

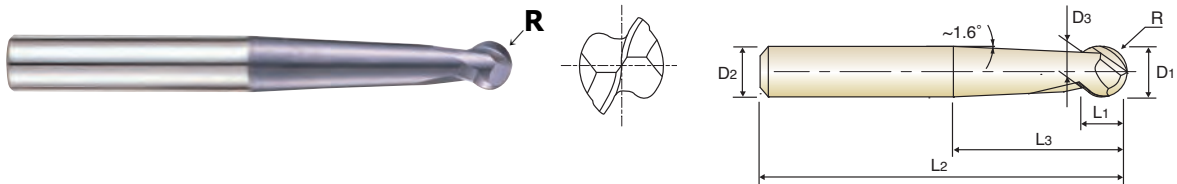


EM863 SERIES

PLAIN SHANK
GLATTER ZYLINDERSCHAFT

CARBIDE, 2 FLUTE LONG LENGTH BALL NOSE-MMC
VOLLHARTMETALL, 2 SCHNEIDEN LANG STIRANRADIUS-MMC

- ▶ Zaprojektowany do frezowania kłowego
- ▶ Praca przy zwiększonych posuwach
- ▶ Praca przy pochyleniu osi do 15°
- ▶ Łatwy do ostrzenia
- ▶ Tolerancja promienia naroża ±0.01mm



MG HM 2 30° R ±0.01 PLAIN P.897

● **2 FLUTE LONG LENGTH- SPHERE VERSION**
● **2 SCHNEIDEN LANG-KUGELFORM**

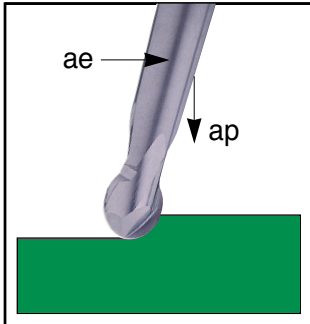
Unit : mm

EDP No.	Radius of Ball Nose	Mill Diameter	Shank Diameter	Length of Cut	Length Below Shank	Overall Length	Neck Diameter
PLAIN	R (±0.01)	D1	D2	L1	L3	L2	D3
EM863030	R1.5	3.0	6	2.3	30	80	2.5
EM863040	R2.0	4.0	6	3.1	30	80	3.3
EM863050	R2.5	5.0	6	3.9	38	80	4.1
EM863060	R3.0	6.0	6	4.9	28	100	4.7
EM863080	R4.0	8.0	8	6.3	33	100	6.5
EM863100	R5.0	10.0	10	7.9	40	100	8.2
EM863120	R6.0	12.0	12	9.5	49	100	9.8
EM863160	R8.0	16.0	16	12.4	59	150	13.4

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	Acrylic	CFRP
~HB225	HB225~325	HRc30~40	HRc40~45	HRc45~55	HRc55~70									
○	◎	◎	◎	○	○			○						


**RECOMMENDED CUTTING CONDITIONS
EMPFOHLENE SCHNEIDKONDITIONEN**
**CARBIDE, 2 FLUTE BALL NOSE MMC
VOLLHARTMETALL, 2 SCHNEIDEN STIRNRADIUS MMC**


- ▶ $ae = 0.05 \times D$
- ▶ $ap = 0.02 \times D$

EM669, EM863 SERIES
■ NORMAL SPEED

MATERIAL	NON-ALLOYED STEELS ALLOY STEELS CAST IRON				ALLOY STEELS HEAT RESISTANT STEELS				HARDENED STEELS			
HARDNESS	~ HRc30				HRc30 ~ HRc40				HRc45 ~ HRc65			
STRENGTH	~ 1000N/mm ²				1000 ~ 1250N/mm ²				1500N/mm ² ~			
DIAMETER	RPM	FEED	Vc	fz	RPM	FEED	Vc	fz	RPM	FEED	Vc	fz
R1.5 × 3.0	35000	2800	330	0.040	33000	2600	310	0.039	12000	900	115	0.038
R2.0 × 4.0	26000	2300	325	0.044	25000	2200	315	0.044	9000	800	115	0.044
R2.5 × 5.0	21000	2100	330	0.050	20000	2000	315	0.050	7000	700	110	0.050
R3.0 × 6.0	17000	1900	320	0.056	16000	1800	300	0.056	6000	650	115	0.054
R4.0 × 8.0	13000	1700	325	0.065	12000	1600	300	0.067	4500	550	115	0.061
R5.0 × 10.0	10500	1450	330	0.069	10000	1400	315	0.070	3500	500	110	0.071
R6.0 × 12.0	9000	1400	340	0.078	8000	1300	300	0.081	3000	450	115	0.075
R8.0 × 16.0	6000	1200	300	0.100	5500	1100	275	0.100	2000	400	100	0.100

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

■ HIGH SPEED

MATERIAL	NON-ALLOYED STEELS ALLOY STEELS CAST IRON				ALLOY STEELS HEAT RESISTANT STEELS				HARDENED STEELS			
HARDNESS	~ HRc30				HRc30 ~ HRc40				HRc45 ~ HRc65			
STRENGTH	~ 1000N/mm ²				1000 ~ 1250N/mm ²				1500N/mm ² ~			
DIAMETER	RPM	FEED	Vc	fz	RPM	FEED	Vc	fz	RPM	FEED	Vc	fz
R1.5 × 3.0	47000	3700	445	0.039	44000	3500	415	0.040	17000	1400	160	0.041
R2.0 × 4.0	35000	3200	440	0.046	33000	3000	415	0.045	13000	1200	165	0.046
R2.5 × 5.0	28000	2800	440	0.050	27000	2600	425	0.048	10000	1100	155	0.055
R3.0 × 6.0	23000	2600	435	0.057	22000	2400	415	0.055	8000	950	150	0.059
R4.0 × 8.0	18000	2300	450	0.064	17000	2100	425	0.062	6000	850	150	0.071
R5.0 × 10.0	14000	2000	440	0.071	13000	1900	410	0.073	5000	750	155	0.075
R6.0 × 12.0	12000	1800	450	0.075	11000	1800	415	0.082	4000	700	150	0.088
R8.0 × 16.0	9000	1600	450	0.089	8000	1500	400	0.094	3300	600	165	0.091

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

HSS

 CBN
END MILLS

 i-Xmill
END MILLS

 i-HS mill
END MILLS

 X5070
END MILLS

 4G MILL
END MILLS

 X-SPEED
ROUGHER
END MILLS

**X-POWER
END MILLS**

 JET-POWER
END MILLS

 TN MILL
END MILLS

 V7 Mill
END MILLS

 ALU-POWER
END MILLS

 CRX S
END MILLS

 D-POWER
GRAPHITE
END MILLS

 D-POWER
CFRP
END MILLS

ROUTERS

 K-2 CARBIDE
END MILLS

 GENERAL
CARBIDE
END MILLS

 TANK-POWER
END MILLS

 GENERAL
HSS
END MILLS

 MILLING
CUTTERS

 TECHNICAL
DATA