

YU-XP19 INCH / METRIC



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X-POWER **PRO**

PERFORMANCE UPGRADE
Y-COATED SOLID CARBIDE END MILLS
for Pre-Hardened Steels up to HRC55
for Mold & Die
for Dry & Wet Cutting





X-POWER ^{PRO}

Performance Upgrade

- Achieved from several tests to apply the most optimal technology
- New coating, raw material, honing technology

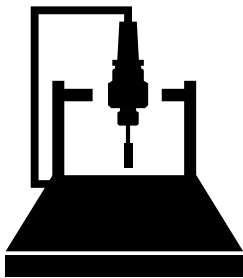
Work Material

- Pre-Hardened Steels up to HRc 55, and Cast Iron



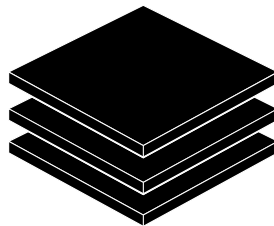
For Mold & Die Industries

- Plastic injection, die casting, military parts, automotive parts, electronic parts, etc.



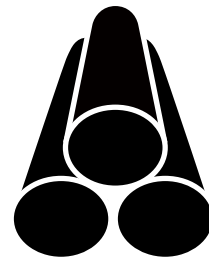
Honing

Advanced honing technology system made from YG-1



Coating

The optimal coating applied, chosen by several tests of different coating technologies



Raw Material

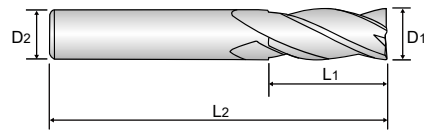
Made from high performance raw material with better quality



Y-COATED SOLID CARBIDE END MILLS 4 FLUTE SHORT LENGTH

GM811 PLAIN SHANK

- ▶ Designed to machine tool steels, alloy steels, mold steels and other hardened materials
- ▶ 4 flute allows for better workpiece finishes
- ▶ Increased production



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

METRIC

Unit : mm

EDP No.	Mill Diameter	Shank Diameter	Length of Cut	Overall Length
	D1	D2	L1	L2
GM811020	2.0	4	6	40
GM811901	2.0	6	6	40
GM811025	2.5	4	8	40
GM811902	2.5	6	8	40
GM811030	3.0	6	8	45
GM811035	3.5	6	10	45
GM811040	4.0	6	11	45
GM811045	4.5	6	11	45
GM811050	5.0	6	13	50
GM811060	6.0	6	13	50
GM811080	8.0	8	19	60
GM811100	10.0	10	22	70
GM811120	12.0	12	26	75
GM811140	14.0	14	26	85
GM811160	16.0	16	32	100
GM811200	20.0	20	38	105
GM811250	25.0	25	45	120

◎ : Excellent ○ : Good

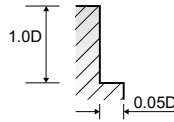
P					H	M	K	N			S	
Carbon Steels	Alloy Steels	Prehardened Steels	Hardened Steels		High Hardened Steels	Stainless Steels	Cast Iron	Copper	Graphite	Aluminum	Titanium	Inconel
~HB225	HB225~325	HRc30~40	HRc40~45	HRc45~55	HRc55~70							
○	◎	◎	◎	○		○	○					



GM811 Y-COATED SOLID CARBIDE END MILLS 4 FLUTE SHORT LENGTH - SIDE CUTTING

RPM = rev./min. Vc = m/min.
FEED = mm/min. Fz = mm/tooth

MATERIAL	P											
	NON-ALLOYED STEELS ALLOY STEELS				ALLOY STEELS HEAT RESISTANT STEELS				HARDENED STEELS			
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
2.0	12950	315	80	0.006	8470	190	55	0.006	5640	55	35	0.002
3.0	9990	360	95	0.009	6230	225	60	0.009	3760	65	35	0.004
4.0	8470	640	105	0.019	5170	390	65	0.019	3290	65	40	0.005
5.0	7060	670	110	0.024	4230	405	65	0.024	2600	80	40	0.008
6.0	6230	740	115	0.030	3760	460	70	0.031	2240	90	40	0.010
8.0	4700	795	120	0.042	2820	425	70	0.038	1880	125	45	0.017
10.0	3650	685	115	0.047	2240	335	70	0.037	1520	100	50	0.016
12.0	3070	580	115	0.047	1880	280	70	0.037	1300	90	50	0.017
16.0	2460	460	125	0.047	1520	225	75	0.037	1010	65	50	0.016
20.0	1880	360	120	0.048	1190	180	75	0.038	760	45	50	0.015
25.0	1520	280	120	0.046	940	145	75	0.039	600	35	45	0.015



MATERIAL	M				K			
	STAINLESS STEELS				CAST IRON			
HARDNESS								
STRENGTH								
DIAMETER	RPM	FEED	Vc	Fz	RPM	FEED	Vc	Fz
2.0	7060	155	45	0.005	12950	315	80	0.006
3.0	5170	190	50	0.009	9990	360	95	0.009
4.0	4350	315	55	0.018	8470	640	105	0.019
5.0	3540	335	55	0.024	7060	670	110	0.024
6.0	3180	370	60	0.029	6230	740	115	0.030
8.0	2350	390	60	0.041	4700	795	120	0.042
10.0	1880	335	60	0.045	3650	685	115	0.047
12.0	1520	270	55	0.044	3070	580	115	0.047
16.0	1230	225	60	0.046	2460	460	125	0.047
20.0	940	170	60	0.045	1880	360	120	0.048
25.0	760	135	60	0.044	1520	280	120	0.046

