

CARBIDE

HSS

CBN
END MILLS

i-Xmill
END MILLS

X5070
END MILLS

X-POWER
END MILLS

JET-POWER
END MILLS

V7 Mill INOX
END MILLS

V7 Mill STEEL
END MILLS

ALU-POWER
END MILLS

D-POWER
END MILLS

K-2 CARBIDE
END MILLS

GENERAL
CARBIDE
END MILLS

TANK-POWER
END MILLS

GENERAL
HSS
END MILLS

MILLING
CUTTERS

TECHNICAL
DATA



PLAIN SHANK
GLATTER ZYLINDERSCHAFT

FLAT SHANK
SEITLICHE MITNAHMEFLÄCHEN

CARBIDE, 2 FLUTE LONG REACH BALL NOSE VOLLHARTMETALL, 2 SCHNEIDEN GROÙE REICHWEITE STIRNRADIUS

► Longer overall length than EM813, EM823 types and suitable for machining deeply located area.

► Längere Gesamtlänge als bei EM813, EM823 Typen und geeignet für extrem tiefliegende Bohrungen.



Unit : mm

EDP No.		Radius of Ball Nose R (±0.02)	Mill Diameter	Shank Diameter	Length of Cut	Overall Length
PLAIN	FLAT					
EM838020	—	R1.0	2.0	3	6	80
EM838030	—	R1.5	3.0	3	8	100
EM838040	—	R2.0	4.0	4	8	100
EM838050	EM848050	R2.5	5.0	6	10	120
EM838060	EM848060	R3.0	6.0	6	10	120
EM838080	EM848080	R4.0	8.0	8	14	140
EM838100	EM848100	R5.0	10.0	10	18	180
EM838120	EM848120	R6.0	12.0	12	22	200
EM838160	EM848160	R8.0	16.0	16	30	250
EM838200	EM848200	R10.0	20.0	20	38	250

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

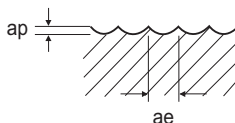
CARBIDE, 2 FLUTE LONG REACH BALL NOSE
VOLLHARTMETALL, 2 SCHNEIDEN LANG STIRNRADIUS

EM838, EM848 SERIES

■ **NORMAL SPEED**

MATERIAL	NON-ALLOYED STEELS ALLOY STEELS CAST IRON		ALLOY STEELS HEAT RESISTANT STEELS		HARDENED STEELS	
	~ 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	12600	200	10180	160	4640	70
R0.75 × 1.5	12600	280	9710	220	4250	95
R1.0 × 2.0	12600	420	9250	260	3870	90
R1.25 × 2.5	11520	600	8560	390	3740	120
R1.5 × 3.0	10500	540	8000	370	3620	120
R2.0 × 4.0	8400	590	6720	420	3360	140
R2.5 × 5.0	7310	660	5840	460	2940	140
R3.0 × 6.0	6800	820	5500	600	2550	150
R4.0 × 8.0	5700	1030	4600	740	2000	175
R5.0 × 10.0	5100	1220	4070	820	1650	180
R6.0 × 12.0	4700	1400	3700	890	1400	195
R8.0 × 16.0	3800	1380	3000	850	1100	195
R10.0 × 20.0	3300	1330	2600	830	890	200

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



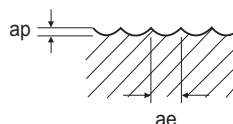
ap: D1~D6=0.2mm
D8~D20=0.3mm
ae: 0.1 × D

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

■ **HIGH SPEED**

MATERIAL	NON-ALLOYED STEELS ALLOY STEELS CAST IRON		HARDENED STEELS	
	~ HRC45		HRC45 ~ HRC65	
STRENGTH	~ 1500N/mm ²		1500N/mm ² ~	
DIAMETER	RPM	FEED	RPM	FEED
R0.5 × 1.0	20000	1040	20000	640
R0.75 × 1.5	18400	1100	18400	690
R1.0 × 2.0	16800	1200	16800	750
R1.25 × 2.5	16800	1400	15200	780
R1.5 × 3.0	16800	1600	13600	830
R2.0 × 4.0	16800	2350	10930	930
R2.5 × 5.0	16800	2880	9600	960
R3.0 × 6.0	16800	3200	8400	1000
R4.0 × 8.0	13400	3200	6700	1000
R5.0 × 10.0	11200	3100	5600	960
R6.0 × 12.0	9800	3100	4900	930
R8.0 × 16.0	7600	2750	3800	800
R10.0 × 20.0	6400	2550	3200	740

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



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