

Turning Inserts - Negative

CNMA / CNMG (80° Rhombic)

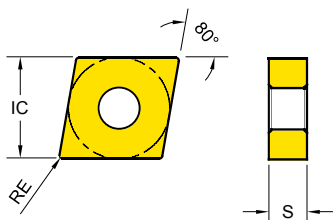
TURNING

PARTING & GROOVING

MILLING

DRILLING

TECHNICAL INFORMATION



Series	IC	S
CN** 0903	9.525	3.18
CN** 0904	9.525	4.76
CN** 1204	12.700	4.76
CN** 1606	15.875	6.35
CN** 1906	19.050	6.35

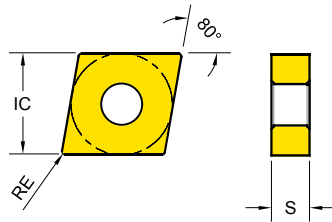
EDP 2200..

● : Stock item ○ : Order made item

CNMA CNMG	Designation	RE	Fn (mm/rev.)	Ap (mm)	K10	P05	P10	P15	P10	P20	P30	P20	M25	M15	M30	M40	S10	P15	M15	N20	N20
					K20	K30	YG1001	YG3010	YG3015	YG3115	YG3020	YG3030	YG801	YG2025	YG211	YG213	YG214	YG401	YT100	YG100	YG10
..MA  Cast iron	CNMA 120404	0.4	0.15~0.50	0.5~5.0	●	○	○	○													
	CNMA 120408	0.8	0.15~0.50	1.0~5.0	●	○	○	○													
	CNMA 120412	1.2	0.15~0.50	1.5~5.0	●	○	○	○													
	CNMA 120416	1.6	0.15~0.50	2.0~5.0	●	○	○	○													
	CNMA 160612	1.2	0.15~0.50	1.5~5.0	●	○	○	○													
	CNMA 160616	1.6	0.15~0.50	2.0~5.0	●	○	○	○													
	CNMA 190612	1.2	0.15~0.50	1.5~9.0	●	○	○	○													
	CNMA 190616	1.6	0.15~1.00	3.0~10.0	●	○	○	○													
-UF  Finishing	CNMG 120404 - UF	0.4	0.05~0.25	0.5~2.5			○	○		●	●	●	○								
	CNMG 120408 - UF	0.8	0.05~0.25	1.0~2.5			○	○		○	○	○	○								
	CNMG 120412 - UF	1.2	0.05~0.25	1.5~2.5			○	○		○	○	○	○								
							○	○		○	○	○	○								
-UL  Light Machining and Sticky Material	CNMG 090308 - UL	0.8	0.10~0.30	1.0~2.5			○	○		●	●	●									
	CNMG 090312 - UL	1.2	0.10~0.30	1.5~2.5			○	○		●	●	●									
	CNMG 090408 - UL	0.8	0.10~0.30	1.0~2.5			○	○		●	●	●									
	CNMG 090412 - UL	1.2	0.10~0.30	1.5~2.5			○	○		●	●	●									
	CNMG 120404 - UL	0.4	0.10~0.30	0.5~3.0			○	○		●	●	●									
	CNMG 120408 - UL	0.8	0.10~0.30	1.0~3.0			○	○		●	●	●									
	CNMG 120412 - UL	1.2	0.10~0.30	1.5~3.0			○	○		●	●	●									
							○	○		●	●	●									
-UM  Medium Machining Unstable condition	CNMG 120404 - UM	0.4	0.15~0.30	0.5~3.0			●	●		●	●										
	CNMG 120408 - UM	0.8	0.15~0.30	1.0~3.0			●	●	○	●	●										
	CNMG 120412 - UM	1.2	0.15~0.30	1.5~3.0			●	●		●	●										

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					K10	P05	P10	P15	P10	P20	P30	P20	M25	M15	M30	M40	S10	P15	M15	N20	N20
					K20	K30										S30	K15				
CNMG	Designation	RE	Fn (mm/rev.)	Ap (mm)	YG1010	YG1001	YG3010	YG3015	YG3115	YG3020	YG3030	YG801	YG2025	YG211	YG213	YG214	YG401	YT100	YG100	YG10	
 Medium Machining at stable condition	CNMG 120404 - UG	0.4	0.20 ~ 0.40	0.5 ~ 3.0	● 1578	○ 1073	○ 0181		● 2219	● 0182	● 0183										
	CNMG 120408 - UG	0.8	0.20 ~ 0.40	1.0 ~ 3.0	● 0896	○ 0337	○ 0113	○ 1001	● 2178	● 0099	● 0139	○ 0001									
	CNMG 120412 - UG	1.2	0.20 ~ 0.40	1.5 ~ 3.0	● 1579	○ 0685	○ 0198		● 2199	● 0199	● 0200										
	CNMG 160608 - UG	0.8	0.20 ~ 0.40	1.0 ~ 5.0	● 1826	○ 1077	○ 1078		● 2599	● 0748	● 0749										
	CNMG 160612 - UG	1.2	0.20 ~ 0.40	1.5 ~ 5.0	● 1827	○ 0791	○ 0530		● 2430	● 0508	● 0531										
	CNMG 160616 - UG	1.6	0.30 ~ 0.50	2.0 ~ 5.0	● 1828	○ 1229	○ 0534		● 2600	● 0510	● 0535										
	CNMG 190608 - UG	0.8	0.20 ~ 0.60	1.0 ~ 6.0	● 1847		○ 0801		● 2601	● 0802	● 0803										
	CNMG 190612 - UG	1.2	0.20~0.60	1.5~6.0					● 2603	● 2306	● 2307										
 Wiper-Medium	CNMG 120404 - PWM	0.4	0.10~0.50	0.5~3.5	● 1940				● 2593	● 1977	● 2046	○ 0003									
	CNMG 120408 - PWM	0.8	0.10~0.50	0.8~3.5	● 2047				● 2595	● 1251	● 1319										
	CNMG 120412 - PWM	1.2	0.10~0.50	1.0~3.5	● 1697				● 2597	● 1950	● 1951										
 Cast iron and Medium roughing	CNMG 120404 - UC	0.4	0.20 ~ 0.40	0.5 ~ 4.0	● 0895	○ 0096	○ 0115		● 2372	● 0101	● 0116										
	CNMG 120408 - UC	0.8	0.20 ~ 0.40	1.0 ~ 4.0	● 1483	○ 0062	○ 0117		● 2172	● 0102	● 0118										
	CNMG 120412 - UC	1.2	0.20 ~ 0.40	1.5 ~ 4.0	● 0873	○ 0088	○ 0119		● 2185	● 0103	● 0120										
 Roughing	CNMG 120408 - UR	0.8	0.30 ~ 0.50	1.0 ~ 5.0	● 1536	○ 1050	○ 0195		● 2196	● 0196	● 0197										
	CNMG 120412 - UR	1.2	0.30 ~ 0.50	1.5 ~ 5.0	● 0878	○ 1051	○ 0204		● 2179	● 0205	● 0206	○ 0004									
	CNMG 120416 - UR	1.6	0.30 ~ 0.50	2.0 ~ 5.0	● 1530	○ 1076	○ 0707		● 2213	● 0623	● 0847										
	CNMG 160608 - UR	0.8	0.30 ~ 0.50	1.0 ~ 5.0	● 1668	○ 1079	○ 1080		● 2426	● 0750	● 0751										
	CNMG 160612 - UR	1.2	0.30 ~ 0.50	1.5 ~ 5.0	● 0882	○ 0792	○ 0532		● 2197	● 0509	● 0533										
	CNMG 160616 - UR	1.6	0.30 ~ 0.50	2.0 ~ 5.0	● 0938	○ 0676	○ 0536		● 2187	● 0511	● 0537										
	CNMG 190608 - UR	0.8	0.30 ~ 0.80	3.0 ~ 9.0	● 1848		○ 0804		● 2427	● 0805	● 0806										
	CNMG 190612 - UR	1.2	0.30 ~ 0.80	3.0 ~ 9.0	● 1829	○ 0450	○ 0451		● 2355	● 0698	● 0699										
	CNMG 190616 - UR	1.6	0.30 ~ 0.80	3.0 ~ 9.0	● 1830	○ 0480	○ 0481		● 2583	● 0734	● 0735										
 Cast Iron Heavy Roughing	CNMG 120408 - KR	0.8	0.30 ~ 0.60	1.0 ~ 5.0	● 1503	○ 0718	○ 0800		● 2594												
	CNMG 120412 - KR	1.2	0.30 ~ 0.60	1.5 ~ 5.0	● 0879	○ 0719	○ 1100		● 2596												
	CNMG 160612 - KR	1.2	0.30 ~ 0.60	1.5 ~ 6.0	● 1504		○ 1092		● 2581												
	CNMG 160616 - KR	1.6	0.30 ~ 0.60	2.0 ~ 6.0	● 1588		○ 1094		● 2582												
	CNMG 190612 - KR	1.2	0.30~1.00	3.0~9.0	● 2264				● 2602												

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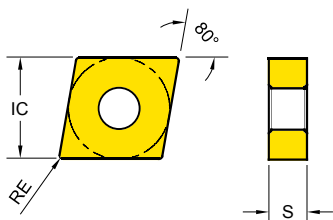
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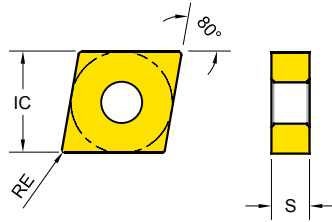
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CN** 1204	12.700	4.76
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					K10	P05 K20	P10 K30	P15	P10	P20	P30	P20	M25	M15	M30	M40 S30	S10	P15 M15 K15	N20	N20	
CNMG					YG1010	YG1001	YG3010	YG3015	YG3115	YG3020	YG3030	YG801	YG2025	YG211	YG213	YG214	YG401	YT100	YG100	YG10	
-MF		Stainless steel Finishing	CNMG 120404 - MF	0.4	0.07 ~ 0.3	0.2 ~ 1.5					○ 1185	○ 1237		● 2451	● 0609	● 0613	○ 1708	○ 2271			
			CNMG 120408 - MF	0.8	0.07 ~ 0.3	0.2 ~ 1.5							○ 0652		● 2452	● 0538	● 0539	○ 0627	○ 2272		
			CNMG 120412 - MF	1.2	0.07 ~ 0.3	0.2 ~ 1.5							○ 1025		● 2453			● 1139			
-MM		Stainless steel Medium	CNMG 120404 - MM	0.4	0.20 ~ 0.35	0.5 ~ 3.5									● 0547	● 0548	● 1709	○ 2286			
			CNMG 120408 - MM	0.8	0.20 ~ 0.35	1.0 ~ 3.5					○ 0360	○ 0188				● 0494	● 0495	○ 0607	○ 2287		
			CNMG 120412 - MM	1.2	0.20 ~ 0.35	1.5 ~ 3.5						○ 0521				● 0549	● 0550	○ 0626	○ 2288		
			CNMG 190608 - MM	0.8	0.20 ~ 0.50	2.0 ~ 5.5										● 1969	● 1970	● 1933			
			CNMG 190612 - MM	1.2	0.20 ~ 0.55	2.0 ~ 5.5										● 1971	● 1972	● 1934			
-MG		Stainless steel General	CNMG120404 - MG	0.4	0.20 ~ 0.40	0.5 ~ 4.0							● 2465								
			CNMG 120408 - MG	0.8	0.20 ~ 0.40	1.0 ~ 4.0						○ 1371			● 2468	● 1490	● 1491	● 1090	● 1222		
			CNMG 120412 - MG	1.2	0.20 ~ 0.40	1.5 ~ 4.0									● 2469	● 1493	● 1494	● 0928	● 1221		
			CNMG 160608 - MG	0.8	0.20 ~ 0.45	1.0 ~ 4.0										● 1921	● 1917	● 1919	● 1812		
			CNMG 160612 - MG	1.2	0.20 ~ 0.50	2.0 ~ 4.0										● 1922	● 1918	● 1920	● 1813		
			CNMG 160616 - MG	1.6	0.20 ~ 0.50	2.0 ~ 4.0										● 1929	● 1930	● 1535	● 1540		
			CNMG 190616 - MG	1.6	0.20 ~ 0.50	2.0 ~ 5.0										● 1931	● 1932	● 1534	● 1541		
-MR		Stainless steel Roughing	CNMG 120408 - MR	0.8	0.30 ~ 0.55	2.0 ~ 5.5					○ 0594			● 0540	● 0541	● 0608					
			CNMG 120412 - MR	1.2	0.30 ~ 0.55	2.0 ~ 5.5					○ 0839	○ 0840			● 2480	● 0610	● 0614	● 0628			
			CNMG 120416 - MR	1.6	0.30 ~ 0.55	2.0 ~ 5.5										● 1893	● 1894	● 1895			

Turning Inserts - Negative

CNGG / CNMG (80° Rhombic)


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CN** 0904	9.525	4.76
CN** 1204	12.700	4.76
CN** 1606	15.875	6.35
CN** 1906	19.050	6.35

EDP 2200..

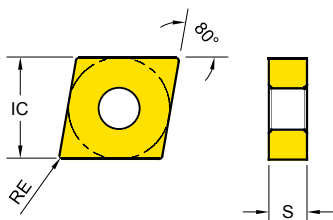
● : Stock item ○ : Order made item

	CNGG CNMG	Designation	RE	Fn (mm/rev.)	Ap (mm)	K10	P05 K20	P10 K30	P15	P10	P20	P30	P20	M25	M15	M30	M40 S30	S10	P15 M15 K15	N20	N20
						YG1010	YG1001	YG3010	YG3015	YG3115	YG3020	YG3030	YG801	YG2025	YG211	YG213	YG214	YG401	YT100	YG100	YG10
- SF  HRSA Finishing		CNGG 120401 - SF	0.1	0.05 ~ 0.30	0.1 ~ 3.0													●			
		CNGG 120402 - SF	0.2	0.10 ~ 0.30	0.1 ~ 0.3													●			
		CNGG 120404 - SF	0.4	0.10 ~ 0.30	0.2 ~ 0.3													●			
		CNGG 120408 - SF	0.8	0.10 ~ 0.30	0.2 ~ 0.3													●			
- SM  HRSA Medium		CNMG 120408 - SM	0.8	0.10 ~ 0.25	0.5 ~ 4.0										○	○	○	●			
		CNMG 120412 - SM	1.2	0.10 ~ 0.25	0.5 ~ 4.0										○	○	○	●			
															1373	1394	2305	1292			
- SR  HRSA Roughing		CNMG 120408 - SR	0.8	0.10 ~ 0.40	0.5 ~ 4.0													●			
		CNMG 120412 - SR	1.2	0.10 ~ 0.40	0.5 ~ 4.0													●			
		CNMG 120416 - SR	1.6	0.10 ~ 0.40	0.5 ~ 4.0													●			
NEW - PSF  Cermet Finishing		CNMG 120404 - PSF	0.4	0.07 ~ 0.30	0.4 ~ 3.0														●		
		CNMG 120408 - PSF	0.8	0.10 ~ 0.30	0.6 ~ 3.0														●		

Turning Inserts - Negative

CNMG / CNMM - Heavy Turning (80° Rhombic)

Series	IC	S
CN** 1204	12.700	4.76
CN** 1606	15.875	6.35
CN** 1906	19.050	6.35
CN** 2509	25.400	9.52



EDP 2200..

● : Stock item ○ : Order made item

CNMG CNMM	Designation	RE	Fn (mm/rev.)	Ap (mm)	EDP 2200..																
					K10	P05	P10	P15	P10	P20	P30	P20	M25	M15	M30	M40	S10	P15	M15	N20	N20
NEW - UH  Low cutting force	CNMM 120408 - UH	0.8	0.30~0.50	1.5~5.0						●	●										
	CNMM 160612 - UH	1.2	0.35~0.60	2.0~5.5						●	●										
	CNMM 160616 - UH	1.6	0.35~0.60	2.5~5.5						●	●										
	CNMM 190612 - UH	1.2	0.35~0.70	1.5~9.0	●	●				●	●										
	CNMM 190616 - UH	1.6	0.35~0.70	2.0~9.0	●	●				●	●										
	CNMM 190624 - UH	2.4	0.35~0.70	3.0~9.0	●	●				●	●										
	CNMM 250924 - UH	2.4	0.40~0.80	3.0~10.0	●	●				●	●										
- UR  Roughing	CNMM 190616 - UR	1.6	0.30~0.80	3.0~9.0						●	●										
	CNMG 250924 - UR	2.4	0.40~1.00	5.0~12.0					●	●	●										
NEW - UT  Heavy Roughing	CNMM 120408 - UT	0.8	0.40~0.70	1.5~6.0						●	●										
	CNMM 160612 - UT	1.2	0.45~0.70	2.0~6.0						●	●										
	CNMM 160616 - UT	1.6	0.45~0.70	2.5~6.0						●	●										
	CNMM 190612 - UT	1.2	0.50~1.00	3.0~12.0	●	●				●	●										
	CNMM 190616 - UT	1.6	0.50~1.00	4.0~12.0	●	●				●	●										
	CNMM 190624 - UT	2.4	0.50~1.00	6.0~12.0	●	●				●	●										
	CNMM 250924 - UT	2.4	0.55~1.20	6.0~13.0	●	●				●	●										

NEW

- UH



Low cutting force

- UR



Roughing

NEW

- UT


Heavy
Roughing

Insert ISO Code System

*Metric : According to ISO 1832

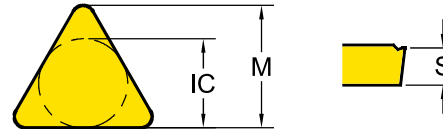
page 14

page 12

1	2	3	4	5	6	7	8	9
C	N	M	G	12	04	08	-UG	YG3115
Shape	Clearance	Tolerance	Clamping & Chipbreaker	Insert Size	Insert Thickness	Corner Radius	Chipbreaker Geometry	Grade

1 - Shape

Symbol	Shape	
H	Hexagonal	
O	Octagonal	
P	Pentagonal	
S	Square	
T	Triangular	
C	Rhombic 80°	
D	Rhombic 55°	
V	Rhombic 35°	
W	Trigon	
L	Rectangular	
K	Parallelogram 55°	
R	Round	



3 - Tolerance Class

Symbol	Inner Circle IC (mm)	Nose Height M (mm)	Thickness S (mm)
C	± 0.025	± 0.013	± 0.025
E	± 0.025	± 0.025	± 0.025
G	± 0.025	± 0.025	± 0.13
H	± 0.013	± 0.013	± 0.025
K*	± 0.05~0.15*	± 0.013	± 0.025
M*	± 0.05~0.15*	± 0.08~0.2*	± 0.13
U*	± 0.08~0.25*	± 0.13~0.38*	± 0.13

* Tolerance is different by insert IC size. Please see ISO 1832

4 - Clamping & Chipbreaker

Symbol	Clamping	Chipbreaker	Figure
N	No clamping hole	X	
R		One Face	
A	Cylindrical Clamping hole	X	
M		One Face	
G		Both Faces	
W	Screw Hole	X	
T		One Face	
U		Both Faces	
X		Special	

2 - Relief Angle (AN)

Symbol	Relief Angle (AN)	
N	No Relief Angle	
B	Relief 5°	
C	Relief 7°	
P	Relief 11°	
D	Relief 15°	
E	Relief 20°	
F	Relief 25°	
O	Special	

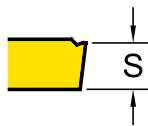
Insert ISO Code System

*Inch

1	2	3	4	5	6	7	8	9
C	N	M	G	4	3	2	-UG	YG3115
Shape	Clearance	Tolerance	Clamping & Chipbreaker	Insert Size	Insert Thickness	Corner Radius	Chipbreaker Geometry	Grade

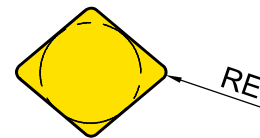
5 - Insert Size

Metric							Inner Circle IC (mm)	Inch
06	11	06	07	11			6.35	2
07	13	08	09	13	15		7.94	2.5
09	16	09	11	16	06	09 (00)	9.525	3
12	22	12	15	22	08	12 (00)	12.7	4
15	27	16	19	27	10		15.875	5
19	33	19	23	33	13		19.05	6
25		25					25.4	8
						06 (M0)	6	
						08 (M0)	8	
						10 (M0)	10	
						12 (M0)	12	
						16 (M0)	16	



6 - Insert Thickness (S)

Metric	Thickness - S (mm)	Inch
T1	1.98	1.2
02	2.38	1.5
03	3.18	2
T3	3.97	2.5
04	4.76	3
05	5.56	3.5
06	6.35	4
07	7.94	5
09	9.525	6



7 - Corner Radius (RE)

Metric	Corner Radius - RE (mm)	Inch
01	0.1	03
02	0.2	05
04	0.4	1
08	0.8	2
12	1.2	3
16	1.6	4
20	2.0	5
24	2.4	6

Grade Naming System

TURNING	1	2	3	4	5	(6)
	YG	3	1	1	5	(G)
	YG Brand	Workpiece Material	Grade Version	Application Range (1st Digit)	Application Range (2nd Digit)	Minor Variation
	Carbide CVD (4 Digits)	●	●	●	●	YG3115
PARTING & GROOVING	Carbide PVD (3 Digits)	●	●	●		YG211
	Carbide Uncoated (2 Digits)	●	●			YG10

1 - YG Brand

2 - Workpiece Material

Symbol	Workpiece Material	Turning	Milling	Drilling	Parting
1	K Cast Iron or N Non-Ferrous	●			
2	M Stainless Steel	●			
3	P Steel	●			
4	S Superalloys	●			
5	K Cast Iron or N Non-Ferrous		●	●	●
6	M Stainless Steel or Universal		●	●	●
7	P Steel		●	●	●
8	Universal	●			
0	Hardened Steel		●		

3 - Grade Version

4 & 5 - Application Range

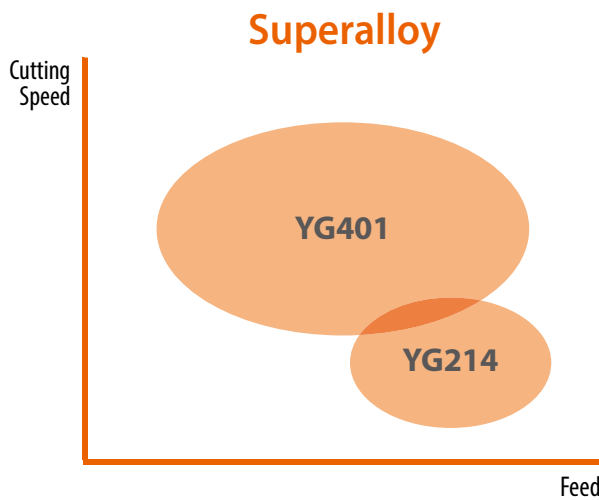
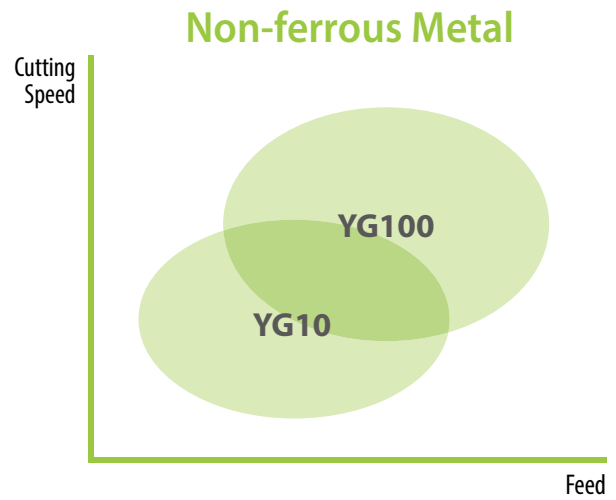
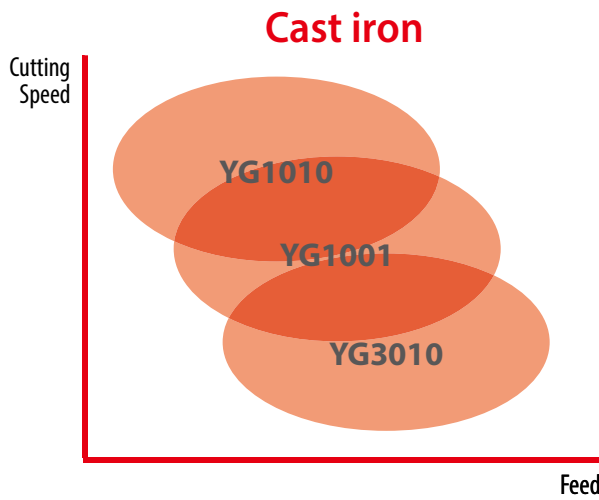
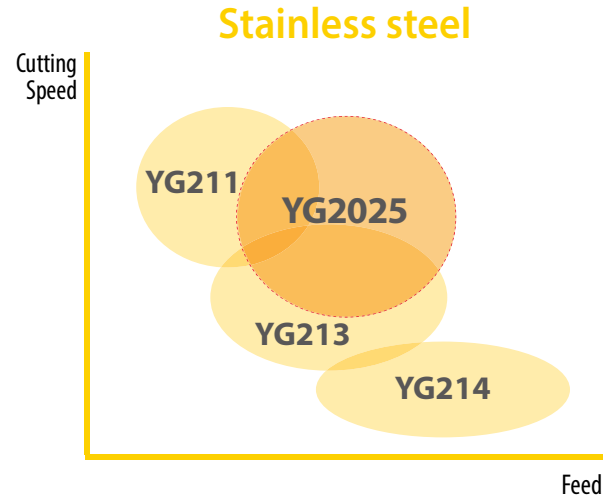
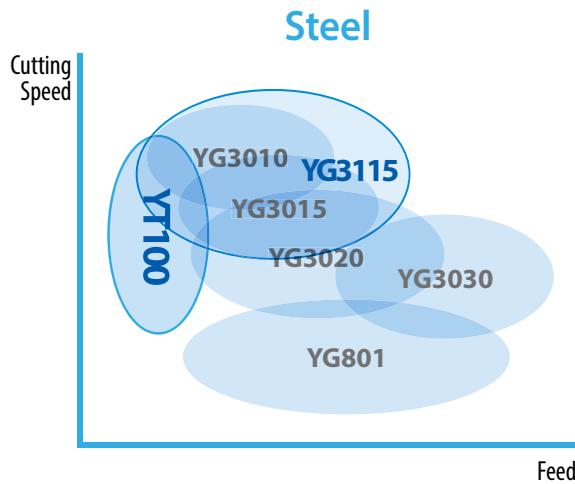
Symbol	
05	Stable Wear Resistant Grade Stable Application Continuous Cut Finishing
10	
15	
20	General Balanced Grade High Versatility General Application
25	
30	
35	Unstable Tougher Grade Unstable Application Interrupted Cut Chipping Resistance Roughing
40	
45	

(6) - (Minor Variation)

G - Gold Coated Version

Turning Grades Map

Speed : Vc (m/min.)
Feed : Fn (mm/rev.)



TURNING

PARTING & GROOVING

MILLING

DRILLING

TECHNICAL INFORMATION

Turning Grades

TURNING	Turning Grades	P Steel				M Stainless steel			K Cast iron			N Non-ferrous		S Superalloys	
		P10	P20	P30	P40	M10	M20	M30	K10	K20	K30	N10	N20	S10	S20
CVD	YG1010								1010						
	YG1001	1001							1001						
	YG3010	3010							3010						
	YG3015	3015													
	YG3115	3115													
	YG3020	3020													
	YG3030	3030													
	YG2025					2025									
PVD	YG801	801													
	YG211					211									
	YG213						213								
	YG214							214							214
	YG401													401	
DRILLING	Cermet	YT100	YT100			YT100			YT100						
	DLC	YG100										100			
	-	YG10										10			

TECHNICAL INFORMATION	YG1010 K05 - K15		First Choice for Cast Iron - Effective coating structure enables high speed machining - Special post treatment for improved chipping resistance
	YG1001 P01 - P10 K10 - K25		Stable Machining of Cast Iron - Substrate especially designed for high wear resistance - Thick Al₂O₃ layer ensures good wear resistance at high cutting speeds including dry machining
	YG3010 P05 - P20 K15 - K35		First choice for Finishing Steels, and Ductile Cast iron - Finishing and light machining of steel under in stable condition - New Al₂O₃ coating technology and excellent surface smoothness increase wear resistance and chipping resistance
	YG3015 P10 - P25		Balanced Productivity for Continuous cut High wear resistance and improved toughness ensures high productivity with less trouble
	NEW YG3115 P15 - P25		First choice grade for high cutting speed in Steels - Suitable for mass production due to stable and predictable tool life - Minimizing built up edge due to new post surface treatment in mild steels, low carbon steel and low carbon alloy steel. - Best choice for both continuous as well as interrupted cuts

Turning Grades

YG3020 P15 - P30		First Choice Grade for General Steel Application - Substrate especially designed for good toughness - Excellent surface smoothness increases wear resistance and reliability
YG3030 P20 - P35		Interrupted Cutting of Steel and Stainless steel - Substrate for heavy roughing in mild steel and low carbon alloy steel - New Al₂O₃ technology and optimized surface treatment achieves a good balance between wear resistance and chipping resistance
YG801 P10 - P30		for Carbon Steel with Low Cutting Speed - Recommended for mild steel and boring application - Substrate and special PVD coating for excellent wear resistance
NEW YG2025 M15 - M35		CVD grade for High Cutting Speed for Stainless steel - Utilizing a new carbide substrate and new coating - Excellent combination of wear resistance and chipping resistance - Minimized built up edge due to post surface treatment
YG211 M05 - M25		High wear Resistance Grade for Stainless steel Finishing Stainless steel
YG213 M20 - M35		First Choice Grade on Low Cutting Speed of Stainless steel - First choice on Stainless steel for Low cutting speed - For Medium to low cutting speed
YG214 M30 - M40 S25 - S30		Heavy Interrupted cut for Stainless steel - For Heavy Interrupted cut on Stainless steel - Minimize risk of Mechanical fracture or Chipping
YG401 S10 - S20		PVD Turning Grade for HRSA - Highly heat-resistant TiAlSiN structure for excellent wear resistance - Greatly improved film coating realizes excellent boundary defect resistance - Top coating layer provides a smooth surface and lubricant effect
NEW YT100 P10 - P20 M10 - M20 K10 - K20		New Generation Cermet Grade - Enhanced wear resistance & chipping resistance - Excellent fracture resistance - Superior surface finish with special edge preparation
YG100 N05 - N25		First Choice Grade for Aluminum with DLC Coating - Submicron carbide for high wear resistance - DLC coating minimizes Built Up Edge tendency. - Improve tool life in sticky non-ferrous alloy
YG10 N05 - N25		Uncoated Grade for General Aluminum - Substrate consisted of submicron carbide for high wear resistance - Shining surface to prevent built up edge

TURNING

PARTING & GROOVING

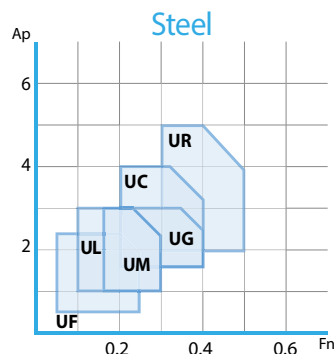
MILLING

DRILLING

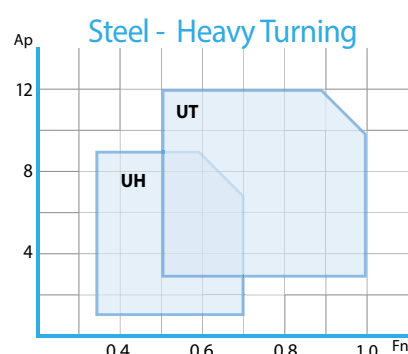
TECHNICAL INFORMATION

Turning Chipbreakers - Negative

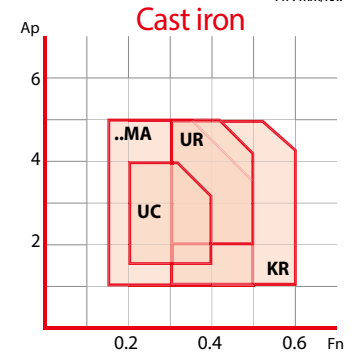
	P M K N S					Feed	Fn (mm/rev.)						
							0	0.1	0.2	0.3	0.4	0.5	0.6
TURNING	P					UF	Finishing		Fn 0.05~0.25 Ap 0.5~2.5				
	P					UL	Semi Finishing and sticky materials		Fn 0.1~0.3 Ap 1.0~3.0				
	P					UM	Medium & Unstable conditions		Fn 0.15~0.3 Ap 1.0~3.0				
	P					UG	First Choice for Medium (Stable conditions)		Fn 0.2~0.4 Ap 1.5~3.0				
PARTING & GROOVING	P					PWM	Wiper-Medium		Fn 0.1~0.5 Ap 0.5~3.5				
	P					UH	Low cutting force					Fn 0.35~0.7 Ap 1.0~9.0	→
	P					UT	Heavy roughing					Fn 0.5~1.0 Ap 3.0~12.0	→
MILLING	P					UC	Medium Roughing and First choice for Cast iron		Fn 0.2~0.4 Ap 1.5~4.0				
	P					UR	Roughing and Heavy interrupted cut		Fn 0.3~0.5 Ap 2.0~5.0				
						..MA	Cast iron Heavy Roughing		Fn 0.15~0.50 Ap 1.0~5.0				
DRILLING	P												
	P												
TECHNICAL INFORMATION	P												
	P												



*Insert : CNMG120408



*Insert : CNMM190624

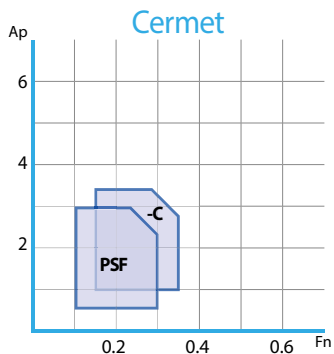


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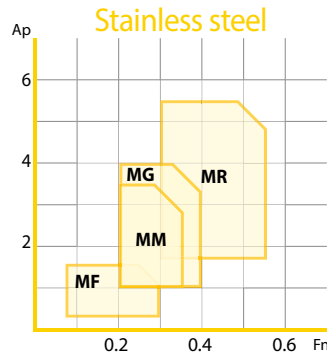
Product Overview

Turning Chipbreakers - Negative

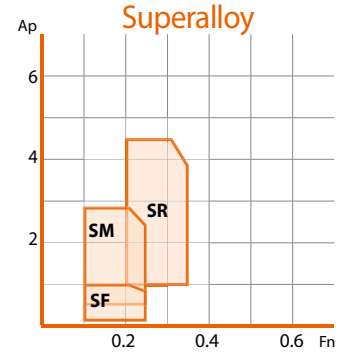
					Feed								Fn (mm/rev.)	
P	M	K	N	S		0	0.1	0.2	0.3	0.4	0.5	0.6		
		K			KR 	Cast Iron Heavy Roughing 								Fn 0.3~0.6 Ap 1.0~5.0
	M			S	MF 	Stainless steel Finishing 								Fn 0.07~0.30 Ap 0.2~1.5
P	M			S	MM 	Stainless steel Medium and Low Carbon Steel 								Fn 0.20~0.35 Ap 1.0~3.5
	M			S	MG 	Stainless steel General 								Fn 0.20~0.40 Ap 1.0 ~ 4.0
	M			S	MR 	Stainless steel Roughing 								Fn 0.30~0.55 Ap 1.8~5.5
				S	SF 	HRSA Finishing 								Fn 0.10~0.25 Ap 0.2~1.0
				S	SM 	HRSA Medium 								Fn 0.10~0.25 Ap 0.5~3.0
				S	SR 	Roughing for HRSA 								Fn 0.20~0.35 Ap 1.0~4.5
P	M	K			NEW PSF 	Cermet Finishing 								Fn 0.10~0.30 Ap 0.5~3.0
P	M	K			NEW -C 	Cermet Medium 								Fn 0.15~0.35 Ap 1.0~3.5
						Depth of Cut 0 1 2 3 4 5 6 Ap (mm)								



*Insert : CNMG120408 / TNGG160408



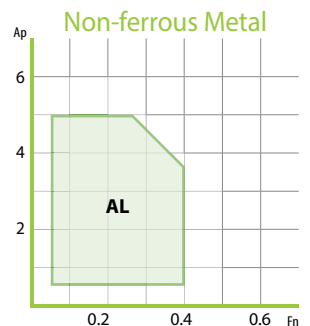
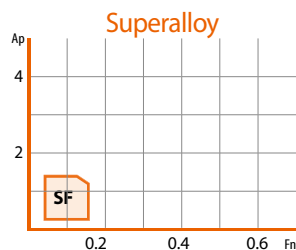
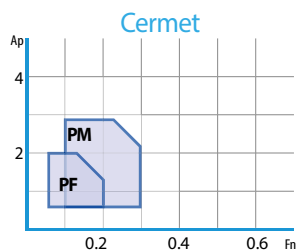
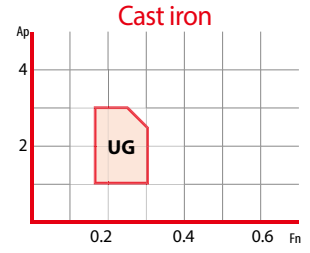
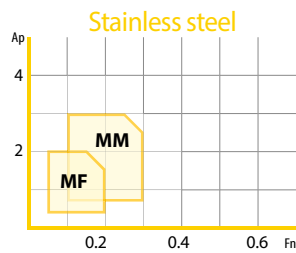
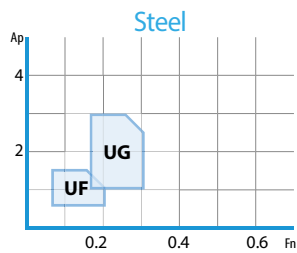
*Insert : CNMG120408



*Insert : CNMG120408

Turning Chipbreakers - Positive

P M K N S					Feed							Fn (mm/rev.)		
					0 0.1 0.2 0.3 0.4 0.5 0.6									
AL						Aluminum application							Fn 0.05~0.40	
													Ap 0.5~5.0	
UF						Finishing application							Fn 0.05~0.20	
													Ap 0.5~1.5	
UG						Medium application							Fn 0.15~0.30	
													Ap 1.0~3.0	
NEW MF						Stainless steel Finishing							Fn 0.05~0.20	
													Ap 0.5~2.0	
NEW MM						Stainless steel Medium							Fn 0.10~0.30	
													Ap 0.5~3.0	
NEW SF						HRSA Finishing							Fn 0.02~0.15	
													Ap 0.1~1.5	
NEW PF						Cermet Finishing							Fn 0.05~0.20	
													Ap 0.5~2.0	
NEW PM						Cermet Medium							Fn 0.10~0.30	
													Ap 0.5~3.0	
					Depth of Cut							Ap (mm)		
					0 1 2 3 4 5 6									



*Insert : CCMT09T308