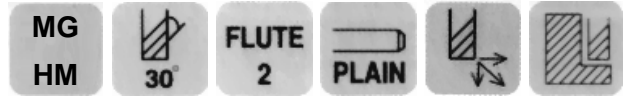


# 鑽石塗層 2 刃(R 角)(短刃、長頸)

## DIAMOND COATED, 2 FLUTE, MINIATURE, CORNER RADIUS

**EM991 系列**

**SERIES EM991**



A28

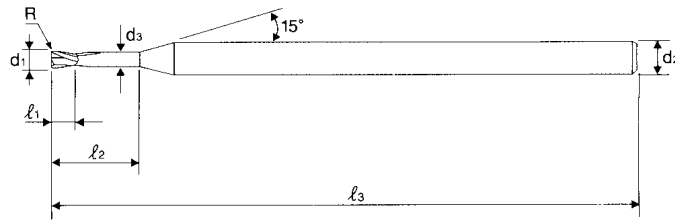
- ▶ 塗層的硬度增強及優良的耐磨性使工具壽命特別長  
Higher hardness of film and excellent wear-resistance increase the tool life surprisingly.
- ▶ 幼細的鑽石塗層鎢鋼立銑刀能使加工之工件表面極幼滑  
Ultra fine film of diamond coated coated carbide end mills ensure the smooth and excellent surface on work materials.
- ▶ 適用於石墨、精煉鋁、膠木、塑膠、木材、黃銅等材質；亦可用於加工非鐵金屬及非金屬材質  
High performance on graphite, wrought aluminum, bakelite, plastics, wood, brass etc. Diamond coated carbide end mills may have good result for the machining of non-ferrous metals and non-metallic materials.

Unit 單位 : mm



ITEM NO. 編號	MILL DIAMETER 刃徑 (d <sub>1</sub> )	SHANK DIAMETER 柄徑 (d <sub>2</sub> )	LENGTH OF CUT 刃長 (l <sub>1</sub> )	OVERALL LENGTH 全長 (l <sub>3</sub> )	LENGTH BELOW SHANK 頸下長 (l <sub>2</sub> )	NECK DIAMETER 頸直徑 (d <sub>3</sub> )
EM991-0006	0.6 X R0.05	3	0.9	3	40	0.55
EM991-0008	0.8 X R0.05	3	1.2	4	40	0.75
EM991-0010	1 X R0.10	3	1.5	5	40	0.95
EM991-0010A	1 X R0.10	3	1.5	8.5	40	0.95
EM991-0012	1.2 X R0.10	3	1.8	6	50	1.15
EM991-0015	1.5 X R0.15	3	2.2	7.5	50	1.40
EM991-0015A	1.5 X R0.15	3	2.2	12	50	1.40
EM991-0020	2.0 X R0.15	3	2.2	10	60	1.90
EM991-0020A	2.0 X R0.15	3	2.2	16	60	1.90

MILL DIA TOLERANCE 刃徑公差	0 -0.015
SHANK DIA TOLERANCE 柄徑公差	0 -0.006

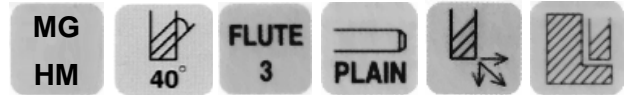


# 鑽石塗層 3 刃(R 角)

## DIAMOND COATED, 3 FLUTE, SHORT LENGTH, CORNER RADIUS

**EM992 系列**

**SERIES EM992**



A28

- ▶ 塗層的硬度增強及優良的耐磨性使工具壽命特別長  
Higher hardness of film and excellent wear-resistance increase the tool life surprisingly.
- ▶ 幼細的鑽石塗層鎢鋼立銑刀能使加工之工件表面極幼滑  
Ultra fine film of diamond coated coated carbide end mills ensure the smooth and excellent surface on work materials.
- ▶ 適用於石墨、精煉鋁、膠木、塑膠、木材、黃銅等材質；亦可用於加工非鐵金屬及非金屬材質  
High performance on graphite, wrought aluminum, bakelite, plastics, wood, brass etc. Diamond coated carbide end mills may have good result for the machining of non-ferrous metals and non-metallic materials.

Unit 單位 : mm



ITEM NO. 編號	MILL DIAMETER 刃徑(d <sub>1</sub> )	SHANK DIAMETER 柄徑(d <sub>2</sub> ) (h6)	LENGTH OF CUT 刃長(L <sub>1</sub> )	OVERALL LENGTH 全長(L <sub>3</sub> )
EM992-0020	2 X R0.15	3	6	40
EM992-0030	3 X R0.15	3	12	40
EM992-0040	4 X R0.20	4	14	50
EM992-0050	5 X R0.30	5	16	50
EM992-0060	6 X R0.30	6	20	65
EM992-0080	8 X R0.50	8	20	65
EM992-0100	10 X R0.50	10	25	75
EM992-0120	12 X R0.50	12	25	75

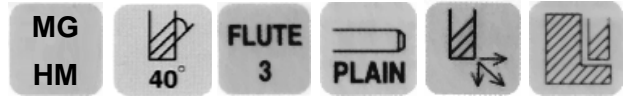
Mill Dia. Tolerance (mm) 刃徑公差		Shank Dia. Tolerance 柄徑公差
DIA. 2~6	-0.010 -0.050	
DIA. 6~12	0 -0.060	

# 鑽石塗層 3 刃加長(R 角)

## DIAMOND COATED, 3 FLUTE, LONG LENGTH, CORNER RADIUS

**EM993 系列**

**SERIES EM993**



A28

▶ 塗層的硬度增強及優良的耐磨性使工具壽命特別長

Higher hardness of film and excellent wear-resistance increase the tool life surprisingly.

▶ 幼細的鑽石塗層鎢鋼立銑刀能使加工之工件表面極幼滑

Ultra fine film of diamond coated coated carbide end mills ensure the smooth and excellent surface on work materials.

▶ 適用於石墨、精煉鋁、膠木、塑膠、木材、黃銅等材質；亦可用於加工非鐵金屬及非金屬材質

High performance on graphite, wrought aluminum, bakelite, plastics, wood, brass etc. Diamond coated carbide end mills may have good result for the machining of non-ferrous metals and non-metallic materials.

Unit 單位 : mm



ITEM NO. 編號	MILL DIAMETER 刃徑 d <sub>1</sub>	SHANK DIAMETER 柄徑 d <sub>2</sub> (h6)	LENGTH OF CUT 刃長 L <sub>1</sub>	OVERALL LENGTH 全長 L <sub>3</sub>
EM993-0020	2 X R0.15	3	9	60
EM993-0030	3 X R0.15	3	30	60
EM993-0040	4 X R0.20	4	30	60
EM993-0050	5 X R0.30	5	35	70
EM993-0060	6 X R0.30	6	40	100
EM993-0080	8 X R0.50	8	40	100
EM993-0100	10 X R0.50	10	40	100
EM993-0120	12 X R0.50	12	45	100

Mill Dia. Tolerance (mm) 刃徑公差		Shank Dia. Tolerance 柄徑公差  h6
DIA. 2~6	-0.010 -0.050	
DIA. 6~12	0 -0.060	

**鑽石塗層 2 刃圓咀(短刃、長頸)**  
**DIAMOND COATED, 2 FLUTE, MINIATURE, BALL NOSE**

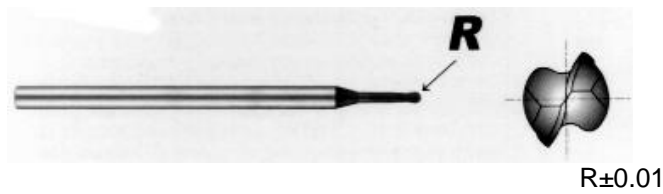
**EM981 系列**  
**SERIES EM981**

MG HM 30° FLUTE 2 PLAIN A29

▶ 塗層的硬度增強及優良的耐磨性使工具壽命特別長  
 Higher hardness of film and excellent wear-resistance increase the tool life surprisingly.

▶ 幼細的鑽石塗層鎢鋼立銑刀能使加工之工件表面極幼滑  
 Ultra fine film of diamond coated coated carbide end mills ensure the smooth and excellent surface on work materials.

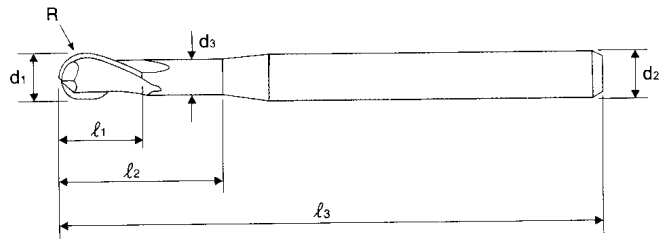
▶ 適用於石墨、精煉鋁、膠木、塑膠、木材、黃銅等材質；亦可用於加工非鐵金屬及非金屬材質  
 High performance on graphite, wrought aluminum, bakelite, plastics, wood, brass etc. Diamond coated carbide end mills may have good result for the machining of non-ferrous metals and non-metallic materials.



Unit 單位: mm

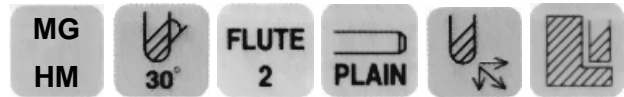
ITEM NO. 編號	MILL DIAMETER 刃徑 (d <sub>1</sub> )	SHANK DIAMETER 柄徑 (d <sub>2</sub> )	LENGTH OF CUT 刃長 (l <sub>1</sub> )	LENGTH BELOW SHANK 頸下長 (l <sub>2</sub> )	OVERALL LENGTH 全長 (l <sub>3</sub> )	NECK DIAMETER 頸直徑 (d <sub>3</sub> )
EM981-0006	0.6 (R0.3)	3	0.6	3	40	0.55
EM981-0008	0.8 (R0.4)	3	0.8	4	40	0.75
EM981-0010	1.0 (R0.5)	3	1	5	40	0.95
EM981-0010A	1.0 (R0.5)	3	1	8.5	40	0.95
EM981-0012	1.2 (R0.6)	3	1.2	6	50	1.15
EM981-0015	1.5 (R0.75)	3	1.5	7.5	50	1.40
EM981-0015A	1.5 (R0.75)	3	1.5	12	50	1.40
EM981-0020	2 (R1)	3	2.2	10	60	1.90
EM981-0020A	2 (R1)	3	2.2	16	60	1.90

MILL DIA TOLERANCE 刃徑公差	-0.014 -0.028
SHANK DIA TOLERANCE 柄徑公差	0 -0.006



# 鑽石塗層 2 刃圓咀 DIAMOND COATED, 2 FLUTE, BALL NOSE, SHORT LENGTH

**EM982 系列**  
**SERIES EM982**



A29

▶ 塗層的硬度增強及優良的耐磨性使工具壽命特別長  
Higher hardness of film and excellent wear-resistance increase the tool life surprisingly.

▶ 幼細的鑽石塗層鎢鋼立銑刀能使加工之工件表面極幼滑  
Ultra fine film of diamond coated coated carbide end mills ensure the smooth and excellent surface on work materials.

▶ 適用於石墨、精煉鋁、膠木、塑膠、木材、黃銅等材質；亦可用於加工非鐵金屬及非金屬材質  
High performance on graphite, wrought aluminum, bakelite, plastics, wood, brass etc. Diamond coated carbide end mills may have good result for the machining of non-ferrous metals and non-metallic materials.



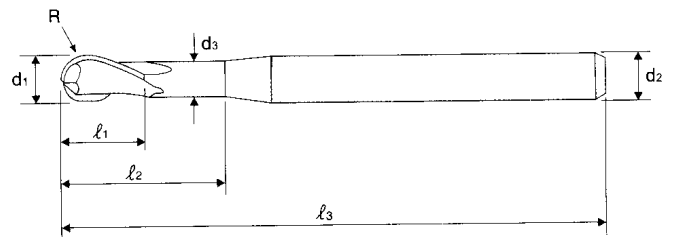
R±0.01

Unit 單位: mm

ITEM NO. 編號	MILL DIAMETER 刃徑 (d <sub>1</sub> )(e8)	SHANK DIAMETER 柄徑 (d <sub>2</sub> )(h6)	LENGTH OF CUT 刃長 (l <sub>1</sub> )	LENGTH BELOW SHANK 頸下長 (l <sub>2</sub> )	OVERALL LENGTH 全長 (l <sub>3</sub> )	NECK DIAMETER 頸直徑 (d <sub>3</sub> )
EM982-0020	2 (R1)	6	3	5	60	1.9
EM982-0025	2.5 (R1.25)	6	4	6	60	2.4
EM982-0030	3 (R1.5)	6	4.5	6.5	60	2.8
EM982-0035	3.5 (R1.75)	6	5	7	65	3.2
EM982-0040	4 (R2)	6	6	8	65	3.7
EM982-0050	5 (R2.5)	6	7.5	10	65	4.6
EM982-0060	6 (R3)	6	9	12	75	5.6
EM982-0080	8 (R4)	8	12	25	75	7.4
EM982-0100	10 (R5)	10	15	30	80	9.4
EM982-0120	12 (R6)	12	18	36	90	11.4

## Tolerance according to DIN 7160 & 7161 公差對照 DIN 7160 和 7161 標準(德國)

Tolerance range in $\mu\text{m}$ / 公差範圍 ( $\mu\text{m}$ )					
Nominal-Diameter in mm / 尺寸範圍 (mm)					
D	1 ~ 3	>3 ~ 6	>6 ~ 10	>10 ~ 18	>18 ~ 30
e8	-14	-20	-25	-32	-40
	-28	-38	-47	-59	-73
h6	0	0	0	0	0
	-6	-8	-9	-11	-13



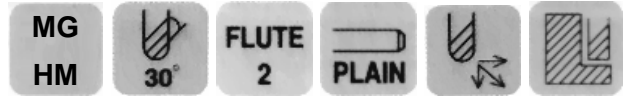
$\mu\text{m}=1/1000\text{mm}$

# 鑽石塗層 2 刃圓咀(加長)

## DIAMOND COATED, 2 FLUTE, BALL NOSE, LONG LENGTH

**EM983 系列**

**SERIES EM983**



A29

- ▶ 塗層的硬度增強及優良的耐磨性使工具壽命特別長  
Higher hardness of film and excellent wear-resistance increase the tool life surprisingly.
- ▶ 幼細的鑽石塗層鎢鋼立銑刀能使加工之工件表面極幼滑  
Ultra fine film of diamond coated coated carbide end mills ensure the smooth and excellent surface on work materials.
- ▶ 適用於石墨、精煉鋁、膠木、塑膠、木材、黃銅等材質；亦可用於加工非鐵金屬及非金屬材質  
High performance on graphite, wrought aluminum, bakelite, plastics, wood, brass etc. Diamond coated carbide end mills may have good result for the machining of non-ferrous metals and non-metallic materials.

Unit 單位: mm

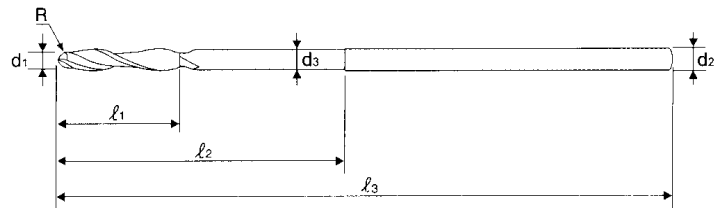


ITEM NO. 編號	MILL DIAMETER 刀徑 (d <sub>1</sub> )(e8)	SHANK DIAMETER 柄徑 (d <sub>2</sub> )(h6)	LENGTH OF CUT 刀長 (l <sub>1</sub> )	LENGTH BELOW SHANK 頸下長 (l <sub>2</sub> )	OVERALL LENGTH 全長 (l <sub>3</sub> )	NECK DIAMETER 頸直徑 (d <sub>3</sub> )
EM983-0020	2 (R1)	4	10	20	80	1.95
EM983-0030	3 (R1.5)	4	15	25	80	2.9
EM983-0040	4 (R2)	4	20	30	80	3.9
EM983-0050	5 (R2.5)	6	30	50	100	4.9
EM983-0060	6 (R3)	6	30	50	100	5.5
EM983-0080	8 (R4)	8	40	60	110	7.5
EM983-0100	10 (R5)	10	50	70	120	9.5
EM983-0120	12 (R6)	12	55	75	130	11.5

### Tolerance according to DIN 7160 & 7161

#### 公差對照 DIN 7160 和 7161 標準(德國)

Tolerance range in $\mu\text{m}$ / 公差範圍 ( $\mu\text{m}$ )					
Nominal-Diameter in mm / 尺寸範圍 (mm)					
D	1 ~ 3	>3 ~ 6	>6 ~ 10	>10 ~ 18	>18 ~ 30
e8	-14 -28	-20 -38	-25 -47	-32 -59	-40 -73
h6	0 -6	0 -8	0 -9	0 -11	0 -13



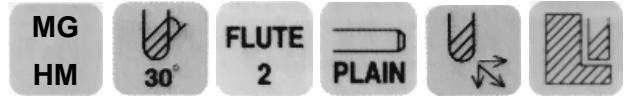
$\mu\text{m}=1/1000\text{mm}$

# 鑽石塗層 2 刃圓咀(特長)

## DIAMOND COATED, 2 FLUTE, BALL NOSE, LONG REACH

**EM984 系列**

**SERIES EM984**



A29



- ▶ 塗層的硬度增強及優良的耐磨性使工具壽命特別長  
Higher hardness of film and excellent wear-resistance increase the tool life surprisingly.
- ▶ 幼細的鑽石塗層鎢鋼立銑刀能使加工之工件表面極幼滑  
Ultra fine film of diamond coated coated carbide end mills ensure the smooth and excellent surface on work materials.
- ▶ 適用於石墨、精煉鋁、膠木、塑膠、木材、黃銅等材質；亦可用於加工非鐵金屬及非金屬材質  
High performance on graphite, wrought aluminum, bakelite, plastics, wood, brass etc. Diamond coated carbide end mills may have good result for the machining of non-ferrous metals and non-metallic materials.

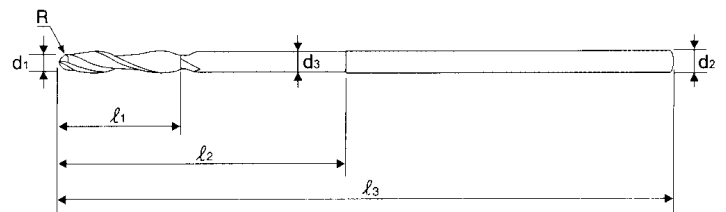
Unit 單位：mm

ITEM NO. 編號	MILL DIAMETER 刀徑 (d <sub>1</sub> )(e8)	SHANK DIAMETER 柄徑 (d <sub>2</sub> )(h6)	LENGTH OF CUT 刀長 (l <sub>1</sub> )	LENGTH BELOW SHANK 頸下長 (l <sub>2</sub> )	OVERALL LENGTH 全長 (l <sub>3</sub> )	NECK DIAMETER 頸直徑 (d <sub>3</sub> )
EM984-0020	2 (R1)	4	10	20	100	1.95
EM984-0030	3 (R1.5)	4	15	25	100	2.9
EM984-0040	4 (R2)	4	20	30	100	3.9
EM984-0050	5 (R2.5)	6	30	50	120	4.9
EM984-0060	6 (R3)	6	30	50	150	5.5
EM984-0080	8 (R4)	8	40	60	150	7.5

### Tolerance according to DIN 7160 & 7161

#### 公差對照 DIN 7160 和 7161 標準(德國)

Tolerance range in $\mu\text{m}$ / 公差範圍 ( $\mu\text{m}$ )					
Nominal-Diameter in mm / 尺寸範圍 (mm)					
D	1 ~ 3	>3 ~ 6	>6 ~ 10	>10 ~ 18	>18 ~ 30
e8	-14	-20	-25	-32	-40
	-28	-38	-47	-59	-73
h6	0	0	0	0	0
	-6	-8	-9	-11	-13



$\mu\text{m}=1/1000\text{mm}$

# 鑽石塗層 3 刃圓咀 DIAMOND COATED, 3 FLUTE, BALL NOSE, SHORT LENGTH

**EM985 系列**  
**SERIES EM985**

MG HM 30° FLUTE 3 PLAIN A30

▶ 塗層的硬度增強及優良的耐磨性使工具壽命特別長  
Higher hardness of film and excellent wear-resistance increase the tool life surprisingly.

▶ 幼細的鑽石塗層鎢鋼立銑刀能使加工之工件表面極幼滑  
Ultra fine film of diamond coated coated carbide end mills ensure the smooth and excellent surface on work materials.

▶ 適用於石墨、精煉鋁、膠木、塑膠、木材、黃銅等材質；亦可用於加工非鐵金屬及非金屬材質  
High performance on graphite, wrought aluminum, bakelite, plastics, wood, brass etc. Diamond coated carbide end mills may have good result for the machining of non-ferrous metals and non-metallic materials.

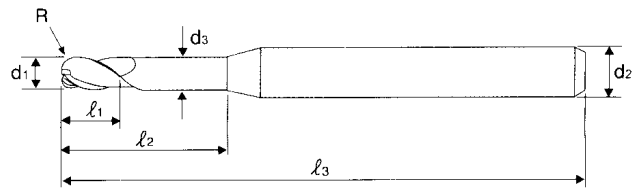


Unit 單位: mm

ITEM NO. 編號	MILL DIAMETER 刀徑 (d <sub>1</sub> )(e8)	SHANK DIAMETER 柄徑 (d <sub>2</sub> )(h6)	LENGTH OF CUT 刀長 (l <sub>1</sub> )	LENGTH BELOW SHANK 頸下長 (l <sub>2</sub> )	OVERALL LENGTH 全長 (l <sub>3</sub> )	NECK DIAMETER 頸直徑 (d <sub>3</sub> )
EM985-0020	2 (R1)	6	3	5	60	1.9
EM985-0025	2.5 (R1.25)	6	4	6	60	2.4
EM985-0030	3 (R1.5)	6	4.5	6.5	60	2.8
EM985-0035	3.5 (R1.75)	6	5	7	65	3.2
EM985-0040	4 (R2)	6	6	8	65	3.7
EM985-0050	5 (R2.5)	6	7.5	10	65	4.6
EM985-0060	6 (R3)	6	9	12	75	5.6
EM985-0080	8 (R4)	8	12	25	75	7.4
EM985-0100	10 (R5)	10	15	30	80	9.4
EM985-0120	12 (R6)	12	18	36	90	11.4

## Tolerance according to DIN 7160 & 7161 公差對照 DIN 7160 和 7161 標準(德國)

Tolerance range in $\mu\text{m}$ / 公差範圍 ( $\mu\text{m}$ )					
Nominal-Diameter in mm / 尺寸範圍 (mm)					
D	1 ~ 3	>3 ~ 6	>6 ~ 10	>10 ~ 18	>18 ~ 30
e8	-14	-20	-25	-32	-40
	-28	-38	-47	-59	-73
h6	0	0	0	0	0
	-6	-8	-9	-11	-13



$\mu\text{m}=1/1000\text{mm}$