

E109



# D-POWER END MILLS

Catalogue 2009 / 2010



## D-POWER END MILLS

DIAMOND COATED CARBIDE END MILLS  
FOR GRAPHITE and NON-FERROUS MATERIALS

 **YG-1 CO., LTD.**

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YG1E1090727002



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FOR GRAPHITE and NON-FERROUS MATERIALS

 **YG-1 CO., LTD.**





Challenge toward a Global Leader-

## **YG-1 Leads the World Market.**



YG-1 markets products throughout the world.

The challenge of YG-1 for a global leader will be continued even though there's lots of adverse.

The management philosophy of YG-1 is the spirit of continuous challenge toward the wider world.

**CBN Ball End Mill**



**V7 Mill**



**X5070 End Mill**



**D-Power End Mill**



**Multi-1 Drill**



**Dream Drill**



**Tank-Power End Mill**



**HSS End Mill**



**i-Xmill**



**i-Dream Drill**



**Throw-Away Spade Drill Inserts**
















**Combo Tap**
















# D-POWER CARBIDE END MILLS

## DIAMOND COATED CARBIDE END MILLS for GRAPHITE DIAMANT - BECHICHTETE FRÄSER für GRAPHIT

ITEM	MODEL	DESCRIPTION	PAGE
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<b>EI880</b>		<b>2 FLUTE, SHORT LENGTH, BALL NOSE</b> 2 SCHNEIDEN, KURZ, STIRNRADIUS	9
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<b>EI450</b>		<b>2 FLUTE, LONG REACH, BALL NOSE</b> 2 SCHNEIDEN, GROÙE REICHWEITE, STIRNRADIUS	11
<b>EI881</b>		<b>3 FLUTE, SHORT LENGTH, BALL NOSE</b> 3 SCHNEIDEN, KURZ, STIRNRADIUS	12
<b>NEW EIB04</b>		<b>2 FLUTE, LONG LENGTH</b> 2 SCHNEIDEN, LANG	13
<b>NEW EIB87</b>		<b>2 FLUTE, BALL NOSE with TAPER NECK</b> 2 SCHNEIDEN, STIRNRADIUS mit KONISCH ABGESETZTEN SCHAFTTEIL	14
<b>EI996</b>		<b>2 FLUTE, MINIATURE, CORNER RADIUS</b> 2 SCHNEIDEN, MINIATUR, ECKENRADIUS	15-16
<b>NEW EIB86</b>		<b>2 FLUTE, CORNER RADIUS with TAPER NECK</b> 2 SCHNEIDEN, ECKENRADIUS mit KONISCH ABGESETZTEN SCHAFTTEIL	17
<b>NEW EIB88</b>		<b>4 FLUTE, CORNER RADIUS</b> 4 SCHNEIDEN, ECKENRADIUS	18
<b>EIA13</b>		<b>3 FLUTE, 40° HELIX, SHORT LENGTH, CORNER RADIUS</b> 3 SCHNEIDEN, 40° RECHTSSPIRALE, KURZ, ECKENRADIUS	19
<b>EIA14</b>		<b>3 FLUTE, 40° HELIX, LONG LENGTH, CORNER RADIUS</b> 3 SCHNEIDEN, 40° RECHTSSPIRALE, LANG, ECKENRADIUS	20

## D-POWER ECONOMY DIAMOND COATED CARBIDE END MILLS D-POWER ÖKONOMISCH DIAMANT-BECHICHTETE FRÄSER



ITEM	MODEL	DESCRIPTION	PAGE
<b>GEB46</b>		2 FLUTE, MINIATURE, BALL NOSE 2 SCHNEIDEN, MINIATUR, STIRNRADIUS	22-23
<b>GE944</b>		2 FLUTE, SHORT LENGTH, BALL NOSE 2 SCHNEIDEN, KURZ, STIRNRADIUS	24
<b>GE945</b>		2 FLUTE, LONG LENGTH, BALL NOSE 2 SCHNEIDEN, LANG, STIRNRADIUS	25
<b>GE946</b>		2 FLUTE, LONG REACH, BALL NOSE 2 SCHNEIDEN, GROÙE REICHWEITE, STIRNRADIUS	26
<b>GE947</b>		3 FLUTE, SHORT LENGTH, BALL NOSE 3 SCHNEIDEN, KURZ, STIRNRADIUS	27
<b>GE927</b>		2 FLUTE, LONG LENGTH 2 SCHNEIDEN, LANG	28
<b>GEB02</b>		2 FLUTE, BALL NOSE with TAPER NECK 2 SCHNEIDEN, STIRNRADIUS mit KONISCH ABGESETZTEN SCHAFTTEIL	29
<b>GEB45</b>		2 FLUTE, MINIATURE, CORNER RADIUS 2 SCHNEIDEN, MINIATUR, ECKENRADIUS	30-31
<b>GEB01</b>		2 FLUTE, CORNER RADIUS with TAPER NECK 2 SCHNEIDEN, ECKENRADIUS mit KONISCH ABGESETZTEN SCHAFTTEIL	32
<b>GEB03</b>		4 FLUTE, CORNER RADIUS 4 SCHNEIDEN, ECKENRADIUS	33
<b>GE926</b>		2 FLUTE, 45° HELIX 2 SCHNEIDEN, 45° RECHTSSPIRALE	34
<b>GE928</b>		3 FLUTE, 40° HELIX, SHORT LENGTH, CORNER RADIUS 3 SCHNEIDEN, 40° RECHTSSPIRALE, KURZ, ECKENRADIUS	35
<b>GE929</b>		3 FLUTE, 40° HELIX, LONG LENGTH, CORNER RADIUS 3 SCHNEIDEN, 40° RECHTSSPIRALE, LANG, ECKENRADIUS	36



# D-POWER CARBIDE END MILLS

## D-POWER & D-POWER ECONOMY

### \* SIZE :

- Metric:  $\varnothing 0.2\text{mm} \sim \varnothing 20\text{mm}$

\* **TYPE :** Square, Ball,  
Corner Radius

### \* DESCRIPTION :

- Higher hardness and superior wear-resistance can increase the tool life very much.
- High performance on Graphite, Wrought aluminum, Bakelite, Plastics, Wood, Brass etc...

## D-POWER & D-POWER ÖKONOMISCH

### \* ABMESSUNGEN:

- Metrisch:  $\varnothing 0.2\text{mm}$  bis  $\varnothing 20\text{mm}$

\* **TYPEN :** gerade Stirn, Vollradius, Eckradius

### \* BESCHREIBUNG :

- Höhere Härte und bessere Verschleißfestigkeit können die Lebensdauer des Werkzeugs sehr stark verlängern
- Hohe Leistungsfähigkeit bei Graphit, Knetaluminium, Bakelit, Plastik, Holz, Messing, usw...



## ICON GUIDE

### TOOL MATERIALS



Micro grain carbide is used in the tool material.

### HELIX ANGLE



Helix angle for ball End mill



Helix angle for square, Corner radius End mill

### NUMBER OF FLUTES



The number of flute is 2



The number of flute is 3



The number of flute is 4

### THE TYPE OF SHANK



Plain Shank

### THE TYPE OF MILLING

 Suitable for all kinds of application

Side, Profile, Slot

### BALL RADIUS TOLERANCE



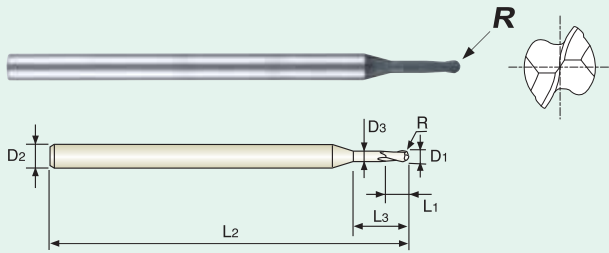
$\pm 0.010\text{mm}$

# D-POWER DIAMOND COATED CARBIDE END MILLS D-POWER DIAMONT-BECHICHTETE FRÄSER



- Higher hardness of film and excellent wear-resistance increase the tool life surprisingly. Höhere Härte des Films und ausgezeichnete Verschleißfestigkeit verlängern die standzeit beachtlich.
- Ultra fine film of YG-1's diamond carbide end mills ensure the smooth and excellent surface on work materials. Ultrafeiner Film auf YG-1 Diamant - beschichteten Hartmetall Schafffräser gewährleisten eine glatte und ausgezeichnete Oberflächengüte.
- High performance on graphite, wrought aluminum, bakelite, plastics, wood, brass etc. YG-1's diamond coated carbide end mills have good result for the machining of non-ferrous metals and non-metallic materials. Hohe Leistungsfähigkeit bei Graphit, Aluminium ohne silicongehalt, Bakelit, Plastik, Holz, Messing, etc. YG-1 Diamant - beschichtete hartmetall Schafffräser zeigen gute Ergebnisse beim Bearbeiten von NE - Metallen und Nichtmetall - Werkstoffen.

## 2 FLUTE, MINIATURE, BALL NOSE 2 SCHNEIDEN, MINIATUR, STIRNRADIUS



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BALL



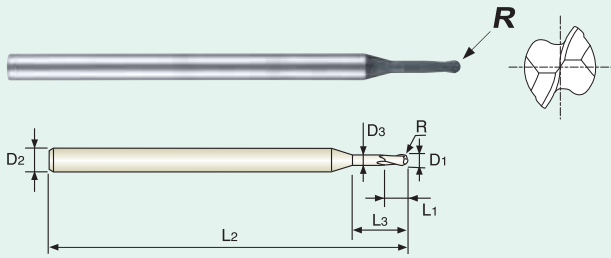
SERIES **EI997** PLAIN SHANK  
GLATTEM ZYLINDERSCHAFT

Unit : mm

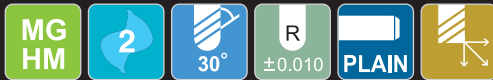
EDP No.	R ±0.01	MILL DIAMETER	SHANK DIAMETER	LENGTH OF CUT	LENGTH BELOW SHANK	OVERALL LENGTH	NECK DIAMETER
		D1	D2(h6)	L1	L3	L2	D3
EI997002000040	RO.1	0.2	3	0.2	-	40	-
EI997003000040	RO.15	0.3	3	0.3	-	40	-
EI997004000040	RO.2	0.4	3	0.4	-	40	-
EI997005025040	RO.25	0.5	3	0.5	2.5	40	0.45
EI997006	RO.3	0.6	3	0.6	3	40	0.55
EI997006050040	RO.3	0.6	3	0.6	5	40	0.55
EI997008	RO.4	0.8	3	0.8	4	40	0.75
EI997008070040	RO.4	0.8	3	0.8	7	40	0.75
EI997010	RO.5	1.0	3	1	5	40	0.95
EI997903	RO.5	1.0	3	1	8.5	40	0.95
EI997010120040	RO.5	1.0	3	1	12	40	0.95
EI997012	RO.6	1.2	3	1.2	6	50	1.15
EI997012100050	RO.6	1.2	3	1.2	10	50	1.15
EI997015	RO.75	1.5	3	1.5	7.5	50	1.4
EI997906	RO.75	1.5	3	1.5	12	50	1.4
EI997015180050	RO.75	1.5	3	1.5	18	50	1.4
EI997020	R1.0	2.0	3	2.2	10	60	1.9
EI997908	R1.0	2.0	3	2.2	16	60	1.9
EI997020250060	R1.0	2.0	3	2.2	25	60	1.9
EI997030100065	R1.5	3.0	4	3	10	65	2.9
EI997030150065	R1.5	3.0	4	3	15	65	2.9
EI997030200065	R1.5	3.0	4	3	20	65	2.9
EI997030250075	R1.5	3.0	4	3	25	75	2.9
EI997030300075	R1.5	3.0	4	3	30	75	2.9
EI997040200065	R2.0	4.0	6	4	20	65	3.9
EI997040300075	R2.0	4.0	6	4	30	75	3.9
EI997040400090	R2.0	4.0	6	4	40	90	3.9



## 2 FLUTE, MINIATURE, BALL NOSE 2 SCHNEIDEN, MINIATUR, STIRNRADIUS



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SERIES **EI997** PLAIN SHANK  
GLATTEM ZYLINDERSCHAFT



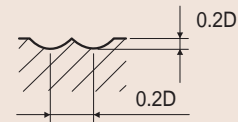
Unit : mm

EDP No.	R ±0.01	MILL DIAMETER	SHANK DIAMETER	LENGTH OF CUT	LENGTH BELOW SHANK	OVERALL LENGTH	NECK DIAMETER
		D1	D2(h6)	L1	L3	L2	D3
EI997050200065	R2.5	5.0	6	5	20	65	4.9
EI997050300075	R2.5	5.0	6	5	30	75	4.9
EI997050400090	R2.5	5.0	6	5	40	90	4.9
EI997050500090	R2.5	5.0	6	5	50	90	4.9
EI997060300075	R3.0	6.0	6	6	30	75	5.9
EI997060400090	R3.0	6.0	6	6	40	90	5.9
EI997060500090	R3.0	6.0	6	6	50	90	5.9
EI997060600100	R3.0	6.0	6	6	60	100	5.9

MILL DIA. TOLERANCE (mm)	SHANK DIA. TOLERANCE
0~-0.02	h6

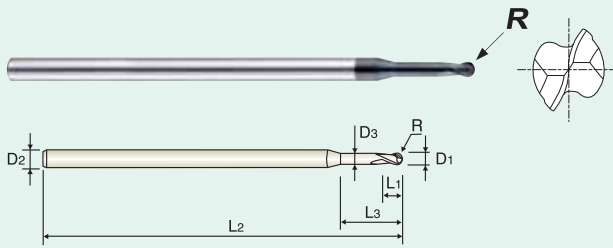
### EI997 CUTTING CONDITION

MATERIAL DIAMETER	GRAPHITE	
	RPM	FEED
R0.2 × 0.4	40000	600
R0.3 × 0.6	40000	800
R0.4 × 0.8	40000	960
R0.5 × 1.0	40000	1200
R0.6 × 1.2	40000	1440
R0.75 × 1.5	40000	1600
R1.0 × 2.0	40000	2000
R1.5 × 3.0	27000	2200
R2.0 × 4.0	20000	2900
R2.5 × 5.0	16000	2900
R3.0 × 6.0	14000	2900



RPM = rev./min.  
Feed = mm/min.

## 2 FLUTE, MINIATURE, BALL NOSE 2 SCHNEIDEN, MINIATUR, STIRNRADIUS



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BALL



SERIES **EIB93** PLAIN SHANK  
GLATTEM ZYLINDERSCHAFT

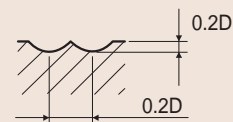
Unit : mm

EDP No.	R ±0.01	MILL DIAMETER	SHANK DIAMETER	LENGTH OF CUT	LENGTH BELOW SHANK	OVERALL LENGTH	NECK DIAMETER
		D1	D2(h6)	L1	L3	L2	D3
EIB93004040	RO.2	0.4	4	0.6	4	45	0.36
EIB93004060	RO.2	0.4	4	0.6	6	45	0.36
EIB93006040	RO.3	0.6	4	1	4	45	0.56
EIB93006060	RO.3	0.6	4	1	6	45	0.56
EIB93006080	RO.3	0.6	4	1	8	45	0.56
EIB93010060	RO.5	1.0	4	1.5	6	45	0.95
EIB93010080	RO.5	1.0	4	1.5	8	45	0.95
EIB93010120	RO.5	1.0	4	1.5	12	45	0.95
EIB93015120	RO.75	1.5	4	1.75	12	45	1.45
EIB93020080	R1.0	2.0	4	3	8	60	1.95
EIB93020120	R1.0	2.0	4	3	12	60	1.95
EIB93020160	R1.0	2.0	4	3	16	60	1.95
EIB93040160	R2.0	4.0	4	6	16	60	3.9

MILL DIA. TOLERANCE (mm)	SHANK DIA. TOLERANCE
0~-0.02	h6

### EIB93 CUTTING CONDITION

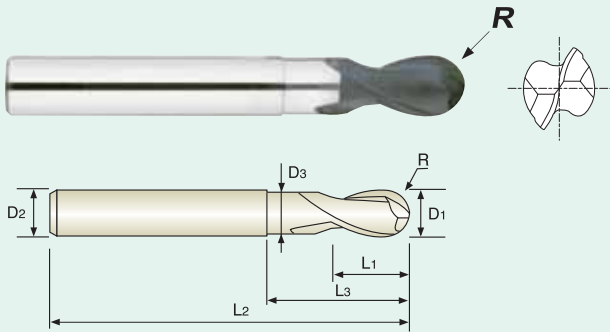
MATERIAL DIAMETER	GRAPHITE	
	RPM	FEED
RO.2 × 0.4	40000	600
RO.3 × 0.6	40000	800
RO.5 × 1.0	40000	1200
RO.75 × 1.5	40000	1600
R1.0 × 2.0	40000	2000
R2.0 × 4.0	20000	2900



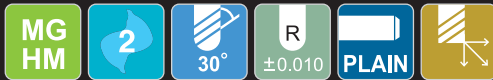
RPM = rev./min.  
Feed = mm/min.

# 2 FLUTE, SHORT LENGTH, BALL NOSE

## 2 SCHNEIDEN, KURZ, STIRNRADIUS



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SERIES **EI880** PLAIN SHANK  
GLATTEM ZYLINDERSCHAFT



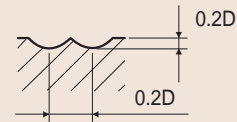
Unit : mm

EDP No.	R ±0.01	MILL DIAMETER	SHANK DIAMETER	LENGTH OF CUT	LENGTH BELOW SHANK	OVERALL LENGTH	NECK DIAMETER
		D1	D2(h6)	L1	L3	L2	D3
EI880020	R1.0	2.0	6	3	5	60	1.9
EI880025	R1.25	2.5	6	4	6	60	2.4
EI880030	R1.5	3.0	6	4.5	6.5	60	2.8
EI880035	R1.75	3.5	6	5	7	65	3.2
EI880040	R2.0	4.0	6	6	8	65	3.7
EI880050	R2.5	5.0	6	7.5	10	65	4.6
EI880060	R3.0	6.0	6	9	12	75	5.6
EI880080	R4.0	8.0	8	12	25	75	7.4
EI880100	R5.0	10.0	10	15	30	80	9.4
EI880120	R6.0	12.0	12	18	36	90	11.4

MILL DIA. TOLERANCE (mm)	SHANK DIA. TOLERANCE
0~-0.03	h6

### EI880 CUTTING CONDITION

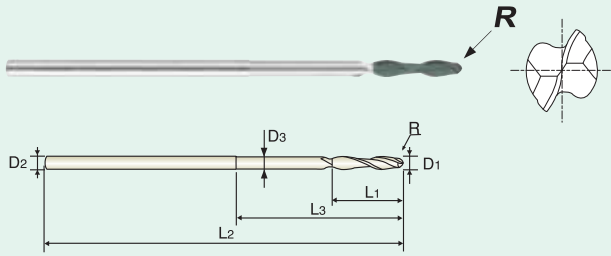
MATERIAL	GRAPHITE	
	DIAMETER	RPM
R1.0 × 2.0	16000	800
R1.25 × 2.5	16000	1120
R1.5 × 3.0	16000	1450
R1.75 × 3.5	16000	1750
R2.0 × 4.0	16000	2100
R2.5 × 5.0	15500	2550
R3.0 × 6.0	15000	2950
R4.0 × 8.0	13000	3000
R5.0 × 10.0	11500	3050
R6.0 × 12.0	10500	3150



RPM = rev./min.  
Feed = mm/min.



## 2 FLUTE, LONG LENGTH, BALL NOSE 2 SCHNEIDEN, LANG, STIRNRADIUS



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BALL



SERIES **EI451** PLAIN SHANK  
GLATTEM ZYLINDERSCHAFT

Unit : mm

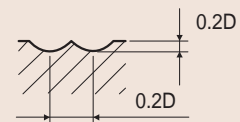
EDP No.	R ±0.01	MILL DIAMETER	SHANK DIAMETER	LENGTH OF CUT	LENGTH BELOW SHANK	OVERALL LENGTH	NECK DIAMETER
		D1	D2(h6)	L1	L3	L2	D3
EI451020	R1.0	2.0	4	10	20	80	1.95
EI451030	R1.5	3.0	4	15	25	80	2.9
EI451040	R2.0	4.0	4	20	30	80	3.9
EI451050	R2.5	5.0	6	30	50	100	4.9
EI451060	R3.0	6.0	6	30	50	100	5.5
EI451070	R3.5	7.0	6	30	-	100	5.5
EI451080	R4.0	8.0	8	40	60	110	7.5
EI451090	R4.5	9.0	8	40	-	110	-
EI451100	R5.0	10.0	10	50	70	120	9.5
EI451120	R6.0	12.0	12	55	75	130	11.5

MILL DIA. TOLERANCE (mm)	SHANK DIA. TOLERANCE
0~-0.03	h6

### EI451 CUTTING CONDITION

※ The FEED, in long & long reach types, should be reduced by around 50%

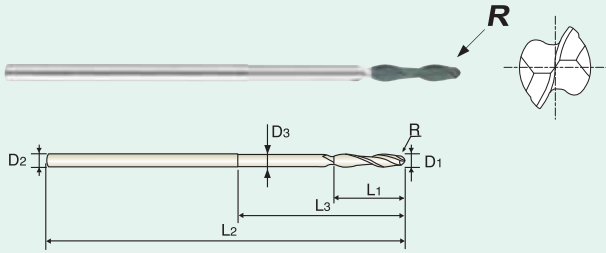
MATERIAL	GRAPHITE	
	DIAMETER	RPM
R1.0 × 2.0	16000	800
R1.5 × 3.0	16000	1450
R2.0 × 4.0	16000	2100
R2.5 × 5.0	15500	2550
R3.0 × 6.0	15000	2950
R4.0 × 8.0	13000	3000
R5.0 × 10.0	11500	3050
R6.0 × 12.0	10500	3150



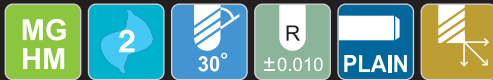
RPM = rev./min.  
Feed = mm/min.

# 2 FLUTE, LONG REACH, BALL NOSE

## 2 SCHNEIDEN, GROÙE REICHWEITE, STIRNRADIUS



- ▶ Higher hardness of film and excellent wear-resistance increase the tool life surprisingly.  
Höhere Härte des Films und ausgezeichnete Verschleißfestigkeit verlängern die standzeit beachtlich.
- ▶ Ultra fine film of YG-1's diamond coated carbide ball end mills ensure the smooth and excellent surface on work materials.  
Ultrafeiner Film auf YG-1 Diamant - beschichteten Hartmetall Radius - Schauffräser gewährleisten eine glatte und ausgezeichnete Oberflächengüte.
- ▶ High performance on graphite, wrought aluminum, bakelite, plastics, wood, brass etc. YG-1's diamond coated carbide ball end mills have good result for the machining of non-ferrous metals and non-metallic materials.  
Hohe Leistungsfähigkeit bei Graphit, Aluminium ohne silicongehalt, Bakelit, Plastik, Holz, Messing, etc. YG-1 Diamant - beschichtete hartmetall Radius - Schauffräser zeigen gute Ergebnisse beim Bearbeiten von NE - Metallen und Nichtmetall - Werkstoffen.



SERIES **EI450** PLAIN SHANK  
GLATTEM ZYLINDERSCHAFT



Unit : mm

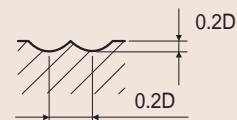
EDP No.	R ±0.01	MILL DIAMETER	SHANK DIAMETER	LENGTH OF CUT	LENGTH BELOW SHANK	OVERALL LENGTH	NECK DIAMETER
		D1	D2(h6)	L1	L3	L2	D3
EI450020	R1.0	2.0	4	10	20	100	1.95
EI450030	R1.5	3.0	4	15	25	100	2.9
EI450040	R2.0	4.0	4	20	30	100	3.9
EI450050	R2.5	5.0	6	30	50	120	4.9
EI450060	R3.0	6.0	6	30	50	150	5.5
EI450070	R3.5	7.0	6	30	-	150	-
EI450080	R4.0	8.0	8	40	60	150	7.5
EI450090	R4.5	9.0	8	40	-	150	-
EI450100	R5.0	10.0	10	50	70	180	9.5
EI450120	R6.0	12.0	12	55	75	200	11.5

MILL DIA. TOLERANCE (mm)	SHANK DIA. TOLERANCE
0~-0.03	h6

### EI450 CUTTING CONDITION

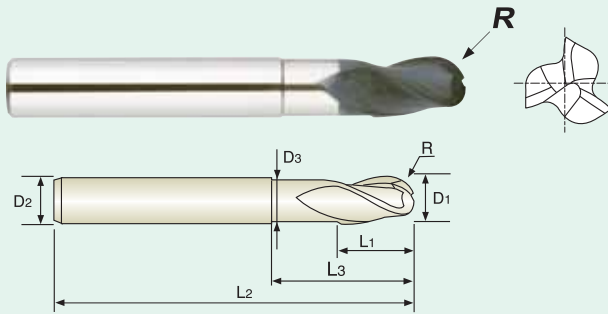
※ The FEED, in long & long reach types, should be reduced by around 50%

MATERIAL DIAMETER	GRAPHITE	
	RPM	FEED
R1.0 × 2.0	16000	800
R1.5 × 3.0	16000	1450
R2.0 × 4.0	16000	2100
R2.5 × 5.0	15500	2550
R3.0 × 6.0	15000	2950
R4.0 × 8.0	13000	3000
R5.0 × 10.0	11500	3050
R6.0 × 12.0	10500	3150



RPM = rev./min.  
Feed = mm/min.

## 3 FLUTE, SHORT LENGTH, BALL NOSE 3 SCHNEIDEN, KURZ, STIRNRADIUS



- ▶ Higher hardness of film and excellent wear-resistance increase the tool life surprisingly.  
Höhere Härte des Films und ausgezeichnete Verschleißfestigkeit verlängern die standzeit beachtlich.
- ▶ Ultra fine film of YG-1's diamond coated carbide ball end mills ensure the smooth and excellent surface on work materials.  
Ultrafeiner Film auf YG-1 Diamant - beschichteten Hartmetall Radius - Schaftfräser gewährleisten eine glatte und ausgezeichnete Oberflächengüte.
- ▶ High performance on graphite, wrought aluminum, bakelite, plastics, wood, brass etc. YG-1's diamond coated carbide ball end mills have good result for the machining of non-ferrous metals and non-metallic materials.  
Hohe Leistungsfähigkeit bei Graphit, Aluminium ohne silicongehalt, Bakelit, Plastik, Holz, Messing, etc. YG-1 Diamant - beschichtete hartmetall Radius - Schaftfräser zeigen gute Ergebnisse beim Bearbeiten von NE - Metallen und Nichtmetall - Werkstoffen.

BALL



SERIES **EI881** PLAIN SHANK  
GLATTEM ZYLINDERSCHAFT

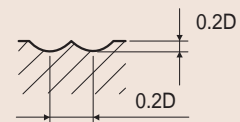
Unit : mm

EDP No.	R ±0.01	MILL DIAMETER	SHANK DIAMETER	LENGTH OF CUT	LENGTH BELOW SHANK	OVERALL LENGTH	NECK DIAMETER
		D1	D2(h6)	L1	L3	L2	D3
EI881020	R1.0	2.0	6	3	5	60	1.9
EI881025	R1.25	2.5	6	4	6	60	2.4
EI881030	R1.5	3.0	6	4.5	6.5	60	2.8
EI881035	R1.75	3.5	6	5	7	65	3.2
EI881040	R2.0	4.0	6	6	8	65	3.7
EI881050	R2.5	5.0	6	7.5	10	65	4.6
EI881060	R3.0	6.0	6	9	12	75	5.6
EI881080	R4.0	8.0	8	12	25	75	7.4
EI881100	R5.0	10.0	10	15	30	80	9.4
EI881120	R6.0	12.0	12	18	36	90	11.4

MILL DIA. TOLERANCE (mm)	SHANK DIA. TOLERANCE
0~-0.03	h6

### EI881 CUTTING CONDITION

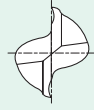
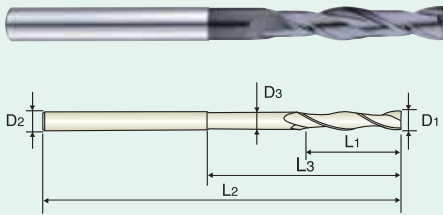
MATERIAL DIAMETER	GRAPHITE	
	RPM	FEED
R1.0 × 2.0	16000	1200
R1.25 × 2.5	16000	1700
R1.5 × 3.0	16000	2150
R1.75 × 3.5	16000	2650
R2.0 × 4.0	16000	3100
R2.5 × 5.0	15500	3800
R3.0 × 6.0	15000	4450
R4.0 × 8.0	13000	4500
R5.0 × 10.0	11500	4600
R6.0 × 12.0	10500	4750



RPM = rev./min.  
Feed = mm/min.



## 2 FLUTE, LONG LENGTH 2 SCHNEIDEN, LANG



- ▶ Higher hardness of film and excellent wear-resistance increase the tool life surprisingly.  
Höhere Härte des Films und ausgezeichnete Verschleißfestigkeit verlängern die standzeit beachtlich.
- ▶ Ultra fine film of YG-1's diamond coated carbide ball end mills ensure the smooth and excellent surface on work materials.  
Ultrafeiner Film auf YG-1 Diamant - beschichteten Hartmetall Schafffräser gewährleisten eine glatte und ausgezeichnete Oberflächengüte.
- ▶ High performance on graphite, wrought aluminum, bakelite, plastics, wood, brass etc. YG-1's diamond coated carbide ball end mills have good result for the machining of non-ferrous metals and non-metallic materials.  
Hohe Leistungsfähigkeit bei Graphit, Aluminium ohne silicongehalt, Bakelit, Plastik, Holz, Messing, etc. YG-1 Diamant - beschichtete hartmetall Schafffräser zeigen gute Ergebnisse beim Bearbeiten von NE - Metallen und Nichtmetall - Werkstoffen.



SERIES **EIB04** PLAIN SHANK  
GLATTEM ZYLINDERSCHAFT



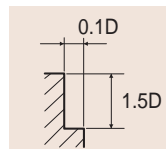
Unit : mm

EDP No.	MILL DIAMETER	SHANK DIAMETER	LENGTH OF CUT	LENGTH BELOW SHANK	OVERALL LENGTH	NECK DIAMETER
	D1	D2(h6)	L1	L3	L2	D3
EIB0400502040	0.5	3	1	2	40	0.45
EIB0400603040	0.6	3	2	3	40	0.55
EIB0400704040	0.7	3	2	4	40	0.65
EIB0400805040	0.8	3	2	5	40	0.75
EIB0400906040	0.9	3	2	6	40	0.85
EIB0401008075	1.0	4	3	8	75	0.95
EIB0401510075	1.5	4	4	10	75	1.45
EIB0402016100	2.0	4	6	16	100	1.9
EIB0402520100	2.5	4	8	20	100	2.4
EIB0403030100	3.0	6	8	30	100	2.8
EIB0403535100	3.5	6	10	35	100	3.2
EIB0404040100	4.0	6	20	40	100	3.7
EIB0405050125	5.0	6	25	50	125	4.6
EIB0406060140	6.0	6	30	60	140	5.6
EIB0407000140	7.0	6	35	-	140	-
EIB0408080150	8.0	8	40	80	150	7.4
EIB0409000150	9.0	8	45	-	150	-
EIB0410080150	10.0	10	50	80	150	9.4
EIB0411000150	11.0	10	50	-	150	-
EIB0412080150	12.0	12	55	80	150	11.4

MILL DIA. TOLERANCE (mm)	SHANK DIA. TOLERANCE
0~-0.03	h6

### EIB04 CUTTING CONDITION

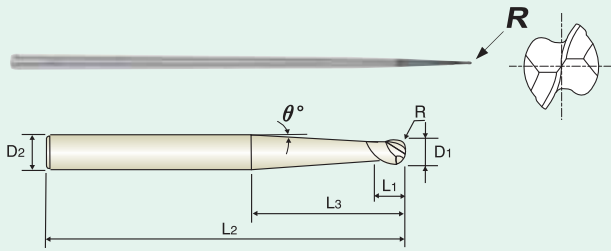
※ The FEED, in long & long reach types, should be reduced by around 50%



MATERIAL DIAMETER	GRAPHITE	
	RPM	FEED
0.4	40000	200
0.6	40000	350
0.8	40000	550
1.0	40000	700
1.5	40000	800
2.0	25000	800
3.0	20000	800
4.0	18000	950
5.0	14000	1200
6.0	11000	1400
8.0	8000	1300
10.0	6500	1200
12.0	5500	1200

RPM = rev./min.  
Feed = mm/min.

## 2 FLUTE, BALL NOSE with TAPER NECK 2 SCHNEIDEN, STIRNRADIUS mit KONISCH ABGESETZTEN SCHAFTTEIL



- ▶ Higher hardness of film and excellent wear-resistance increase the tool life surprisingly.  
Höhere Härte des Films und ausgezeichnete Verschleißfestigkeit verlängern die standzeit beachtlich.
- ▶ Ultra fine film of YG-1's diamond coated carbide ball end mills ensure the smooth and excellent surface on work materials.  
Ultrafeiner Film auf YG-1 Diamant - beschichteten Hartmetall Schaffräser gewährleisten eine glatte und ausgezeichnete Oberflächengüte.
- ▶ High performance on graphite, wrought aluminum, bakelite, plastics, wood, brass etc. YG-1's diamond coated carbide ball end mills have good result for the machining of non-ferrous metals and non-metallic materials.  
Hohe Leistungsfähigkeit bei Graphit, Aluminium ohne silicongehalt, Bakelit, Plastik, Holz, Messing, etc. YG-1 Diamant - beschichtete hartmetall Schaffräser zeigen gute Ergebnisse beim Bearbeiten von NE - Metallen und Nichtmetall - Werkstoffen.

BALL



SERIES **EIB87** PLAIN SHANK  
GLATTEM ZYLINDERSCHAFT

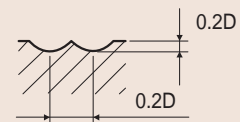
Unit : mm

EDP No.	R ±0.01	MILL DIAMETER	SHANK DIAMETER	LENGTH OF CUT	LENGTH BELOW SHANK	OVERALL LENGTH	NECK TAPER ANGLE
		D1	D2(h6)	L1	L3	L2	θ°
EIB87010	RO.5	1.0	3	2	-	40	8° 30'
EIB87901	RO.5	1.0	3	2	30	60	2°
EIB87902	RO.5	1.0	3	2	70	100	1°
EIB87015	RO.75	1.5	3	3	-	40	6° 15'
EIB87903	RO.75	1.5	3	3	30	60	1° 30'
EIB87904	RO.75	1.5	3	3	58	100	45'
EIB87020	R1.0	2.0	3	4	-	40	4° 15'
EIB87905	R1.0	2.0	3	4	30	60	1°
EIB87906	R1.0	2.0	4	4	70	100	1°

MILL DIA. TOLERANCE (mm)	SHANK DIA. TOLERANCE
0~-0.02	h6

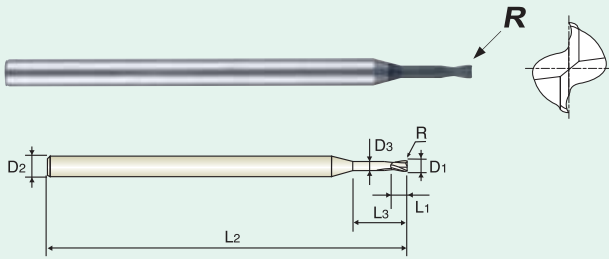
### EIB87 CUTTING CONDITION

MATERIAL	GRAPHITE		
	DIAMETER	RPM	FEED
RO.5 × 1.0	40000	1200	
RO.75 × 1.5	40000	1600	
R1.0 × 2.0	40000	2000	



RPM = rev./min.  
Feed = mm/min.

## 2 FLUTE, MINIATURE, CORNER RADIUS 2 SCHNEIDEN, MINIATUR, ECKENRADIUS



- ▶ Higher hardness of film and excellent wear-resistance increase the tool life surprisingly.  
Höhere Härte des Films und ausgezeichnete Verschleißfestigkeit verlängern die standzeit beachtlich.
- ▶ Ultra fine film of YG-1's diamond coated carbide end mills ensure the smooth and excellent surface on work materials.  
Ultrafeiner Film auf YG-1 Diamant - beschichteten Hartmetall Schaffräser gewährleisten eine glatte und ausgezeichnete Oberflächengüte.
- ▶ High performance on graphite, wrought aluminum, bakelite, plastics, wood, brass etc. YG-1's diamond coated carbide end mills have good result for the machining of non-ferrous metals and non-metallic materials.  
Hohe Leistungsfähigkeit bei Graphit, Aluminium ohne silicongehalt, Bakelit, Plastik, Holz, Messing, etc. YG-1 Diamant - beschichtete hartmetall Schaffräser zeigen gute Ergebnisse beim Bearbeiten von NE - Metallen und Nichtmetall - Werkstoffen.

RADIUS



SERIES **EI996** PLAIN SHANK  
GLATTEM ZYLINDERSCHAFT

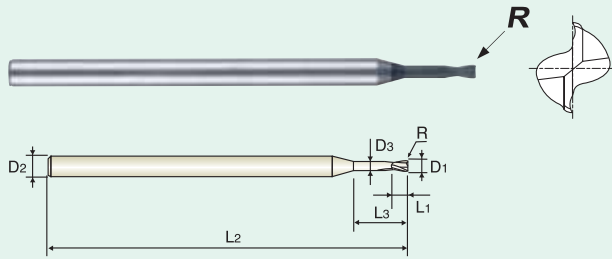


Unit : mm

EDP No.	CORNER RADIUS	MILL DIAMETER	SHANK DIAMETER	LENGTH OF CUT	LENGTH BELOW SHANK	OVERALL LENGTH	NECK DIAMETER
	R	D1	D2(h6)	L1	L3	L2	D3
EI99600200000	-	0.2	3	0.3	-	40	-
EI99600300000	-	0.3	3	0.5	-	40	-
EI99600400000	-	0.4	3	0.6	-	40	-
EI99600505025	RO.05	0.5	3	0.7	2.5	40	0.45
EI99600505040	RO.05	0.5	3	0.7	4	40	0.45
EI996006	RO.05	0.6	3	0.9	3	40	0.55
EI99600605050	RO.05	0.6	3	0.9	5	40	0.55
EI996008	RO.05	0.8	3	1.2	4	40	0.75
EI99600805070	RO.05	0.8	3	1.2	7	40	0.75
EI996010	RO.1	1.0	3	1.5	5	40	0.95
EI996904	RO.1	1.0	3	1.5	8.5	40	0.95
EI99601010120	RO.1	1.0	3	1.5	12	40	0.95
EI996012	RO.1	1.2	3	1.8	6	50	1.15
EI99601210100	RO.1	1.2	3	1.8	10	50	1.15
EI996015	RO.15	1.5	3	2.2	7.5	50	1.4
EI996907	RO.15	1.5	3	2.2	12	50	1.4
EI99601515180	RO.15	1.5	3	2.2	18	50	1.4
EI996020	RO.15	2.0	3	2.2	10	60	1.9
EI996909	RO.15	2.0	3	2.2	16	60	1.9
EI99602015250	RO.15	2.0	3	2.2	25	60	1.9
EI99603020100	RO.2	3.0	4	3	10	65	2.9
EI99603020150	RO.2	3.0	4	3	15	65	2.9
EI99603020200	RO.2	3.0	4	3	20	65	2.9
EI99603020250	RO.2	3.0	4	3	25	75	2.9
EI99603020300	RO.2	3.0	4	3	30	75	2.9
EI99604020200	RO.2	4.0	6	4	20	65	3.9
EI99604020300	RO.2	4.0	6	4	30	75	3.9
EI99604020400	RO.2	4.0	6	4	40	90	3.9



## 2 FLUTE, MINIATURE, CORNER RADIUS 2 SCHNEIDEN, MINIATUR, ECKENRADIUS



- ▶ Higher hardness of film and excellent wear-resistance increase the tool life surprisingly.  
Höhere Härte des Films und ausgezeichnete Verschleißfestigkeit verlängern die standzeit beachtlich.
- ▶ Ultra fine film of YG-1's diamond coated carbide end mills ensure the smooth and excellent surface on work materials.  
Ultrafeiner Film auf YG-1 Diamant - beschichteten Hartmetall Schaffräser gewährleisten eine glatte und ausgezeichnete Oberflächengüte.
- ▶ High performance on graphite, wrought aluminum, bakelite, plastics, wood, brass etc. YG-1's diamond coated carbide end mills have good result for the machining of non-ferrous metals and non-metallic materials.  
Hohe Leistungsfähigkeit bei Graphit, Aluminium ohne silicongehalt, Bakelit, Plastik, Holz, Messing, etc. YG-1 Diamant - beschichtete hartmetall Schaffräser zeigen gute Ergebnisse beim Bearbeiten von NE - Metallen und Nichtmetall - Werkstoffen.

RADIUS



SERIES **EI996** PLAIN SHANK  
GLATTEM ZYLINDERSCHAFT

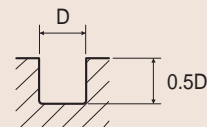
Unit : mm

EDP No.	CORNER RADIUS	MILL DIAMETER	SHANK DIAMETER	LENGTH OF CUT	LENGTH BELOW SHANK	OVERALL LENGTH	NECK DIAMETER
	R	D1	D2(h6)	L1	L3	L2	D3
EI99605030200	RO.3	5.0	6	5	20	75	4.9
EI99605030300	RO.3	5.0	6	5	30	75	4.9
EI99605030400	RO.3	5.0	6	5	40	90	4.9
EI99605030500	RO.3	5.0	6	5	50	90	4.9
EI99606030300	RO.3	6.0	6	6	30	75	5.9
EI99606030400	RO.3	6.0	6	6	40	90	5.9
EI99606030500	RO.3	6.0	6	6	50	90	5.9
EI99606030600	RO.3	6.0	6	6	60	100	5.9

MILL DIA. TOLERANCE (mm)	SHANK DIA. TOLERANCE
0~-0.02	h6

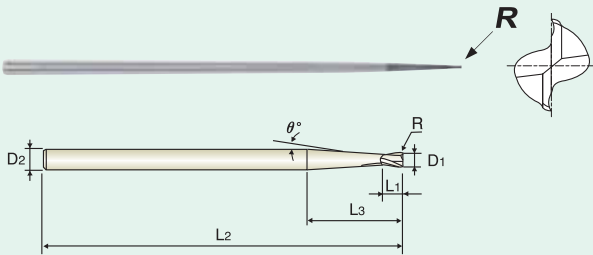
### EI996 CUTTING CONDITION

MATERIAL	GRAPHITE		
	DIAMETER	RPM	FEED
0.4	40000	640	
0.6	40000	640	
0.8	40000	800	
1.0	40000	960	
1.2	40000	1200	
1.5	40000	1440	
2.0	40000	1600	
3.0	27000	1900	
4.0	20000	2300	
5.0	16000	2300	
6.0	14000	2300	



RPM = rev./min.  
Feed = mm/min.

## 2 FLUTE, CORNER RADIUS with TAPER NECK 2 SCHEIDEN, ECKENRADIUS, mit KONISCH ABGESETZTEN SCHAFTTEIL



- ▶ Higher hardness of film and excellent wear-resistance increase the tool life surprisingly.  
Höhere Härte des Films und ausgezeichnete Verschleißfestigkeit verlängern die standzeit beachtlich.
- ▶ Ultra fine film of YG-1's diamond coated carbide ball end mills ensure the smooth and excellent surface on work materials.  
Ultrafeiner Film auf YG-1 Diamant - beschichteten Hartmetall Schaftfräser gewährleisten eine glatte und ausgezeichnete Oberflächengüte.
- ▶ High performance on graphite, wrought aluminum, bakelite, plastics, wood, brass etc. YG-1's diamond coated carbide ball end mills have good result for the machining of non-ferrous metals and non-metallic materials.  
Hohe Leistungsfähigkeit bei Graphit, Aluminium ohne silicongehalt, Bakelit, Plastik, Holz, Messing, etc. YG-1 Diamant - beschichtete hartmetall Schaftfräser zeigen gute Ergebnisse beim Bearbeiten von NE - Metallen und Nichtmetall - Werkstoffen.

RADIUS



SERIES **EIB86** PLAIN SHANK  
GLATTEM ZYLINDERSCHAFT



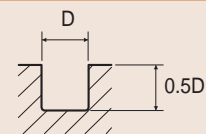
Unit : mm

EDP No.	CORNER RADIUS	MILL DIAMETER	SHANK DIAMETER	LENGTH OF CUT	LENGTH BELOW SHANK	OVERALL LENGTH	NECK TAPER ANGLE
	R	D1	D2(h6)	L1	L3	L2	$\theta^\circ$
<b>EIB86010</b>	RO.1	1.0	3	2	30	60	2°
<b>EIB86901</b>	RO.1	1.0	3	2	70	100	1°
<b>EIB86015</b>	RO.15	1.5	3	3	30	60	1°30'
<b>EIB86902</b>	RO.15	1.5	3	3	50	100	1°
<b>EIB86020</b>	RO.15	2.0	3	4	30	60	1°
<b>EIB86903</b>	RO.15	2.0	4	4	70	100	1°

MILL DIA. TOLERANCE (mm)	SHANK DIA. TOLERANCE
0~-0.02	h6

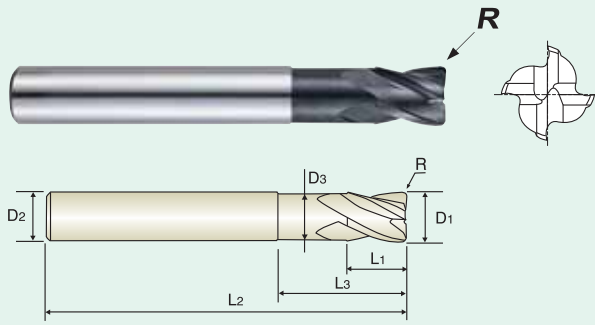
### EIB86 CUTTING CONDITION

MATERIAL	GRAPHITE	
	DIAMETER	RPM
1.0	40000	960
1.5	40000	1440
2.0	40000	1600



RPM = rev./min.  
Feed = mm/min.

## 4 FLUTE, CORNER RADIUS 4 SCHNEIDEN, ECKENRADIUS



- ▶ Higher hardness of film and excellent wear-resistance increase the tool life surprisingly.  
Höhere Härte des Films und ausgezeichnete Verschleißfestigkeit verlängern die standzeit beachtlich.
- ▶ Ultra fine film of YG-1's diamond coated carbide ball end mills ensure the smooth and excellent surface on work materials.  
Ultrafeiner Film auf YG-1 Diamant - beschichteten Hartmetall Schafffräser gewährleisten eine glatte und ausgezeichnete Oberflächengüte.
- ▶ High performance on graphite, wrought aluminum, bakelite, plastics, wood, brass etc. YG-1's diamond coated carbide ball end mills have good result for the machining of non-ferrous metals and non-metallic materials.  
Hohe Leistungsfähigkeit bei Graphit, Aluminium ohne silicongehalt, Bakelit, Plastik, Holz, Messing, etc. YG-1 Diamant - beschichtete hartmetall Schafffräser zeigen gute Ergebnisse beim Bearbeiten von NE - Metallen und Nichtmetall - Werkstoffen.

RADIUS



SERIES **EIB88** PLAIN SHANK  
GLATTEM ZYLINDERSCHAFT

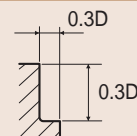
Unit : mm

EDP No.	CORNER RADIUS	MILL DIAMETER	SHANK DIAMETER	LENGTH OF CUT	LENGTH BELOW SHANK	OVERALL LENGTH	NECK DIAMETER
	R	D1	D2(h6)	L1	L3	L2	D3
EIB88060	R0.5	6.0	6	10	40	80	5.9
EIB88080	R0.5	8.0	8	10	40	80	7.8
EIB88901	R1.0	8.0	8	10	60	100	7.8
EIB88100	R0.5	10.0	10	25	-	75	-
EIB88902	R0.5	10.0	10	12	40	80	9.8
EIB88903	R1.0	10.0	10	12	40	80	9.8
EIB88904	R0.5	10.0	10	12	80	125	9.8
EIB88120	R0.5	12.0	12	25	-	80	-
EIB88905	R0.5	12.0	12	15	40	80	11.8
EIB88906	R1.0	12.0	12	15	40	80	11.8
EIB88907	R1.0	12.0	12	15	80	125	11.8

MILL DIA. TOLERANCE (mm)	SHANK DIA. TOLERANCE
0~-0.03	h6

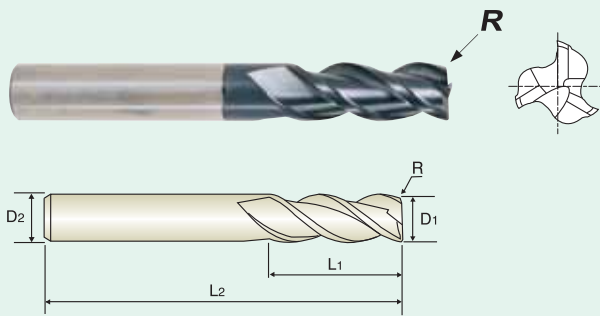
### EIB88 CUTTING CONDITION

MATERIAL	GRAPHITE	
	DIAMETER	RPM
6.0	40000	5600
8.0	32000	5600
10.0	26000	5700
12.0	21000	5450



RPM = rev./min.  
Feed = mm/min.

## 3 FLUTE, 40° HELIX, SHORT LENGTH, CORNER RADIUS 3 SCHNEIDEN, KURZ, 40° RECHTSSPIRALE, ECKENRADIUS



- ▶ Higher hardness of film and excellent wear-resistance increase the tool life surprisingly.  
Höhere Härte des Films und ausgezeichnete Verschleißfestigkeit verlängern die standzeit beachtlich.
- ▶ Ultra fine film of YG-1's diamond coated carbide end mills ensure the smooth and excellent surface on work materials.  
Ultrafeiner Film auf YG-1 Diamant - beschichteten Hartmetall Schafffräser gewährleisten eine glatte und ausgezeichnete Oberflächengüte.
- ▶ High performance on graphite, wrought aluminum, bakelite, plastics, wood, brass etc. YG-1's diamond coated carbide end mills have good result for the machining of non-ferrous metals and non-metallic materials.  
Hohe Leistungsfähigkeit bei Graphit, Aluminium ohne silicongehalt, Bakelit, Plastik, Holz, Messing, etc. YG-1 Diamant - beschichtete hartmetall Schafffräser zeigen gute Ergebnisse beim Bearbeiten von NE - Metallen und Nichtmetall - Werkstoffen.

RADIUS



SERIES **EIA13** PLAIN SHANK  
GLATTEM ZYLINDERSCHAFT



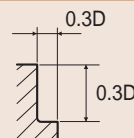
Unit : mm

EDP No.	CORNER RADIUS	MILL DIAMETER	SHANK DIAMETER	LENGTH OF CUT	OVERALL LENGTH
	R	D1	D2(h6)	L1	L2
EIA13020	RO.15	2.0	3	6	40
EIA13030	RO.15	3.0	3	12	40
EIA13040	RO.2	4.0	4	14	50
EIA13050	RO.3	5.0	5	16	50
EIA13060	RO.3	6.0	6	20	65
EIA13080	RO.5	8.0	8	20	65
EIA13100	RO.5	10.0	10	25	75
EIA13120	RO.5	12.0	12	25	75

MILL DIA. TOLERANCE (mm)	SHANK DIA. TOLERANCE
0~-0.03	h6

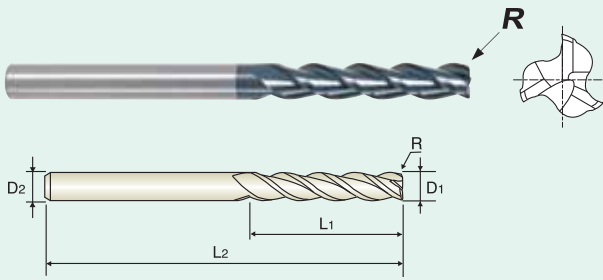
### EIA13 CUTTING CONDITION

MATERIAL DIAMETER	GRAPHITE	
	RPM	FEED
2.0	40000	3000
3.0	40000	4200
4.0	40000	6000
5.0	40000	7200
6.0	40000	8400
8.0	32000	8400
10.0	26000	8600
12.0	21000	8200



RPM = rev./min.  
Feed = mm/min.

## 3 FLUTE, 40° HELIX, LONG LENGTH, CORNER RADIUS 3 SCHNEIDN, 40° RECHTSSPIRALE, LANG, ECKENRADIUS



- ▶ Higher hardness of film and excellent wear-resistance increase the tool life surprisingly.  
Höhere Härte des Films und ausgezeichnete Verschleißfestigkeit verlängern die standzeit beachtlich.
- ▶ Ultra fine film of YG-1's diamond coated carbide end mills ensure the smooth and excellent surface on work materials.  
Ultrafeiner Film auf YG-1 Diamant - beschichteten Hartmetall Schafffräser gewährleisten eine glatte und ausgezeichnete Oberflächengüte.
- ▶ High performance on graphite, wrought aluminum, bakelite, plastics, wood, brass etc. YG-1's diamond coated carbide end mills have good result for the machining of non-ferrous metals and non-metallic materials.  
Hohe Leistungsfähigkeit bei Graphit, Aluminium ohne silicongehalt, Bakelit, Plastik, Holz, Messing, etc. YG-1 Diamant - beschichtete Hartmetall Schafffräser zeigen gute Ergebnisse beim Bearbeiten von NE - Metallen und Nichtmetall - Werkstoffen.

RADIUS



SERIES **EIA14** PLAIN SHANK  
GLATTEM ZYLINDERSCHAFT

Unit : mm

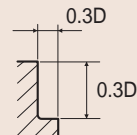
EDP No.	CORNER RADIUS	MILL DIAMETER	SHANK DIAMETER	LENGTH OF CUT	OVERALL LENGTH
	R	D1	D2(h6)	L1	L2
EIA14020	RO.15	2.0	3	9	60
EIA14030	RO.15	3.0	3	30	60
EIA14040	RO.2	4.0	4	30	60
EIA14050	RO.3	5.0	5	35	70
EIA14060	RO.3	6.0	6	40	100
EIA14080	RO.5	8.0	8	40	100
EIA14100	RO.5	10.0	10	40	100
EIA14120	RO.5	12.0	12	45	100

MILL DIA. TOLERANCE (mm)	SHANK DIA. TOLERANCE
0~-0.03	h6

### EIA14 CUTTING CONDITION

※ The FEED, in long & long reach types, should be reduced by around 50%

MATERIAL DIAMETER	GRAPHITE	
	RPM	FEED
2.0	40000	3000
3.0	40000	4200
4.0	40000	6000
5.0	40000	7200
6.0	40000	8400
8.0	32000	8400
10.0	26000	8600
12.0	21000	8200



RPM = rev./min.  
Feed = mm/min.

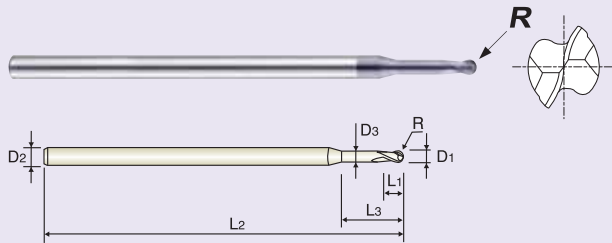


**D-POWER ECONOMY  
DIAMOND COATED CARBIDE END MILLS  
D-POWER ÖKONOMISCH  
DIAMONT-BECHICHTETE FRÄSER**



- Die & Mold making, Turbine manufacturing and Aircraft Industry, etc.  
Formbau, Turbinenherstellung und Flugzeugindustrie...usw.
- Profiling of wrought aluminum, silicon aluminum alloys, Magnesium alloys, Reinforced plastics and Graphite, Copper Alloy.  
Profilfräsen von Knetaluminium, Silizium- Aluminiumlegierungen, Magnesiumlegierungen, verstärkte Verbundkunststoff und Graphit, Kupfer-Legierungen.
- Superior work piece finishes.  
Hervorragende Oberflächengüte

## 2 FLUTE, MINIATURE, BALL NOSE 2 SCHNEIDEN, MINIATUR, STIRNRADIUS



- Designed for the machining graphite, reinforced plastic, high silicon aluminum alloy, Copper Alloy.  
Zum Zerspanen von Graphit, verstärkten Verbundmaterialien, Silikon-Aluminium legierung, Kupfer-Legierungen.
- YG-1's newly developed diamond film coating allows a good result for the machining non-ferrous metals and non-metallic materials.  
Die neuentwickelte Diamantfilmbeschichtung ermöglicht hervorragende Zerspanergebnisse von Nichteisenmetallen und nichtmetallischen Materialien.



ECONOMY

BALL

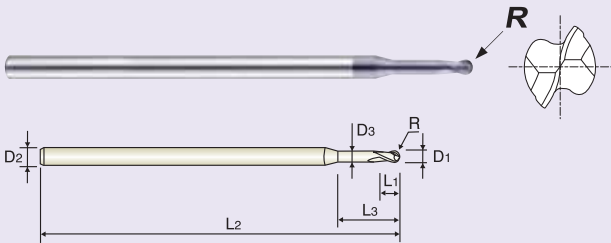


SERIES **GEB46** PLAIN SHANK  
GLATTEM ZYLINDERSCHAFT

Unit : mm

EDP No.	R ±0.01	MILL DIAMETER	SHANK DIAMETER	LENGTH OF CUT	LENGTH BELOW SHANK	OVERALL LENGTH	NECK DIAMETER
		D1	D2(h6)	L1	L3	L2	D3
GEB46002000040	RO.1	0.2	3	0.2	–	40	–
GEB46003000040	RO.15	0.3	3	0.3	–	40	–
GEB46004000040	RO.2	0.4	3	0.4	–	40	–
GEB46005025040	RO.25	0.5	3	0.5	2.5	40	0.45
GEB46006030040	RO.3	0.6	3	0.6	3	40	0.55
GEB46006050040	RO.3	0.6	3	0.6	5	40	0.55
GEB46008040040	RO.4	0.8	3	0.8	4	40	0.75
GEB46008070040	RO.4	0.8	3	0.8	7	40	0.75
GEB46010050040	RO.5	1.0	3	1	5	40	0.95
GEB46010085040	RO.5	1.0	3	1	8.5	40	0.95
GEB46010120040	RO.5	1.0	3	1	12	40	0.95
GEB46012060050	RO.6	1.2	3	1.2	6	50	1.15
GEB46012100050	RO.6	1.2	3	1.2	10	50	1.15
GEB46015075050	RO.75	1.5	3	1.5	7.5	50	1.4
GEB46015120050	RO.75	1.5	3	1.5	12	50	1.4
GEB46015180050	RO.75	1.5	3	1.5	18	50	1.4
GEB46020100060	R1.0	2.0	3	2.2	10	60	1.9
GEB46020160060	R1.0	2.0	3	2.2	16	60	1.9
GEB46020250060	R1.0	2.0	3	2.2	25	60	1.9
GEB46030100065	R1.5	3.0	4	3	10	65	2.9
GEB46030150065	R1.5	3.0	4	3	15	65	2.9
GEB46030200065	R1.5	3.0	4	3	20	65	2.9
GEB46030250075	R1.5	3.0	4	3	25	75	2.9
GEB46030300075	R1.5	3.0	4	3	30	75	2.9
GEB46040200065	R2.0	4.0	6	4	20	65	3.9
GEB46040300075	R2.0	4.0	6	4	30	75	3.9
GEB46040400090	R2.0	4.0	6	4	40	90	3.9

## 2 FLUTE, MINIATURE, BALL NOSE 2 SCHNEIDEN, MINIATUR, STIRNRADIUS



- Designed for the machining graphite, reinforced plastic, high silicon aluminum alloy, Copper Alloy.  
Zum Zerspanen von Graphit, verstärkten Verbundmaterialien, Silikon-Aluminium legierung, Kupfer-Legierungen.
- YG-1's newly developed diamond film coating allows a good result for the machining non-ferrous metals and non-metallic materials.  
Die neuentwickelte Diamantfilmbeschichtung ermöglicht hervorragende Zerspanergebnisse von Nichteisenmetallen und nichtmetallischen Materialien.



ECONOMY

BALL



SERIES **GEB46** PLAIN SHANK  
GLATTEM ZYLINDERSCHAFT



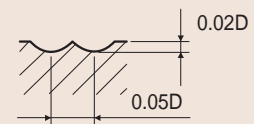
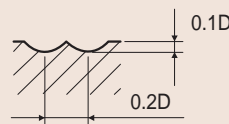
Unit : mm

EDP No.	R ±0.01	MILL DIAMETER	SHANK DIAMETER	LENGTH OF CUT	LENGTH BELOW SHANK	OVERALL LENGTH	NECK DIAMETER
		D1	D2(h6)	L1	L3	L2	D3
GEB46050200065	R2.5	5.0	6	5	20	65	4.9
GEB46050300075	R2.5	5.0	6	5	30	75	4.9
GEB46050400090	R2.5	5.0	6	5	40	90	4.9
GEB46050500090	R2.5	5.0	6	5	50	90	4.9
GEB46060300075	R3.0	6.0	6	6	30	75	5.9
GEB46060400090	R3.0	6.0	6	6	40	90	5.9
GEB46060500090	R3.0	6.0	6	6	50	90	5.9
GEB46060600100	R3.0	6.0	6	6	60	100	5.9

MILL DIA. TOLERANCE (mm)	SHANK DIA. TOLERANCE
0~-0.02	h6

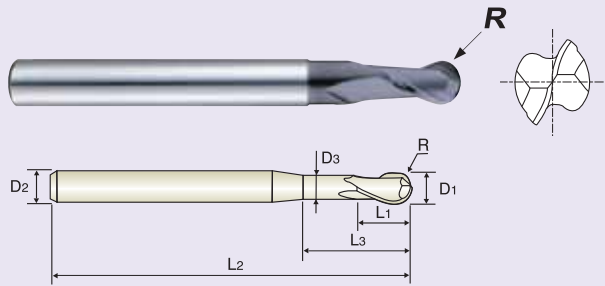
### GEB46 CUTTING CONDITION

MATERIAL DIAMETER	ALUMINUM DIECAST		COPPER ALLOY	
	RPM	FEED	RPM	FEED
R0.25 × 0.5	50000	850	43000	650
R0.3 × 0.6	50000	1300	43000	1000
R0.4 × 0.8	50000	1600	38000	1200
R0.5 × 1.0	46000	2000	34000	1400
R0.6 × 1.2	39000	2000	29000	1400
R0.75 × 1.5	36000	2000	26000	1400
R1.0 × 2.0	27000	1800	20000	1300
R1.5 × 3.0	20000	1800	13500	1300
R2.0 × 4.0	15000	1800	10000	1300
R2.5 × 5.0	12000	1800	8000	1300
R3.0 × 6.0	10000	1800	6800	1300



RPM = rev./min.  
Feed = mm/min.

## 2 FLUTE, SHORT LENGTH, BALL NOSE 2 SCHNEIDEN, KURZ, STIRNRADIUS



► Designed for the machining graphite, reinforced plastic, high silicon aluminum alloy, Copper Alloy.  
Zum Zerspanen von Graphit, verstärkten Verbundmaterialien, Silikon-Aluminium legierung, Kupfer-Legierungen.

► YG-1's newly developed diamond film coating allows a good result for the machining non-ferrous metals and non-metallic materials.  
Die neuentwickelte Diamantfilmbeschichtung ermöglicht hervorragende Zerspanergebnisse von Nichteisenmetallen und nichtmetallischen Materialien.



ECONOMY

BALL



SERIES **GE944** PLAIN SHANK  
GLATTEM ZYLINDERSCHAFT

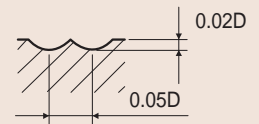
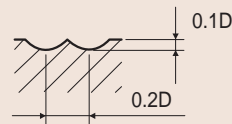
Unit : mm

EDP No.	R ±0.01	MILL DIAMETER	SHANK DIAMETER	LENGTH OF CUT	LENGTH BELOW SHANK	OVERALL LENGTH	NECK DIAMETER
		D1	D2(h6)	L1	L3	L2	D3
GE944020	R1.0	2.0	6	3	5	60	1.9
GE944025	R1.25	2.5	6	4	6	60	2.4
GE944030	R1.5	3.0	6	4.5	6.5	60	2.8
GE944035	R1.75	3.5	6	5	7	65	3.2
GE944040	R2.0	4.0	6	6	8	65	3.7
GE944050	R2.5	5.0	6	7.5	10	65	4.6
GE944060	R3.0	6.0	6	9	12	75	5.6
GE944080	R4.0	8.0	8	12	25	75	7.4
GE944100	R5.0	10.0	10	15	30	80	9.4
GE944120	R6.0	12.0	12	18	36	90	11.4

MILL DIA. TOLERANCE (mm)	SHANK DIA. TOLERANCE
0~-0.03	h6

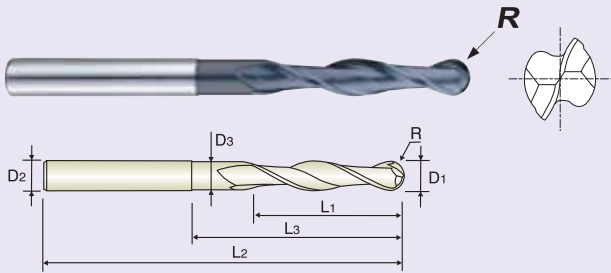
### GE944 CUTTING CONDITION

MATERIAL DIAMETER	ALUMINUM DIECAST		COPPER ALLOY	
	RPM	FEED	RPM	FEED
R1.0 × 2.0	25000	1000	19000	800
R1.5 × 3.0	17000	1000	12500	800
R2.0 × 4.0	12500	1000	9500	800
R2.5 × 5.0	10000	1200	7600	850
R3.0 × 6.0	8500	1350	6400	900
R4.0 × 8.0	7000	1450	5100	900
R5.0 × 10.0	6000	1450	4200	900
R6.0 × 12.0	5000	1450	3500	900



RPM = rev./min.  
Feed = mm/min.

## 2 FLUTE, LONG LENGTH, BALL NOSE 2 SCHNEIDEN, LANG, STIRNRADIUS

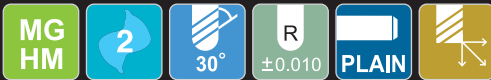


- ▶ Designed for the machining graphite, reinforced plastic, high silicon aluminum alloy, Copper Alloy.  
Zum Zerspanen von Graphit, verstärkten Verbundmaterialien, Silikon-Aluminium legierung, Kupfer-Legierungen.
- ▶ YG-1's newly developed diamond film coating allows a good result for the machining non-ferrous metals and non-metallic materials.  
Die neuentwickelte Diamantfilmbeschichtung ermöglicht hervorragende Zerspanergebnisse von Nichteisenmetallen und nichtmetallischen Materialien.



ECONOMY

BALL



SERIES **GE945** PLAIN SHANK  
GLATTEM ZYLINDERSCHAFT



Unit : mm

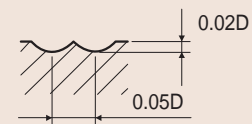
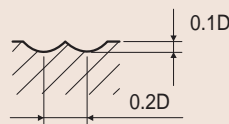
EDP No.	R ±0.01	MILL DIAMETER	SHANK DIAMETER	LENGTH OF CUT	LENGTH BELOW SHANK	OVERALL LENGTH	NECK DIAMETER
		D1	D2(h6)	L1	L3	L2	D3
GE945020	R1.0	2.0	4	10	20	80	1.95
GE945030	R1.5	3.0	4	15	25	80	2.9
GE945040	R2.0	4.0	4	20	30	80	3.9
GE945050	R2.5	5.0	6	30	50	100	4.9
GE945060	R3.0	6.0	6	30	50	100	5.5
GE945070	R3.5	7.0	6	30	-	100	-
GE945080	R4.0	8.0	8	40	60	110	7.5
GE945090	R4.5	9.0	8	40	-	110	-
GE945100	R5.0	10.0	10	50	70	120	9.5
GE945120	R6.0	12.0	12	55	75	130	11.5

MILL DIA. TOLERANCE (mm)	SHANK DIA. TOLERANCE
0~-0.03	h6

### GE945 CUTTING CONDITION

※ The FEED, in long & long reach types, should be reduced by around 50%

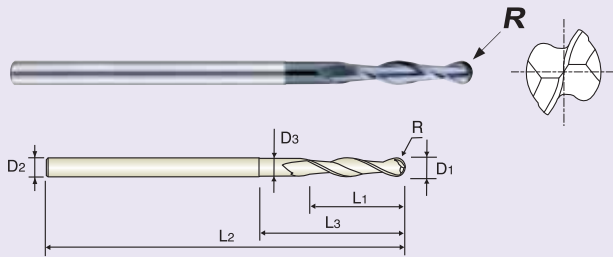
MATERIAL	ALUMINUM DIECAST		COPPER ALLOY		
	DIAMETER	RPM	FEED	RPM	FEED
R1.0 × 2.0	25000	1000	19000	800	800
R1.5 × 3.0	17000	1000	12500	800	800
R2.0 × 4.0	12500	1000	9500	800	800
R2.5 × 5.0	10000	1200	7600	850	850
R3.0 × 6.0	8500	1350	6400	900	900
R4.0 × 8.0	7000	1450	5100	900	900
R5.0 × 10.0	6000	1450	4200	900	900
R6.0 × 12.0	5000	1450	3500	900	900



RPM = rev./min.  
Feed = mm/min.



## 2 FLUTE, LONG REACH, BALL NOSE 2 SCHNEIDEN, GROÙE REICHWEITE, STIRNRADIUS



- Designed for the machining graphite, reinforced plastic, high silicon aluminum alloy, Copper Alloy.  
Zum Zerspanen von Graphit, verstärkten Verbundmaterialien, Silikon-Aluminium legierung, Kupfer-Legierungen.
- YG-1's newly developed diamond film coating allows a good result for the machining non-ferrous metals and non-metallic materials.  
Die neuentwickelte Diamantfilmbeschichtung ermöglicht hervorragende Zerspanergebnisse von Nichteisenmetallen und nichtmetallischen Materialien.



ECONOMY

BALL



SERIES **GE946** PLAIN SHANK  
GLATTEM ZYLINDERSCHAFT

Unit : mm

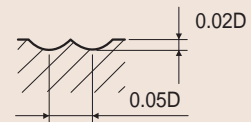
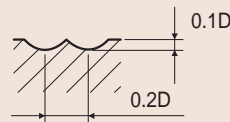
EDP No.	R ±0.01	MILL DIAMETER	SHANK DIAMETER	LENGTH OF CUT	LENGTH BELOW SHANK	OVERALL LENGTH	NECK DIAMETER
		D1	D2(h6)	L1	L3	L2	D3
GE946020	R1.0	2.0	4	10	20	100	1.95
GE946030	R1.5	3.0	4	15	25	100	2.9
GE946040	R2.0	4.0	4	20	30	100	3.9
GE946050	R2.5	5.0	6	30	50	120	4.9
GE946060	R3.0	6.0	6	30	50	150	5.5
GE946070	R3.5	7.0	6	30	-	150	-
GE946080	R4.0	8.0	8	40	60	150	7.5
GE946090	R4.5	9.0	8	40	-	150	-
GE946100	R5.0	10.0	10	50	70	180	9.5
GE946120	R6.0	12.0	12	55	75	200	11.5

MILL DIA. TOLERANCE (mm)	SHANK DIA. TOLERANCE
0~-0.03	h6

### GE946 CUTTING CONDITION

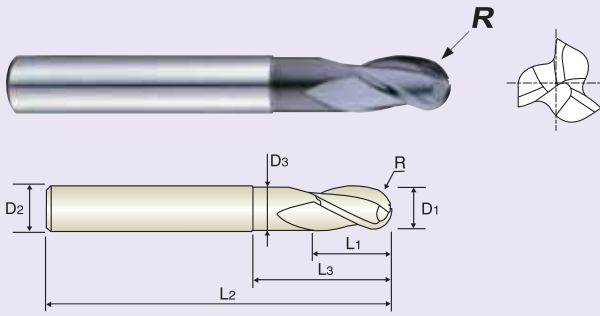
\* The FEED, in long & long reach types, should be reduced by around 50%

MATERIAL	ALUMINUM DIECAST		COPPER ALLOY	
	DIAMETER	RPM	RPM	FEED
R1.0 × 2.0	25000	1000	19000	800
R1.5 × 3.0	17000	1000	12500	800
R2.0 × 4.0	12500	1000	9500	800
R2.5 × 5.0	10000	1200	7600	850
R3.0 × 6.0	8500	1350	6400	900
R4.0 × 8.0	7000	1450	5100	900
R5.0 × 10.0	6000	1450	4200	900
R6.0 × 12.0	5000	1450	3500	900



RPM = rev./min.  
Feed = mm/min.

## 3 FLUTE, SHORT LENGTH, BALL NOSE 3 SCHNEIDEN, KURZ, STIRNRADIUS



- Designed for the machining graphite, reinforced plastic, high silicon aluminum alloy, Copper Alloy.  
Zum Zerspanen von Graphit, verstärkten Verbundmaterialien, Silikon-Aluminium legierung, Kupfer-Legierungen.
- YG-1's newly developed diamond film coating allows a good result for the machining non-ferrous metals and non-metallic materials.  
Die neuentwickelte Diamantfilmbeschichtung ermöglicht hervorragende Zerspanergebnisse von Nichteisenmetallen und nichtmetallischen Materialien.



ECONOMY

BALL



SERIES **GE947** PLAIN SHANK  
GLATTEM ZYLINDERSCHAFT



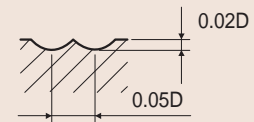
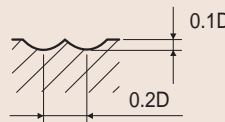
Unit : mm

EDP No.	R ±0.01	MILL DIAMETER	SHANK DIAMETER	LENGTH OF CUT	LENGTH BELOW SHANK	OVERALL LENGTH	NECK DIAMETER
		D1	D2(h6)	L1	L3	L2	D3
GE947020	R1.0	2.0	6	3	5	60	1.9
GE947025	R1.25	2.5	6	4	6	60	2.4
GE947030	R1.5	3.0	6	4.5	6.5	60	2.8
GE947035	R1.75	3.5	6	5	7	65	3.2
GE947040	R2.0	4.0	6	6	8	65	3.7
GE947050	R2.5	5.0	6	7.5	10	65	4.6
GE947060	R3.0	6.0	6	9	12	75	5.6
GE947080	R4.0	8.0	8	12	25	75	7.4
GE947100	R5.0	10.0	10	15	30	80	9.4
GE947120	R6.0	12.0	12	18	36	90	11.4

MILL DIA. TOLERANCE (mm)	SHANK DIA. TOLERANCE
0~-0.03	h6

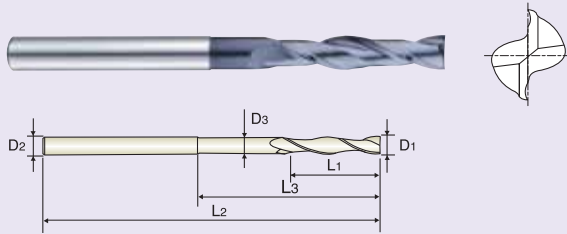
### GE947 CUTTING CONDITION

MATERIAL	ALUMINUM DIECAST		COPPER ALLOY	
	DIAMETER	RPM	FEED	RPM
R1.0 × 2.0	25000	1000	19000	800
R1.5 × 3.0	17000	1000	12500	800
R2.0 × 4.0	12500	1000	9500	800
R2.5 × 5.0	10000	1200	7600	850
R3.0 × 6.0	8500	1350	6400	900
R4.0 × 8.0	7000	1450	5100	900
R5.0 × 10.0	6000	1450	4200	900
R6.0 × 12.0	5000	1450	3500	900



RPM = rev./min.  
Feed = mm/min.

## 2 FLUTE, LONG LENGTH 2 SCHNEIDEN, LANG



- Designed for the machining graphite, reinforced plastic, high silicon aluminum alloy, Copper Alloy.  
Zum Zerspanen von Graphit, verstärkten Verbundmaterialien, Silikon-Aluminium legierung, Kupfer-Legierungen.
- YG-1's newly developed diamond film coating allows a good result for the machining non-ferrous metals and non-metallic materials.  
Die neuentwickelte Diamantfilmbeschichtung ermöglicht hervorragende Zerspanergebnisse von Nichteisenmetallen und nichtmetallischen Materialien.



ECONOMY

SQUARE



SERIES **GE927** PLAIN SHANK  
GLATTEM ZYLINDERSCHAFT

Unit : mm

EDP No.	MILL DIAMETER	SHANK DIAMETER	LENGTH OF CUT	LENGTH BELOW SHANK	OVERALL LENGTH	NECK DIAMETER
	D1	D2(h6)	L1	L3	L2	D3
GE927005	0.5	3	1	2	40	0.45
GE927006	0.6	3	2	3	40	0.55
GE927007	0.7	3	2	4	40	0.65
GE927008	0.8	3	2	5	40	0.75
GE927009	0.9	3	2	6	40	0.85
GE927010	1.0	4	3	8	75	0.95
GE927015	1.5	4	4	10	75	1.45
GE927020	2.0	4	6	16	100	1.9
GE927025	2.5	4	8	20	100	2.4
GE927030	3.0	6	8	30	100	2.8
GE927035	3.5	6	10	35	100	3.2
GE927040	4.0	6	20	40	100	3.7
GE927050	5.0	6	25	50	125	4.6
GE927060	6.0	6	30	60	140	5.6
GE927070	7.0	6	35	-	140	-
GE927080	8.0	8	40	80	150	7.4
GE927090	9.0	8	45	-	150	-
GE927100	10.0	10	50	80	150	9.4
GE927110	11.0	10	50	-	150	-
GE927120	12.0	12	55	80	150	11.4

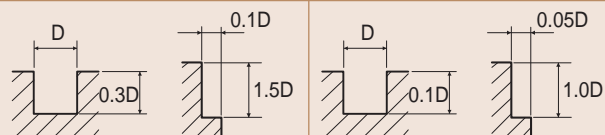
MILL DIA. TOLERANCE (mm)	SHANK DIA. TOLERANCE
0~-0.03	h6

**GE927 CUTTING CONDITION**

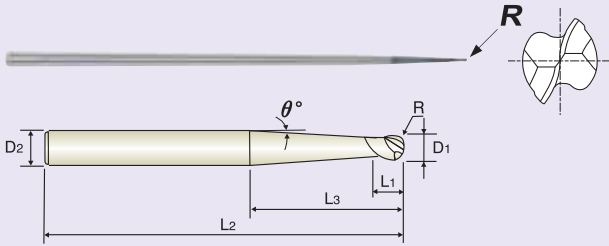
※ The FEED, in long & long reach types, should be reduced by around 50%

MATERIAL	ALUMINUM DIECAST		COPPER ALLOY	
	DIAMETER	RPM	FEED	RPM
0.5	32000	100	32000	100
1.0	32000	190	25000	140
2.0	27000	300	12000	150
3.0	20000	510	8000	220
4.0	15000	520	6000	240
5.0	12000	540	4800	250
6.0	10000	600	4000	250
8.0	8000	650	3000	280
10.0	6400	680	2500	330
12.0	5500	800	2000	360
16.0	4000	1000	1500	450
20.0	3300	1200	1200	500

RPM = rev./min.  
Feed = mm/min.



## 2 FLUTE, BALL NOSE with TAPER NECK 2 SCHNEIDEN, STIRNRADIUS mit KONISCH ABGESETZTEN SCHAFTTEIL



- ▶ Designed for the machining graphite, reinforced plastic, high silicon aluminum alloy, Copper Alloy.  
Zum Zerspanen von Graphit, verstärkten Verbundmaterialien, Silikon-Aluminium legierung, Kupfer-Legierungen.
- ▶ YG-1's newly developed diamond film coating allows a good result for the machining non-ferrous metals and non-metallic materials.  
Die neuentwickelte Diamantfilmbeschichtung ermöglicht hervorragende Zerspanergebnisse von Nichteisenmetallen und nichtmetallischen Materialien.



ECONOMY

BALL



SERIES **GEB02** PLAIN SHANK  
GLATTEM ZYLINDERSCHAFT



Unit : mm

EDP No.	R ±0.01	MILL DIAMETER	SHANK DIAMETER	LENGTH OF CUT	LENGTH BELOW SHANK	OVERALL LENGTH	NECK TAPER ANGLE
		D1	D2(h6)	L1	L3	L2	θ°
GEB02010000040	R0.5	1.0	3	2	—	40	8° 30'
GEB02010300060	R0.5	1.0	3	2	30	60	2°
GEB02010700100	R0.5	1.0	3	2	70	100	1°
GEB02015000040	R0.75	1.5	3	3	—	40	6° 15'
GEB02015300060	R0.75	1.5	3	3	30	60	1° 30'
GEB02015580100	R0.75	1.5	3	3	58	100	45'
GEB02020000040	R1.0	2.0	3	4	—	40	4° 15'
GEB02020300060	R1.0	2.0	3	4	30	60	1°
GEB02020700100	R1.0	2.0	4	4	70	100	1°

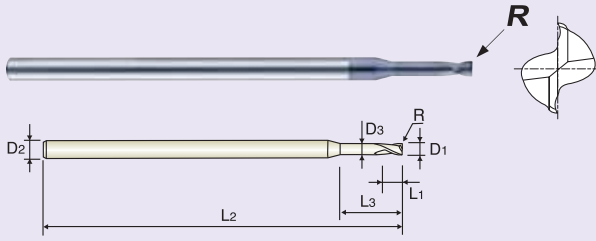
MILL DIA. TOLERANCE (mm)	SHANK DIA. TOLERANCE
0~-0.015	h6

### GEB02 CUTTING CONDITION

MATERIAL	ALUMINUM DIECAST		COPPER ALLOY	
	DIAMETER	RPM	FEED	RPM
R0.5 × 1.0	46000	2000	34000	1400
R0.75 × 1.5	36000	2000	26000	1400
R1.0 × 2.0	27000	1800	20000	1300

RPM = rev./min.  
Feed = mm/min.

## 2 FLUTE, MINIATURE, CORNER RADIUS 2 SCHNEIDEN, MINIATUR, ECKENRADIUS



- Designed for the machining graphite, reinforced plastic, high silicon aluminum alloy, Copper Alloy.  
Zum Zerspanen von Graphit, verstärkten Verbundmaterialien, Silikon-Aluminium legierung, Kupfer-Legierungen.
- YG-1's newly developed diamond film coating allows a good result for the machining non-ferrous metals and non-metallic materials.  
Die neuentwickelte Diamantfilmbeschichtung ermöglicht hervorragende Zerspanergebnisse von Nichteisenmetallen und nichtmetallischen Materialien.



ECONOMY

RADIUS



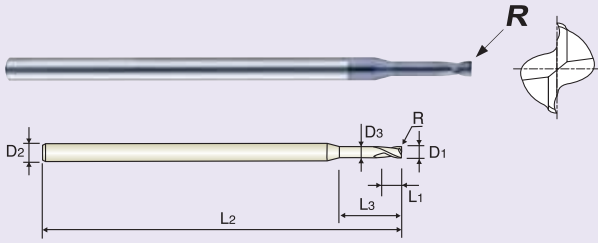
SERIES **GEB45** PLAIN SHANK  
GLATTEM ZYLINDERSCHAFT

Unit : mm

EDP No.	CORNER RADIUS	MILL DIAMETER	SHANK DIAMETER	LENGTH OF CUT	LENGTH BELOW SHANK	OVERALL LENGTH	NECK DIAMETER
	R	D1	D2(h6)	L1	L3	L2	D3
GEB4500200000	–	0.2	3	0.3	–	40	–
GEB4500300000	–	0.3	3	0.45	–	40	–
GEB4500400000	–	0.4	3	0.6	–	40	–
GEB4500505025	RO.05	0.5	3	0.7	2.5	40	0.45
GEB4500505040	RO.05	0.5	3	0.7	4	40	0.45
GEB4500605030	RO.05	0.6	3	0.9	3	40	0.55
GEB4500605050	RO.05	0.6	3	0.9	5	40	0.55
GEB4500805040	RO.05	0.8	3	1.2	4	40	0.75
GEB4500805070	RO.05	0.8	3	1.2	7	40	0.75
GEB4501010050	RO.1	1.0	3	1.5	5	40	0.95
GEB4501010085	RO.1	1.0	3	1.5	8.5	40	0.95
GEB4501010120	RO.1	1.0	3	1.5	12	40	0.95
GEB4501210060	RO.1	1.2	3	1.8	6	50	1.15
GEB4501210100	RO.1	1.2	3	1.8	10	50	1.15
GEB4501515075	RO.15	1.5	3	2.2	7.5	50	1.4
GEB4501515120	RO.15	1.5	3	2.2	12	50	1.4
GEB4501515180	RO.15	1.5	3	2.2	18	50	1.4
GEB4502015100	RO.15	2.0	3	2.2	10	60	1.9
GEB4502015160	RO.15	2.0	3	2.2	16	60	1.9
GEB4502015250	RO.15	2.0	3	2.2	25	60	1.9
GEB4503020100	RO.2	3.0	4	3	10	65	2.9
GEB4503020150	RO.2	3.0	4	3	15	65	2.9
GEB4503020200	RO.2	3.0	4	3	20	65	2.9
GEB4503020250	RO.2	3.0	4	3	25	75	2.9
GEB4503020300	RO.2	3.0	4	3	30	75	2.9
GEB4504020200	RO.2	4.0	6	4	20	65	3.9
GEB4504020300	RO.2	4.0	6	4	30	75	3.9
GEB4504020400	RO.2	4.0	6	4	40	90	3.9



## 2 FLUTE, MINIATURE, CORNER RADIUS 2 SCHNEIDEN, MINIATUR, ECKENRADIUS



- ▶ Designed for the machining graphite, reinforced plastic, high silicon aluminum alloy, Copper Alloy.  
Zum Zerspanen von Graphit, verstärkten Verbundmaterialien, Silikon-Aluminium legierung, Kupfer-Legierungen.
- ▶ YG-1's newly developed diamond film coating allows a good result for the machining non-ferrous metals and non-metallic materials.  
Die neuentwickelte Diamantfilmbeschichtung ermöglicht hervorragende Zerspanergebnisse von Nichteisenmetallen und nichtmetallischen Materialien.



ECONOMY

RADIUS



SERIES **GEB45** PLAIN SHANK  
GLATTEM ZYLINDERSCHAFT



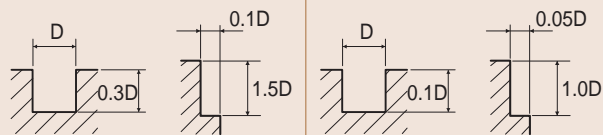
Unit : mm

EDP No.	CORNER RADIUS	MILL DIAMETER	SHANK DIAMETER	LENGTH OF CUT	LENGTH BELOW SHANK	OVERALL LENGTH	NECK DIAMETER
	R	D1	D2(h6)	L1	L3	L2	D3
GEB4505030200	RO.3	5.0	6	5	20	75	4.9
GEB4505030300	RO.3	5.0	6	5	30	75	4.9
GEB4505030400	RO.3	5.0	6	5	40	90	4.9
GEB4505030500	RO.3	5.0	6	5	50	90	4.9
GEB4506030300	RO.3	6.0	6	6	30	75	5.9
GEB4506030400	RO.3	6.0	6	6	40	90	5.9
GEB4506030500	RO.3	6.0	6	6	50	90	5.9
GEB4506030600	RO.3	6.0	6	6	60	100	5.9

MILL DIA. TOLERANCE (mm)	SHANK DIA. TOLERANCE
0~-0.02	h6

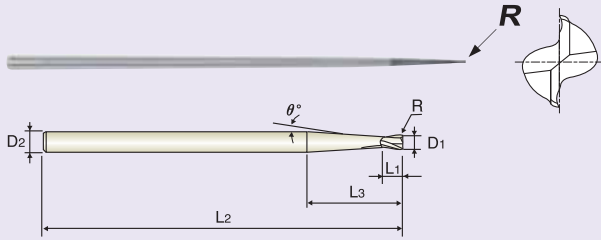
### GEB45 CUTTING CONDITION

MATERIAL	ALUMINUM DIECAST		COPPER ALLOY		
	DIAMETER	RPM	FEED	RPM	FEED
0.5	32000	130	32000	130	
1.5	32000	320	16000	185	
1.0	32000	250	25000	180	
2.0	27000	390	12000	190	
3.0	20000	660	8000	280	
4.0	15000	670	6000	310	
5.0	12000	700	4800	320	
6.0	10000	780	4000	320	



RPM = rev./min.  
Feed = mm/min.

## 2 FLUTE, CORNER RADIUS with TAPER NECK 2 SCHEIDEN, ECKENRADIUS, mit KONISCH ABGESETZTEN SCHAFTTEIL



- ▶ Designed for the machining graphite, reinforced plastic, high silicon aluminum alloy, Copper Alloy.  
Zum Zerspanen von Graphit, verstärkten Verbundmaterialien, Silikon-Aluminium legierung, Kupfer-Legierungen.
- ▶ YG-1's newly developed diamond film coating allows a good result for the machining non-ferrous metals and non-metallic materials.  
Die neuentwickelte Diamantfilmbeschichtung ermöglicht hervorragende Zerspanergebnisse von Nichteisenmetallen und nichtmetallischen Materialien.
- ▶ Corner protection against chipping.  
Eckenschutz gegen Abbröckelung



ECONOMY

RADIUS



SERIES **GEB01** PLAIN SHANK  
GLATTEM ZYLINDERSCHAFT

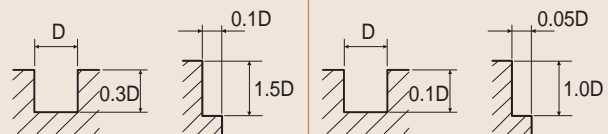
Unit : mm

EDP No.	CORNER RADIUS	MILL DIAMETER	SHANK DIAMETER	LENGTH OF CUT	LENGTH BELOW SHANK	OVERALL LENGTH	NECK TAPER ANGLE
	R	D1	D2(h6)	L1	L3	L2	$\theta^\circ$
GEB01010300060	RO.1	1.0	3	2	30	60	2°
GEB01010700100	RO.1	1.0	3	2	70	100	1°
GEB01015300060	RO.15	1.5	3	3	30	60	1° 30'
GEB01015500100	RO.15	1.5	3	3	50	100	1°
GEB01020300060	RO.15	2.0	3	4	30	60	1°
GEB01020700100	RO.15	2.0	4	4	70	100	1°

MILL DIA. TOLERANCE (mm)	SHANK DIA. TOLERANCE
0~-0.015	h6

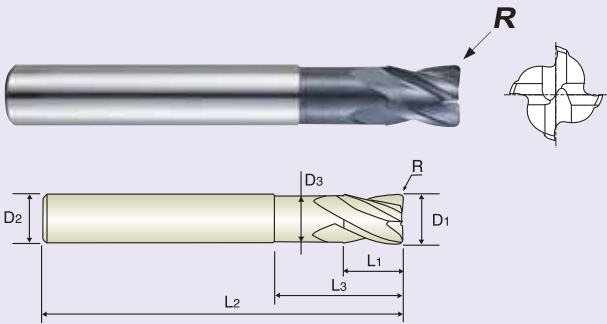
### GEB01 CUTTING CONDITION

MATERIAL	ALUMINUM DIECAST		COPPER ALLOY		
	DIAMETER	RPM	FEED	RPM	FEED
1.0	32000	250	25000	180	
1.5	32000	320	16000	185	
2.0	27000	390	12000	190	



RPM = rev./min.  
Feed = mm/min.

## 4 FLUTE, CORNER RADIUS 4 SCHNEIDEN, ECKENRADIUS



- ▶ Designed for the machining graphite, reinforced plastic, high silicon aluminum alloy, Copper Alloy.  
Zum Zerspanen von Graphit, verstärkten Verbundmaterialien, Silikon-Aluminium legierung, Kupfer-Legierungen.
- ▶ YG-1's newly developed diamond film coating allows a good result for the machining non-ferrous metals and non-metallic materials.  
Die neuentwickelte Diamantfilmbeschichtung ermöglicht hervorragende Zerspanergebnisse von Nichteisenmetallen und nichtmetallischen Materialien.
- ▶ Corner radius against chipping.  
Eckradius gegen Abbröckelung



ECONOMY

RADIUS



SERIES **GEB03** PLAIN SHANK  
GLATTEM ZYLINDERSCHAFT



Unit : mm

EDP No.	CORNER RADIUS	MILL DIAMETER	SHANK DIAMETER	LENGTH OF CUT	LENGTH BELOW SHANK	OVERALL LENGTH	NECK DIAMETER
	R	D1	D2(h6)	L1	L3	L2	D3
GEB0306005040	R0.5	6.0	6	10	40	80	5.9
GEB0308005040	R0.5	8.0	8	10	40	80	7.8
GEB0308010060	R1.0	8.0	8	10	60	100	7.8
GEB0310005000	R0.5	10.0	10	25	-	75	-
GEB0310005040	R0.5	10.0	10	12	40	80	9.8
GEB0310010040	R1.0	10.0	10	12	40	80	9.8
GEB0310005080	R0.5	10.0	10	12	80	125	9.8
GEB0312005000	R0.5	12.0	12	25	-	80	-
GEB0312005040	R0.5	12.0	12	15	40	80	11.8
GEB0312010040	R1.0	12.0	12	15	40	80	11.8
GEB0312010080	R1.0	12.0	12	15	80	125	11.8

MILL DIA. TOLERANCE (mm)	SHANK DIA. TOLERANCE
0~-0.03	h6

### GEB03 CUTTING CONDITION

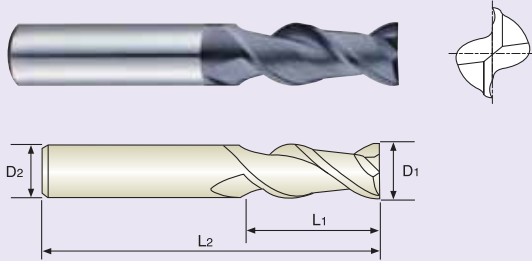
MATERIAL	ALUMINUM DIECAST		COPPER ALLOY	
	DIAMETER	RPM	FEED	RPM
6.0	10000	1850	4000	530
8.0	7500	2000	3000	610
10.0	6000	2250	2400	640
12.0	5000	2250	2000	680

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RPM = rev./min.  
Feed = mm/min.

## 2 FLUTE, 45° HELIX 2 SCHNEIDEN, 45° RECHTSSPIRALE



- ▶ Designed for the machining aluminum and its alloys, copper, plastic etc.  
Entwickelt zum Zerspanen von Aluminium and Aluminiumlegierungen, Kupfer, Plastik...usw.
- ▶ Maximum-stock removal, chip ejection, stability.  
Maximale Spanentfernung, Spanauswurf, Stabilität
- ▶ Corner protection against chipping.  
Eckenschutz gegen Abbröckelung



ECONOMY

SQUARE



SERIES **GE926** PLAIN SHANK  
GLATTEM ZYLINDERSCHAFT

Unit : mm

EDP No.	MILL DIAMETER	SHANK DIAMETER	LENGTH OF CUT	OVERALL LENGTH
	D1	D2(h6)	L1	L2
GE926010	1.0	4	3	40
GE926015	1.5	4	4	40
GE926020	2.0	4	6	40
GE926025	2.5	4	8	40
GE926030	3.0	6	8	45
GE926035	3.5	6	10	45
GE926040	4.0	6	11	45
GE926045	4.5	6	11	50
GE926050	5.0	6	13	50
GE926055	5.5	6	13	50
GE926060	6.0	6	13	50
GE926070	7.0	8	16	60
GE926080	8.0	8	19	60
GE926090	9.0	10	19	70
GE926100	10.0	10	22	70
GE926110	11.0	12	22	75
GE926120	12.0	12	26	75
GE926160	16.0	16	32	90
GE926200	20.0	20	38	100

MILL DIA. TOLERANCE (mm)	SHANK DIA. TOLERANCE
0~-0.03	h6

**GE926 CUTTING CONDITION**

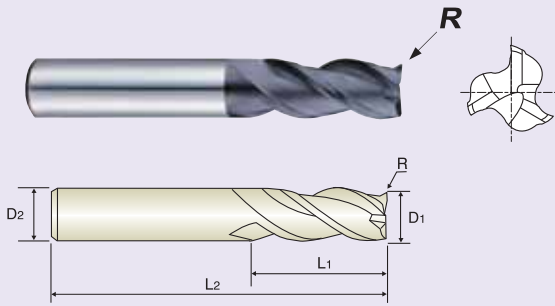
MATERIAL	ALUMINUM DIECAST		COPPER ALLOY	
	DIAMETER	RPM	FEED	RPM
1.0	30000	260	20000	80
2.0	30000	450	20000	160
3.0	24000	700	14000	280
4.0	20000	950	11000	380
5.0	13000	1100	7500	400
6.0	13000	1200	7500	480
8.0	11000	1500	6000	580
10.0	8500	1800	4800	700
12.0	7200	2200	3900	850
16.0	6000	2000	3300	780
20.0	3600	1600	2000	630

<p>A: D1 ~ D10 = 0.1 × D</p>	<p>A: D1 ~ D10 = 0.25 × D</p>
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RPM = rev./min.  
Feed = mm/min.

## 3 FLUTE, 40° HELIX, SHORT LENGTH, CORNER RADIUS 3 SCHMEIDEN, 40° RECHTSSPIRALE, KURZ, ECKENRADIUS



- ▶ Designed for the machining graphite, reinforced plastic, high silicon aluminum alloy, Copper Alloy.  
Zum Zerspanen von Graphit, verstärkten Verbundmaterialien, Silikon-Aluminium legierung, Kupfer-Legierungen.
- ▶ YG-1's newly developed diamond film coating allows a good result for the machining non-ferrous metals and non-metallic materials.  
Die neuentwickelte Diamantfilmbeschichtung ermöglicht hervorragende Zerspanergebnisse von Nichteisenmetallen und nichtmetallischen Materialien.
- ▶ Corner radius against chipping.  
Eckradius gegen Abbröckelung



ECONOMY

RADIUS



SERIES **GE928** PLAIN SHANK  
GLATTEM ZYLINDERSCHAFT



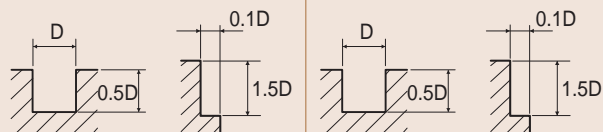
Unit : mm

EDP No.	CORNER RADIUS	MILL DIAMETER	SHANK DIAMETER	LENGTH OF CUT	OVERALL LENGTH
	R	D1	D2(h6)	L1	L2
GE928020	RO.15	2.0	3	6	40
GE928030	RO.15	3.0	3	12	40
GE928040	RO.2	4.0	4	14	50
GE928050	RO.3	5.0	5	16	50
GE928060	RO.3	6.0	6	20	65
GE928080	RO.5	8.0	8	20	65
GE928100	RO.5	10.0	10	25	75
GE928120	RO.5	12.0	12	25	75

MILL DIA. TOLERANCE (mm)	SHANK DIA. TOLERANCE
0~-0.03	h6

### GE928 CUTTING CONDITION

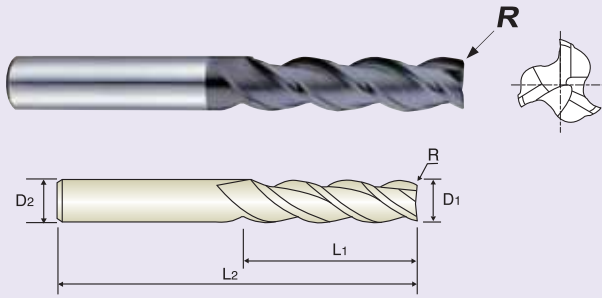
MATERIAL	ALUMINUM DIECAST		COPPER ALLOY	
	DIAMETER	RPM	FEED	RPM
2.0	27000	1000	10000	250
3.0	21000	1100	8000	320
4.0	15000	1200	6000	360
5.0	12000	1250	4800	385
6.0	10000	1400	4000	400
8.0	7500	1500	3000	460
10.0	6000	1700	2400	480
12.0	5000	1700	2000	510



RPM = rev./min.  
Feed = mm/min.



## 3 FLUTE, 40° HELIX, LONG LENGTH, CORNER RADIUS 3 SCHMEIDEN, 40° RECHTSSPIRALE, LANG, ECKENRADIUS



- ▶ Designed for the machining graphite, reinforced plastic, high silicon aluminum alloy, Copper Alloy.  
Zum Zerspanen von Graphit, verstärkten Verbundmaterialien, Silikon-Aluminium legierung, Kupfer-Legierungen.
- ▶ YG-1's newly developed diamond film coating allows a good result for the machining non-ferrous metals and non-metallic materials.  
Die neuentwickelte Diamantfilmbeschichtung ermöglicht hervorragende Zerspanergebnisse von Nichteisenmetallen und nichtmetallischen Materialien.
- ▶ Corner radius against chipping.  
Eckradius gegen Abbröckelung



ECONOMY

RADIUS



SERIES **GE929** PLAIN SHANK  
GLATTEM ZYLINDERSCHAFT

Unit : mm

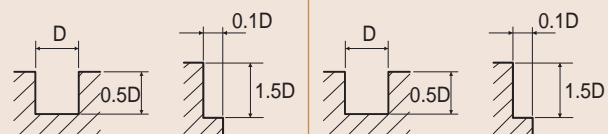
EDP No.	CORNER RADIUS	MILL DIAMETER	SHANK DIAMETER	LENGTH OF CUT	OVERALL LENGTH
	R	D1	D2(h6)	L1	L2
GE929020	RO.15	2.0	3	9	60
GE929030	RO.15	3.0	3	30	60
GE929040	RO.2	4.0	4	30	60
GE929050	RO.3	5.0	5	35	70
GE929060	RO.3	6.0	6	40	100
GE929080	RO.5	8.0	8	40	100
GE929100	RO.5	10.0	10	40	100
GE929120	RO.5	12.0	12	45	100

MILL DIA. TOLERANCE (mm)	SHANK DIA. TOLERANCE
0~-0.03	h6

### GE929 CUTTING CONDITION

※ The FEED, in long & long reach types, should be reduced by around 50%

MATERIAL	ALUMINUM DIECAST		COPPER ALLOY	
	DIAMETER	RPM	FEED	RPM
2.0	27000	1000	10000	250
3.0	21000	1100	8000	320
4.0	15000	1200	6000	360
5.0	12000	1250	4800	385
6.0	10000	1400	4000	400
8.0	7500	1500	3000	460
10.0	6000	1700	2400	480
12.0	5000	1700	2000	510



RPM = rev./min.  
Feed = mm/min.

**D-POWER**  
CARBIDE END MILLS

** YG-1 CO., LTD.**