

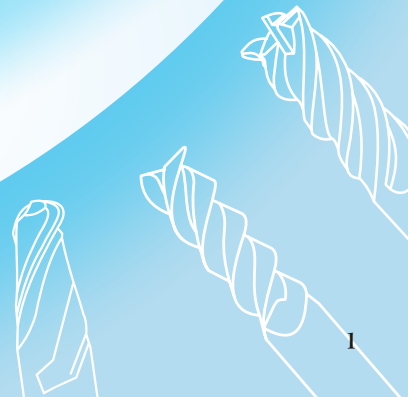
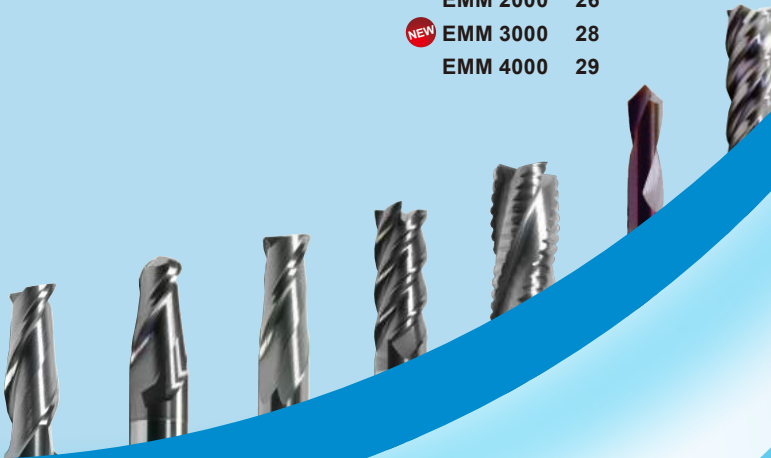
# B

## Carbide End Mill

Carbide End Mill Identification System 2  
Various Icons Guide And Processing Icon Guide 3

Carbide End Mill Series 4-6

GMA 2000	7	EMML 4000	31
GMA 3000	8	EMM 2000T00	32
HMA 2000	9	GMM 4000	33
HMA 3000	10	MU-EMM 4000	35
MU2-GMA 3000	11	MU-GMM 4000	36
MU2-HMA 3000	12	MUH-GMM 4000	39
<b>NEW</b> MU3-JMA 3000	13	MUH-IMM 4000	40
S-EMB 2000	14	<b>NEW</b> MUH-IPM 4000	41
EMB 2000-00	15	GMM 6000	42
<b>NEW</b> EMB2000L2	17	FM-CMM 4000	43
EMB 2000	18	RM-CMM 4000	44
EMB 4000	20	DMR 2000-00-00L2	45
DR-DMC 2000	21	DMR 2000	46
DC-DMC 2000	22	DMR 4000	48
S-EMM 2000	23	<b>NEW</b> PH-FMR 4000	50
S-EMML 2000-00	24	<b>NEW</b> PH-FPR 4000	51
EMM 2000	26		
<b>NEW</b> EMM 3000	28		
EMM 4000	29		



## Carbide End Mill Identification System

# S - E M M L 2 000 XXX

1  
 2  
 3  
 4  
 5  
 6  
 7  
 8

1 Feature  
2 Helix angle  
3 Grade  
4 Application  
5 Long Flute (or Neck)  
6 Teeth  
7 Diameter  
8 Other

### 1 Feature

Sign	Feature
S	Micro Diameter
MU	Rounded Land
MU2	Rounded Land Double Edge
MUH	Rounded Land Irregular Pitch
KUH	Round Land Unequal Split For Cast Iron Processing
PH	Unequal Division Unequal Helix Non-Round Land
DR	120° Position Drill 120°
DC	90° Position Drill 90°
RU	Rounded Land Roughing
CU	Rounded Land Medium Roughing
FU	Rounded Land Finishing Roughing
FM	Fine Pitch & Finishing Roughing
CM	Fine Pitch & Medium Roughing
RM	Fine Pitch & Roughing
V	Dove-tail Grave
VV	Double-edge Dove-tail Groove
CC	Chamfer Cutter 45°

### 2 Helix Angle

Sign	Angle
A	0°
C	25°
D	30°
E	35°
F	35° / 38°
G	45°
H	55°
I	42° / 45°
J	50°
K	38° / 40°

### 3 Grade

Sign	Grade
M	M500
G	G300
P	P550
W	W500

### 4 Application

Sign	Application
A	Aluminum
B	Ball Nose
C	Chamfer
M	Square
R	Corner Radius

### 8 Other

R□□	Radius ex : R02=R0.2mm	<b>Special O.A.L</b>	E1 : 75mm
T□□	Tapered ex : T005=0.5°		H : 100mm
L1	Special Flute Length		M : 150mm
L2	E.L.		R : 200mm
X□□□□	Special Angle ex : X40.45=鳩尾槽刀刃角40° · 導角45°	<b>DX</b>	Special Shank Dia ex : D6=6mm

B

CARBIDE  
END MILL

Aluminum

Ball Nose

















Chamfer

Square

Corner Radius

C  
M  
A  
B  
L  
E  
R  
A  
D  
I  
U  
S

## Specification Icon Guide

Icon	Explanation	Icon	Explanation
	Micro Grain Carbide		Grade M500
	Cobalt Content 12%		Grade G300
	Working Hardness < 55°		Grade P500
	AlTiN Coating	  	Helix Angle
	TiSiN Coating	  	
		 	

**B**  
CARBIDE  
END MILL

Aluminum

Ball Nose















Chamfer

Square
















































Corner  
Radius

SPECIALTY END MILLS




## Processing Icon Guide

Icon	Explanation	Icon	Explanation	Icon	Explanation
	Right angle Drilling		Surface Milling		R Corner Drilling
	Chamfer Of Rounding Hole		Profilemilling		R Corner Slotcecc
	Right Angle Slotted		Chamfer Processing		R Corner Side Milling
	Full Slot		Position Processing		R Slot
	Angular Plunge Grinding		Side Milling		

## Carbide End Mill Series Index

B CARBIDE END MILL	Product	D(mm)	Description	Page
Aluminum Ball Nose Chamfer Square Corner Radius		Ø6 Ø10 Ø8	   	7
		Ø4 Ø8 Ø12 Ø6 Ø10 Ø16	   	8
		Ø4 Ø8 Ø12 Ø6 Ø10 Ø16	   	9
		Ø4 Ø8 Ø12 Ø6 Ø10 Ø16	   	10
		Ø4 Ø8 Ø12 Ø6 Ø10 Ø16	   	11
		Ø4 Ø8 Ø12 Ø6 Ø10	   	12
		Ø4 Ø8 Ø12 Ø6 Ø10 Ø16	   	13
		Ø4	     	14
		Ø4	     	15-16
		Ø6 Ø8	     	17
		Ø4 Ø8 Ø12 Ø6 Ø10 Ø16	     	18-19
	Ø4 Ø8 Ø12 Ø6 Ø10 Ø16	     	20	
	Ø3 Ø5 Ø8 Ø4 Ø6 Ø10	    	21	
	Ø3 Ø5 Ø8 Ø4 Ø6 Ø10	    	22	
	Ø4	     	23	

Product	D(mm)	Description	Page
S-EMML 2000-00 	Ø4	     	24-25
EMM 2000 	Ø4 Ø8 Ø12 Ø6 Ø10 Ø16	     	26-27
<b>NEW</b> EMM 3000 	Ø6 Ø8 Ø10	     	28
EMM 4000 	Ø4 Ø10 Ø20 Ø6 Ø12 Ø8 Ø16	     	29-30
EMML 4000 	Ø4 Ø10 Ø20 Ø6 Ø12 Ø8 Ø16	     	31
EMM 200T00 	Ø4 Ø12 Ø6 Ø16 Ø8	     	32
GMM 4000 	Ø4 Ø10 Ø20 Ø6 Ø12 Ø25 Ø8 Ø16	     	33-34
MU-EMM 4000 	Ø4 Ø10 Ø20 Ø6 Ø12 Ø8 Ø16	     	35
MU-GMM 4000 	Ø4 Ø10 Ø20 Ø6 Ø12 Ø8 Ø16	     	36-38
MUH-GMM 4000 	Ø4 Ø10 Ø20 Ø6 Ø12 Ø8 Ø16	     	39
MUH-IMM 4000 	Ø6 Ø12 Ø8 Ø16 Ø10 Ø20	      	40
<b>NEW</b> MUH-IPM 4000 	Ø6 Ø12 Ø8 Ø16 Ø10 Ø20	      	41
GMM 6000 	Ø4 Ø10 Ø20 Ø6 Ø12 Ø25 Ø8 Ø16	     	42
FM-CMM 4000 	Ø6 Ø12 Ø8 Ø16 Ø10	     	43
RM-CMM 4000 	Ø6 Ø12 Ø8 Ø16 Ø10	     	44
DMR 2000-00-00L2 	Ø4 Ø10 Ø6 Ø12 Ø8	     	45

Product	D(mm)	Description	Page
DMR 2000 	Ø4 Ø10 Ø6 Ø12 Ø8	     	46-47
DMR 4000 	Ø4 Ø10 Ø6 Ø12 Ø8	     	48-49
 PH-FMR 4000 	Ø4 Ø10 Ø6 Ø12 Ø8	     	50
 PH-FPR 4000 	Ø4 Ø10 Ø6 Ø12 Ø8	     	51

# B

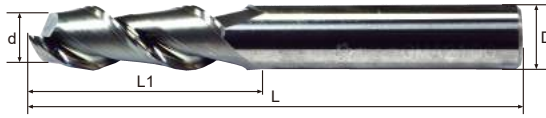
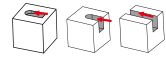
CARBIDE  
END MILL

- Aluminum
- Ball Nose
- Chamfer
- Square
- Corner Radius

# C

COATED  
END MILL

## GMA 2000 For Aluminum Alloy 2 Flutes End Mill



Model No	Stock	d	L1	D	L	Price
GMA2060	●	6	18	6	50	
GMA2080	●	8	24	8	60	
GMA2100	●	10	30	10	75	

**B**  
CARBIDE  
END MILL

Aluminum

Ball Nose

Chamfer

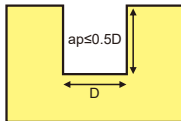
Square

Corner  
Radius

## GMA 2000 The Cutting Data For GMA 2000 Series

Depth (D : F.D)

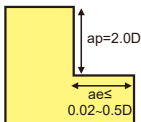
Slotted



Material : Aluminum

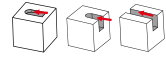
Shank(mm)		4	6	8	10	12	16	18	20
n (min)		15500	10500	8000	6400	5400	3900	3600	3200
Vf (mm/min)	Slotted	1200	1400	1600	1700	1500	1500	1300	1300
	Side	800	900	1000	1100	950	950	950	900

Side



FOR ALUMINUM ALLOY 2 FLUTE END MILL

## GMA 3000 For Aluminum Alloy 3 Flutes End Mill



Model No	Stock	d	L1	D	L	Price
GMA3010	●	1	3	4	50	
GMA3015	●	1.5	4.5	4	50	
GMA3020	●	2	6	4	50	
GMA3025	●	2.5	7.5	4	50	
GMA3030	●	3	9	4	50	
GMA3030H	●	3	9	4	100	
GMA3040	●	4	12	4	50	
GMA3040H	●	4	12	4	100	
GMA3040D6	●	4	12	6	50	
GMA3050	●	5	15	6	50	
GMA3050H	●	5	15	6	100	
GAM3060	●	6	18	6	50	
GMA3060H	●	6	18	6	100	
GMA3080	●	8	24	8	60	
GMA3080H	●	8	24	8	100	
GMA3080M	●	8	24	8	150	
GMA3100	●	10	30	10	75	
GMA3100M	●	10	30	10	150	
GMA3120	●	12	36	12	75	
GMA3120H	●	12	36	12	100	
GMA3120M	●	12	36	12	150	
GMA3160	●	16	48	16	100	
GMA3200	●	20	50	20	100	

**B**  
CARBIDE  
END MILL

Aluminum

Ball Nose

Chamfer

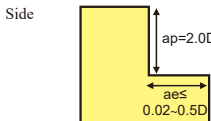
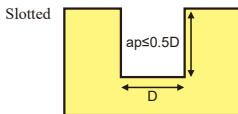
Square

Corner  
Radius

FOR ALUMINUM ALLOY 3 FLUTE END MILL

## GMA 3000 The Cutting Data For GMA 3000 Series

Depth (D : F.D)

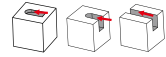


Material : Aluminum

Shank(mm)	4	6	8	10	12	16	18	20	
n (min)	15500	10500	8000	6400	5400	3900	3600	3200	
Vf (mm/min)	Slotted	1200	1400	1600	1700	1500	1500	1300	1300
	Side	800	900	1000	1100	950	950	950	900



# HMA 2000 For Aluminum Alloy 2 Flutes End Mill



Model No	Stock	d	L1	D	L	Price
HMA2010	●	1	3	4	50	
HMA2015	●	1.5	4.5	4	50	
HMA2020	●	2	6	4	50	
HMA2025	●	2.5	7.5	4	50	
HMA2030	●	3	9	4	50	
HMA2030E1	●	3	9	4	75	
HMA2030H	●	3	9	4	100	
HMA2040	●	4	12	4	50	
HMA2040E1	●	4	12	4	75	
HMA2040H	●	4	12	4	100	
HMA2050	●	5	15	6	50	
HMA2050E1	●	5	15	6	75	
HMA2050H	●	5	15	6	100	
HMA2060	●	6	18	6	50	
HMA2060E1	●	6	18	6	75	
HMA2060H	●	6	18	6	100	
HMA2070	●	7	21	8	60	
HMA2080	●	8	24	8	60	
HMA2080E1	●	8	24	8	75	
HMA2080H	●	8	24	8	100	
HMA2080M	●	8	24	8	150	
HMA2080M	●	8	24	8	150	
HMA2090	●	9	27	10	75	
HMA2100	●	10	30	10	75	
HMA2100H	●	10	30	10	100	
HMA2100M	●	10	30	10	150	
HMA2110	●	11	33	12	75	
HMA2120M	●	12	36	12	75	
HMA2120H	●	12	36	12	100	
HMA2120M	●	12	36	12	150	
HMA2160	●	16	48	16	100	
HMA2160M	●	16	48	16	150	
HMA2200	●	20	50	20	100	
HMA2200M	●	20	50	20	150	

**B**  
CARBIDE  
END MILL

Aluminum

Ball Nose

Chamfer

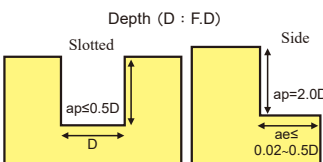
Square

Corner  
Radius

FOR ALUMINUM ALLOY 2 FLUTE END MILL

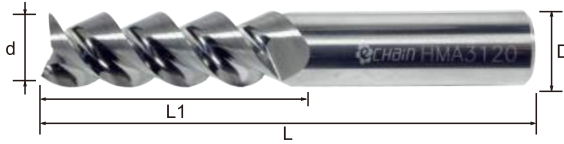
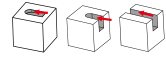
## HMA 2000 The Cutting Data For HMA 2000 Series

Material : Aluminum



Shank(mm)	4	6	8	10	12	16	18	20
n (min)	15500	10500	8000	6400	5400	3900	3600	3200
Vf (mm/min)	Slotted	1200	1400	1600	1700	1500	1300	1300
	Side	800	900	1000	1100	950	950	900

## HMA 3000 For Aluminum Alloy 3 Flutes End Mill



**B**  
CARBIDE  
END MILL

Aluminum

Ball Nose

Chamfer

Square

Corner  
Radius

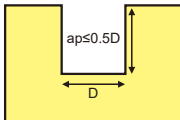
FOR ALUMINUM ALLOY 3 FLUTE END MILL

	Model No	Stock	d	L1	D	L	Price
Ball Nose	HMA3010	●	1	3	4	50	
Chamfer	HMA3015	●	1.5	4.5	4	50	
	HMA3020	●	2	6	4	50	
Square	HMA3025	●	2.5	7.5	4	50	
Corner Radius	HMA3030	●	3	9	4	50	
	HMA3040	●	4	12	4	50	
	HMA3050	●	5	15	6	50	
	HMA3060	●	6	18	6	50	
	HMA3070	●	7	21	8	60	
	HMA3080	●	8	24	8	60	
	HMA3090	●	9	27	10	75	
	HMA3100	●	10	30	10	75	
	HMA3110	●	11	33	12	75	
	HMA3120	●	12	36	12	75	
	HMA3160	●	16	48	16	100	
	HMA3200	●	20	50	20	100	

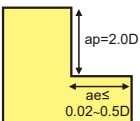
## HMA 3000 The Cutting Data For HMA 3000 Series

Depth (D : F.D)

Slotted



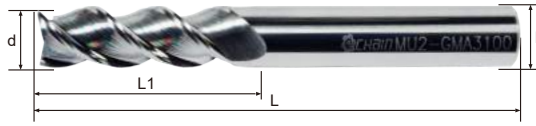
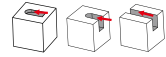
Side



Material : Aluminum

Shank(mm)	4	6	8	10	12	16	18	20	
n (min)	15500	10500	8000	6400	5400	3900	3600	3200	
Vf (mm/min)	Slotted	1200	1400	1600	1700	1500	1500	1300	1300
	Side	800	900	1000	1100	950	950	950	900

# MU2-GMA 3000 For Aluminum Alloy 3 Flutes Rounded Land Double Edge End Mill



**B**  
CARBIDE  
END MILL

Aluminum

Ball Nose

Chamfer

Square

Corner  
Radius

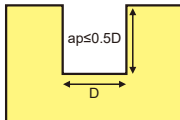
FOR ALUMINUM ALLOY 3 FLUTES ROUNDED LAND DOUBLE EDGE END MILL

Model No	Stock	d	L1	D	L	Price
MU2-GMA3040	●	4	12	4	50	
MU2-GMA3040D6	●	4	12	6	50	
MU2-GMA3050	●	5	15	6	50	
MU2-GMA3060	●	6	18	6	50	
MU2-GMA3080	●	8	24	8	60	
MU2-GMA3080E1	●	8	24	8	75	
MU2-GMA3080H	●	8	24	8	100	
MU2-GMA3080M	●	8	24	8	150	
MU2-GMA3100		10	30	10	75	
MU2-GMA3100E1	●	10	30	10	75	
MU2-GMA3100M		10	30	10	150	
MU2-GMA3120		12	36	12	75	
MU2-GMA3120H		12	36	12	100	
MU2-GMA3120M		12	36	12	150	
MU2-GMA3160		16	48	16	100	
MU2-GMA3200		20	50	20	100	

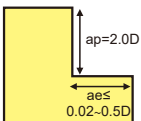
## MU2-GMA 3000 The Cutting Data For MU2-GMA 3000 Series

Depth (D : F.D)

Slotted



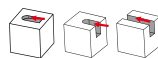
Side



Material : Aluminum

Shank(mm)	4	6	8	10	12	16	18	20
n (min)	15500	10500	8000	6400	5400	3900	3600	3200
Vf (mm/min)	Slotted	800	900	1000	1100	950	950	900
	Side	1200	1400	1600	1700	1500	1500	1300

## MU2-HMA 3000 For Aluminum Alloy 3 Flutes Rounded Land Double Edge End Mill



**B**  
CARBIDE  
END MILL

Aluminum

Ball Nose

Chamfer

Square

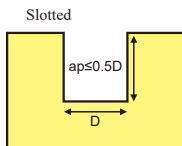
Corner  
Radius

	Model No	Stock	d	L1	D	L	Price
Ball Nose	MU2-HMA3040	●	4	12	4	50	
Chamfer	MU2-HMA3060	●	6	18	6	50	
	MU2-HMA3080	●	8	24	8	60	
Square	MU2-HMA3100	●	10	30	10	75	
Corner Radius	MU2-HMA3120	●	12	36	12	75	

FOR ALUMINUM ALLOY 3 FLUTE ROUNDED LAND DOUBLE EDGE END MILL

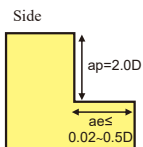
## MU2-HMA 3000 The Cutting Data For MU2-HMA 3000 Series

Depth (D : F.D)



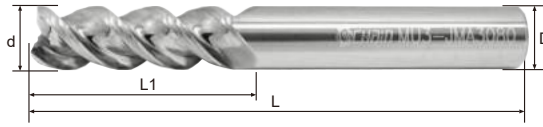
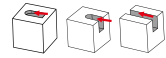
Material : Aluminum

		Shank(mm)	4	6	8	10	12	16	18	20
n (min)			15500	10500	8000	6400	5400	3900	3600	3200
Vf (mm/min)	Slotted		1200	1400	1600	1700	1500	1500	1300	1300
	Side		800	900	1000	1100	950	950	950	900



# MU3-JMA 3000 For Aluminum Alloy 3 Flutes Rounded Land triple Edge End Mill

**New Arrival**



**B**  
CARBIDE  
END MILL

Aluminum

Ball Nose

Chamfer

Square

Corner  
Radius

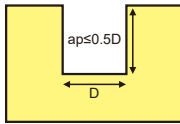
FOR ALUMINUM ALLOY 3 FLUTES ROUNDED LAND TRIPLE EDGE END MILL

Model No	Stock	d	L1	D	L	Price
<b>NEW</b> MU3-JMA3040	●	4	12	4	50	
<b>NEW</b> MU3-JMA3050	●	5	15	6	50	
<b>NEW</b> MU3-JMA3060	●	6	18	6	50	
<b>NEW</b> MU3-JMA3080	●	8	24	8	60	
<b>NEW</b> MU3-JMA3100	●	10	30	10	75	
<b>NEW</b> MU3-JMA3120	●	12	36	12	75	
<b>NEW</b> MU3-JMA3160	●	16	48	16	100	
<b>NEW</b> MU3-JMA3200	●	20	50	20	100	

## MU3-JMA 3000 The Cutting Data For MU3-JMA 3000 Series

Depth (D : F.D)

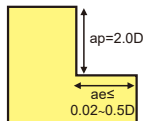
Slotted



Material : Aluminum

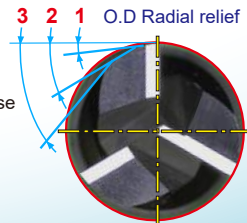
Shank(mm)	4	6	8	10	12	16	18	20
n (min)	15500	10500	8000	6400	5400	3900	3600	3200
λ (mm/min)	Slotted	800	900	1000	1100	950	950	900
	Side	1200	1400	1600	1700	1500	1500	1300

Side



## For Aluminum Alloy 3 Flutes Rounded Land Triple Edge End Mill

Cutting edge with three relief grinding, it can improve cutting performance also superior processing surface, round land with full polishing, reducing heat energy from processing effectively, smooth chip removal, stable chip breaking increase cutting tools processing life.



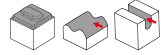
50° Helix angle

Round land with full polishing

Processing on **Aluminum** **Copper**



## S-EMB 2000 Micro Diameter Carbide 2 Flutes Ball Nose End Mill



**B**  
CARBIDE  
END MILL

Aluminum

Ball Nose

Chamfer

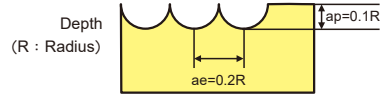
Square

Corner Radius

Micro Diameter Carbide 2 Flutes Ball Nose End Mill

Model No	Stock	d	R(1/2d)	L1	D	L	Price
S-EMB2003	●	0.3	0.15	0.6	4	50	
S-EMB2004	●	0.4	0.20	0.8	4	50	
S-EMB2005	●	0.5	0.25	1	4	50	
S-EMB2006	●	0.6	0.30	1.2	4	50	
S-EMB2007	●	0.7	0.35	1.4	4	50	
S-EMB2008	●	0.8	0.40	1.6	4	50	
S-EMB2009	●	0.9	0.45	1.8	4	50	

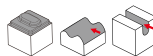
## S-EMB 2000 The Cutting Data For S-EMB 2000 Series



Material : Seel · Stainless steel · Iron cast

Shank(mm)	4	6	8	10	12	16	18	20
n (min)	6400	4300	3200	2600	2200	1600	1400	1300
Vf (mm/min)	235	245	275	275	255	230	225	205

# EMB 2000-00 Long Neck Short Flute Carbide 2 Flutes Ball Nose End Mill



**B**  
CARBIDE  
END MILL

Aluminum

Ball Nose

Chamfer

Square

Corner  
Radius

High Speed Steel Carbide End Mill

Model No	Stock	d	R(1/2d)	L1	L2	D	L	Price
EMB2004L202	●	0.4	0.2	0.4	2	4	50	
EMB2004L204	●	0.4	0.2	0.4	4	4	50	
EMB2005L202	●	0.5	0.25	0.5	2	4	50	
EMB2005L204	●	0.5	0.25	0.5	4	4	50	
EMB2005L206	●	0.5	0.25	0.5	6	4	50	
EMB2006L202	●	0.6	0.3	0.6	2	4	50	
EMB2006L204	●	0.6	0.3	0.6	4	4	50	
EMB2006L206	●	0.6	0.3	0.6	6	4	50	
EMB2006L208	●	0.6	0.3	0.6	8	4	50	
EMB2008L203	●	0.8	0.4	0.8	3	4	50	
EMB2008L204	●	0.8	0.4	0.8	4	4	50	
EMB2008L206	●	0.8	0.4	0.8	6	4	50	
EMB2008L208	●	0.8	0.4	0.8	8	4	50	
EMB2008L210	●	0.8	0.4	0.8	10	4	50	
EMB2010L204	●	1	0.5	1	4	4	50	
EMB2010L206	●	1	0.5	1	6	4	50	
EMB2010L208	●	1	0.5	1	8	4	50	
EMB2010L210	●	1	0.5	1	10	4	50	
EMB2010L212	●	1	0.5	1	12	4	50	
EMB2015L204	●	1.5	0.75	1.5	4	4	50	
EMB2015L206	●	1.5	0.75	1.5	6	4	50	
EMB2015L208	●	1.5	0.75	1.5	8	4	50	
EMB2015L210	●	1.5	0.75	1.5	10	4	50	
EMB2015L212	●	1.5	0.75	1.5	12	4	50	
EMB2020L206	●	2	1	2	6	4	50	
EMB2020L208	●	2	1	2	8	4	50	
EMB2020L210	●	2	1	2	10	4	50	
EMB2020L212	●	2	1	2	12	4	50	

※ Continued on next page.

# B

  
 CARBIDE  
 END MILL

Aluminum

Ball Nose

Chamfer

Square

 Corner  
 Radius

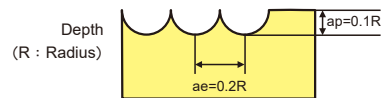
M I D E P O C N a B A T E N I N G S E R I E S C H A I N C O R P O R A T I O N

Model No	Stock	d	R(1/2d)	L1	L2	D	L	Price
EMB2020L214	●	2	1	2	14	4	50	
EMB2020L216	●	2	1	2	16	4	75	
EMB2030L208	●	3	1.5	3	8	4	50	
EMB2030L210	●	3	1.5	3	10	4	50	
EMB2030L212	●	3	1.5	3	12	4	50	
EMB2030L214	●	3	1.5	3	14	4	50	
EMB2030L216	●	3	1.5	3	16	4	75	
EMB2030L220	●	3	1.5	3	20	4	75	
EMB2040L212	●	4	2	4	12	4	50	
EMB2040L214	●	4	2	4	14	4	50	
EMB2040L216	●	4	2	4	16	4	75	
EMB2040L220	●	4	2	4	20	4	75	
EMB2040L225	●	4	2	4	25	4	75	

## EMB 2000-00

The Cutting Data For EMB 2000-00 Series

Material : Seel 、 Stainless steel 、 Iron cast

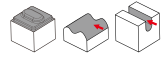


Shank(mm)	4	6	8	10	12	16	18	20
n (min)	6400	4300	3200	2600	2200	1600	1400	1300
Vf (mm/min)	235	245	275	275	255	230	225	205



## EMB 2000L2 Long Neck Short Flute 2 Flutes Ball Nose End Mill

New Arrival



**B**  
CARBIDE  
END MILL

Aluminum

Ball Nose

Chamfer

Square

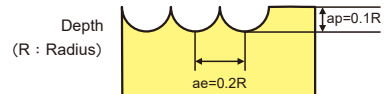
Corner  
Radius

LONG NECK SHORT FLUTE 2 FLUTES BALL NOSE END MILL

Model No	Stock	d	R(1/2d)	L1	L2	D	L	Price
<b>NEW</b> EMB2060L220	●	6	3	6	20	6	50	
<b>NEW</b> EMB2060L235HD8	●	6	3	6	35	8	100	
<b>NEW</b> EMB2060L240MD8	●	6	3	6	40	8	150	

## EMB 2000L2

The Cutting Data For EMB 2000L2 Series



Material : Seel 、 Stainless steel 、 Iron cast

Shank(mm)	4	6	8	10	12	16	18	20
n (min)	6400	4300	3200	2600	2200	1600	1400	1300
Vf (mm/min)	235	245	275	275	255	230	225	205

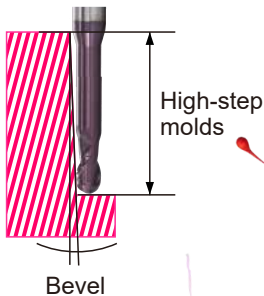
## Long Neck Short Flute 2 Flutes Ball Nose End Mill

Designed with a helix angle of 35 degrees

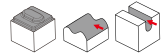
The long-necked ball nose end mill

Are suitable for high-step molds or workpiece surface profiling

With stable dimensions and high precision.



**EMB 2000** 2 Flutes Ball Nose End Mill


**New Specification Arrival**

**B**  
 CARBIDE  
 END MILL

Aluminum

Ball Nose

Chamfer

Square

 Corner  
 Radius

Aluminum Carbide End Mill

Model No	Stock	d	R(1/2d)	L1	D	L	Price
EMB2010	●	1	0.5	2	4	50	
EMB2015	●	1.5	0.75	3	4	50	
EMB2015D6	●	1.5	0.75	3	6	50	
EMB2020	●	2	1	4	4	50	
EMB2020D6	●	2	1	4	6	50	
EMB2025	●	2.5	1.25	5	4	50	
EMB2025D6	●	1.5	1.25	5	6	50	
EMB2030	●	3	1.5	6	4	50	
EMB2030D6	●	3	1.5	6	6	50	
<b>NEW</b> EMB2032	●	3.2	1.6	6.4	4	50	
EMB2035	●	3.5	1.75	7	4	50	
EMB2035D6	●	3.5	1.75	7	6	50	
EMB2035E1	●	3.5	1.75	7	4	75	
EMB2035E1D6	●	3.5	1.75	7	6	75	
EMB2040	●	4	2	8	4	50	
EMB2040D6	●	4	2	8	6	50	
EMB2040E1	●	4	2	8	4	75	
EMB2040E1D6	●	4	2	8	6	75	
EMB2040H	●	4	2	8	4	100	
EMB2040HD6	●	4	2	8	6	100	
<b>NEW</b> EMB2042	●	4.2	2.1	8.4	6	50	
EMB2049	●	4.9	2.45	9.8	6	50	
EMB2050	●	5	2.5	10	6	50	
EMB2050E1	●	5	2.5	10	6	75	
EMB2050H	●	5	2.5	10	6	100	
EMB2060	●	6	3	12	6	50	
EMB2060E1	●	6	3	12	6	75	
EMB2060H	●	6	3	12	6	100	

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Aluminum

Ball Nose

Chamfer

Square

Corner  
Radius

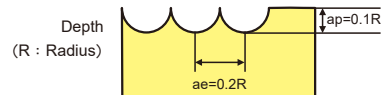
2 Flute Carbide End Mill

Model No	Stock	d	R(1/2d)	L1	D	L	Price
EMB2060M	●	6	3	12	6	150	
EMB2065	●	6.5	3.25	13	8	60	
EMB2069	●	6.9	3.45	13.8	8	60	
EMB2080	●	8	4	16	8	60	
EMB2080E1	●	8	4	16	8	75	
EMB2080H	●	8	4	16	8	100	
EMB2080M	●	8	4	16	8	150	
EMB2080R	●	8	4	16	8	200	
EMB2100	●	10	5	20	10	75	
EMB2100H	●	10	5	20	10	100	
EMB2100M	●	10	5	20	10	150	
EMB2100R	●	10	5	20	10	200	
EMB2120	●	12	6	24	12	75	
EMB2120H	●	12	6	24	12	100	
EMB2120M	●	12	6	24	12	150	
EMB2120R	●	12	6	24	12	200	
EMB2160	●	16	8	32	16	100	
EMB2160M	●	16	8	32	16	150	
EMB2160R	●	16	8	32	16	200	
EMB2200	●	20	10	40	20	100	
EMB2200M	●	20	10	40	20	150	
EMB2200R	●	20	10	40	20	200	

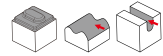
## EMB 2000

The Cutting Data For EMB 2000 Series

Material : Seel · Stainless steel · Iron cast



Shank(mm)	4	6	8	10	12	16	18	20
n (min)	6400	4300	3200	2600	2200	1600	1400	1300
Vf (mm/min)	235	245	275	275	255	230	225	205

**EMB 4000** 4 Flutes Ball Nose End Mill

**B**  
 CARBIDE  
 END MILL

Aluminum

Ball Nose

Chamfer

Square

 Corner  
 Radius

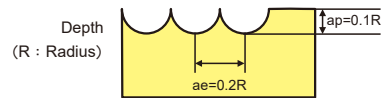
4 Flutes Ball Nose End Mill

Model No	Stock	d	R(1/2d)	L1	D	L	Price
EMB4010	●	1	0.5	2	4	50	
EMB4015	●	1.5	0.75	3	4	50	
EMB4020	●	2	1	4	4	50	
EMB4030	●	3	1.5	6	4	50	
EMB4035	●	3.5	1.75	7	4	50	
EMB4040	●	4	2	8	4	50	
EMB4050	●	5	2.5	10	6	50	
EMB4060	●	6	3	12	6	50	
EMB4060E1	●	6	3	12	6	75	
EMB4060H	●	6	3	12	6	100	
EMB4080	●	8	4	16	8	60	
EMB4080E1	●	8	4	16	8	75	
EMB4080H	●	8	4	16	8	100	
EMB4100	●	10	5	20	10	75	
EMB4100H	●	10	5	20	10	100	
EMB4100M	●	10	5	20	10	150	
EMB4120	●	12	6	24	12	75	
EMB4120H	●	12	6	24	12	100	
EMB4120M	●	12	6	24	12	150	
EMB4160	●	16	8	32	16	100	
EMB4160M	●	16	8	32	16	150	
EMB4200	●	20	10	40	20	100	

**EMB 4000**

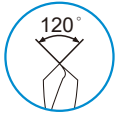
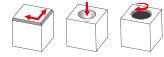
The Cutting Data For EMB 4000 Series

Material : Seel 、 Stainless steel 、 Iron cast



Shank(mm)	4	6	8	10	12	16	18	20
n (min)	6400	4300	3200	2600	2200	1600	1400	1300
Vf (mm/min)	470	490	550	550	510	450	455	410

## DR-DMC 2000 2 Flutes Positioning Drill



**B**  
CARBIDE  
END MILL

Aluminum

Ball Nose

Chamfer

Square

Corner  
Radius

21 2000 Series

Model No	Stock	d	L1	D	L	Price
DR-DMC2030	●	3	8	3	50	
DR-DMC2040	●	4	12	4	50	
DR-DMC2050	●	5	15	5	50	
DR-DMC2060	●	6	20	6	60	
DR-DMC2080	●	8	25	8	60	
DR-DMC2100	●	10	25	10	75	
DR-DMC2120	●	12	30	12	75	
DR-DMC2160	●	16	35	16	100	
DR-DMC2200	●	20	40	20	100	

## DR-DMC 2000 The Cutting Data For DR-DMC 2000 Series

Material : Seel · Stainless steel · Iron cast

Shank(mm)	4	6	8	10	12	16	18	20
n (min)	5500	3700	2800	2300	1900	1400	1300	110
Vf (mm/min)	220	150	120	90	80	60	50	45

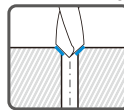
Large hole chamfering



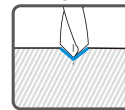
Chamfering



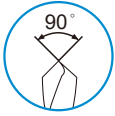
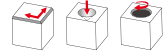
Hole Chamfering



Positioning processing



## DC-DMC 2000 2 Flutes Positioning Drill



**B**  
CARBIDE  
END MILL

Aluminum

Ball Nose

Chamfer

Square

Corner  
Radius

Model No	Stock	d	L1	D	L	Price
DC-DMC2030	●	3	8	3	50	
DC-DMC2040	●	4	12	4	50	
DC-DMC2040E1	●	4	12	4	75	
DC-DMC2050	●	5	15	5	50	
DC-DMC2060	●	6	20	6	60	
DC-DMC2080	●	8	25	8	60	
DC-DMC2100	●	10	25	10	75	
DC-DMC2120	●	12	30	12	75	
DC-DMC2160	●	16	35	16	100	
DC-DMC2200	●	20	40	20	100	

2 Flutes Positioning Drill

## DC-DMC 2000 The Cutting Data For DC-DMC 2000 Series

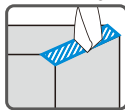
Material : Seel · Stainless steel · Iron cast

Shank(mm)	4	6	8	10	12	16	18	20
n (min)	5500	3700	2800	2300	1900	1400	1300	110
Vf (mm/min)	220	150	120	90	80	60	50	45

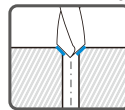
Large hole chamfering



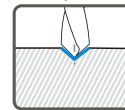
Chamfering



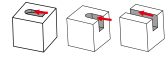
Hole Chamfering



Positioning processing



# S-EMM 2000 Micro Diameter 2 Flutes Carbide End Mill



**B**  
CARBIDE  
END MILL

Model No	Stock	d	L1	D	L	Price
S-EMM2002	●	0.2	0.4	4	50	
S-EMM2003	●	0.3	0.6	4	50	
S-EMM2004	●	0.4	0.8	4	50	
S-EMM2005	●	0.5	1	4	50	
S-EMM2006	●	0.6	1.2	4	50	
S-EMM2007	●	0.7	1.4	4	50	
S-EMM2008	●	0.8	1.6	4	50	
S-EMM2009	●	0.9	1.8	4	50	

Aluminum

Ball Nose

Chamfer

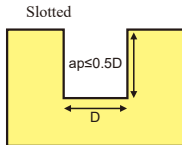
Square

Corner  
Radius

Micro Diameter 2 Flutes Carbide End Mill

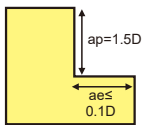
## S-EMM 2000 The Cutting Data For S-EMM 2000 Series

Depth (D : F.D)

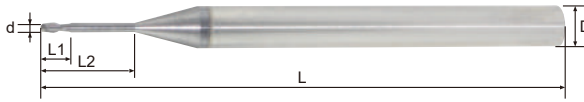
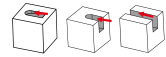


Material : Seel · Stainless steel · Iron cast

Side



Shank(mm)		4	6	8	10	12	16	18	20
n (min)		4800	3100	2300	1900	1600	1200	1100	950
Vf (mm/min)	Slotted	135	120	120	120	120	135	135	135
	Side	475	325	375	375	275	200	175	165

**S-EMML 2000-00** Long Neck Short Flute 2 Flutes Carbide End Mill

**B**  
 CARBIDE  
 END MILL

Aluminum

Ball Nose

Chamfer

Square

 Corner  
 Radius

MACHINING OPERATING INSTRUCTIONS

Model No	Stock	d	L1	L2	D	L	Price
S-EMML2004L202	●	0.4	0.6	2	4	50	
S-EMML2004L204	●	0.4	0.6	4	4	50	
S-EMML2005L202	●	0.5	0.8	2	4	50	
S-EMML2005L204	●	0.5	0.8	4	4	50	
S-EMML2005L206	●	0.5	0.8	6	4	50	
S-EMML2006L202	●	0.6	1.0	2	4	50	
S-EMML2006L204	●	0.6	1.0	4	4	50	
S-EMML2006L206	●	0.6	1.0	6	4	50	
S-EMML2006L208	●	0.6	1.0	8	4	50	
S-EMML2008L203	●	0.8	1.2	3	4	50	
S-EMML2008L204	●	0.8	1.2	4	4	50	
S-EMML2008L206	●	0.8	1.2	6	4	50	
S-EMML2008L208	●	0.8	1.2	8	4	50	
S-EMML2008L210	●	0.8	1.2	10	4	50	
S-EMML2010L204	●	1	1.2	4	4	50	
S-EMML2010L206	●	1	1.2	6	4	50	
S-EMML2010L208	●	1	1.2	8	4	50	
S-EMML2010L210	●	1	1.2	10	4	50	
S-EMML2010L212	●	1	1.2	12	4	50	
S-EMML2015L204	●	1.5	1.7	4	4	50	
S-EMML2015L206	●	1.5	1.7	6	4	50	
S-EMML2015L208	●	1.5	1.7	8	4	50	
S-EMML2015L210	●	1.5	1.7	10	4	50	
S-EMML2015L212	●	1.5	1.7	12	4	50	
S-EMML2020L206	●	2	2.2	6	4	50	
S-EMML2020L208	●	2	2.2	8	4	50	
S-EMML2020L210	●	2	2.2	10	4	50	
S-EMML2020L212	●	2	2.2	12	4	50	

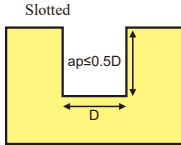
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Model No	Stock	d	L1	L2	D	L	Price
S-EMML2020L214	●	2	2.2	14	4	50	
S-EMML2020L216	●	2	2.2	16	4	50	
S-EMML2030L208	●	3	3.2	8	4	50	
S-EMML2030L210	●	3	3.2	10	4	50	
S-EMML2030L212	●	3	3.2	12	4	50	
S-EMML2030L214	●	3	3.2	14	4	50	
S-EMML2030L216	●	3	3.2	16	4	50	
S-EMML2030L220	●	3	3.2	20	4	50	

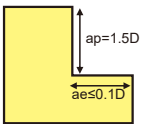
## S-EMML 2000-00 The Cutting Data For S-EMML 2000-00 Series

Depth (D : F.D)



Material : Seel · Stainless steel · Iron cast

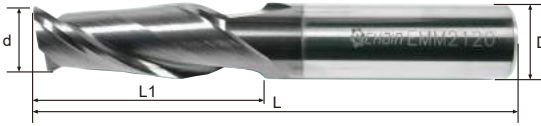
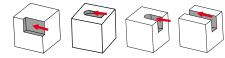
Side



Shank(mm)		4	6	8	10	12	16	18	20
n (min)		4800	3100	2300	1900	1600	1200	1100	950
Vf (mm/min)	Slotted	135	120	120	120	120	135	135	135
	Side	475	325	375	375	275	200	175	165

## EMM 2000 2 Flutes Carbide End Mill

 **New Specification Arrival**



Model No	Stock	d	L1	D	L	Price
EMM2010	●	1	2.5	4	50	
EMM2011L1033	●	1.1	3.3	4	50	
EMM2012L1036	●	1.2	3.6	4	50	
EMM2013L1039	●	1.3	3.9	4	50	
EMM2014L1042	●	1.4	4.2	4	50	
EMM2015	●	1.5	3.75	4	50	
EMM205L1045	●	1.5	4.5	4	50	
EMM2016L1048	●	1.6	4.8	4	50	
EMM2017L1051	●	1.7	5.1	4	50	
EMM2018L1054	●	1.8	5.4	4	50	
EMM2019L1057	●	1.9	5.7	4	50	
EMM2020	●	2	5	4	50	
EMM2020D6	●	2	5	6	50	
EMM2020L16	●	2	6	4	50	
EMM2021L1063	●	2.1	6.3	4	50	
EMM2022L1066	●	2.2	6.6	4	50	
EMM2023L1069	●	2.3	6.9	4	50	
EMM2024L1072	●	2.4	7.2	4	50	
EMM2025	●	2.5	6.25	4	50	
EMM2025D6	●	2.5	12.5	6	50	
EMM2025L1075	●	2.5	7.5	6	50	
EMM2026L1078	●	2.6	7.8	4	50	
EMM2027L1081	●	2.7	8.1	4	50	
EMM2028L1084	●	2.8	8.4	4	50	
EMM2029L1087	●	2.9	8.7	4	50	
EMM2030	●	3	7.5	4	50	
EMM2030D6	●	3	7.5	6	50	
EMM2035	●	3.5	8.75	4	50	
EMM2035D6	●	3.5	8.75	6	50	
EMM2040	●	4	10	4	50	
EMM2040D6	●	4	10	4	50	
EMM2040E1	●	4	10	4	75	

※ Continued on next page.

**B**  
CARBIDE  
END MILL

Aluminum

Ball Nose

Chamfer

Square

Corner  
Radius

NEW SPECIFICATION ARRIVAL



**B**  
CARBIDE  
END MILL

Aluminum

Ball Nose

Chamfer

Square

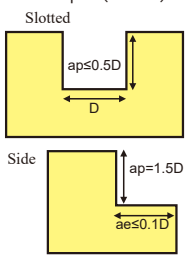
Corner  
Radius

2 Flute Carbide End Mill

Model No	Stock	d	L1	D	L	Price
EMM2050	●	5	12.5	6	50	
EMM2050E1	●	5	12.5	6	75	
EMM2050H	●	5	12.5	6	100	
EMM2055	●	5.5	13.75	6	50	
<b>NEW</b> EMM2055L1165	●	5.5	16.5	6	50	
EMM2060	●	6	15	6	50	
EMM2060E1	●	6	15	6	75	
EMM2060H	●	6	15	6	100	
EMM2070	●	7	17.5	8	60	
EMM2080	●	8	20	8	60	
EMM2080E1	●	8	20	8	75	
EMM2080H	●	8	20	8	100	
EMM2080M	●	8	20	8	150	
EMM2090	●	9	22.5	10	75	
EMM2100	●	10	25	10	75	
EMM2100H	●	10	25	10	100	
EMM2100L130	●	10	30	10	75	
EMM2100M	●	10	25	10	150	
EMM2120	●	12	30	12	75	
EMM2120H	●	12	30	12	100	
EMM2120M	●	12	30	12	150	
<b>NEW</b> EMM2140	●	14	35	16	100	
EMM2160	●	16	48	16	100	
EMM2160M	●	16	48	16	150	
EMM2160R	●	16	48	16	200	
EMM2200	●	20	50	20	100	
EMM2200M	●	20	50	20	150	
EMM2200R	●	20	50	20	200	

**EMM 2000** The Cutting Data For EMM 2000 Series

Depth (D : F.D) Material : Seel · Stainless steel · Iron cast

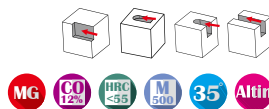


Shank(mm)	4	6	8	10	12	16	18	20
n (min)	4800	3100	2300	1900	1600	1200	1100	950
Vf (mm/min)	Slotted	135	120	120	120	135	135	135
	Side	475	325	375	375	275	200	175



## EMM 3000 3 Flutes Carbide End Mill

 **New Arrival**



**B**  
CARBIDE  
END MILL

Aluminum

Ball Nose

Chamfer

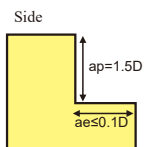
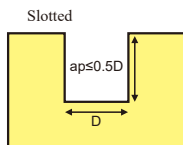
Square

Corner  
Radius

Model No	Stock	d	L1	D	L	Price
<b>NEW</b> EMM3050	●	5	12.5	6	50	
<b>NEW</b> EMM3055L1165	●	5.5	16.5	6	50	
<b>NEW</b> EMM3060	●	6	15	6	50	
<b>NEW</b> EMM3080	●	8	20	8	60	
<b>NEW</b> EMM3100	●	10	25	10	75	

## EMM 3000 The Cutting Data For EMM 3000 Series

Depth (D : F.D)



Material : Seel · Stainless steel · Iron cast

Shank(mm)	4	6	8	10	12	16	18	20
n (min)	4800	3100	2300	1900	1600	1200	1100	950
Vf (mm/min)	Slotted	270	240	240	240	270	270	270
	Side	950	650	750	750	550	400	320

## 3 Flute Carbide End Mill **Slotted, Side**

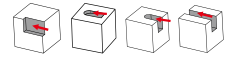
Processing on **Steel** **Stainless Steel** **Cast iron**

NEW Product launch, design of special flute structure, effectively reduce the vibration generated during processing, high effectiveness chip removal and tools with longer life.



# EMM 4000 4 Flutes Carbide End Mill

 New Specification Arrival



**B**  
CARBIDE  
END MILL

Aluminum

Ball Nose

Chamfer

Square

Corner  
Radius

4 Flutes Carbide End Mill

Model No	Stock	d	L1	D	L	Price
EMM4010	●	1	2.5	4	50	
EMM4010D6	●	1	2.5	6	50	
EMM4015	●	1.5	3.75	4	50	
EMM4015D6	●	1.5	3.75	6	50	
EMM4020	●	2	5	4	50	
EMM4020D6	●	2	5	6	50	
EMM4025	●	2.5	6.25	4	50	
EMM4030	●	3	7.5	4	50	
EMM4030E1	●	3	7.5	4	75	
EMM4030D6	●	3	7.5	6	50	
<b>NEW</b> EMM4030L109D6	●	3	9	6	50	
EMM4035	●	3.5	8.75	4	50	
EMM4035D6	●	3.5	8.75	6	50	
EMM4040	●	4	10	4	50	
EMM4040D6	●	4	10	6	50	
EMM4040E1	●	4	10	4	75	
EMM4040H	●	4	10	4	100	
EMM4045	●	4.5	11.25	4	50	
EMM4050	●	5	12.5	6	50	
EMM4050E1	●	5	12.5	6	75	
EMM4050H	●	5	12.5	6	100	
EMM4055	●	5.5	13.75	6	50	
EMM4060	●	6	15	6	50	
EMM4060E1	●	6	15	6	75	
EMM4060H	●	6	15	6	100	
EMM4070	●	7	17.5	8	60	
EMM4080	●	8	20	8	60	
EMM4080E1	●	8	20	8	75	
EMM4080H	●	8	20	8	100	

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# B

CARBIDE  
END MILL

Aluminum

Ball Nose

Chamfer

Square

Corner  
Radius

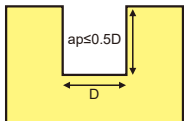
4  
Flute  
C  
S  
E  
R  
I  
E  
S

Model No	Stock	d	L1	D	L	Price
EMM4080M	●	8	20	8	150	
EMM4100	●	10	25	10	75	
EMM4100H	●	10	25	10	100	
<b>NEW</b> EMM4100L130	●	10	30	10	75	
EMM4100M	●	10	25	10	150	
EMM4120	●	12	30	12	75	
EMM4120H	●	12	30	12	100	
EMM4120L136	●	12	36	12	75	
EMM4120M	●	12	30	12	150	
<b>NEW</b> EMM4130L139	●	13	39	16	100	
EMM4140	●	14	35	16	100	
<b>NEW</b> EMM4140L142	●	14	42	16	100	
EMM4160	●	16	48	16	100	
EMM4160M	●	16	48	16	150	
EMM4160R	●	16	48	16	200	
EMM4200	●	20	50	20	100	
EMM4200M	●	20	50	20	150	
EMM4200R	●	20	50	20	200	

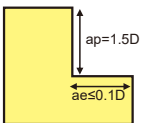
## EMM 4000 The Cutting Data For EMM 4000 Series

Depth (D : F.D)

Slotted



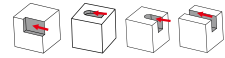
Side



Material : Seel · Stainless steel · Iron cast

Shank(mm)	4	6	8	10	12	16	18	20
n (min)	4800	3100	2300	1900	1600	1200	1100	950
Vf (mm/min)	Slotted	270	240	240	240	240	270	270
	Side	950	650	750	750	550	400	350

## EMML 4000 Long Flute 4 Flutes Carbide End Mill



**B**  
CARBIDE  
END MILL

Aluminum

Ball Nose

Chamfer

Square

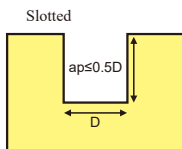
Corner  
Radius

Long Flute 4 Flutes Carbide End Mill

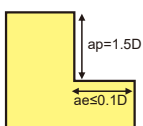
Model No	Stock	d	L1	D	L	Price
EMM4040L120E1	●	4	20	4	75	
EMM4050L125E1	●	5	25	6	75	
EMM4060L125E1	●	6	25	6	75	
EMM4060L130H	●	6	30	6	100	
EMM4080L130E1	●	8	30	8	75	
EMM4080L135H	●	8	35	8	100	
EMM4080L140M	●	8	40	8	150	
EMM4100L130	●	10	30	10	75	
EMM4100L140H	●	10	40	10	100	
EMM4100L150M	●	10	50	10	150	
EMM4120L145H	●	12	45	12	100	
EMM4120L150M	●	12	50	12	150	
EMM4160L170M	●	16	70	16	150	
EMM4200L180M	●	20	80	20	150	

## EMML 4000 The Cutting Data For EMML 4000 Series

Depth (D : F.D)



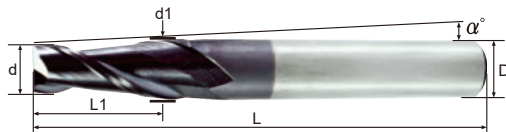
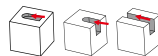
Side



Material : Seel · Stainless steel · Iron cast

Shank(mm)	4	6	8	10	12	16	18	20	
n (min)	4800	3100	2300	1900	1600	1200	1100	950	
V <sub>f</sub> (mm/min)	Slotted	270	240	240	240	240	270	270	270
	Side	950	650	750	750	550	400	350	320

## EMM 2000T00 2 Flutes Tapered Carbide End Mill



**B**  
CARBIDE  
END MILL

Aluminum

Ball Nose

Chamfer

Square

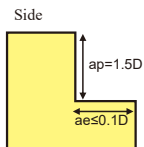
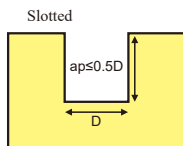
Corner  
Radius

Model No	Stock	$\alpha^\circ$	d	d1	L1	D	L	Price
EMM 2025T030	●	3°	2.5	3.34	8	4	50	
EMM 2040T030	●	3°	4.0	5.57	15	6	50	
EMM 2060T030	●	3°	6.0	7.89	18	8	60	
EMM 2080T030	●	3°	8.0	10.62	25	12	75	
EMM 2100T030	●	3°	10.0	13.67	35	16	100	

2 Flutes Tapered Carbide End Mill

## EMM 2000T00 The Cutting Data For EMM 2000T00 Series

Depth (D : F.D)

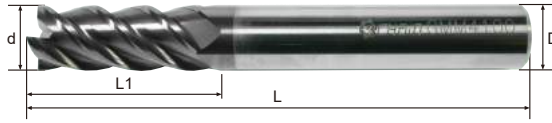
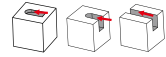


Material : Seel · Stainless steel · Iron cast

Shank(mm)	4	6	8	10	12	16	18	20
n (min)	4800	3100	2300	1900	1600	1200	1100	950
Vf (mm/min)	Slotted	135	120	120	120	135	135	135
	Side	475	325	375	375	275	200	165



# GMM 4000 4 Flutes Carbide End Mill



**B**  
CARBIDE  
END MILL

Aluminum

Ball Nose

Chamfer

Square

Corner  
Radius

2 Flute Carbide End Mill

Model No	Stock	d	L1	D	L	Price
GMM4010	●	1	2.5	4	50	
GMM4010L103	●	1	3	4	50	
GMM4015	●	1.5	3.75	4	50	
GMM4015L104	●	1.5	4	4	50	
GMM4020	●	2	5	4	50	
GMM4020L106	●	2	6	4	50	
GMM4025	●	2.5	6.25	4	50	
GMM4025L107	●	2.5	7	4	50	
GMM4025L1075	●	2.5	7.5	4	50	
GMM4030	●	3	7.5	4	50	
GMM4030L112D6	●	3	12	6	50	
GMM4030L18	●	3	8	4	50	
GMM4035	●	3.5	8.75	4	50	
GMM4040	●	4	10	4	50	
GMM4040L112	●	4	12	4	50	
GMM4045	●	4.5	11.25	6	50	
GMM4050	●	5	12.5	6	50	
GMM4050L115	●	5	15	6	50	
GMM4055	●	5.5	13.75	6	50	
GMM4060	●	6	15	6	50	
GMM4065	●	6.5	16.25	8	60	
GMM4070	●	7	17.5	8	60	
GMM4075	●	7.5	18.75	8	60	
GMM4080	●	8	20	8	60	
GMM4085	●	8.5	21.25	10	75	
GMM4090	●	9	22.5	10	75	
GMM4095	●	9.5	23.75	10	75	
GMM4100	●	10	25	10	75	

※ Continued on next page.

# B

CARBIDE  
END MILL

Aluminum

Ball Nose

Chamfer

Square

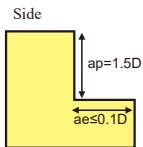
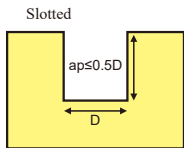
Corner  
Radius

2 Fluted Carbide End Mill

Model No	Stock	d	L1	D	L	Price
GMM4105	●	10.5	26.25	12	75	
GMM4110	●	11	27.5	12	75	
GMM4115	●	11.5	28.75	12	75	
GMM4120	●	12	30	12	100	
GMM4130	●	13	32.5	16	100	
GMM4140	●	14	35	16	100	
GMM4150	●	15	37.5	16	100	
GMM4160	●	16	48	16	100	
GMM4170	●	17	42.5	20	100	
GMM4180	●	18	45	20	100	
GMM4190	●	19	47.5	20	100	
GMM4200	●	20	50	20	100	
GMM4220	●	22	55	25	100	
GMM4250	●	25	62.5	25	100	

## GMM 4000 The Cutting Data For GMM 4000 Series

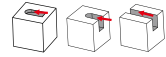
Depth (D : F.D)



Material : Seel · Stainless steel · Iron cast

Shank(mm)	4	6	8	10	12	16	18	20	
n (min)	4800	3100	2300	1900	1600	1200	1100	950	
Vf (mm/min)	Slotted	270	240	240	240	240	270	270	270
	Side	950	650	750	750	550	400	350	320

# MU-EMM 4000 4 Flutes Rounded Land Carbide End Mill



Model No	Stock	d	L1	D	L	Price
MU-EMM4030	●	3	7.5	4	50	
MU-EMM4030L109D6	●	3	9	6	50	
MU-EMM4030D6	●	3	7.5	6	50	
MU-EMM4040	●	4	10	4	50	
MU-EMM4040D6	●	4	10	6	50	
MU-EMM4040L112	●	4	12	4	50	
MU-EMM4040L112D6	●	4	12	6	50	
MU-EMM4050	●	5	12.5	6	50	
MU-EMM4050L115	●	5	15	6	50	
MU-EMM4060	●	6	15	6	50	
MU-EMM4060L118	●	6	18	6	50	
MU-EMM4060E1	●	6	15	6	75	
MU-EMM4070	●	7	17.5	8	60	
MU-EMM4070L121	●	7	21	8	60	
MU-EMM4080	●	8	20	8	60	
MU-EMM4080L124	●	8	24	8	60	
MU-EMM4090	●	9	22.5	10	75	
MU-EMM4090L127	●	9	27	10	75	
MU-EMM4100	●	10	25	10	75	
MU-EMM4100L130	●	10	30	10	75	
MU-EMM4120	●	12	30	12	75	
MU-EMM4120L136	●	12	36	12	75	
MU-EMM4140	●	14	35	16	100	
MU-EMM4160	●	16	48	16	100	
MU-EMM4160L160M	●	16	60	16	150	
MU-EMM4200	●	20	50	20	100	

**B**  
CARBIDE  
END MILL

Aluminum

Ball Nose

Chamfer

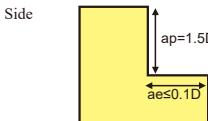
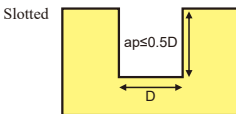
Square

Corner  
Radius

4 Flutes Rounded Land Carbide End Mill

## MU-EMM 4000 The Cutting Data For MU-EMM 4000 Series

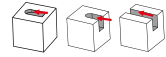
Depth (D : F.D)



Material : Seel , Stainless steel , Iron cast

Shank(mm)		4	6	8	10	12	16	18	20
n (min)		4800	3100	2300	1900	1600	1200	1100	950
Vf (mm/min)	Slotted	270	240	240	240	240	270	270	270
	Side	950	650	750	750	550	400	350	320



**MU-GMM 4000** 4 Flutes Rounded Land Carbide End Mill


Model No	Stock	d	L1	D	L	Price
MU-GMM4030	●	3	7.5	4	50	
MU-GMM4030L109	●	3	9	4	50	
MU-GMM4030D6	●	3	7.5	6	50	
MU-GMM4031L1093	●	3.1	9.3	4	50	
MU-GMM4032L1096	●	3.2	9.6	4	50	
MU-GMM4033L1099	●	3.3	9.9	4	50	
MU-GMM4034L1102	●	3.4	10.2	4	50	
MU-GMM4035L1105	●	3.5	10.5	4	50	
MU-GMM4036L1108	●	3.6	10.8	4	50	
MU-GMM4037L1111	●	3.7	11.1	4	50	
MU-GMM4038L1114	●	3.8	11.4	4	50	
MU-GMM4039L1117	●	3.9	11.7	4	50	
MU-GMM4040	●	4	10	4	50	
MU-GMM4040D6	●	4	10	6	50	
MU-GMM4040L112	●	4	12	4	50	
MU-GMM4040L112D6	●	4	12	6	50	
MU-GMM4041L1123	●	4.1	12.3	6	50	
MU-GMM4042L1126	●	4.2	12.6	6	50	
MU-GMM4043L1129	●	4.3	12.9	6	50	
MU-GMM4044L1132	●	4.4	13.2	6	50	
MU-GMM4045L1135	●	4.5	13.5	6	50	
MU-GMM4046L1138	●	4.6	13.8	6	50	
MU-GMM4047L1141	●	4.7	14.1	6	50	
MU-GMM4048L1144	●	4.8	14.4	6	50	
MU-GMM4049L1147	●	4.9	14.7	6	50	
MU-GMM4050	●	5	12.5	6	50	
MU-GMM4050L115	●	5	15	6	50	
MU-GMM4051L1153	●	5.1	15.3	6	50	
MU-GMM4052L1156	●	5.2	15.6	6	50	
MU-GMM4053L1159	●	5.3	15.9	6	50	
MU-GMM4054L1162	●	5.4	16.2	6	50	
MU-GMM4055	●	5.5	13.75	6	50	

※ Continued on next page.

**B**  
 CARBIDE  
 END MILL

Aluminum

Ball Nose

Chamfer

Square

 Corner  
 Radius

4 Flutes Rounded Land Carbide End Mill

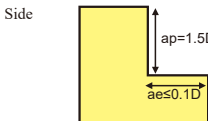
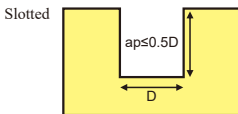
Model No	Stock	d	L1	D	L	Price
MU-GMM4055L1165	●	5.5	16.5	6	50	
MU-GMM4056L1168	●	5.6	16.8	6	50	
MU-GMM4057L1171	●	5.7	17.1	6	50	
MU-GMM4058L1174	●	5.8	17.4	6	50	
MU-GMM4059L1177	●	5.8	17.7	6	50	
MU-GMM4060	●	6	15	6	50	
MU-GMM4060L118	●	6	18	6	50	
MU-GMM4060E1	●	6	15	6	75	
MU-GMM4061L1183	●	6.1	18.3	8	60	
MU-GMM4062L1186	●	6.2	18.6	8	60	
MU-GMM4063L1189	●	6.3	18.9	8	60	
MU-GMM4064L1191	●	6.4	19.1	8	60	
MU-GMM4064L1192	●	6.4	19.2	8	60	
MU-GMM4065	●	6.5	16.25	8	60	
MU-GMM4065L1195	●	6.5	19.5	8	60	
MU-GMM4066L1198	●	6.6	19.8	8	60	
MU-GMM4067L1201	●	6.7	20.1	8	60	
MU-GMM4068L1204	●	6.8	20.4	8	60	
MU-GMM4069L1207	●	6.9	20.7	8	60	
MU-GMM4070	●	7	17.5	8	60	
MU-GMM4070L121	●	7	21.0	8	60	
MU-GMM4071L1213	●	7.1	21.3	8	60	
MU-GMM4072L1216	●	7.2	21.6	8	60	
MU-GMM4073L1219	●	7.3	21.9	8	60	
MU-GMM4074L1222	●	7.4	22.2	8	60	
MU-GMM4075	●	7.5	18.75	8	60	
MU-GMM4075L1225	●	7.5	22.5	8	60	
MU-GMM4076L1228	●	7.6	22.8	8	60	
MU-GMM4077L1231	●	7.7	23.1	8	60	
MU-GMM4078L1234	●	7.8	23.4	8	60	
MU-GMM4079L1237	●	7.9	23.7	8	60	
MU-GMM4080	●	8	20	8	60	
MU-GMM4080E1	●	8	20	8	75	
MU-GMM4080H	●	8	20	8	100	
MU-GMM4080M	●	8	20	8	150	
MU-GMM4080L124	●	8	24	8	60	
MU-GMM4081L1243	●	8.1	24.3	10	75	
MU-GMM4082L1246	●	8.2	24.6	10	75	
MU-GMM4083L1249	●	8.3	24.9	10	75	

※ Continued on next page.

Model No	Stock	d	L1	D	L	Price
MU-GMM4084L1252	●	8.4	25.2	10	75	
MU-GMM4085L1255	●	8.5	25.5	10	75	
MU-GMM4086L1258	●	8.6	25.8	10	75	
MU-GMM4087L1261	●	8.7	26.1	10	75	
MU-GMM4088L1264	●	8.8	26.4	10	75	
MU-GMM4089L1267	●	8.9	26.7	10	75	
MU-GMM4090	●	9	22.5	10	75	
MU-GMM4090L127	●	9	27	10	75	
MU-GMM4091L1273	●	9.1	27.3	10	75	
MU-GMM4092L1276	●	9.2	27.6	10	75	
MU-GMM4093L1279	●	9.3	27.9	10	75	
MU-GMM4094L130	●	9.4	30	10	75	
MU-GMM4094L1282	●	9.4	28.2	10	75	
MU-GMM4095L1285	●	9.5	28.5	10	75	
MU-GMM4096L1288	●	9.6	28.8	10	75	
MU-GMM4097L1291	●	9.7	29.1	10	75	
MU-GMM4098L1294	●	9.8	29.4	10	75	
MU-GMM4099L1297	●	9.9	29.7	10	75	
MU-GMM4100	●	10	25	10	75	
MU-GMM4100H	●	10	25	10	100	
MU-GMM4100L130	●	10	30	10	75	
MU-GMM4100L130H	●	10	30	10	100	
MU-GMM4110	●	11	27.5	12	75	
MU-GMM4120	●	12	30	12	75	
MU-GMM4120L136	●	12	36	12	75	
MU-GMM4120H	●	12	30	12	100	
MU-GMM4140	●	14	35	16	100	
MU-GMM4160	●	16	48	16	100	
MU-GMM4160M	●	16	48	16	150	
MU-GMM4200	●	20	50	20	100	

## MU-GMM 4000 The Cutting Data For MU-GMM 4000 Series

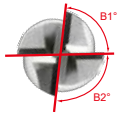
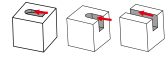
Depth (D : F.D)



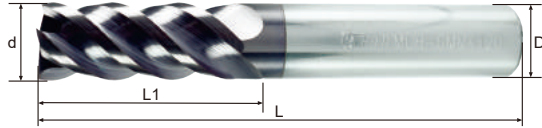
Material : Seel 、 Stainless steel 、 Iron cast

Shank(mm)	4	6	8	10	12	16	18	20
n (min)	4800	3100	2300	1900	1600	1200	1100	950
Vf (mm/min)	Slotted	270	240	240	240	240	270	270
	Side	950	650	750	750	550	400	350

# MUH-GMM 4000 4 Flutes Unequal Division Carbide End Mill



**Unequal Division**  
 $B1^\circ \neq B2^\circ$



**B**  
 CARBIDE  
 END MILL

Aluminum

Ball Nose

Chamfer

Square

Corner  
 Radius

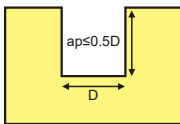
4 Flutes Carbide End Mill

Model No	Stock	d	L1	D	L	Price
MUH-GMM4040	●	4	10	4	50	
MUH-GMM4060	●	6	15	6	50	
MUH-GMM4070	●	7	17.5	8	60	
MUH-GMM4080	●	8	20	8	60	
MUH-GMM4080L124	●	8	24	8	60	
MUH-GMM4100	●	10	25	10	75	
MUH-GMM4100L130	●	10	30	10	75	
MUH-GMM4100H	●	10	25	10	100	
MUH-GMM4120	●	12	30	12	75	
MUH-GMM4120L136	●	12	36	12	75	
MUH-GMM4160	●	16	48	16	100	
MUH-GMM4200	●	20	50	20	100	

## MUH-GMM 4000 The Cutting Data For MUH-GMM 4000 Series

Depth (D : F.D)

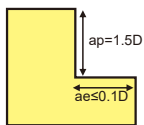
Slotted



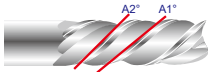
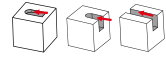
Material : Seel · Stainless steel · Iron cast

Shank(mm)		4	6	8	10	12	16	18	20
n (min)		6000	4000	2900	2400	1900	1500	1400	1200
Vf (mm/min)	Slotted	420	420	450	420	420	420	420	420
	Side	1100	800	950	750	500	480	450	400

Side

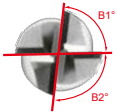


## MUH-IMM 4000 4 Flutes Unequal Spiral & Unequal Division Carbide End Mill



**Unequal Spiral**

$A1^\circ \neq A2^\circ$



**Unequal Division**

$B1^\circ \neq B2^\circ$

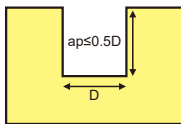


Model No	Stock	d	L1	D	L	Price
MUH-IMM4060	●	6	15	6	50	
MUH-IMM4060L118	●	6	18	6	50	
MUH-IMM4080	●	8	20	8	60	
MUH-IMM4080L124	●	8	24	8	60	
MUH-IMM4100	●	10	25	10	75	
MUH-IMM4100L130	●	10	30	10	75	
MUH-IMM4120	●	12	30	12	75	
MUH-IMM4120L136	●	12	36	12	75	
MUH-IMM4160	●	16	48	16	100	
MUH-IMM4200	●	20	50	20	100	

## MUH-IMM 4000 The Cutting Data For MUH-IMM 4000 Series

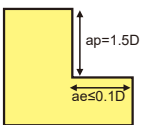
Depth (D : F.D)

Slotted



Material : Seel · Stainless steel · Iron cast

Side



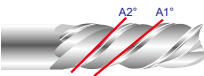
Shank(mm)	Material : Seel · Stainless steel · Iron cast							
	4	6	8	10	12	16	18	20
n (min)	6000	4000	2900	2400	1900	1500	1400	1200
Vf (mm/min)	Slotted	420	420	450	420	420	420	420
	Side	1100	800	950	750	500	480	400

4 Flutes Unequal Spiral & Unequal Division Carbide End Mill



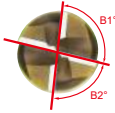
## MUH-IPM 4000 4 Flutes Unequal Spiral & Unequal Division Carbide End Mill

**New Arrival**



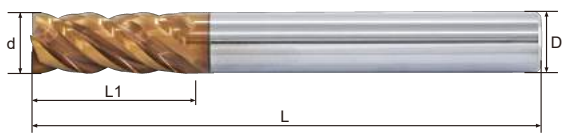
**Unequal Spiral**

$$A1^\circ \neq A2^\circ$$



**Unequal Division**

$$B1^\circ \neq B2^\circ$$



**B**  
CARBIDE  
END MILL

Aluminum

Ball Nose

Chamfer

Square

Corner  
Radius

4 Flutes Unequal Spiral & Unequal Division Carbide End Mill

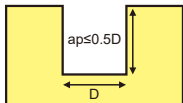
Model No	Stock	d	L1	D	L	Price
<b>NEW</b> MUH-IPM4060L118	●	6	18	6	50	
<b>NEW</b> MUH-IPM4080L124	●	8	24	8	60	
<b>NEW</b> MUH-IPM4100L130	●	10	30	10	75	
<b>NEW</b> MUH-IPM4120L136	●	12	36	12	75	
<b>NEW</b> MUH-IPM4160	●	16	48	16	100	
<b>NEW</b> MUH-IPM4160L155	●	16	55	16	100	
<b>NEW</b> MUH-IPM4200	●	20	50	20	100	
<b>NEW</b> MUH-IPM4200L160M	●	20	60	20	150	
<b>NEW</b> MUH-IPM4200L170M	●	20	70	20	150	

## MUH-IPM 4000 The Cutting Data For MUH-IPM 4000 Series

Depth (D : F.D)

Slotted

Material : Alloy steel · Carbon steel



Side

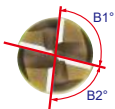


Shank(mm)	4	6	8	10	12	16	18	20
n (min)	6000	4000	2900	2400	1900	1500	1400	1200
Vf (mm/min)	Slotted	420	420	420	420	420	420	420
	Side	1100	800	950	750	500	480	400

## 4 Flutes Unequal Spiral & Unequal Division Carbide End Mill

**Unequal Spiral**

$$A1^\circ \neq A2^\circ$$



**Unequal Division**

$$B1^\circ \neq B2^\circ$$

Special Coating for

**Alloy Steel VS Carbon Steel**

Unequal division facilitates high-speed feed machining shock resistance.

Unequal helix angle facilitates high speed machining resistance to chipping.

The cutting edge adopts the division angle and the spiral angle are not equal.

Change the feed per edge so that the milling waveform for each edge is no longer the same.

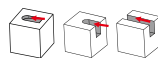
It can effectively reduce or avoid the cutting vibration pattern when the tool is side milling.

Conducive to high quality machining surfaces and improved tool life.

Special U-shaped groove design, which is good for chip removal during plunge milling.

Reduce workpiece generation port burrs.

**GMM 6000** 6 Flutes Carbide End Mill


**New Specification Arrival**

**B**  
 CARBIDE  
 END MILL

Aluminum

Ball Nose

Chamfer

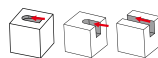
Square

 Corner  
 Radius

 6  
 F  
 L  
 U  
 T  
 E  
 S

Model No	Stock	d	L1	D	L	Price
GMM6040	●	4	10	4	50	
GMM6045	●	4.5	11.25	6	50	
GMM6050	●	5	12.5	6	50	
GMM6060	●	6	15	6	50	
<b>NEW</b> GMM6060L118	●	6	18	6	50	
GMM6080	●	8	20	8	60	
GMM6100	●	10	25	10	75	
GMM6120	●	12	30	12	75	
GMM6160	●	16	40	16	100	
GMM6200	●	20	50	20	100	
GMM6250	●	25	62.5	25	100	

# FM-CMM 4000 4 Flutes Carbide Fine Pitch & Finishing Roughing End Mill



**B**  
CARBIDE  
END MILL

Aluminum

Ball Nose

Chamfer

Square

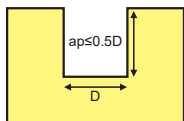
Corner  
Radius

Model No	Stock	d	L1	D	L	Price
FM-CMM4060	●	6	15	6	50	
FM-CMM4080	●	8	20	8	60	
FM-CMM4100	●	10	25	10	75	
FM-CMM4120	●	12	30	12	75	
FM-CMM4120L136	●	12	36	12	75	
FM-CMM4160	●	16	48	16	100	

## FM-CMM 4000 The Cutting Data For FM-CMM 4000 Series

Depth (D : F.D)

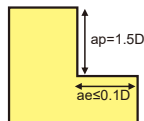
Slotted



Material : Seel · Stainless steel · Iron cast

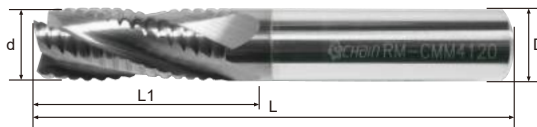
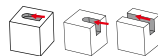
Shank(mm)		4	6	8	10	12	16	18	20
n (min)		6000	4000	2900	2400	1900	1500	1400	1200
Vf (mm/min)	Slotted	135	120	120	120	120	135	135	135
	Side	475	325	375	375	275	200	175	165

Side



4 Flute Carbide Fine Pitch & Roughing End Mill

## RM-CMM 4000 4 Flutes Carbide Fine Pitch & Roughing End Mill



**B**  
CARBIDE  
END MILL

Aluminum

Ball Nose

Chamfer

Square

Corner  
Radius

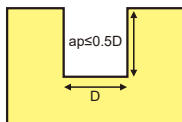
Model No	Stock	d	L1	D	L	Price
RM-CMM4060	●	6	15	6	50	
RM-CMM4080	●	8	20	8	60	
RM-CMM4100	●	10	25	10	75	
RM-CMM4120	●	12	30	12	75	
RM-CMM4120L136	●	12	36	12	75	
RM-CMM4160	●	16	48	16	100	

4 Flutes Carbide Fine Pitch & Roughing End Mill

## RM-CMM 4000 The Cutting Data For RM-CMM 4000 Series

Depth (D : F.D)

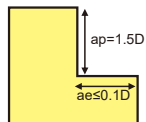
Slotted



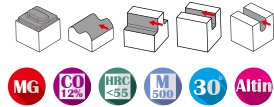
Material : Seel · Stainless steel · Iron cast

Shank(mm)		4	6	8	10	12	16	18	20
n (min)		6000	4000	2900	2400	1900	1500	1400	1200
Vf (mm/min)	Slotted	135	120	120	120	120	135	135	135
	Side	475	325	375	375	275	200	175	165

Side



## DMR 2000-00-00L2 2 Flutes Corner Radius Carbide End Mill



**B**  
CARBIDE  
END MILL

Aluminum

Ball Nose

Chamfer

Square

Corner  
Radius

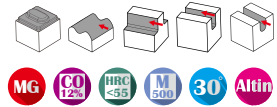
2 Flutes Corner Radius Carbide End Mill

Model No	Stock	d	R(1/2d)	L1	L2	D	L	Price
DMR2030R02L203	●	3	0.2	10	3	4	50	
DMR2030R05L203	●	3	0.5	10	3	4	50	
DMR2040R02L204	●	4	0.2	12	4	4	50	
DMR2040R05L204	●	4	0.5	12	4	4	50	
DMR2060R02L206	●	6	0.2	15	6	6	50	
DMR2060R05L206	●	6	0.5	15	6	6	50	
DMR2060R10L206	●	6	1	15	6	6	50	
DMR2080R05L210	●	8	0.5	20	10	8	60	
DMR2080R10L210	●	8	1	20	10	8	60	
DMR2100R05L212	●	10	0.5	25	12	10	75	
DMR2100R10L212	●	10	1	25	12	10	75	
DMR2120R05L214	●	12	0.5	30	14	12	75	
DMR2120R10L214	●	12	1	30	14	12	75	

## DMR 2000-00-00L2 The Cutting Data For DMR 2000-00-00L2 Series

Material : Seel · Stainless steel · Iron cast

Shank(mm)	4	6	8	10	12	16	18	20
n (min)	6400	4300	3200	2600	2200	1600	1400	1300
Vf (mm/min)	250	280	285	270	270	255	205	185

**DMR 2000** 2 Flutes Corner Radius Carbide End Mill

**B**  
 CARBIDE  
 END MILL

 Aluminum  
 Ball Nose  
 Chamfer  
 Square  
 Corner Radius

2 Flutes Corner Radius Carbide End Mill

Model No	Stock	d	R	L1	D	L	Price
DMR2010R02	●	1	0.2	2.5	4	50	
DMR2015R02	●	1.5	0.2	3.75	4	50	
DMR2020R02	●	2	0.2	5	4	50	
DMR2020R05	●	2	0.5	5	4	50	
DMR2025R02	●	2.5	0.2	6.25	4	50	
DMR2030R02	●	3	0.2	7.5	4	50	
DMR2030R02E1	●	3	0.2	7.5	4	75	
DMR2030R05	●	3	0.5	7.5	4	50	
DMR2030R05E1	●	3	0.5	7.5	4	75	
DMR2030R10	●	3	1	7.5	4	75	
DMR2030R10E1	●	3	1	7.5	4	75	
DMR2040R02	●	4	0.2	10	4	50	
DMR2040R02E1	●	4	0.2	10	4	75	
DMR2040R02H	●	4	0.2	10	4	100	
DMR2040R05	●	4	0.5	10	4	50	
DMR2040R05E1	●	4	0.5	10	4	75	
DMR2040R05H	●	4	0.5	10	4	100	
DMR2040R10	●	4	1	10	4	50	
DMR2040R10E1	●	4	1	10	4	75	
DMR2040R10H	●	4	1	10	4	100	
DMR2060R02	●	6	0.2	15	6	50	
DMR2060R02E1	●	6	0.2	15	6	75	
DMR2060R02H	●	6	0.2	15	6	100	
DMR2060R05	●	6	0.5	15	6	50	
DMR2060R05E1	●	6	0.5	15	6	75	
DMR2060R05H	●	6	0.5	15	6	100	
DMR2060R10	●	6	1	15	6	50	
DMR2060R10E1	●	6	1	15	6	75	

※ Continued on next page.

Aluminum

Ball Nose

Chamfer

Square

Corner  
Radius

2  
F  
U  
R  
E  
C  
O  
R  
N  
E  
R  
R  
A  
D  
I  
U  
S  
C  
A  
N  
B  
E  
U  
S  
E  
D

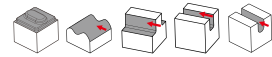
Model No	Stock	d	R	L1	D	L	Price
DMR2060R10H	●	6	1	15	6	100	
DMR2080R05	●	8	0.5	20	8	60	
DMR2080R05E1	●	8	0.5	20	8	75	
DMR2080R05H	●	8	0.5	20	8	100	
DMR2080R10	●	8	1	20	8	60	
DMR2080R10E1	●	8	1	20	8	75	
DMR2080R10H	●	8	1	20	8	100	
DMR2100R05	●	10	0.5	25	10	75	
DMR2100R05H	●	10	0.5	25	10	100	
DMR2100R10	●	10	1	25	10	75	
DMR2100R10H	●	10	1	25	10	100	
DMR2120R05	●	12	0.5	30	12	75	
DMR2120R05H	●	12	0.5	30	12	100	
DMR2120R10	●	12	1	30	12	75	
DMR2120R10H	●	12	1	30	12	100	

## DMR 2000 The Cutting Data For DMR 2000 Series

Material : Seel · Stainless steel · Iron cast

Shank(mm)	4	6	8	10	12	16	18	20
n (min)	6400	4300	3200	2600	2200	1600	1400	1300
Vf (mm/min)	250	280	285	270	270	255	205	185

**DMR 4000** 4 Flutes Corner Radius Carbide End Mill


**New Specification Arrival**

**B**  
 CARBIDE  
 END MILL

Aluminum

Ball Nose

Chamfer

Square

Corner Radius

 4  
 F  
 L  
 U  
 T  
 E  
 S  
 C  
 O  
 R  
 N  
 E  
 R  
 R  
 A  
 D  
 I  
 U  
 S

Model No	Stock	d	R	L1	D	L	Price
DMR4010R02	●	1	0.2	2.5	4	50	
DMR4010R02L103	●	1	0.2	3	4	50	
DMR4015R02	●	1.5	0.2	3.75	4	50	
DMR4015R02L104	●	1.5	0.2	4	4	50	
DMR4020R02	●	2	0.2	5	4	50	
DMR4020R02L106	●	2	0.2	6	4	50	
DMR4020R05	●	2	0.5	5	4	50	
DMR4020R05L106	●	2	0.5	6	4	50	
DMR4025R02	●	2.5	0.2	6.25	4	50	
DMR4030R02	●	3	0.2	7.5	4	50	
DMR4030R02L106	●	3	0.2	6	4	50	
DMR4030R02L108	●	3	0.2	8	4	50	
DMR4030R02E1	●	3	0.2	7.5	4	75	
DMR4030R05	●	3	0.5	7.5	4	50	
DMR4030R05E1	●	3	0.5	7.5	4	75	
DMR4030R05L108	●	3	0.5	8	4	50	
DMR4030R10	●	3	1	7.5	4	50	
DMR4030R10E1	●	3	1	8	4	75	
DMR4040R02	●	4	0.2	7.5	4	50	
DMR4040R02E1	●	4	0.2	10	4	75	
DMR4040R02H	●	4	0.2	10	4	100	
DMR4040R05	●	4	0.5	10	4	50	
DMR4040R05E1	●	4	0.5	10	4	75	
DMR4040R05H	●	4	0.5	10	4	100	
DMR4040R10	●	4	1	10	4	50	
DMR4040R10E1	●	4	1	10	4	75	
DMR4040R10H	●	4	1	10	4	100	
DMR4050R05	●	5	0.5	12.5	6	50	

※ Continued on next page.





**B**  
CARBIDE  
END MILL

Aluminum

Ball Nose

Chamfer

Square

Corner  
Radius

4  
3  
2  
1  
M

Model No	Stock	d	R	L1	D	L	Price
DMR4060R02	●	6	0.2	15	6	50	
DMR4060R02E1	●	6	0.2	15	6	75	
DMR4060R02H	●	6	0.2	15	6	100	
DMR4060R05	●	6	0.5	15	6	50	
DMR4060R05E1	●	6	0.5	15	6	75	
DMR4060R05H	●	6	0.5	15	6	100	
DMR4060R10	●	6	1	15	6	50	
DMR4060R10E1	●	6	1	15	6	75	
DMR4060R10H	●	6	1	15	6	100	
<b>NEW</b> DMR4060R20	●	6	2	15	6	50	
DMR4080R05	●	8	0.5	20	8	60	
DMR4080R05E1	●	8	0.5	20	8	75	
DMR4080R05H	●	8	0.5	20	8	100	
DMR4080R10	●	8	1	20	8	60	
DMR4080R10E1	●	8	1	20	8	75	
DMR4080R10H	●	8	1	20	8	100	
DMR4080R15	●	8	1.5	20	8	60	
DMR4100R05	●	10	0.5	25	10	75	
DMR4100R05H	●	10	0.5	25	10	100	
DMR4100R10	●	10	1	25	10	75	
DMR4100R10H	●	10	1	25	10	100	
DMR4100R15	●	10	1.5	25	10	75	
DMR4100R20	●	10	2	25	10	75	
DMR4120R05	●	12	0.5	30	12	75	
DMR4120R05H	●	12	0.5	30	12	100	
DMR4120R10	●	12	1	30	12	75	
DMR4120R10H	●	12	1	30	12	100	
DMR4120R15	●	12	1.5	30	12	75	
DMR4120R20	●	12	2	30	12	75	

## DMR 4000 The Cutting Data For DMR 4000 Series

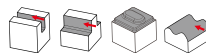
Material : Seel · Stainless steel · Iron cast

Shank(mm)	4	6	8	10	12	16	18	20
n (min)	6400	4300	3200	2600	2200	1600	1400	1300
Vf (mm/min)	520	560	570	540	540	510	410	270

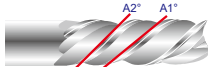


## PH-FMR 4000

4 Flutes Unequal Division Unequal Helix  
 Non-Round Land Design Corner Radius Carbide End Mill

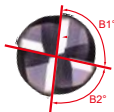


**New Arrival**



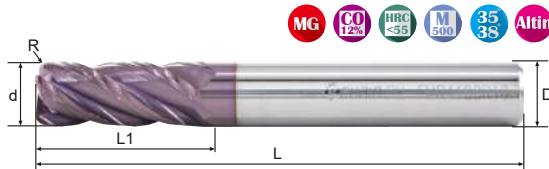
**Unequal Spiral**

$$A1^\circ \neq A2^\circ$$



**Unequal Division**

$$B1^\circ \neq B2^\circ$$



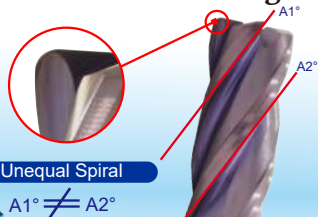
Model No	Stock	d	R	L1	D	L	Price
<b>NEW</b> PH-FMR4040R05	●	4	0.5	10	4	50	
<b>NEW</b> PH-FMR4040R10	●	4	1	10	4	50	
<b>NEW</b> PH-FMR4060R05	●	6	0.5	15	6	50	
<b>NEW</b> PH-FMR4060R10	●	6	1	15	6	50	
<b>NEW</b> PH-FMR4080R05	●	8	0.5	20	8	60	
<b>NEW</b> PH-FMR4080R10	●	8	1	20	8	60	
<b>NEW</b> PH-FMR4100R05	●	10	0.5	25	10	75	
<b>NEW</b> PH-FMR4100R10	●	10	1	25	10	75	
<b>NEW</b> PH-FMR4120R05	●	12	0.5	30	12	75	
<b>NEW</b> PH-FMR4120R10	●	12	1	30	12	75	

## PH-FMR 4000 The Cutting Data For PH-FMR 4000 Series

Material : Seel · Stainless steel · Iron cast

Shank(mm)	4	6	8	10	12	16	18	20
n (min)	6400	4300	3200	2600	2200	1600	1400	1300
Vf (mm/min)	520	560	570	540	540	510	410	370

## 4 Flutes Unequal Division Unequal Helix Non-Round Land Design Corner Radius Carbide End Mill



**Unequal Spiral**

$$A1^\circ \neq A2^\circ$$

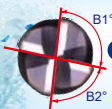
The design of unequal flute division end mill can improve vibration generated during processing, it also reduce the damage of vibration, the PH-FMR series corner radius end mills make the material with excellent surface also enhance the end mills life.

Processing on

**Steel**

**Stainless Steel**

**Cast iron**



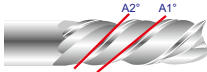
**Unequal Division**

$$B1^\circ \neq B2^\circ$$

# PH-FPR 4000

Unequal Division & Unequal Helix Angle Without Rounded Land  
4 Flutes Corner Radius Carbide End Mill

**New Arrival**



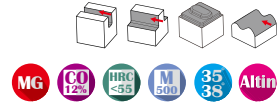
**Unequal Spiral**

$$A1^\circ \neq A2^\circ$$



**Unequal Division**

$$B1^\circ \neq B2^\circ$$



**B**  
CARBIDE  
END MILL

Model No	Stock	d	R	L1	D	L	Price
<b>NEW</b> PH-FPR4040R05	●	4	0.5	10	4	50	
<b>NEW</b> PH-FPR4040R10	●	4	1	10	4	50	
<b>NEW</b> PH-FPR4060R05	●	6	0.5	15	6	50	
<b>NEW</b> PH-FPR4060R10	●	6	1	15	6	50	
<b>NEW</b> PH-FPR4080R05	●	8	0.5	20	8	60	
<b>NEW</b> PH-FPR4080R10	●	8	1	20	8	60	
<b>NEW</b> PH-FPR4100R05	●	10	0.5	25	10	75	
<b>NEW</b> PH-FPR4100R10	●	10	1	25	10	75	
<b>NEW</b> PH-FPR4100R10L130	●	10	1	30	10	100	
<b>NEW</b> PH-FPR4120R05	●	12	0.5	30	12	75	
<b>NEW</b> PH-FPR4120R10	●	12	1	30	12	75	

Aluminum

Ball Nose

Chamfer

Square

Corner  
Radius

4 Flutes Unequal Division Non Rounded Land Carbide End Mill

## PH-FPR 4000 The Cutting Data For PH-FMR 4000 Series

Material : Alloy steel · Carbon steel

Shank(mm)	4	6	8	10	12	16	18	20
n (min)	6400	4300	3200	2600	2200	1600	1400	1300
Vf (mm/min)	520	560	570	540	540	510	410	370

## Unequal Division & Unequal Helix Angle Without Rounded Land 4 Flutes Corner Radius Carbide End Mill

**Special design**

It can protect the top of Radius tip



**For the particular coating with Alloy steel and Carbon steel**

It can avoid the cutting vibration pattern effectively and reduce crumbling on workpiece due to vibration. there is high quality machining surfaces and enhance tool life.

**Unequal Division**

$$B1^\circ \neq B2^\circ$$



World New Generation Tool Holder

# E-TYPE Tool Holder



## Feature :

1. Accurate indexing with insert securely clamped.
2. No insert movement during high speed or heavily interrupted machining.
3. Insert clamping action is simple and effective.
4. Increased insert tool life.

# World PAT.