


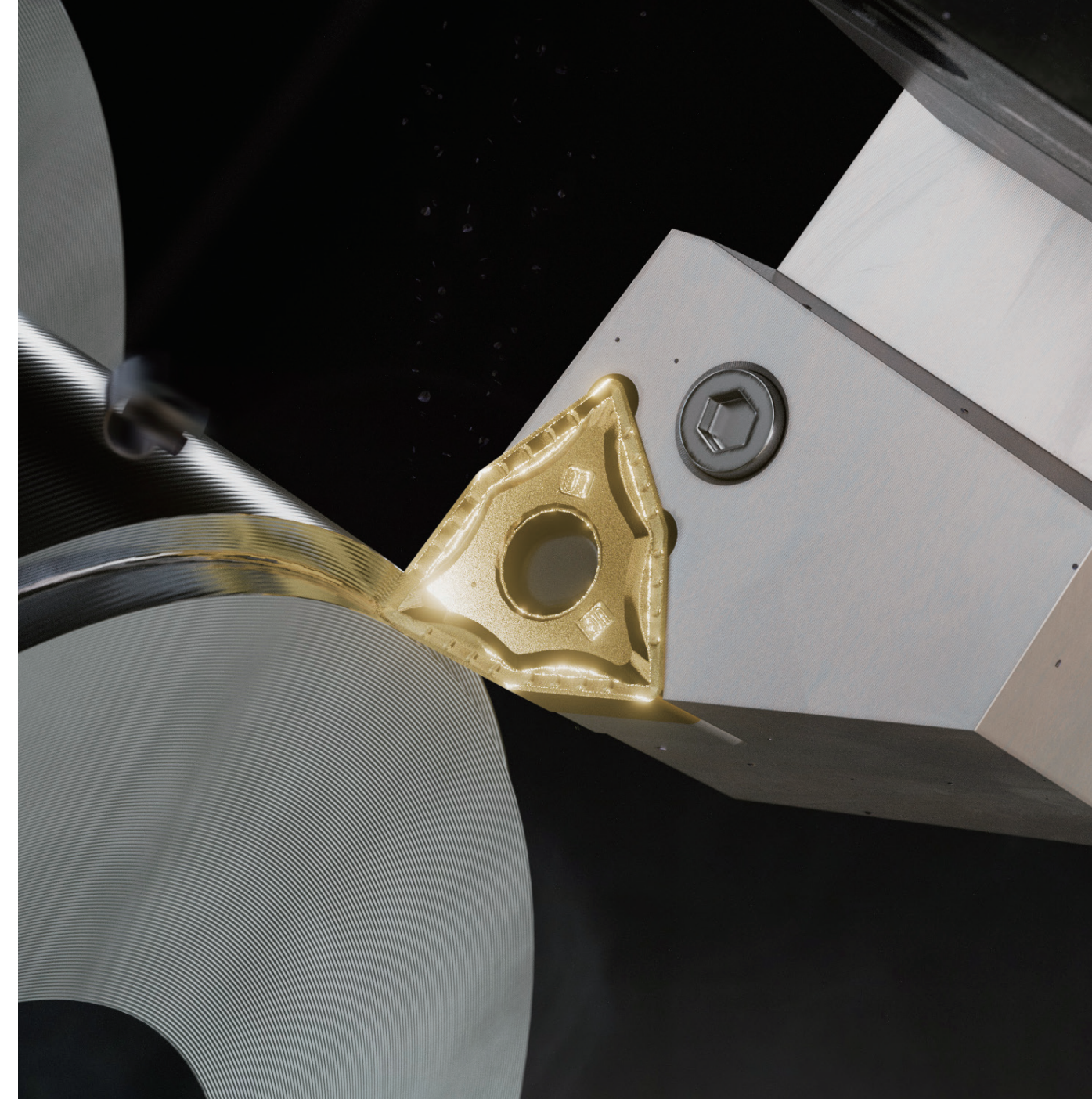


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# ISO TURNING

**Product Overview**

**Application Guide**

**Turning Inserts Overview**

**Turning Inserts**

**Turning Holders Overview**

**Turning Holders**

**External Turning Holder Code (Inch)**

\*Inch

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

Symbol	System
<b>C</b>	 Top Clamp (No Clamping Hole Insert)
<b>M</b>	 Multi lock (Straight Clamping Hole Insert)
<b>P</b>	 Lever Lock (Straight Clamping Hole Insert)
<b>S</b>	 Screw Clamp (Screw Clamping Hole Insert)
<b>D</b>	 Double 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°	<b>D</b> 	<b>S</b> 	
60°		<b>T</b> 	
62.5°	<b>N</b> 		
72.5°	<b>V</b> 		
75°	<b>B</b> 		<b>K</b> 
90°	<b>A</b> 	<b>G</b> 	<b>F</b> 
93°		<b>J</b> 	<b>U</b> 
95°		<b>L</b> (Both Directions) 	
107.5°		<b>H</b> 	

**External Turning Holder Code (Inch)**

\*Inch

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

Symbol	Hand Direction
<b>R</b>	Right Hand 
<b>L</b>	Left Hand 
<b>N</b>	Neutral 

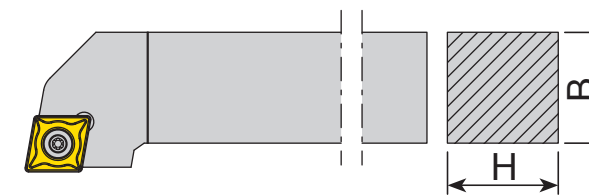
**7 - Insert Size \***

Example	is Compatible with...
<b>MCLNR 12 4B</b>	<b>CNMG432</b>
<b>MTJNR 16 3B</b>	<b>TNMG331</b>

\* Related to Insert Designation to check compatibility

**8 - Length (LF)**

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

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


Number	Hight (H)	Width (B)	Number	Hight (H)	Width (B)
<b>05</b>	.3125	.3125	<b>24</b>	1.500	1.500
<b>06</b>	.375	.375	<b>32</b>	2.000	2.000
<b>08</b>	.500	.500	<b>64</b>	1.000	.750
<b>10</b>	.625	.625	<b>66</b>	1.500	1.750
<b>12</b>	.750	.750	<b>85</b>	1.250	1.000
<b>16</b>	1.000	1.000	<b>86</b>	1.500	1.000
<b>20</b>	1.250	1.250	<b>91</b>	1.500	1.250

## Insert ISO Code System

\*Metric : According to ISO 1832

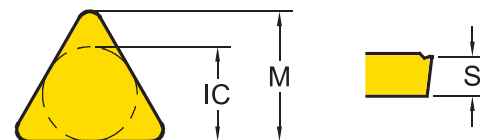
<b>1</b>	<b>2</b>	<b>3</b>	<b>4</b>	<b>5</b>	<b>6</b>	<b>7</b>	<b>8</b>	<b>9</b>
<b>C</b>	<b>N</b>	<b>M</b>	<b>G</b>	<b>12</b>	<b>04</b>	<b>08</b>	<b>-UG</b>	<b>YG3115</b>
Shape	Clearance	Tolerance	Clamping & Chipbreaker	Insert Size	Insert Thickness	Corner Radius	Chipbreaker Geometry	Grade

### 1 - Shape

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

### 2 - Relief Angle (AN)

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



### 3 - Tolerance Class

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

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

### 4 - Clamping & Chip breaker

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

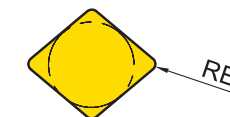
## Insert ISO Code System

\*Inch

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

### 5 - Insert Size

Metric							Inner Circle IC (inch)	Inch
<b>06</b>	<b>11</b>	<b>06</b>	<b>07</b>	<b>11</b>			1/4	<b>2</b>
<b>07</b>	<b>13</b>	<b>08</b>	<b>09</b>	<b>13</b>	<b>15</b>		5/16	<b>2.5</b>
<b>09</b>	<b>16</b>	<b>09</b>	<b>11</b>	<b>16</b>	<b>06</b>	<b>09 (00)</b>	3/8	<b>3</b>
<b>12</b>	<b>22</b>	<b>12</b>	<b>15</b>	<b>22</b>	<b>08</b>	<b>12 (00)</b>	1/2	<b>4</b>
<b>15</b>	<b>27</b>	<b>16</b>	<b>19</b>	<b>27</b>	<b>10</b>		5/8	<b>5</b>
<b>19</b>	<b>33</b>	<b>19</b>	<b>23</b>	<b>33</b>	<b>13</b>		3/4	<b>6</b>
<b>25</b>		<b>25</b>					1	<b>8</b>
						<b>06 (M0)</b>	.236	
						<b>08 (M0)</b>	.315	
						<b>10 (M0)</b>	.394	
						<b>12 (M0)</b>	.472	
						<b>16 (M0)</b>	.630	



### 6 - Insert Thickness (S)

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

### 7 - Corner Radius (RE)

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

## Grade Naming System

1	2	3	4	5	(6)
<b>YG</b>	<b>3</b>	<b>1</b>	<b>1</b>	<b>5</b>	<b>(G)</b>
YG Brand	Workpiece Material	Grade Version	Application Range (1st Digit)	Application Range (2nd Digit)	Minor Variation
Carbide CVD (4 Digits)	●	●	●	●	<b>YG3115</b>
Carbide PVD (3 Digits)	●	●	●		<b>YG211</b>
Carbide Uncoated (2 Digits)	●	●			<b>YG10</b>

### 1 - YG Brand

### 2 - Workpiece Material

Symbol	Workpiece Material	Turning	Milling	Drilling	Parting
1	<b>K</b> Cast Iron or <b>N</b> Non-Ferrous	●			
2	<b>M</b> Stainless Steel	●			
3	<b>P</b> Steel	●			
4	<b>S</b> Superalloys	●			
5	<b>K</b> Cast Iron or <b>N</b> Non-Ferrous		●	●	●
6	<b>M</b> Stainless Steel or <b>U</b> niversal		●	●	●
7	<b>P</b> Steel		●	●	●
8	<b>U</b> niversal	●			
9	<b>E</b> xotic Material		●		
0	<b>H</b> ardened Steel		●		

### 3 - Grade Version

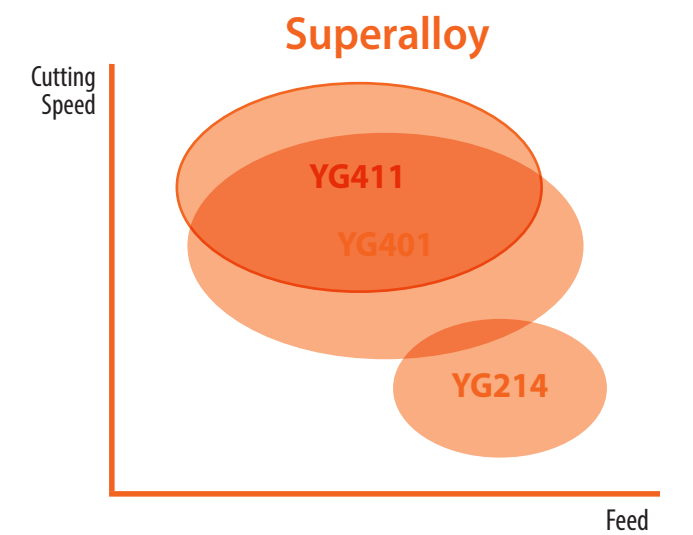
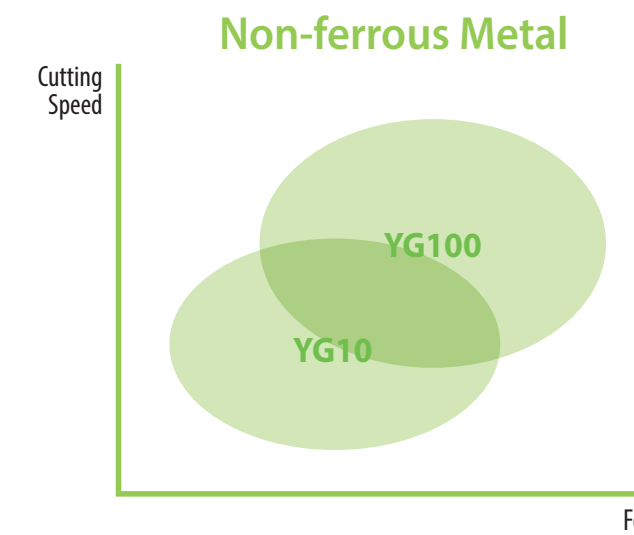
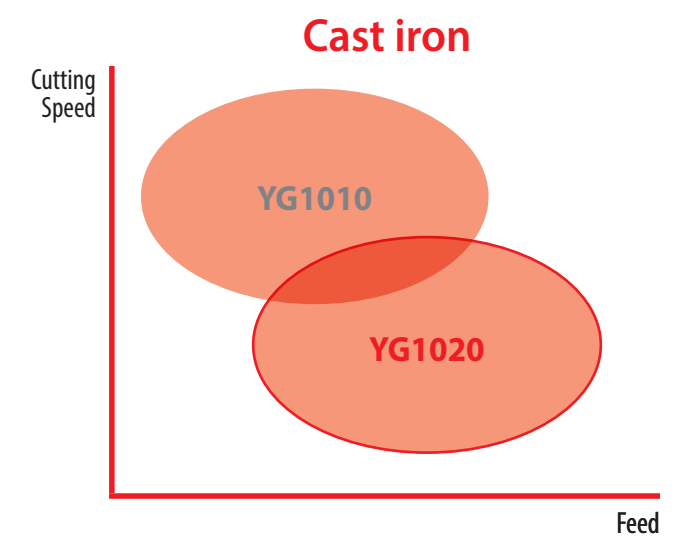
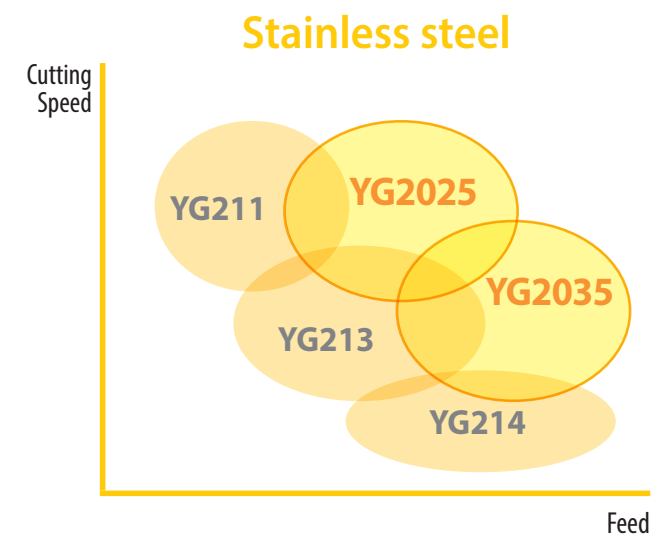
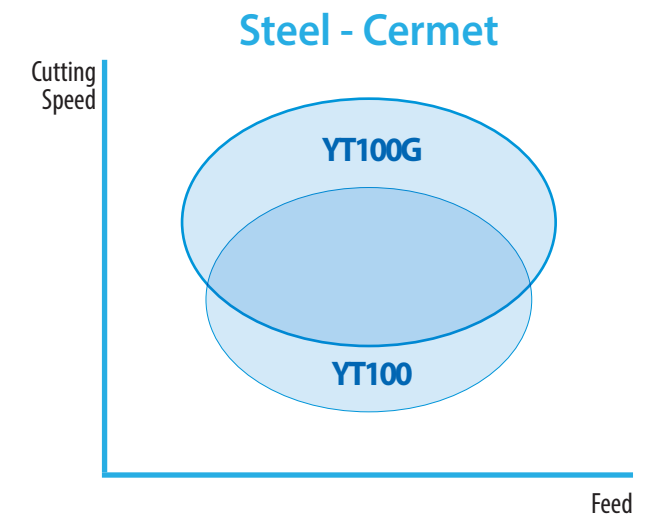
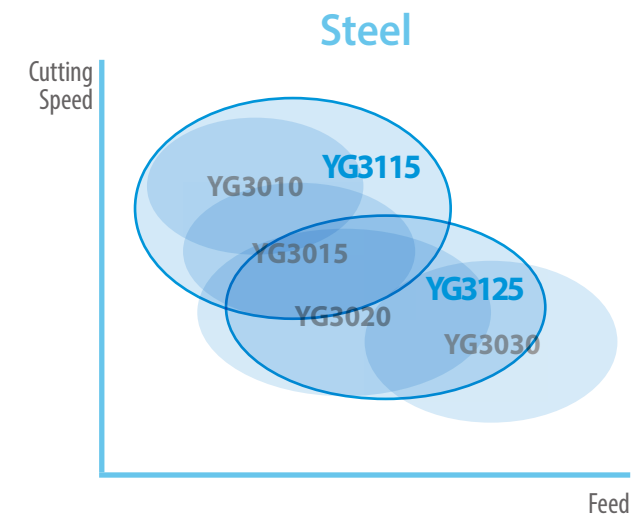
### 4 & 5 - Application Range

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

### (6) - (Minor Variation)

G - Gold Coated Version

## Product Overview Turning Grades Map

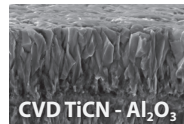


## Product Overview Turning Grades

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						
	YG1020							1020						
	YG3010	3010						3010						
	YG3015	3015												
	YG3115	3115												
	YG3125		3125											
	YG3020		3020											
	YG3030		3030											
	YG2025					2025								
YG2035						2035								
PVD	YG801	801												
	YG211				211									
	YG213					213								
	YG214						214						214	
	YG401												401	
Cermet	YG411												411	
	YT100	YT100					YT100							
DLC	YT100G	YT100G					YT100G							
	YG100										100			
-	YG10										10			

### YG1010

K05 - K15



CVD TiCN - Al<sub>2</sub>O<sub>3</sub>

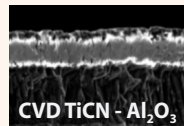
#### First Choice for Cast Iron

- Effective coating structure enables high speed machining
- Special post treatment for improved chipping resistance

### YG1001

P01 - P10

K10 - K25



CVD TiCN - Al<sub>2</sub>O<sub>3</sub>

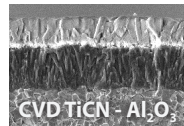
#### Stable Machining of Cast Iron

- Substrate especially designed for high wear resistance
- Thick Al<sub>2</sub>O<sub>3</sub> layer ensures good wear resistance at high cutting speeds including dry machining

NEW

### YG1020

K15 - K25



CVD TiCN - Al<sub>2</sub>O<sub>3</sub>

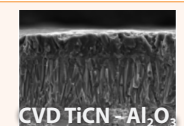
#### First choice for ductile cast iron

- Excellent wear and fracture resistance when machining ductile cast iron
- New coating ensures outstanding resistance to abrasion wear

### YG3010

P05 - P20

K15 - K35



CVD TiCN - Al<sub>2</sub>O<sub>3</sub>

#### First choice for Finishing Steels, and Ductile Cast iron

- Finishing and light machining of steel under in stable condition
- New Al<sub>2</sub>O<sub>3</sub> coating technology and excellent surface smoothness increase wear resistance and chipping resistance

### YG3015

P10 - P25



CVD TiCN - Al<sub>2</sub>O<sub>3</sub>

#### Balanced Productivity for Continuous cut

- High wear resistance and improved toughness ensures high productivity with less trouble

### YG3115

P15 - P25



CVD MT-TiCN - Al<sub>2</sub>O<sub>3</sub>

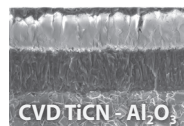
#### First choice grade for high cutting speed in Steels

- Suitable for mass production due to stable and predictable tool life
- Minimizing built up edge due to new post surface treatment in mild steels, low carbon steel and low carbon alloy steel.
- Best choice for both continuous as well as interrupted cuts

NEW

### YG3125

P20 - P30



CVD TiCN - Al<sub>2</sub>O<sub>3</sub>

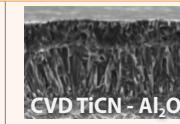
#### Recommended first grade for steel

- New substrates with a unique combination of good toughness and plastic deformation resistance
- General Machining on steel

## Product Overview Turning Grades

### YG3020

P15 - P30



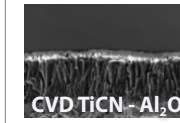
CVD TiCN - Al<sub>2</sub>O<sub>3</sub>

#### First Choice Grade for General Steel Application

- Substrate especially designed for good toughness
- Excellent surface smoothness increases wear resistance and reliability

### YG3030

P20 - P35



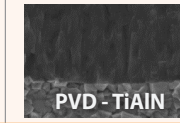
CVD TiCN - Al<sub>2</sub>O<sub>3</sub>

#### Interrupted Cutting of Steel and Stainless steel

- Substrate for heavy roughing in mild steel and low carbon alloy steel
- New Al<sub>2</sub>O<sub>3</sub> technology and optimized surface treatment achieves a good balance between wear resistance and chipping resistance

### YG801

P10 - P30



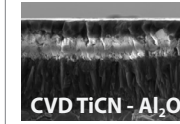
PVD - TiAlN

#### for Carbon Steel with Low Cutting Speed

- Recommended for mild steel and boring application
- Substrate and special PVD coating for excellent wear resistance

### YG2025

M15 - M35



CVD TiCN - Al<sub>2</sub>O<sub>3</sub>

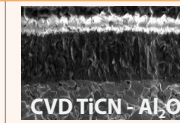
#### CVD grade for High Cutting Speed for Stainless steel

- Utilizing a new carbide substrate and new coating
- Excellent combination of wear resistance and chipping resistance
- Minimized built up edge due to post surface treatment

NEW

### YG2035

M30 - M40



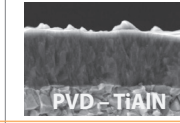
CVD TiCN - Al<sub>2</sub>O<sub>3</sub>

#### CVD Coated Grade for stainless steel at Low Cutting Speed

- Substrate withstands heavy interruption, while the coating provides the wear resistance needed for a long tool life
- Smooth surface resists build-up edge, even at low cutting speeds

### YG211

M05 - M25



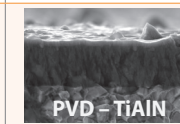
PVD - TiAlN

#### High wear Resistance Grade for Stainless steel

- Finishing Stainless steel

### YG213

M20 - M35



PVD - TiAlN

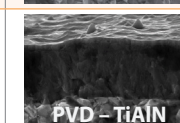
#### First Choice Grade on Low Cutting Speed of Stainless steel

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

### YG214

M30 - M40

S25 - S30



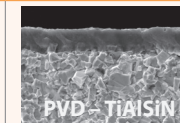
PVD - TiAlN

#### Heavy Interrupted cut for Stainless steel

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

### YG401

S10 - S20



PVD - TiAlSiN

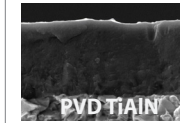
#### PVD Turning Grade for HRSA

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

NEW

### YG411

S05 - S15



PVD TiAlN

#### PVD Turning Grade on High Cutting Speed for HRSA

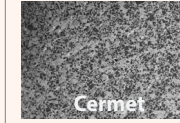
- Specialized cemented carbide substrate with excellent resistance to plastic deformation
- Strong edge stability provides reliable tool life when machining heat-resistant alloys at high speeds
- High-Al content coating provides superior oxidation resistance when machining heat-resistant alloys

### YT100

P10 - P20

M10 - M20

K10 - K20



Cermet

#### New Generation Cermet Grade

- Enhanced wear resistance & chipping resistance
- Excellent fracture resistance
- Superior surface finish with special edge preparation

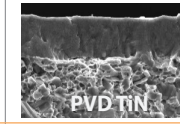
NEW

### YT100G

P5 - P20

M5 - M20

K5 - K20



PVD TiN

#### PVD-coated Cermet grade for turning

- Outstanding wear resistance and a low coefficient of friction enable high-speed turning of steels, stainless steels, and cast irons with extended tool life

### YG100

N05 - N25



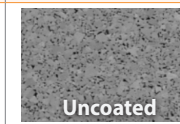
DLC

#### 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



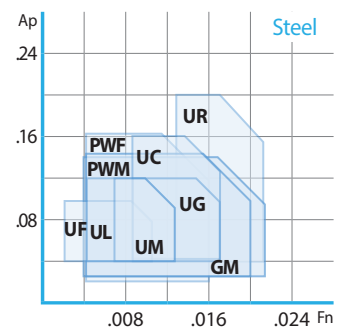
Uncoated

#### Uncoated Grade for General Aluminum

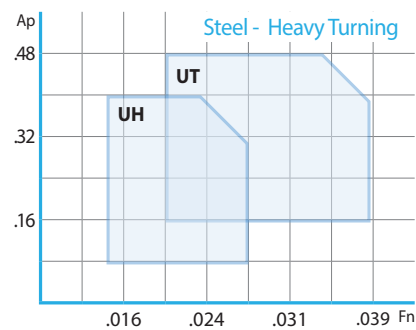
- Substrate consisted of submicron carbide for high wear resistance
- Shining surface to prevent built up edge

## Turning Chipbreakers - Negative

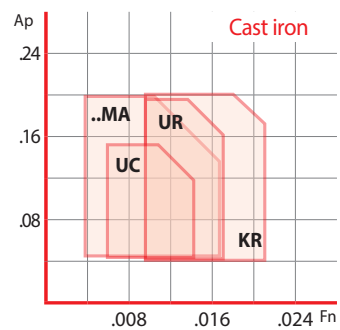
P	M	K	N	S		Feed							
						0	.004	.008	.012	.016	.020	.024	
P					<b>UF</b>	Finishing		Fn .002 ~ .010 Ap .039 ~ .098					
P					<b>PWF</b>	Wiper-Finishing		Fn .004 ~ .016 Ap .020 ~ .157					
P					<b>UL</b>	Semi Finishing and sticky materials		Fn .004 ~ .012 Ap .039 ~ .118					
P					<b>UM</b>	Medium & Unstable conditions		Fn .006 ~ .012 Ap .039 ~ .118					
P					<b>GM</b>	Medium machining for steel & Stainless steel		Fn .007 ~ .020 Ap .031 ~ .197					
P					<b>UG</b>	First Choice for Medium (Stable conditions)		Fn .008 ~ .016 Ap .039 ~ .118					
P					<b>PWM</b>	Wiper-Medium		Fn .004 ~ .020 Ap .031 ~ .138					
P					<b>UH</b>	Low cutting force		Fn .014 ~ .028 Ap .079 ~ .354					
P					<b>UT</b>	Heavy roughing		Fn .020 ~ .039 Ap .157 ~ .472					
P		<b>K</b>			<b>UC</b>	Medium Roughing and First choice for Cast iron		Fn .008 ~ .016 Ap .039 ~ .157					
P		<b>K</b>			<b>UR</b>	Roughing and Heavy interrupted cut		Fn .012 ~ .020 Ap .039 ~ .197					
		<b>K</b>			<b>..MA</b>	Cast iron Heavy Roughing		Fn .006 ~ .020 Ap .039 ~ .197					



\*Insert : CNMG432



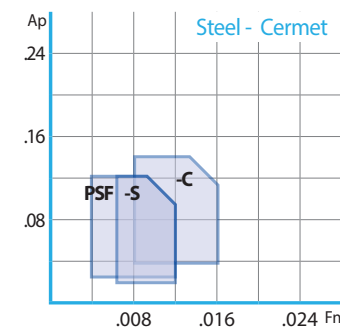
\*Insert : CNMM644



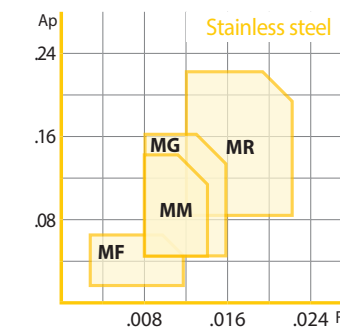
\*Insert : CNMG432

## Turning Chipbreakers - Negative

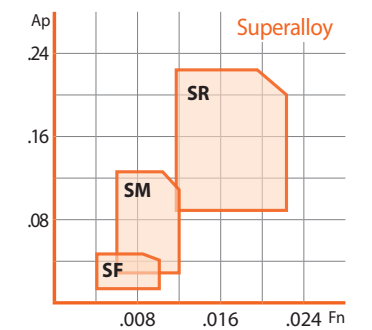
P	M	K	N	S		Feed							
						0	.004	.008	.012	.016	.020	.024	
		<b>K</b>			<b>KR</b>	Cast Iron Heavy Roughing		Fn .012 ~ .024 Ap .039 ~ .197					
	<b>M</b>				<b>MF</b>	Stainless steel Finishing		Fn .003 ~ .012 Ap .008 ~ .059					
	<b>P</b>	<b>M</b>			<b>MM</b>	Stainless steel Medium and Low Carbon Steel		Fn .008 ~ .014 Ap .039 ~ .138					
	<b>M</b>				<b>MG</b>	Stainless steel General		Fn .008 ~ .016 Ap .039 ~ .157					
	<b>M</b>				<b>MR</b>	Stainless steel Roughing		Fn .012 ~ .022 Ap .079 ~ .217					
					<b>SF</b>	HRSA Finishing		Fn .004 ~ .010 Ap .008 ~ .039					
					<b>SM</b>	HRSA Medium		Fn .006 ~ .012 Ap .020 ~ .118					
					<b>SR</b>	Roughing for HRSA		Fn .012 ~ .022 Ap .079 ~ .217					
<b>P</b>	<b>M</b>	<b>K</b>			<b>PSF</b>	Cermet Finishing to Semi medium		Fn .004 ~ .012 Ap .024 ~ .118					
<b>P</b>	<b>M</b>	<b>K</b>			<b>-S</b>	Cermet Finishing		Fn .004 ~ .008 Ap .016 ~ .079					
<b>P</b>	<b>M</b>	<b>K</b>			<b>-C</b>	Cermet Medium		Fn .008 ~ .016 Ap .039 ~ .138					



\*Insert : CNMG432 / TNGG332



\*Insert : CNMG432

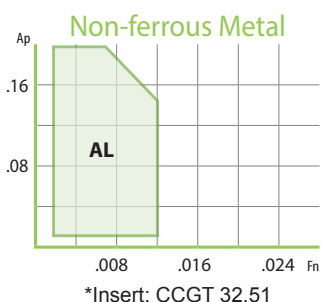
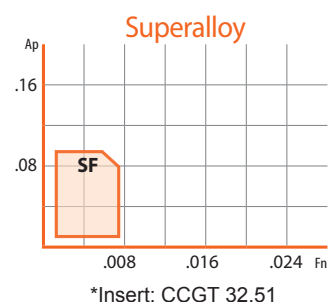
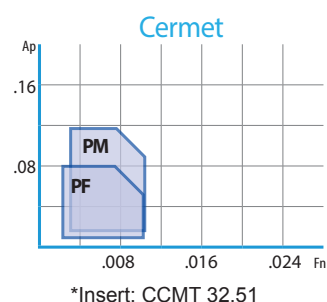
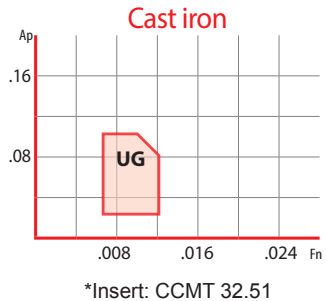
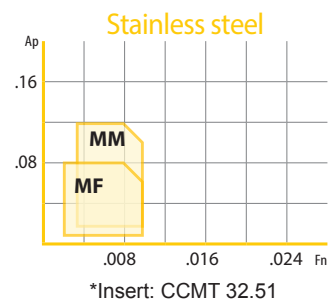
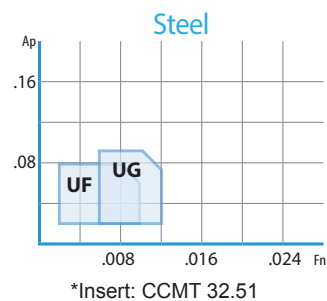


\*Insert : CNMG432

## Product Overview Turning Chipbreakers - Positive

P	M	K	N	S	Material	Application	Diagram	Feed	
								Fn	Ap (inch/rev.)
			N		AL	Aluminum application		Fn .001 ~ .012	Ap .004 ~ .197
P	M				UF	Finishing application		Fn .002 ~ .010	Ap .020 ~ .079
P		K			UG	Medium application		Fn .006 ~ .012	Ap .020 ~ .098
	M				MF	Stainless steel Finishing		Fn .002 ~ .012	Ap .004 ~ .079
	M				MM	Stainless steel Medium		Fn .002 ~ .014	Ap .010 ~ .118
				S	SF	HRSA Finishing		Fn .001 ~ .008	Ap .004 ~ .098
P	M	K			PF	Finishing		Fn .002 ~ .010	Ap .004 ~ .079
P	M	K			PM	Medium		Fn .003 ~ .010	Ap .010 ~ .118

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



## Turning Inserts Overview

### Negative Inserts

Recommended Cutting Conditions : p.190

Shape	Series	Size & Thickness						Page
		32	33	43	54	64	86	
C	CNMA			43	54	64		26
	CNMG	32	33	43	54	64	86	
	CNGG			43				
	CNMM			43	54	64	85 86	
D	DNMA			43	44			31
	DNMG		33	43	44			
	DNGG			43	44			
	DNMM				44			
K	KNUX						1604 (mm)	36
S	SNMA			43	54	64		38
	SNMG	32		43	54	64	86	
	SNMM				54	64	85 86	
T	TNMA		33					42
	TNMG		33	43				
	TNGG		33					
	TNMM		33	43				
V	VNMA		33					49
	VNMG		33					
	VNGG		33					
W	WNMA		33	43				51
	WNMG		33	43				
	WNGG			43				

### Positive Inserts

Shape	Series	Size & Thickness						Page
		21.5	32.5	43	60	61	62	
C	CCGT	21.5	32.5		43			55
	CCMT	21.5	32.5		43			
D	DCGT	21.5	32.5					58
	DCMT	21.5	32.5					
R	RCMT	0602	0803		10T3	1204	1606	60
	RCMX				1606	2006	2507 3209	
S	SCGT			32.5				62
	SCMT			32.5			43	
T	TCGT	21.5		32.5				64
	TCMT	1.81	21.5	32.5				
V	VBGT / VBMT		22		33			66
	VCGT / VCMT		22		33			





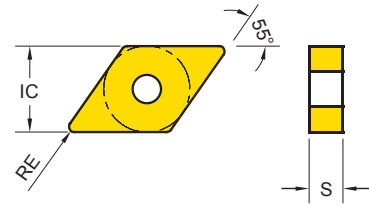






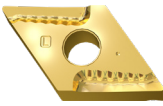
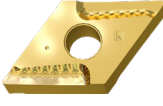
Turning Inserts - Negative  
**DNUX (4 Corners 55° Rhombic)**

Refer to  
Turning holder  
p.88

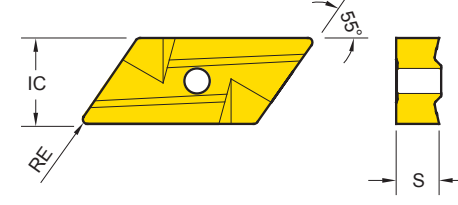


Series	IC	S
DNUX.. 43	.500	.187
DNUX.. 44	.500	.250

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



DNUX	Designation	RE	Fn (In/rev.)	Ap (In)	K10		P10		P20		P30		M25		M35		M15		M30		M40		S10		S10		P15		P10		M15		M10		N20		N20				
					YG1010	YG1001	YG1020	YG3010	YG3015	YG3115	YG3125	YG3020	YG3030	YG801	YG2025	YG2035	YG211	YG213	YG214	YG401	YG411	YT100	YT100G	YG100	YG10	YG1010	YG1001	YG1020	YG3010	YG3015	YG3115	YG3125	YG3020	YG3030	YG801	YG2025	YG2035	YG211	YG213	YG214	YG401
..UX 	DNUX431L	.016	.004~.014	.028~.157				○	●	●	●	●																													
	DNUX432L	.031	.004~.014	.039~.157				○	●	●	●	●																													
	DNUX441L	.016	.004~.014	.028~.157				○	●	●	●	●									●																				
	DNUX442L	.031	.004~.014	.039~.157				○	●	●	●	●									●																				
..UX 	DNUX431R	.016	.004~.014	.028~.157				○	●	●	●	●																													
	DNUX432R	.031	.004~.014	.039~.157				○	●	●	●	●																													
	DNUX441R	.016	.004~.014	.028~.157				○	●	●	●	●									●	●	●																		
	DNUX442R	.031	.004~.014	.039~.157				○	●	●	●	●									●	●	●																		

Turning Inserts - Negative  
**KNUX (2 Corners 55° Parallelogram)**



Series	IC	S
KN.. 1604	.375	.187

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

KNUX	Designation	RE	Fn (In/rev.)	Ap (In)	K10		P10		P20		P30		M25		M35		M15		M30		M40		S10		S10		P15		P10		M15		M10		N20		N20				
					YG1010	YG1001	YG1020	YG3010	YG3015	YG3115	YG3125	YG3020	YG3030	YG801	YG2025	YG2035	YG211	YG213	YG214	YG401	YG411	YT100	YT100G	YG100	YG10	YG1010	YG1001	YG1020	YG3010	YG3015	YG3115	YG3125	YG3020	YG3030	YG801	YG2025	YG2035	YG211	YG213	YG214	YG401
..UX 	KNUX160405L	.020	.004~.016	.020~.236				○	●	●	●	●																													
	KNUX160410L	.039	.012~.024	.039~.236				○	●	●	●	●																													
..UX 	KNUX160405R	.020	.004~.016	.020~.236				○	●	●	●	●																													
	KNUX160410R	.039	.012~.024	.039~.236				○	●	●	●	●																													









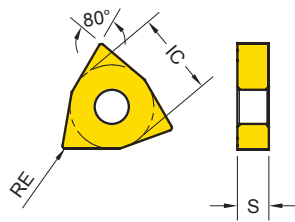






Refer to  
Turning holder  
p.92

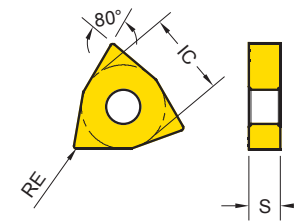
Refer to  
Turning holder  
p.92



Series	IC	S
WN.. 33	.375	.187
WN.. 43	.500	.187

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

WNGM	Designation	RE	Fn (In/rev.)	Ap (In)	K10	P05	K20	P10	P15	P10	P25	P20	P30	P20	M25	M35	M15	M30	M40	S10	S10	P15	P10	N20	N20
					YG1010	YG1001	YG1020	YG3010	YG3015	YG3115	YG3125	YG3020	YG3030	YG801	YG2025	YG2035	YG211	YG213	YG214	YG401	YG411	YT100	YT100G	YG100	YG10
<b>-UG</b> Medium Machining at stable condition	WNMG332-UG	.031	.008 ~ .016	.039 ~ .098	●	○	●	○	●	●	●	●	○												
	WNMG431-UG	.016	.008 ~ .016	.020 ~ .118	●	○	●	○	●	●	●	●	○												
	WNMG432-UG	.031	.008 ~ .016	.039 ~ .118	●	○	●	○	●	●	●	●	○												
	WNMG433-UG	.047	.008 ~ .016	.059 ~ .118	●	○	●	○	●	●	●	●	○												
	WNMG434-UG	.063	.008 ~ .016	.079 ~ .118	●	○	●	○	●	●	●	●	○												
<b>-PWM</b> Wiper-Medium	WNMG332-PWM	.031	.004 ~ .016	.031 ~ .098									●												
	WNMG432-PWM	.031	.004 ~ .020	.031 ~ .138							●														
	WNMG433-PWM	.047	.004 ~ .020	.039 ~ .138	●						●			●											
<b>-UC</b> Cast iron and Medium roughing	WNMG332-UC	.031	.008 ~ .016	.039 ~ .118	●	○	●	○	●	●	●	●	○												
	WNMG431-UC	.016	.008 ~ .016	.020 ~ .157	●	○	●	○	●	●	●	●	○												
	WNMG432-UC	.031	.008 ~ .016	.039 ~ .157	●	○	●	○	●	●	●	●	○												
	WNMG433-UC	.047	.008 ~ .016	.059 ~ .157	●	○	●	○	●	●	●	●	○												
<b>-UR</b> Roughing	WNMG333-UR	.047	.012 ~ .020	.059 ~ .157	●	○	●	○	●	●	●	●	○												
	WNMG333-UR	.047	.012 ~ .020	.059 ~ .157		●																			
	WNMG432-UR	.031	.012 ~ .020	.039 ~ .197	●	○	●	○	●	●	●	●	○												
	WNMG433-UR	.047	.012 ~ .020	.059 ~ .197	●	○	●	○	●	●	●	●	○												
<b>-KR</b> Cast Iron Heavy Roughing	WNMG333-KR	.047	.012 ~ .024	.059 ~ .157	●																				
	WNMG432-KR	.031	.012 ~ .024	.039 ~ .197	●	○	●	○	●	●	●	●	○												
	WNMG433-KR	.047	.012 ~ .024	.059 ~ .197	●	○	●	○	●	●	●	●	○												



Series	IC	S
WN.. 33	.375	.187
WN.. 43	.500	.187

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

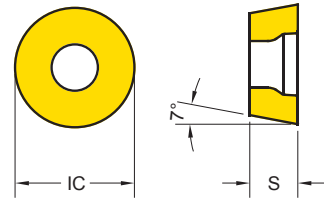
WNGM	Designation	RE	Fn (In/rev.)	Ap (In)	K10	P05	K20	P10	P15	P10	P25	P20	P30	P20	M25	M35	M15	M30	M40	S10	S10	P15	P10	N20	N20
					YG1010	YG1001	YG1020	YG3010	YG3015	YG3115	YG3125	YG3020	YG3030	YG801	YG2025	YG2035	YG211	YG213	YG214	YG401	YG411	YT100	YT100G	YG100	YG10
<b>-MF</b> Stainless steel Finishing	WNMG331-MF	.016	.003 ~ .012	.016 ~ .079				○	●	●															
	WNMG332-MF	.031	.003 ~ .012	.031 ~ .079				○	●	●															
	WNMG431-MF	.016	.003 ~ .012	.016 ~ .098					●	●															
<b>-MM</b> Stainless steel Medium	WNMG432-MF	.031	.003 ~ .012	.031 ~ .098					●	●															
	WNMG433-MF	.047	.003 ~ .012	.059 ~ .138					●	●															
	WNMG431-MM	.016	.008 ~ .014	.020 ~ .138																					
<b>-MG</b> Stainless steel General	WNMG432-MM	.031	.008 ~ .014	.039 ~ .138																					
	WNMG433-MM	.047	.008 ~ .014	.059 ~ .138																					
	WNMG331-MG	.016	.008 ~ .016	.020 ~ .118																					
<b>-MR</b> Stainless steel Roughing	WNMG332-MG	.031	.008 ~ .016	.039 ~ .118																					
	WNMG333-MG	.047	.008 ~ .016	.059 ~ .118																					
	WNMG431-MG	.016	.008 ~ .016	.020 ~ .157																					
	WNMG432-MG	.031	.008 ~ .016	.039 ~ .157																					
<b>-MR</b> Stainless steel Roughing	WNMG433-MG	.047	.008 ~ .016	.059 ~ .157																					
	WNMG332-MR	.031	.012 ~ .022	.047 ~ .157																					
	WNMG333-MR	.047	.012 ~ .022	.047 ~ .157																					
	WNMG432-MR	.031	.012 ~ .022	.079 ~ .217																					
<b>-MR</b> Stainless steel Roughing	WNMG433-MR	.047	.012 ~ .022	.079 ~ .217																					
	WNMG333-MR	.047	.012 ~ .022	.047 ~ .157																					







### Turning Inserts - Positive RCMT (Round)

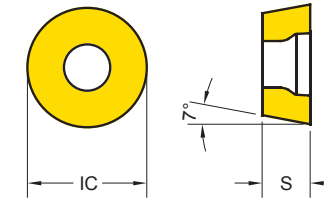


Series	IC	S	Series	IC	S
RC** 0602	.236	.094	RC** 10T3	.394	.156
RC** 0803	.315	.125	RC** 1204	.472	.187
			RC.. 1606	.630	.250

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

RCMT	Designation	RE	Fn (In/rev.)	Ap (In)	K10	P05	K20	P10	P15	P10	P25	P20	P30	P20	M25	M35	M15	M30	M40	S10	S10	P15	P10	M15	M10	N20	N20
					K20	K30	P15	P10	P25	P20	P30	P20	M25	M35	M15	M30	M40	S30	S10	S10	K15	K10	N20	N20			
General	RCMT0602M0	.118	.002~.010	.008~.047	●	○	●	○	●	●	●	●	○	○													
	RCMT0803M0	.157	.002~.012	.020~.059	●	○	●	○	●	●	●	●	○	○													
	RCMT10T3M0	.197	.004~.014	.020~.098	●	○	●	○	●	●	●	●	○	○													
	RCMT1204M0	.236	.006~.018	.020~.118	●	○	●	○	●	●	●	●	○	○													
-SM	RCMT0602M0-SM	.118	.005~.013	.012~.063																		●	●				
	RCMT0803M0-SM	.157	.006~.016	.012~.079																			●	●			
	RCMT10T3M0-SM	.197	.007~.018	.016~.098																			●	●			
	RCMT1204M0-SM	.236	.008~.022	.020~.118	●				●						●									●	●		
	RCMT1606M0-SM	.315	.010~.030	.028~.157																				●	●		

### Turning Inserts - Positive RCMX - Heavy Turning (Round)



Series	IC	S	Series	IC	S
RC** 1606	.630	.250	RC.. 2507	.984	.313
RC** 2006	.787	.250	RC.. 3209	1.260	.375

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

RCMX	Designation	RE	Fn (In/rev.)	Ap (In)	K10	P05	K20	P10	P15	P10	P25	P20	P30	P20	M25	M35	M15	M30	M40	S10	S10	P15	P10	M15	M10	N20	N20
					K20	K30	P15	P10	P25	P20	P30	P20	M25	M35	M15	M30	M40	S30	S10	S10	K15	K10	N20	N20			
-UT Heavy Roughing	RCMX1606M0-UT	.315	.012~.031	.039~.276	●																						
	RCMX2006M0-UT	.394	.016~.035	.059~.354	●																						
	RCMX2507M0-UT	.492	.020~.047	.098~.472	●																						
	RCMX3209M0-UT	.630	.024~.059	.138~.591	●																						







