002-.0036	.0024-.0042	.0032-.0058	.004-.0072	.0048-.0084	.0064-.0116	3xD	.04xD
H	39	Hardened steel		Hardened	110-145	60 HRC	.0016-.003	.0022-.004	.0028-.005	.0032-.006	.0044-.008	.0056-.010	.0064-.012	.0088-.016	3xD	.02xD
H	40	Chilledcastiron		Cast	250-320	400	.001-.0019	.0014-.0026	.0018-.0032	.002-.0038	.0028-.0052	.0036-.0064	.004-.0076	.0056-.0104	3xD	.05xD
H	41	Cast iron		Hardened	110-210	55 HRC	.0012-.0021	.0016-.0029	.002-.0036	.0024-.0042	.0032-.0058	.004-.0072	.0048-.0084	.0064-.0116	3xD	.04xD

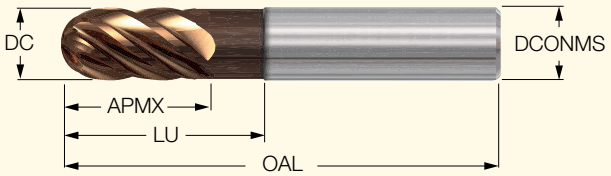
Finishing

ISO	Material No.	Material		Condition	Cutting Speed Recommendations V_c (SFM)	Hardness HB	Cutting Diameter Feed (IPT)								Finishing	
							3/16	1/4	5/16	3/8	1/2	5/8	3/4	1	a_p	a_e
P	1	Non-alloy steel and cast steel, free cutting steel	<.25%C	Annealed	1020-1100	125	.0017	.0022	.0028	.0033	.0044	.0055	.0066	.0088	Full	.02xD
	2		>=.25%C	Annealed	820-940	190	.0017	.0022	.0028	.0033	.0044	.0055	.0066	.0088	Full	.02xD
	3		<.55%C	Quench and tempered	650-890	250	.0017	.0022	.0028	.0033	.0044	.0055	.0066	.0088	Full	.02xD
	4		>=.55%C	Annealed	650-890	220	.0017	.0022	.0028	.0033	.0044	.0055	.0066	.0088	Full	.02xD
	5		>=.55%C	Quenched & tempered	570-730	300	.0017	.0022	.0028	.0033	.0044	.0055	.0066	.0088	Full	.02xD
	6	Low alloy & cast steel (less than 5% of alloying elements)		Annealed	650-890	200	.0017	.0022	.0028	.0033	.0044	.0055	.0066	.0088	Full	.02xD
	7			Quenched & tempered	490-730	275	.0017	.0022	.0028	.0033	.0044	.0055	.0066	.0088	Full	.02xD
	8			Quenched & tempered	520-730	300	.0017	.0022	.0028	.0033	.0044	.0055	.0066	.0088	Full	.02xD
	9			Quenched & tempered	570-730	350	.0017	.0022	.0028	.0033	.0044	.0055	.0066	.0088	Full	.02xD
	10	High alloyed steel, cast steel and tool steel		Annealed	520-730	200	.0017	.0022	.0028	.0033	.0044	.0055	.0066	.0088	Full	.02xD
	11			Quenched & tempered	280-490	325	.0017	.0022	.0028	.0033	.0044	.0055	.0066	.0088	Full	.02xD
	12	Stainless steel and cast steel		Ferritic/ martensitic	320-650	200	.0017	.0022	.0028	.0033	.0044	.0055	.0066	.0088	Full	.02xD
	13			Martensitic	240-610	240	.0017	.0022	.0028	.0033	.0044	.0055	.0066	.0088	Full	.02xD
M	14	Stainless steel and cast steel		Austenitic	240-490	180	.0017	.0022	.0028	.0033	.0044	.0055	.0066	.0088	Full	.02xD
K	15	Grey cast iron (GG)		Pearlitic/ferritic	320-1020	180	.0017	.0022	.0028	.0033	.0044	.0055	.0066	.0088	Full	.02xD
	16			Pearlitic/ martensitic	520-980	260	.0017	.0022	.0028	.0033	.0044	.0055	.0066	.0088	Full	.02xD
	17	Nodular cast iron (GGG)		Ferritic	610-1100	160	.0017	.0022	.0028	.0033	.0044	.0055	.0066	.0088	Full	.02xD
	18			Pearlitic	610-1100	250	.0017	.0022	.0028	.0033	.0044	.0055	.0066	.0088	Full	.02xD
	19	Malleable cast iron		Ferritic	610-1100	130	.0017	.0022	.0028	.0033	.0044	.0055	.0066	.0088	Full	.02xD
	20			Pearlitic	570-980	230	.0017	.0022	.0028	.0033	.0044	.0055	.0066	.0088	Full	.02xD
S	31	High temp. alloys	Fe based	Annealed	80-160	200	.0017	.0022	.0028	.0033	.0044	.0055	.0066	.0088	Full	.02xD
	32			Cured	80-120	280	.0017	.0022	.0028	.0033	.0044	.0055	.0066	.0088	Full	.02xD
	33		Ni or Co based	Annealed	80-120	250	.0017	.0022	.0028	.0033	.0044	.0055	.0066	.0088	Full	.02xD
	34			Cured	80-120	350	.0017	.0022	.0028	.0033	.0044	.0055	.0066	.0088	Full	.02xD
	35			Cast	80-120	320	.0017	.0022	.0028	.0033	.0044	.0055	.0066	.0088	Full	.02xD
	36	Titanium Ti alloys		Pure	120-390	310	.0017	.0022	.0028	.0033	.0044	.0055	.0066	.0088	Full	.02xD
	37			Alpha + beta alloys cured	300-390	310	.0017	.0022	.0028	.0033	.0044	.0055	.0066	.0088	Full	.02xD
H	38	Hardened steel		Hardened	120-240	55HRC	.0017	.0022	.0028	.0033	.0044	.0055	.0066	.0088	Full	.02xD
	39			Hardened	120-160	60HRC	.0017	.0022	.0028	.0033	.0044	.0055	.0066	.0088	Full	.02xD
	40	Chilledcastiron		Cast	290-370	400	.0017	.0022	.0028	.0033	.0044	.0055	.0066	.0088	Full	.02xD
	41	Cast iron		Hardened	120-240	55HRC	.0017	.0022	.0028	.0033	.0044	.0055	.0066	.0088	Full	.02xD

EBI-6-VF

6 Flute, Ball Nose Endmills With and Without Relieved Necks





Designation	Dimensions								V910
	D_C	APMX	L_U	R_E	DCONMS	OAL	NOF[1]	Shank	
EBI-6 250-500C125VF2	.250	.5000	.5000	.1250	.250	2.000	6	C	•
EBI-6 250-500/2.13C125VF4	.250	.5000	2.1300	.1250	.250	4.000	6	C	•
EBI-6 250-750C125VF2.5	.250	.7500	.7500	.1250	.250	2.500	6	C	•
EBI-6 250-1C125VF3	.250	1.0000	1.0000	.1250	.250	3.000	6	C	•
EBI-6 312-500C156VF2	.312	.5000	.5000	.1560	.312	2.000	6	C	•
EBI-6 312-875C156VF2.5	.312	.8750	.8750	.1560	.312	2.500	6	C	•
EBI-6 312-1C156VF3	.312	1.0000	1.0000	.1560	.312	3.000	6	C	•
EBI-6 312-1.5C156VF4	.312	1.5000	1.5000	.1560	.312	4.000	6	C	•
EBI-6 375-500C188VF2	.375	.5000	.5000	.1880	.375	2.000	6	C	•
EBI-6 375-750/2.13C188VF4	.375	.7500	2.1300	.1880	.375	4.000	6	C	•
EBI-6 375-1C188VF2.5	.375	1.0000	1.0000	.1880	.375	2.500	6	C	•
EBI-6 375-1C188VF3	.375	1.0000	1.0000	.1880	.375	3.000	6	C	•
EBI-6 375-1.5C188VF4	.375	1.5000	1.5000	.1880	.375	4.000	6	C	•
EBI-6 500-625C250VF2.5	.500	.6250	.6250	.2500	.500	2.500	6	C	•
EBI-6 500-875/1.38C250VF3	.500	.8750	1.3800	.2500	.500	3.000	6	C	•
EBI-6 500-875/2.13C250VF4	.500	.8750	2.1300	.2500	.500	4.000	6	C	•
EBI-6 500-875/3.13C250VF5	.500	.8750	3.1300	.2500	.500	5.000	6	C	•
EBI-6 500-875/4.13C250VF6	.500	.8750	4.1300	.2500	.500	6.000	6	C	•
EBI-6 500-1.25C250VF3	.500	1.2500	1.2500	.2500	.500	3.000	6	C	•
EBI-6 500-1.62C250VF4	.500	1.6250	1.6250	.2500	.500	4.000	6	C	•
EBI-6 500-2C250VF4	.500	2.0000	2.0000	.2500	.500	4.000	6	C	•
EBI-6 500-2.5C250VF5	.500	2.5000	2.5000	.2500	.500	5.000	6	C	•
EBI-6 500-3.12C250VF6	.500	3.1200	3.1250	.2500	.500	6.000	6	C	•
EBI-6 625-750C313VF3	.625	.7500	.7500	.3130	.625	3.000	6	C	•
EBI-6 625-1/2C313VF4	.625	1.0000	2.0000	.3130	.625	4.000	6	C	•
EBI-6 625-1/3C313VF5	.625	1.0000	3.0000	.3130	.625	5.000	6	C	•
EBI-6 625-1/4C313VF6	.625	1.0000	4.0000	.3130	.625	6.000	6	C	•
EBI-6 625-1.62C313VF3.5	.625	1.6250	1.6250	.3130	.625	3.500	6	C	•
EBI-6 625-2.5C313VF5	.625	2.5000	2.5000	.3130	.625	5.000	6	C	•
EBI-6 625-3C313VF6	.625	3.0000	3.0000	.3130	.625	6.000	6	C	•
EBI-6 750-1C375VF3	.750	1.0000	1.0000	.3750	.750	3.000	6	C	•
EBI-6 750-1.25C375VF4	.750	1.2500	2.0000	.3750	.750	4.000	6	C	•
EBI-6 750-1.25C375VF5	.750	1.2500	3.0000	.3750	.750	5.000	6	C	•
EBI-6 750-1.25C375VF6	.750	1.2500	4.0000	.3750	.750	6.000	6	C	•
EBI-6 750-1.62C375VF4	.750	1.6250	1.6250	.3750	.750	4.000	6	C	•
EBI-6 750-2.25C375VF5	.750	2.2500	2.2500	.3750	.750	5.000	6	C	•
EBI-6 750-3.25C375VF6	.750	3.2500	3.2500	.3750	.750	6.000	6	C	•
EBI-6 750-4.12C375VF7	.750	4.1250	4.1250	.3750	.750	7.000	6	C	•
EBI-6 1-1.5C500VF4	1.000	1.5000	1.5000	.5000	1.000	4.000	6	C	•
EBI-6 1-1.5C500VF5	1.000	1.5000	3.0000	.5000	1.000	5.000	6	C	•
EBI-6 1-1.5C500VF6	1.000	1.5000	4.0000	.5000	1.000	6.000	6	C	•
EBI-6 1-1.5C500VF7	1.000	1.5000	5.0000	.5000	1.000	7.000	6	C	•
EBI-6 1-2C500VF4.5	1.000	2.0000	2.0000	.5000	1.000	4.500	6	C	•
EBI-6 1-2.25C500VF5	1.000	2.2500	2.2500	.5000	1.000	5.000	6	C	•
EBI-6 1-3.25C500VF6	1.000	3.2500	3.2500	.5000	1.000	6.000	6	C	•
EBI-6 1-4.12C500VF7	1.000	4.1250	4.1250	.5000	1.000	7.000	6	C	•

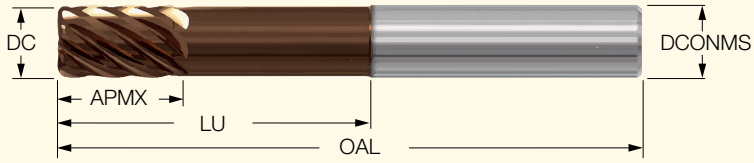
[1] Number of flutes

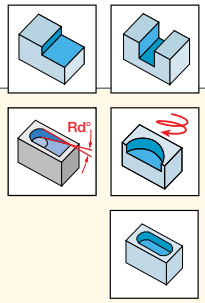
Semi-Finish

ISO	Material No.	Material		Condition	Cutting Speed Recommendations Vc (SFM)	Hardness HB	Cutting Diameter Feed (IPT)								Profiling Radial	
							3/16	1/4	5/16	3/8	1/2	5/8	3/4	1	ap	ae
P	1	Non-alloy steel and cast steel, free cutting steel	<0.25%C	Annealed	1020-1100	125	0.001	0.002	0.002	0.003	0.003	0.004	0.004	0.005	2XD	.05xD
	2		>=0.25%C	Annealed	820-940	190	0.001	0.002	0.002	0.003	0.003	0.004	0.004	0.005	2XD	.05xD
	3		<0.55%C	Quench and tempered	650-890	250	0.001	0.002	0.002	0.003	0.003	0.004	0.004	0.005	2XD	.05xD
	4		>=0.55%C	Annealed	650-890	220	0.001	0.002	0.002	0.003	0.003	0.004	0.004	0.005	2XD	.05xD
	5		>=0.55%C	Quenched & tempered	570-730	300	0.001	0.002	0.002	0.003	0.003	0.004	0.004	0.005	2XD	.05xD
	6	Low alloy & cast steel (less than 5% of alloying elements)		Annealed	650-890	200	0.001	0.002	0.002	0.003	0.003	0.004	0.004	0.005	2XD	.05xD
	7			Quenched & tempered	490-730	275	0.001	0.002	0.002	0.002	0.003	0.003	0.004	0.004	2XD	.05xD
	8			Quenched & tempered	520-730	300	0.001	0.002	0.002	0.002	0.003	0.003	0.004	0.004	2XD	.05xD
	9			Quenched & tempered	570-730	350	0.001	0.002	0.002	0.002	0.003	0.003	0.004	0.004	2XD	.05xD
	10	High alloyed steel, cast steel and tool steel		Annealed	520-730	200	0.001	0.001	0.002	0.002	0.003	0.003	0.003	0.003	2XD	.05xD
	11			Quenched & tempered	280-490	325	0.001	0.001	0.002	0.002	0.003	0.003	0.003	0.003	2XD	.05xD
	12	Stainless steel and cast steel		Ferritic/ martensitic	320-650	200	0.001	0.001	0.002	0.002	0.002	0.003	0.003	0.004	2XD	.05xD
	13			Martensitic	240-610	240	0.001	0.001	0.001	0.001	0.002	0.002	0.003	0.003	2XD	.05xD
M	14	Stainless steel and cast steel		Austenitic	240-490	180	0.001	0.002	0.002	0.002	0.003	0.003	0.003	0.004	2XD	.05xD
K	15	Grey cast iron (GG)		Pearlitic/ ferritic	320-1020	180	0.001	0.002	0.003	0.003	0.003	0.004	0.004	0.005	2XD	.05xD
	16			Pearlitic/ martensitic	520-980	260	0.001	0.002	0.003	0.003	0.003	0.004	0.004	0.005	2XD	.05xD
	17	Nodular cast iron (GGG)		Ferritic	610-1100	160	0.001	0.002	0.002	0.002	0.003	0.003	0.004	0.005	2XD	.05xD
	18			Pearlitic	610-1100	250	0.001	0.002	0.002	0.002	0.003	0.003	0.004	0.005	2XD	.05xD
	19	Malleable cast iron		Ferritic	610-1100	130	0.001	0.002	0.002	0.002	0.003	0.003	0.004	0.005	2XD	.05xD
	20			Pearlitic	570-980	230	0.001	0.002	0.002	0.002	0.003	0.003	0.004	0.005	2XD	.05xD
S	31	High temp. alloys	Fe based	Annealed	80-160	200	0.001	0.002	0.002	0.003	0.003	0.003	0.004	0.005	2XD	.05xD
	32			Cured	80-120	280	0.001	0.002	0.002	0.003	0.003	0.003	0.004	0.005	2XD	.05xD
	33		Ni or Co based	Annealed	80-120	250	0.001	0.001	0.001	0.002	0.002	0.002	0.002	0.002	2XD	.05xD
	34			Cured	80-120	350	0.001	0.001	0.001	0.002	0.002	0.002	0.002	0.002	2XD	.05xD
	35			Cast	80-120	320	0.001	0.001	0.001	0.002	0.002	0.002	0.002	0.002	2XD	.05xD
	36	Titanium Ti alloys		Pure	120-320	310	0.001	0.001	0.001	0.002	0.002	0.003	0.003	0.003	2XD	.05xD
	37			Alpha+beta alloys cured	90-320	310	0.001	0.001	0.001	0.002	0.002	0.003	0.003	0.003	2XD	.05xD
H	38	Hardened steel		Hardened	120-240	55 HRC	0.001	0.001	0.002	0.002	0.002	0.003	0.003	0.004	2XD	.05xD
	39			Hardened	120-160	60 HRC	0.001	0.001	0.002	0.002	0.002	0.003	0.003	0.004	2XD	.05xD
	40	Chilled cast iron		Cast	290-370	400	0.001	0.001	0.002	0.002	0.002	0.003	0.003	0.004	2XD	.05xD
	41	Cast iron		Hardened	120-240	55 HRC	0.001	0.001	0.002	0.002	0.002	0.003	0.003	0.004	2XD	.05xD

ECI-7-VF

7 Flute Endmill With and Without Relieved Neck, Assorted Radii and Variable Pitch for Chatter Dampening

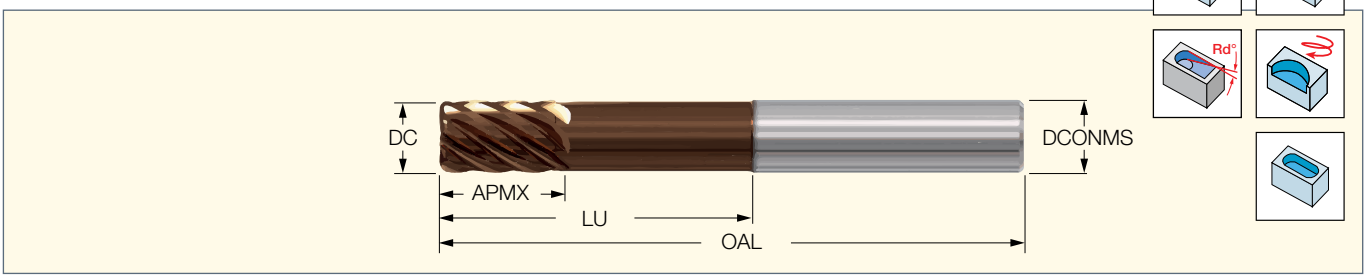




Designation	Dimensions								V910
	D_C	APMX	L_U	R_E	DCONMS	OAL	NOF	Shank	
ECI-7 250-500/1.25C0VF3	.250	.5000	1.2500	.0000	.250	3.000	7	C	•
ECI-7 250-500/1.25C015VF3	.250	.5000	1.2500	.0150	.250	3.000	7	C	•
ECI-7 250-500/1.25C030VF3	.250	.5000	1.2500	.0300	.250	3.000	7	C	•
ECI-7 250-500/1.25C060VF3	.250	.5000	1.2500	.0600	.250	3.000	7	C	•
ECI-7 250-500/2.13C0VF4	.250	.5000	2.1250	.0000	.250	4.000	7	C	•
ECI-7 250-500/2.13C015VF4	.250	.5000	2.1250	.0150	.250	4.000	7	C	•
ECI-7 250-500/2.13C030VF4	.250	.5000	2.1250	.0300	.250	4.000	7	C	•
ECI-7 250-500/2.13C060VF4	.250	.5000	2.1250	.0600	.250	4.000	7	C	•
ECI-7 250-500C0VF2	.250	.5000	.5000	.0000	.250	2.000	7	C	•
ECI-7 250-500C015VF2	.250	.5000	.5000	.0150	.250	2.000	7	C	•
ECI-7 250-500C030VF2	.250	.5000	.5000	.0300	.250	2.000	7	C	•
ECI-7 250-500C060VF2	.250	.5000	.5000	.0600	.250	2.000	7	C	•
ECI-7 250-750C0VF2.5	.250	.7500	.7500	.0000	.250	2.500	7	C	•
ECI-7 250-750C015VF2.5	.250	.7500	.7500	.0150	.250	2.500	7	C	•
ECI-7 250-750C030VF2.5	.250	.7500	.7500	.0300	.250	2.500	7	C	•
ECI-7 250-750C060VF2.5	.250	.7500	.7500	.0600	.250	2.500	7	C	•
ECI-7 250-1.0C0VF3	.250	1.0000	1.0000	.0000	.250	3.000	7	C	•
ECI-7 250-1.0C015VF3	.250	1.0000	1.0000	.0150	.250	3.000	7	C	•
ECI-7 250-1.0C030VF3	.250	1.0000	1.0000	.0300	.250	3.000	7	C	•
ECI-7 250-1.0C060VF3	.250	1.0000	1.0000	.0600	.250	3.000	7	C	•
ECI-7 250-1.25C0VF4	.250	1.2500	1.2500	.0000	.250	4.000	7	C	•
ECI-7 250-1.25C015VF4	.250	1.2500	1.2500	.0150	.250	4.000	7	C	•
ECI-7 250-1.25C030VF4	.250	1.2500	1.2500	.0300	.250	4.000	7	C	•
ECI-7 250-1.25C060VF4	.250	1.2500	1.2500	.0600	.250	4.000	7	C	•
ECI-7 312-500C0VF2	.312	.5000	.5000	.0000	.312	2.000	7	C	•
ECI-7 312-500C015VF2	.312	.5000	.5000	.0150	.312	2.000	7	C	•
ECI-7 312-500C030VF2	.312	.5000	.5000	.0300	.312	2.000	7	C	•
ECI-7 312-500C060VF2	.312	.5000	.5000	.0600	.312	2.000	7	C	•
ECI-7 312-875C0VF2.5	.312	.8750	.8750	.0000	.312	2.500	7	C	•
ECI-7 312-875C015VF2.5	.312	.8750	.8750	.0150	.312	2.500	7	C	•
ECI-7 312-875C030VF2.5	.312	.8750	.8750	.0300	.312	2.500	7	C	•
ECI-7 312-875C060VF2.5	.312	.8750	.8750	.0600	.312	2.500	7	C	•
ECI-7 312-1.0C0VF3	.312	1.0000	1.0000	.0000	.312	3.000	7	C	•
ECI-7 312-1.0C015VF3	.312	1.0000	1.0000	.0150	.312	3.000	7	C	•
ECI-7 312-1.0C030VF3	.312	1.0000	1.0000	.0300	.312	3.000	7	C	•
ECI-7 312-1.0C060VF3	.312	1.0000	1.0000	.0600	.312	3.000	7	C	•
ECI-7 312-1.25C0VF4	.312	1.2500	1.2500	.0000	.312	4.000	7	C	•
ECI-7 312-1.25C015VF4	.312	1.2500	1.2500	.0150	.312	4.000	7	C	•
ECI-7 312-1.25C030VF4	.312	1.2500	1.2500	.0300	.312	4.000	7	C	•
ECI-7 312-1.25C060VF4	.312	1.2500	1.2500	.0600	.312	4.000	7	C	•
ECI-7 375-500C0VF2	.375	.5000	.5000	.0000	.375	2.000	7	C	•
ECI-7 375-500C015VF2	.375	.5000	.5000	.0150	.375	2.000	7	C	•
ECI-7 375-500C030VF2	.375	.5000	.5000	.0300	.375	2.000	7	C	•
ECI-7 375-500C060VF2	.375	.5000	.5000	.0600	.375	2.000	7	C	•
ECI-7 375-750/1.25C0VF3	.375	.7500	1.2500	.0000	.375	3.000	7	C	•
ECI-7 375-750/1.25C015VF3	.375	.7500	1.2500	.0150	.375	3.000	7	C	•
ECI-7 375-750/1.25C030VF3	.375	.7500	1.2500	.0300	.375	3.000	7	C	•
ECI-7 375-750/1.25C060VF3	.375	.7500	1.2500	.0600	.375	3.000	7	C	•
ECI-7 375-750/2.13C0VF4	.375	.7500	2.1250	.0000	.375	4.000	7	C	•

ECI-7-VF (continued)

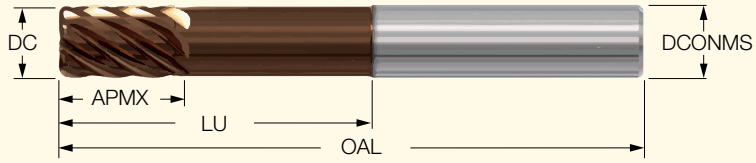
7 Flute Endmill With and Without Relieved Neck, Assorted Radii and Variable Pitch for Chatter Dampening

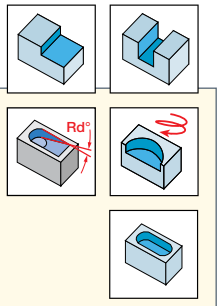


Designation	Dimensions								V910
	D_C	APMX	L_U	R_E	DCONMS	OAL	NOF	Shank	
ECI-7 375-750/2.13C015VF4	.375	.7500	2.1250	.0150	.375	4.000	7	C	•
ECI-7 375-750/2.13C030VF4	.375	.7500	2.1250	.0300	.375	4.000	7	C	•
ECI-7 375-750/2.13C060VF4	.375	.7500	2.1250	.0600	.375	4.000	7	C	•
ECI-7 375-1.0C0VF2.5	.375	1.0000	1.0000	.0000	.375	2.500	7	C	•
ECI-7 375-1.0C0VF3	.375	1.0000	1.0000	.0000	.375	3.000	7	C	•
ECI-7 375-1.0C015VF2.5	.375	1.0000	1.0000	.0150	.375	2.500	7	C	•
ECI-7 375-1.0C015VF3	.375	1.0000	1.0000	.0150	.375	3.000	7	C	•
ECI-7 375-1.0C030VF2.5	.375	1.0000	1.0000	.0300	.375	2.500	7	C	•
ECI-7 375-1.0C030VF3	.375	1.0000	1.0000	.0300	.375	3.000	7	C	•
ECI-7 375-1.0C060VF2.5	.375	1.0000	1.0000	.0600	.375	2.500	7	C	•
ECI-7 375-1.0C060VF3	.375	1.0000	1.0000	.0600	.375	3.000	7	C	•
ECI-7 375-1.5C0VF4	.375	1.5000	1.5000	.0000	.375	4.000	7	C	•
ECI-7 375-1.5C015VF4	.375	1.5000	1.5000	.0150	.375	4.000	7	C	•
ECI-7 375-1.5C030VF4	.375	1.5000	1.5000	.0300	.375	4.000	7	C	•
ECI-7 375-1.5C060VF4	.375	1.5000	1.5000	.0600	.375	4.000	7	C	•
ECI-7 437-1.0C0VF2.75	.437	1.0000	1.0000	.0000	.437	2.750	7	C	•
ECI-7 437-1.0C015VF2.75	.437	1.0000	1.0000	.0150	.437	2.750	7	C	•
ECI-7 437-1.0C030VF2.75	.437	1.0000	1.0000	.0300	.437	2.750	7	C	•
ECI-7 437-1.0C060VF2.75	.437	1.0000	1.0000	.0600	.437	2.750	7	C	•
ECI-7 437-2.0C0VF4	.437	2.0000	2.0000	.0000	.437	4.000	7	C	•
ECI-7 437-2.0C015VF4	.437	2.0000	2.0000	.0150	.437	4.000	7	C	•
ECI-7 437-2.0C030VF4	.437	2.0000	2.0000	.0300	.437	4.000	7	C	•
ECI-7 437-2.0C060VF4	.437	2.0000	2.0000	.0600	.437	4.000	7	C	•
ECI-7 500-625C0VF2.5	.500	.6250	.6250	.0000	.500	2.500	7	C	•
ECI-7 500-625C015VF2.5	.500	.6250	.6250	.0150	.500	2.500	7	C	•
ECI-7 500-625C030VF2.5	.500	.6250	.6250	.0300	.500	2.500	7	C	•
ECI-7 500-625C060VF2.5	.500	.6250	.6250	.0600	.500	2.500	7	C	•
ECI-7 500-625C090VF2.5	.500	.6250	.6250	.0900	.500	2.500	7	C	•
ECI-7 500-625C125VF2.5	.500	.6250	.6250	.1250	.500	2.500	7	C	•
ECI-7 500-875/1.38C0VF3	.500	.8750	1.3750	.0000	.500	3.000	7	C	•
ECI-7 500-875/1.38C015VF3	.500	.8750	1.3750	.0150	.500	3.000	7	C	•
ECI-7 500-875/1.38C030VF3	.500	.8750	1.3750	.0300	.500	3.000	7	C	•
ECI-7 500-875/1.38C060VF3	.500	.8750	1.3750	.0600	.500	3.000	7	C	•
ECI-7 500-875/1.38C090VF3	.500	.8750	1.3750	.0900	.500	3.000	7	C	•
ECI-7 500-875/1.38C125VF3	.500	.8750	1.3750	.1250	.500	3.000	7	C	•
ECI-7 500-875/2.13C0VF4	.500	.8750	2.1250	.0000	.500	4.000	7	C	•
ECI-7 500-875/2.13C015VF4	.500	.8750	2.1250	.0150	.500	4.000	7	C	•
ECI-7 500-875/2.13C030VF4	.500	.8750	2.1250	.0300	.500	4.000	7	C	•
ECI-7 500-875/2.13C060VF4	.500	.8750	2.1250	.0600	.500	4.000	7	C	•
ECI-7 500-875/2.13C090VF4	.500	.8750	2.1250	.0900	.500	4.000	7	C	•
ECI-7 500-875/2.13C125VF4	.500	.8750	2.1250	.1250	.500	4.000	7	C	•
ECI-7 500-875/3.13C0VF5	.500	.8750	3.1250	.0000	.500	5.000	7	C	•
ECI-7 500-875/3.13C015VF5	.500	.8750	3.1250	.0150	.500	5.000	7	C	•
ECI-7 500-875/3.13C030VF5	.500	.8750	3.1250	.0300	.500	5.000	7	C	•
ECI-7 500-875/3.13C060VF5	.500	.8750	3.1250	.0600	.500	5.000	7	C	•
ECI-7 500-875/3.13C090VF5	.500	.8750	3.1250	.0900	.500	5.000	7	C	•
ECI-7 500-875/3.13C125VF5	.500	.8750	3.1250	.1250	.500	5.000	7	C	•
ECI-7 500-875/4.13C0VF6	.500	.8750	4.1250	.0000	.500	6.000	7	C	•
ECI-7 500-875/4.13C015VF6	.500	.8750	4.1250	.0150	.500	6.000	7	C	•

ECI-7-VF (continued)

7 Flute Endmill With and Without Relieved Neck, Assorted Radii and Variable Pitch for Chatter Dampening

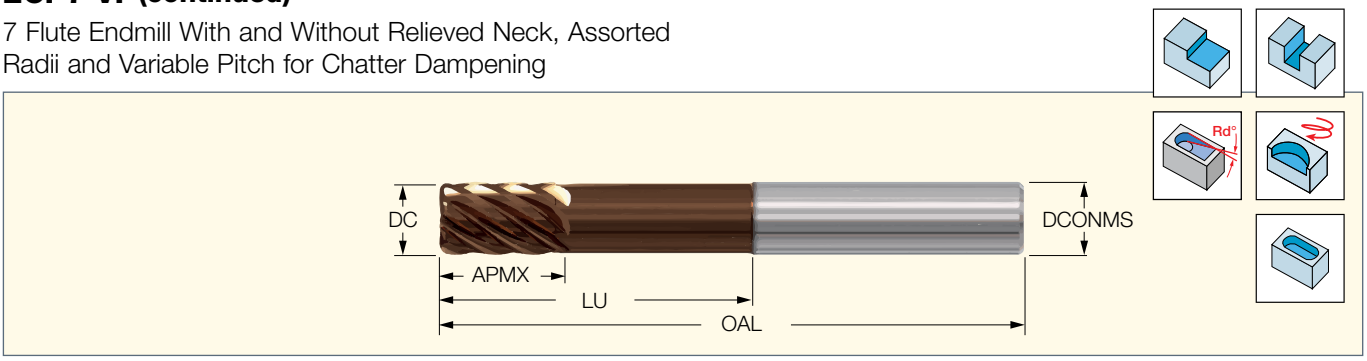




Designation	Dimensions								V910
	D_C	APMX	L_U	R_E	DCONMS	OAL	NOF	Shank	
ECI-7 500-875/4.13C030VF6	.500	.8750	4.1250	.0300	.500	6.000	7	C	•
ECI-7 500-875/4.13C060VF6	.500	.8750	4.1250	.0600	.500	6.000	7	C	•
ECI-7 500-875/4.13C090VF6	.500	.8750	4.1250	.0900	.500	6.000	7	C	•
ECI-7 500-875/4.13C125VF6	.500	.8750	4.1250	.1250	.500	6.000	7	C	•
ECI-7 500-1.25C0VF3	.500	1.2500	1.2500	.0000	.500	3.000	7	C	•
ECI-7 500-1.25C015VF3	.500	1.2500	1.2500	.0150	.500	3.000	7	C	•
ECI-7 500-1.25C030VF3	.500	1.2500	1.2500	.0300	.500	3.000	7	C	•
ECI-7 500-1.25C060VF3	.500	1.2500	1.2500	.0600	.500	3.000	7	C	•
ECI-7 500-1.25C090VF3	.500	1.2500	1.2500	.0900	.500	3.000	7	C	•
ECI-7 500-1.25C125VF3	.500	1.2500	1.2500	.1250	.500	3.000	7	C	•
ECI-7 500-2.0C0VF4	.500	2.0000	2.0000	.0000	.500	4.000	7	C	•
ECI-7 500-2.0C015VF4	.500	2.0000	2.0000	.0150	.500	4.000	7	C	•
ECI-7 500-2.0C030VF4	.500	2.0000	2.0000	.0300	.500	4.000	7	C	•
ECI-7 500-2.0C060VF4	.500	2.0000	2.0000	.0600	.500	4.000	7	C	•
ECI-7 500-2.0C090VF4	.500	2.0000	2.0000	.0900	.500	4.000	7	C	•
ECI-7 500-2.0C125VF4	.500	2.0000	2.0000	.1250	.500	4.000	7	C	•
ECI-7 500-2.5C0VF5	.500	2.5000	2.5000	.0000	.500	5.000	7	C	•
ECI-7 500-2.5C015VF5	.500	2.5000	2.5000	.0150	.500	5.000	7	C	•
ECI-7 500-2.5C030VF5	.500	2.5000	2.5000	.0300	.500	5.000	7	C	•
ECI-7 500-2.5C060VF5	.500	2.5000	2.5000	.0600	.500	5.000	7	C	•
ECI-7 500-2.5C090VF5	.500	2.5000	2.5000	.0900	.500	5.000	7	C	•
ECI-7 500-2.5C125VF5	.500	2.5000	2.5000	.1250	.500	5.000	7	C	•
ECI-7 500-3.13C0VF6	.500	3.1250	3.1250	.0000	.500	6.000	7	C	•
ECI-7 500-3.13C015VF6	.500	3.1250	3.1250	.0150	.500	6.000	7	C	•
ECI-7 500-3.13C030VF6	.500	3.1250	3.1250	.0300	.500	6.000	7	C	•
ECI-7 500-3.13C060VF6	.500	3.1250	3.1250	.0600	.500	6.000	7	C	•
ECI-7 500-3.13C090VF6	.500	3.1250	3.1250	.0900	.500	6.000	7	C	•
ECI-7 500-3.13C125VF6	.500	3.1250	3.1250	.1250	.500	6.000	7	C	•
ECI-7 625-750C0VF3	.625	.7500	.7500	.0000	.625	3.000	7	C	•
ECI-7 625-750C015VF3	.625	.7500	.7500	.0150	.625	3.000	7	C	•
ECI-7 625-750C030VF3	.625	.7500	.7500	.0300	.625	3.000	7	C	•
ECI-7 625-750C060VF3	.625	.7500	.7500	.0600	.625	3.000	7	C	•
ECI-7 625-750C090VF3	.625	.7500	.7500	.0900	.625	3.000	7	C	•
ECI-7 625-750C125VF3	.625	.7500	.7500	.1250	.625	3.000	7	C	•
ECI-7 625-1.0/2.0C0VF4	.625	1.0000	2.0000	.0000	.625	4.000	7	C	•
ECI-7 625-1.0/2.0C015VF4	.625	1.0000	2.0000	.0150	.625	4.000	7	C	•
ECI-7 625-1.0/2.0C030VF4	.625	1.0000	2.0000	.0300	.625	4.000	7	C	•
ECI-7 625-1.0/2.0C060VF4	.625	1.0000	2.0000	.0600	.625	4.000	7	C	•
ECI-7 625-1.0/2.0C090VF4	.625	1.0000	2.0000	.0900	.625	4.000	7	C	•
ECI-7 625-1.0/2.0C125VF4	.625	1.0000	2.0000	.1250	.625	4.000	7	C	•
ECI-7 625-1.0/3.0C0VF5	.625	1.0000	3.0000	.0000	.625	5.000	7	C	•
ECI-7 625-1.0/3.0C015VF5	.625	1.0000	3.0000	.0150	.625	5.000	7	C	•
ECI-7 625-1.0/3.0C030VF5	.625	1.0000	3.0000	.0300	.625	5.000	7	C	•
ECI-7 625-1.0/3.0C060VF5	.625	1.0000	3.0000	.0600	.625	5.000	7	C	•
ECI-7 625-1.0/3.0C090VF5	.625	1.0000	3.0000	.0900	.625	5.000	7	C	•
ECI-7 625-1.0/3.0C125VF5	.625	1.0000	3.0000	.1250	.625	5.000	7	C	•
ECI-7 625-1.0/4.0C0VF6	.625	1.0000	4.0000	.0000	.625	6.000	7	C	•
ECI-7 625-1.0/4.0C015VF6	.625	1.0000	4.0000	.0150	.625	6.000	7	C	•
ECI-7 625-1.0/4.0C030VF6	.625	1.0000	4.0000	.0300	.625	6.000	7	C	•

ECI-7-VF (continued)

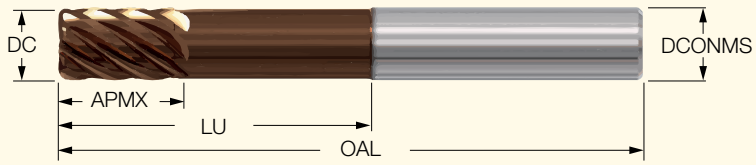
7 Flute Endmill With and Without Relieved Neck, Assorted Radii and Variable Pitch for Chatter Dampening

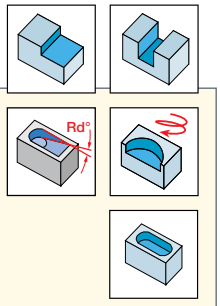


Designation	Dimensions								V910
	D_C	APMX	L_U	R_E	DCONMS	OAL	NOF	Shank	
ECI-7 625-1.0/4.0C060VF6	.625	1.0000	4.0000	.0600	.625	6.000	7	C	•
ECI-7 625-1.0/4.0C090VF6	.625	1.0000	4.0000	.0900	.625	6.000	7	C	•
ECI-7 625-1.0/4.0C125VF6	.625	1.0000	4.0000	.1250	.625	6.000	7	C	•
ECI-7 625-1.63C0VF3.5	.625	1.6250	1.6250	.0000	.625	3.500	7	C	•
ECI-7 625-1.63C015VF3.5	.625	1.6250	1.6250	.0150	.625	3.500	7	C	•
ECI-7 625-1.63C030VF3.5	.625	1.6250	1.6250	.0300	.625	3.500	7	C	•
ECI-7 625-1.63C060VF3.5	.625	1.6250	1.6250	.0600	.625	3.500	7	C	•
ECI-7 625-1.63C090VF3.5	.625	1.6250	1.6250	.0900	.625	3.500	7	C	•
ECI-7 625-1.63C125VF3.5	.625	1.6250	1.6250	.1250	.625	3.500	7	C	•
ECI-7 625-2.5C0VF5	.625	2.5000	2.5000	.0000	.625	5.000	7	C	•
ECI-7 625-2.5C015VF5	.625	2.5000	2.5000	.0150	.625	5.000	7	C	•
ECI-7 625-2.5C030VF5	.625	2.5000	2.5000	.0300	.625	5.000	7	C	•
ECI-7 625-2.5C060VF5	.625	2.5000	2.5000	.0600	.625	5.000	7	C	•
ECI-7 625-2.5C090VF5	.625	2.5000	2.5000	.0900	.625	5.000	7	C	•
ECI-7 625-2.5C125VF5	.625	2.5000	2.5000	.1250	.625	5.000	7	C	•
ECI-7 625-3.0C0VF6	.625	3.0000	3.0000	.0000	.625	6.000	7	C	•
ECI-7 625-3.0C015VF6	.625	3.0000	3.0000	.0150	.625	6.000	7	C	•
ECI-7 625-3.0C030VF6	.625	3.0000	3.0000	.0300	.625	6.000	7	C	•
ECI-7 625-3.0C060VF6	.625	3.0000	3.0000	.0600	.625	6.000	7	C	•
ECI-7 625-3.0C090VF6	.625	3.0000	3.0000	.0900	.625	6.000	7	C	•
ECI-7 625-3.0C125VF6	.625	3.0000	3.0000	.1250	.625	6.000	7	C	•
ECI-7 750-1.0C0VF3	.750	1.0000	1.0000	.0000	.750	3.000	7	C	•
ECI-7 750-1.0C015VF3	.750	1.0000	1.0000	.0150	.750	3.000	7	C	•
ECI-7 750-1.0C030VF3	.750	1.0000	1.0000	.0300	.750	3.000	7	C	•
ECI-7 750-1.0C060VF3	.750	1.0000	1.0000	.0600	.750	3.000	7	C	•
ECI-7 750-1.0C090VF3	.750	1.0000	1.0000	.0900	.750	3.000	7	C	•
ECI-7 750-1.0C125VF3	.750	1.0000	1.0000	.1250	.750	3.000	7	C	•
ECI-7 750-1.25/2.0C0VF4	.750	1.2500	2.0000	.0000	.750	4.000	7	C	•
ECI-7 750-1.25/2.0C015VF4	.750	1.2500	2.0000	.0150	.750	4.000	7	C	•
ECI-7 750-1.25/2.0C030VF4	.750	1.2500	2.0000	.0300	.750	4.000	7	C	•
ECI-7 750-1.25/2.0C060VF4	.750	1.2500	2.0000	.0600	.750	4.000	7	C	•
ECI-7 750-1.25/2.0C090VF4	.750	1.2500	2.0000	.0900	.750	4.000	7	C	•
ECI-7 750-1.25/2.0C125VF4	.750	1.2500	2.0000	.1250	.750	4.000	7	C	•
ECI-7 750-1.25/3.0C0VF5	.750	1.2500	3.0000	.0000	.750	5.000	7	C	•
ECI-7 750-1.25/3.0C015VF5	.750	1.2500	3.0000	.0150	.750	5.000	7	C	•
ECI-7 750-1.25/3.0C030VF5	.750	1.2500	3.0000	.0300	.750	5.000	7	C	•
ECI-7 750-1.25/3.0C060VF5	.750	1.2500	3.0000	.0600	.750	5.000	7	C	•
ECI-7 750-1.25/3.0C090VF5	.750	1.2500	3.0000	.0900	.750	5.000	7	C	•
ECI-7 750-1.25/3.0C125VF5	.750	1.2500	3.0000	.1250	.750	5.000	7	C	•
ECI-7 750-1.25/4.0C0VF6	.750	1.2500	4.0000	.0000	.750	6.000	7	C	•
ECI-7 750-1.25/4.0C015VF6	.750	1.2500	4.0000	.0150	.750	6.000	7	C	•
ECI-7 750-1.25/4.0C030VF6	.750	1.2500	4.0000	.0300	.750	6.000	7	C	•
ECI-7 750-1.25/4.0C060VF6	.750	1.2500	4.0000	.0600	.750	6.000	7	C	•
ECI-7 750-1.25/4.0C090VF6	.750	1.2500	4.0000	.0900	.750	6.000	7	C	•
ECI-7 750-1.25/4.0C125VF6	.750	1.2500	4.0000	.1250	.750	6.000	7	C	•
ECI-7 750-1.63C0VF4	.750	1.6250	1.6250	.0000	.750	4.000	7	C	•
ECI-7 750-1.63C015VF4	.750	1.6250	1.6250	.0150	.750	4.000	7	C	•
ECI-7 750-1.63C030VF4	.750	1.6250	1.6250	.0300	.750	4.000	7	C	•
ECI-7 750-1.63C060VF4	.750	1.6250	1.6250	.0600	.750	4.000	7	C	•
ECI-7 750-1.63C090VF4	.750	1.6250	1.6250	.0900	.750	4.000	7	C	•

ECI-7-VF (continued)

7 Flute Endmill With and Without Relieved Neck, Assorted Radii and Variable Pitch for Chatter Dampening

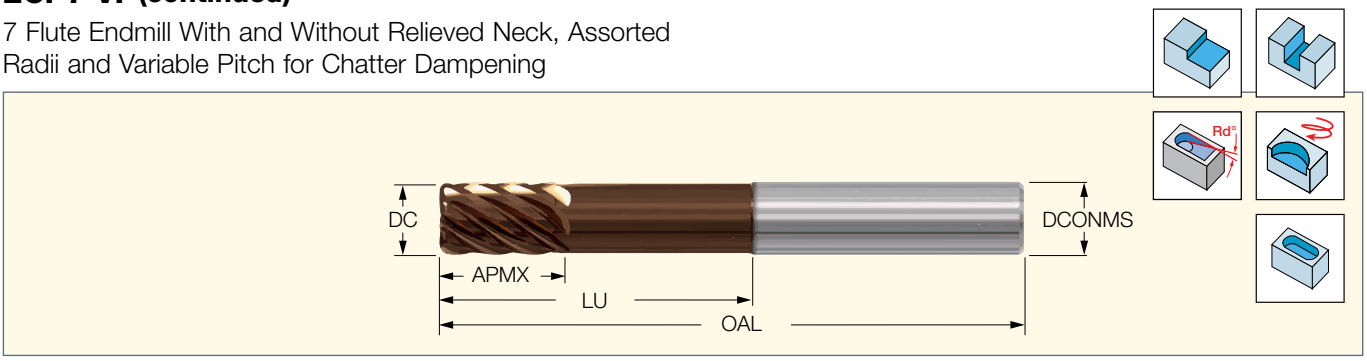




Designation	Dimensions								V910
	D_C	APMX	L_U	R_E	DCONMS	OAL	NOF	Shank	
ECI-7 750-1.63C125VF4	.750	1.6250	1.6250	.1250	.750	4.000	7	C	•
ECI-7 750-2.25C0VF5	.750	2.2500	2.2500	.0000	.750	5.000	7	C	•
ECI-7 750-2.25C015VF5	.750	2.2500	2.2500	.0150	.750	5.000	7	C	•
ECI-7 750-2.25C030VF5	.750	2.2500	2.2500	.0300	.750	5.000	7	C	•
ECI-7 750-2.25C060VF5	.750	2.2500	2.2500	.0600	.750	5.000	7	C	•
ECI-7 750-2.25C090VF5	.750	2.2500	2.2500	.0900	.750	5.000	7	C	•
ECI-7 750-2.25C125VF5	.750	2.2500	2.2500	.1250	.750	5.000	7	C	•
ECI-7 750-3.25C0VF6	.750	3.2500	3.2500	.0000	.750	6.000	7	C	•
ECI-7 750-3.25C015VF6	.750	3.2500	3.2500	.0150	.750	6.000	7	C	•
ECI-7 750-3.25C030VF6	.750	3.2500	3.2500	.0300	.750	6.000	7	C	•
ECI-7 750-3.25C060VF6	.750	3.2500	3.2500	.0600	.750	6.000	7	C	•
ECI-7 750-3.25C090VF6	.750	3.2500	3.2500	.0900	.750	6.000	7	C	•
ECI-7 750-3.25C125VF6	.750	3.2500	3.2500	.1250	.750	6.000	7	C	•
ECI-7 750-4.0C0VF7	.750	4.0000	4.0000	.0000	.750	7.000	7	C	•
ECI-7 750-4.0C015VF7	.750	4.0000	4.0000	.0150	.750	7.000	7	C	•
ECI-7 750-4.0C030VF7	.750	4.0000	4.0000	.0300	.750	7.000	7	C	•
ECI-7 750-4.0C060VF7	.750	4.0000	4.0000	.0600	.750	7.000	7	C	•
ECI-7 750-4.0C090VF7	.750	4.0000	4.0000	.0900	.750	7.000	7	C	•
ECI-7 750-4.0C125VF7	.750	4.0000	4.0000	.1250	.750	7.000	7	C	•
ECI-7 1.0-1.25C0VF4	1.000	1.2500	1.2500	.0000	1.000	4.000	7	C	•
ECI-7 1.0-1.25C015VF4	1.000	1.2500	1.2500	.0150	1.000	4.000	7	C	•
ECI-7 1.0-1.25C030VF4	1.000	1.2500	1.2500	.0300	1.000	4.000	7	C	•
ECI-7 1.0-1.25C060VF4	1.000	1.2500	1.2500	.0600	1.000	4.000	7	C	•
ECI-7 1.0-1.25C090VF4	1.000	1.2500	1.2500	.0900	1.000	4.000	7	C	•
ECI-7 1.0-1.25C125VF4	1.000	1.2500	1.2500	.1250	1.000	4.000	7	C	•
ECI-7 1.0-1.5/3.0C0VF5	1.000	1.5000	3.0000	.0000	1.000	5.000	7	C	•
ECI-7 1.0-1.5/3.0C015VF5	1.000	1.5000	3.0000	.0150	1.000	5.000	7	C	•
ECI-7 1.0-1.5/3.0C030VF5	1.000	1.5000	3.0000	.0300	1.000	5.000	7	C	•
ECI-7 1.0-1.5/3.0C060VF5	1.000	1.5000	3.0000	.0600	1.000	5.000	7	C	•
ECI-7 1.0-1.5/3.0C090VF5	1.000	1.5000	3.0000	.0900	1.000	5.000	7	C	•
ECI-7 1.0-1.5/3.0C125VF5	1.000	1.5000	3.0000	.1250	1.000	5.000	7	C	•
ECI-7 1.0-1.5/4.0C0VF6	1.000	1.5000	4.0000	.0000	1.000	6.000	7	C	•
ECI-7 1.0-1.5/4.0C015VF6	1.000	1.5000	4.0000	.0150	1.000	6.000	7	C	•
ECI-7 1.0-1.5/4.0C030VF6	1.000	1.5000	4.0000	.0300	1.000	6.000	7	C	•
ECI-7 1.0-1.5/4.0C060VF6	1.000	1.5000	4.0000	.0600	1.000	6.000	7	C	•
ECI-7 1.0-1.5/4.0C090VF6	1.000	1.5000	4.0000	.0900	1.000	6.000	7	C	•
ECI-7 1.0-1.5/4.0C125VF6	1.000	1.5000	4.0000	.1250	1.000	6.000	7	C	•
ECI-7 1.0-1.5/5.0C0VF7	1.000	1.5000	5.0000	.0000	1.000	7.000	7	C	•
ECI-7 1.0-1.5/5.0C015VF7	1.000	1.5000	5.0000	.0150	1.000	7.000	7	C	•
ECI-7 1.0-1.5/5.0C030VF7	1.000	1.5000	5.0000	.0300	1.000	7.000	7	C	•
ECI-7 1.0-1.5/5.0C060VF7	1.000	1.5000	5.0000	.0600	1.000	7.000	7	C	•
ECI-7 1.0-1.5/5.0C090VF7	1.000	1.5000	5.0000	.0900	1.000	7.000	7	C	•
ECI-7 1.0-1.5/5.0C125VF7	1.000	1.5000	5.0000	.1250	1.000	7.000	7	C	•
ECI-7 1.0-2.0C0VF4.5	1.000	2.0000	2.0000	.0000	1.000	4.500	7	C	•
ECI-7 1.0-2.0C015VF4.5	1.000	2.0000	2.0000	.0150	1.000	4.500	7	C	•
ECI-7 1.0-2.0C030VF4.5	1.000	2.0000	2.0000	.0300	1.000	4.500	7	C	•
ECI-7 1.0-2.0C060VF4.5	1.000	2.0000	2.0000	.0600	1.000	4.500	7	C	•
ECI-7 1.0-2.0C090VF4.5	1.000	2.0000	2.0000	.0900	1.000	4.500	7	C	•
ECI-7 1.0-2.0C125VF4.5	1.000	2.0000	2.0000	.1250	1.000	4.500	7	C	•

ECI-7-VF (continued)

7 Flute Endmill With and Without Relieved Neck, Assorted Radii and Variable Pitch for Chatter Dampening



Designation	Dimensions								V910
	D_C	APMX	L_U	R_E	DCONMS	OAL	NOF	Shank	
ECI-7 1.0-2.25C0VF5	1.000	2.2500	2.2500	.0000	1.000	5.000	7	C	•
ECI-7 1.0-2.25C015VF5	1.000	2.2500	2.2500	.0150	1.000	5.000	7	C	•
ECI-7 1.0-2.25C030VF5	1.000	2.2500	2.2500	.0300	1.000	5.000	7	C	•
ECI-7 1.0-2.25C060VF5	1.000	2.2500	2.2500	.0600	1.000	5.000	7	C	•
ECI-7 1.0-2.25C090VF5	1.000	2.2500	2.2500	.0900	1.000	5.000	7	C	•
ECI-7 1.0-2.25C125VF5	1.000	2.2500	2.2500	.1250	1.000	5.000	7	C	•
ECI-7 1.0-2.63C0VF6	1.000	2.6250	2.6250	.0000	1.000	6.000	7	C	•
ECI-7 1.0-2.63C015VF6	1.000	2.6250	2.6250	.0150	1.000	6.000	7	C	•
ECI-7 1.0-2.63C030VF6	1.000	2.6250	2.6250	.0300	1.000	6.000	7	C	•
ECI-7 1.0-2.63C060VF6	1.000	2.6250	2.6250	.0600	1.000	6.000	7	C	•
ECI-7 1.0-2.63C090VF6	1.000	2.6250	2.6250	.0900	1.000	6.000	7	C	•
ECI-7 1.0-2.63C125VF6	1.000	2.6250	2.6250	.1250	1.000	6.000	7	C	•
ECI-7 1.0-3.25C0VF6	1.000	3.2500	3.2500	.0000	1.000	6.000	7	C	•
ECI-7 1.0-3.25C015VF6	1.000	3.2500	3.2500	.0150	1.000	6.000	7	C	•
ECI-7 1.0-3.25C030VF6	1.000	3.2500	3.2500	.0300	1.000	6.000	7	C	•
ECI-7 1.0-3.25C060VF6	1.000	3.2500	3.2500	.0600	1.000	6.000	7	C	•
ECI-7 1.0-3.25C090VF6	1.000	3.2500	3.2500	.0900	1.000	6.000	7	C	•
ECI-7 1.0-3.25C125VF6	1.000	3.2500	3.2500	.1250	1.000	6.000	7	C	•
ECI-7 1.0-4.13C0VF7	1.000	4.1250	4.1250	.0000	1.000	7.000	7	C	•
ECI-7 1.0-4.13C015VF7	1.000	4.1250	4.1250	.0150	1.000	7.000	7	C	•
ECI-7 1.0-4.13C030VF7	1.000	4.1250	4.1250	.0300	1.000	7.000	7	C	•
ECI-7 1.0-4.13C060VF7	1.000	4.1250	4.1250	.0600	1.000	7.000	7	C	•
ECI-7 1.0-4.13C090VF7	1.000	4.1250	4.1250	.0900	1.000	7.000	7	C	•
ECI-7 1.0-4.13C125VF7	1.000	4.1250	4.1250	.1250	1.000	7.000	7	C	•
ECI-7 1.25-2.0C0VF4.5	1.250	2.0000	2.0000	.0000	1.250	4.500	7	C	•
ECI-7 1.25-2.0C015VF4.5	1.250	2.0000	2.0000	.0150	1.250	4.500	7	C	•
ECI-7 1.25-2.0C030VF4.5	1.250	2.0000	2.0000	.0300	1.250	4.500	7	C	•
ECI-7 1.25-2.0C060VF4.5	1.250	2.0000	2.0000	.0600	1.250	4.500	7	C	•
ECI-7 1.25-2.0C090VF4.5	1.250	2.0000	2.0000	.0900	1.250	4.500	7	C	•
ECI-7 1.25-2.0C125VF4.5	1.250	2.0000	2.0000	.1250	1.250	4.500	7	C	•
ECI-7 1.25-3.0C0VF6	1.250	3.0000	3.0000	.0000	1.250	6.000	7	C	•
ECI-7 1.25-3.0C015VF6	1.250	3.0000	3.0000	.0150	1.250	6.000	7	C	•
ECI-7 1.25-3.0C015VF8	1.250	3.0000	3.0000	.0150	1.250	8.000	7	C	•
ECI-7 1.25-3.0C030VF6	1.250	3.0000	3.0000	.0300	1.250	6.000	7	C	•
ECI-7 1.25-3.0C030VF8	1.250	3.0000	3.0000	.0300	1.250	8.000	7	C	•
ECI-7 1.25-3.0C060VF6	1.250	3.0000	3.0000	.0600	1.250	6.000	7	C	•
ECI-7 1.25-3.0C060VF8	1.250	3.0000	3.0000	.0600	1.250	8.000	7	C	•
ECI-7 1.25-3.0C090VF6	1.250	3.0000	3.0000	.0900	1.250	6.000	7	C	•
ECI-7 1.25-3.0C090VF8	1.250	3.0000	3.0000	.0900	1.250	8.000	7	C	•
ECI-7 1.25-3.0C125VF6	1.250	3.0000	3.0000	.1250	1.250	6.000	7	C	•
ECI-7 1.25-3.0C125VF8	1.250	3.0000	3.0000	.1250	1.250	8.000	7	C	•
ECI-7 1.25-5.0C0VF8	1.250	5.0000	5.0000	.0000	1.250	8.000	7	C	•

Roughing

ISO	Material No.	Material		Condition	Cutting Speed Recommendations V_c (SFM)	Hardness HB	Cutting Diameter Feed (IPT) 3/16	1/4	5/16	3/8	1/2	5/8	3/4	1	Roughing a_p	a_e
P	1	Non-alloy steel and cast steel, free cutting steel	<.25%C	Annealed	890-960	125	.0007-.0014	.001-.0019	.0013-.0023	.0014-.0028	.002-.0038	.0026-.0046	.0028-.0056	.004-.0076	3xD	.10xD
	2		>=.25%C	Annealed	710-815	190	.0007-.0014	.001-.0019	.0013-.0023	.0014-.0028	.002-.0038	.0026-.0046	.0028-.0056	.004-.0076	3xD	.10xD
	3		<.55%C	Quench and tempered	570-780	250	.0007-.0014	.001-.0019	.0013-.0023	.0014-.0028	.002-.0038	.0026-.0046	.0028-.0056	.004-.0076	3xD	.10xD
	4		>=.55%C	Annealed	570-780	220	.0007-.0014	.001-.0019	.0013-.0023	.0014-.0028	.002-.0038	.0026-.0046	.0028-.0056	.004-.0076	3xD	.10xD
	5		>=.55%C	Quenched & tempered	500-635	300	.0007-.0014	.001-.0019	.0013-.0023	.0014-.0028	.002-.0038	.0026-.0046	.0028-.0056	.004-.0076	3xD	.10xD
	6	Low alloy & cast steel (less than 5% of alloying elements)		Annealed	570-780	200	.0007-.0014	.001-.0019	.0013-.0023	.0014-.0028	.002-.0038	.0026-.0046	.0028-.0056	.004-.0076	3xD	.10xD
	7			Quenched & tempered	425-635	275	.0007-.0014	.001-.0019	.0013-.0023	.0014-.0028	.002-.0038	.0026-.0046	.0028-.0056	.004-.0076	3xD	.10xD
	8			Quenched & tempered	425-635	300	.0007-.0014	.001-.0019	.0013-.0023	.0014-.0028	.002-.0038	.0026-.0046	.0028-.0056	.004-.0076	3xD	.10xD
	9			Quenched & tempered	425-635	350	.0007-.0014	.001-.0019	.0013-.0023	.0014-.0028	.002-.0038	.0026-.0046	.0028-.0056	.004-.0076	3xD	.10xD
	10	High alloyed steel, cast steel and tool steel		Annealed	450-635	200	.0007-.0014	.001-.0019	.0013-.0023	.0014-.0028	.002-.0038	.0026-.0046	.0028-.0056	.004-.0076	3xD	.10xD
	11			Quenched & tempered	240-425	325	.0009-.0016	.0012-.0022	.0015-.0028	.0018-.0032	.0024-.0044	.003-.0056	.0036-.0064	.0048-.0088	3xD	.07xD
	12	Stainless steel and cast steel		Ferritic/ martensitic	280-570	200	.0009-.0016	.0012-.0022	.0015-.0028	.0018-.0032	.0024-.0044	.003-.0056	.0036-.0064	.0048-.0088	3xD	.07xD
	13			Martensitic	210-530	240	.0009-.0016	.0012-.0022	.0015-.0028	.0018-.0032	.0024-.0044	.003-.0056	.0036-.0064	.0048-.0088	3xD	.07xD
M	14	Stainless steel and cast steel		Austenitic	210-425	180	.0008-.0015	.0011-.0021	.0013-.0025	.0016-.003	.0022-.0042	.0025-.005	.0032-.006	.0044-.0084	3xD	.08xD
K	15	Grey cast iron (GG)		Pearlitic/ferritic	280-890	180	.0007-.0014	.001-.0019	.0013-.0023	.0014-.0028	.002-.0038	.0026-.0046	.0028-.0056	.004-.0076	3xD	.10xD
	16			Pearlitic/ martensitic	450-850	260	.0007-.0014	.001-.0019	.0013-.0023	.0014-.0028	.002-.0038	.0026-.0046	.0028-.0056	.004-.0076	3xD	.10xD
	17	Nodular cast iron (GGG)		Ferritic	530-960	160	.0007-.0014	.001-.0019	.0013-.0023	.0014-.0028	.002-.0038	.0026-.0046	.0028-.0056	.004-.0076	3xD	.10xD
	18			Pearlitic	530-960	250	.0007-.0014	.001-.0019	.0013-.0023	.0014-.0028	.002-.0038	.0026-.0046	.0028-.0056	.004-.0076	3xD	.10xD
	19	Malleable cast iron		Ferritic	530-960	130	.0007-.0014	.001-.0019	.0013-.0023	.0014-.0028	.002-.0038	.0026-.0046	.0028-.0056	.004-.0076	3xD	.10xD
	20			Pearlitic	500-850	230	.0007-.0014	.001-.0019	.0013-.0023	.0014-.0028	.002-.0038	.0026-.0046	.0028-.0056	.004-.0076	3xD	.10xD
S	31	High temp. alloys	Fe based	Annealed	125-200	200	.0009-.0016	.0012-.0022	.0015-.0028	.0018-.0032	.0024-.0044	.003-.0056	.0036-.0064	.0048-.0088	3xD	.07xD
	32			Cured	125-200	280	.0009-.0016	.0012-.0022	.0015-.0028	.0018-.0032	.0024-.0044	.003-.0056	.0036-.0064	.0048-.0088	3xD	.07xD
	33		Ni or Co based	Annealed	70-125	250	.001-.0018	.0013-.0024	.0013-.0025	.002-.0036	.0026-.0048	.0025-.005	.004-.0072	.0052-.0096	3xD	.06xD
	34			Cured	70-125	350	.001-.0018	.0013-.0024	.0013-.0025	.002-.0036	.0026-.0048	.0025-.005	.004-.0072	.0052-.0096	3xD	.06xD
	35			Cast	70-125	320	.001-.0018	.0013-.0024	.0013-.0025	.002-.0036	.0026-.0048	.0025-.005	.004-.0072	.0052-.0096	3xD	.06xD
	36	Titanium Ti alloys		Pure	325	310	.001-.0018	.0013-.0024	.0013-.0025	.002-.0036	.0026-.0048	.0025-.005	.004-.0072	.0052-.0096	3xD	.06xD
	37			Alpha+beta alloys cured	165-325	310	.0007-.0014	.001-.0019	.0013-.0023	.0014-.0028	.002-.0038	.0026-.0046	.0028-.0056	.004-.0076	3xD	.10xD
H	38	Hardened steel		Hardened	110-210	55HRC	.0012-.0021	.0016-.0029	.002-.0036	.0024-.0042	.0032-.0058	.004-.0072	.0048-.0084	.0064-.0116	3xD	.04xD
	39			Hardened	110-145	60HRC	.0016-.003	.0022-.004	.0028-.005	.0032-.006	.0044-.008	.0056-.010	.0064-.012	.0088-.016	3xD	.02xD
	40	Chilledcastiron		Cast	250-320	400	.001-.0019	.0014-.0026	.0018-.0032	.002-.0038	.0028-.0052	.0036-.0064	.004-.0076	.0056-.0104	3xD	.05xD
	41	Cast iron		Hardened	110-210	55HRC	.0012-.0021	.0016-.0029	.002-.0036	.0024-.0042	.0032-.0058	.004-.0072	.0048-.0084	.0064-.0116	3xD	.04xD

Finishing

ISO	Material No.	Material		Condition	Cutting Speed Recommendations V_c (SFM)	Hardness HB	Cutting Diameter Feed (IPT)								Finishing	
							3/16	1/4	5/16	3/8	1/2	5/8	3/4	1	a_p	a_e
P	1	Non-alloy steel and cast steel, free cutting steel	<.25%C	Annealed	1020-1100	125	.0017	.0022	.0028	.0033	.0044	.0055	.0066	.0088	Full	.02xD
	2		>=.25%C	Annealed	820-940	190	.0017	.0022	.0028	.0033	.0044	.0055	.0066	.0088	Full	.02xD
	3		<.55%C	Quench and tempered	650-890	250	.0017	.0022	.0028	.0033	.0044	.0055	.0066	.0088	Full	.02xD
	4		>=.55%C	Annealed	650-890	220	.0017	.0022	.0028	.0033	.0044	.0055	.0066	.0088	Full	.02xD
	5		>=.55%C	Quenched & tempered	570-730	300	.0017	.0022	.0028	.0033	.0044	.0055	.0066	.0088	Full	.02xD
	6	Low alloy & cast steel (less than 5% of alloying elements)		Annealed	650-890	200	.0017	.0022	.0028	.0033	.0044	.0055	.0066	.0088	Full	.02xD
	7			Quenched & tempered	490-730	275	.0017	.0022	.0028	.0033	.0044	.0055	.0066	.0088	Full	.02xD
	8			Quenched & tempered	520-730	300	.0017	.0022	.0028	.0033	.0044	.0055	.0066	.0088	Full	.02xD
	9			Quenched & tempered	570-730	350	.0017	.0022	.0028	.0033	.0044	.0055	.0066	.0088	Full	.02xD
	10	High alloyed steel, cast steel and tool steel		Annealed	520-730	200	.0017	.0022	.0028	.0033	.0044	.0055	.0066	.0088	Full	.02xD
	11			Quenched & tempered	280-490	325	.0017	.0022	.0028	.0033	.0044	.0055	.0066	.0088	Full	.02xD
	12	Stainless steel and cast steel		Ferritic/ martensitic	320-650	200	.0017	.0022	.0028	.0033	.0044	.0055	.0066	.0088	Full	.02xD
	13			Martensitic	240-610	240	.0017	.0022	.0028	.0033	.0044	.0055	.0066	.0088	Full	.02xD
M	14	Stainless steel and cast steel		Austenitic	240-490	180	.0017	.0022	.0028	.0033	.0044	.0055	.0066	.0088	Full	.02xD
K	15	Grey cast iron (GG)		Pearlitic/ferritic	320-1020	180	.0017	.0022	.0028	.0033	.0044	.0055	.0066	.0088	Full	.02xD
	16			Pearlitic/ martensitic	520-980	260	.0017	.0022	.0028	.0033	.0044	.0055	.0066	.0088	Full	.02xD
	17	Nodular cast iron (GGG)		Ferritic	610-1100	160	.0017	.0022	.0028	.0033	.0044	.0055	.0066	.0088	Full	.02xD
	18			Pearlitic	610-1100	250	.0017	.0022	.0028	.0033	.0044	.0055	.0066	.0088	Full	.02xD
	19	Malleable cast iron		Ferritic	610-1100	130	.0017	.0022	.0028	.0033	.0044	.0055	.0066	.0088	Full	.02xD
	20			Pearlitic	570-980	230	.0017	.0022	.0028	.0033	.0044	.0055	.0066	.0088	Full	.02xD
S	31	High temp. alloys	Fe based	Annealed	80-160	200	.0017	.0022	.0028	.0033	.0044	.0055	.0066	.0088	Full	.02xD
	32			Cured	80-120	280	.0017	.0022	.0028	.0033	.0044	.0055	.0066	.0088	Full	.02xD
	33		Ni or Co based	Annealed	80-120	250	.0017	.0022	.0028	.0033	.0044	.0055	.0066	.0088	Full	.02xD
	34			Cured	80-120	350	.0017	.0022	.0028	.0033	.0044	.0055	.0066	.0088	Full	.02xD
	35			Cast	80-120	320	.0017	.0022	.0028	.0033	.0044	.0055	.0066	.0088	Full	.02xD
	36	Titanium Ti alloys		Pure	120-390	310	.0017	.0022	.0028	.0033	.0044	.0055	.0066	.0088	Full	.02xD
	37			Alpha + beta alloys cured	300-390	310	.0017	.0022	.0028	.0033	.0044	.0055	.0066	.0088	Full	.02xD
H	38	Hardened steel		Hardened	120-240	55 HRC	.0017	.0022	.0028	.0033	.0044	.0055	.0066	.0088	Full	.02xD
	39			Hardened	120-160	60 HRC	.0017	.0022	.0028	.0033	.0044	.0055	.0066	.0088	Full	.02xD
	40	Chilledcastiron		Cast	290-370	400	.0017	.0022	.0028	.0033	.0044	.0055	.0066	.0088	Full	.02xD
	41	Cast iron		Hardened	120-240	55 HRC	.0017	.0022	.0028	.0033	.0044	.0055	.0066	.0088	Full	.02xD

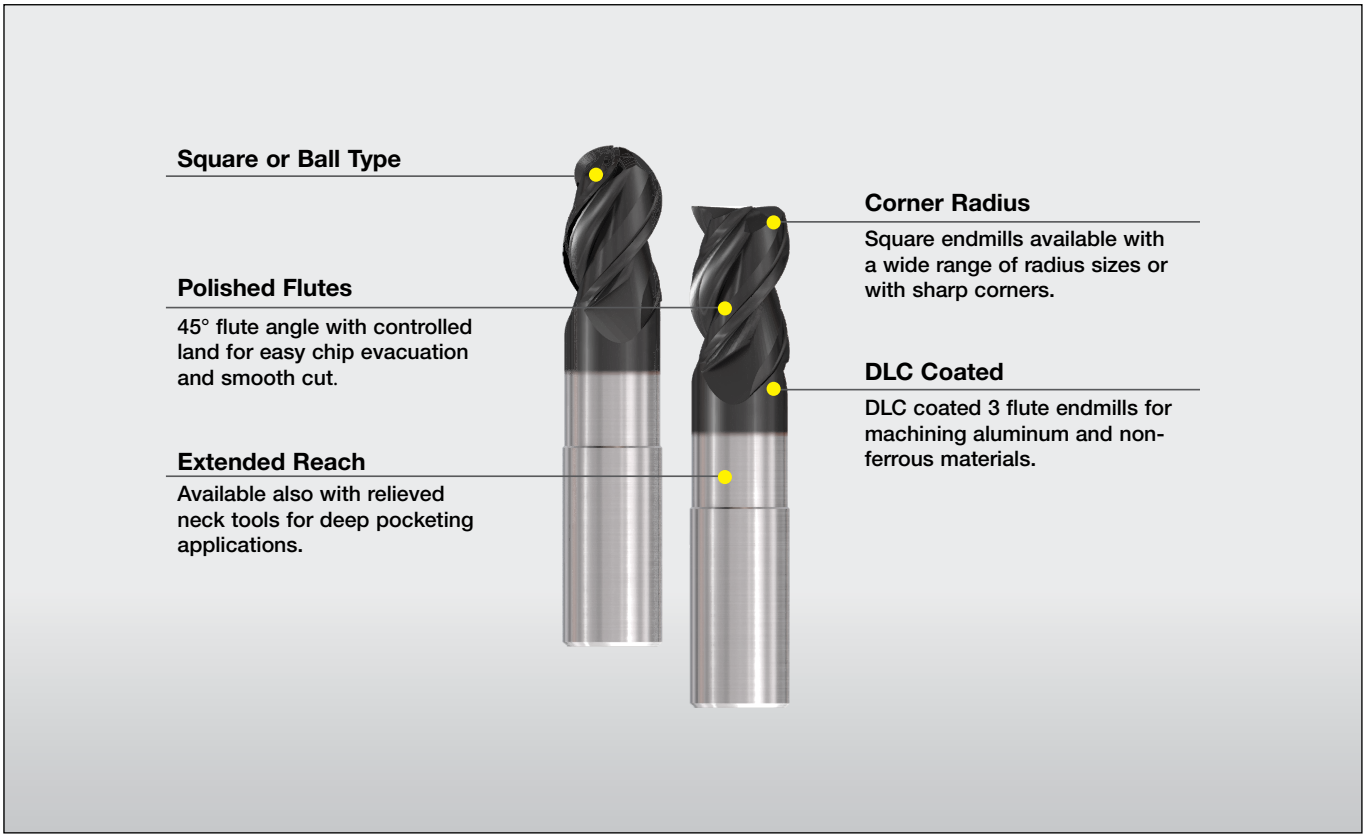
ECAI-EC / EBAI-EC

The tools are coated with Ta-C diamond like coating also known as DLC coating.

Ta-C (Tetrahedral Amorphous Carbon) type coating, considered the superior type among the different DLC forms, provides desirable qualities such as hardness, wear resistance, and slickness, consequently prolonging tool life significantly and diminishing chip jamming.

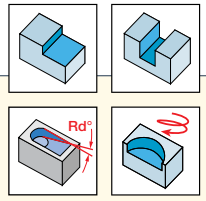
Properties for ideal machining non-ferrous materials:

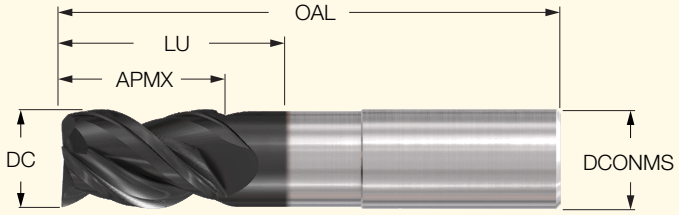
- Aluminum and Aluminum alloys with up to 12% Si content
- Copper, Bronze, Silver, Gold and Platinum
- Carbon and plastic



ECAI-B3-EC

DLC Coated 3 Flute Endmills for Machining
Aluminum and Other Non-Ferrous Materials



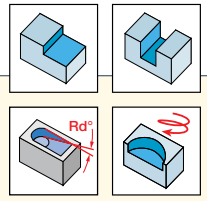


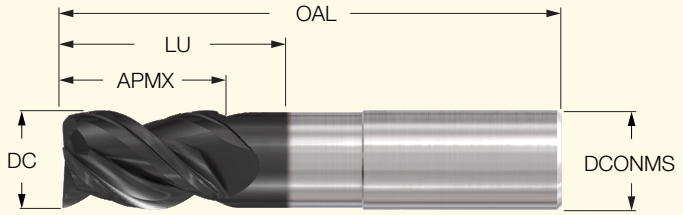
Designation	DC	APMX	LU	RE	DCONMS	OAL	NOF[1]
ECAI-B3 .125-.3CR0-1.5EC	.125	.2500	.2500	.0000	.125	1.500	3
ECAI-B3 .125-.3CR015-1.5	.125	.2500	.2500	.0150	.125	1.500	3
ECAI-B3 .125-.5CR0-1.5EC	.125	.5000	.5000	.0000	.125	1.500	3
ECAI-B3 .125-.5CR015-1.5	.125	.5000	.5000	.0150	.125	1.500	3
ECAI-B3 .187-.3CR0-2EC	.187	.3150	.3200	.0000	.187	2.000	3
ECAI-B3 .187-.3CR015-2EC	.187	.3150	.3200	.0150	.187	2.000	3
ECAI-B3 .187-.6CR0-2EC	.187	.5620	.5700	.0000	.187	2.000	3
ECAI-B3 .187-.6CR015-2EC	.187	.5620	.5700	.0150	.187	2.000	3
ECAI-B3 .25-.38CR0-2EC	.250	.3750	.3750	.0000	.250	2.000	3
ECAI-B3 .25-.4CR015-2EC	.250	.3750	.3750	.0150	.250	2.000	3
ECAI-B3 .25-.4CR03-2EC	.250	.3750	.3750	.0300	.250	2.000	3
ECAI-B3 .25-.5/1.2CR0-3EC	.250	.5000	1.2500	.0000	.250	3.000	3
ECAI-B3 .25-.5/1.3CR15-3	.250	.5000	1.2500	.0150	.250	3.000	3
ECAI-B3 .25-.5/1.3CR03-3	.250	.5000	1.2500	.0300	.250	3.000	3
ECAI-B3 .25-.5/1.3CR06-3	.250	.5000	1.2500	.0600	.250	3.000	3
ECAI-B3 .25-.5/2.1CR0-4EC	.250	.5000	2.1250	.0000	.250	4.000	3
ECAI-B3 25-.5/2CR015-4EC	.250	.5000	2.1250	.0150	.250	4.000	3
ECAI-B3 25-.5/2.1CR03-4EC	.250	.5000	2.1250	.0300	.250	4.000	3
ECAI-B3 25-.5/2.1CR06-4EC	.250	.5000	2.1250	.0600	.250	4.000	3
ECAI-B3 .25-.75CR0-2.5EC	.250	.7500	.7500	.0000	.250	2.500	3
ECAI-B3 .25-.8CR015-2.5EC	.250	.7500	.7500	.0150	.250	2.500	3
ECAI-B3 .25-.8CR03-2.5EC	.250	.7500	.7500	.0300	.250	2.500	3
ECAI-B3 .25-1CR0-3EC	.250	1.0000	1.0000	.0000	.250	3.000	3
ECAI-B3 .25-1CR015-3.EC	.250	1.0000	1.0000	.0150	.250	3.000	3
ECAI-B3 .25-1CR03-3.EC	.250	1.0000	1.0000	.0300	.250	3.000	3
ECAI-B3 .25-1.25CR0-4EC	.250	1.2500	1.2500	.0000	.250	4.000	3
ECAI-B3 .25-1.3CR015-4EC	.250	1.2500	1.2500	.0150	.250	4.000	3
ECAI-B3 .25-1.3CR03-4EC	.250	1.2500	1.2500	.0300	.250	4.000	3
ECAI-B3 .312-.5CR0-2EC	.312	.5000	.5000	.0000	.313	2.000	3
ECAI-B3 .312-.5CR015-2EC	.312	.5000	.5000	.0150	.312	2.000	3
ECAI-B3 .312-.5CR03-2EC	.312	.5000	.5000	.0300	.312	2.000	3
ECAI-B3 .312-.9CR0-2.5EC	.312	.8750	.8750	.0000	.313	2.500	3
ECAI-B3 .312-.9CR015-2.5	.312	.8750	.8750	.0150	.312	2.500	3
ECAI-B3 .312-.9CR03-2.5EC	.312	.8750	.8750	.0300	.312	2.500	3
ECAI-B3 .312-1CR0-3EC	.312	1.0000	1.0000	.0000	.313	3.000	3
ECAI-B3 .312-1CR015-3EC	.312	1.0000	1.0000	.0150	.312	3.000	3
ECAI-B3 .312-1CR03-3EC	.312	1.0000	1.0000	.0300	.312	3.000	3
ECAI-B3 .312-1.3CR0-4EC	.312	1.2500	1.2500	.0000	.313	4.000	3
ECAI-B3 .312-1.3CR015-4EC	.312	1.2500	1.2500	.0150	.312	4.000	3
ECAI-B3 .312-1.3CR03-4EC	.312	1.2500	1.2500	.0300	.312	4.000	3
ECAI-B3 .375-.5CR0-2EC	.375	.5000	.5000	.0000	.375	2.000	3
ECAI-B3 .375-.5CR015-2EC	.375	.5000	.5000	.0150	.375	2.000	3
ECAI-B3 .375-.5CR03-2EC	.375	.5000	.5000	.0300	.375	2.000	3
ECAI-B3 .375-.5CR06-2EC	.375	.5000	.5000	.0600	.375	2.000	3
ECAI-B3 .375-.5CR875-2EC	.375	.5000	.5000	.1875	.375	2.000	3
ECAI-B3 .375-.5CR09-2EC	.375	.5000	.5000	.0900	.375	2.000	3
ECAI-B3 .375-.5CR125-2EC	.375	.5000	.5000	.1250	.375	2.000	3
ECAI-B3 .375-.8/1.2C-3EC	.375	.7500	1.2500	.0000	.375	3.000	3
ECAI-B3 .375-.8/1.3CR15-3	.375	.7500	1.2500	.0150	.375	3.000	3
ECAI-B3 .375-.8/1.3CR03-3	.375	.7500	1.2500	.0300	.375	3.000	3
ECAI-B3 .375-.8/1.3CR06-3	.375	.7500	1.2500	.0600	.375	3.000	3
ECAI-B3 .375-.8/1.3CR09-3	.375	.7500	1.2500	.0900	.375	3.000	3
ECAI-B3 .375-.8/1.3CR12-3	.375	.7500	1.2500	.1200	.375	3.000	3

[1] Number of flutes

ECAI-B3-EC (continued)

DLC Coated 3 Flute Endmills for Machining
Aluminum and Other Non-Ferrous Materials



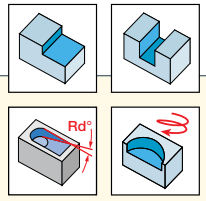


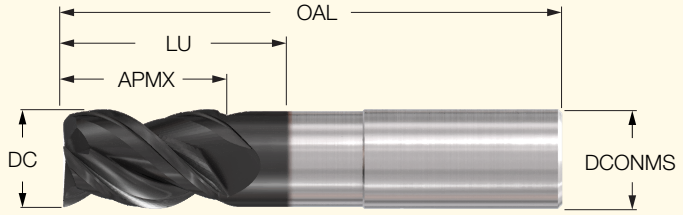
Designation	DC	APMX	LU	RE	DCONMS	OAL	NOF[1]
EBAI-B3 375-.8/1.3-3EC	.375	.7500	1.2500	.1800	.375	3.000	3
ECAI-B3 .375-.8/2.1C-4EC	.375	.7500	2.1250	.0000	.375	4.000	3
ECAI-B3 .375-.8/2.1CR15-4	.375	.7500	2.1250	.0150	.375	4.000	3
ECAI-B3 .375-.8/2.1CR03-4	.375	.7500	2.1250	.0300	.375	4.000	3
ECAI-B3 .375-.8/2.1CR06-4	.375	.7500	2.1250	.0600	.375	4.000	3
ECAI-B3 .375-.8/2.1CR09-4	.375	.7500	2.1250	.0900	.375	4.000	3
ECAI-B3 .375-.8/2.1CR12-4	.375	.7500	2.1250	.1200	.375	4.000	3
ECAI-B3 .375-.8/2.1CR18-4	.375	.7500	2.1250	.1800	.375	4.000	3
ECAI-B3 .375-1CR0-2.5EC	.375	1.0000	1.0000	.0000	.375	2.500	3
ECAI-B3 .375-1CR015-2.5EC	.375	1.0000	1.0000	.0150	.375	2.500	3
ECAI-B3 .375-1CR03-2.5EC	.375	1.0000	1.0000	.0300	.375	2.500	3
ECAI-B3 .375-1CR06-2.5EC	.375	1.0000	1.0000	.0600	.375	2.500	3
ECAI-B3 .375-1CR09-2.5EC	.375	1.0000	1.0000	.0900	.375	2.500	3
ECAI-B3 .375-1CR125-2.5EC	.375	1.0000	1.0000	.1250	.375	2.500	3
ECAI-B3 .375-1CR875-2.5EC	.375	1.0000	1.0000	.1875	.375	2.500	3
ECAI-B3 .375-1CR0-3EC	.375	1.0000	1.0000	.0000	.375	3.000	3
ECAI-B3 .375-1CR015-3EC	.375	1.0000	1.0000	.0150	.375	3.000	3
ECAI-B3 .375-1CR03-3EC	.375	1.0000	1.0000	.0300	.375	3.000	3
ECAI-B3 .375-1CR06-3EC	.375	1.0000	1.0000	.0600	.375	3.000	3
ECAI-B3 .375-1CR09-3EC	.375	1.0000	1.0000	.0900	.375	3.000	3
ECAI-B3 .375-1CR125-3EC	.375	1.0000	1.0000	.1250	.375	3.000	3
ECAI-B3 .375-1CR875-3EC	.375	1.0000	1.0000	.1875	.375	3.000	3
ECAI-B3 .375-1.5CR0-4EC	.375	1.5000	1.5000	.0000	.375	4.000	3
ECAI-B3 .375-1.5CR015-4EC	.375	1.5000	1.5000	.0150	.375	4.000	3
ECAI-B3 .375-1.5CR03-4EC	.375	1.5000	1.5000	.0300	.375	4.000	3
ECAI-B3 .375-1.5CR06-4EC	.375	1.5000	1.5000	.0600	.375	4.000	3
ECAI-B3 .375-1.5CR09-4EC	.375	1.5000	1.5000	.0900	.375	4.000	3
ECAI-B3 .375-1.5CR125-4EC	.375	1.5000	1.5000	.1250	.375	4.000	3
EBAI-B3 .375-1.5C-4.EC	.375	1.5000	1.5000	.1875	.375	4.000	3
ECAI-B3 .437-1CR0-2.75EC	.437	1.0000	1.0000	.0000	.432	2.750	3
ECAI-B3 .437-1CR015-2.8EC	.437	1.0000	1.0000	.0150	.437	2.750	3
ECAI-B3 .437-1CR03-2.8EC	.437	1.0000	1.0000	.0300	.437	2.750	3
ECAI-B3 .437-1CR06-2.8EC	.437	1.0000	1.0000	.0600	.437	2.750	3
ECAI-B3 .437-1CR09-2.8EC	.437	1.0000	1.0000	.0900	.437	2.750	3
ECAI-B3 .437-1CR125-2.8EC	.437	1.0000	1.0000	.1250	.437	2.750	3
ECAI-B3 .437-1.5CR0-4EC	.437	1.5000	1.5000	.0000	.432	4.000	3
ECAI-B3 .437-1.5CR015-4EC	.437	1.5000	1.5000	.0150	.437	4.000	3
ECAI-B3 .437-1.5CR03-4EC	.437	1.5000	1.5000	.0300	.437	4.000	3
ECAI-B3 .437-1.5CR06-4EC	.437	1.5000	1.5000	.0600	.437	4.000	3
ECAI-B3 .437-1.5CR09-4EC	.437	1.5000	1.5000	.0900	.437	4.000	3
ECAI-B3 .437-1.5CR125-4EC	.437	1.5000	1.5000	.1250	.437	4.000	3
ECAI-B3 .437-2CR0-4EC	.437	2.0000	2.0000	.0000	.432	4.000	3
ECAI-B3 .437-2CR015-4EC	.437	2.0000	2.0000	.0150	.437	4.000	3
ECAI-B3 .437-2CR03-4EC	.437	2.0000	2.0000	.0300	.437	4.000	3
ECAI-B3 .437-2CR06-4EC	.437	2.0000	2.0000	.0600	.437	4.000	3
ECAI-B3 .437-2CR09-4EC	.437	2.0000	2.0000	.0900	.437	4.000	3
ECAI-B3 .437-2CR125-4EC	.437	2.0000	2.0000	.1250	.437	4.000	3
ECAI-B3 .5-.6CR0-2.5EC	.500	.6250	.6250	.0000	.500	2.500	3
ECAI-B3 .5-.6CR015-2.5EC	.500	.6250	.6250	.0150	.500	2.500	3
ECAI-B3 .5-.6CR03-2.5EC	.500	.6250	.6250	.0300	.500	2.500	3
ECAI-B3 .5-.6CR06-2.5EC	.500	.6250	.6250	.0600	.500	2.500	3
ECAI-B3 .5-.6CR09-2.5EC	.500	.6250	.6250	.0900	.500	2.500	3
ECAI-B3 .5-.6CR125-2.5EC	.500	.6250	.6250	.1250	.500	2.500	3

[1] Number of flutes

ECAI-B3-EC (continued)

DLC Coated 3 Flute Endmills for Machining
Aluminum and Other Non-Ferrous Materials



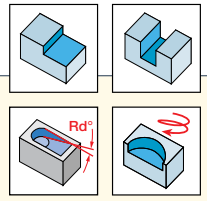


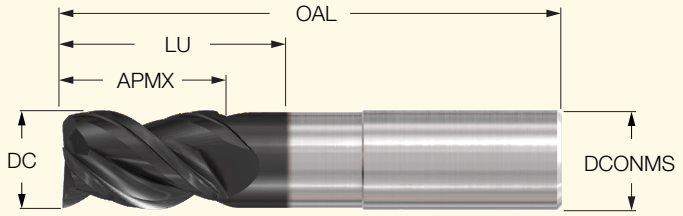
Designation	DC	APMX	LU	RE	DCONMS	OAL	NOF[1]
ECAI-B3 .5-0.8/1.3CR0-3EC	.500	.8750	1.3750	.0000	.500	3.000	3
ECAI-B3 .5-.9/1.4CR015-3	.500	.8750	1.3750	.0150	.500	3.000	3
ECAI-B3 .5-.9/1.4CR03-3EC	.500	.8750	1.3750	.0300	.500	3.000	3
ECAI-B3 .5-.9/1.4CR06-3EC	.500	.8750	1.3750	.0600	.500	3.000	3
ECAI-B3 .5-.9/1.4CR09-3EC	.500	.8750	1.3750	.0900	.500	3.000	3
ECAI-B3 .5-.9/1.4CR12-3EC	.500	.8750	1.3750	.1250	.500	3.000	3
ECAI-B3 .5-0.8/2.1CR0-4EC	.500	.8750	2.1250	.0000	.500	4.000	3
ECAI-B3 .5-.9/2.CR015-4EC	.500	.8750	2.1250	.0150	.500	4.000	3
ECAI-B3 .5-.9/2.1CR03-4EC	.500	.8750	2.1250	.0300	.500	4.000	3
ECAI-B3 .5-.9/2.1CR06-4EC	.500	.8750	2.1250	.0600	.500	4.000	3
ECAI-B3 .5-.9/2.1CR09-4EC	.500	.8750	2.1250	.0900	.500	4.000	3
ECAI-B3 .5-.9/2.CR125-4EC	.500	.8750	2.1250	.1250	.500	4.000	3
ECAI-B3 .5-0.8/3.1CR0-5EC	.500	.8750	3.1250	.0000	.500	5.000	3
ECAI-B3 .5-.9/3.CR015-5EC	.500	.8750	3.1250	.0150	.500	5.000	3
ECAI-B3 .5-.9/3.1CR03-5EC	.500	.8750	3.1250	.0300	.500	5.000	3
ECAI-B3 .5-.9/3.1CR06-5EC	.500	.8750	3.1250	.0600	.500	5.000	3
ECAI-B3 .5-.9/3.1CR09-5EC	.500	.8750	3.1250	.0900	.500	5.000	3
ECAI-B3 .5-.9/3CR125-5EC	.500	.8750	3.1250	.1250	.500	5.000	3
ECAI-B3 .5-0.8/4.1CR0-6EC	.500	.8750	4.1250	.0000	.500	6.000	3
ECAI-B3 .5-.9/4CR015-6EC	.500	.8750	4.1250	.0150	.500	6.000	3
ECAI-B3 .5-.9/4.1CR03-6EC	.500	.8750	4.1250	.0300	.500	6.000	3
ECAI-B3 .5-.9/4.1CR06-6EC	.500	.8750	4.1250	.0600	.500	6.000	3
ECAI-B3 .5-.9/4.1CR09-6EC	.500	.8750	4.1250	.0900	.500	6.000	3
ECAI-B3 .5-.9/4CR125-6EC	.500	.8750	4.1250	.1250	.500	6.000	3
ECAI-B3 .5-1.3CR0-3EC	.500	1.2500	1.2500	.0000	.500	3.000	3
ECAI-B3 .5-1.3CR015-3EC	.500	1.2500	1.2500	.0150	.500	3.000	3
ECAI-B3 .5-1.3CR03-3EC	.500	1.2500	1.2500	.0300	.500	3.000	3
ECAI-B3 .5-1.3CR06-3EC	.500	1.2500	1.2500	.0600	.500	3.000	3
ECAI-B3 .5-1.3CR09-3EC	.500	1.2500	1.2500	.0900	.500	3.000	3
ECAI-B3 .5-1.3CR125-3EC	.500	1.2500	1.2500	.1250	.500	3.000	3
ECAI-B3 .5-1.5CR0-4EC	.500	1.5000	1.5000	.0000	.500	4.000	3
ECAI-B3 .5-1.5CR015-4EC	.500	1.5000	1.5000	.0150	.500	4.000	3
ECAI-B3 .5-1.5CR03-4EC	.500	1.5000	1.5000	.0300	.500	4.000	3
ECAI-B3 .5-1.5CR06-4EC	.500	1.5000	1.5000	.0600	.500	4.000	3
ECAI-B3 .5-1.5CR09-4EC	.500	1.5000	1.5000	.0900	.500	4.000	3
ECAI-B3 .5-1.5CR125-4EC	.500	1.5000	1.5000	.1250	.500	4.000	3
ECAI-B3 .5-1.5CR0-6EC	.500	1.5000	1.5000	.0000	.500	6.000	3
ECAI-B3 .5-1.5CR015-6EC	.500	1.5000	1.5000	.0150	.500	6.000	3
ECAI-B3 .5-1.5CR03-6EC	.500	1.5000	1.5000	.0300	.500	6.000	3
ECAI-B3 .5-1.5CR06-6EC	.500	1.5000	1.5000	.0600	.500	6.000	3
ECAI-B3 .5-1.5CR09-6EC	.500	1.5000	1.5000	.0900	.500	6.000	3
ECAI-B3 .5-1.5CR125-6EC	.500	1.5000	1.5000	.1250	.500	6.000	3
ECAI-B3 .5-2CR0-4EC	.500	2.0000	2.0000	.0000	.500	4.000	3
ECAI-B3 .5-2CR015-4EC	.500	2.0000	2.0000	.0150	.500	4.000	3
ECAI-B3 .5-2CR03-4EC	.500	2.0000	2.0000	.0300	.500	4.000	3
ECAI-B3 .5-2CR06-4EC	.500	2.0000	2.0000	.0600	.500	4.000	3
ECAI-B3 .5-2CR09-4EC	.500	2.0000	2.0000	.0900	.500	4.000	3
ECAI-B3 .5-2CR125-4EC	.500	2.0000	2.0000	.1250	.500	4.000	3
ECAI-B3 .5-2.5CR0-5EC	.500	2.5000	2.5000	.0000	.500	5.000	3
ECAI-B3 .5-2.5CR015-5EC	.500	2.5000	2.5000	.0150	.500	5.000	3
ECAI-B3 .5-2.5CR03-5EC	.500	2.5000	2.5000	.0300	.500	5.000	3
ECAI-B3 .5-2.5CR06-5EC	.500	2.5000	2.5000	.0600	.500	5.000	3
ECAI-B3 .5-2.5CR09-5EC	.500	2.5000	2.5000	.0900	.500	5.000	3

[1] Number of flutes

ECAI-B3-EC (continued)

DLC Coated 3 Flute Endmills for Machining
Aluminum and Other Non-Ferrous Materials



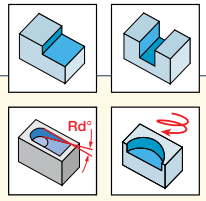


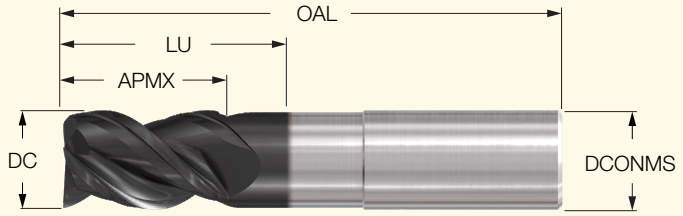
Designation	DC	APMX	LU	RE	DCONMS	OAL	NOF[1]
ECAI-B3 .5-2.5CR125-5EC	.500	2.5000	2.5000	.1250	.500	5.000	3
ECAI-B3 .5-3.1CR0-6EC	.500	3.1250	3.1250	.0000	.500	6.000	3
ECAI-B3 .5-3.1CR015-6EC	.500	3.1250	3.1250	.0150	.500	6.000	3
ECAI-B3 .5-3.1CR06-6EC	.500	3.1250	3.1250	.0600	.500	6.000	3
ECAI-B3 .5-3.1CR09-6EC	.500	3.1250	3.1250	.0900	.500	6.000	3
ECAI-B3 .5-3.1CR03-6EC	.500	3.1250	3.1250	.0300	.500	6.000	3
ECAI-B3 .5-3.1CR125-6EC	.500	3.1250	3.1250	.1250	.500	6.000	3
ECAI-B3 .625-.8CR0-3EC	.625	.7500	.7500	.0000	.625	3.000	3
ECAI-B3 .625-.8CR015-3EC	.625	.7500	.7500	.0150	.625	3.000	3
ECAI-B3 .625-.8CR03-3EC	.625	.7500	.7500	.0300	.625	3.000	3
ECAI-B3 .625-.8CR06-3EC	.625	.7500	.7500	.0600	.625	3.000	3
ECAI-B3 .625-.8CR09-3EC	.625	.7500	.7500	.0900	.625	3.000	3
ECAI-B3 .625-.8CR125-3EC	.625	.7500	.7500	.1250	.625	3.000	3
ECAI-B3 .625-1/2CR0-4EC	.625	1.0000	2.0000	.0000	.625	4.000	3
ECAI-B3 .625-1/2CR015-4EC	.625	1.0000	2.0000	.0150	.625	4.000	3
ECAI-B3 .625-1/2CR03-4EC	.625	1.0000	2.0000	.0300	.625	4.000	3
ECAI-B3 .625-1/2CR06-4EC	.625	1.0000	2.0000	.0600	.625	4.000	3
ECAI-B3 .625-1/2CR09-4EC	.625	1.0000	2.0000	.0900	.625	4.000	3
ECAI-B3 .625-1/2CR125-4EC	.625	1.0000	2.0000	.1250	.625	4.000	3
ECAI-B3 .625-1/3CR0-5EC	.625	1.0000	3.0000	.0000	.625	5.000	3
ECAI-B3 .625-1/3CR015-5EC	.625	1.0000	3.0000	.0150	.625	5.000	3
ECAI-B3 .625-1/3CR03-5EC	.625	1.0000	3.0000	.0300	.625	5.000	3
ECAI-B3 .625-1/3CR06-5EC	.625	1.0000	3.0000	.0600	.625	5.000	3
ECAI-B3 .625-1/3CR09-5EC	.625	1.0000	3.0000	.0900	.625	5.000	3
ECAI-B3 .625-1/3CR125-5EC	.625	1.0000	3.0000	.1250	.625	5.000	3
ECAI-B3 .625-1/4CR0-6EC	.625	1.0000	4.0000	.0000	.625	6.000	3
ECAI-B3 .625-1/4CR015-6EC	.625	1.0000	4.0000	.0150	.625	6.000	3
ECAI-B3 .625-1/4CR03-6EC	.625	1.0000	4.0000	.0300	.625	6.000	3
ECAI-B3 .625-1/4CR06-6EC	.625	1.0000	4.0000	.0600	.625	6.000	3
ECAI-B3 .625-1/4CR09-6EC	.625	1.0000	4.0000	.0900	.625	6.000	3
ECAI-B3 .625-1/4CR125-6EC	.625	1.0000	4.0000	.1250	.625	6.000	3
ECAI-B3 .625-1.3CR0-3.5EC	.625	1.2500	1.2500	.0000	.625	3.500	3
ECAI-B3 .625-1.3CR15-3.5	.625	1.2500	1.2500	.0150	.625	3.500	3
ECAI-B3 .625-1.3CR03-3.5	.625	1.2500	1.2500	.0300	.625	3.500	3
ECAI-B3 .625-1.3CR06-3.5	.625	1.2500	1.2500	.0600	.625	3.500	3
ECAI-B3 .625-1.3CR09-3.5	.625	1.2500	1.2500	.0900	.625	3.500	3
ECAI-B3 .625-1.3CR125-3.5	.625	1.2500	1.2500	.1250	.625	3.500	3
ECAI-B3 .625-1.5CR0-6EC	.625	1.5000	1.5000	.0000	.625	6.000	3
ECAI-B3 .625-1.5CR015-6EC	.625	1.5000	1.5000	.0150	.625	6.000	3
ECAI-B3 .625-1.5CR03-6EC	.625	1.5000	1.5000	.0300	.625	6.000	3
ECAI-B3 .625-1.5CR06-6EC	.625	1.5000	1.5000	.0600	.625	6.000	3
ECAI-B3 .625-1.5CR09-6EC	.625	1.5000	1.5000	.0900	.625	6.000	3
ECAI-B3 .625-1.5CR125-6EC	.625	1.5000	1.5000	.1250	.625	6.000	3
ECAI-B3 .625-2CR0-4EC	.625	2.0000	2.0000	.0000	.625	4.000	3
ECAI-B3 .625-2CR015-4EC	.625	2.0000	2.0000	.0150	.625	4.000	3
ECAI-B3 .625-2CR03-4EC	.625	2.0000	2.0000	.0300	.625	4.000	3
ECAI-B3 .625-2CR06-4EC	.625	2.0000	2.0000	.0600	.625	4.000	3
ECAI-B3 .625-2CR09-4EC	.625	2.0000	2.0000	.0900	.625	4.000	3
ECAI-B3 .625-2CR125-4EC	.625	2.0000	2.0000	.1250	.625	4.000	3
ECAI-B3 .625-2.3CR0-5EC	.625	2.2500	2.2500	.0000	.625	5.000	3
ECAI-B3 .625-2.3CR015-5EC	.625	2.2500	2.2500	.0150	.625	5.000	3
ECAI-B3 .625-2.3CR03-5EC	.625	2.2500	2.2500	.0300	.625	5.000	3
ECAI-B3 .625-2.3CR06-5EC	.625	2.2500	2.2500	.0600	.625	5.000	3

[1] Number of flutes

ECAI-B3-EC (continued)

DLC Coated 3 Flute Endmills for Machining
Aluminum and Other Non-Ferrous Materials



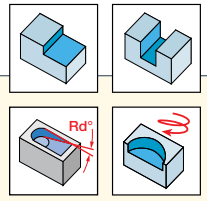


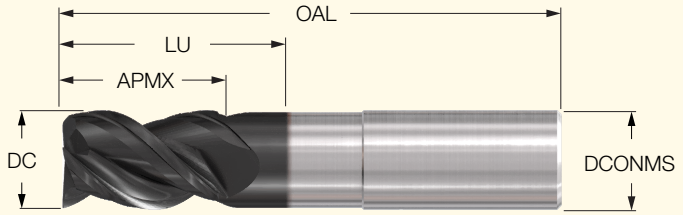
Designation	DC	APMX	LU	RE	DCONMS	OAL	NOF(1)
ECAI-B3 .625-2.3CR09-5EC	.625	2.2500	2.2500	.0900	.625	5.000	3
ECAI-B3 .625-2.3CR125-5EC	.625	2.2500	2.2500	.1250	.625	5.000	3
ECAI-B3 .625-3CR0-6EC	.625	3.0000	3.0000	.0000	.625	6.000	3
ECAI-B3 .625-3CR015-6EC	.625	3.0000	3.0000	.0150	.625	6.000	3
ECAI-B3 .625-3CR03-6EC	.625	3.0000	3.0000	.0300	.625	6.000	3
ECAI-B3 .625-3CR06-6EC	.625	3.0000	3.0000	.0600	.625	6.000	3
ECAI-B3 .625-3CR09-6EC	.625	3.0000	3.0000	.0900	.625	6.000	3
ECAI-B3 .625-3CR125-6EC	.625	3.0000	3.0000	.1250	.625	6.000	3
ECAI-B3 .75-1CR0-3EC	.750	1.0000	1.0000	.0000	.750	3.000	3
ECAI-B3 .75-1CR015-3EC	.750	1.0000	1.0000	.0150	.750	3.000	3
ECAI-B3 .75-1CR03-3EC	.750	1.0000	1.0000	.0300	.750	3.000	3
ECAI-B3 .75-1CR06-3EC	.750	1.0000	1.0000	.0600	.750	3.000	3
ECAI-B3 .75-1CR09-3EC	.750	1.0000	1.0000	.0900	.750	3.000	3
ECAI-B3 .75-1CR125-3EC	.750	1.0000	1.0000	.1250	.750	3.000	3
ECAI-B3 .75-1.25/2CR0-4EC	.750	1.2500	2.0000	.0000	.750	4.000	3
ECAI-B3 .75-1.3/2CR015-4	.750	1.2500	2.0000	.0150	.750	4.000	3
ECAI-B3 .75-1.3/2CR03-4EC	.750	1.2500	2.0000	.0300	.750	4.000	3
ECAI-B3 .75-1.3/2CR06-4EC	.750	1.2500	2.0000	.0600	.750	4.000	3
ECAI-B3 .75-1.3/2CR09-4EC	.750	1.2500	2.0000	.0900	.750	4.000	3
ECAI-B3 .75-1.3/2CR125-4	.750	1.2500	2.0000	.1250	.750	4.000	3
ECAI-B3 .75-1.25/3CR0-5EC	.750	1.2500	3.0000	.0000	.750	5.000	3
ECAI-B3 .75-1.3/3CR015-5	.750	1.2500	3.0000	.0150	.750	5.000	3
ECAI-B3 .75-1.3/3CR03-5EC	.750	1.2500	3.0000	.0300	.750	5.000	3
ECAI-B3 .75-1.3/3CR06-5EC	.750	1.2500	3.0000	.0600	.750	5.000	3
ECAI-B3 .75-1.3/3CR09-5EC	.750	1.2500	3.0000	.0900	.750	5.000	3
ECAI-B3 .75-1.3/3CR125-5	.750	1.2500	3.0000	.1250	.750	5.000	3
ECAI-B3 .75-1.25/4CR0-6EC	.750	1.2500	4.0000	.0000	.750	6.000	3
ECAI-B3 .75-1.3/4CR015-6	.750	1.2500	4.0000	.0150	.750	6.000	3
ECAI-B3 .75-1.3/4CR03-6EC	.750	1.2500	4.0000	.0300	.750	6.000	3
ECAI-B3 .75-1.3/4CR06-6EC	.750	1.2500	4.0000	.0600	.750	6.000	3
ECAI-B3 .75-1.3/4CR09-6EC	.750	1.2500	4.0000	.0900	.750	6.000	3
ECAI-B3 .75-1.3/4CR125-6	.750	1.2500	4.0000	.1250	.750	6.000	3
ECAI-B3 .75-1.5CR0-6EC	.750	1.5000	1.5000	.0000	.750	6.000	3
ECAI-B3 .75-1.5CR015-6EC	.750	1.5000	1.5000	.0150	.750	6.000	3
ECAI-B3 .75-1.5CR03-6EC	.750	1.5000	1.5000	.0300	.750	6.000	3
ECAI-B3 .75-1.5CR06-6EC	.750	1.5000	1.5000	.0600	.750	6.000	3
ECAI-B3 .75-1.5CR09-6EC	.750	1.5000	1.5000	.0900	.750	6.000	3
ECAI-B3 .75-1.5CR125-6EC	.750	1.5000	1.5000	.1250	.750	6.000	3
ECAI-B3 .75-1.6CR0-4EC	.750	1.6250	1.6250	.0000	.750	4.000	3
ECAI-B3 .75-1.6CR015-4EC	.750	1.6250	1.6250	.0150	.750	4.000	3
ECAI-B3 .75-1.6CR03-4EC	.750	1.6250	1.6250	.0300	.750	4.000	3
ECAI-B3 .75-1.6CR06-4EC	.750	1.6250	1.6250	.0600	.750	4.000	3
ECAI-B3 .75-1.6CR09-4EC	.750	1.6250	1.6250	.0900	.750	4.000	3
ECAI-B3 .75-1.6CR125-4EC	.750	1.6250	1.6250	.1250	.750	4.000	3
ECAI-B3 .75-2.3CR0-5EC	.750	2.2500	2.2500	.0000	.750	5.000	3
ECAI-B3 .75-2.3CR015-5EC	.750	2.2500	2.2500	.0150	.750	5.000	3
ECAI-B3 .75-2.3CR03-5EC	.750	2.2500	2.2500	.0300	.750	5.000	3
ECAI-B3 .75-2.3CR06-5EC	.750	2.2500	2.2500	.0600	.750	5.000	3
ECAI-B3 .75-2.3CR09-5EC	.750	2.2500	2.2500	.0900	.750	5.000	3
ECAI-B3 .75-2.3CR125-5EC	.750	2.2500	2.2500	.1250	.750	5.000	3
ECAI-B3 .75-3CR0-6EC	.750	3.0000	3.0000	.0000	.750	6.000	3
ECAI-B3 .75-3CR015-6EC	.750	3.0000	3.0000	.0150	.750	6.000	3

(1) Number of flutes

ECAI-B3-EC (continued)

DLC Coated 3 Flute Endmills for Machining
Aluminum and Other Non-Ferrous Materials



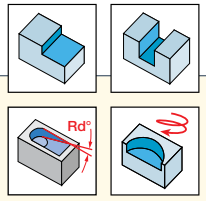


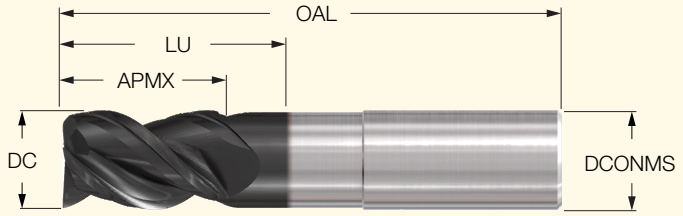
Designation	DC	APMX	LU	RE	DCONMS	OAL	NOF[1]
ECAI-B3 .75-3CR03-6EC	.750	3.0000	3.0000	.0300	.750	6.000	3
ECAI-B3 .75-3CR06-6EC	.750	3.0000	3.0000	.0600	.750	6.000	3
ECAI-B3 .75-3CR09-6EC	.750	3.0000	3.0000	.0900	.750	6.000	3
ECAI-B3 .75-3CR125-6EC	.750	3.0000	3.0000	.1250	.750	6.000	3
ECAI-B3 .75-4CR0-7EC	.750	4.0000	4.0000	.0000	.750	7.000	3
ECAI-B3 .75-4CR015-7EC	.750	4.0000	4.0000	.0150	.750	7.000	3
ECAI-B3 .75-4CR03-7EC	.750	4.0000	4.0000	.0300	.750	7.000	3
ECAI-B3 .75-4CR06-7EC	.750	4.0000	4.0000	.0600	.750	7.000	3
ECAI-B3 .75-4CR09-7EC	.750	4.0000	4.0000	.0900	.750	7.000	3
ECAI-B3 .75-4CR125-7EC	.750	4.0000	4.0000	.1250	.750	7.000	3
ECAI-B3 1-1.5CR0-4EC	1.000	1.5000	1.5000	.0000	1.000	4.000	3
ECAI-B3 1-1.5CR015-4EC	1.000	1.5000	1.5000	.0150	1.000	4.000	3
ECAI-B3 1-1.5CR03-4EC	1.000	1.5000	1.5000	.0300	1.000	4.000	3
ECAI-B3 1-1.5CR06-4EC	1.000	1.5000	1.5000	.0600	1.000	4.000	3
ECAI-B3 1-1.5CR09-4EC	1.000	1.5000	1.5000	.0900	1.000	4.000	3
ECAI-B3 1-1.5CR125-4EC	1.000	1.5000	1.5000	.1250	1.000	4.000	3
ECAI-B3 1-1.5CR0-6EC	1.000	1.5000	1.5000	.0000	1.000	6.000	3
ECAI-B3 1-1.5CR015-6EC	1.000	1.5000	1.5000	.0150	1.000	6.000	3
ECAI-B3 1-1.5CR03-6EC	1.000	1.5000	1.5000	.0300	1.000	6.000	3
ECAI-B3 1-1.5CR06-6EC	1.000	1.5000	1.5000	.0600	1.000	6.000	3
ECAI-B3 1-1.5CR09-6EC	1.000	1.5000	1.5000	.0900	1.000	6.000	3
ECAI-B3 1-1.5CR125-6EC	1.000	1.5000	1.5000	.1250	1.000	6.000	3
ECAI-B3 1-1.5/3CR0-5EC	1.000	1.5000	3.0000	.0000	1.000	5.000	3
ECAI-B3 1-1.5/3CR015-5EC	1.000	1.5000	3.0000	.0150	1.000	5.000	3
ECAI-B3 1-1.5/3CR03-5EC	1.000	1.5000	3.0000	.0300	1.000	5.000	3
ECAI-B3 1-1.5/3CR06-5EC	1.000	1.5000	3.0000	.0600	1.000	5.000	3
ECAI-B3 1-1.5/3CR09-5EC	1.000	1.5000	3.0000	.0900	1.000	5.000	3
ECAI-B3 1-1.5/3CR125-5EC	1.000	1.5000	3.0000	.1250	1.000	5.000	3
ECAI-B3 1-1.5/4CR0-6EC	1.000	1.5000	4.0000	.0000	1.000	6.000	3
ECAI-B3 1-1.5/4CR015-6EC	1.000	1.5000	4.0000	.0150	1.000	6.000	3
ECAI-B3 1-1.5/4CR03-6EC	1.000	1.5000	4.0000	.0300	1.000	6.000	3
ECAI-B3 1-1.5/4CR06-6EC	1.000	1.5000	4.0000	.0600	1.000	6.000	3
ECAI-B3 1-1.5/4CR09-6EC	1.000	1.5000	4.0000	.0900	1.000	6.000	3
ECAI-B3 1-1.5/4CR125-6EC	1.000	1.5000	4.0000	.1250	1.000	6.000	3
ECAI-B3 1-1.5/5CR0-7EC	1.000	1.5000	5.0000	.0000	1.000	7.000	3
ECAI-B3 1-1.5/5CR03-7EC	1.000	1.5000	5.0000	.0300	1.000	7.000	3
ECAI-B3 1-1.5/5CR015-7EC	1.000	1.5000	5.0000	.0150	1.000	7.000	3
ECAI-B3 1-1.5/5CR06-7EC	1.000	1.5000	5.0000	.0600	1.000	7.000	3
ECAI-B3 1-1.5/5CR09-7EC	1.000	1.5000	5.0000	.0900	1.000	7.000	3
ECAI-B3 1-1.5/5CR125-7EC	1.000	1.5000	5.0000	.1250	1.000	7.000	3
ECAI-B3 1-2CR0-4.5EC	1.000	2.0000	2.0000	.0000	1.000	4.500	3
ECAI-B3 1-2CR03-4.5EC	1.000	2.0000	2.0000	.0300	1.000	4.500	3
ECAI-B3 1-2CR06-4.5EC	1.000	2.0000	2.0000	.0600	1.000	4.500	3
ECAI-B3 1-2CR09-4.5EC	1.000	2.0000	2.0000	.0900	1.000	4.500	3
ECAI-B3 1-2CR015-4.5EC	1.000	2.0000	2.0000	.0150	1.000	4.500	3
ECAI-B3 1-2CR125-4.5EC	1.000	2.0000	2.0000	.1250	1.000	4.500	3
ECAI-B3 1-2.3CR0-5EC	1.000	2.2500	2.2500	.0000	1.000	5.000	3
ECAI-B3 1-2.3CR03-5EC	1.000	2.2500	2.2500	.0300	1.000	5.000	3
ECAI-B3 1-2.3CR015-5EC	1.000	2.2500	2.2500	.0150	1.000	5.000	3
ECAI-B3 1-2.3CR06-5EC	1.000	2.2500	2.2500	.0600	1.000	5.000	3
ECAI-B3 1-2.3CR09-5EC	1.000	2.2500	2.2500	.0900	1.000	5.000	3
ECAI-B3 1-2.3CR125-5EC	1.000	2.2500	2.2500	.1250	1.000	5.000	3

[1] Number of flutes

ECAI-B3-EC (continued)

DLC Coated 3 Flute Endmills for Machining
Aluminum and Other Non-Ferrous Materials





Designation	DC	APMX	LU	RE	DCONMS	OAL	NOF[1]
ECAI-B3 1-2.6CR0-6EC	1.000	2.6250	2.6250	.0000	1.000	6.000	3
ECAI-B3 1-2.6CR015-6EC	1.000	2.6250	2.6250	.0150	1.000	6.000	3
ECAI-B3 1-2.6CR03-6EC	1.000	2.6250	2.6250	.0300	1.000	6.000	3
ECAI-B3 1-2.6CR06-6EC	1.000	2.6250	2.6250	.0600	1.000	6.000	3
ECAI-B3 1-2.6CR09-6EC	1.000	2.6250	2.6250	.0900	1.000	6.000	3
ECAI-B3 1-2.6CR125-6EC	1.000	2.6250	2.6250	.1250	1.000	6.000	3
ECAI-B3 1-3CR0-6EC	1.000	3.0000	3.0000	.0000	1.000	6.000	3
ECAI-B3 1-3CR015-6EC	1.000	3.0000	3.0000	.0150	1.000	6.000	3
ECAI-B3 1-3CR03-6EC	1.000	3.0000	3.0000	.0300	1.000	6.000	3
ECAI-B3 1-3CR06-6EC	1.000	3.0000	3.0000	.0600	1.000	6.000	3
ECAI-B3 1-3CR09-6EC	1.000	3.0000	3.0000	.0900	1.000	6.000	3
ECAI-B3 1-3CR125-6EC	1.000	3.0000	3.0000	.1250	1.000	6.000	3
ECAI-B3 1-4CR0-7EC	1.000	4.0000	4.0000	.0000	1.000	7.000	3
ECAI-B3 1-4CR015-7EC	1.000	4.0000	4.0000	.0150	1.000	7.000	3
ECAI-B3 1-4CR03-7EC	1.000	4.0000	4.0000	.0300	1.000	7.000	3
ECAI-B3 1-4CR06-7EC	1.000	4.0000	4.0000	.0600	1.000	7.000	3
ECAI-B3 1-4CR09-7EC	1.000	4.0000	4.0000	.0900	1.000	7.000	3
ECAI-B3 1-4CR125-7EC	1.000	4.0000	4.0000	.1250	1.000	7.000	3
ECAI-B3 1.25-2CR0-4.5EC	1.250	2.0000	2.0000	.0000	1.250	4.500	3
ECAI-B3 1.25-2CR015-4.5EC	1.250	2.0000	2.0000	.0150	1.250	4.500	3
ECAI-B3 1.25-2CR03-4.5EC	1.250	2.0000	2.0000	.0300	1.250	4.500	3
ECAI-B3 1.25-2CR06-4.5EC	1.250	2.0000	2.0000	.0600	1.250	4.500	3
ECAI-B3 1.25-2CR09-4.5EC	1.250	2.0000	2.0000	.0900	1.250	4.500	3
ECAI-B3 1.25-2CR125-4.5EC	1.250	2.0000	2.0000	.1250	1.250	4.500	3
ECAI-B3 1.25-3CR0-6EC	1.250	3.0000	3.0000	.0000	1.250	6.000	3
ECAI-B3 1.25-3CR015-6EC	1.250	3.0000	3.0000	.0150	1.250	6.000	3
ECAI-B3 1.25-3CR03-6EC	1.250	3.0000	3.0000	.0300	1.250	6.000	3
ECAI-B3 1.25-3CR06-6EC	1.250	3.0000	3.0000	.0600	1.250	6.000	3
ECAI-B3 1.25-3CR09-6EC	1.250	3.0000	3.0000	.0900	1.250	6.000	3
ECAI-B3 1.25-3CR125-6EC	1.250	3.0000	3.0000	.1250	1.250	6.000	3

[1] Number of flutes

Cutting Conditions

Slotting

ISO	Material No.	Material	Condition	Cutting Speed Recommendations (V_c) SFM	Hardness HB	Cutting Diameter Feed (IPT)										Slotting Axial
						1/8	3/16	1/4	5/16	3/8	7/16	1/2	5/8	3/4	1	$a_{p\ max}$
N	21	Aluminum - wrought alloy	Not cureable	1600-1800	60	.001	.001	.002	.002	.003	.003	.004	.004	.006	.008	.75-1.5xD
	22		Cured		100	.001	.001	.002	.002	.003	.003	.004	.004	.006	.008	.75-1.5xD
	23	Aluminum cast, alloyed <12% Si	Not cureable	2200	75	.001	.001	.001	.001	.002	.002	.002	.003	.003	.005	.75-1.5xD
	24		Cured		90	.001	.001	.001	.001	.002	.002	.002	.003	.003	.005	.75-1.5xD
	26	Copper alloys	Free cutting	450-650	110	.001	.001	.001	.001	.002	.002	.003	.004	.004	.005	.75-1.5xD
	27		Brass		90	.001	.001	.001	.001	.002	.002	.003	.004	.004	.005	.75-1.5xD
	28		Electrolitic copper		100	.001	.001	.001	.001	.002	.002	.003	.004	.004	.005	.75-1.5xD

Semi-Finish

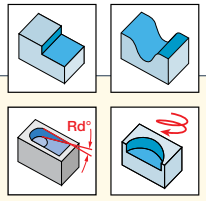
ISO	Material No.	Material	Condition	Cutting Speed Recommendations (V_c) SFM	Hardness HB	Cutting Diameter Feed (IPT)										Profiling Radial	
						1/8	3/16	1/4	5/16	3/8	7/16	1/2	5/8	3/4	1	$a_{p\ max}$	$a_{e\ max}$
N	21	Aluminum - wrought alloy	Not cureable	1600-1800	60	.001	.002	.002	.003	.004	.004	.005	.006	.008	.010	1-2xD	.05xD
	22		Cured		100	.001	.002	.002	.003	.004	.004	.005	.006	.008	.010	1-2xD	.05xD
	23	Aluminum cast, alloyed <12% Si	Not cureable	2200	75	.001	.001	.001	.002	.002	.002	.003	.003	.004	.006	1-2xD	.05xD
	24		Cured		90	.001	.001	.001	.002	.002	.002	.003	.003	.004	.006	1-2xD	.05xD
	26	Copper alloys	Free cutting	450-650	110	.001	.001	.002	.002	.003	.003	.003	.004	.005	.007	1-2xD	.05xD
	27		Brass		90	.001	.001	.002	.002	.003	.003	.003	.004	.005	.007	1-2xD	.05xD
	28		Electrolitic copper		100	.001	.001	.002	.002	.003	.003	.003	.004	.005	.007	1-2xD	.05xD

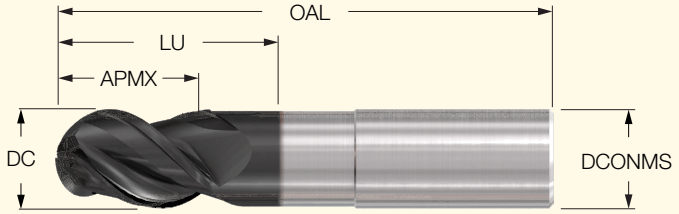
Roughing

ISO	Material No.	Material	Condition	Cutting Speed Recommendations (V_c) SFM	Hardness HB	Cutting Diameter Feed (IPT)										Profiling Radial	
						1/8	3/16	1/4	5/16	3/8	7/16	1/2	5/8	3/4	1	$a_{p\ max}$	$a_{e\ max}$
N	21	Aluminum - wrought alloy	Not cureable	1600-1800	60	.001	.001	.002	.002	.003	.003	.003	.004	.005	.007	1xD	.5xD
	22		Cured		100	.001	.001	.002	.002	.003	.003	.003	.004	.005	.007	1xD	.5xD
	23	Aluminum cast, alloyed <12% Si	Not cureable	2200	75	.001	.001	.001	.001	.001	.002	.002	.002	.003	.004	1xD	.5xD
	24		Cured		90	.001	.001	.001	.001	.001	.002	.002	.002	.003	.004	1xD	.5xD
	26	Copper alloys	Free cutting	450-650	110	.001	.001	.001	.001	.002	.002	.002	.003	.004	.005	1xD	.5xD
	27		Brass		90	.001	.001	.001	.001	.002	.002	.002	.003	.004	.005	1xD	.5xD
	28		Electrolitic copper		100	.001	.001	.001	.001	.002	.002	.002	.003	.004	.005	1xD	.5xD

EBAI-B3-EC

DLC Coated 3 Flute Ball Nose Mills for Machining
Aluminum and Other Non-Ferrous Materials



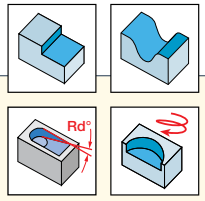


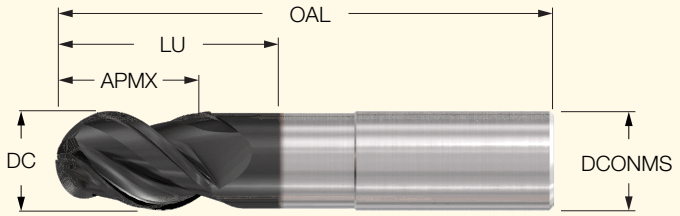
Designation	DC	APMX	LU	RE	DCONMS	OAL	NOF[1]
EBAI-B3 .125-.5C-1.5EC	.125	.5000	.5000	.0625	.125	1.500	3
EBAI-B3 .125-.25C-1.5EC	.125	.2500	.2500	.0625	.125	1.500	3
EBAI-B3 .187-.315C-2EC	.187	.3150	.3200	.0938	.187	2.000	3
EBAI-B3 .187-.562C-2EC	.187	.5620	.5700	.0938	.187	2.000	3
EBAI-B3 .25-.375C-2EC	.250	.3750	.3750	.1250	.250	2.000	3
EBAI-B3 .25-.5/1.25C-3EC	.250	.5000	1.2500	.1250	.250	3.000	3
EBAI-B3 .25-.5/2.125C-4EC	.250	.5000	2.1250	.1250	.250	4.000	3
EBAI-B3 .25-.75C-2.5EC	.250	.7500	.7500	.1250	.250	2.500	3
EBAI-B3 .25-1.C-3EC	.250	1.0000	1.0000	.1250	.250	3.000	3
EBAI-B3 .25-1.25C-4EC	.250	1.2500	1.2500	.1250	.250	4.000	3
EBAI-B3 .312-.5C-2EC	.312	.5000	.5000	.1563	.312	2.000	3
EBAI-B3 .312-.875C-2.5EC	.312	.8750	.8750	.1563	.312	2.500	3
EBAI-B3 .312-1.C-3EC	.312	1.0000	1.0000	.1563	.312	3.000	3
EBAI-B3 .312-1.25C-4EC	.312	1.2500	1.2500	.1563	.312	4.000	3
EBAI-B3 .437-1.C-2.75EC	.437	1.0000	1.0000	.2188	.437	2.750	3
EBAI-B3 .437-1.5C-4EC	.437	1.5000	1.5000	.2188	.437	4.000	3
EBAI-B3 .437-2.C-4EC	.437	2.0000	2.0000	.2188	.437	4.000	3
EBAI-B3 .5-.625C-2.5EC	.500	.6250	.6250	.2500	.500	2.500	3
EBAI-B3 .5-.875/1.37C-3EC	.500	.8750	1.3750	.2500	.500	3.000	3
EBAI-B3 .5-.875/2.12C-4EC	.500	.8750	2.1250	.2500	.500	4.000	3
EBAI-B3 .5-.875/3.12C-5EC	.500	.8750	3.1250	.2500	.500	5.000	3
EBAI-B3.5-.875/4.125C-6EC	.500	.8750	4.1250	.2500	.500	6.000	3
EBAI-B3 .5-1.25C-3EC	.500	1.2500	1.2500	.2500	.500	3.000	3
EBAI-B3 .5-1.5C-4EC	.500	1.5000	1.5000	.2500	.500	4.000	3
EBAI-B3 .5-1.5C-6EC	.500	1.5000	1.5000	.2500	.500	6.000	3
EBAI-B3 .5-2.C-4EC	.500	2.0000	2.0000	.2500	.500	4.000	3
EBAI-B3 .5-2.5C-5EC	.500	2.5000	2.5000	.2500	.500	5.000	3
EBAI-B3 .5-3.125C-6EC	.500	3.1250	3.1250	.2500	.500	6.000	3
EBAI-B3 .625-.75C-3EC	.625	.7500	.7500	.3125	.625	3.000	3
EBAI-B3 .625-1./2.C-4EC	.625	1.0000	2.0000	.3125	.625	4.000	3
EBAI-B3 .625-1./3.C-5EC	.625	1.0000	3.0000	.3125	.625	5.000	3
EBAI-B3 .625-1./4.C-6EC	.625	1.0000	4.0000	.3125	.625	6.000	3
EBAI-B3 .625-1.25C-3.5EC	.625	1.2500	1.2500	.3125	.625	3.500	3
EBAI-B3 .625-1.5C-6EC	.625	1.5000	1.5000	.3125	.625	6.000	3
EBAI-B3 .625-2.C-4EC	.625	2.0000	2.0000	.3125	.625	4.000	3
EBAI-B3 .625-2.25C-5EC	.625	2.2500	2.2500	.3125	.625	5.000	3
EBAI-B3 .625-3.C-6EC	.625	3.0000	3.0000	.3125	.625	6.000	3
EBAI-B3 .75-1.C-3EC	.750	1.0000	1.0000	.3750	.750	3.000	3
EBAI-B3 .75-1.25/2.C-4EC	.750	1.2500	2.0000	.3750	.750	4.000	3
EBAI-B3 .75-1.25/3.C-5EC	.750	1.2500	3.0000	.3750	.750	5.000	3
EBAI-B3 .75-1.25/4.C-6EC	.750	1.2500	4.0000	.3750	.750	6.000	3
EBAI-B3 .75-1.5C-6EC	.750	1.5000	1.5000	.3750	.750	6.000	3
EBAI-B3 .75-1.625C-4EC	.750	1.6250	1.6250	.3750	.750	4.000	3
EBAI-B3 .75-2.25C-5EC	.750	2.2500	2.2500	.3750	.750	5.000	3
EBAI-B3 .75-3.C-6EC	.750	3.0000	3.0000	.3750	.750	6.000	3
EBAI-B3 .75-4.C-7EC	.750	4.0000	4.0000	.3750	.750	7.000	3
EBAI-B3 1.-1.5C-4EC	1.000	1.5000	1.5000	.5000	1.000	4.000	3
EBAI-B3 1.-1.5C-6EC	1.000	1.5000	1.5000	.5000	1.000	6.000	3
EBAI-B3 1.-1.5/3.C-5EC	1.000	1.5000	3.0000	.5000	1.000	5.000	3
EBAI-B3 1.-1.5/4.C-6EC	1.000	1.5000	4.0000	.5000	1.000	6.000	3
EBAI-B3 1.-1.5/5.C-7EC	1.000	1.5000	5.0000	.5000	1.000	7.000	3

[1] Number of flutes

EBAI-B3-EC

DLC Coated 3 Flute Ball Nose Mills for Machining
Aluminum and Other Non-Ferrous Materials





Designation	DC	APMX	LU	RE	DCONMS	OAL	NOF[1]
EBAI-B3 1.-2.C-4.5EC	1.000	2.0000	2.0000	.5000	1.000	4.500	3
EBAI-B3 1.-2.25C-5EC	1.000	2.2500	2.2500	.5000	1.000	5.000	3
EBAI-B3 1.-2.625C-6EC	1.000	2.6250	2.6250	.5000	1.000	6.000	3
EBAI-B3 1.-3.C-6EC	1.000	3.0000	3.0000	.5000	1.000	6.000	3
EBAI-B3 1.-4.C-7EC	1.000	4.0000	4.0000	.5000	1.000	7.000	3
EBAI-B3 1.25-2.C-4.5EC	1.250	2.0000	2.0000	.6250	1.250	4.500	3
EBAI-B3 1.25-3.C-6EC	1.250	3.0000	3.0000	.6250	1.250	6.000	3

[1] Number of flutes

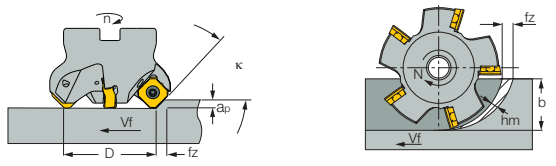
Cutting Conditions

Semi-Finish

ISO	Material No.	Material	Condition	Cutting Speed Recommendations (V_c) SFM	Hardness HB	Cutting Diameter Feed (IPT)										Profiling Radial	
						1/8	3/16	1/4	5/16	3/8	7/16	1/2	5/8	3/4	1	$a_{p\ max}$	$a_{e\ max}$
N	21	Aluminum - wrought alloy	Not cureable	1600-1800	60	.001	.002	.002	.003	.004	.004	.005	.006	.008	.010	1-2xD	.05xD
	22		Cured		100	.001	.002	.002	.003	.004	.004	.005	.006	.008	.010	1-2xD	.05xD
	23	Aluminum cast, alloyed <12% Si	Not cureable	2200	75	.001	.001	.001	.002	.002	.002	.003	.003	.004	.006	1-2xD	.05xD
	24		Cured		90	.001	.001	.001	.002	.002	.002	.003	.003	.004	.006	1-2xD	.05xD
	26	Copper alloys	Free cutting	450-650	110	.001	.001	.002	.002	.003	.003	.003	.004	.005	.007	1-2xD	.05xD
	27		Brass		90	.001	.001	.002	.002	.003	.003	.003	.004	.005	.007	1-2xD	.05xD
	28		Electrolitic copper		100	.001	.001	.002	.002	.003	.003	.003	.004	.005	.007	1-2xD	.05xD

Roughing

ISO	Material No.	Material	Condition	Cutting Speed Recommendations (V_c) SFM	Hardness HB	Cutting Diameter Feed (IPT)										Profiling Radial	
						1/8	3/16	1/4	5/16	3/8	7/16	1/2	5/8	3/4	1	$a_{p\ max}$	$a_{e\ max}$
N	21	Aluminum - wrought alloy	Not cureable	1600-1800	60	.001	.001	.002	.002	.003	.003	.003	.004	.005	.007	1xD	.5xD
	22		Cured		100	.001	.001	.002	.002	.003	.003	.003	.004	.005	.007	1xD	.5xD
	23	Aluminum cast, alloyed <12% Si	Not cureable	2200	75	.001	.001	.001	.001	.001	.002	.002	.002	.003	.004	1xD	.5xD
	24		Cured		90	.001	.001	.001	.001	.001	.002	.002	.002	.003	.004	1xD	.5xD
	26	Copper alloys	Free cutting	450-650	110	.001	.001	.001	.001	.002	.002	.002	.003	.004	.005	1xD	.5xD
	27		Brass		90	.001	.001	.001	.001	.002	.002	.002	.003	.004	.005	1xD	.5xD
	28		Electrolitic copper		100	.001	.001	.001	.001	.002	.002	.002	.003	.004	.005	1xD	.5xD



Vc	[SFM]	Cutting speed
D	[in]	Tool diameter
N	[RPM]	Spindle speed
Vf	[IPM]	Feed speed
fz	[IPT]	Feed per tooth
Z		Number of teeth
fN	[IPR]	Feed per revolution
Q	[in³/min]	Metal removal rate
ap	[inch]	Depth of cut
b	[inch]	Width of cut
Th	[min]	Machining time
Lw	[inch]	Machining length
Kc	[PSI]	Specific cutting force
Kc1(1)	[PSI]	Specific cutting force for 1 mm² chip section
hm	[inch]	Average chip thickness
mc(1)		Chip thickness factor
k	[degrees]	Cutting edge angle
P	[HP]	Machining power
η		Machine efficiency
P=	**Pc + PM**	
P	-	Total Machining Power
Pc	-	Net Power=Cutting Power
PM	-	Motor Power (while not cutting)

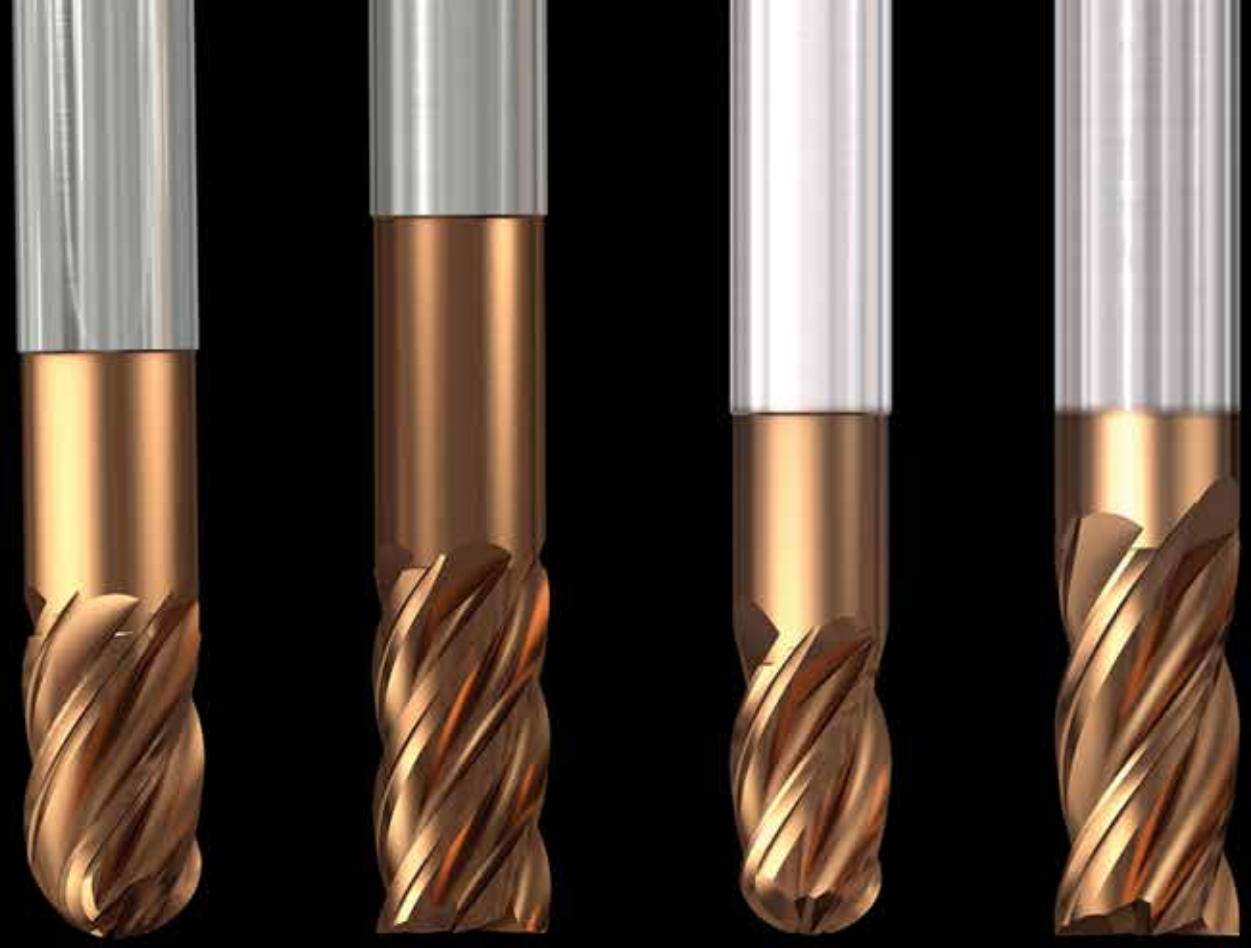
Calculations

Cutting speed	$Vc = \frac{\pi * D * N}{12}$ [SFM]
Spindle speed	$N = \frac{Vc * 12}{\pi * D}$ [RPM]
Table speed	$V_f = f_z * Z * N$ [IPM]
Feed per tooth	$f_z = \frac{Vf}{N * Zeff}$ [IPT]
Feed per revolution	$f_N = fz * Z$ [IPR]
Metal removal rate	$Q = a_p * b * V_f$ [in³/min]
Machining time	$Th = \frac{L_w}{V_f}$ [min]
Specific cutting force	$K_c = K_{c1} * h_m^{-mc}$
Average chip thickness in shoulder milling	$h_m \approx f_z * \sqrt{\frac{b}{D}}$ [in]
Average chip thickness in shoulder milling	$hm = \frac{(\sin k * 180 * b * f_z)}{\pi * D * \arcsin(b/D)}$ [in]
Machining power	$P = \frac{(558 * a_p * b * V_f * k_c)}{45 * 10^7 * \eta}$ [HP]

Values for Motor Power Pm

Max. Machine Power (HP)	Motor Power Pm (kW)
7.5	0.5
10.0	0.5-1.0
15.0	1.5
20.0	2.0
24.0	3.0
29.5	3.4

Motor Power Pm has a value of approximately 7 to 12% of Maximum Machine Power



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