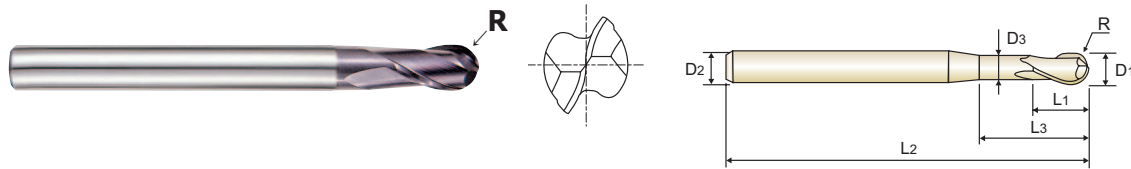


CARBIDE, 2 FLUTE MEDIUM BALL NOSE with NECK
VOLLHARTMETALL, 2 SCHNEIDEN MEDIUM STIRNRADIUS mit ABGESETZTEM SCHAFTTEIL

- ▶ Deep slotting milling is possible by reduced neck.
- ▶ High efficiency milling is possible in deep slotting with projection of the end mill being long.

- ▶ Mit abgesetztem Schaftteil ist Tiefnutenfräsen möglich.
- ▶ Effizientes Tiefnutenfräsen von tiefliegenden Bereichen möglich.



Unit : mm

EDP No.		Radius of Ball Nose	Mill Diameter	Shank Diameter	Length of Cut	Length Below Shank	Overall Length	Neck Diameter
PLAIN	FLAT	R (±0.02)	D1	D2	L1	L3	L2	D3
EM899030	EM900030	R1.5	3.0	6	8	—	70	—
EM899040	EM900040	R2.0	4.0	6	8	—	70	—
EM899050	EM900050	R2.5	5.0	6	12	—	80	—
EM899060	EM900060	R3.0	6.0	6	12	22	80	5.8
EM899070	EM900070	R3.5	7.0	8	14	—	90	—
EM899080	EM900080	R4.0	8.0	8	14	27	90	7.8
EM899100	EM900100	R5.0	10.0	10	18	31	100	9.8
EM899120	EM900120	R6.0	12.0	12	22	35	110	11.8
EM899140	EM900140	R7.0	14.0	12	26	—	120	—
EM899160	EM900160	R8.0	16.0	16	30	50	140	15.8
EM899180	EM900180	R9.0	18.0	16	34	—	140	—
EM899200	EM900200	R10.0	20.0	20	38	58	160	19.8
EM899250	EM900250	R12.5	25.0	25	55	75	180	24.8

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							
○	◎	◎	◎	○	○			○				

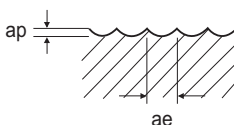
CARBIDE, 2 FLUTE BALL NOSE VOLLHARTMETALL, 2 SCHNEIDEN STIRNRADIUS

EM899, EM900 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	RPM	FEED	RPM	FEED
R0.5 × 1.0	15760	250	12720	200	5800	90
R0.75 × 1.5	15760	350	12140	270	5320	120
R1.0 × 2.0	14400	750	10700	490	4680	150
R1.25 × 2.5	14400	750	10700	490	4680	150
R1.5 × 3.0	13100	680	10000	460	4520	150
R2.0 × 4.0	10500	740	8400	530	4200	180
R2.5 × 5.0	9140	820	7300	580	3680	180
R3.0 × 6.0	8490	1020	6900	830	3180	190
R4.0 × 8.0	7160	1290	5770	920	2470	220
R5.0 × 10.0	6370	1530	5090	1020	2040	225
R6.0 × 12.0	5840	1750	4640	1110	1750	245
R8.0 × 16.0	4770	1720	3780	1060	1350	245
R10.0 × 20.0	4140	1660	3260	1040	1110	250

ap: D1~D6=0.2mm
D8~D20=0.3mm
ae: 0.2 × D



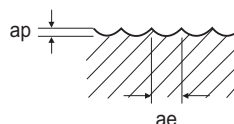
ap: D1~D6=0.2mm
D8~D20=0.3mm
ae: 0.1 × D

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

■ HIGH SPEED

MATERIAL	NON-ALLOYED STEELS ALLOY STEELS CAST IRON		HARDENED STEELS	
HARDNESS	~ HRC45		HRC45 ~ HRC65	
STRENGTH	~ 1500N/mm ²		1500N/mm ² ~	
DIAMETER	RPM	FEED	RPM	FEED
R0.5 × 1.0	25000	1300	25000	800
R0.75 × 1.5	23000	1400	23000	860
R1.0 × 2.0	21000	1480	21000	940
R1.25 × 2.5	21000	1760	19000	980
R1.5 × 3.0	21000	2000	17000	1040
R2.0 × 4.0	21000	2940	13660	1160
R2.5 × 5.0	21000	3600	12000	1200
R3.0 × 6.0	21000	4000	10500	1250
R4.0 × 8.0	16700	4000	8360	1250
R5.0 × 10.0	14000	3900	7000	1200
R6.0 × 12.0	12200	3900	6100	1160
R8.0 × 16.0	9550	3450	4770	1000
R10.0 × 20.0	7960	3180	3980	920

ap: D1~D6=0.2mm
D8~D20=0.3mm
ae: 0.05 × D



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