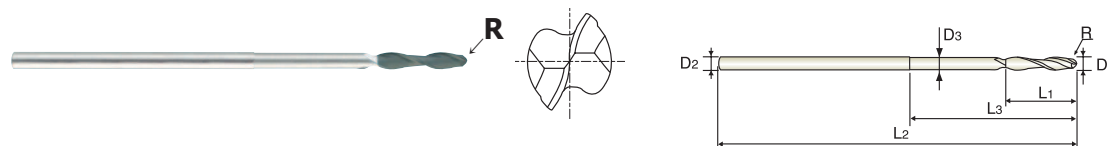


# CARBIDE, 2 FLUTE LONG REACH BALL NOSE

## VOLLHARTMETALL, 2 SCHNEIDEN GROÙE REICHWEITE STIRNRADIUS

- ▶ Higher hardness of film and excellent wear-resistance increase the tool life surprisingly.
  - ▶ Ultra fine film of YG-1's diamond coated carbide ball end mills ensure the smooth and excellent surface on work materials.
  - ▶ 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.
- ▶ Höhere Härte der Beschichtung und ausgezeichnete Verschleißfestigkeit verlängern die Standzeit beachtlich.
  - ▶ Ultrafeiner Film auf YG-1 Diamant - beschichteten Hartmetall Schaffräser gewährleisten eine glatte und ausgezeichnete Oberflächengüte.
  - ▶ Hohe Leistungsfähigkeit bei Graphit, Aluminium ohne Silicon, Bakelit, Plastik, Holz, Messing, etc. YG-1 Diamant - beschichtete Hartmetall Schaffräser zeigen gute Ergebnisse beim Bearbeiten von NE - Metallen und Nichtmetall - Werkstoffen.



Unit : mm

EDP No.	Radius of Ball Nose R (±0.01)	Mill Diameter D1	Shank Diameter D2	Length of Cut L1	Length Below Shank L3	Overall Length L2	Neck Diameter 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

◎ : Excellent ○ : Good

Carbon Steels	Alloy Steels	Prehardened Steels	Hardened Steels		High Hardened Steels	Copper	Graphite	Cast Iron	Aluminum	Stainless Steels	Titanium	Inconel
~HB225	HB225~325	HRc30~40	HRc40~45	HRc45~55	HRc55~70							
							◎		○			



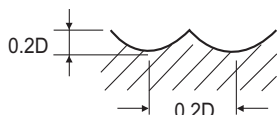
**RECOMMENDED CUTTING CONDITIONS**  
**EMPFOHLENE SCHNEIDKONDITIONEN**

**CARBIDE, 2 FLUTE MINIATURE BALL NOSE**

VOLLHARTMETALL, 2 SCHNEIDEN MINI STIRNRADIUS

**EI997, EIB93, EIB87 SERIES**

MATERIAL	GRAPHITE	
DIAMETER	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



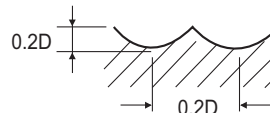
RPM = rev./min.  
FEED = mm/min.

**CARBIDE, 2 FLUTE BALL NOSE**

VOLLHARTMETALL, 2 SCHNEIDEN STIRNRADIUS

**EI880, EI451, EI450 SERIES**

MATERIAL	GRAPHITE	
DIAMETER	RPM	FEED
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



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

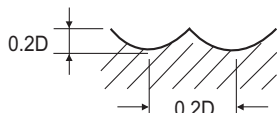
RPM = rev./min.  
FEED = mm/min.

**CARBIDE, 3 FLUTE BALL NOSE**

VOLLHARTMETALL, 3 SCHNEIDEN STIRNRADIUS

**EI881 SERIES**

MATERIAL	GRAPHITE	
DIAMETER	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



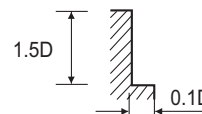
RPM = rev./min.  
FEED = mm/min.

**CARBIDE, 2 FLUTE LONG LENGTH**

VOLLHARTMETALL, 2 SCHNEIDEN LANG

**EIB04 SERIES**

MATERIAL	GRAPHITE	
DIAMETER	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



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

RPM = rev./min.  
FEED = mm/min.