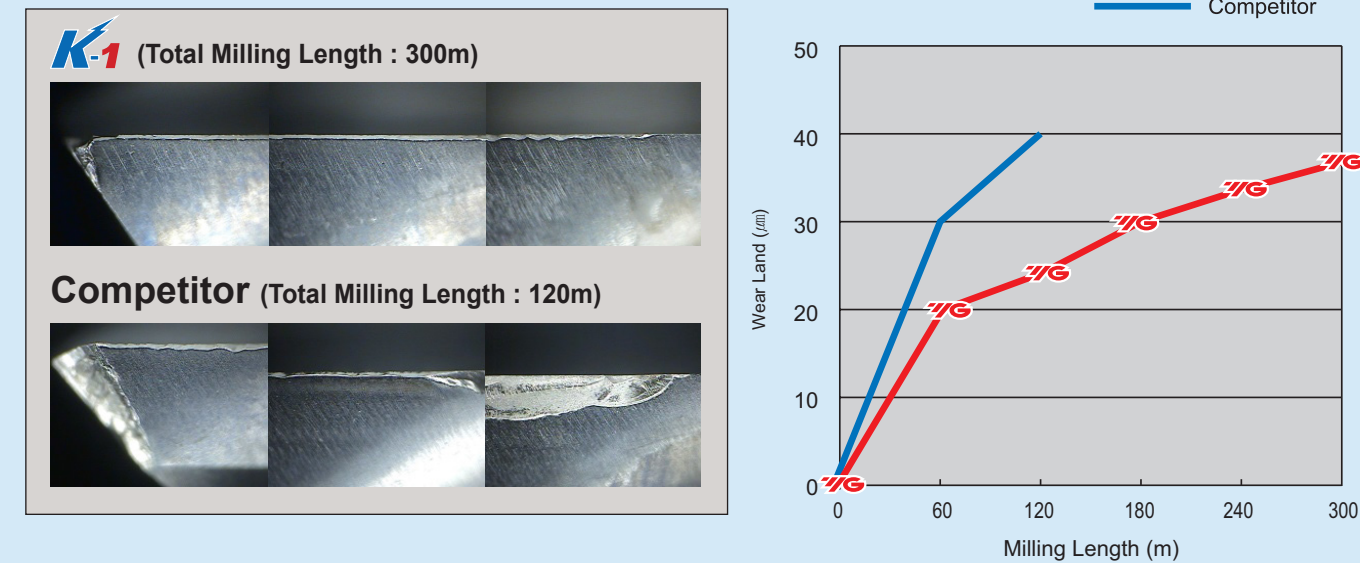


K-1 SOLID CARBIDE COATED END MILLS

◆ 4Flute Square End Mill, KP4M - Side Cutting

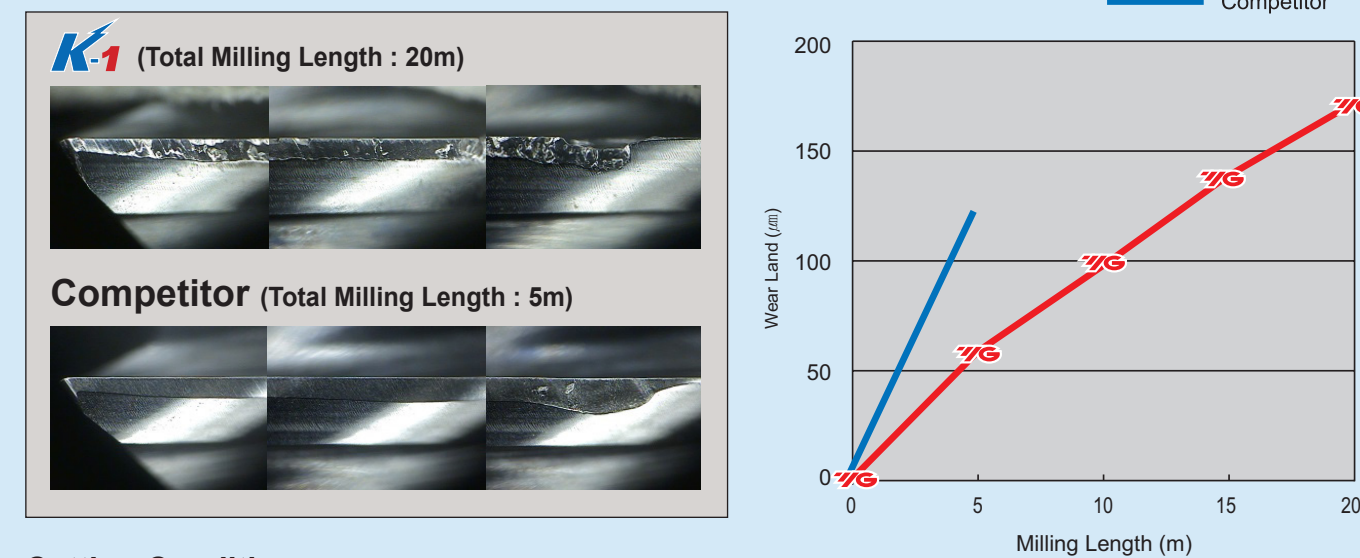


Cutting Condition

- Size : $\varnothing 10 \times \varnothing 10 \times 25 \times 75$
- Work Material : KP4M(HRC35)
- RPM : 1700 rev/min
- FEED : 255 mm/min
- Milling Depth : Axial Depth : 10 mm
Radial Depth : 0.5 mm
- Coolant : Oil Mist
- Milling Method : Down & Side Cutting

K-1 SOLID CARBIDE COATED END MILLS

◆ 2Flute Square End Mill, S45C - Side Cutting



Cutting Condition

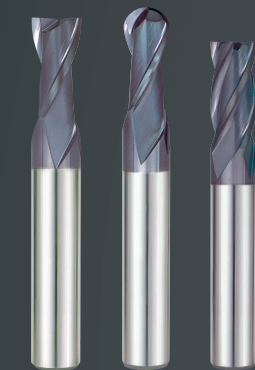
- Size : $\varnothing 3 \times \varnothing 4 \times 8 \times 50$
- Work Material : S45C(No heat treatment)
- RPM : 7600 rev/min
- FEED : 140 mm/min
- Milling Depth : Axial Depth : 3 mm
Radial Depth : 0.3 mm
- Coolant : Wet
- Milling Method : Down & Side Cutting

YA-K116



K-1

SOLID CARBIDE COATED END MILLS for GENERAL PURPOSE
For carbon steels, alloy steels and pre-hardened steels up to HRC55



K-1

SOLID CARBIDE COATED END MILLS for GENERAL PURPOSE
For carbon steels, alloy steels and pre-hardened steels up to HRC55

YG-1 CO., LTD.

HEAD OFFICE

211, Sewolcheon-ro, Bupyeong-gu, Incheon, Korea

PHONE : +82-32-526-0909

Http://www.yg1.kr

E-mail: yg1@yg1.kr

Note The new address above has currently been updated since Korean new postal standard was valid from 2014.
Be noticed that the physical Headquarter location is NOT changed.



Tool specifications are subject to change without prior notice.

YG1YAK1160701002

YG-1 CO., LTD.

High stable corner edge

Exceptional performance
at a competitive price

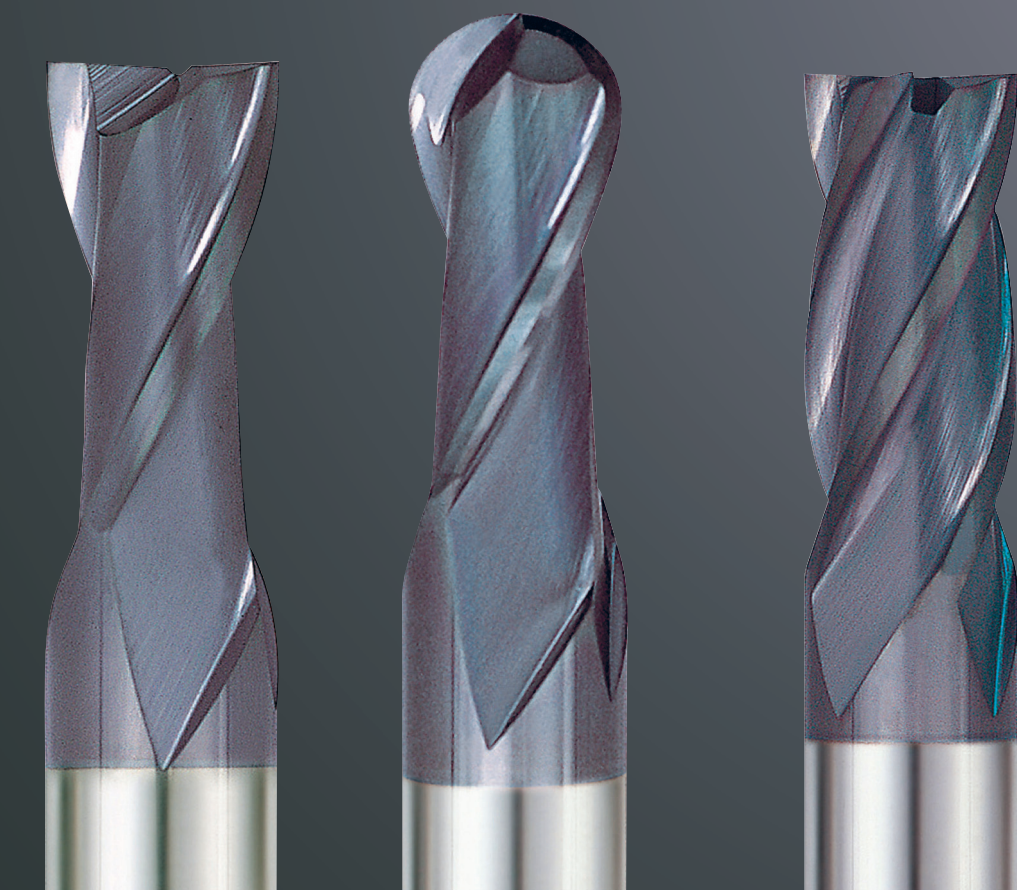
Improved wear resistance
due to YG-1 tailored coating

Excellent surface finish
on work material

Dry & Wet cutting

Applications:

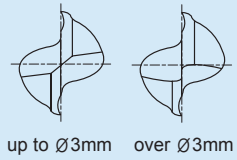
Carbon Steels, Alloy Steels, Pre-Hardened Steels,
Hardened Steels (Up to HRC55)



K-1 SOLID CARBIDE COATED END MILLS

CARBIDE, 2FLUTE SHORT LENGTH

GMF86 SERIES

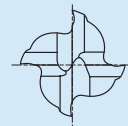


Unit : mm				
EDP No.	Mill Diameter	Shank Diameter	Length of Cut	Overall Length
GMF86010	1.0	4	3	50
GMF86015	1.5	4	4	50
GMF86020	2.0	4	6	50
NEW GMF86025	2.5	4	8	50
GMF86030	3.0	4	8	50
NEW GMF86035	3.5	4	10	50
GMF86040	4.0	4	11	50
GMF86050	5.0	6	13	50
GMF86060	6.0	6	16	50
NEW GMF86070	7.0	8	20	60
GMF86080	8.0	8	20	60
NEW GMF86090	9.0	10	20	75
GMF86100	10.0	10	25	75
GMF86120	12.0	12	32	75
NEW GMF86140	14.0	16	40	100
NEW GMF86160	16.0	16	40	100
NEW GMF86200	20.0	20	45	100

Mill Dia. Tolerance(mm)	Shank Dia. Tolerance
0~-0.03	h6

CARBIDE, 4FLUTE SHORT LENGTH

GMF87 SERIES

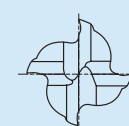


Unit : mm				
EDP No.	Mill Diameter	Shank Diameter	Length of Cut	Overall Length
GMF87010	1.0	4	3	50
GMF87015	1.5	4	4	50
GMF87020	2.0	4	6	50
NEW GMF87025	2.5	4	8	50
GMF87030	3.0	4	8	50
NEW GMF87035	3.5	4	10	50
GMF87040	4.0	4	11	50
GMF87050	5.0	6	13	50
GMF87060	6.0	6	16	50
GMF87070	7.0	8	20	60
GMF87080	8.0	8	20	60
GMF87090	9.0	10	20	75
GMF87100	10.0	10	25	75
NEW GMF87120	12.0	12	32	75
NEW GMF87140	14.0	16	40	100
NEW GMF87160	16.0	16	40	100
NEW GMF87200	20.0	20	45	100

Mill Dia. Tolerance(mm)	Shank Dia. Tolerance
0~-0.03	h6

NEW CARBIDE, 4FLUTE LONG LENGTH

GMG71 SERIES

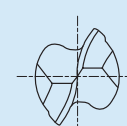


Unit : mm				
EDP No.	Mill Diameter	Shank Diameter	Length of Cut	Overall Length
GMG71020	2.0	4	10	50
GMG71030	3.0	4	15	60
GMG71040	4.0	4	20	60
GMG71050	5.0	6	25	75
GMG71060	6.0	6	30	75
GMG71080	8.0	8	35	100
GMG71100	10.0	10	45	100
GMG71120	12.0	12	45	100
GMG71160	16.0	16	70	150
GMG71200	20.0	20	75	150

Mill Dia. Tolerance(mm)	Shank Dia. Tolerance
0~-0.03	h6

CARBIDE, 2FLUTE BALL NOSE SHORT LENGTH

GMF88 SERIES



Unit : mm					
EDP No.	Radius of Ball Nose	Mill Diameter	Shank Diameter	Length of Cut	Overall Length
NEW GMF88005	R0.25	0.5	4	1	50
GMF88010	R0.5	1.0	4	2	50
GMF88015	R0.75	1.5	4	4	50
GMF88020	R1.0	2.0	4	5	50
NEW GMF88025	R1.25	2.5	4	6	50
GMF88030	R1.5	3.0	4	6	50
GMF88040	R2.0	4.0	4	8	50
GMF88050	R2.5	5.0	6	10	50
GMF88060	R3.0	6.0	6	12	50
GMF88080	R4.0	8.0	8	14	60
GMF88100	R5.0	10.0	10	20	75
GMF88120	R6.0	12.0	12	24	75
NEW GMF88160	R8.0	16.0	16	32	100
NEW GMF88200	R10.0	20.0	20	40	100

Mill Dia. Tolerance(mm)	Shank Dia. Tolerance
0~-0.03	h6

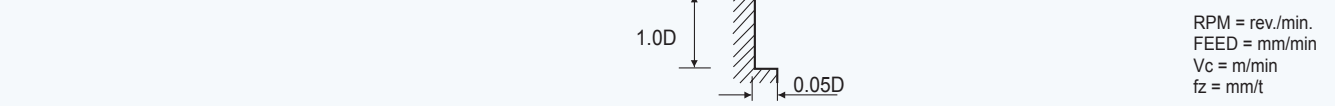
2FLUTE - SLOTTING

WORK MATERIAL	P												M			
	NON-ALLOYED STEELS ALLOY STEELS CAST IRON				ALLOY STEELS HEAT RESISTANT STEELS				HARDENED STEELS				STAINLESS STEELS 300			
HARDNESS	~ HRC30				HRC30 ~ HRC45				HRC45 ~ HRC55							
STRENGTH	~1000N/mm ²				1000 ~ 1500N/mm ²				1500 ~ 2000N/mm ²							
DIAMETER	RPM	FEED	Vc	fz	RPM	FEED	Vc	fz	RPM	FEED	Vc	fz	RPM	FEED	Vc	fz
1.0	31500	260	99	0.004	22000	175	69	0.004	16500	85	52	0.003	11000	85	35	0.004
1.5	20000	250	94	0.006	13200	165	62	0.006	9900	75	47	0.004	7500	90	35	0.006
2.0	10180	210	64	0.010	6660	130	42	0.010	4430	40	28	0.005	5560	100	35	0.009
2.5	8790	220	69	0.013	5600	145	44	0.013	3550	40	28	0.006	4660	115	37	0.012
3.0	7870	230	74	0.015	4900	155	46	0.016	2960	45	28	0.008	4070	130	38	0.016
3.5	7170	280	79	0.020	4420	175	49	0.020	2750	45	30	0.008	3690	150	41	0.020
4.0	6660	330	84	0.025	4070	200	51	0.025	2590	45	33	0.009	3410	165	43	0.024
5.0	5560	350	87	0.031	3320	210	52	0.032	2050	55	32	0.013	2780	175	44	0.031
6.0	4900	385	92	0.039	2960	240	56	0.041	1760	60	33	0.017	2500	200	47	0.040
7.0	4210	400	93	0.048	2540	230	56	0.045	1600	70	35	0.022	2130	200	47	0.047
8.0	3700	420	93	0.057	2220	220	56	0.050	1490	85	37	0.029	1850	200	46	0.054
9.0	3230	390	91	0.060	1970	200	56	0.051	1330	75	38	0.028	1650	185	47	0.056
10.0	2860	365	90	0.064	1760	175	55	0.050	1200	65	38	0.027	1490	175	47	0.059
12.0	2420	310	91	0.064	1490	145	56	0.049	1020	60	38	0.029	1200	145	45	0.060
14.0	2140	275	94	0.064	1320	130	58	0.049	890	50	39	0.028	1050	130	46	0.062
16.0	1940	240	98	0.062	1200	120	60	0.050	790	45	40	0.028	940	120	47	0.064
20.0	1490	185	94	0.062	940	90	59	0.048	610	35	38	0.029	740	90	46	0.061



4FLUTE - SIDE CUTTING

WORK MATERIAL	P												M			
	NON-ALLOYED STEELS ALLOY STEELS CAST IRON				ALLOY STEELS HEAT RESISTANT STEELS				HARDENED STEELS				STAINLESS STEELS 300			
HARDNESS	~ HRC30				HRC30 ~ HRC45				HRC45 ~ HRC55							
STRENGTH	~1000N/mm ²				1000 ~ 1500N/mm ²				1500 ~ 2000N/mm ²							
DIAMETER	RPM	FEED	Vc	fz	RPM	FEED	Vc	fz	RPM	FEED	Vc	fz	RPM	FEED	Vc	fz
1.0	22280	355	70	0.004	12730	205	40	0.004	9500	55	30	0.001	11140	180	35	0.004
1.5	14850	355	70	0.006	8490	205	40	0.006	6370	60	30	0.002	7430	180	35	0.006
2.0	12720	310	80	0.006	8320	185	52	0.006	5540	55	35	0.002	6930	155	44	0.006
2.5	10970	330	86	0.008	7000	205	55	0.007	4440	60	35	0.003	5820	170	46	0.007
3.0	9810	350	92	0.009	6120	220	58	0.009	3700	65	35	0.004	5080	185	48	0.009
3.5	8960	490	99	0.014	5530	305	61	0.014	3430	65	38	0.005	4620	250	51	0.014
4.0	8320	625	105	0.019	5080	385	64	0.019	3230	65	41	0.005	4270	310	54	0.018
5.0	6930	660	109	0.024	4160	395	65	0.024	2550	75	40	0.007	3480	330	55	0.024
6.0	6120	725	115	0.030	3700	450	70	0.030	2200	90	41	0.010	3120	365	59	0.029
7.0	5230	755	115	0.036	3180	435	70	0.034	2050	105	45	0.013	2730	395	60	0.036
8.0	4620	780	116	0.042	2770	420	70	0.038	1850	120	46	0.016	2310	385	58	0.042
9.0	4070	730	115	0.045	2476	375	70	0.038	1590	100	45	0.016	2120	375	60	0.044
10.0	3590	670	113	0.047	2200	330	69	0.038	1500	100	47	0.017	1850	330	58	0.045
12.0	3010	570	113	0.047	1850	275	70	0.037	1280	90	48	0.018	1500	265	57	0.044
14.0	2670	510	117	0.048	1650	250	73	0.038	1110	75	49	0.017	1330	240	58	0.045
16.0	2420	450	122	0.046	1500	220	75	0.037	990	65	50	0.016	1210	220	61	0.045
20.0	1850	350	116	0.047	1170	175	74	0.037	750	45	47	0.015	920	165	58	0.045



4FLUTE - SIDE CUTTING

WORK MATERIAL	P												M			
	NON-ALLOYED STEELS ALLOY STEELS CAST IRON				ALLOY STEELS HEAT RESISTANT STEELS				HARDENED STEELS				STAINLESS STEELS 300			
HARDNESS	~ HRC30				HRC30 ~ HRC45				HRC45 ~ HRC55							
STRENGTH	~1000N/mm ²				1000 ~ 1500N/mm ²				1500 ~ 2000N/mm ²							
DIAMETER	RPM	FEED	Vc	fz	RPM	FEED	Vc	fz	RPM	FEED	Vc	fz	RPM	FEED	Vc	fz
2.0	9700	220	61	0.006	5540	90	35	0.004	3470	50	22	0.004	4850	110	30	0.006
3.0	6790	255	64	0.009	3930	110	37	0.007	2420	60	23	0.006	3560	130	34	0.008
4.0	5500	310	69	0.014	3120	125	39	0.010	1970	65	25	0.008	2990	155	38	0.018
5.0	4700	395	74	0.021	2660	155	42	0.015	1740	75	27	0.011	2440	230	38	0.024
6.0	4050	475	76	0.029	2310	200	44	0.022	1510	100	28	0.017	2180	255	41	0.029
8.0	3080	505	77	0.041	1740	200	44	0.029	1160	100	29	0.022	1620	270	41	0.043
10.0	2590	505	81	0.049	1510	200	47	0.033	920	100	29	0.027	1300	230	41	0.044
12.0	2110	395	80	0.047	1280	175	48	0.034	770	75	29	0.024	1050	185	40	0.044
16.0	1780	350	89	0.049	980	140	49	0.036	620	65	31	0.026	850	155	43	0.046
20.0	1300	255	82	0.049	750	100	47	0.033	460	50	29	0.027	640	115	40	0.045

2.5D

0.05D

2.0D

0.02D

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