ISO TURNING

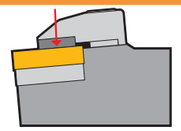
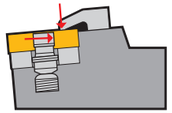
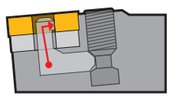
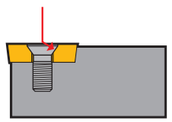
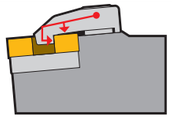
Turning - Name Code System

External Turning Holder Code (Inch)

*Inch

1	2	3	4	5	6	7	8
M	**C**	**L**	**N**	**R**	**12**	**4**	**B**
Clamping System	Insert Shape (1st Letter of Insert)	Tool Style	Insert Clearance (2nd Letter of Insert)	Tool Hand	Shank Width(B) & Height(H)	Insert Size	Length (LF)

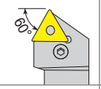
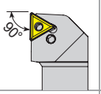
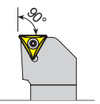
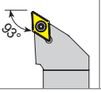
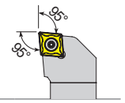
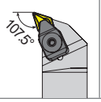
1 - Clamping System

Symbol	System
C	 **Top Clamp** (No Clamping Hole Insert)
M	 **Pin & Top Clamp** (Straight Clamping Hole Insert)
P	 **Lever Lock** (Straight Clamping Hole Insert)
S	 **Screw** (Screw Clamping Hole Insert)
D **(T)**	 **Hole Clamp** (Straight Clamping Hole Insert)

2, 4 — Insert Compatibility *

* Related to Insert Designation to check compatibility

3 - Tool Style

Approach Angle (KAPR)	Side Direction		End Direction
	Straight Shank	Offset Shank	
45°	D 	S 	
60°		T 	
63°	N 		
72.5°	V 		
75°	B 		K 
90°	A 	G 	F 
93°		J 	U
95°		L (Both Direction) 	
107.5°		H 	

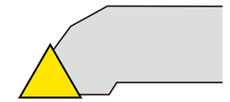
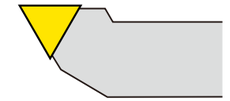
Turning - Name Code System

External Turning Holder Code (Inch)

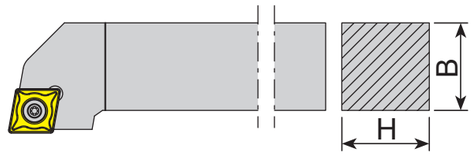
*Inch

1	2	3	4	5	6	7	8
M	**W**	**L**	**N**	**R**	**16**	**3**	**D**
Clamping System	Insert Shape (1st Letter of Insert)	Tool Style	Insert Clearance (2nd Letter of Insert)	Tool Hand	Shank Width(B) & Height(H)	Insert Size	Length (LF)

5 - Hand Direction

Symbol	Hand Direction	
R	Right Hand	
L	Left Hand	
N	Neutral	

6 - Shank Height (H) Shank Width (B)



Number	Hight (H)	Width (B)	Number	Hight (H)	Width (B)
10	.625	.625	**06**	.375	.375
12	.75	.75	**05**	.3125	.3125
16	1.00	1.00	**64**	.75	1.00
20	1.25	1.25	**66**	1.75	1.50
24	1.50	1.50	**85**	1.00	1.25
32	2.00	2.00	**86**	1.00	1.50
08	.50	.50	**91**	1.25	1.50

7 - Insert Size *

Examples	is Compatible with…
MCLNR 12 4B	**CNMG432**
MTJNR 16 3B	**TNMG331**

* Related to Insert Designation to check compatibility

8 - Length (LF)

Symbol	Length (Inch)	Symbol	Length (Inch)
A	4.000	**M**	4.000
B	4.500	**N**	4.500
C	5.000	**P**	5.000
D	6.000	**R**	6.000
E	7.000	**S**	7.000
F	8.000	**T**	8.000
G	5.500	**U**	5.500
H	5.625	**V**	3.500
J	5.300	**W**	3.500
K	14.000	**Y**	3.750
L	6.800	**X**	Special

Insert ISO Code System

*Metric : According to ISO 1832

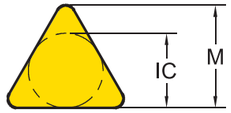
1	2	3	4	5	6	7	8 (page 12)	9 (page 10)
C	N	M	G	12	04	08	-UG	YG3020
Shape	Clearance	Tolerance	Clamping & Chipbreaker	Insert Size	Insert Thickness	Corner Radius	Chipbreaker Geometry	Grade

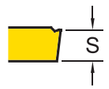
1 - Shape

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	

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	





3 - Tolerance Class

Symbol	Inner Circle IC (inch)	Nose Height M (inch)	Thickness S (inch)
C	±.0010	±.0005	±.0010
E	±.001	±.0010	±.001
G	±.001	±.0010	±.005
H	±.0005	± .0005	±.0010
K*	±.002~.006*	±.0005	±.005
M*	±.002~.006*	±.003~.010*	±.005
U*	±.003~.010*	±.005~.015*	±.005

* 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		

YG TURN INCH

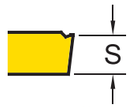
Insert ISO Code System

*Inch

1	2	3	4	5	6	7	8	9
C	N	M	G	4	3	2	-UG	YG3020
Shape	Clearance	Tolerance	Clamping & Chipbreaker	Insert Size	Insert Thickness	Corner Radius	Chipbreaker Geometry	Grade

5 - Insert Size

Metric S	Metric T	Metric C	Metric D	Metric V	Metric W	Metric R	Inner Circle IC (inch)	Inch
06	11	06	07	11			1/4	2
07							5/16	2.5
09	16	09	11	16	06	09 (00)	3/8	3
12	22	12	15	22	08	12 (00)	1/2	4
15		16					5/8	5
19		19					3/4	6
25		25					1	8
						06 (M0)	.236	
						08 (M0)	.315	
						10 (M0)	.394	
						12 (M0)	.472	
						16 (M0)	.630	



6 - Insert Thickness (S)

Metric	Thickness - S (inch)	Inch
T1	5/64	1.2
02	3/32	1.5
03	1/8	2
T3	5/32	2.5
04	3/16	3
05	7/32	3.5
06	1/4	4
07	5/16	5
09	3/8	6

7 - Corner Radius (RE)

Metric	Corner Radius - RE (inch)	Inch
01	.004	0
02	.008	0.5
04	1/64	1
08	1/32	2
12	3/64	3
16	1/16	4
20	5/64	5
24	3/32	6

Grade Naming System

1	2	3	4	5	(6)
YG	**3**	**0**	**2**	**0**	**(G)**
YG Brand	Workpiece Material	Grade Version	Application Range (1st Digit)	Application Range (2nd Digit)	Minor Variation
Carbide CVD (4 Digits)	●	●	●	●	YG3020
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	●			

3 — Grade Version

4 & 5 — Application Range

Symbol
05
10
15
20
25
30
35
40
45

(6) — (Minor Variation)

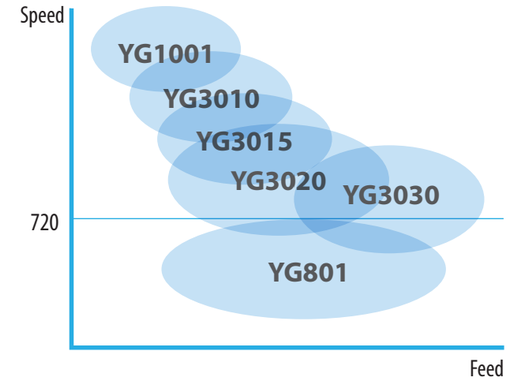
G — Gold Coated Version

Product Overview

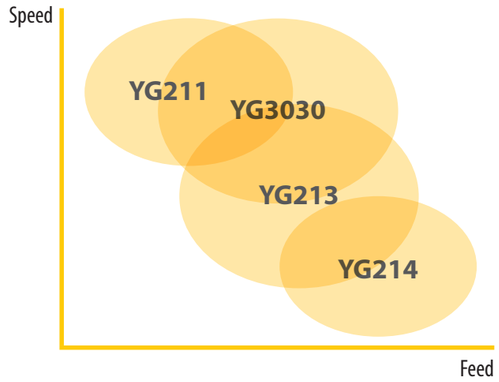
Turning Grades Map

Speed : Vc (ft/min.)
Feed : Fn (inch/rev.)

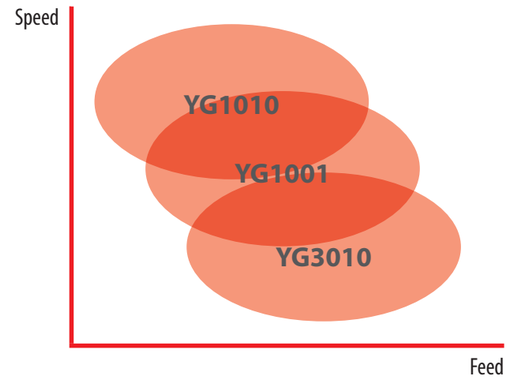
Steels



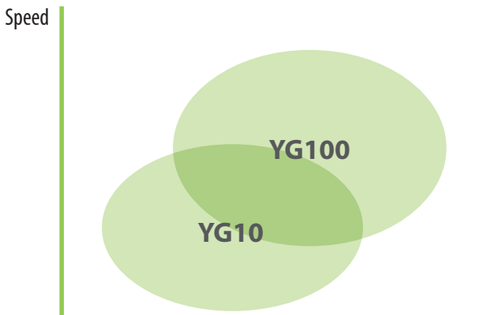
Stainless steels



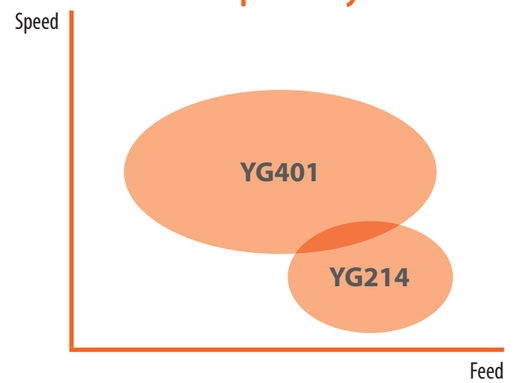
Cast iron



Non-ferrous Metals



Superalloys

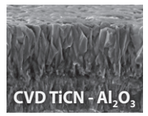


Product Overview

Turning Grades

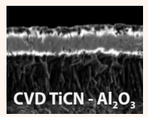
Turning Grades		P Steel				M Stainless steel			K Cast iron			N Non-ferrous		S Superalloys	
		P10	P20	P30	P40	M10	M20	M30	K10	K20	K30	N10	N20	S10	S20
CVD	YG1010								1010						
	YG1001	1001								1001					
	YG3010		3010							3010					
	YG3015		3015												
	YG3020			3020											
	YG3030			3030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

YG1010
K05 - K15



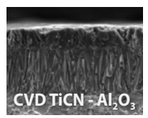
High Speed Cast Iron Machining
- Effective coating structure enables high speed machining
- Special post treatment for improved chipping resistance

YG1001
P01 - P10
K10 - K25



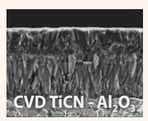
First choice for stable machining of Cast iron
- Substrate especially designed for high wear resistance
- Thick Al_2O_3 layer ensures good wear resistance at high cutting speeds including dry machining

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 Al_2O_3 coating technology and excellent surface smoothness increase wear resistance a nd chipping resistance

YG3015
P10 - P25

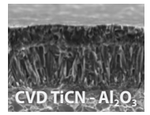


Balanced productivity for Continuous cut
- High wear resistance and improved toughness ensures high productivity with less trouble

Product Overview

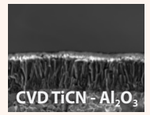
Turning Grades

YG3020
P15 - P30



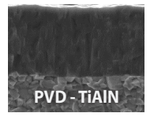
First Choice grade for general Steel application
- Substrate especially designed for good toughness
- Excellent surface smoothness increases wear resistance and reliability

YG3030
P20 - P35
M10 - M30



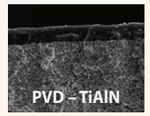
Interrupted cut of Steel and Stainless steel
- Heavy interrupted cut for Steel
- High cutting speed for Stainless steel

YG801
P10 - P30



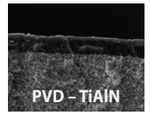
for Carbon Steel with Low cutting speed
- Recommended for mild steel and boring application
- Substrate and special PVD coating for excellent wear resistance

YG211
M05 - M25



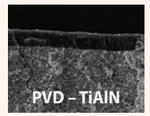
High wear resistance grade for Stainless steel
- Finishing Stainless steel

YG213
M20 - M35



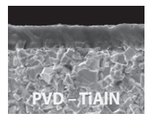
First Choice Grade on low cutting speed of Stainless steel
- First choice on Stainless steel for Low cutting speed
- For Medium to low cutting speed

YG214
M30 - M40
S25 - S30



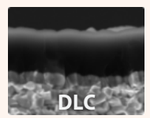
Heavy Interrupted cut for Stainless steel
- For Heavy Interrupted cut on Stainless steel
- Minimize risk of Mechanical fracture or Chipping

YG401
S10 - S20



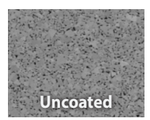
PVD Turning Grade for HRSA
- Highly heat-resistant TiAlN structure for excellent wear resistance
- Greatly improved film coating realizes excellent boundary defect resistance
- Top coating layer provides a smooth surface and lubricant effect

YG100
N05 - N25



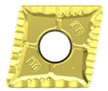
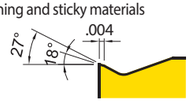
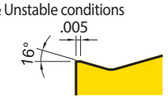
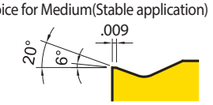
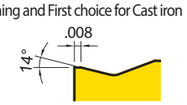
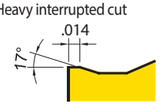
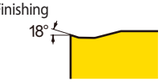
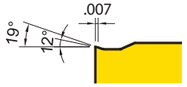
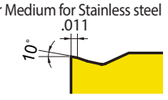
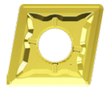
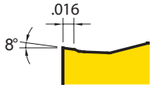
First Choice grade for aluminum with DLC coating
- Submicron carbide for high wear resistance
- DLC coating minimizes Built Up Edge tendency.
- Improve tool life in sticky non-ferrous alloy

YG10
N05 - N25



Uncoated Grade for General Aluminum
- Substrate consisted of submicron carbide for high wear resistance
- Shining surface to prevent built up edge

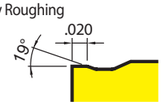
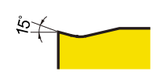
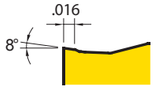
Turning Chipbreakers - Negative

P	M	K	N	S			Finishing	Fn .002~.010 / Ap .02~.10
P					UF			
P					UL		Semi Finishing and sticky materials 	Fn .004~.012 / Ap .04~.12
P					UM		For Medium & Unstable conditions 	Fn .006~.012 / Ap .04~.12
P					UG		First Choice for Medium(Stable application) 	Fn .008~.016 / Ap .06~.12
P		K			UC		Medium Roughing and First choice for Cast iron 	Fn .008~.016 / Ap .06~.16
P		K			UR		Roughing and Heavy interrupted cut 	Fn .012~.020 / Ap .08~.20
		K			..MA		Cast iron Heavy Roughing 	Fn .006~.020 / Ap .04~.20
	M			S	MF		Stainless steel Finishing 	Fn .003~.012 / Ap .01~.06
P	M			S	MM		Stainless steel Medium and Low Carbon Steel 	Fn .008~.014 / Ap .04~.14
	M			S	MG		First Choice for Medium for Stainless steel 	Fn .008~.016 / Ap .04 ~ .16
	M			S	MR		Roughing for Stainless steel 	Fn .012~.022 / Ap .07~.22

Feed: 0 .004 .008 .012 .016 .020 .024 Fn (inch/rev.)

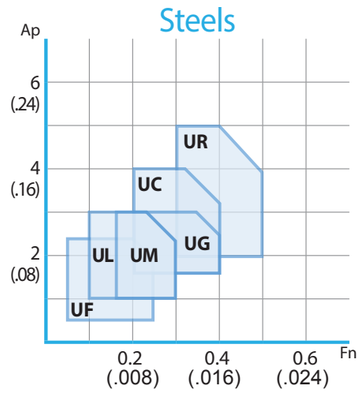
Depth of Cut: 0 .04 .08 .12 .16 .20 .24 Ap (inch)

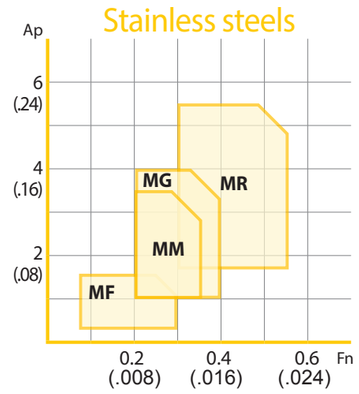
Turning Chipbreakers - Negative

P	M	K	N	S			Cast Iron Heavy Roughing 	Fn .012~.024 / Ap .04~.20
		K			KR			
				S	SM		HRSA Medium 	Fn .004~.010 / Ap .02~.12
				S	SR		Roughing for HRSA 	Fn .008~.014 / Ap .04~.18

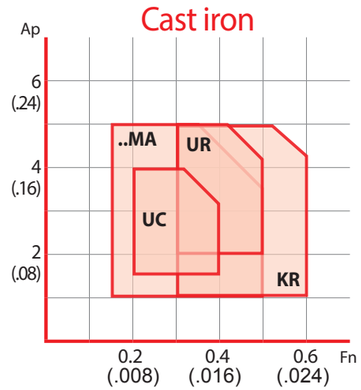
Feed: 0 .004 .008 .012 .016 .020 .024 Fn (inch/rev.)

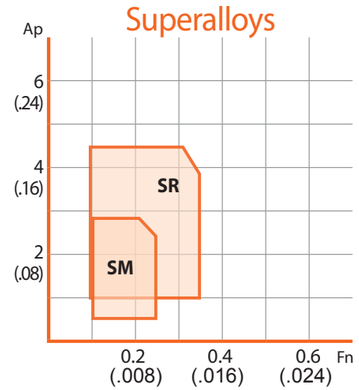
Depth of Cut: 0 .04 .08 .12 .16 .20 .24 Ap (inch)





Ap : mm (inch)
Fn : mm/rev. (inch/rev.)

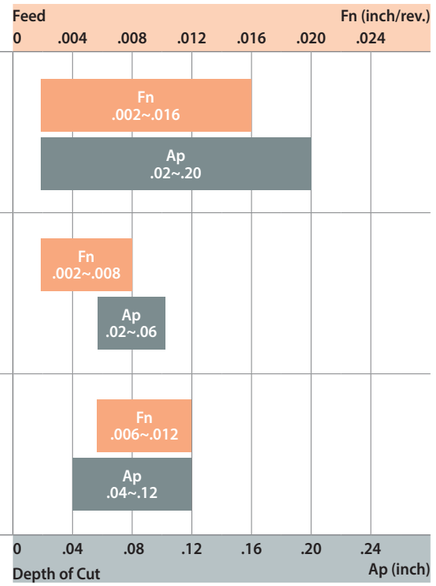


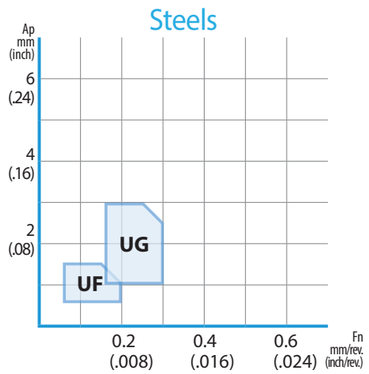


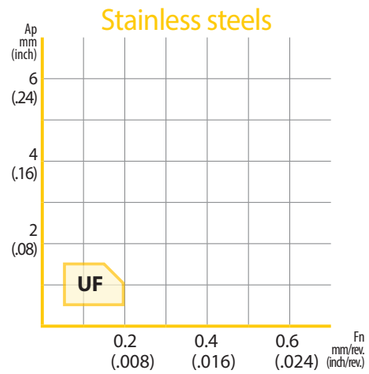
Product Overview

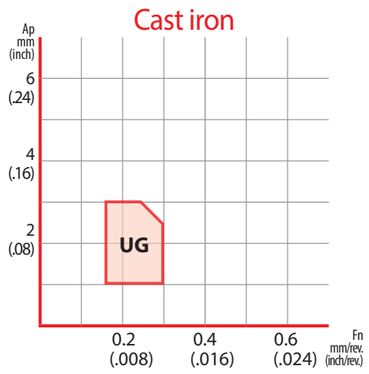
Turning Chipbreakers - Positive

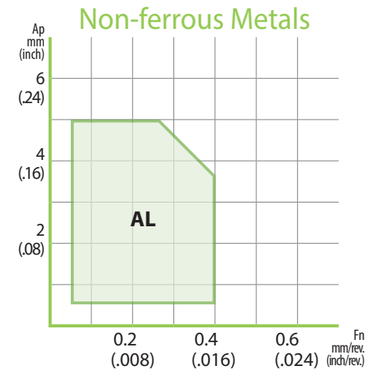
P	M	K	N	S			
			N		AL	Aluminum application	Fn .002~.016, Ap .02~.20
P	M				UF	Finishing application	Fn .002~.008, Ap .02~.06
P		K			UG	Medium application	Fn .006~.012, Ap .04~.12







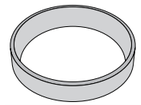




Application Guide

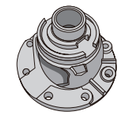
Steel Guide

Grade Recommendation based on Workpiece Material Condition

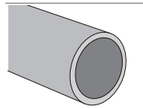


Pre Machined Condition
No Outer Skin
Uniform hardness on material
Has stable machining condition

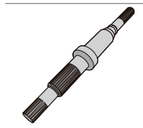
Welded Condition
Soft / NoOuter Skin
Weld Bead Could be of Different Hardness than Actual Part
Stock on Part could even except weld Seam during Machining causing shock loads



Cast Condition
Hard Outer Skin
Could have Sand Inclusion,- if Green Sand Cast
Component could have uneven Stock during machining



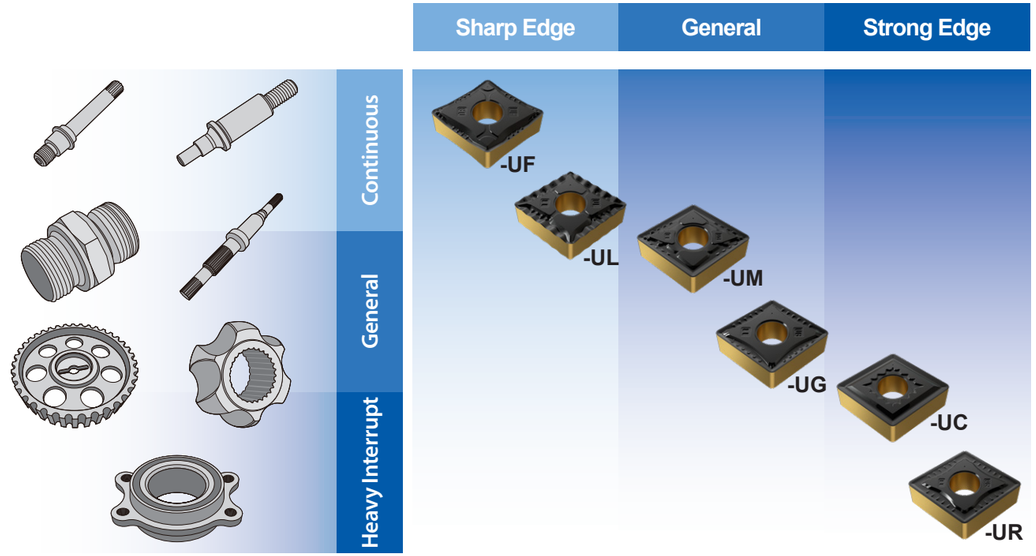
Hot Rolled Condition
Soft / NoOuter Skin
Usually heat treated before machine to reduce Hardness
Component could have uneven Stock During Machining



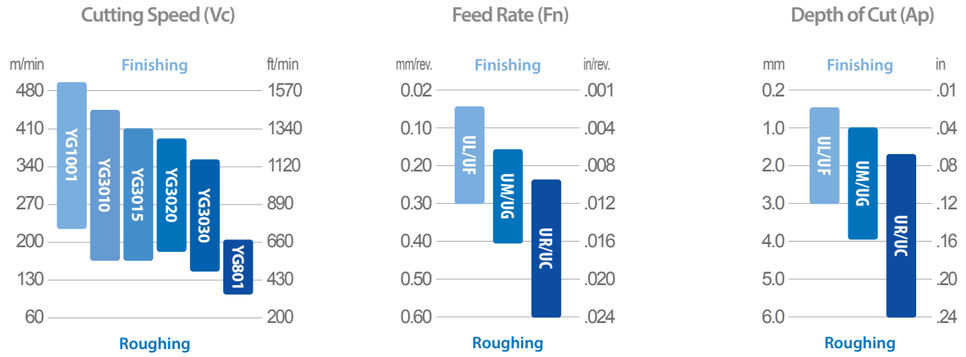
Forged Condition
Soft Outer Skin
Usually heat treated before machine to reduce Hardness
Component could have uneven Stock during machining

HARD
YG3010
YG3020
YG3030
TOUGH

Chipbreaker, Feed Rate and Depth of Cut



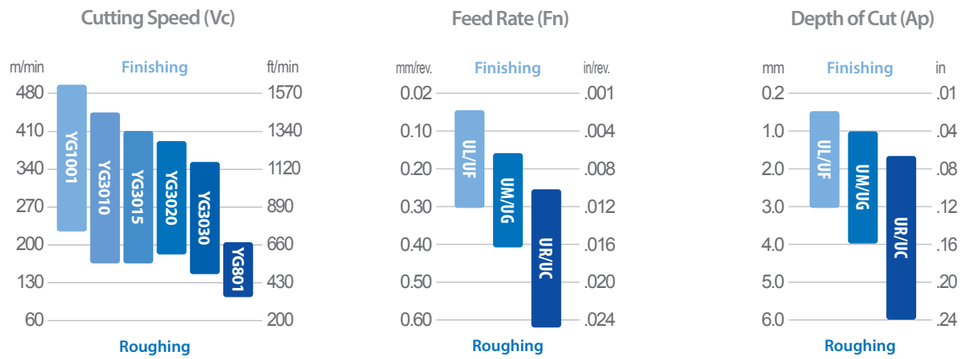
P	Non Alloy Steel, About 0.15% C (Low Carbon Steel)									
VDI	JIS	DIN	Mat'l No.	AISI/ASTM	SS	AFNOR	UNI	UNE	BS	GOST
1	S15C	CK15	1.0401	1015	1350	XC18	C15	F.1110	080M15	15



First Choice Grade and Value

YG3010 - Vc 330m/min (1,080ft/min)
YG801 - Vc 170m/min (560ft/min)

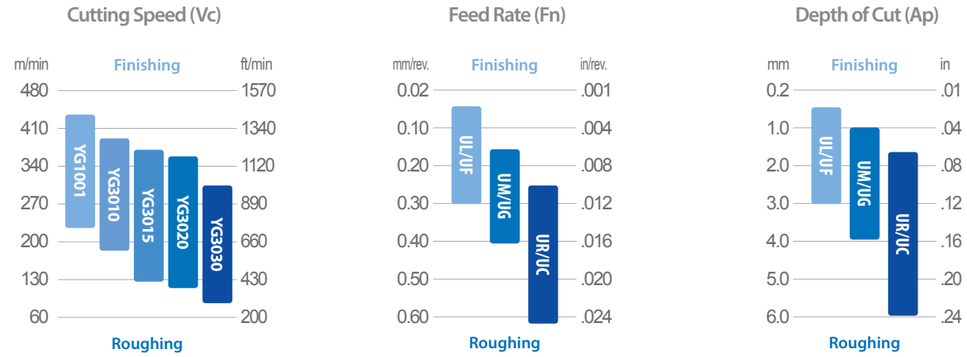
P	Non Alloy Steel, About 0.45% C (Medium Carbon Steel)									
VDI	JIS	DIN	Mat'l No.	AISI/ASTM	SS	AFNOR	UNI	UNE	BS	GOST
2~3	S45C	C45	1.0503	1045	1672	XC42H1TS	C45	F.1140	060A47	45



First Choice Grade and Value

YG3010 - Vc 330m/min (1,080ft/min)
YG801 - Vc 170m/min (560ft/min)

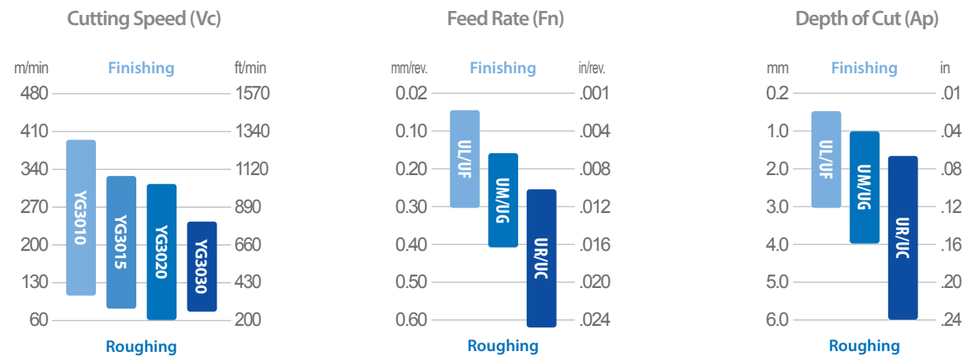
P	Low-alloyed Steel									
VDI	JIS	DIN	Mat'l No.	AISI/ASTM	SS	AFNOR	UNI	UNE	BS	GOST
6~9	SCM440	42CrMo4	1.7225	4140	2244	42 CD 4	42CrMo4	F.1252	708M40	38HM



First Choice Grade and Value

YG3020 - Vc 240m/min (790ft/min)

P	High Alloyed Steel, and Tool Steel									
VDI	JIS	DIN	Mat'l No.	AISI/ASTM	SS	AFNOR	UNI	UNE	BS	GOST
10~11	SKD11	X155CrVMo121	1.2379	D2	2310	Z160CDV12	X165CrMoW12KU	F.5318	BD2	KH12MF



First Choice Grade and Value

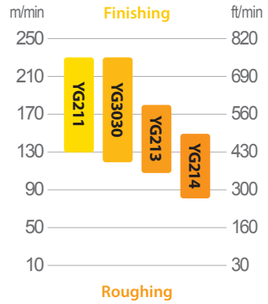
YG3020 - Vc 230m/min (750ft/min)

Application Guide

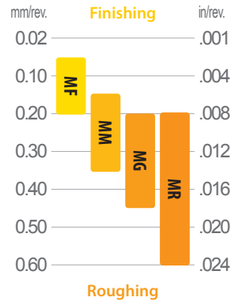
Stainless steel Guide

M	Ferritic / Martensitic Stainless									
VDI	JIS	DIN	Mat'l No.	AISI/ASTM	SS	AFNOR	UNI	UNE	BS	GOST
12~13	SUS430	X6Cr17	1.4016	430	2320	Z8C17	Z8C17	F.3113	430S15	12C17

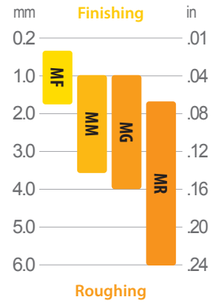
Cutting Speed (Vc)



Feed Rate (Fn)



Depth of Cut (Ap)



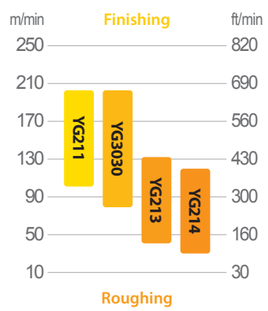
First Choice Grade and Value

Ferritic Stainless steel
YG3030 - Vc 200m/min (660ft/min)
YG213 - Vc 160m/min (520ft/min)

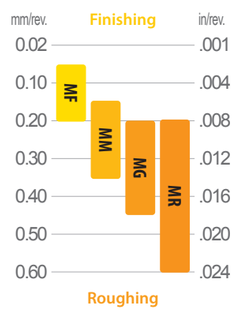
Martensitic
YG3030 - Vc 160m/min (520ft/min)
YG213 - Vc 130m/min (430ft/min)

M	Austenitic Stainless steel									
VDI	JIS	DIN	Mat'l No.	AISI/ASTM	SS	AFNOR	UNI	UNE	BS	GOST
14	SUS304	X5CrNi18 9	1.4350	304	2332	Z6CN18 09	X5CrNi18 10	F3551	304S15	03KH18N11

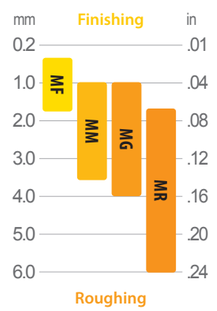
Cutting Speed (Vc)



Feed Rate (Fn)



Depth of Cut (Ap)



First Choice Grade and Value

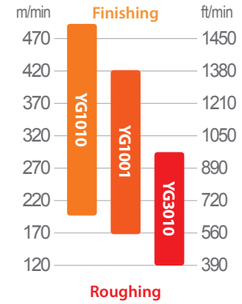
YG3030 - Vc 180m/min (590ft/min)
YG213 - Vc 140m/min (460ft/min)

Application Guide

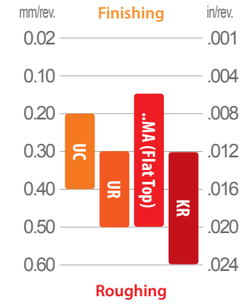
Cast iron Guide

K	Grey cast iron									
VDI	JIS	DIN	Mat'l No.	AISI/ASTM	SS	AFNOR	UNI	UNE	BS	GOST
15~16	FC250	GG25	0.6025	A48 40 B	0125	Ft 25 D	G25	FG25	Grade 260	Sc 25

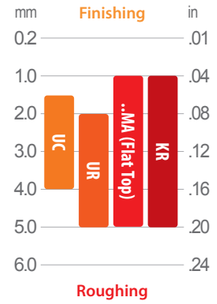
Cutting Speed (Vc)



Feed Rate (Fn)



Depth of Cut (Ap)

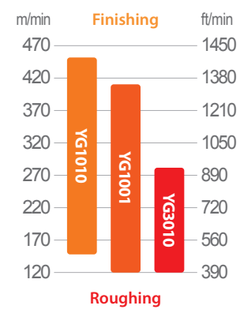


First Choice Grade and Value

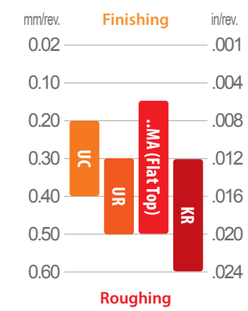
YG1010 - Vc 370m/min (1,214ft/min)

K	Nodular cast iron									
VDI	JIS	DIN	Mat'l No.	AISI/ASTM	SS	AFNOR	UNI	UNE	BS	GOST
17~18	FCD500	GGG50	0.7050	80-55-06	0.7050	FGS 500-7	GS 500-7	FGE50-7	SNG 500-7	Vc 50-2

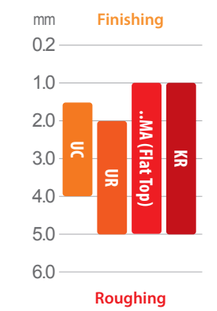
Cutting Speed (Vc)



Feed Rate (Fn)



Depth of Cut (Ap)



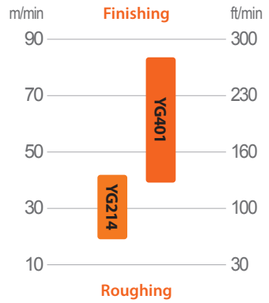
First Choice Grade and Value

YG1010 - Vc 230m/min (755ft/min)

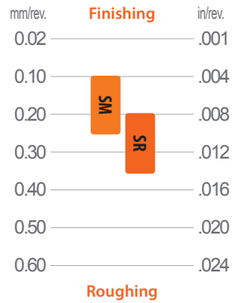
HRSA Guide

S	Superalloys & Titanium Alloys									
VDI	DIN	Mat'l No.	AISI/ASTM	AFNOR	BS	UNS	Brands	UNE	BS	GOST
31~37	NiCr19Fe19NbMo	2.4668	5383	NC19eNB	HR8	N07718	Inconel 718	F.3113	430S15	12C17

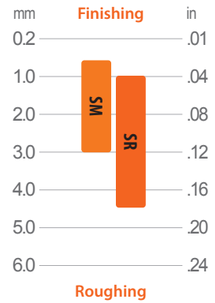
Cutting Speed (Vc)



Feed Rate (Fn)



Depth of Cut (Ap)

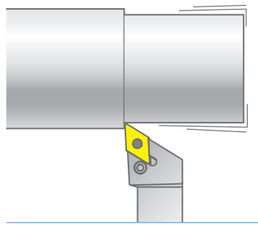
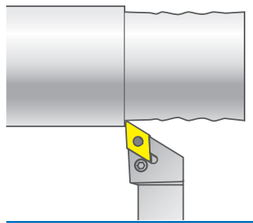


First Choice Grade and Value

YG401 - Vc 50m/min (164ft/min)

Surface Roughness Guide

Trouble Shooting

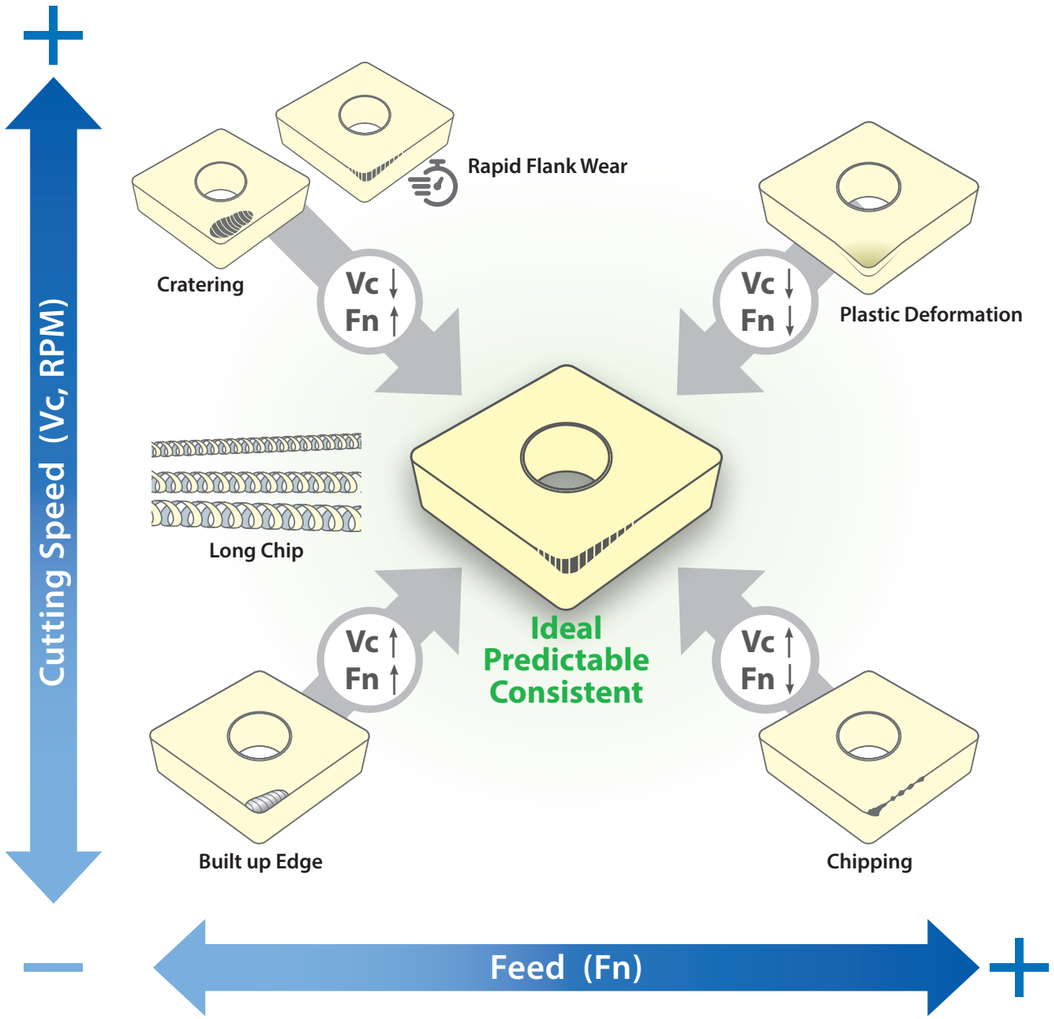
Pattern	Reasons	Solutions
Vibration 	- High radial or tangential force - Unstable condition	- Lower depth of cut (ap) - Use sharper chipbreaker - Check stability, and position of tool and workpiece - Reduce the overhang (bigger and shorter tool)
Bad Surface 	- Work material is damaged by chips - Feed is too high for corner radius	- Different chipbreaker - Lower depth of cut (ap) - Lower feed - Bigger corner radius

Theoretical Surface Roughness

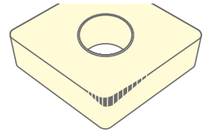
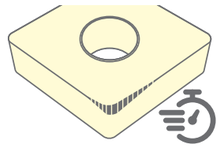
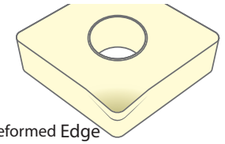
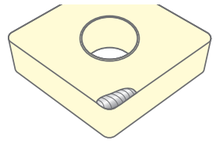
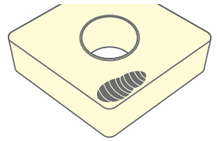
Ra / Rz µm (µ inch)	Insert Corner Radius Code ISO (ANSI) ISO ANSI					
	02 (0)	04 (1)	08 (2)	12 (3)	16 (4)	24 (6)
	Feed Rate mm/rev (inch/rev)					
0.4 / 1.6 (16 / 64)	0.05 (.002)	0.07 (.003)	0.1 (.004)	0.12 (.005)	0.14 (.006)	0.18 (.007)
1.6 / 6.3 (64 / 256)	0.1 (.004)	0.14 (.006)	0.2 (.008)	0.25 (.010)	0.28 (.011)	0.35 (.014)
3.2 / 12.5 (128 / 512)	0.14 (.006)	0.2 (.008)	0.28 (.011)	0.35 (.014)	0.4 (.016)	0.49 (.019)
6.3 / 25 (250 / 1000)	-	0.28 (.011)	0.4 (.016)	0.49 (.019)	0.57 (.022)	0.69 (.027)
8 / 32 (320 / 1280)	-	-	0.45 (.018)	0.55 (.022)	0.64 (.025)	0.78 (.031)

Trouble Shooting

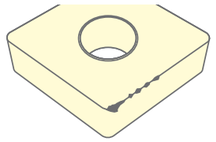
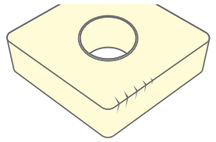
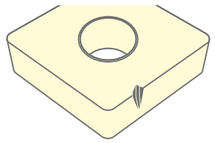
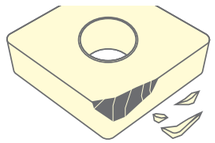
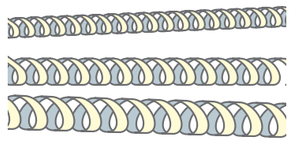
Trouble Shooting Guide map



Trouble Shooting

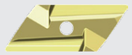
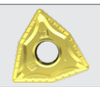
Pattern	Reasons	Solutions
General Flank Wear  Flank face near by corner is abrased	- The most ideal wear - Consistent and predictable - General wear behavior when machining condition is normal	
Rapid Flank Wear  Looks same as general flank wear, but happens quickly	**Grade** - Not enough wear resistance - Too tough grade **Heat** - Cutting speed is too high - Not enough coolant	- More wear resistant grade - Reduce the cutting speed (Vc, SFM, RPM or SFPM) - Optimize coolant - Increase Feed (Fn) if feed is low
Plastic Deformation  Deformed Edge	- Excess thermal load - Excess mechanical load	- Reduce cutting temperature - More wear resistant grade - Reduce the cutting speed (Vc, SFM, RPM or SFPM) - Lower feed (Fn) - Lower depth of cut (ap) - Optimize coolant
Built up Edge  Workpiece material is welded on the cutting edge	- Sticky materials (low carbon steel, Stainless steel, non-ferrous metal, heat resistant super alloys) - Too low cutting speed	- Increase cutting speed - Lower feed rate - Sharper chipbreaker & geometry - Use high pressure coolant - Use PVD grade - Use Positive Insert
Cratering 	**Heat** - Cutting speed is too high - Too tough grade	- Reduce cutting temperature - Lower cutting speed (Vc, SFM, RPM or SFPM) - Adjust Feed (Fn) - Harder grade

Trouble Shooting

Pattern	Reasons	Solutions
Chipping 	- Unstable machining condition (Vibration) - Grade is too hard / brittle - Grade is too sharp	- Focus on stabilizing cutting condition - Reduce overhang (shorter and bigger tool) - Tougher grade - Tougher chipbreaker
Thermal Crack 	- Thermal stress due to rapid change of temperature	- Tougher grade - Lower cutting speed (Vc, SFM, RPM or SFPM) - Lower feed (Fn) - Sharper chipbreaker - Change coolant / dry cut
Notching 	- Improved edge strength work piece has hardened skin	- More wear resistant grade -Reduce the cutting speed (Vc, SFM, RPM or SFPM) - Adjust Feed (Fn) - Lower depth of cut (ap) - Optimize coolant - Go for tougher chipbreaker
Breakage (Mechanical Fracture) 	- Mechanical load is too heavy (feed or depth is too high) - Heavy interrupted cut - Grade is too hard for work material - Unstable machining (vibration) - Cutting speed is too low - Impurities in work material	- Lower feed (Fn)or depth of cut (ap) - Tougher grade - Reduce overhang and check stability of tool and work material - Higher cutting speed (Vc, SFM, RPM or SFPM)
Long Chip 	- Feed is too low for chipbreaker - Depth of cut is too shallow for corner radius - Chip area (Fn x Ap) too low	- Higher feed - Sharper chipbreaker - Higher depth of cut - Select a smaller corner radius

Turning Inserts Overview

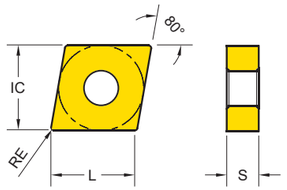
Negative Inserts

Shape		Series	Size & Thickness											Page
C		CNMA						43				54	64		26
		CNMG			32	33		43				54	64		
D		DNMA							43	44					31
		DNMG					33		43	44					
K		KNUX									1604 (mm)				35
S		SNMA						43		54			64		36
		SNMG						43							
T		TNMA									33				39
		TNMG									33			43	
		TNUX									33				43
V		VNMA									33				44
		VNMG									33				
W		WNMA		43											46
		WNMG	33	43											

Positive Inserts

Shape		Series	Size & Thickness										Page
C		CCGT	21.5		32.5			43					50
		CCMT	21.5		32.5			43					
D		DCGT	21.5		32.5								51
		DCMT	21.5		32.5								
R		RCMT	0602 (mm)	0803 (mm)		10T3 (mm)		1204 (mm)					52
S		SCGT			32.5								53
		SCMT			32.5			43					
T		TCGT					21.5		32.5				54
		TCMT					21.5		32.5				
V		VBMT								33			55
		VCGT								33			56
		VCMT								33			

CNMG / CNMA (80° Negative)



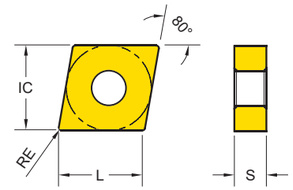
Series	L	IC	S
CN** 32	.317	3/8	1/8
CN** 33	.317	3/8	3/16
CN** 43	.472	1/2	3/16
CN** 54	.630	5/8	1/4
CN** 64	.748	3/4	1/4

EDP 2200.. ●: Stock item ○: Order made item

CNMA CNMG	Designation	RE	Fn (mm/rev.)	Ap (mm)	K10	P05 K20	P10 K30	P15	P20	P30 M20	P20	M15 S10	M30 S20	M40 S30	S10	N20	N20
					YG1010	YG1001	YG3010	YG3015	YG3020	YG3030	YG801	YG211	YG213	YG214	YG401	YG100	YG10
..MA	CNMA 431	1/64	.006 ~ .020	.02 ~ .20	● 0894	● 0089	● 0354										
Cast iron	CNMA 432	1/32	.006 ~ .020	.04 ~ .20		● 0010	● 0355										
	CNMA 433	3/64	.006 ~ .020	.06 ~ .20	● 0766	● 0011	● 0356										
	CNMA 434	1/16	.006 ~ .020	.08 ~ .20	● 1207	● 1188	● 1314										
	CNMA 543	3/64	.006 ~ .020	.06 ~ .20	● 0881	● 0012	● 0357										
	CNMA 544	1/16	.006 ~ .020	.08 ~ .20	● 0937	● 0446	● 0447										
	CNMA 643	3/64	.006 ~ .020	.06 ~ .36		● 0989	● 0990										
	CNMA 644	1/16	.006 ~ .039	.12 ~ .40	○ 1015	● 0448	● 0449										
-UF	CNMG 431 -UF	1/64	.002 ~ .010	.02 ~ .10			● 0178		● 0179	● 0180	● 0003						
Finishing	CNMG 432 -UF	1/32	.002 ~ .010	.04 ~ .10			● 0189	● 1027	● 0190	● 0191							
	CNMG 433 -UF	3/64	.002 ~ .010	.06 ~ .10			● 1349		● 1360	● 1350							

Cutting Speed			Vc (ft/min)																			
ISO	VDI	Sub Group	YG1010		YG1001		YG3010		YG3015		YG3020		YG3030		YG801		YG211		YG213		YG214		YG401		YG100		YG10	
			Min	Max	Min	Max	Min	Max	Min	Max	Min	Max	Min	Max	Min	Max	Min	Max	Min	Max	Min	Max	Min	Max	Min	Max	Min	Max
P	1~5	Non-Alloyed Steel	-	-	720	1570	560	1480	560	1340	590	1250	490	1150	390	660	-	-	-	-	-	-	-	-	-	-	-	-
P	6~9	Low-Alloyed Steel	-	-	720	1380	590	1250	430	1180	360	1150	300	980	230	660	-	-	-	-	-	-	-	-	-	-	-	-
P	10~11	High-Alloyed Steel	-	-	-	-	330	1080	260	1020	200	980	230	820	-	-	-	-	-	-	-	-	-	-	-	-	-	-
M	12~13	Ferritic & Martensitic	-	-	-	-	-	-	-	-	-	-	390	750	-	-	430	750	360	590	260	490	-	-	-	-	-	-
M	14	Austenitic Stainless Steel	-	-	-	-	-	-	-	-	-	-	260	660	-	-	330	660	130	430	100	390	-	-	-	-	-	-
K	15~16	Grey Cast Iron	660	1570	560	1380	390	980	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
K	17~18	Nodular Cast Iron	490	1480	390	1340	390	920	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
N	21~30	Non-Ferrous Metals (Al)	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	1150	3940	820	2620
S	31~37	Superalloys & Titanium	-	-	-	-	-	-	-	-	-	-	110	260	-	-	100	300	70	130	70	130	130	280	-	-	-	-
H	38~41	Hard Materials	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-

CNMG / CNMA (80° Negative)



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CN** 32	.317	3/8	1/8
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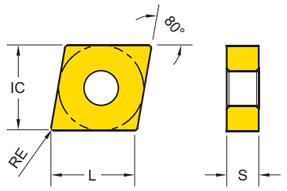
EDP 2200.. ●: Stock item ○: Order made item

CNMG	Designation	RE	Fn (mm/rev.)	Ap (mm)	K10	P05 K20	P10 K30	P15	P20	P30 M20	P20	M15 S10	M30 S20	M40 S30	S10	N20	N20
					YG1010	YG1001	YG3010	YG3015	YG3020	YG3030	YG801	YG211	YG213	YG214	YG401	YG100	YG10
-UL	CNMG 322 -UL	1/32	.004 ~ .012	.04 ~ .10			● 1211		● 1328	● 1212							
Light Machining and Sticky Material	CNMG 323 -UL	3/64	.004 ~ .012	.06 ~ .10			● 1274		● 1270								
	CNMG 332 -UL	1/32	.004 ~ .012	.04 ~ .10			● 1338		● 1335								
	CNMG 333 -UL	3/64	.004 ~ .012	.06 ~ .10			● 1339		● 1336								
	CNMG 431 -UL	1/64	.004 ~ .012	.02 ~ .12			● 0358		● 0359	● 0524							
	CNMG 432 -UL	1/32	.004 ~ .012	.04 ~ .12			● 0192		● 0193	● 0194							
	CNMG 433 -UL	3/64	.004 ~ .012	.06 ~ .12			● 0201		● 0202	● 0203							
-UM	CNMG 431 -UM	1/64	.006 ~ .012	.02 ~ .12		● 1074	● 0184		● 0185	● 0186							
Medium Machining Unstable condition	CNMG 432 -UM	1/32	.006 ~ .012	.04 ~ .12	● 0897	● 0338	● 0114	● 0843	● 0100	● 0140							
	CNMG 433 -UM	3/64	.006 ~ .012	.06 ~ .12		● 1075	● 0525		● 0486	● 0526							
-UG	CNMG 431 -UG	1/64	.008 ~ .016	.02 ~ .12		● 1073	● 0181		● 0182	● 0183							
Medium Machining at stable condition	CNMG 432 -UG	1/32	.008 ~ .016	.04 ~ .12	● 0896	● 0337	● 0113	● 1001	● 0099	● 0139	● 0001						
	CNMG 433 -UG	3/64	.008 ~ .016	.06 ~ .12		● 0685	● 0198		● 0199	● 0200							
	CNMG 542 -UG	1/32	.008 ~ .016	.06 ~ .20		● 1077	● 1078		● 0748	● 0749							
	CNMG 543 -UG	3/64	.008 ~ .016	.06 ~ .20		● 0791	● 0530		● 0508	● 0531							
	CNMG 544 -UG	1/16	.012 ~ .020	.08 ~ .20		● 1229	● 0534		● 0510	● 0535							
	CNMG 642 -UG	1/32	.008 ~ .024	.04 ~ .24			● 0801		● 0802	● 0803							

Cutting Speed			Vc (ft/min)																			
ISO	VDI	Sub Group	YG1010		YG1001		YG3010		YG3015		YG3020		YG3030		YG801		YG211		YG213		YG214		YG401		YG100		YG10	
			Min	Max	Min	Max	Min	Max	Min	Max	Min	Max	Min	Max	Min	Max	Min	Max	Min	Max	Min	Max	Min	Max	Min	Max	Min	Max
P	1~5	Non-Alloyed Steel	-	-	720	1570	560	1480	560	1340	590	1250	490	1150	390	660	-	-	-	-	-	-	-	-	-	-	-	-
P	6~9	Low-Alloyed Steel	-	-	720	1380	590	1250	430	1180	360	1150	300	980	230	660	-	-	-	-	-	-	-	-	-	-	-	-
P	10~11	High-Alloyed Steel	-	-	-	-	330	1080	260	1020	200	980	230	820	-	-	-	-	-	-	-	-	-	-	-	-	-	-
M	12~13	Ferritic & Martensitic	-	-	-	-	-	-	-	-	-	-	390	750	-	-	430	750	360	590	260	490	-	-	-	-	-	-
M	14	Austenitic Stainless Steel	-	-	-	-	-	-	-	-	-	-	260	660	-	-	330	660	130	430	100	390	-	-	-	-	-	-
K	15~16	Grey Cast Iron	660	1570	560	1380	390	980	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
K	17~18	Nodular Cast Iron	490	1480	390	1340	390	920	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
N	21~30	Non-Ferrous Metals (Al)	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	1150	3940	820	2620
S	31~37	Superalloys & Titanium	-	-	-	-	-	-	-	-	-	-	110	260	-	-	100	300	70	130	70	130	130	280	-	-	-	-
H	38~41	Hard Materials	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-

CNMG / CNMA (80° Negative)



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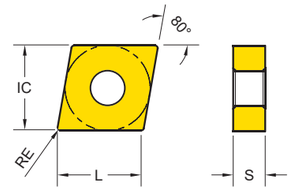
CNMG		Designation	RE	Fn (mm/rev.)	Ap (mm)	K10	P05 K20	P10 K30	P15	P20	P30 M20	P20	M15 S10	M30 S20	M40 S30	S10	N20	N20
						YG1010	YG1001	YG3010	YG3015	YG3020	YG3030	YG801	YG211	YG213	YG214	YG401	YG100	YG10
-UC	Cast iron and Medium roughing	CNMG 431 -UC	1/64	.008 ~ .016	.02 ~ .16	● 0895	● 0096	● 0115		● 0101	● 0116							
		CNMG 432 -UC	1/32	.008 ~ .016	.04 ~ .16	● 1483	● 0062	● 0117		● 0102	● 0118							
		CNMG 433 -UC	3/64	.008 ~ .016	.06 ~ .16	● 0873	● 0088	● 0119		● 0103	● 0120							
-UR	Roughing	CNMG 432 -UR	1/32	.012 ~ .020	.04 ~ .20	● 1536	● 1050	● 0195		● 0196	● 0197							
		CNMG 433 -UR	3/64	.012 ~ .020	.06 ~ .20	● 0878	● 1051	● 0204		● 0205	● 0206	● 0004						
		CNMG 434 -UR	1/16	.012 ~ .020	.08 ~ .20		● 1076	● 0707		● 0623	● 0847							
		CNMG 542 -UR	1/32	.012 ~ .020	.04 ~ .20		● 1079	● 1080		● 0750	● 0751							
		CNMG 543 -UR	3/64	.012 ~ .020	.06 ~ .20		● 0792	● 0532		● 0509	● 0533							
		CNMG 544 -UR	1/16	.012 ~ .020	.08 ~ .20	● 0938	● 0676	● 0536		● 0511	● 0537							
		CNMG 642 -UR	1/32	.012 ~ .031	.12 ~ .36			● 0804		● 0805	● 0806							
		CNMG 643 -UR	3/64	.012 ~ .031	.12 ~ .36		● 0450	● 0451		● 0698	● 0699							
		CNMG 644 -UR	1/16	.012 ~ .031	.12 ~ .36		● 0480	● 0481		● 0734	● 0735							

Cutting Speed			Vc (ft/min)																			
ISO	VDI	Sub Group	YG1010		YG1001		YG3010		YG3015		YG3020		YG3030		YG801		YG211		YG213		YG214		YG401		YG100		YG10	
			Min	Max	Min	Max	Min	Max	Min	Max	Min	Max	Min	Max	Min	Max	Min	Max	Min	Max	Min	Max	Min	Max	Min	Max	Min	Max
P	1~5	Non-Alloyed Steel	-	-	720	1570	560	1480	560	1340	590	1250	490	1150	390	660	-	-	-	-	-	-	-	-	-	-	-	-
	6~9	Low-Alloyed Steel	-	-	720	1380	590	1250	430	1180	360	1150	300	980	230	660	-	-	-	-	-	-	-	-	-	-	-	-
	10~11	High-Alloyed Steel	-	-	-	-	330	1080	260	1020	200	980	230	820	-	-	-	-	-	-	-	-	-	-	-	-	-	-
M	12~13	Ferritic & Martensitic	-	-	-	-	-	-	-	-	-	-	390	750	-	-	430	750	360	590	260	490	-	-	-	-	-	-
	14	Austenitic Stainless Steel	-	-	-	-	-	-	-	-	-	-	260	660	-	-	330	660	130	430	100	390	-	-	-	-	-	-
K	15~16	Grey Cast Iron	660	1570	560	1380	390	980	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	17~18	Nodular Cast Iron	490	1480	390	1340	390	920	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
N	21~30	Non-Ferrous Metals (Al)	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	1150	3940	820	2620
S	31~37	Superalloys & Titanium	-	-	-	-	-	-	-	-	-	-	110	260	-	-	100	300	70	130	70	130	130	280	-	-	-	-
H	38~41	Hard Materials	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-

CNMG / CNMA (80° Negative)



Series	L	IC	S
CN** 32	.317	3/8	1/8
CN** 33	.317	3/8	3/16
CN** 43	.472	1/2	3/16
CN** 54	.630	5/8	1/4
CN** 64	.748	3/4	1/4

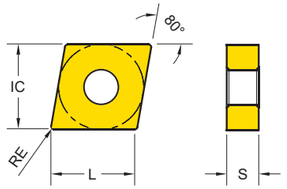
EDP 2200.. ●: Stock item ○: Order made item

CNMG		Designation	RE	Fn (mm/rev.)	Ap (mm)	K10	P05 K20	P10 K30	P15	P20	P30 M20	P20	M15 S10	M30 S20	M40 S30	S10	N20	N20
						YG1010	YG1001	YG3010	YG3015	YG3020	YG3030	YG801	YG211	YG213	YG214	YG401	YG100	YG10
-MF	Stainless steel Finishing	CNMG 431 -MF	1/64	.003 ~ .012	.01 ~ .06						● 1237		● 0609	● 0613				
		CNMG 432 -MF	1/32	.003 ~ .012	.01 ~ .06						● 0652		● 0538	● 0539	● 0627			
		CNMG 433 -MF	3/64	.003 ~ .012	.01 ~ .06						● 1025							
-MM	Stainless steel Medium	CNMG 431 -MM	1/64	.008 ~ .014	.02 ~ .14								● 0547	● 0548				
		CNMG 432 -MM	1/32	.008 ~ .014	.04 ~ .14					● 0360	● 0188	○ 0187	● 0494	● 0495	● 0607			
		CNMG 433 -MM	3/64	.008 ~ .014	.06 ~ .14						● 0521		● 0549	● 0550	● 0626			
-MG	Medium Machining at stable condition	CNMG 432 -MG	1/32	.008 ~ .016	.04 ~ .16								● 1490	● 1491				
		CNMG 433 -MG	3/64	.008 ~ .016	.06 ~ .16								● 1493	● 1494				
-MR	Stainless steel Roughing	CNMG 432 -MR	1/32	.012 ~ .022	.08 ~ .22						● 0594		● 0540	● 0541	● 0608			
		CNMG 433 -MR	3/64	.012 ~ .022	.08 ~ .22						● 0840		● 0610	● 0614	● 0628			
-KR	Cast Iron Heavy Roughing	CNMG 432 -KR	1/32	.012 ~ .024	.04 ~ .20		● 0718	● 0800										
		CNMG 433 -KR	3/64	.012 ~ .024	.06 ~ .20	● 0879	● 0719	● 1100										

Cutting Speed			Vc (ft/min)																			
ISO	VDI	Sub Group	YG1010		YG1001		YG3010		YG3015		YG3020		YG3030		YG801		YG211		YG213		YG214		YG401		YG100		YG10	
			Min	Max	Min	Max	Min	Max	Min	Max	Min	Max	Min	Max	Min	Max	Min	Max	Min	Max	Min	Max	Min	Max	Min	Max	Min	Max
P	1~5	Non-Alloyed Steel	-	-	720	1570	560	1480	560	1340	590	1250	490	1150	390	660	-	-	-	-	-	-	-	-	-	-	-	-
	6~9	Low-Alloyed Steel	-	-	720	1380	590	1250	430	1180	360	1150	300	980	230	660	-	-	-	-	-	-	-	-	-	-	-	-
	10~11	High-Alloyed Steel	-	-	-	-	330	1080	260	1020	200	980	230	820	-	-	-	-	-	-	-	-	-	-	-	-	-	-
M	12~13	Ferritic & Martensitic	-	-	-	-	-	-	-	-	-	-	390	750	-	-	430	750	360	590	260	490	-	-	-	-	-	-
	14	Austenitic Stainless Steel	-	-	-	-	-	-	-	-	-	-	260	660	-	-	330	660	130	430	100	390	-	-	-	-	-	-
K	15~16	Grey Cast Iron	660	1570	560	1380	390	980	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	17~18	Nodular Cast Iron	490	1480	390	1340	390	920	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
N	21~30	Non-Ferrous Metals (Al)	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	1150	3940	820	2620
S	31~37	Superalloys & Titanium	-	-	-	-	-	-	-	-	-	-	110	260	-	-	100	300	70	130	70	130	130	280	-	-	-	-
H	38~41	Hard Materials	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-

Turning Inserts - Negative

CNMG / CNMA (80° Negative)



Series	L	IC	S
CN** 32	.317	3/8	1/8
CN** 33	.317	3/8	3/16
CN** 43	.472	1/2	3/16
CN** 54	.630	5/8	1/4
CN** 64	.748	3/4	1/4

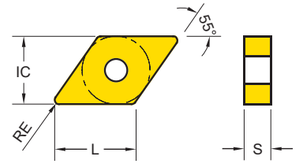
EDP 2200.. ●: Stock item ○: Order made item

CNMG		Designation	RE	Fn (mm/rev.)	Ap (mm)	K10	P05 K20	P10 K30	P15	P20	P30 M20	P20	M15 S10	M30 S20	M40 S30	S10	N20	N20
						YG1010	YG1001	YG3010	YG3015	YG3020	YG3030	YG801	YG211	YG213	YG214	YG401	YG100	YG10
- SM	 HRSA Medium	CNMG 432 -SM	1/32	.004~.010	.02~.16								● 1088	● 1089		● 1189		
		CNMG 433 -SM	3/64	.004~.010	.02~.16								● 1373	● 1394		● 1292		
- SR	 HRSA Roughing	CNMG 432 -SR	1/32	.004~.016	.02~.16											● 0945		
		CNMG 433 -SR	3/64	.004~.016	.02~.16											● 1279		

Cutting Speed			Vc (ft/min)																			
ISO	VDI	Sub Group	YG1010		YG1001		YG3010		YG3015		YG3020		YG3030		YG801		YG211		YG213		YG214		YG401		YG100		YG10	
			Min	Max	Min	Max	Min	Max	Min	Max	Min	Max	Min	Max	Min	Max	Min	Max	Min	Max	Min	Max	Min	Max	Min	Max	Min	Max
P	1~5	Non-Alloyed Steel	-	-	720	1570	560	1480	560	1340	590	1250	490	1150	390	660	-	-	-	-	-	-	-	-	-	-	-	-
P	6~9	Low-Alloyed Steel	-	-	720	1380	590	1250	430	1180	360	1150	300	980	230	660	-	-	-	-	-	-	-	-	-	-	-	-
P	10~11	High-Alloyed Steel	-	-	-	-	330	1080	260	1020	200	980	230	820	-	-	-	-	-	-	-	-	-	-	-	-	-	-
M	12~13	Ferritic & Martensitic	-	-	-	-	-	-	-	-	-	-	390	750	-	-	430	750	360	590	260	490	-	-	-	-	-	-
M	14	Austenitic Stainless Steel	-	-	-	-	-	-	-	-	-	-	260	660	-	-	330	660	130	430	100	390	-	-	-	-	-	-
K	15~16	Grey Cast Iron	660	1570	560	1380	390	980	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
K	17~18	Nodular Cast Iron	490	1480	390	1340	390	920	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
N	21~30	Non-Ferrous Metals (Al)	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	1150	3940	820	2620
S	31~37	Superalloys & Titanium	-	-	-	-	-	-	-	-	-	-	110	260	-	-	100	300	70	130	70	130	130	280	-	-	-	-
H	38~41	Hard Materials	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-

Turning Inserts - Negative

DNMG / DNMA (55° Negative)



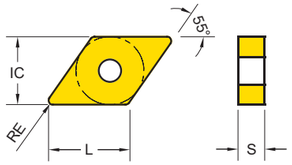
Series	L	IC	S
DN.. 33	.381	3/8	3/16
DN.. 43	.551	1/2	3/16
DN.. 44	.551	1/2	1/4

EDP 2200.. ●: Stock item ○: Order made item

DNMA DNMG		Designation	RE	Fn (mm/rev.)	Ap (mm)	K10	P05 K20	P10 K30	P15	P20	P30 M20	P20	M15 S10	M30 S20	M40 S30	S10	N20	N20
						YG1010	YG1001	YG3010	YG3015	YG3020	YG3030	YG801	YG211	YG213	YG214	YG401	YG100	YG10
..MA	 Cast iron	DNMA 431	1/64	.004~.020	.04~.20		● 1505	● 1506										
		DNMA 432	1/32	.006~.020	.04~.20		● 0573	● 0574										
		DNMA 433	3/64	.006~.020	.06~.20	● 1421	● 0575	● 0576										
		DNMA 441	1/64	.004~.020	.04~.20		● 1445	● 1447										
		DNMA 442	1/32	.006~.020	.04~.20		● 0091	● 1129										
		DNMA 443	3/64	.006~.020	.06~.20	● 1422	● 0092	● 1130										
-UF	 Finishing	DNMG 431 -UF	1/64	.002~.010	.02~.10			● 0363		● 0364	● 0365	● 0016						
		DNMG 432 -UF	1/32	.002~.010	.04~.10			● 0856	● 1030	● 0774	● 0857							
		DNMG 433 -UF	3/64	.002~.010	.06~.10			● 1450		● 1368	● 1383							
		DNMG 441 -UF	1/64	.002~.010	.04~.08			● 0225		● 0226	● 0227	● 0018						
		DNMG 442 -UF	1/32	.002~.010	.06~.14			● 0231		● 0232	● 0233							
		DNMG 443 -UF	3/64	.002~.010	.06~.10			● 1385		● 1369	● 1386							
-UL	 Light Machining and Sticky Material	DNMG 331 -UL	1/64	.004~.012	.02~.10			● 1239		● 1240	● 1241							
		DNMG 332 -UL	1/32	.004~.012	.04~.10			● 1242		● 1243	● 1244							
		DNMG 431 -UL	1/64	.004~.012	.02~.12			● 0686		● 0687	● 0708							
		DNMG 432 -UL	1/32	.004~.012	.04~.12			● 0489	● 1028	● 0504	● 0505							
		DNMG 433 -UL	3/64	.004~.012	.06~.12			● 0709	● 1029	● 1108	● 1109							
		DNMG 441 -UL	1/64	.004~.012	.02~.12			● 0369		● 0370	● 1110							
		DNMG 442 -UL	1/32	.004~.012	.06~.12			● 0237		● 0238	● 0239							
		DNMG 443 -UL	3/64	.004~.012	.06~.12			● 0246		● 0247	● 0248							

Cutting Speed			Vc (ft/min)																			
ISO	VDI	Sub Group	YG1010		YG1001		YG3010		YG3015		YG3020		YG3030		YG801		YG211		YG213		YG214		YG401		YG100		YG10	
			Min	Max	Min	Max	Min	Max	Min	Max	Min	Max	Min	Max	Min	Max	Min	Max	Min	Max	Min	Max	Min	Max	Min	Max	Min	Max
P	1~5	Non-Alloyed Steel	-	-	720	1570	560	1480	560	1340	590	1250	490	1150	390	660	-	-	-	-	-	-	-	-	-	-	-	-
P	6~9	Low-Alloyed Steel	-	-	720	1380	590	1250	430	1180	360	1150	300	980	230	660	-	-	-	-	-	-	-	-	-	-	-	-
P	10~11	High-Alloyed Steel	-	-	-	-	330	1080	260	1020	200	980	230	820	-	-	-	-	-	-	-	-	-	-	-	-	-	-
M	12~13	Ferritic & Martensitic	-	-	-	-	-	-	-	-	-	-	390	750	-	-	430	750	360	590	260	490	-	-	-	-	-	-
M	14	Austenitic Stainless Steel	-	-	-	-	-	-	-	-	-	-	260	660	-	-	330	660	130	430	100	390	-	-	-	-	-	-
K	15~16	Grey Cast Iron	660	1570	560	1380	390	980	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
K	17~18	Nodular Cast Iron	490	1480	390	1340	390	920	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
N	21~30	Non-Ferrous Metals (Al)	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	1150	3940	820	2620
S	31~37	Superalloys & Titanium	-	-	-	-	-	-	-	-	-	-	110	260	-	-	100	300	70	130	70	130	130	280	-	-	-	-
H	38~41	Hard Materials	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-

DNMG / DNMA (55° Negative)



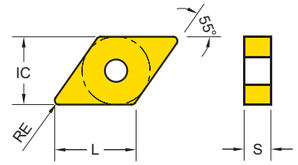
Series	L	IC	S
DN.. 33	.381	3/8	3/16
DN.. 43	.551	1/2	3/16
DN.. 44	.551	1/2	1/4

EDP 2200.. ●: Stock item ○: Order made item

						K10	P05 K20	P10 K30	P15	P20	P30 M20	P20	M15 S10	M30 S20	M40 S30	S10	N20	N20
DNMG		Designation	RE	Fn (mm/rev.)	Ap (mm)	YG1010	YG1001	YG3010	YG3015	YG3020	YG3030	YG801	YG211	YG213	YG214	YG401	YG100	YG10
-UM	Medium Machining Unstable condition	DNMG 432 -UM	1/32	.006 ~ .012	.04 ~ .12		● 1106	● 0688		● 0689	● 0701							
		DNMG 433 -UM	3/64	.006 ~ .012	.06 ~ .12		● 0604	● 0512		● 0488	● 0705							
		DNMG 441 -UM	1/64	.006 ~ .012	.02 ~ .12		● 1408	● 1436		● 1409	● 1425							
		DNMG 442 -UM	1/32	.006 ~ .012	.04 ~ .12		● 1128	● 0240		● 0241	● 0242							
		DNMG 443 -UM	3/64	.006 ~ .012	.06 ~ .12		● 1149	● 1132		● 0695	● 0706							
-UG	Medium Machining at stable condition	DNMG 431 -UG	1/64	.008 ~ .016	.02 ~ .12			● 1131		● 0772	● 1137							
		DNMG 432 -UG	1/32	.008 ~ .016	.04 ~ .12		● 0452	● 0366		● 0367	● 0368	● 0017						
		DNMG 433 -UG	3/64	.008 ~ .016	.06 ~ .12	● 1514	● 0703	● 1107		● 0487	● 0704							
		DNMG 441 -UG	1/64	.008 ~ .016	.02 ~ .12			● 0228		● 0229	● 0230							
		DNMG 442 -UG	1/32	.008 ~ .016	.04 ~ .12		● 0453	● 0234		● 0235	● 0236	● 0019						
		DNMG 443 -UG	3/64	.008 ~ .016	.06 ~ .12	● 1511	● 0454	● 0243		● 0244	● 0245							
-UC	Cast iron and Medium roughing	DNMG 432 -UC	1/32	.008 ~ .016	.04 ~ .16		● 0577	● 0578	● 1273	● 1193	● 0700							
		DNMG 433 -UC	3/64	.008 ~ .016	.06 ~ .16	● 1512	● 0579	● 0580		● 1168	● 0702							
		DNMG 442 -UC	1/32	.008 ~ .016	.04 ~ .16	● 0898	● 0090	● 0121	● 1272	● 0104	● 0122							
		DNMG 443 -UC	3/64	.008 ~ .016	.06 ~ .16	● 1509	● 0098	● 0123		● 0105	● 0124							
-UR	Roughing	DNMG 432 -UR	1/32	.012 ~ .020	.04 ~ .20		● 1095	● 0585		● 1096	● 1097							
		DNMG 433 -UR	3/64	.012 ~ .020	.06 ~ .20	● 1513	● 1127	● 0581		● 1134	● 1101							
		DNMG 442 -UR	1/32	.012 ~ .020	.04 ~ .20		● 0691	● 0692		● 0693	● 0854							
		DNMG 443 -UR	3/64	.012 ~ .020	.06 ~ .20	● 1510	● 1258	● 0371		● 0372	● 0373	● 0020						

Cutting Speed			Vc (ft/min)																			
ISO	VDI	Sub Group	YG1010		YG1001		YG3010		YG3015		YG3020		YG3030		YG801		YG211		YG213		YG214		YG401		YG100		YG10	
			Min	Max	Min	Max	Min	Max	Min	Max	Min	Max	Min	Max	Min	Max	Min	Max	Min	Max	Min	Max	Min	Max	Min	Max	Min	Max
P	1~5	Non-Alloyed Steel	-	-	720	1570	560	1480	560	1340	590	1250	490	1150	390	660	-	-	-	-	-	-	-	-	-	-	-	-
	6~9	Low-Alloyed Steel	-	-	720	1380	590	1250	430	1180	360	1150	300	980	230	660	-	-	-	-	-	-	-	-	-	-	-	-
	10~11	High-Alloyed Steel	-	-	-	-	330	1080	260	1020	200	980	230	820	-	-	-	-	-	-	-	-	-	-	-	-	-	-
M	12~13	Ferritic & Martensitic	-	-	-	-	-	-	-	-	-	-	390	750	-	-	430	750	360	590	260	490	-	-	-	-	-	-
	14	Austenitic Stainless Steel	-	-	-	-	-	-	-	-	-	-	260	660	-	-	330	660	130	430	100	390	-	-	-	-	-	-
K	15~16	Grey Cast Iron	660	1570	560	1380	390	980	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	17~18	Nodular Cast Iron	490	1480	390	1340	390	920	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
N	21~30	Non-Ferrous Metals (Al)	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	1150	3940	820	2620
S	31~37	Superalloys & Titanium	-	-	-	-	-	-	-	-	-	-	110	260	-	-	100	300	70	130	70	130	130	280	-	-	-	-
H	38~41	Hard Materials	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-

YG TURN INCH
Turning Inserts - Negative
DNMG / DNMA (55° Negative)



Series	L	IC	S
DN.. 33	.381	3/8	3/16
DN.. 43	.551	1/2	3/16
DN.. 44	.551	1/2	1/4

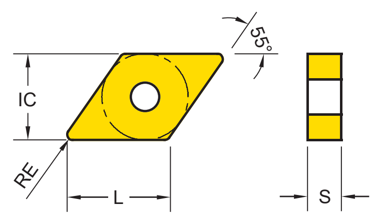
EDP 2200.. ●: Stock item ○: Order made item

						K10	P05 K20	P10 K30	P15	P20	P30 M20	P20	M15 S10	M30 S20	M40 S30	S10	N20	N20
DNMG		Designation	RE	Fn (mm/rev.)	Ap (mm)	YG1010	YG1001	YG3010	YG3015	YG3020	YG3030	YG801	YG211	YG213	YG214	YG401	YG100	YG10
-MF	Stainless steel Finishing	DNMG 431 -MF	1/64	.003 ~ .012	.01 ~ .06								● 0848	● 0771				
		DNMG 432 -MF	1/32	.003 ~ .012	.01 ~ .06						● 0807		● 0849	● 0773				
		DNMG 441 -MF	1/64	.003 ~ .012	.01 ~ .06								● 0811	● 0850				
		DNMG 442 -MF	1/32	.003 ~ .012	.01 ~ .06						● 0813		● 0812	● 0859				
-MM	Stainless steel Medium	DNMG 431 -MM	1/64	.008 ~ .014	.02 ~ .14						● 0527		● 0551	● 0552				
		DNMG 432 -MM	1/32	.008 ~ .014	.04 ~ .14						● 0506		● 0513	● 0514				
		DNMG 433 -MM	3/64	.008 ~ .014	.06 ~ .14						● 0529		● 0561	● 0562				
		DNMG 441 -MM	1/64	.008 ~ .014	.02 ~ .14						● 0528		● 0553	● 0554				
		DNMG 442 -MM	1/32	.008 ~ .014	.04 ~ .14						● 0507		● 0515	● 0516	● 0690			
		DNMG 443 -MM	3/64	.008 ~ .014	.06 ~ .14						● 0496		● 0563	● 0564				
-MR	Stainless steel Roughing	DNMG 432 -MR	1/32	.012 ~ .022	.08 ~ .22						● 1036		● 0914	● 0808	● 0809			
		DNMG 433 -MR	3/64	.012 ~ .022	.08 ~ .22								● 0929	● 0930	● 0810			
		DNMG 442 -MR	1/32	.012 ~ .022	.08 ~ .22						● 1037		● 0860	● 0814	● 0815			
		DNMG 443 -MR	3/64	.012 ~ .022	.08 ~ .22								● 0861	● 0862	● 0816			

Cutting Speed			Vc (ft/min)																			
ISO	VDI	Sub Group	YG1010		YG1001		YG3010		YG3015		YG3020		YG3030		YG801		YG211		YG213		YG214		YG401		YG100		YG10	
			Min	Max	Min	Max	Min	Max	Min	Max	Min	Max	Min	Max	Min	Max	Min	Max	Min	Max	Min	Max	Min	Max	Min	Max	Min	Max
P	1~5	Non-Alloyed Steel	-	-	720	1570	560	1480	560	1340	590	1250	490	1150	390	660	-	-	-	-	-	-	-	-	-	-	-	-
	6~9	Low-Alloyed Steel	-	-	720	1380	590	1250	430	1180	360	1150	300	980	230	660	-	-	-	-	-	-	-	-	-	-	-	-
	10~11	High-Alloyed Steel	-	-	-	-	330	1080	260	1020	200	980	230	820	-	-	-	-	-	-	-	-	-	-	-	-	-	-
M	12~13	Ferritic & Martensitic	-	-	-	-	-	-	-	-	-	-	390	750	-	-	430	750	360	590	260	490	-	-	-	-	-	-
	14	Austenitic Stainless Steel	-	-	-	-	-	-	-	-	-	-	260	660	-	-	330	660	130	430	100	390	-	-	-	-	-	-
K	15~16	Grey Cast Iron	660	1570	560	1380	390	980	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	17~18	Nodular Cast Iron	490	1480	390	1340	390	920	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
N	21~30	Non-Ferrous Metals (Al)	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	1150	3940	820	2620
S	31~37	Superalloys & Titanium	-	-	-	-	-	-	-	-	-	-	110	260	-	-	100	300	70	130	70	130	130	280	-	-	-	-
H	38~41	Hard Materials	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-

Turning Inserts - Negative

DNMG / DNMA (55˚ Negative)



Series	L	IC	S
DN.. 33	.381	3/8	3/16
DN.. 43	.551	1/2	3/16
DN.. 44	.551	1/2	1/4

EDP 2200..

●: Stock item ○: Order made item

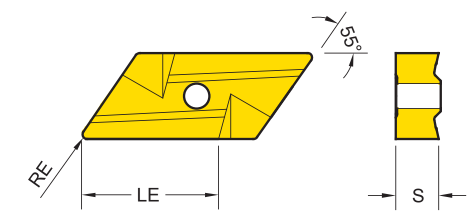
DNMG	Designation	RE	Fn (mm/rev.)	Ap (mm)	YG1010 (K10)	YG1001 (P05/K20)	YG3010 (P10/K30)	YG3015 (P15)	YG3020 (P20)	YG3030 (P30/M20)	YG801 (P20)	YG211 (M15/S10)	YG213 (M30/S20)	YG214 (M40/S30)	YG401 (S10)	YG100 (N20)	YG10 (N20)
-SM  HRSA Medium	DNMG 432 -SM	1/32	.004 ~ .010	.02 ~ .16								● 1417	● 1412		● 1300		
	DNMG 433 -SM	3/64	.004 ~ .010	.02 ~ .16								● 1419	● 1413		● 1303		
	DNMG 442 -SM	1/32	.004 ~ .010	.02 ~ .16								● 1418	● 1414		● 1301		
	DNMG 443 -SM	3/64	.004 ~ .010	.02 ~ .16								● 1420	● 1415		● 1302		
-SR  HRSA Roughing	DNMG 432 -SR	1/32	.004 ~ .016	.02 ~ .16											● 1298		
	DNMG 433 -SR	3/64	.004 ~ .016	.02 ~ .16											● 1297		
	DNMG 442 -SR	1/32	.004 ~ .016	.02 ~ .16											● 1280		
	DNMG 443 -SR	3/64	.004 ~ .010	.02 ~ .16											● 1299		

Cutting Speed			Vc (ft/min)																								
ISO	VDI	Sub Group	YG1010		YG1001		YG3010		YG3015		YG3020		YG3030		YG801		YG211		YG213		YG214		YG401		YG100		YG10	
			Min	Max	Min	Max	Min	Max	Min	Max	Min	Max	Min	Max	Min	Max	Min	Max	Min	Max	Min	Max	Min	Max	Min	Max	Min	Max
P	1~5	Non-Alloyed Steel	-	-	720	1570	560	1480	560	1340	590	1250	490	1150	390	660	-	-	-	-	-	-	-	-	-	-	-	-
P	6~9	Low-Alloyed Steel	-	-	720	1380	590	1250	430	1180	360	1150	300	980	230	660	-	-	-	-	-	-	-	-	-	-	-	-
P	10~11	High-Alloyed Steel	-	-	-	-	330	1080	260	1020	200	980	230	820	-	-	-	-	-	-	-	-	-	-	-	-	-	-
M	12~13	Ferritic & Martensitic	-	-	-	-	-	-	-	-	-	-	390	750	-	-	430	750	360	590	260	490	-	-	-	-	-	-
M	14	Austenitic Stainless Steel	-	-	-	-	-	-	-	-	-	-	260	660	-	-	330	660	130	430	100	390	-	-	-	-	-	-
K	15~16	Grey Cast Iron	660	1570	560	1380	390	980	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
K	17~18	Nodular Cast Iron	490	1480	390	1340	390	920	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
N	21~30	Non-Ferrous Metals (Al)	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	1150	3940	820	2620
S	31~37	Superalloys & Titanium	-	-	-	-	-	-	-	-	-	-	110	260	-	-	100	300	70	130	70	130	130	280	-	-	-	-
H	38~41	Hard Materials	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-

phone:+82-32-526-0909, www.yg1.kr, E-mail:yg1@yg1.kr

Turning Inserts - Negative

KNUX (55˚ - 2 Corners Single Side)



Series	LE	S
KN** 1604	.591	3/16

EDP 2200..

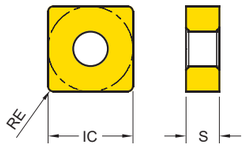
●: Stock item ○: Order made item

KNUX	Designation	RE	Fn (mm/rev.)	Ap (mm)	YG1010 (K10)	YG1001 (P05/K20)	YG3010 (P10/K30)	YG3015 (P15)	YG3020 (P20)	YG3030 (P30/M20)	YG801 (P20)	YG211 (M15/S10)	YG213 (M30/S20)	YG214 (M40/S30)	YG401 (S10)	YG100 (N20)	YG10 (N20)
..UX Left 	KNUX 160405 L	.020	.004 ~ .016	.02 ~ .24			● 0249		● 0250	● 0251	● 0079						
	KNUX 160410 L	.039	.012 ~ .024	.04 ~ .24						● 1315							
..UX Right 	KNUX 160405 R	.020	.004 ~ .016	.02 ~ .24			● 0252		● 0253	● 0254	● 0080						
	KNUX 160410 R	.039	.012 ~ .024	.04 ~ .24			● 1358		● 1155	● 1156							

Cutting Speed			Vc (ft/min)																								
ISO	VDI	Sub Group	YG1010		YG1001		YG3010		YG3015		YG3020		YG3030		YG801		YG211		YG213		YG214		YG401		YG100		YG10	
			Min	Max	Min	Max	Min	Max	Min	Max	Min	Max	Min	Max	Min	Max	Min	Max	Min	Max	Min	Max	Min	Max	Min	Max	Min	Max
P	1~5	Non-Alloyed Steel	-	-	720	1570	560	1480	560	1340	590	1250	490	1150	390	660	-	-	-	-	-	-	-	-	-	-	-	-
P	6~9	Low-Alloyed Steel	-	-	720	1380	590	1250	430	1180	360	1150	300	980	230	660	-	-	-	-	-	-	-	-	-	-	-	-
P	10~11	High-Alloyed Steel	-	-	-	-	330	1080	260	1020	200	980	230	820	-	-	-	-	-	-	-	-	-	-	-	-	-	-
M	12~13	Ferritic & Martensitic	-	-	-	-	-	-	-	-	-	-	390	750	-	-	430	750	360	590	260	490	-	-	-	-	-	-
M	14	Austenitic Stainless Steel	-	-	-	-	-	-	-	-	-	-	260	660	-	-	330	660	130	430	100	390	-	-	-	-	-	-
K	15~16	Grey Cast Iron	660	1570	560	1380	390	980	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
K	17~18	Nodular Cast Iron	490	1480	390	1340	390	920	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
N	21~30	Non-Ferrous Metals (Al)	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	1150	3940	820	2620
S	31~37	Superalloys & Titanium	-	-	-	-	-	-	-	-	-	-	110	260	-	-	100	300	70	130	70	130	130	280	-	-	-	-
H	38~41	Hard Materials	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-

phone:+82-32-526-0909, www.yg1.kr, E-mail:yg1@yg1.kr

SNMG / SNMA (90° Negative)



Series	IC	S
SN** 43	1/2	3/16
SN** 54	5/8	1/4
SN** 64	3/4	1/4

EDP 2200.. ●: Stock item ○: Order made item

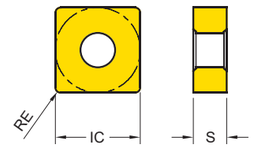
SNMA SNMG		Designation	RE	Fn (mm/rev.)	Ap (mm)	K10	P05 K20	P10 K30	P15	P20	P30 M20	P20	M15 S10	M30 S20	M40 S30	S10	N20	N20
						YG1010	YG1001	YG3010	YG3015	YG3020	YG3030	YG801	YG211	YG213	YG214	YG401	YG100	YG10
..MA	Cast iron	SNMA 432	1/32	.006 ~ .020	.04 ~ .20	● 0767	● 0027	● 1166										
		SNMA 433	3/64	.006 ~ .020	.06 ~ .20	● 0768	● 0028	● 1133										
		SNMA 543	3/64	.006 ~ .020	.06 ~ .20	● 1423	● 0729	● 1150										
		SNMA 644	1/16	.006 ~ .039	.12 ~ .40	● 1344	● 1184	● 1261										
-UF	Finishing	SNMG 431 -UF	1/64	.002 ~ .010	.02 ~ .06							● 0029						
		SNMG 432 -UF	1/32	.002 ~ .010	.04 ~ .10			● 1430		● 1433	● 1437							
-UL	Light Machining and Sticky Material	SNMG 431 -UL	1/64	.004 ~ .012	.02 ~ .12			● 1167		● 0747	● 1194							
		SNMG 432 -UL	1/32	.004 ~ .012	.04 ~ .12			● 0389		● 0390	● 0391							
-UM	Medium Machining Unstable condition	SNMG 432 -UM	1/32	.006 ~ .012	.04 ~ .12		● 0983	● 0739		● 0784	● 0740							

Cutting Speed			Vc (ft/min)																			
ISO	VDI	Sub Group	YG1010		YG1001		YG3010		YG3015		YG3020		YG3030		YG801		YG211		YG213		YG214		YG401		YG100		YG10	
			Min	Max	Min	Max	Min	Max	Min	Max	Min	Max	Min	Max	Min	Max	Min	Max	Min	Max	Min	Max	Min	Max	Min	Max	Min	Max
P	1~5	Non-Alloyed Steel	-	-	720	1570	560	1480	560	1340	590	1250	490	1150	390	660	-	-	-	-	-	-	-	-	-	-	-	-
	6~9	Low-Alloyed Steel	-	-	720	1380	590	1250	430	1180	360	1150	300	980	230	660	-	-	-	-	-	-	-	-	-	-	-	-
	10~11	High-Alloyed Steel	-	-	-	-	330	1080	260	1020	200	980	230	820	-	-	-	-	-	-	-	-	-	-	-	-	-	-
M	12~13	Ferritic & Martensitic	-	-	-	-	-	-	-	-	-	-	390	750	-	-	430	750	360	590	260	490	-	-	-	-	-	-
	14	Austenitic Stainless Steel	-	-	-	-	-	-	-	-	-	-	260	660	-	-	330	660	130	430	100	390	-	-	-	-	-	-
K	15~16	Grey Cast Iron	660	1570	560	1380	390	980	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	17~18	Nodular Cast Iron	490	1480	390	1340	390	920	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
N	21~30	Non-Ferrous Metals (Al)	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	1150	3940	820	2620
S	31~37	Superalloys & Titanium	-	-	-	-	-	-	-	-	-	-	110	260	-	-	100	300	70	130	70	130	130	280	-	-	-	-
H	38~41	Hard Materials	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-

YG TURN INCH

Turning Inserts - Negative

SNMG / SNMA (90° Negative)



Series	IC	S
SN** 43	1/2	3/16
SN** 54	5/8	1/4
SN** 64	3/4	1/4

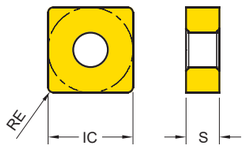
EDP 2200.. ●: Stock item ○: Order made item

SNMG		Designation	RE	Fn (mm/rev.)	Ap (mm)	K10	P05 K20	P10 K30	P15	P20	P30 M20	P20	M15 S10	M30 S20	M40 S30	S10	N20	N20
						YG1010	YG1001	YG3010	YG3015	YG3020	YG3030	YG801	YG211	YG213	YG214	YG401	YG100	YG10
-UG	Medium Machining at stable condition	SNMG 432 -UG	1/32	.008 ~ .016	.04 ~ .12		● 1190	● 0141		● 0142	● 0143	● 0030						
		SNMG 433 -UG	3/64	.008 ~ .016	.06 ~ .12		● 1164	● 0258		● 0259	● 0260							
		SNMG 434 -UG	1/16	.008 ~ .016	.08 ~ .12		● 1165	● 0744	● 0789	● 1169	● 1195							
-UC	Cast iron and Medium roughing	SNMG 432 -UC	1/32	.008 ~ .016	.04 ~ .16	● 1488	● 0073	● 0125		● 0106	● 0126							
		SNMG 433 -UC	3/64	.008 ~ .016	.06 ~ .16	● 0900	● 0074	● 0127		● 0107	● 0128							
-UR	Roughing	SNMG 432 -UR	1/32	.012 ~ .020	.04 ~ .20		● 1163	● 0392		● 0393	● 0394							
		SNMG 433 -UR	3/64	.012 ~ .020	.06 ~ .20		● 1052	● 0261		● 0262	● 0263	● 0031						
		SNMG 434 -UR	1/16	.012 ~ .020	.08 ~ .20		● 0988	● 0974	● 0975	● 0971	● 0977							

Cutting Speed			Vc (ft/min)																			
ISO	VDI	Sub Group	YG1010		YG1001		YG3010		YG3015		YG3020		YG3030		YG801		YG211		YG213		YG214		YG401		YG100		YG10	
			Min	Max	Min	Max	Min	Max	Min	Max	Min	Max	Min	Max	Min	Max	Min	Max	Min	Max	Min	Max	Min	Max	Min	Max	Min	Max
P	1~5	Non-Alloyed Steel	-	-	720	1570	560	1480	560	1340	590	1250	490	1150	390	660	-	-	-	-	-	-	-	-	-	-	-	-
	6~9	Low-Alloyed Steel	-	-	720	1380	590	1250	430	1180	360	1150	300	980	230	660	-	-	-	-	-	-	-	-	-	-	-	-
	10~11	High-Alloyed Steel	-	-	-	-	330	1080	260	1020	200	980	230	820	-	-	-	-	-	-	-	-	-	-	-	-	-	-
M	12~13	Ferritic & Martensitic	-	-	-	-	-	-	-	-	-	-	390	750	-	-	430	750	360	590	260	490	-	-	-	-	-	-
	14	Austenitic Stainless Steel	-	-	-	-	-	-	-	-	-	-	260	660	-	-	330	660	130	430	100	390	-	-	-	-	-	-
K	15~16	Grey Cast Iron	660	1570	560	1380	390	980	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	17~18	Nodular Cast Iron	490	1480	390	1340	390	920	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
N	21~30	Non-Ferrous Metals (Al)	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	1150	3940	820	2620
S	31~37	Superalloys & Titanium	-	-	-	-	-	-	-	-	-	-	110	260	-	-	100	300	70	130	70	130	130	280	-	-	-	-
H	38~41	Hard Materials	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-

Turning Inserts - Negative

SNMG / SNMA (90° Negative)



Series	IC	S
SN** 43	1/2	3/16
SN** 54	5/8	1/4
SN** 64	3/4	1/4

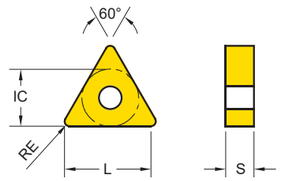
EDP 2200.. ●: Stock item ○: Order made item

		Designation	RE	Fn (mm/rev.)	Ap (mm)	K10	P05 K20	P10 K30	P15	P20	P30 M20	P20	M15 S10	M30 S20	M40 S30	S10	N20	N20
SNMG						YG1010	YG1001	YG3010	YG3015	YG3020	YG3030	YG801	YG211	YG213	YG214	YG401	YG100	YG10
-MF	Stainless steel Finishing	SNMG 431 -MF	1/64	.003 ~ .012	.01 ~ .06								● 0978	● 0979	● 0981			
		SNMG 432 -MF	1/32	.003 ~ .012	.01 ~ .06						● 0818		● 0653	● 0654	● 0817			
		SNMG 433 -MF	3/64	.003 ~ .012	.01 ~ .06						● 0821		● 0655	● 0656	● 0820			
-MM	Stainless steel Medium	SNMG 432 -MM	1/32	.008 ~ .014	.04 ~ .14								● 0555	● 0556	● 1014			
		SNMG 433 -MM	3/64	.008 ~ .014	.06 ~ .14								● 0565	● 0566				
-MR	Stainless steel Roughing	SNMG 432 -MR	1/32	.012 ~ .022	.08 ~ .22						● 1059		● 0657	● 0658	● 0819			
		SNMG 433 -MR	3/64	.012 ~ .022	.08 ~ .22						● 0823		● 0659	● 0660	● 0822			
-KR	Cast Iron Heavy Roughing	SNMG 433 -KR	3/64	.012 ~ .024	.06 ~ .20	● 1064	● 1063	● 1065										
		SNMG 434 -KR	1/16	.012 ~ .024	.08 ~ .20	● 1208	● 0730	● 0950	● 0965									
-SR	HRSA Roughing	SNMG 432 -SR	1/32	.004 ~ .016	.02 ~ .16											● 1305		
		SNMG 433 -SR	3/64	.004 ~ .016	.02 ~ .16											● 1304		

Cutting Speed			Vc (ft/min)																			
ISO	VDI	Sub Group	YG1010		YG1001		YG3010		YG3015		YG3020		YG3030		YG801		YG211		YG213		YG214		YG401		YG100		YG10	
			Min	Max	Min	Max	Min	Max	Min	Max	Min	Max	Min	Max	Min	Max	Min	Max	Min	Max	Min	Max	Min	Max	Min	Max	Min	Max
P	1~5	Non-Alloyed Steel	-	-	720	1570	560	1480	560	1340	590	1250	490	1150	390	660	-	-	-	-	-	-	-	-	-	-	-	-
P	6~9	Low-Alloyed Steel	-	-	720	1380	590	1250	430	1180	360	1150	300	980	230	660	-	-	-	-	-	-	-	-	-	-	-	-
P	10~11	High-Alloyed Steel	-	-	-	-	330	1080	260	1020	200	980	230	820	-	-	-	-	-	-	-	-	-	-	-	-	-	-
M	12~13	Ferritic & Martensitic	-	-	-	-	-	-	-	-	-	-	390	750	-	-	430	750	360	590	260	490	-	-	-	-	-	-
M	14	Austenitic Stainless Steel	-	-	-	-	-	-	-	-	-	-	260	660	-	-	330	660	130	430	100	390	-	-	-	-	-	-
K	15~16	Grey Cast Iron	660	1570	560	1380	390	980	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
K	17~18	Nodular Cast Iron	490	1480	390	1340	390	920	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
N	21~30	Non-Ferrous Metals (Al)	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	1150	3940	820	2620
S	31~37	Superalloys & Titanium	-	-	-	-	-	-	-	-	-	-	110	260	-	-	100	300	70	130	70	130	130	280	-	-	-	-
H	38~41	Hard Materials	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-

Turning Inserts - Negative

TNMG / TNMA (60° Negative)



Series	L	IC	S
TN** 33	.618	3/8	3/16
TN** 43	.866	1/2	3/16

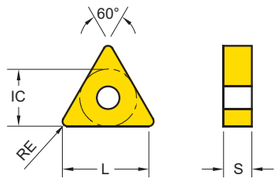
EDP 2200.. ●: Stock item ○: Order made item

		Designation	RE	Fn (mm/rev.)	Ap (mm)	K10	P05 K20	P10 K30	P15	P20	P30 M20	P20	M15 S10	M30 S20	M40 S30	S10	N20	N20
TNMA TNMG						YG1010	YG1001	YG3010	YG3015	YG3020	YG3030	YG801	YG211	YG213	YG214	YG401	YG100	YG10
..MA	Cast iron	TNMA 331	1/64	.006 ~ .020	.02 ~ .20		● 1446	● 1448										
		TNMA 332	1/32	.006 ~ .020	.04 ~ .20	● 1486	● 0035	● 1191										
		TNMA 333	3/64	.006 ~ .020	.06 ~ .20	● 1485	● 0036	● 1192										
-UF	Finishing	TNMG 331 -UF	1/64	.002 ~ .010	.02 ~ .10			● 0270		● 0271	● 0272	● 0039						
		TNMG 332 -UF	1/32	.002 ~ .010	.04 ~ .10			● 0276		● 0277	● 0278							
		TNMG 333 -UF	3/64	.002 ~ .010	.06 ~ .10			● 0721		● 0588	● 1197							
		TNMG 431 -UF	1/64	.004 ~ .014	.02 ~ .16			● 0407		● 1203	● 1205	● 0042						
-UL	Light Machining and Sticky Material	TNMG 332 -UL	1/32	.004 ~ .012	.04 ~ .12			● 0279	● 0752	● 0280	● 0281							
		TNMG 333 -UL	3/64	.004 ~ .012	.06 ~ .12			● 0884	● 0868	● 0621	● 1198							
-UM	Medium Machining Unstable condition	TNMG 331 -UM	1/64	.006 ~ .012	.02 ~ .12		● 0949	● 0948	● 0844	● 0952	● 0954							
		TNMG 332 -UM	1/32	.006 ~ .012	.04 ~ .12		● 1053	● 0282	● 0758	● 0283	● 0284							
		TNMG 333 -UM	3/64	.006 ~ .012	.06 ~ .12	● 1143	● 0596	● 0597	● 0760	● 0586	● 0710							

Cutting Speed			Vc (ft/min)																			
ISO	VDI	Sub Group	YG1010		YG1001		YG3010		YG3015		YG3020		YG3030		YG801		YG211		YG213		YG214		YG401		YG100		YG10	
			Min	Max	Min	Max	Min	Max	Min	Max	Min	Max	Min	Max	Min	Max	Min	Max	Min	Max	Min	Max	Min	Max	Min	Max	Min	Max
P	1~5	Non-Alloyed Steel	-	-	720	1570	560	1480	560	1340	590	1250	490	1150	390	660	-	-	-	-	-	-	-	-	-	-	-	-
P	6~9	Low-Alloyed Steel	-	-	720	1380	590	1250	430	1180	360	1150	300	980	230	660	-	-	-	-	-	-	-	-	-	-	-	-
P	10~11	High-Alloyed Steel	-	-	-	-	330	1080	260	1020	200	980	230	820	-	-	-	-	-	-	-	-	-	-	-	-	-	-
M	12~13	Ferritic & Martensitic	-	-	-	-	-	-	-	-	-	-	390	750	-	-	430	750	360	590	260	490	-	-	-	-	-	-
M	14	Austenitic Stainless Steel	-	-	-	-	-	-	-	-	-	-	260	660	-	-	330	660	130	430	100	390	-	-	-	-	-	-
K	15~16	Grey Cast Iron	660	1570	560	1380	390	980	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
K	17~18	Nodular Cast Iron	490	1480	390	1340	390	920	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
N	21~30	Non-Ferrous Metals (Al)	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	1150	3940	820	2620
S	31~37	Superalloys & Titanium	-	-	-	-	-	-	-	-	-	-	110	260	-	-	100	300	70	130	70	130	130	280	-	-	-	-
H	38~41	Hard Materials	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-

Turning Inserts - Negative

TNMG / TNMA (60° Negative)



Series	L	IC	S
TN** 33	.618	3/8	3/16
TN** 43	.866	1/2	3/16

EDP 2200.. ●: Stock item ○: Order made item

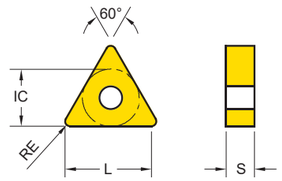
	TNMG	Designation	RE	Fn (mm/rev.)	Ap (mm)	K10	P05 K20	P10 K30	P15	P20	P30 M20	P20	M15 S10	M30 S20	M40 S30	S10	N20	N20
						YG1010	YG1001	YG3010	YG3015	YG3020	YG3030	YG801	YG211	YG213	YG214	YG401	YG100	YG10
-UG	Medium Machining at stable condition	TNMG 331 -UG	1/64	.008~.016	.02~.12		● 0458	● 0273		● 0274	● 0275							
		TNMG 332 -UG	1/32	.008~.016	.04~.12		● 0459	● 0144	● 0757	● 0145	● 0146	● 0037						
		TNMG 333 -UG	3/64	.008~.016	.06~.12		● 0605	● 0606	● 0759	● 0587	● 0939							
		TNMG 432 -UG	1/32	.010~.024	.04~.24		● 1061	● 0285		● 0286	● 0287	● 0040						
		TNMG 433 -UG	3/64	.010~.024	.06~.24		○ 1526	○ 1527		○ 1528	○ 1529							
		TNMG 434 -UG	1/16	.010~.024	.08~.24		● 1209	● 0851	● 0863	● 0852	● 1263							
-UC	Cast iron and Medium roughing	TNMG 331 -UC	1/64	.008~.016	.02~.16	● 1316	● 0399	● 0400		● 0401	● 0402							
		TNMG 332 -UC	1/32	.008~.016	.04~.16	● 0901	● 0075	● 0129		● 0108	● 0130							
		TNMG 333 -UC	3/64	.008~.016	.06~.16	● 0902	● 0076	● 0131		● 0109	● 0132							
-UR	Roughing	TNMG 332 -UR	1/32	.012~.020	.04~.20		● 0680	● 0669		● 0670	● 1054							
		TNMG 333 -UR	3/64	.012~.020	.06~.20		● 0602	● 0404	● 0888	● 0405	● 0406	● 0038						
		TNMG 433 -UR	3/64	.012~.026	.06~.28		● 0408	● 0409		● 0410	● 0411	● 0041						
		TNMG 434 -UR	1/16	.012~.026	.08~.28		● 0460	● 0461		● 0696	● 0711							

Cutting Speed			Vc (ft/min)																			
ISO	VDI	Sub Group	YG1010		YG1001		YG3010		YG3015		YG3020		YG3030		YG801		YG211		YG213		YG214		YG401		YG100		YG10	
			Min	Max	Min	Max	Min	Max	Min	Max	Min	Max	Min	Max	Min	Max	Min	Max	Min	Max	Min	Max	Min	Max	Min	Max	Min	Max
P	1~5	Non-Alloyed Steel	-	-	720	1570	560	1480	560	1340	590	1250	490	1150	390	660	-	-	-	-	-	-	-	-	-	-	-	-
P	6~9	Low-Alloyed Steel	-	-	720	1380	590	1250	430	1180	360	1150	300	980	230	660	-	-	-	-	-	-	-	-	-	-	-	-
P	10~11	High-Alloyed Steel	-	-	-	-	330	1080	260	1020	200	980	230	820	-	-	-	-	-	-	-	-	-	-	-	-	-	-
M	12~13	Ferritic & Martensitic	-	-	-	-	-	-	-	-	-	-	390	750	-	-	430	750	360	590	260	490	-	-	-	-	-	-
M	14	Austenitic Stainless Steel	-	-	-	-	-	-	-	-	-	-	260	660	-	-	330	660	130	430	100	390	-	-	-	-	-	-
K	15~16	Grey Cast Iron	660	1570	560	1380	390	980	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
K	17~18	Nodular Cast Iron	490	1480	390	1340	390	920	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
N	21~30	Non-Ferrous Metals (Al)	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	1150	3940	820	2620
S	31~37	Superalloys & Titanium	-	-	-	-	-	-	-	-	-	-	110	260	-	-	100	300	70	130	70	130	130	280	-	-	-	-
H	38~41	Hard Materials	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-

YG TURN INCH

Turning Inserts - Negative

TNMG / TNMA (60° Negative)



Series	L	IC	S
TN** 33	.618	3/8	3/16
TN** 43	.866	1/2	3/16

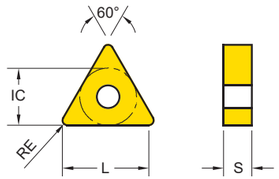
EDP 2200.. ●: Stock item ○: Order made item

	TNMG	Designation	RE	Fn (mm/rev.)	Ap (mm)	K10	P05 K20	P10 K30	P15	P20	P30 M20	P20	M15 S10	M30 S20	M40 S30	S10	N20	N20
						YG1010	YG1001	YG3010	YG3015	YG3020	YG3030	YG801	YG211	YG213	YG214	YG401	YG100	YG10
-MF	Stainless steel Finishing	TNMG 331 -MF	1/64	.003~.012	.01~.06								● 0824	● 0775	● 1457			
		TNMG 332 -MF	1/32	.003~.012	.01~.06								● 0589	● 0776	● 0825			
-MM	Stainless steel Medium	TNMG 331 -MM	1/64	.008~.014	.02~.14								● 0567	● 0568				
		TNMG 332 -MM	1/32	.008~.014	.04~.14								● 0569	● 0570	● 0913			
		TNMG 333 -MM	3/64	.008~.014	.06~.14								● 0611	● 0603				
-MG	Stainless steel Roughing	TNMG 331 -MG	1/64	.008~.018	.02~.16								● 1455	● 1456	● 1219			
-MR	Stainless steel Roughing	TNMG 332 -MR	1/32	.012~.022	.08~.22						● 0727		● 0826	● 0985	● 0726			
		TNMG 333 -MR	3/64	.012~.022	.08~.22						● 1062		● 0995	● 0827	● 0828			

Cutting Speed			Vc (ft/min)																			
ISO	VDI	Sub Group	YG1010		YG1001		YG3010		YG3015		YG3020		YG3030		YG801		YG211		YG213		YG214		YG401		YG100		YG10	
			Min	Max	Min	Max	Min	Max	Min	Max	Min	Max	Min	Max	Min	Max	Min	Max	Min	Max	Min	Max	Min	Max	Min	Max	Min	Max
P	1~5	Non-Alloyed Steel	-	-	720	1570	560	1480	560	1340	590	1250	490	1150	390	660	-	-	-	-	-	-	-	-	-	-	-	-
P	6~9	Low-Alloyed Steel	-	-	720	1380	590	1250	430	1180	360	1150	300	980	230	660	-	-	-	-	-	-	-	-	-	-	-	-
P	10~11	High-Alloyed Steel	-	-	-	-	330	1080	260	1020	200	980	230	820	-	-	-	-	-	-	-	-	-	-	-	-	-	-
M	12~13	Ferritic & Martensitic	-	-	-	-	-	-	-	-	-	-	390	750	-	-	430	750	360	590	260	490	-	-	-	-	-	-
M	14	Austenitic Stainless Steel	-	-	-	-	-	-	-	-	-	-	260	660	-	-	330	660	130	430	100	390	-	-	-	-	-	-
K	15~16	Grey Cast Iron	660	1570	560	1380	390	980	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
K	17~18	Nodular Cast Iron	490	1480	390	1340	390	920	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
N	21~30	Non-Ferrous Metals (Al)	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	1150	3940	820	2620
S	31~37	Superalloys & Titanium	-	-	-	-	-	-	-	-	-	-	110	260	-	-	100	300	70	130	70	130	130	280	-	-	-	-
H	38~41	Hard Materials	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-

Turning Inserts - Negative

TNMG / TNMA (60˚ Negative)



Series	L	IC	S
TN** 33	.618	3/8	3/16
TN** 43	.866	1/2	3/16

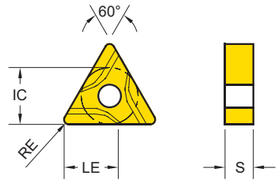
EDP 2200.. ●: Stock item ○: Order made item

TNMG	Designation	RE	Fn (mm/rev.)	Ap (mm)	K10	P05 K20	P10 K30	P15	P20	P30 M20	P20	M15 S10	M30 S20	M40 S30	S10	N20	N20
					YG1010	YG1001	YG3010	YG3015	YG3020	YG3030	YG801	YG211	YG213	YG214	YG401	YG100	YG10
-SR	TNMG 332 -SR	1/32	.004~.016	.02~.16											● 1307		
HRSA Medium	TNMG 333 -SR	3/64	.004~.016	.02~.16											● 1306		

Cutting Speed			Vc (ft/min)																			
ISO	VDI	Sub Group	YG1010		YG1001		YG3010		YG3015		YG3020		YG3030		YG801		YG211		YG213		YG214		YG401		YG100		YG10	
			Min	Max	Min	Max	Min	Max	Min	Max	Min	Max	Min	Max	Min	Max	Min	Max	Min	Max	Min	Max	Min	Max	Min	Max	Min	Max
P	1~5	Non-Alloyed Steel	-	-	720	1570	560	1480	560	1340	590	1250	490	1150	390	660	-	-	-	-	-	-	-	-	-	-	-	-
P	6~9	Low-Alloyed Steel	-	-	720	1380	590	1250	430	1180	360	1150	300	980	230	660	-	-	-	-	-	-	-	-	-	-	-	-
P	10~11	High-Alloyed Steel	-	-	-	-	330	1080	260	1020	200	980	230	820	-	-	-	-	-	-	-	-	-	-	-	-	-	-
M	12~13	Ferritic & Martensitic	-	-	-	-	-	-	-	-	-	-	390	750	-	-	430	750	360	590	260	490	-	-	-	-	-	-
M	14	Austenitic Stainless Steel	-	-	-	-	-	-	-	-	-	-	260	660	-	-	330	660	130	430	100	390	-	-	-	-	-	-
K	15~16	Grey Cast Iron	660	1570	560	1380	390	980	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
K	17~18	Nodular Cast Iron	490	1480	390	1340	390	920	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
N	21~30	Non-Ferrous Metals (Al)	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	1150	3940	820	2620
S	31~37	Superalloys & Titanium	-	-	-	-	-	-	-	-	-	-	110	260	-	-	100	300	70	130	70	130	130	280	-	-	-	-
H	38~41	Hard Materials	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-

Turning Inserts - Negative

TNUX (60˚ Negative)



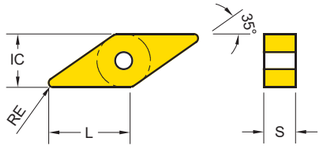
Series	LE	IC	S
TNUX 33	.370	3/8	3/16

EDP 2200.. ●: Stock item ○: Order made item

TNUX	Designation	RE	Fn (mm/rev.)	Ap (mm)	K10	P05 K20	P10 K30	P15	P20	P30 M20	P20	M15 S10	M30 S20	M40 S30	S10	N20	N20
					YG1010	YG1001	YG3010	YG3015	YG3020	YG3030	YG801	YG211	YG213	YG214	YG401	YG100	YG10
..UX Left	TNUX 331 L	1/64	.004~.012	.02~.16			● 0412		● 0413	● 1264	● 0043						
	TNUX 332 L	1/32	.004~.016	.02~.24			● 0414		● 0415	● 0675	● 0045	● 0731					
..UX Right	TNUX 331 R	1/64	.004~.012	.02~.16			● 0288		● 0289	● 0290	● 0044						
	TNUX 332 R	1/32	.004~.016	.02~.24			● 0291		● 0292	● 0293	● 0046						

Cutting Speed			Vc (ft/min)																			
ISO	VDI	Sub Group	YG1010		YG1001		YG3010		YG3015		YG3020		YG3030		YG801		YG211		YG213		YG214		YG401		YG100		YG10	
			Min	Max	Min	Max	Min	Max	Min	Max	Min	Max	Min	Max	Min	Max	Min	Max	Min	Max	Min	Max	Min	Max	Min	Max	Min	Max
P	1~5	Non-Alloyed Steel	-	-	720	1570	560	1480	560	1340	590	1250	490	1150	390	660	-	-	-	-	-	-	-	-	-	-	-	-
P	6~9	Low-Alloyed Steel	-	-	720	1380	590	1250	430	1180	360	1150	300	980	230	660	-	-	-	-	-	-	-	-	-	-	-	-
P	10~11	High-Alloyed Steel	-	-	-	-	330	1080	260	1020	200	980	230	820	-	-	-	-	-	-	-	-	-	-	-	-	-	-
M	12~13	Ferritic & Martensitic	-	-	-	-	-	-	-	-	-	-	390	750	-	-	430	750	360	590	260	490	-	-	-	-	-	-
M	14	Austenitic Stainless Steel	-	-	-	-	-	-	-	-	-	-	260	660	-	-	330	660	130	430	100	390	-	-	-	-	-	-
K	15~16	Grey Cast Iron	660	1570	560	1380	390	980	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
K	17~18	Nodular Cast Iron	490	1480	390	1340	390	920	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
N	21~30	Non-Ferrous Metals (Al)	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	1150	3940	820	2620
S	31~37	Superalloys & Titanium	-	-	-	-	-	-	-	-	-	-	110	260	-	-	100	300	70	130	70	130	130	280	-	-	-	-
H	38~41	Hard Materials	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-

VNMG / VNMA (35° Negative)



Series	L	IC	S
VN** 33	.622	3/8	3/16

EDP 2200.. ●: Stock item ○: Order made item

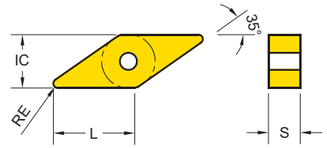
						K10	P05 K20	P10 K30	P15	P20	P30 M20	P20	M15 S10	M30 S20	M40 S30	S10	N20	N20
VNMA VNMG		Designation	RE	Fn (mm/rev.)	Ap (mm)	YG1010	YG1001	YG3010	YG3015	YG3020	YG3030	YG801	YG211	YG213	YG214	YG401	YG100	YG10
..MA	 Cast iron	VNMA 332	1/32	.006 ~ .016	.04 ~ .20		● 0162	● 1275										
-UF	 Finishing	VNMG 331 -UF	1/64	.002 ~ .010	.02 ~ .10			● 0306		● 0307	● 0308	● 0049						
		VNMG 332 -UF	1/32	.002 ~ .010	.04 ~ .10			● 0309		● 0310	● 0311							
-UL	 Light Machining and Sticky Material	VNMG 331 -UL	1/64	.004 ~ .012	.02 ~ .12			● 0886		● 0912	● 0723							
		VNMG 332 -UL	1/32	.004 ~ .012	.04 ~ .12			● 0428	● 0790	● 0429								
-UM	 Medium Machining Unstable condition	VNMG 332 -UM	1/32	.006 ~ .012	.04 ~ .12		● 1357	● 1359		● 1361	● 1362							
		VNMG 333 -UM	3/64	.006 ~ .012	.06 ~ .12		● 1230	● 0736	● 0870	● 0737	● 1214							
-UG	 Medium Machining at stable condition	VNMG 331 -UG	1/64	.008 ~ .016	.02 ~ .12		● 1331	● 0993		● 0940	● 0994							
		VNMG 332 -UG	1/32	.008 ~ .016	.04 ~ .12	● 1000	● 0462	● 0312		● 0313	● 0314	● 0050						
		VNMG 333 -UG	3/64	.008 ~ .016	.06 ~ .12		● 1345	● 0931		● 0927	● 0917							
-UC	 Cast iron and Medium roughing	VNMG 331 -UC	1/64	.008 ~ .016	.02 ~ .14		● 0885	● 0423		● 1276	● 1277							
		VNMG 332 -UC	1/32	.008 ~ .016	.04 ~ .14	● 0980	● 0094	● 0424		● 0425	● 0426							
		VNMG 333 -UC	3/64	.008 ~ .016	.06 ~ .14		● 1381	● 1392		● 1382	● 1384							

Cutting Speed			Vc (ft/min)																			
ISO	VDI	Sub Group	YG1010		YG1001		YG3010		YG3015		YG3020		YG3030		YG801		YG211		YG213		YG214		YG401		YG100		YG10	
			Min	Max	Min	Max	Min	Max	Min	Max	Min	Max	Min	Max	Min	Max	Min	Max	Min	Max	Min	Max	Min	Max	Min	Max	Min	Max
P	1~5	Non-Alloyed Steel	-	-	720	1570	560	1480	560	1340	590	1250	490	1150	390	660	-	-	-	-	-	-	-	-	-	-	-	-
P	6~9	Low-Alloyed Steel	-	-	720	1380	590	1250	430	1180	360	1150	300	980	230	660	-	-	-	-	-	-	-	-	-	-	-	-
P	10~11	High-Alloyed Steel	-	-	-	-	330	1080	260	1020	200	980	230	820	-	-	-	-	-	-	-	-	-	-	-	-	-	-
M	12~13	Ferritic & Martensitic	-	-	-	-	-	-	-	-	-	-	390	750	-	-	430	750	360	590	260	490	-	-	-	-	-	-
M	14	Austenitic Stainless Steel	-	-	-	-	-	-	-	-	-	-	260	660	-	-	330	660	130	430	100	390	-	-	-	-	-	-
K	15~16	Grey Cast Iron	660	1570	560	1380	390	980	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
K	17~18	Nodular Cast Iron	490	1480	390	1340	390	920	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
N	21~30	Non-Ferrous Metals (Al)	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	1150	3940	820	2620
S	31~37	Superalloys & Titanium	-	-	-	-	-	-	-	-	-	-	110	260	-	-	100	300	70	130	70	130	130	280	-	-	-	-
H	38~41	Hard Materials	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-

YG TURN INCH

Turning Inserts - Negative

VNMG / VNMA (35° Negative)



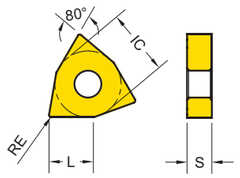
Series	L	IC	S
VN** 33	.622	3/8	3/16

EDP 2200.. ●: Stock item ○: Order made item

						K10	P05 K20	P10 K30	P15	P20	P30 M20	P20	M15 S10	M30 S20	M40 S30	S10	N20	N20
VNMG		Designation	RE	Fn (mm/rev.)	Ap (mm)	YG1010	YG1001	YG3010	YG3015	YG3020	YG3030	YG801	YG211	YG213	YG214	YG401	YG100	YG10
-UR	 Roughing	VNMG 333 -UR	3/64	.012 ~ .018	.06 ~ .16		● 1231	● 0430	● 0871	● 0431	● 0432	● 0051						
-MF	 Stainless steel Finishing	VNMG 332 -MF	1/32	.003 ~ .012	.01 ~ .06						● 0830		● 0829	● 0947				
-MM	 Stainless steel Medium	VNMG 331 -MM	1/64	.008 ~ .014	.02 ~ .14								● 0661	● 0662				
		VNMG 332 -MM	1/32	.008 ~ .014	.04 ~ .14								● 0663	● 0664				
-MR	 Stainless steel Roughing	VNMG 332 -MR	1/32	.012 ~ .022	.08 ~ .22						● 0832		● 1020	● 0831				
-SR	 HRSA Medium	VNMG 332 -SR	1/32	.004 ~ .016	.02 ~ .16											● 1449		

Cutting Speed			Vc (ft/min)																			
ISO	VDI	Sub Group	YG1010		YG1001		YG3010		YG3015		YG3020		YG3030		YG801		YG211		YG213		YG214		YG401		YG100		YG10	
			Min	Max	Min	Max	Min	Max	Min	Max	Min	Max	Min	Max	Min	Max	Min	Max	Min	Max	Min	Max	Min	Max	Min	Max	Min	Max
P	1~5	Non-Alloyed Steel	-	-	720	1570	560	1480	560	1340	590	1250	490	1150	390	660	-	-	-	-	-	-	-	-	-	-	-	-
P	6~9	Low-Alloyed Steel	-	-	720	1380	590	1250	430	1180	360	1150	300	980	230	660	-	-	-	-	-	-	-	-	-	-	-	-
P	10~11	High-Alloyed Steel	-	-	-	-	330	1080	260	1020	200	980	230	820	-	-	-	-	-	-	-	-	-	-	-	-	-	-
M	12~13	Ferritic & Martensitic	-	-	-	-	-	-	-	-	-	-	390	750	-	-	430	750	360	590	260	490	-	-	-	-	-	-
M	14	Austenitic Stainless Steel	-	-	-	-	-	-	-	-	-	-	260	660	-	-	330	660	130	430	100	390	-	-	-	-	-	-
K	15~16	Grey Cast Iron	660	1570	560	1380	390	980	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
K	17~18	Nodular Cast Iron	490	1480	390	1340	390	920	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
N	21~30	Non-Ferrous Metals (Al)	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	1150	3940	820	2620
S	31~37	Superalloys & Titanium	-	-	-	-	-	-	-	-	-	-	110	260	-	-	100	300	70	130	70	130	130	280	-	-	-	-
H	38~41	Hard Materials	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-

WNMG/WNMA (80° Trigonal Negative)



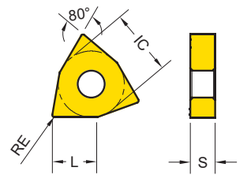
Series	L	IC	S
WN** 33	.224	3/8	3/16
WN** 43	.307	1/2	3/16

EDP 2200.. ●: Stock item ○: Order made item

						K10	P05 K20	P10 K30	P15	P20	P30 M20	P20	M15 S10	M30 S20	M40 S30	S10	N20	N20
WNMA WNMG		Designation	RE	Fn (mm/rev.)	Ap (mm)	YG1010	YG1001	YG3010	YG3015	YG3020	YG3030	YG801	YG211	YG213	YG214	YG401	YG100	YG10
..MA	Cast iron	WNMA 431	1/64	.006~.020	.02~.20	● 0903	● 0052	● 1262										
		WNMA 432	1/32	.006~.020	.04~.20	● 0904	● 0053	● 0433										
		WNMA 433	3/64	.006~.020	.06~.20	● 0905	● 0054	● 0434										
-UF	Finishing	WNMG 331 -UF	1/64	.002~.008	.02~.08			● 0435		● 0436	● 0437	● 0058						
		WNMG 431 -UF	1/64	.002~.010	.02~.08			● 0315		● 0316	● 0317	● 0055						
		WNMG 432 -UF	1/32	.002~.010	.04~.10			● 0321		● 0322	● 0323							
		WNMG 433 -UF	3/64	.002~.010	.06~.10			● 1424		● 1410	● 1411							
-UL	Light Machining and Sticky Material	WNMG 332 -UL	1/32	.004~.012	.04~.10			● 0439		● 0440	● 0441							
		WNMG 431 -UL	1/64	.004~.012	.02~.12			● 1431		● 1434	● 1438							
		WNMG 432 -UL	1/32	.004~.012	.04~.12			● 0324		● 0325	● 0326							
-UM	Medium Machining Unstable condition	WNMG 331 -UM	1/64	.006~.012	.02~.10		● 1259	● 0741		● 0785	● 0742							
		WNMG 332 -UM	1/32	.006~.012	.04~.10		● 1260	● 0600		● 0601	● 1271							
		WNMG 431 -UM	1/64	.006~.012	.02~.12		● 1313	● 0786		● 0787	● 0788							
		WNMG 432 -UM	1/32	.006~.012	.04~.12		● 0470	● 0327	● 0761	● 0328	● 0329							
		WNMG 433 -UM	3/64	.006~.012	.06~.12		● 1210	● 0649	● 0762	● 0598	● 0712							
		WNMG 434 -UM	1/16	.006~.012	.08~.12		● 1234	● 0593	● 0763	● 0584	● 0713							

Cutting Speed			Vc (ft/min)																					
ISO	VDI	Sub Group	YG1010 Min	YG1010 Max	YG1001 Min	YG1001 Max	YG3010 Min	YG3010 Max	YG3015 Min	YG3015 Max	YG3020 Min	YG3020 Max	YG3030 Min	YG3030 Max	YG801 Min	YG801 Max	YG211 Min	YG211 Max	YG213 Min	YG213 Max	YG214 Min	YG214 Max	YG401 Min	YG401 Max	YG100 Min	YG100 Max	YG10 Min	YG10 Max
P	1~5	Non-Alloyed Steel	-	-	720	1570	560	1480	560	1340	590	1250	490	1150	390	660	-	-	-	-	-	-	-	-	-	-	-	-
P	6~9	Low-Alloyed Steel	-	-	720	1380	590	1250	430	1180	360	1150	300	980	230	660	-	-	-	-	-	-	-	-	-	-	-	-
P	10~11	High-Alloyed Steel	-	-	-	-	330	1080	260	1020	200	980	230	820	-	-	-	-	-	-	-	-	-	-	-	-	-	-
M	12~13	Ferritic & Martensitic	-	-	-	-	-	-	-	-	-	-	390	750	-	-	430	750	360	590	260	490	-	-	-	-	-	-
M	14	Austenitic Stainless Steel	-	-	-	-	-	-	-	-	-	-	260	660	-	-	330	660	130	430	100	390	-	-	-	-	-	-
K	15~16	Grey Cast Iron	660	1570	560	1380	390	980	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
K	17~18	Nodular Cast Iron	490	1480	390	1340	390	920	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
N	21~30	Non-Ferrous Metals (Al)	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	1150	3940	820	2620
S	31~37	Superalloys & Titanium	-	-	-	-	-	-	-	-	-	-	110	260	-	-	100	300	70	130	70	130	130	280	-	-	-	-
H	38~41	Hard Materials	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-

WNMG/WNMA (80° Trigonal Negative)



Series	L	IC	S
WN** 33	.224	3/8	3/16
WN** 43	.307	1/2	3/16

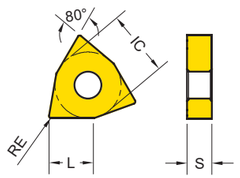
EDP 2200.. ●: Stock item ○: Order made item

						K10	P05 K20	P10 K30	P15	P20	P30 M20	P20	M15 S10	M30 S20	M40 S30	S10	N20	N20
WNMG		Designation	RE	Fn (mm/rev.)	Ap (mm)	YG1010	YG1001	YG3010	YG3015	YG3020	YG3030	YG801	YG211	YG213	YG214	YG401	YG100	YG10
-UG	Medium Machining at stable condition	WNMG 332 -UG	1/32	.008~.016	.04~.12		● 0697	● 1047		● 0438	● 0874	● 0059						
		WNMG 431 -UG	1/64	.008~.016	.02~.12		● 1232	● 0318		● 0319	● 0320							
		WNMG 432 -UG	1/32	.008~.016	.04~.12	● 0908	● 0463	● 0147	● 0582	● 0148	● 0149	● 0056						
		WNMG 433 -UG	3/64	.008~.016	.06~.12	● 0910	● 0466	● 0503	● 0648	● 0490	● 0941							
		WNMG 434 -UG	1/16	.008~.016	.08~.16		● 1233	● 1056	● 0764	● 0583	● 1238							
-UC	Cast iron and Medium roughing	WNMG 332 -UC	1/32	.008~.016	.04~.12		● 0095	● 0875		● 0876	● 0724							
		WNMG 431 -UC	1/64	.008~.016	.02~.16	● 0906	● 0097	● 0133		● 0110	● 0134							
		WNMG 432 -UC	1/32	.008~.016	.04~.16	● 0907	● 0077	● 0135	● 0733	● 0111	● 0136							
		WNMG 433 -UC	3/64	.008~.016	.06~.16	● 0909	● 0078	● 0137	● 0630	● 0112	● 0138							
		WNMG 434 -UC	1/16	.008~.016	.08~.16	● 1187	● 1055	● 1235		● 1236	● 0743							
-UR	Roughing	WNMG 333 -UR	3/64	.012~.020	.06~.16	● 1317	● 1066	● 1057		● 1058	● 1060							
		WNMG 432 -UR	1/32	.012~.020	.04~.20		● 0464	● 0465		● 0471	● 0472							
		WNMG 433 -UR	3/64	.012~.020	.06~.20		● 0467	● 0442	● 0631	● 0443	● 0444	● 0057						
		WNMG 434 -UR	1/16	.012~.020	.08~.20		● 0468	● 0469	● 0889	● 0725	● 0714							

Cutting Speed			Vc (ft/min)																					
ISO	VDI	Sub Group	YG1010 Min	YG1010 Max	YG1001 Min	YG1001 Max	YG3010 Min	YG3010 Max	YG3015 Min	YG3015 Max	YG3020 Min	YG3020 Max	YG3030 Min	YG3030 Max	YG801 Min	YG801 Max	YG211 Min	YG211 Max	YG213 Min	YG213 Max	YG214 Min	YG214 Max	YG401 Min	YG401 Max	YG100 Min	YG100 Max	YG10 Min	YG10 Max
P	1~5	Non-Alloyed Steel	-	-	720	1570	560	1480	560	1340	590	1250	490	1150	390	660	-	-	-	-	-	-	-	-	-	-	-	-
P	6~9	Low-Alloyed Steel	-	-	720	1380	590	1250	430	1180	360	1150	300	980	230	660	-	-	-	-	-	-	-	-	-	-	-	-
P	10~11	High-Alloyed Steel	-	-	-	-	330	1080	260	1020	200	980	230	820	-	-	-	-	-	-	-	-	-	-	-	-	-	-
M	12~13	Ferritic & Martensitic	-	-	-	-	-	-	-	-	-	-	390	750	-	-	430	750	360	590	260	490	-	-	-	-	-	-
M	14	Austenitic Stainless Steel	-	-	-	-	-	-	-	-	-	-	260	660	-	-	330	660	130	430	100	390	-	-	-	-	-	-
K	15~16	Grey Cast Iron	660	1570	560	1380	390	980	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
K	17~18	Nodular Cast Iron	490	1480	390	1340	390	920	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
N	21~30	Non-Ferrous Metals (Al)	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	1150	3940	820	2620
S	31~37	Superalloys & Titanium	-	-	-	-	-	-	-	-	-	-	110	260	-	-	100	300	70	130	70	130	130	280	-	-	-	-
H	38~41	Hard Materials	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-

Turning Inserts - Negative

WNMG/WNMA (80° Trigonal Negative)



Series	L	IC	S
WN** 33	.224	3/8	3/16
WN** 43	.307	1/2	3/16

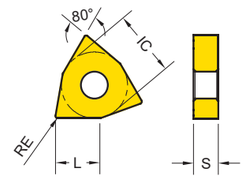
EDP 2200.. ●: Stock item ○: Order made item

								K10	P05 K20	P10 K30	P15	P20	P30 M20	P20	M15 S10	M30 S20	M40 S30	S10	N20	N20
WNMG		Designation	RE	Fn (mm/rev.)	Ap (mm)			YG1010	YG1001	YG3010	YG3015	YG3020	YG3030	YG801	YG211	YG213	YG214	YG401	YG100	YG10
-MF	 Stainless steel Finishing	WNMG 331 -MF	1/64	.003 ~ .012	.01 ~ .06					○ 0833			● 0996		● 1215	● 1217				
		WNMG 332 -MF	1/32	.003 ~ .012	.01 ~ .06										● 1216	● 1218				
		WNMG 431 -MF	1/64	.003 ~ .012	.01 ~ .06								● 0834		● 0667	● 0668	● 0970			
		WNMG 432 -MF	1/32	.003 ~ .012	.01 ~ .06								● 1098		● 0617	● 0618				
-MM	 Stainless steel Medium	WNMG 431 -MM	1/64	.008 ~ .014	.02 ~ .14										● 0571	● 0572				
		WNMG 432 -MM	1/32	.008 ~ .014	.04 ~ .14								● 0491		● 0497	● 0498				
		WNMG 433 -MM	3/64	.008 ~ .014	.06 ~ .14										● 0612	● 0615				
-MG	 Medium Machining at stable condition	WNMG 432 -MG	1/32	.008 ~ .016	.04 ~ .16										● 1496	● 1497				
		WNMG 433 -MG	3/64	.008 ~ .016	.06 ~ .16										● 1499	● 1500				
-MR	 Stainless steel Roughing	WNMG 333 -MR	3/64	.012 ~ .022	.05 ~ .16										● 0616					
		WNMG 432 -MR	1/32	.012 ~ .022	.08 ~ .22								● 1099		● 0619	● 0620	● 0835			
		WNMG 433 -MR	3/64	.012 ~ .022	.08 ~ .22								● 0837		● 0665	● 0666	● 0836			
-KR	 Cast Iron Heavy Roughing	WNMG 432 -KR	1/32	.012 ~ .024	.04 ~ .20	● 0932	● 0720	● 1038												
		WNMG 433 -KR	3/64	.012 ~ .024	.06 ~ .20	● 0933	● 0522	● 0542												

Cutting Speed			Vc (ft/min)																					
ISO	VDI	Sub Group	YG1010		YG1001		YG3010		YG3015		YG3020		YG3030		YG801		YG211		YG213		YG214		YG401		YG100		YG10	
			Min	Max	Min	Max	Min	Max	Min	Max	Min	Max	Min	Max	Min	Max	Min	Max	Min	Max	Min	Max	Min	Max	Min	Max	Min	Max
P	1~5	Non-Alloyed Steel	-	-	720	1570	560	1480	560	1340	590	1250	490	1150	390	660	-	-	-	-	-	-	-	-	-	-	-	-
P	6~9	Low-Alloyed Steel	-	-	720	1380	590	1250	430	1180	360	1150	300	980	230	660	-	-	-	-	-	-	-	-	-	-	-	-
P	10~11	High-Alloyed Steel	-	-	-	-	330	1080	260	1020	200	980	230	820	-	-	-	-	-	-	-	-	-	-	-	-	-	-
M	12~13	Ferritic & Martensitic	-	-	-	-	-	-	-	-	-	-	390	750	-	-	430	750	360	590	260	490	-	-	-	-	-	-
M	14	Austenitic Stainless Steel	-	-	-	-	-	-	-	-	-	-	260	660	-	-	330	660	130	430	100	390	-	-	-	-	-	-
K	15~16	Grey Cast Iron	660	1570	560	1380	390	980	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
K	17~18	Nodular Cast Iron	490	1480	390	1340	390	920	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
N	21~30	Non-Ferrous Metals (Al)	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	1150	3940	820	2620
S	31~37	Superalloys & Titanium	-	-	-	-	-	-	-	-	-	-	110	260	-	-	100	300	70	130	70	130	130	280	-	-	-	-
H	38~41	Hard Materials	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-

Turning Inserts - Negative

WNMG/WNMA (80° Trigonal Negative)



Series	L	IC	S
WN** 33	.224	3/8	3/16
WN** 43	.307	1/2	3/16

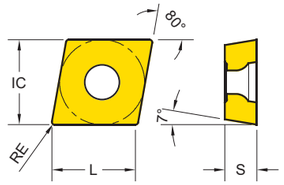
EDP 2200.. ●: Stock item ○: Order made item

								K10	P05 K20	P10 K30	P15	P20	P30 M20	P20	M15 S10	M30 S20	M40 S30	S10	N20	N20
WNMG		Designation	RE	Fn (mm/rev.)	Ap (mm)			YG1010	YG1001	YG3010	YG3015	YG3020	YG3030	YG801	YG211	YG213	YG214	YG401	YG100	YG10
-SM	 HRSA Medium	WNMG 432 -SM	1/32	.004 ~ .010	.02 ~ .16										● 1199	● 1206		● 1311		
		WNMG 433 -SM	3/64	.004 ~ .010	.02 ~ .16										● 1374	● 1416		● 1312		
-SR	 HRSA Roughing	WNMG 333 -SR	3/64	.004 ~ .016	.02 ~ .12													● 1439		
		WNMG 432 -SR	1/32	.004 ~ .016	.02 ~ .16													● 1310		
		WNMG 433 -SR	3/64	.004 ~ .016	.02 ~ .16													● 1309		

Cutting Speed			Vc (ft/min)																					
ISO	VDI	Sub Group	YG1010		YG1001		YG3010		YG3015		YG3020		YG3030		YG801		YG211		YG213		YG214		YG401		YG100		YG10	
			Min	Max	Min	Max	Min	Max	Min	Max	Min	Max	Min	Max	Min	Max	Min	Max	Min	Max	Min	Max	Min	Max	Min	Max	Min	Max
P	1~5	Non-Alloyed Steel	-	-	720	1570	560	1480	560	1340	590	1250	490	1150	390	660	-	-	-	-	-	-	-	-	-	-	-	-
P	6~9	Low-Alloyed Steel	-	-	720	1380	590	1250	430	1180	360	1150	300	980	230	660	-	-	-	-	-	-	-	-	-	-	-	-
P	10~11	High-Alloyed Steel	-	-	-	-	330	1080	260	1020	200	980	230	820	-	-	-	-	-	-	-	-	-	-	-	-	-	-
M	12~13	Ferritic & Martensitic	-	-	-	-	-	-	-	-	-	-	390	750	-	-	430	750	360	590	260	490	-	-	-	-	-	-
M	14	Austenitic Stainless Steel	-	-	-	-	-	-	-	-	-	-	260	660	-	-	330	660	130	430	100	390	-	-	-	-	-	-
K	15~16	Grey Cast Iron	660	1570	560	1380	390	980	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
K	17~18	Nodular Cast Iron	490	1480	390	1340	390	920	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
N	21~30	Non-Ferrous Metals (Al)	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	1150	3940	820	2620
S	31~37	Superalloys & Titanium	-	-	-	-	-	-	-	-	-	-	110	260	-	-	100	300	70	130	70	130	130	280	-	-	-	-
H	38~41	Hard Materials	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-

Turning Inserts - Positive

CCMT / CCGT (80° Positive)



Series	L	IC	S
CC** 21.5	.244	1/4	3/32
CC** 32.5	.362	3/8	5/32
CC** 43	.488	1/2	3/16

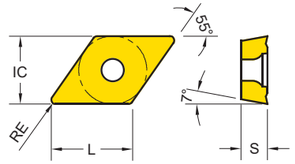
EDP 2200.. ●: Stock item ○: Order made item

						K10	P05 K20	P10 K30	P15	P20	P30 M20	P20	M15 S10	M30 S20	M40 S30	S10	N20	N20
CCGT CCMT		Designation	RE	Fn (mm/rev.)	Ap (mm)	YG1010	YG1001	YG3010	YG3015	YG3020	YG3030	YG801	YG211	YG213	YG214	YG401	YG100	YG10
-AL	Aluminum	CCGT 21.50.5 -AL	.008	.001 ~ .006	.01 ~ .08													● 1398
		CCGT 21.51 -AL	1/64	.001 ~ .006	.02 ~ .08													● 1320
		CCGT 32.50.5 -AL	.008	.001 ~ .003	.02 ~ .04												● 0340	● 0339
		CCGT 32.51 -AL	1/64	.002 ~ .010	.02 ~ .08												● 0330	● 0081
		CCGT 32.52 -AL	1/32	.004 ~ .014	.04 ~ .12												● 0331	● 0082
		CCGT 430.5 -AL	.008	.002 ~ .006	.01 ~ .04												● 0474	● 0473
		CCGT 431 -AL	1/64	.002 ~ .008	.02 ~ .06												● 0476	● 0475
		CCGT 432 -AL	1/32	.002 ~ .012	.03 ~ .10												● 0478	● 0477
-UF	Finishing	CCMT 21.51 -UF	1/64	.002 ~ .008	.02 ~ .08			● 0163	● 0866	● 0164	● 0165							
		CCMT 32.51 -UF	1/64	.002 ~ .008	.02 ~ .08			● 0169		● 0170	● 0171							
		CCMT 32.52 -UF	1/32	.002 ~ .010	.04 ~ .08			● 0964		● 0951	● 0953							
-UG	General	CCMT 21.51 -UG	1/64	.004 ~ .010	.02 ~ .08			● 0166		● 0167	● 0168	● 0006						
		CCMT 21.52 -UG	1/32	.004 ~ .010	.04 ~ .08			● 0479		● 0683	● 0684	● 0009						
		CCMT 32.51 -UG	1/64	.006 ~ .012	.02 ~ .10			● 0172		● 0173	● 0174	● 0007						
		CCMT 32.52 -UG	1/32	.006 ~ .012	.04 ~ .10		● 0445	● 0150		● 0151	● 0152	● 0008						
		CCMT 431 -UG	1/64	.006 ~ .014	.02 ~ .12			● 0175		● 0176	● 0177							
		CCMT 432 -UG	1/32	.006 ~ .014	.04 ~ .12			● 0153	● 0867	● 0154	● 0155	● 0005						
		CCMT 433 -UG	3/64	.006 ~ .014	.05 ~ .12			● 0483		● 0915	● 1135							

Cutting Speed			Vc (ft/min)																					
ISO	VDI	Sub Group	YG1010		YG1001		YG3010		YG3015		YG3020		YG3030		YG801		YG211		YG213		YG214		YG401		YG100		YG10	
			Min	Max	Min	Max	Min	Max	Min	Max	Min	Max	Min	Max	Min	Max	Min	Max	Min	Max	Min	Max	Min	Max	Min	Max	Min	Max
P	1~5	Non-Alloyed Steel	-	-	720	1570	560	1480	560	1340	590	1250	490	1150	390	660	-	-	-	-	-	-	-	-	-	-	-	-
P	6~9	Low-Alloyed Steel	-	-	720	1380	590	1250	430	1180	360	1150	300	980	230	660	-	-	-	-	-	-	-	-	-	-	-	-
P	10~11	High-Alloyed Steel	-	-	-	-	330	1080	260	1020	200	980	230	820	-	-	-	-	-	-	-	-	-	-	-	-	-	-
M	12~13	Ferritic & Martensitic	-	-	-	-	-	-	-	-	-	-	390	750	-	-	430	750	360	590	260	490	-	-	-	-	-	-
M	14	Austenitic Stainless Steel	-	-	-	-	-	-	-	-	-	-	260	660	-	-	330	660	130	430	100	390	-	-	-	-	-	-
K	15~16	Grey Cast Iron	660	1570	560	1380	390	980	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
K	17~18	Nodular Cast Iron	490	1480	390	1340	390	920	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
N	21~30	Non-Ferrous Metals (Al)	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	1150	3940	820	2620
S	31~37	Superalloys & Titanium	-	-	-	-	-	-	-	-	-	-	110	260	-	-	100	300	70	130	70	130	130	280	-	-	-	-
H	38~41	Hard Materials	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-

Turning Inserts - Positive

DCMT / DCGT (55° Positive)



Series	L	IC	S
DC** 21.5	.295	1/4	3/32
DC** 32.5	.441	3/8	5/32

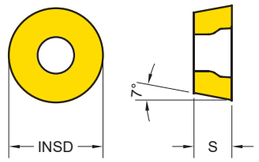
EDP 2200.. ●: Stock item ○: Order made item

						K10	P05 K20	P10 K30	P15	P20	P30 M20	P20	M15 S10	M30 S20	M40 S30	S10	N20	N20
DCGT DCMT		Designation	RE	Fn (mm/rev.)	Ap (mm)	YG1010	YG1001	YG3010	YG3015	YG3020	YG3030	YG801	YG211	YG213	YG214	YG401	YG100	YG10
-AL	Aluminum	DCGT 21.51 -AL	1/64	.001 ~ .006	.01 ~ .08													● 1400
		DCGT 32.50.5 -AL	.008	.001 ~ .003	.02 ~ .04												● 0342	● 0341
		DCGT 32.51 -AL	1/64	.002 ~ .010	.02 ~ .08												● 0332	● 0083
		DCGT 32.52 -AL	1/32	.004 ~ .012	.04 ~ .10												● 0333	● 0084
-UF	Finishing	DCMT 21.51 -UF	1/64	.002 ~ .008	.02 ~ .08			● 0207		● 0208	● 0209							
		DCMT 32.51 -UF	1/64	.002 ~ .010	.02 ~ .08			● 0213		● 0214	● 0215							
		DCMT 32.52 -UF	1/32	.002 ~ .010	.04 ~ .08			● 0219		● 0220	● 0221							
-UG	General	DCMT 21.51 -UG	1/64	.004 ~ .010	.02 ~ .08			● 0210		● 0211	● 0212	● 0013						
		DCMT 21.52 -UG	1/32	.004 ~ .010	.04 ~ .08			● 0484		● 0717	● 1136							
		DCMT 32.51 -UG	1/64	.004 ~ .009	.01 ~ .10		● 0677	● 0216		● 0217	● 0218	● 0014						
		DCMT 32.52 -UG	1/32	.007 ~ .020	.02 ~ .13		● 0678	● 0222		● 0223	● 0224	● 0015						

Cutting Speed			Vc (ft/min)																					
ISO	VDI	Sub Group	YG1010		YG1001		YG3010		YG3015		YG3020		YG3030		YG801		YG211		YG213		YG214		YG401		YG100		YG10	
			Min	Max	Min	Max	Min	Max	Min	Max	Min	Max	Min	Max	Min	Max	Min	Max	Min	Max	Min	Max	Min	Max	Min	Max	Min	Max
P	1~5	Non-Alloyed Steel	-	-	720	1570	560	1480	560	1340	590	1250	490	1150	390	660	-	-	-	-	-	-	-	-	-	-	-	-
P	6~9	Low-Alloyed Steel	-	-	720	1380	590	1250	430	1180	360	1150	300	980	230	660	-	-	-	-	-	-	-	-	-	-	-	-
P	10~11	High-Alloyed Steel	-	-	-	-	330	1080	260	1020	200	980	230	820	-	-	-	-	-	-	-	-	-	-	-	-	-	-
M	12~13	Ferritic & Martensitic	-	-	-	-	-	-	-	-	-	-	390	750	-	-	430	750	360	590	260	490	-	-	-	-	-	-
M	14	Austenitic Stainless Steel	-	-	-	-	-	-	-	-	-	-	260	660	-	-	330	660	130	430	100	390	-	-	-	-	-	-
K	15~16	Grey Cast Iron	660	1570	560	1380	390	980	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
K	17~18	Nodular Cast Iron	490	1480	390	1340	390	920	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
N	21~30	Non-Ferrous Metals (Al)	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	1150	3940	820	2620
S	31~37	Superalloys & Titanium	-	-	-	-	-	-	-	-	-	-	110	260	-	-	100	300	70	130	70	130	130	280	-	-	-	-
H	38~41	Hard Materials	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-

Turning Inserts - Positive

RCMT (Round Positive)



Series	INSD	S
RC** 0602	.236	3/32
RC** 0803	.315	1/8
RC** 10T3	.394	5/32
RC** 1204	.472	3/16

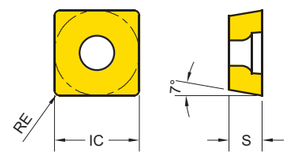
EDP 2200.. ●: Stock item ○: Order made item

RCMT	Designation	RE	Fn (mm/rev.)	Ap (mm)	K10	P05 K20	P10 K30	P15	P20	P30 M20	P20	M15 S10	M30 S20	M40 S30	S10	N20	N20
					YG1010	YG1001	YG3010	YG3015	YG3020	YG3030	YG801	YG211	YG213	YG214	YG401	YG100	YG10
 General	RCMT 0602M0	.118	.005~.016	.02~.08		● 0374	● 0375		● 0376	● 1151	● 0023						
	RCMT 0803M0	.157	.002~.012	.02~.06		● 0377	● 0378		● 0379	● 1152	● 0024						
	RCMT 10T3M0	.197	.004~.014	.02~.10		● 0380	● 0381		● 0382	● 1153	● 0021						
	RCMT 1204M0	.236	.006~.018	.02~.12		● 0383	● 0384		● 0385	● 1170	● 0022						

Cutting Speed			Vc (ft/min)																			
ISO	VDI	Sub Group	YG1010		YG1001		YG3010		YG3015		YG3020		YG3030		YG801		YG211		YG213		YG214		YG401		YG100		YG10	
			Min	Max	Min	Max	Min	Max	Min	Max	Min	Max	Min	Max	Min	Max	Min	Max	Min	Max	Min	Max	Min	Max	Min	Max	Min	Max
P	1~5	Non-Alloyed Steel	-	-	720	1570	560	1480	560	1340	590	1250	490	1150	390	660	-	-	-	-	-	-	-	-	-	-	-	-
P	6~9	Low-Alloyed Steel	-	-	720	1380	590	1250	430	1180	360	1150	300	980	230	660	-	-	-	-	-	-	-	-	-	-	-	-
P	10~11	High-Alloyed Steel	-	-	-	-	330	1080	260	1020	200	980	230	820	-	-	-	-	-	-	-	-	-	-	-	-	-	-
M	12~13	Ferritic & Martensitic	-	-	-	-	-	-	-	-	-	-	390	750	-	-	430	750	360	590	260	490	-	-	-	-	-	-
M	14	Austenitic Stainless Steel	-	-	-	-	-	-	-	-	-	-	260	660	-	-	330	660	130	430	100	390	-	-	-	-	-	-
K	15~16	Grey Cast Iron	660	1570	560	1380	390	980	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
K	17~18	Nodular Cast Iron	490	1480	390	1340	390	920	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
N	21~30	Non-Ferrous Metals (Al)	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	1150	3940	820	2620
S	31~37	Superalloys & Titanium	-	-	-	-	-	-	-	-	-	-	110	260	-	-	100	300	70	130	70	130	130	280	-	-	-	-
H	38~41	Hard Materials	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-

Turning Inserts - Positive

SCMT/SCGT (Square Positive)



Series	IC	S
SC** 32.5	3/8	5/32
SC** 43	1/2	3/16

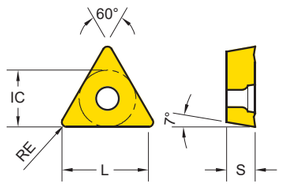
EDP 2200.. ●: Stock item ○: Order made item

SCGT SCMT		Designation	RE	Fn (mm/rev.)	Ap (mm)	K10	P05 K20	P10 K30	P15	P20	P30 M20	P20	M15 S10	M30 S20	M40 S30	S10	N20	N20
						YG1010	YG1001	YG3010	YG3015	YG3020	YG3030	YG801	YG211	YG213	YG214	YG401	YG100	YG10
-AL	 Aluminium	SCGT 32.51 -AL	1/64	.002~.016	.01~.20													● 1516
		SCGT 32.52 -AL	1/32	.001~.016	.01~.20													● 1517
-UF	 Finishing	SCMT 32.51 -UF	1/64	.002~.010	.02~.08			● 0386		● 0387	● 0783							
		SCMT 32.52 -UF	1/32	.002~.010	.04~.08			● 1021		● 1022	● 0997							
-UG	 General	SCMT 32.51 -UG	1/64	.006~.012	.02~.10		● 0455	● 0482		● 0916	● 1171	● 0025						
		SCMT 32.52 -UG	1/32	.006~.012	.04~.10		● 0456	● 0159		● 0160	● 0161	● 0026						
		SCMT 432 -UG	1/32	.006~.014	.04~.12		● 0674	● 0255		● 0256	● 0257							

Cutting Speed			Vc (ft/min)																			
ISO	VDI	Sub Group	YG1010		YG1001		YG3010		YG3015		YG3020		YG3030		YG801		YG211		YG213		YG214		YG401		YG100		YG10	
			Min	Max	Min	Max	Min	Max	Min	Max	Min	Max	Min	Max	Min	Max	Min	Max	Min	Max	Min	Max	Min	Max	Min	Max	Min	Max
P	1~5	Non-Alloyed Steel	-	-	720	1570	560	1480	560	1340	590	1250	490	1150	390	660	-	-	-	-	-	-	-	-	-	-	-	-
P	6~9	Low-Alloyed Steel	-	-	720	1380	590	1250	430	1180	360	1150	300	980	230	660	-	-	-	-	-	-	-	-	-	-	-	-
P	10~11	High-Alloyed Steel	-	-	-	-	330	1080	260	1020	200	980	230	820	-	-	-	-	-	-	-	-	-	-	-	-	-	-
M	12~13	Ferritic & Martensitic	-	-	-	-	-	-	-	-	-	-	390	750	-	-	430	750	360	590	260	490	-	-	-	-	-	-
M	14	Austenitic Stainless Steel	-	-	-	-	-	-	-	-	-	-	260	660	-	-	330	660	130	430	100	390	-	-	-	-	-	-
K	15~16	Grey Cast Iron	660	1570	560	1380	390	980	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
K	17~18	Nodular Cast Iron	490	1480	390	1340	390	920	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
N	21~30	Non-Ferrous Metals (Al)	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	1150	3940	820	2620
S	31~37	Superalloys & Titanium	-	-	-	-	-	-	-	-	-	-	110	260	-	-	100	300	70	130	70	130	130	280	-	-	-	-
H	38~41	Hard Materials	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-

Turning Inserts - Positive

TCMT / TCGT (Triangle Positive)



Series	L	IC	S
TC** 21.5	.433	1/4	3/32
TC** 32.5	.618	3/8	5/32

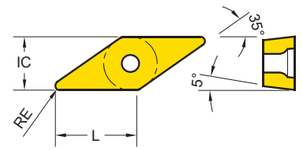
EDP 2200.. ●: Stock item ○: Order made item

		Designation	RE	Fn (mm/rev.)	Ap (mm)	K10	P05 K20	P10 K30	P15	P20	P30 M20	P20	M15 S10	M30 S20	M40 S30	S10	N20	N20
						YG1010	YG1001	YG3010	YG3015	YG3020	YG3030	YG801	YG211	YG213	YG214	YG401	YG100	YG10
-AL	Aluminum	TCGT 21.51 -AL	1/64	.001 ~ .012	.01 ~ .16													● 1333
		TCGT 32.50.5 -AL	.008	.001 ~ .002	.02 ~ .04												● 0344	● 0343
		TCGT 32.51 -AL	1/64	.002 ~ .010	.02 ~ .08												● 0334	● 0085
		TCGT 32.52 -AL	1/32	.004 ~ .014	.04 ~ .12												● 0335	● 0086
-UF	Finishing	TCMT 21.51 -UF	1/64	.002 ~ .008	.02 ~ .08			● 0395		● 0396	● 1196							
		TCMT 32.51 -UF	1/64	.004 ~ .008	.01 ~ .10			● 0397		● 0398	● 1046	● 0033						
		TCMT 32.52 -UF	1/32	.002 ~ .010	.04 ~ .08			● 0624		● 0625	● 1045							
-UG	General	TCMT 21.51 -UG	1/64	.003 ~ .008	.01 ~ .08		● 0728	● 0264		● 0265	● 0266	● 0032						
		TCMT 21.52 -UG	1/32	.004 ~ .010	.04 ~ .08			● 0485		● 0715	● 1204							
		TCMT 32.51 -UG	1/64	.006 ~ .012	.02 ~ .10		● 0679	● 0267		● 0268	● 0269							
		TCMT 32.52 -UG	1/32	.006 ~ .012	.04 ~ .10		● 0457	● 0156		● 0157	● 0158	● 0034						

Cutting Speed			Vc (ft/min)																					
ISO	VDI	Sub Group	YG1010		YG1001		YG3010		YG3015		YG3020		YG3030		YG801		YG211		YG213		YG214		YG401		YG100		YG10	
			Min	Max	Min	Max	Min	Max	Min	Max	Min	Max	Min	Max	Min	Max	Min	Max	Min	Max	Min	Max	Min	Max	Min	Max	Min	Max
P	1~5	Non-Alloyed Steel	-	-	720	1570	560	1480	560	1340	590	1250	490	1150	390	660	-	-	-	-	-	-	-	-	-	-	-	-
P	6~9	Low-Alloyed Steel	-	-	720	1380	590	1250	430	1180	360	1150	300	980	230	660	-	-	-	-	-	-	-	-	-	-	-	-
P	10~11	High-Alloyed Steel	-	-	-	-	330	1080	260	1020	200	980	230	820	-	-	-	-	-	-	-	-	-	-	-	-	-	-
M	12~13	Ferritic & Martensitic	-	-	-	-	-	-	-	-	-	-	390	750	-	-	430	750	360	590	260	490	-	-	-	-	-	-
M	14	Austenitic Stainless Steel	-	-	-	-	-	-	-	-	-	-	260	660	-	-	330	660	130	430	100	390	-	-	-	-	-	-
K	15~16	Grey Cast Iron	660	1570	560	1380	390	980	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
K	17~18	Nodular Cast Iron	490	1480	390	1340	390	920	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
N	21~30	Non-Ferrous Metals (Al)	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	1150	3940	820	2620
S	31~37	Superalloys & Titanium	-	-	-	-	-	-	-	-	-	-	110	260	-	-	100	300	70	130	70	130	130	280	-	-	-	-
H	38~41	Hard Materials	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-

Turning Inserts - Positive

VBMT (35° Positive)

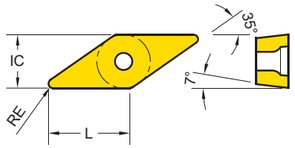


Series	L	IC	S
VB** 33	.622	3/8	3/16

EDP 2200.. ●: Stock item ○: Order made item

		Designation	RE	Fn (mm/rev.)	Ap (mm)	K10	P05 K20	P10 K30	P15	P20	P30 M20	P20	M15 S10	M30 S20	M40 S30	S10	N20	N20
						YG1010	YG1001	YG3010	YG3015	YG3020	YG3030	YG801	YG211	YG213	YG214	YG401	YG100	YG10
-UF	Finishing	VBMT 331 -UF	1/64	.002 ~ .010	.02 ~ .08			● 0294		● 0295	● 0296							
		VBMT 332 -UF	1/32	.002 ~ .010	.04 ~ .08			● 0300		● 0301	● 0302							
-UG	General	VBMT 331 -UG	1/64	.006 ~ .012	.02 ~ .10		● 0682	● 0297		● 0298	● 0299	● 0047						
		VBMT 332 -UG	1/32	.006 ~ .012	.04 ~ .10		● 0681	● 0303		● 0304	● 0305	● 0048						

Cutting Speed			Vc (ft/min)																					
ISO	VDI	Sub Group	YG1010		YG1001		YG3010		YG3015		YG3020		YG3030		YG801		YG211		YG213		YG214		YG401		YG100		YG10	
			Min	Max	Min	Max	Min	Max	Min	Max	Min	Max	Min	Max	Min	Max	Min	Max	Min	Max	Min	Max	Min	Max	Min	Max	Min	Max
P	1~5	Non-Alloyed Steel	-	-	720	1570	560	1480	560	1340	590	1250	490	1150	390	660	-	-	-	-	-	-	-	-	-	-	-	-
P	6~9	Low-Alloyed Steel	-	-	720	1380	590	1250	430	1180	360	1150	300	980	230	660	-	-	-	-	-	-	-	-	-	-	-	-
P	10~11	High-Alloyed Steel	-	-	-	-	330	1080	260	1020	200	980	230	820	-	-	-	-	-	-	-	-	-	-	-	-	-	-
M	12~13	Ferritic & Martensitic	-	-	-	-	-	-	-	-	-	-	390	750	-	-	430	750	360	590	260	490	-	-	-	-	-	-
M	14	Austenitic Stainless Steel	-	-	-	-	-	-	-	-	-	-	260	660	-	-	330	660	130	430	100	390	-	-	-	-	-	-
K	15~16	Grey Cast Iron	660	1570	560	1380	390	980	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
K	17~18	Nodular Cast Iron	490	1480	390	1340	390	920	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
N	21~30	Non-Ferrous Metals (Al)	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	1150	3940	820	2620
S	31~37	Superalloys & Titanium	-	-	-	-	-	-	-	-	-	-	110	260	-	-	100	300	70	130	70	130	130	280	-	-	-	-
H	38~41	Hard Materials	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-



Turning Inserts - Positive

VCMT / VCGT (35˚ Positive)

Series	L	IC	S
VC** 33	.622	3/8	3/16

EDP 2200..

● : Stock item ○ : Order made item

VCGT VCMT	Designation	RE	Fn (mm/rev.)	Ap (mm)	K10 YG1010	P05 K20 YG1001	P10 K30 YG3010	P15 YG3015	P20 YG3020	P30 M20 YG3030	P20 YG801	M15 S10 YG211	M30 S20 YG213	M40 S30 YG214	S10 YG401	N20 YG100	N20 YG10
-AL Aluminum	VCGT 330.5 -AL	.008	.001 ~ .002	.02 ~ .04												● 0418	● 0417
	VCGT 331 -AL	1/64	.002 ~ .010	.02 ~ .08												● 0336	● 0087
	VCGT 332 -AL	1/32	.004 ~ .014	.04 ~ .12												● 0420	● 0419
-UF Finishing	VCMT 331 -UF	1/64	.002 ~ .010	.02 ~ .08			● 0716		● 0421	● 0955							
	VCMT 332 -UF	1/32	.002 ~ .010	.04 ~ .08			● 0557		● 0558								
-UG General	VCMT 331 -UG	1/64	.004 ~ .008	.02 ~ .10							● 0060						
	VCMT 332 -UG	1/32	.007 ~ .014	.02 ~ .14			● 0946		● 0422	● 0956	● 0061						

Cutting Speed			Vc (ft/min)																									
ISO	VDI	Sub Group	YG1010		YG1001		YG3010		YG3015		YG3020		YG3030		YG801		YG211		YG213		YG214		YG401		YG100		YG10	
			Min	Max	Min	Max	Min	Max	Min	Max	Min	Max	Min	Max	Min	Max	Min	Max	Min	Max	Min	Max	Min	Max	Min	Max	Min	Max
P	1~5	Non-Alloyed Steel	-	-	720	1570	560	1480	560	1340	590	1250	490	1150	390	660	-	-	-	-	-	-	-	-	-	-	-	-
	6~9	Low-Alloyed Steel	-	-	720	1380	590	1250	430	1180	360	1150	300	980	230	660	-	-	-	-	-	-	-	-	-	-	-	-
	10~11	High-Alloyed Steel	-	-	-	-	330	1080	260	1020	200	980	230	820	-	-	-	-	-	-	-	-	-	-	-	-	-	-
M	12~13	Ferritic & Martensitic	-	-	-	-	-	-	-	-	-	-	390	750	-	-	430	750	360	590	260	490	-	-	-	-	-	-
	14	Austenitic Stainless Steel	-	-	-	-	-	-	-	-	-	-	260	660	-	-	330	660	130	430	100	390	-	-	-	-	-	-
K	15~16	Grey Cast Iron	660	1570	560	1380	390	980	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	17~18	Nodular Cast Iron	490	1480	390	1340	390	920	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
N	21~30	Non-Ferrous Metals (Al)	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	1150	3940	820	2620
S	31~37	Superalloys & Titanium	-	-	-	-	-	-	-	-	-	-	110	260	-	-	100	300	70	130	70	130	130	280	-	-	-	-
H	38~41	Hard Materials	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-

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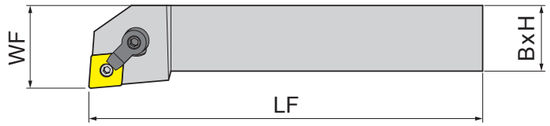
Turning - Holder - External

External Holders Overview

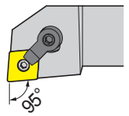
Series		Turning Holder		
p. 26	CNMA CNMG	MCLNR/L Pin + Top Clamp p. 58		
p. 31	DNMA DNMG	27°max MDJNR/L Pin + Top Clamp p. 58		
p. 36	SNMA SNMG	MSBNR/L Pin + Top Clamp p. 59	MSRNR/L Pin + Top Clamp p. 59	MSSNR/L Pin + Top Clamp p. 59
p. 39/43	TNMA TNMG TNUX	MTGNR/L Pin + Top Clamp p. 60	MTJNR/L Pin + Top Clamp p. 60	
p. 44	VNMA VNMG	50°max MVJNR/L Pin + Top Clamp p. 61		
p. 46	WNMA WNMG	MWLNR/L Pin + Top Clamp p. 62		

Turning - Holder - External

External Holders for CN** Insert



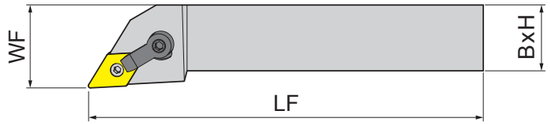
: p. 26 Unit: inch

Series	Designation	EDP 2700.. R	EDP 2700.. L	H	B	WF	LF	Insert
 MCLNR/L (Pin + Top Clamp Type 95°)	MCLNR/L 12 4B	0369	0370	.75	.75	1	4.5	CN43
	MCLNR/L 16 4D	0358	0357	1.00	1.00	1.25	6	
	MCLNR/L 20 4D	0371	0372	1.25	1.25	1.5	6	

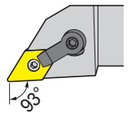
Series	Size	Clamp Screw	Pin	Shim	Allen Key
MCLNR/L	12 4B	MCS061025	MCP617	MSC43	MWR3
	16~20 4D	MCS061030	MCP617	MSC43	MWR3

Turning - Holder - External

External Holders for DN** Insert



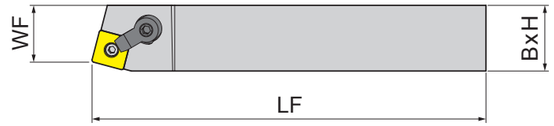
: p. 31 Unit: inch

Series	Designation	EDP 2700.. R	EDP 2700.. L	H	B	WF	LF	Insert
 MDJNR/L (Pin + Top Clamp Type 95°)	MDJNR/L 12 4B	0373	0374	.75	.75	1	4.5	DN43
	MDJNR/L 16 4D	0360	0359	1.00	1.00	1.25	6	
	MDJNR/L 20 4D	0375	0376	1.25	1.25	1.5	6	

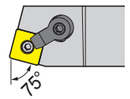
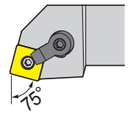
Series	Size	Clamp Screw	Pin	Shim	Allen Key
MDJNR/L	12 4B	MCS061025	MCP619	MSD43	MWR3
	16~20 4D	MCS061030	MCP619	MSD43	MWR3

Turning - Holder - External

External Holders for SN** Insert



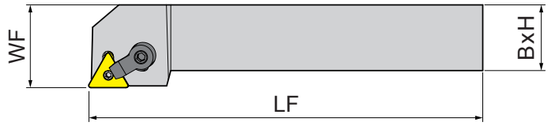
: p. 36 Unit: inch

Series	Designation	EDP 2700.. R	EDP 2700.. L	H	B	WF	LF	Insert
 MSBNR/L (Pin + Top Clamp Type 95°)	MSBNR/L 16 4D	0362	0361	1.00	1.00	0.843	6	SN43
 MSRNR/L (Pin + Top Clamp Type 95°)	MSRNR/L 16 4D	0395	0396	1.00	1.00	1.128	6	SN43
MSSNR/L (Pin + Top Clamp Type 95°)	MSSNR/L 16 4D	0397	0398	1.00	1.00	0.912	6	SN43

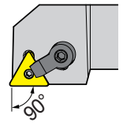
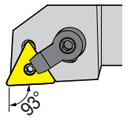
Series	Size	Clamp Screw	Pin	Shim	Allen Key
MSBNR/L	16 4D	MCS061030	MCP617	MSS43	MWR3
MSRNR/L	16 4D	MCS061030	MCP617	MSS43	MWR3
MSSNR/L	16 4D	MCS061030	MCP617	MSS43	MWR3

Turning - Holder - External

External Holders for TN** Insert



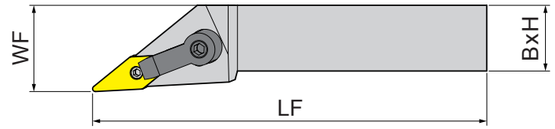
: p. 39 Unit: inch

Series	Designation	EDP 2700.. R	EDP 2700.. L	H	B	WF	LF	Insert
 **MTGNR/L** (Pin + Top Clamp Type 95°)	**MTGNR/L 16 4D**	**0364**	**0363**	1.00	1.00	1.25	6	**TN43**
 **MTJNR/L** (Pin + Top Clamp Type 95°)	**MTJNR/L 12 3B**	**0377**	**0378**	.75	.75	1	4.5	**TN33**
	MTJNR/L 16 4D	**0379**	**0380**	1.00	1.00	1.25	6	**TN43**
	MTJNR/L 20 4D	**0381**	**0382**	1.25	1.25	1.5	6	

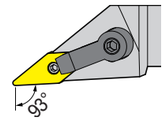
Series	Size	Clamp Screw	Pin	Shim	Allen Key
MTGNR/L	**16 4D**	MCS061025	MCP513	MST43	MWR3
MTJNR/L	**12 3B**	MCS061025	MCP513	MST33	MWR3
	16~20 4D	MCS061030	MCP617	MST43	MWR3

Turning - Holder - External

External Holders forVN** Insert



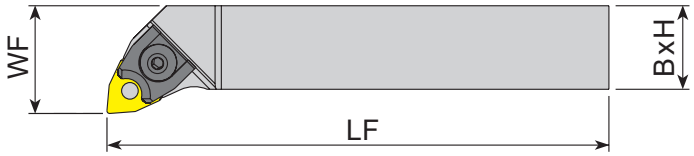
: p. 44 Unit: inch

Series	Designation	EDP 2700.. R	EDP 2700.. L	H	B	WF	LF	Insert
 **MVJNR/L** (Pin + Top Clamp Type 95°)	**MVJNR/L 12 3B**	**0383**	**0384**	.75	.75	1	4.5	**VN33**
	MVJNR/L 16 3D	**0366**	**0365**	1.00	1.00	1.25	6	
	MVJNR/L 20 3D	**0385**	**0386**	1.25	1.25	1.5	6	

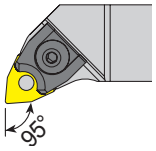
Series	Size	Clamp Screw	Pin	Shim	Allen Key
MVJNR/L	**12~16 3..**	MCS061025	MCP513	MSV33	MWR2, MWR3
	20 3D	MCS061030	MCP513	MSV33	MWR2, MWR3

Turning - Holder - External

External Holders for WN** Insert



: p. 46 Unit: inch

Series	Designation	EDP 2700.. R	EDP 2700.. L	H	B	WF	LF	Insert
 **MWLNR/L** (Pin + Top Clamp Type 95°)	MWLNR/L 12 3B	0387	0388	.75	.75	1	4.5	WN33
	MWLNR/L 16 3D	0389	0390	1.00	1.00	1.25	6	
	MWLNR/L 12 4B	0391	0392	.75	.75	1	4.5	WN43
	MWLNR/L 16 4D	0368	0367	1.00	1.00	1.25	6	
	MWLNR/L 20 4D	0393	0394	1.25	1.25	1.5	6	

Series	Size	Clamp Screw	Pin	Shim	Allen Key
MWLNR/L	12 3B	MCS061025	MCP513	MSW33	MWR3
	16 3D	MCS061030	MCP513	MSW33	MWR3
	12 4B	MCS061025	MCP617	MSW43	MWR3
	16~20 4D	MCS061030	MCP617	MSW43	MWR3

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