

CARBIDE, 2 FLUTE SHORT BALL END MILL



MG HM
2
30°
R ±0.01
R ±0.02
PLAIN
X-Coating

R1.0~R3.0 R4.0~R10.0

Unit : mm

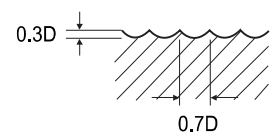
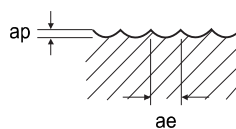
EDP No.	Ball Radius	Mill Diameter	Shank Diameter	Length of Cut	Overall Length
G9F44020N	R1.0	2.0	4	5	50
G9F44030N	R1.5	3.0	4	6	50
G9F44040N	R2.0	4.0	6	8	50
G9F44050N	R2.5	5.0	6	10	50
G9F44060N	R3.0	6.0	6	12	50
G9F44080N	R4.0	8.0	8	14	60
G9F44100N	R5.0	10.0	10	20	75
G9F44120N	R6.0	12.0	12	24	75
G9F44160N	R8.0	16.0	16	32	75
G9F44200N	R10.0	20.0	20	32	75

Mill Dia. Tolerance(mm)	Shank Dia. Tolerance
0 -0.030	h6

CUTTING CONDITIONS

MATERIAL	CARBON STEELS ALLOY STEELS TOOL STEELS				CARBON STEELS ALLOY STEELS PRE-HARDENED STEELS				HARDENED STEELS				CAST IRON			
HARDNESS	~ HRc30				HRc30 ~ HRc50				HRc50 ~							
STRENGTH	~ 1000N/mm ²				1000 ~ 1500N/mm ²				1500N/mm ²							
DIAMETER	RPM	FEED	Vc	fz	RPM	FEED	Vc	fz	RPM	FEED	Vc	fz	RPM	FEED	Vc	fz
2.0	13350	690	84	0.026	9900	450	62	0.023	4300	135	27	0.016	11350	240	71	0.011
3.0	12300	620	116	0.025	9250	420	87	0.023	4100	135	39	0.016	7600	250	72	0.016
4.0	9650	680	121	0.035	7700	485	97	0.031	3900	160	49	0.021	5550	310	70	0.028
5.0	8400	755	132	0.045	6700	530	105	0.040	3350	160	53	0.024	4500	355	71	0.039
6.0	7850	940	148	0.060	6350	760	120	0.060	2900	170	55	0.029	3650	390	69	0.053
8.0	6600	1180	166	0.089	5300	850	133	0.080	2200	205	55	0.047	2700	495	68	0.092
10.0	5900	1435	185	0.122	4700	940	148	0.100	1900	205	60	0.054	2200	495	69	0.113
12.0	5400	1620	204	0.150	4250	1026	160	0.121	1600	225	60	0.070	1900	495	72	0.130
16.0	4400	1590	221	0.181	3450	975	173	0.141	1250	225	63	0.090	1400	495	70	0.177
20.0	3850	1540	242	0.200	3000	955	188	0.159	1050	225	66	0.107	1150	450	72	0.196

$A_p : D1 \sim D6 = 0.2\text{mm}$
 $D8 \sim D20 = 0.3\text{mm}$
 $A_e : 0.2D$



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