



D-POWER GRAPHITE END MILLS

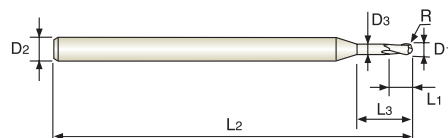
EI997 SERIES

 PLAIN SHANK
GLATTER ZYLINDERSCHAFT

CARBIDE, 2 FLUTE MINIATURE BALL NOSE with NECK VOLLHARTMETALL, 2 SCHNEIDEN MINI STIRNRADIUS mit ABGESETZTEM SCHAFTTETTEL

- 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 Schaftfräser gewährleisten eine glatte und ausgezeichnete Oberflächengüte.
- Hohe Leistungsfähigkeit bei Graphit, Aluminium ohne Silicon, Bakelit, Plastik, Holz, Messing, etc. YG-1 Diamant - beschichtete Hartmetall Schaftfräser zeigen gute Ergebnisse beim Bearbeiten von NE - Metallen und Nichtmetall - Werkstoffen.



P.1015

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
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

◎ : Excellent ○ : Good

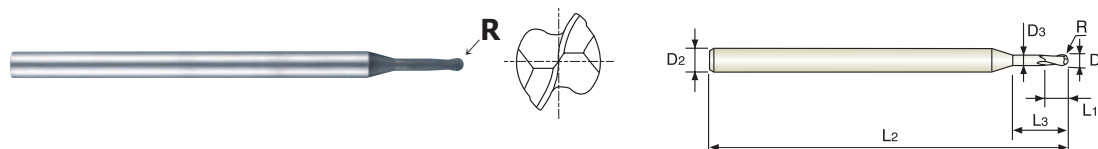
Carbon Steels	Alloy Steels	Prehardened Steels	Hardened Steels		High Hardened Steels	Copper	Graphite	Cast Iron	Aluminum	Stainless Steels	Titanium	Inconel	Acrylic	CFRP
~HB225	HB225~325	HRC30~40	HRc40~45	HRc45~55	HRc55~70									
							◎		○					○

CARBIDE, 2 FLUTE MINIATURE BALL NOSE with NECK

VOLLHARTMETALL, 2 SCHNEIDEN MINI STIRNRADIUS mit ABGESETZTEM SCHAFTTETEL

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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
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

◎ : Excellent ○ : Good

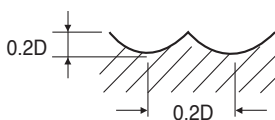
Carbon Steels	Alloy Steels	Prehardened Steels	Hardened Steels	High Hardened Steels	Copper	Graphite	Cast Iron	Aluminum	Stainless Steels	Titanium	Inconel	Acrylic	CFRP
~HB225	HB225~325	HRc30~40	HRc40~45 HRc45~55	HRc55~70									
						◎		○					○

CARBIDE, 2 FLUTE MINIATURE BALL NOSE

VOLLHARTMETALL, 2 SCHNEIDEN MINI STIRNRADIUS

EI997, EIB93, EIB87 SERIES

MATERIAL	GRAPHITE			
DIAMETER	RPM	FEED	Vc	fz
R0.2 × 0.4	40000	600	50	0.008
R0.3 × 0.6	40000	800	75	0.010
R0.4 × 0.8	40000	960	100	0.012
R0.5 × 1.0	40000	1200	125	0.015
R0.6 × 1.2	40000	1440	150	0.018
R0.75 × 1.5	40000	1600	190	0.020
R1.0 × 2.0	40000	2000	250	0.025
R1.5 × 3.0	27000	2200	255	0.041
R2.0 × 4.0	20000	2900	250	0.073
R2.5 × 5.0	16000	2900	250	0.091
R3.0 × 6.0	14000	2900	265	0.104



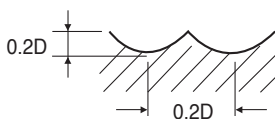
RPM = rev./min.
FEED = mm/min.
Vc = m/min.
fz = mm/t

CARBIDE, 3 FLUTE BALL NOSE

VOLLHARTMETALL, 3 SCHNEIDEN STIRNRADIUS

EI881 SERIES

MATERIAL	GRAPHITE			
DIAMETER	RPM	FEED	Vc	fz
R1.0 × 2.0	16000	1200	100	0.025
R1.25 × 2.5	16000	1700	125	0.035
R1.5 × 3.0	16000	2150	150	0.045
R1.75 × 3.5	16000	2650	175	0.055
R2.0 × 4.0	16000	3100	200	0.065
R2.5 × 5.0	15500	3800	245	0.082
R3.0 × 6.0	15000	4450	285	0.099
R4.0 × 8.0	13000	4500	325	0.115
R5.0 × 10.0	11500	4600	360	0.133
R6.0 × 12.0	10500	4750	395	0.151



RPM = rev./min.
FEED = mm/min.
Vc = m/min.
fz = mm/t

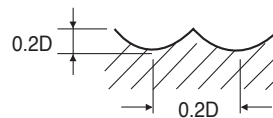
RECOMMENDED CUTTING CONDITIONS EMPFOHLENE SCHNEIDKONDITIONEN

CARBIDE, 2 FLUTE BALL NOSE

VOLLHARTMETALL, 2 SCHNEIDEN STIRNRADIUS

EI880, EI451, EI450 SERIES

MATERIAL	GRAPHITE			
DIAMETER	RPM	FEED	Vc	fz
R1.0 × 2.0	16000	800	100	0.025
R1.25 × 2.5	16000	1120	125	0.035
R1.5 × 3.0	16000	1450	150	0.045
R1.75 × 3.5	16000	1750	175	0.055
R2.0 × 4.0	16000	2100	200	0.066
R2.5 × 5.0	15500	2550	245	0.082
R3.0 × 6.0	15000	2950	285	0.098
R4.0 × 8.0	13000	3000	325	0.115
R5.0 × 10.0	11500	3050	360	0.133
R6.0 × 12.0	10500	3150	395	0.150



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

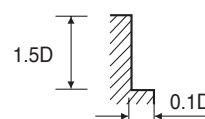
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fz = mm/t

CARBIDE, 2 FLUTE LONG LENGTH

VOLLHARTMETALL, 2 SCHNEIDEN LANG

EIB04 SERIES

MATERIAL	GRAPHITE			
DIAMETER	RPM	FEED	Vc	fz
0.4	40000	200	50	0.003
0.6	40000	350	75	0.004
0.8	40000	550	100	0.007
1.0	40000	700	125	0.009
1.5	40000	800	190	0.010
2.0	25000	800	155	0.016
3.0	20000	800	190	0.020
4.0	18000	950	225	0.026
5.0	14000	1200	220	0.043
6.0	11000	1400	205	0.064
8.0	8000	1300	200	0.081
10.0	6500	1200	205	0.092
12.0	5500	1200	205	0.109



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RPM = rev./min.
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