

# Turning Insert

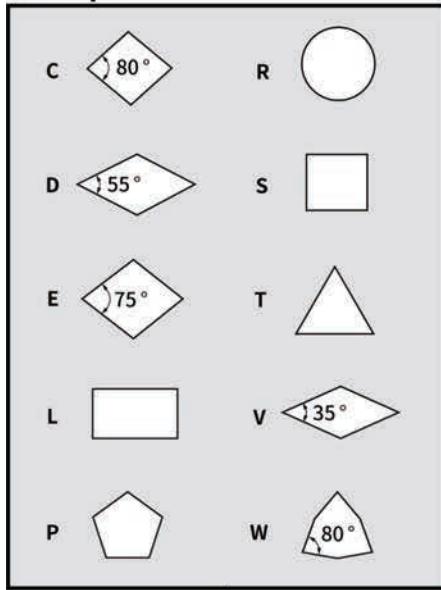
<b>ISO insert code</b>	.....	<b>D02</b>
<b>Edge treatment</b>	.....	<b>D06</b>
<b>BIDEMICS / Ceramics / NTK CeramiX</b>	.....	<b>D08</b>
<b>CBN</b>	.....	<b>D22</b>
<b>PCD / Diamond coating</b>	.....	<b>D34</b>
<b>Carbide</b>	.....	<b>D37</b>

Turning Insert  
**D**

# ISO insert code

## BIDEMICS / Ceramics

### 1 Shape



### 3 Tolerance Class

Symbol	d (mm)	m (mm)	s (mm)
A	±0.025	±0.005	±0.025
F	±0.013	±0.005	±0.025
C	±0.025	±0.013	±0.025
H	±0.013	±0.013	±0.025
E	±0.025	±0.025	±0.025
G	±0.025	±0.025	±0.013
J	±0.05	±0.05	±0.013
K	±0.05 ~±0.13	±0.013	±0.025
L	±0.05 ~±0.13	±0.025	±0.025
M	±0.05 ~±0.13	±0.08 ~±0.08	±0.013
N	±0.05 ~±0.13	±0.08 ~±0.08	±0.025
U	±0.08 ~±0.25	±0.13 ~±.015	±0.013

Accuracy of J,K,L,M,N,U class by form size  
For inserts with apex angles greater than 55°

Inscribed Circle	d (mm)	m (mm)
6.35	±0.05	±0.08
9.525	±0.05	±0.08
12.7	±0.08	±0.13
15.875	±0.05	±0.15
19.05	±0.05	±0.15
25.4	±0.13	±0.08

For Class M inserts with apex angles of 55° (D), 35° (V), and 25° (Y)

Inscribed Circle	d (mm)	m (mm)
6.35	±0.05	±0.05
9.525	±0.05	±0.05
12.7	±0.08	±0.15
15.875	±0.05	±0.15
19.05	±0.05	±0.08

**Inch**

**S**

**N**

**G**

**A**

1

2

3

4

**Metric**

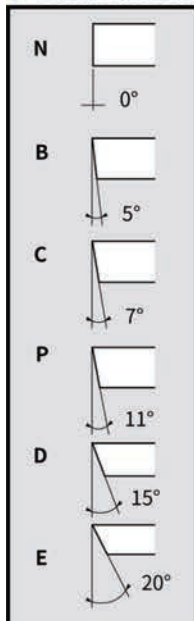
**S**

**N**

**G**

**A**

### 2 Clearances



### 4 Type

Type	Symbol	Type	Symbol
	N (E)		H
	F		B
	R		T
	A		W
	G		
	M		
Special design	X		

### 6 Thickness

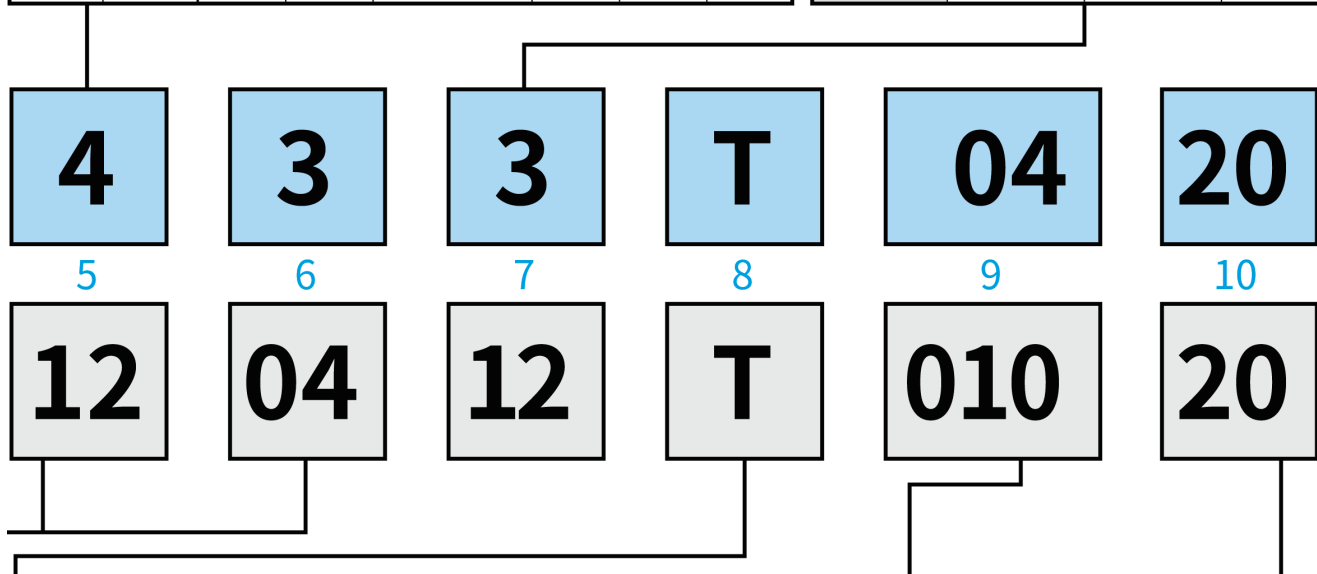
Thickness S (mm)	Inch	Metric
2.38	1.5	02
3.18	2	03
3.97	2.5	T3
4.76	3	04
5.56	4	06
6.35	5	07
7.94	6	09
12.7	8	12

## 5 Symbol for Insert Size

Inch		Metric						
Inscribed Circle		C	D	R	S	T	V	W
5.56	2	06	07	06	11	11	04	
7.94	3	09	11	09	16	16	06	
12.1	4	12	15	12	22	22	08	
15.875	5	16	19	15	27	27	10	
19.05	6	19	23	19	33	33	13	
25.4	8	25	31	25	44	44	17	

## 7 Corner Radius

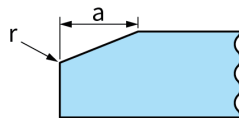
Corner Radius	Inch	Metric
0.4	1	04
0.8	2	08
1.2	3	12
1.6	4	16
2.0	5	20
2.4	6	24
3.2	8	32



## 8 Edge Condition

Sharp	F
Honed	E
Chamfered	T
Chamfered and Honed	Z
	S
	U
Double Chamfered	K
Double Chamfered and Honed	J
	P
	Q

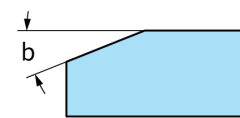
## 9 Negative Land Width



	Description		a (metric)	r (metric)
	inch	metric		
E	01	002	-	0.03
	02	004	-	0.05
T	02	005	0.05	-
	03	008	0.08	-
	04	010	0.10	-
	05	012	0.13	-
	06	015	0.15	-
	08	020	0.2	0.03
Z	04	010	0.10	0.03
S	08	020	0.2	0.05
	08	020	0.2	0.08
U	16	040	0.4	-
K	28	070	0.7	-
J	60	150	1.5	0.03
P	71	180	1.8	0.05
Q	95	240	2.4	0.08

Note: K, J, P & Q show its primary land width

## 10 Negative Land Angle

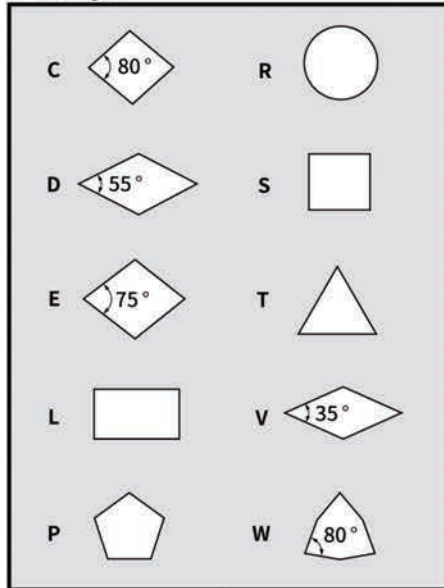


Description	b
10	10°
15	15°
20	20°
25	25°
30	30°

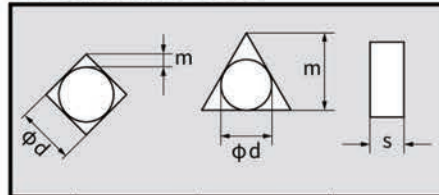
# ISO insert code

## Carbide

### 1 Shape



### 3 Tolerance Class



Symbol	d (mm)	m (mm)	s (mm)
A	±0.025	±0.005	±0.025
F	±0.013	±0.005	±0.025
C	±0.025	±0.013	±0.025
H	±0.013	±0.013	±0.025
E	±0.025	±0.025	±0.025
G	±0.025	±0.025	±0.013
J	±0.05	±0.05	±0.013
K	±0.05 ~ ±0.13	±0.013	±0.025
L	±0.05 ~ ±0.13	±0.025	±0.025
M	±0.05 ~ ±0.13	±0.08 ~ ±0.08	±0.013
N	±0.05 ~ ±0.13	±0.08 ~ ±0.08	±0.025
U	±0.08 ~ ±0.25	±0.13 ~ ±0.15	±0.013

Accuracy of J,K,L,M,N,U class by form size For inserts with apex angles greater than 55°		
Inscribed Circle	d (mm)	m (mm)
6.35	±0.05	±0.08
9.525	±0.05	±0.08
12.7	±0.08	±0.13
15.875	±0.05	±0.15
19.05	±0.05	±0.15
25.4	±0.13	±0.08

For Class M inserts with apex angles of 55° (D), 35° (V), and 25° (Y)		
Inscribed Circle	d (mm)	m (mm)
6.35	±0.05	±0.05
9.525	±0.05	±0.05
12.7	±0.08	±0.15
15.875	±0.05	±0.15
19.05	±0.05	±0.08

**Inch**

**C**

**C**

**G**

**T**

1

2

3

4

**Metric**

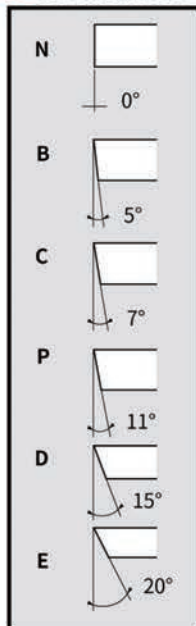
**C**

**C**

**G**

**T**

### 2 Clearances










### 4 Type

Type	Symbol	Type	Symbol
	N (E)		H
	F		B
	R		T
	A		W
	G		
	M		
Special design	X		


### 6 Thickness

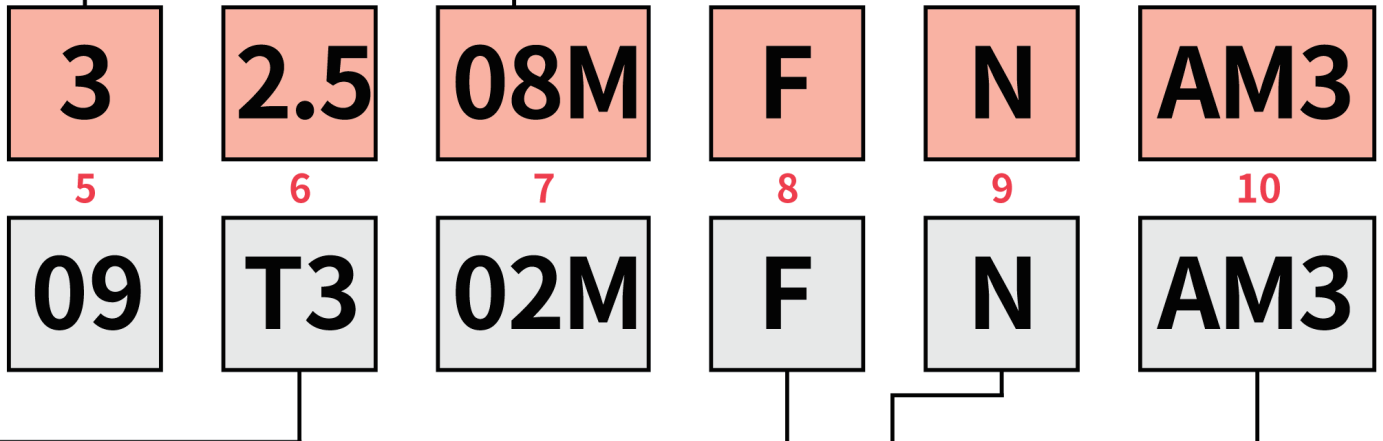
Thickness S (mm)	Inch	Metric
2.38	1.5	02
3.18	2	03
3.97	2.5	T3
4.76	3	04
5.56	4	06
6.35	5	07
7.94	6	09
12.7	8	12

### 5 Cutting Edge Length

Inch		Metric						
Inscribed Circle								
5.56	2	06	07	06	11	11	04	
7.94	3	09	11	09	16	16	06	
12.7	4	12	15	12	22	22	08	
15.875	5	16	19	15	27	27	10	
19.05	6	19	23	19	33	33	13	
25.4	8	25	31	25	44	44	17	

### 7 Nose Radius

Corner Radius	Inch	Metric
	0.03	01
	0.08	04M
	0.1	04
	0.18	08M
	0.2	08
	0.38	1M
	0.4	1
	0.8	2



### 8 Edge Sharpness

F	Up-sharp edge (without any edge preparation)
(Blank)	Non up-sharp edge

### 9 Hand of Chipbreaker

N	Neutral*
R	Right-hand
L	Left-hand

\* Omitted when edge is not "up-sharp"

### 10 Type of Chipbreaker

### 11 Wiper insert

"-WP" after chipbreaker

# Edge treatment specifications BIDE MICS, Ceramic, CBN







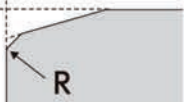
**C N G A 12 04 04**

Part No. Designation Code for Inserts → Refer to page **→ D2 - 5**

## ① Codes for major cutting edges

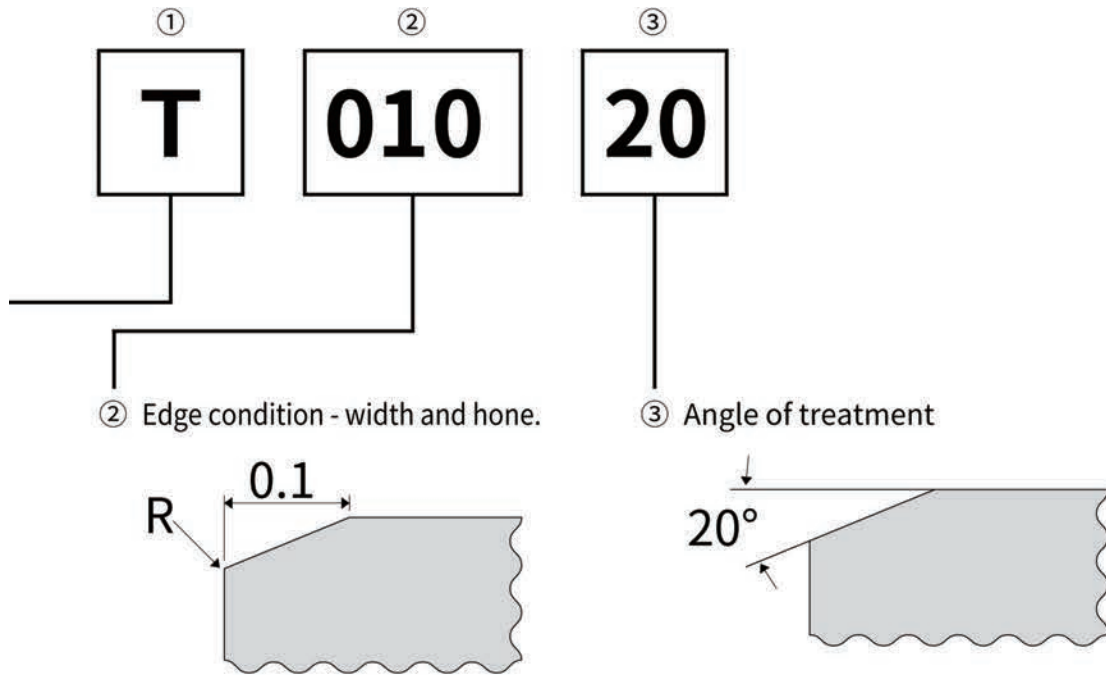
Cutting edge treatment : Chamfering or honing of the cutting edge in order to strengthen the edge or to adjust the cutting performance

D  
Turning Insert

	Code	Shape
Sharp edge	F	
Round honing	E	
Angular grinding	T	
Angular grinding + round honing	Z	
	S	
2-step chamfering	K	
2-step chamfering + round honing	P	

Cutting performance ↑

Strength of cutting edge ↓



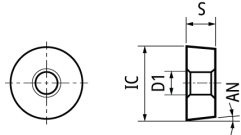
● Codes for cutting edges and the shapes

Code	Shape of the cutting edge
E002	Round honing with R = 0.02
E004	Round honing with R = 0.04
E007	Round honing with R = 0.07
EX0004	Round honing with R = 0.02
S01015	Chamfering 0.10 mm x 15 deg. + round honing with R = 0.04 (*R0.03)
S01020	Chamfering 0.10 mm x 20 deg. + round honing with R = 0.04 (*R0.03)
S01325	Chamfering 0.13 mm x 25 deg. + round honing with R = 0.04 (*R0.03)
S01535	Chamfering 0.15 mm x 35 deg. + round honing with R = 0.04 (*R0.03)
S02025	Chamfering 0.20 mm x 25 deg. + round honing with R = 0.04 (*R0.03)
T00320	Chamfering 0.03 mm x 20 deg.
T00520	Chamfering 0.05 mm x 20 deg.
T00525	Chamfering 0.05 mm x 25 deg.
T00820	Chamfering 0.08 mm x 20 deg.
T01015	Chamfering 0.10 mm x 15 deg.
T01020	Chamfering 0.10 mm x 20 deg.
T01025	Chamfering 0.10 mm x 25 deg.
T01515	Chamfering 0.15 mm x 15 deg.
T01520	Chamfering 0.15 mm x 20 deg.
T01525	Chamfering 0.15 mm x 25 deg.
T02020	Chamfering 0.20 mm x 20 deg.
T02025	Chamfering 0.20 mm x 25 deg.
Z01015	Chamfering 0.10 mm x 15 deg. + round honing with R = 0.02
Z01025	Chamfering 0.10 mm x 25 deg. + round honing with R = 0.02
Z01030	Chamfering 0.10 mm x 30 deg. + round honing with R = 0.02
Z01520	Chamfering 0.15 mm x 20 deg. + round honing with R = 0.02
Z02025	Chamfering 0.20 mm x 25 deg. + round honing with R = 0.02

\*CBN=R0.03

# BIDEMICS / Ceramics / NTK CeramiX

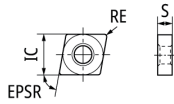
## CDH



Steel	
Stainless Steel	
Cast Iron	● ● ● ● ○ ○ ○ ○ ● ● ○ ○
Non-Ferrous Material	
Heat Resistant Alloy	● ● ● ● ● ● ● ● ● ● ● ●
Hardened Material	● ○ ● ● ● ●
Others (non-metallic)	

Shape	Item Number CECC (ISO)	EPSR °	IC mm	S mm	AN °	RE mm	D1 mm	D2 mm	INSL mm	S1 mm	W1 mm	BIDEMICS				NTK CeramiX							Alumina Ceramics			Silicon Nitride Ceramics					Whisker Ceramics			
												PVD				450			Alumina				Silicon Nitride					Whisker						
												120	JP2	JX1	JX3	PVD	HC1	HW2	HC2	HC4	HC6	HC7	ZC7	SX3	SX5	SX7	SX9	SX6	SP9	CVD	WA1	WA5		
	CDH1207P07010	P07010	-	12.7	6.35	6	-	3.18	-	-	-	-	●																					
	CDH1909P15015	P15015	-	19.05	9.52	6	-	6.35	-	-	-	-	●																					

## CNGA



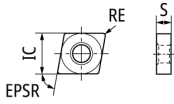
Steel	
Stainless Steel	
Cast Iron	● ● ● ● ○ ○ ○ ○ ● ● ○ ○
Non-Ferrous Material	
Heat Resistant Alloy	● ● ● ● ● ● ● ● ● ● ● ●
Hardened Material	● ○ ● ● ● ●
Others (non-metallic)	

Shape	Item Number CECC (ISO)	EPSR °	IC mm	S mm	AN °	RE mm	D1 mm	D2 mm	INSL mm	S1 mm	W1 mm	BIDEMICS				NTK CeramiX							Alumina Ceramics			Silicon Nitride Ceramics					Whisker Ceramics			
												PVD				450			Alumina				Silicon Nitride					Whisker						
												120	JP2	JX1	JX3	PVD	HC1	HW2	HC2	HC4	HC6	HC7	ZC7	SX3	SX5	SX7	SX9	SX6	SP9	CVD	WA1	WA5		
	CNGA120404BQE004	E004	80	12.7	4.76	-	0.4	-	-	-	-	-	●																					
	CNGA120404BQT00520	T00520	80	12.7	4.76	-	0.4	-	-	-	-	-	●																					
	CNGA120404S02025	S02025	80	12.7	4.76	-	0.4	-	-	-	-	-																						
	CNGA120404T01025	T01025	80	12.7	4.76	-	0.4	-	-	-	-	-																						
	CNGA120404X01015	X01015	80	12.7	4.76	-	0.4	-	-	-	-	-																						
	CNGA120404X01015-10	X01015	80	12.7	4.76	-	0.4	-	-	-	-	-																						
	CNGA120404Z02025	Z02025	80	12.7	4.76	-	0.4	-	-	-	-	-																						
	CNGA120408BQE004	E004	80	12.7	4.76	-	0.8	-	-	-	-	-	●																					
	CNGA120408BQT00520	T00520	80	12.7	4.76	-	0.8	-	-	-	-	-	●																					
	CNGA120408S02025	S02025	80	12.7	4.76	-	0.8	-	-	-	-	-																						
	CNGA120408T00520	T00520	80	12.7	4.76	-	0.8	-	-	-	-	-																						
	CNGA120408T01020	T01020	80	12.7	4.76	-	0.8	-	-	-	-	-																						
	CNGA120408T01025	T01025	80	12.7	4.76	-	0.8	-	-	-	-	-																						
	CNGA120408T02020	T02020	80	12.7	4.76	-	0.8	-	-	-	-	-																						
	CNGA120408T02025	T02025	80	12.7	4.76	-	0.8	-	-	-	-	-																						
	CNGA120408X01015	X01015	80	12.7	4.76	-	0.8	-	-	-	-	-																						
	CNGA120408X01015-10	X01015	80	12.7	4.76	-	0.8	-	-	-	-	-																						
	CNGA120408Z02025	Z02025	80	12.7	4.76	-	0.8	-	-	-	-	-																						
	CNGA120412BQE004	E004	80	12.7	4.76	-	1.2	-	-	-	-	-	●																					
	CNGA120412BQT00520	T00520	80	12.7	4.76	-	1.2	-	-	-	-	-	●																					
	CNGA120412S02025	S02025	80	12.7	4.76	-	1.2	-	-	-	-	-																						
	CNGA120412T00520	T00520	80	12.7	4.76	-	1.2	-	-	-	-	-																						
	CNGA120412T01020	T01020	80	12.7	4.76	-	1.2	-	-	-	-	-																						
	CNGA120412T01025	T01025	80	12.7	4.76	-	1.2	-	-	-	-	-																						
	CNGA120412T02020	T02020	80	12.7	4.76	-	1.2	-	-	-	-	-																						
	CNGA120412T02025	T02025	80	12.7	4.76	-	1.2	-	-	-	-	-																						
	CNGA120412X01015	X01015	80	12.7	4.76	-	1.2	-	-	-	-	-																						
	CNGA120412X01015-10	X01015	80	12.7	4.76	-	1.2	-	-	-	-	-																						
	CNGA120416T00520	T00520	80	12.7	4.76	-	1.6	-	-	-	-	-																						
	CNGA120416T01020	T01020	80	12.7	4.76	-	1.6	-	-	-	-	-																						
	CNGA120416T02020	T02020	80	12.7	4.76	-	1.6	-	-	-	-	-																						
	CNGA120416T02025	T02025	80	12.7	4.76	-	1.6	-	-	-	-	-																						

D Turning Insert



## CNGA-WL with wiper for higher feed



Steel	
Stainless Steel	
Cast Iron	● ● ● ● ○ ○ ○ ○ ● ● ○ ○
Non-Ferrous Material	
Heat Resistant Alloy	● ● ● ● ● ● ● ● ● ● ● ●
Hardened Material	● ○ ● ● ● ●
Others (non-metallic)	

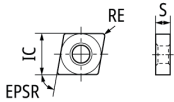
Shape	Item Number	EPSR	IC	S	AN	RE	D1	D2	INSL	S1	W1	BIDEMICS				NTK	CeramiX							Alumina Ceramics						Silicon Nitride Ceramics						Whisker Ceramics			
												CECC											PVD				450	PVD							CVD	CVD		WA1	WA5
												(ISO)	°	mm	mm	°	mm	mm	mm	mm	mm	mm	mm	120	JP2	JX1		JX3	50	HC1	HW2	HC2	HC4	HC6		HC7	ZC7		
	CNGA120408WLT01025	T01025	80	12.7	4.76	-	0.8	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	●														
	CNGA120412WLT01025	T01025	80	12.7	4.76	-	1.2	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	●														

Wiper Width: R0.4: 0.35mm, R0.8: 0.65mm, R1.2: 0.85mm

Applicable holders: 95° cutting edge angle (C31, CCLN), 75° cutting edge angle (CCBN).

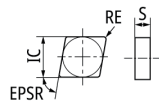
Turning Insert **D**

## CNGG-AG with chipbreaker



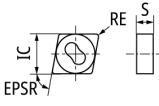
Steel	
Stainless Steel	
Cast Iron	● ● ● ● ○ ○ ○ ○ ● ● ○ ○
Non-Ferrous Material	
Heat Resistant Alloy	● ● ● ● ● ● ● ● ● ● ● ●
Hardened Material	● ○ ● ● ● ●
Others (non-metallic)	

Shape	Item Number	EPSR	IC	S	AN	RE	D1	D2	INSL	S1	W1	BIDEMICS				NTK	CeramiX							Alumina Ceramics						Silicon Nitride Ceramics						Whisker Ceramics			
												CECC											PVD				450	PVD							CVD	CVD		WA1	WA5
												(ISO)	°	mm	mm	°	mm	mm	mm	mm	mm	mm	mm	120	JP2	JX1		JX3	50	HC1	HW2	HC2	HC4	HC6		HC7	ZC7		
	CNGG120408Z01030AG	Z01030	80	12.7	4.76	-	0.8	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	●														
	CNGG120412Z01030AG	Z01030	80	12.7	4.76	-	1.2	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	●														



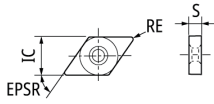
Steel																								
Stainless Steel																								
Cast Iron													●	●	●	●	○	○	○	○	●	●	○	○
Non-Ferrous Material																								
Heat Resistant Alloy																								
	●	●	●	●																		●	●	●
Hardened Material																								
														●		○	●	●	●					
Others (non-metallic)																								

Shape	Item Number CECC	EPSR	IC	S	AN	RE	D1	D2	INSL	S1	W1	BIDEMICS				NTK CeramiX	Alumina Ceramics							Silicon Nitride Ceramics					Whisker Ceramics		
												PVD					450	HC1	HW2	HC2	HC4	HC6	HC7	PVD				SP9	WA1	WA5	
												120	JP2	JX1	JX3									450	ZC7	SX3	SX5				SX7
(ISO)	°	mm	mm	°	mm	mm	mm	mm	mm	mm	mm	PVD	PVD	PVD	PVD	PVD	PVD	PVD	PVD	PVD	PVD	PVD	PVD	PVD	PVD	PVD	PVD	PVD	PVD		
CNGN120404T01025	T01025	80	12.7	4.76	-	0.4	-	-	-	-	-	-	-	-	-	-	-	●	●												
CNGN120408S02025	S02025	80	12.7	4.76	-	0.8	-	-	-	-	-	-	-	-	-	-	-	-	-	●	●	●	●	○	○	○	○	●	●	○	○
CNGN120408T00520	T00520	80	12.7	4.76	-	0.8	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
CNGN120408T00820	T00820	80	12.7	4.76	-	0.8	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
CNGN120408T01020	T01020	80	12.7	4.76	-	0.8	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
CNGN120408T01025	T01025	80	12.7	4.76	-	0.8	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
CNGN120408T02020	T02020	80	12.7	4.76	-	0.8	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
CNGN120408T02025	T02025	80	12.7	4.76	-	0.8	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
CNGN120408Z02025	Z02025	80	12.7	4.76	-	0.8	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
CNGN120412S02025	S02025	80	12.7	4.76	-	1.2	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
CNGN120412T00520	T00520	80	12.7	4.76	-	1.2	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
CNGN120412T00820	T00820	80	12.7	4.76	-	1.2	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
CNGN120412T01020	T01020	80	12.7	4.76	-	1.2	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
CNGN120412T01025	T01025	80	12.7	4.76	-	1.2	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
CNGN120412T02020	T02020	80	12.7	4.76	-	1.2	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
CNGN120412T02025	T02025	80	12.7	4.76	-	1.2	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
CNGN120412Z02025	Z02025	80	12.7	4.76	-	1.2	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
CNGN120416T00520	T00520	80	12.7	4.76	-	1.6	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
CNGN120416T01020	T01020	80	12.7	4.76	-	1.6	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
CNGN120416T02020	T02020	80	12.7	4.76	-	1.6	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
CNGN120416T02025	T02025	80	12.7	4.76	-	1.6	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
CNGN120420T01025	T01025	80	12.7	4.76	-	2	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
CNGN120708T00520	T00520	80	12.7	7.94	-	0.8	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
CNGN120708T02025	T02025	80	12.7	7.94	-	0.8	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
CNGN120712T02025	T02025	80	12.7	7.94	-	1.2	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
CNGN160716T00520	T00520	80	15.875	7.94	-	1.6	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	



Steel																															
Stainless Steel																															
Cast Iron																															
Non-Ferrous Material																															
Heat Resistant Alloy																															
	●	●	●	●																											
Hardened Material																															
Others (non-metallic)																															

Shape	Item Number CECC	EPSR	IC	S	AN	RE	D1	D2	INSL	S1	W1	BIDEMICS				NTK CeramiX	Alumina Ceramics							Silicon Nitride Ceramics					Whisker Ceramics		
												PVD					450	HC1	HW2	HC2	HC4	HC6	HC7	PVD				SP9	WA1	WA5	
												120	JP2	JX1	JX3									450	ZC7	SX3	SX5				SX7
(ISO)	°	mm	mm	°	mm	mm	mm	mm	mm	mm	mm	PVD	PVD	PVD	PVD	PVD	PVD	PVD	PVD	PVD	PVD	PVD	PVD	PVD	PVD	PVD	PVD	PVD	PVD	PVD	
CNGX120712T02025	T02025	80	12.7	7.94	-	1.2	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
CNGX120716T02025	T02025	80	12.7	7.94	-	1.6	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-



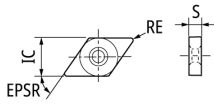
**Steel**

Steel												
Stainless Steel												
Cast Iron												
Non-Ferrous Material												
Heat Resistant Alloy												
Hardened Material												
Others (non-metallic)												

Shape	Item Number CECC (ISO)	EPSR °	IC mm	S mm	AN °	RE mm	D1 mm	D2 mm	INSL mm	S1 mm	W1 mm	BIDEMICS				NTK Ceramik	Alumina Ceramics							Silicon Nitride Ceramics					Whisker Ceramics													
												PVD				PVD	PVD							CVD																		
												120	JP2	JX1	JX3	450	HC1	HW2	HC2	HC4	HC6	HC7	ZC7	SX3	SX5	SX7	SX9	SX6	SP9	CVD	WA1	WA5										
	DNGA150404BQE004	E004	55	12.7	4.76	-	0.4	-	-	-	-	-	●																													
	DNGA150404BQT00520	T00520	55	12.7	4.76	-	0.4	-	-	-	-	-	●																													
	DNGA150404S02025	S02025	55	12.7	4.76	-	0.4	-	-	-	-	-										●																				
	DNGA150404T01025	T01025	55	12.7	4.76	-	0.4	-	-	-	-	-											●																			
	DNGA150404X01015	X01015	55	12.7	4.76	-	0.4	-	-	-	-	-												●																		
	DNGA150404X01015-10	X01015	55	12.7	4.76	-	0.4	-	-	-	-	-					●																									
	DNGA150404Z02025	Z02025	55	12.7	4.76	-	0.4	-	-	-	-	-																														
	DNGA150408BQE004	E004	55	12.7	4.76	-	0.8	-	-	-	-	-	●																													
	DNGA150408BQT00520	T00520	55	12.7	4.76	-	0.8	-	-	-	-	-	●																													
	DNGA150408S02025	S02025	55	12.7	4.76	-	0.8	-	-	-	-	-												●																		
	DNGA150408T00520	T00520	55	12.7	4.76	-	0.8	-	-	-	-	-																														
	DNGA150408T01020	T01020	55	12.7	4.76	-	0.8	-	-	-	-	-																														
	DNGA150408T01025	T01025	55	12.7	4.76	-	0.8	-	-	-	-	-												●																		
	DNGA150408T02020	T02020	55	12.7	4.76	-	0.8	-	-	-	-	-																														
	DNGA150408T02025	T02025	55	12.7	4.76	-	0.8	-	-	-	-	-																														
	DNGA150408X01015	X01015	55	12.7	4.76	-	0.8	-	-	-	-	-																														
	DNGA150408X01015-10	X01015	55	12.7	4.76	-	0.8	-	-	-	-	-					●																									
	DNGA150408Z02025	Z02025	55	12.7	4.76	-	0.8	-	-	-	-	-																														
	DNGA150412BQE004	E004	55	12.7	4.76	-	1.2	-	-	-	-	-	●																													
	DNGA150412BQT00520	T00520	55	12.7	4.76	-	1.2	-	-	-	-	-	●																													
	DNGA150412S02025	S02025	55	12.7	4.76	-	1.2	-	-	-	-	-													●																	
	DNGA150412T01020	T01020	55	12.7	4.76	-	1.2	-	-	-	-	-																														
	DNGA150412T01025	T01025	55	12.7	4.76	-	1.2	-	-	-	-	-													●																	
	DNGA150412T02020	T02020	55	12.7	4.76	-	1.2	-	-	-	-	-																														
	DNGA150412T02025	T02025	55	12.7	4.76	-	1.2	-	-	-	-	-																														
	DNGA150412X01015	X01015	55	12.7	4.76	-	1.2	-	-	-	-	-																														
	DNGA150412X01015-10	X01015	55	12.7	4.76	-	1.2	-	-	-	-	-					●																									

Turning Insert  
**D**

**DNGG-AG with chipbreaker**

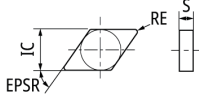


**Steel**

Steel												
Stainless Steel												
Cast Iron												
Non-Ferrous Material												
Heat Resistant Alloy												
Hardened Material												
Others (non-metallic)												


Shape	Item Number CECC (ISO)	EPSR °	IC mm	S mm	AN °	RE mm	D1 mm	D2 mm	INSL mm	S1 mm	W1 mm	BIDEMICS				NTK Ceramik	Alumina Ceramics							Silicon Nitride Ceramics					Whisker Ceramics												
												PVD				PVD	PVD							CVD																	
												120	JP2	JX1	JX3	450	HC1	HW2	HC2	HC4	HC6	HC7	ZC7	SX3	SX5	SX7	SX9	SX6	SP9	CVD	WA1	WA5									
	DNGG150408Z01030AG	Z01030	55	12.7	4.76	-	0.8	-	-	-	-	-																													
	DNGG150412Z01030AG	Z01030	55	12.7	4.76	-	1.2	-	-	-	-	-																													

**DNGN**



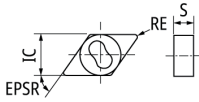
**Steel**

<b>Stainless Steel</b>																																											
<b>Cast Iron</b>																	●	●	●	●	○	○	○	○	○	●	●	○	○														
<b>Non-Ferrous Material</b>																																											
<b>Heat Resistant Alloy</b>																														●	●	●	●	●	●	●	●	●					
<b>Hardened Material</b>																																							●	○	●	●	●
<b>Others (non-metallic)</b>																																											

Shape	Item Number CECC	EPSR	IC	S	AN	RE	D1	D2	INSL	S1	W1	BIDEMICS				NTK CeramiX	Alumina Ceramics					Silicon Nitride Ceramics					Whisker Ceramics																
												120	PVD	JP2	PVD		JX1	JX3	450	PVD	HC1	HW2	HC2	HC4	HC6	HC7	ZC7	PVD	SX3	SX5	SX7	SX9	SX6	SP9	CVD	WA1	WA5						
												(ISO)	°	mm	mm		°	mm	mm	mm	mm	mm	mm	mm	mm	mm	mm	mm	mm	mm	mm	mm	mm	mm	mm	mm	mm	mm					
	DNGN150404T01025	T01025	55	12.7	4.76	-	0.4	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-			
	DNGN150408S02025	S02025	55	12.7	4.76	-	0.8	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-			
	DNGN150408T01025	T01025	55	12.7	4.76	-	0.8	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-		
	DNGN150408Z02025	Z02025	55	12.7	4.76	-	0.8	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
	DNGN150412T00520	T00520	55	12.7	4.76	-	1.2	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
	DNGN150412T02025	T02025	55	12.7	4.76	-	1.2	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
	DNGN150712T02025	T02025	55	12.7	7.94	-	1.2	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-


**D** Turning Insert

**DNGX**

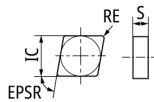


**Steel**

<b>Stainless Steel</b>																																										
<b>Cast Iron</b>																																										
<b>Non-Ferrous Material</b>																																										
<b>Heat Resistant Alloy</b>																																										
<b>Hardened Material</b>																																										
<b>Others (non-metallic)</b>																																										


Shape	Item Number CECC	EPSR	IC	S	AN	RE	D1	D2	INSL	S1	W1	BIDEMICS				NTK CeramiX	Alumina Ceramics					Silicon Nitride Ceramics					Whisker Ceramics																
												120	PVD	JP2	PVD		JX1	JX3	450	PVD	HC1	HW2	HC2	HC4	HC6	HC7	ZC7	PVD	SX3	SX5	SX7	SX9	SX6	SP9	CVD	WA1	WA5						
												(ISO)	°	mm	mm		°	mm	mm	mm	mm	mm	mm	mm	mm	mm	mm	mm	mm	mm	mm	mm	mm	mm	mm	mm	mm	mm	mm	mm			
	DNGX150716T02025	T02025	55	12.7	7.94	-	1.6	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-

**ENGN**



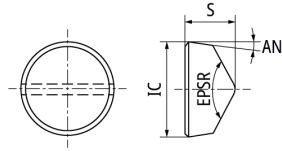
**Steel**

<b>Stainless Steel</b>																																									
<b>Cast Iron</b>																																									
<b>Non-Ferrous Material</b>																																									
<b>Heat Resistant Alloy</b>																																									
<b>Hardened Material</b>																																									
<b>Others (non-metallic)</b>																																									

Shape	Item Number CECC	EPSR	IC	S	AN	RE	D1	D2	INSL	S1	W1	BIDEMICS				NTK CeramiX	Alumina Ceramics					Silicon Nitride Ceramics					Whisker Ceramics															
												120	PVD	JP2	PVD		JX1	JX3	450	PVD	HC1	HW2	HC2	HC4	HC6	HC7	ZC7	PVD	SX3	SX5	SX7	SX9	SX6	SP9	CVD	WA1	WA5					
												(ISO)	°	mm	mm		°	mm	mm	mm	mm	mm	mm	mm	mm	mm	mm	mm	mm	mm	mm	mm	mm	mm	mm	mm	mm	mm	mm	mm		
	ENGN130708T02025	T02025	75	12.7	7.94	-	0.8	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	ENGN130712T02025	T02025	75	12.7	7.94	-	1.2	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-



# RCGX

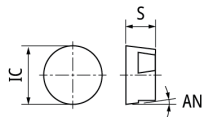


Steel																				
Stainless Steel																				
Cast Iron																				
Non-Ferrous Material																				
Heat Resistant Alloy																				
Hardened Material																				
Others (non-metallic)																				
Steel	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•
Stainless Steel																				
Cast Iron																				
Non-Ferrous Material																				
Heat Resistant Alloy																				
Hardened Material																				
Others (non-metallic)																				

Shape	Item Number	CECC	EPSR	IC	S	AN	RE	D1	D2	INSL	S1	W1	BIDEMICS				NTK CeramIX	Alumina Ceramics							Silicon Nitride Ceramics					Whisker Ceramics						
													PVD		PVD			450	HC1	HW2	HC2	HC4	HC6	HC7	ZC7	SX3	SX5	SX7	SX9	SX6	SP9	CVD	WA1	WA5		
													120	JP2	JX1	JX3																			HC1	HC2
(ISO)	°	mm	mm	°	mm	mm	mm	mm	mm	mm	mm	mm	mm	120	JP2	JX1	JX3	450	HC1	HW2	HC2	HC4	HC6	HC7	ZC7	SX3	SX5	SX7	SX9	SX6	SP9	CVD	WA1	WA5		
RCGX060400T00520	T00520	T00520	120	6.35	4.76	7	-	-	-	-	-	-	-																						•	•
RCGX060400T00820	T00820	T00820	120	6.35	4.76	7	-	-	-	-	-	-	-		•	•																				
RCGX060400T02020	T02020	T02020	120	6.35	4.76	7	-	-	-	-	-	-	-											★												★
RCGX060600P07015	P07015	P07015	120	6.35	6.35	7	-	-	-	-	-	-	-																							★
RCGX060700T00520	T00520	T00520	120	6.35	7.94	7	-	-	-	-	-	-	-																							•
RCGX090700E004	E004	E004	120	9.525	7.94	7	-	-	-	-	-	-	-		•	•																				
RCGX090700K20015	K20015	K20015	120	9.525	7.94	7	-	-	-	-	-	-	-											★												★
RCGX090700P07015	P07015	P07015	120	9.525	7.86	7	-	-	-	-	-	-	-																							
RCGX090700T00520	T00520	T00520	120	9.525	7.94	7	-	-	-	-	-	-	-													•										•
RCGX090700T00525	T00525	T00525	120	9.525	7.86	7	-	-	-	-	-	-	-																							•
RCGX090700T00820	T00820	T00820	120	9.525	7.94	7	-	-	-	-	-	-	-		•	•																				•
RCGX090700T01020	T01020	T01020	120	9.525	7.94	7	-	-	-	-	-	-	-																							•
RCGX120700E004	E004	E004	120	12.7	7.94	7	-	-	-	-	-	-	-		•	•																				•
RCGX120700K20015	K20015	K20015	120	12.7	7.94	7	-	-	-	-	-	-	-											★												★
RCGX120700P15015	P15015	P15015	120	12.7	7.94	7	-	-	-	-	-	-	-																							
RCGX120700T00520	T00520	T00520	120	12.7	7.94	7	-	-	-	-	-	-	-													•										•
RCGX120700T00525	T00525	T00525	120	12.7	7.94	7	-	-	-	-	-	-	-																							•
RCGX120700T00820	T00820	T00820	120	12.7	7.94	7	-	-	-	-	-	-	-		•	•																				•
RCGX120700T01020	T01020	T01020	120	12.7	7.94	7	-	-	-	-	-	-	-																							•
RCGX120700Z01520	Z01520	Z01520	120	12.7	7.94	7	-	-	-	-	-	-	-																							•

D Turning Insert

# RCGY

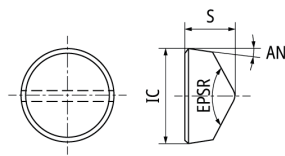


Steel																																					
Stainless Steel																																					
Cast Iron																																					
Non-Ferrous Material																																					
Heat Resistant Alloy																																					
Hardened Material																																					
Others (non-metallic)																																					
Steel	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	
Stainless Steel																																					
Cast Iron																										○	○	○	○	○	○	○	○	○	○	○	○
Non-Ferrous Material																																					
Heat Resistant Alloy																											•	•	•	•	•	•	•	•	•	•	•
Hardened Material																																					
Others (non-metallic)																																					

Shape	Item Number	CECC	EPSR	IC	S	AN	RE	D1	D2	INSL	S1	W1	BIDEMICS				NTK CeramIX	Alumina Ceramics							Silicon Nitride Ceramics					Whisker Ceramics							
													PVD		PVD			450	HC1	HW2	HC2	HC4	HC6	HC7	ZC7	SX3	SX5	SX7	SX9	SX6	SP9	CVD	WA1	WA5			
													120	JP2	JX1	JX3																			HC1	HC2	HC4
(ISO)	°	mm	mm	°	mm	mm	mm	mm	mm	mm	mm	mm	mm	120	JP2	JX1	JX3	450	HC1	HW2	HC2	HC4	HC6	HC7	ZC7	SX3	SX5	SX7	SX9	SX6	SP9	CVD	WA1	WA5			
RCGY090603T00525	T00525	T00525	-	9.525	6.35	7	-	-	-	-	-	-	-																								•
RCGY120603T00525	T00525	T00525	-	12.7	6.35	7	-	-	-	-	-	-	-																								•



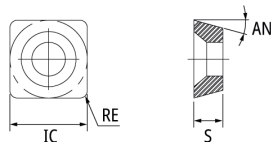
# RPGX



Steel															
Stainless Steel															
Cast Iron															
Non-Ferrous Material															
Heat Resistant Alloy															
Hardened Material															
Others (non-metallic)															

Shape	Item Number (ISO)	CECC	EPSR °	IC mm	S mm	AN °	RE mm	D1 mm	D2 mm	INSL mm	S1 mm	W1 mm	BIDEMICS				NTK CeramiX							Alumina Ceramics				Silicon Nitride Ceramics					Whisker Ceramics														
													120 PVD	JP2 PVD	JX1	JX3	450 PVD	HC1	HW2	HC2	HC4	HC6	HC7	ZC7 PVD	SX3	SX5	SX7	SX9	SX6	SP9 CVD	WA1	WA5	HC1	HW2	HC2	HC4	HC6	HC7	ZC7 PVD	SX3	SX5	SX7	SX9	SX6	SP9 CVD	WA1	WA5
														RPGX060400T00520	T00520	120	6.35	4.76	11	-	-	-	-	-	-	-																					
	RPGX090700E004	E004	120	9.525	7.94	11	-	-	-	-	-	-	-																																		
	RPGX090700T00520	T00520	120	9.525	7.94	11	-	-	-	-	-	-	-																																		
	RPGX090700T00820	T00820	120	9.525	7.94	11	-	-	-	-	-	-	-																																		
	RPGX090800T00525	T00525	120	9.525	7.86	11	-	-	-	-	-	-	-																																		
	RPGX120700E004	E004	120	12.7	7.94	11	-	-	-	-	-	-	-																																		
	RPGX120700T00520	T00520	120	12.7	7.94	11	-	-	-	-	-	-	-																																		
	RPGX120700T00525	T00525	120	12.7	7.94	11	-	-	-	-	-	-	-																																		
	RPGX120700T00820	T00820	120	12.7	7.94	11	-	-	-	-	-	-	-																																		
	RPGX120700T01020	T01020	120	12.7	7.94	11	-	-	-	-	-	-	-																																		

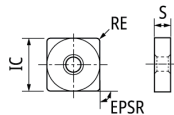
# SDCW



Steel															
Stainless Steel															
Cast Iron															
Non-Ferrous Material															
Heat Resistant Alloy															
Hardened Material															
Others (non-metallic)															

Shape	Item Number (ISO)	CECC	EPSR °	IC mm	S mm	AN °	RE mm	D1 mm	D2 mm	INSL mm	S1 mm	W1 mm	BIDEMICS				NTK CeramiX							Alumina Ceramics				Silicon Nitride Ceramics					Whisker Ceramics														
													120 PVD	JP2 PVD	JX1	JX3	450 PVD	HC1	HW2	HC2	HC4	HC6	HC7	ZC7 PVD	SX3	SX5	SX7	SX9	SX6	SP9 CVD	WA1	WA5	HC1	HW2	HC2	HC4	HC6	HC7	ZC7 PVD	SX3	SX5	SX7	SX9	SX6	SP9 CVD	WA1	WA5
														SDCW120408T01020	T01020	90	12.7	4.76	15	0.8	5.5	-	-	-	-	-																					

# SNGA



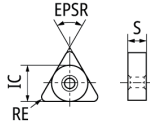
Steel															
Stainless Steel															
Cast Iron															
Non-Ferrous Material															
Heat Resistant Alloy															
Hardened Material															
Others (non-metallic)															

Shape	Item Number (ISO)	CECC	EPSR °	IC mm	S mm	AN °	RE mm	D1 mm	D2 mm	INSL mm	S1 mm	W1 mm	BIDEMICS				NTK CeramiX							Alumina Ceramics				Silicon Nitride Ceramics					Whisker Ceramics														
													120 PVD	JP2 PVD	JX1	JX3	450 PVD	HC1	HW2	HC2	HC4	HC6	HC7	ZC7 PVD	SX3	SX5	SX7	SX9	SX6	SP9 CVD	WA1	WA5	HC1	HW2	HC2	HC4	HC6	HC7	ZC7 PVD	SX3	SX5	SX7	SX9	SX6	SP9 CVD	WA1	WA5
														SNGA120408S02025	S02025	90	12.7	4.76	-	0.8	-	-	-	-	-	-																					
	SNGA120408T01025	T01025	90	12.7	4.76	-	0.8	-	-	-	-	-	-																																		
	SNGA120408T02020	T02020	90	12.7	4.76	-	0.8	-	-	-	-	-	-																																		
	SNGA120412S02025	S02025	90	12.7	4.76	-	1.2	-	-	-	-	-	-																																		
	SNGA120412T01025	T01025	90	12.7	4.76	-	1.2	-	-	-	-	-	-																																		
	SNGA120412T02020	T02020	90	12.7	4.76	-	1.2	-	-	-	-	-	-																																		
	SNGA120416T02020	T02020	90	12.7	4.76	-	1.6	-	-	-	-	-	-																																		









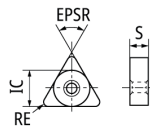
Steel																
Stainless Steel																
Cast Iron																
Non-Ferrous Material																
Heat Resistant Alloy																
Hardened Material																
Others (non-metallic)																

Shape	Item Number	CECC	EPSR	IC	S	AN	RE	D1	D2	INSL	S1	W1	BIDEMICS				NTK CeramIX	Alumina Ceramics							Silicon Nitride Ceramics					Whisker Ceramics									
													PVD	PVD	JX1	JX3		PVD	HC1	HW2	HC2	HC4	HC6	HC7	ZC7	PVD	SX3	SX5	SX7	SX9	SX6	SP9	CVD	WA1	WA5				
													(ISO)	°	mm	mm	°	mm	mm	mm	mm	mm	mm	mm	mm	120	JP2	JP1	JP3	450	HC1	HW2	HC2	HC4	HC6	HC7	ZC7	PVD	SX3
	TNGA160404S02025	S02025	60	9.525	4.76	-	0.4	-	-	-	-	-	-													●													
	TNGA160404T01025	T01025	60	9.525	4.76	-	0.4	-	-	-	-	-	-													●													
	TNGA160404X01015	X01015	60	9.525	4.76	-	0.4	-	-	-	-	-	-				●																						
	TNGA160404X01015-10	X01015	60	9.525	4.76	-	0.4	-	-	-	-	-	-				●																						
	TNGA160404Z02025	Z02025	60	9.525	4.76	-	0.4	-	-	-	-	-	-									●																	
	TNGA160408S02025	S02025	60	9.525	4.76	-	0.8	-	-	-	-	-	-												●														
	TNGA160408T01025	T01025	60	9.525	4.76	-	0.8	-	-	-	-	-	-								●		●			●													
	TNGA160408T02020	T02020	60	9.525	4.76	-	0.8	-	-	-	-	-	-																							●			
	TNGA160408T02025	T02025	60	9.525	4.76	-	0.8	-	-	-	-	-	-																						●				
	TNGA160408X01015	X01015	60	9.525	4.76	-	0.8	-	-	-	-	-	-				●																						
	TNGA160408X01015-10	X01015	60	9.525	4.76	-	0.8	-	-	-	-	-	-				●																						
	TNGA160408Z02025	Z02025	60	9.525	4.76	-	0.8	-	-	-	-	-	-									●																	
	TNGA160412S02025	S02025	60	9.525	4.76	-	1.2	-	-	-	-	-	-												●														
	TNGA160412T01025	T01025	60	9.525	4.76	-	1.2	-	-	-	-	-	-									●		●		●													
	TNGA160412T02020	T02020	60	9.525	4.76	-	1.2	-	-	-	-	-	-																									●	
	TNGA160412T02025	T02025	60	9.525	4.76	-	1.2	-	-	-	-	-	-																								●		
	TNGA160412X01015	X01015	60	9.525	4.76	-	1.2	-	-	-	-	-	-				●																						
	TNGA160412X01015-10	X01015	60	9.525	4.76	-	1.2	-	-	-	-	-	-				●																						
	TNGA160416T02025	T02025	60	9.525	4.76	-	1.6	-	-	-	-	-	-																								●		

Turning Insert

D

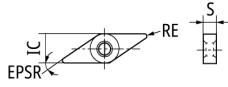
### TNGG-AG with chipbreaker



Steel																
Stainless Steel																
Cast Iron																
Non-Ferrous Material																
Heat Resistant Alloy																
Hardened Material																
Others (non-metallic)																

Shape	Item Number	CECC	EPSR	IC	S	AN	RE	D1	D2	INSL	S1	W1	BIDEMICS				NTK CeramIX	Alumina Ceramics							Silicon Nitride Ceramics					Whisker Ceramics								
													PVD	PVD	JX1	JX3		PVD	HC1	HW2	HC2	HC4	HC6	HC7	ZC7	PVD	SX3	SX5	SX7	SX9	SX6	SP9	CVD	WA1	WA5			
													(ISO)	°	mm	mm	°	mm	mm	mm	mm	mm	mm	mm	mm	120	JP2	JP1	JP3	450	HC1	HW2	HC2	HC4	HC6	HC7	ZC7	PVD
	TNGG160408Z01030AG	Z01030	60	9.525	4.76	-	0.8	-	-	-	-	-	-													●												
	TNGG160412Z01030AG	Z01030	60	9.525	4.76	-	1.2	-	-	-	-	-	-													●												



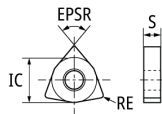


Steel	
Stainless Steel	●●●●●●●●●●
Cast Iron	●●●●●○●●○●
Non-Ferrous Material	
Heat Resistant Alloy	●●●●●●●●●●●●●●
Hardened Material	●○●●●●
Others (non-metallic)	

Shape	Item Number (ISO)	CECC	EPSR °	IC mm	S mm	AN °	RE mm	D1 mm	D2 mm	INSL mm	S1 mm	W1 mm	BIDEMICS				NTK PVD 450	Alumina Ceramics							Silicon Nitride Ceramics					Whisker Ceramics									
													PVD		JX1	JX3		HC1	HW2	HC2	HC4	HC6	HC7	ZC7	SX3	SX5	SX7	SX9	SX6	SP9	CVD	WA1	WA5						
													120	JP2																				450	HC1	HW2	HC2	HC4	HC6
	VNGA160404BQE004	E004	35	9.525	4.76	-	0.4	-	-	-	-	-	-	●																									
	VNGA160404BQT00520	T00520	35	9.525	4.76	-	0.4	-	-	-	-	-	-	●																									
	VNGA160404S02025	S02025	35	9.525	4.76	-	0.4	-	-	-	-	-	-																										
	VNGA160404T01020	T01020	35	9.525	4.76	-	0.4	-	-	-	-	-	-																										
	VNGA160404T01025	T01025	35	9.525	4.76	-	0.4	-	-	-	-	-	-																										
	VNGA160404X01015	X01015	35	9.525	4.76	-	0.4	-	-	-	-	-	-																										
	VNGA160404X01015-10	X01015	35	9.525	4.76	-	0.4	-	-	-	-	-	-																										
	VNGA160404Z02025	Z02025	35	9.525	4.76	-	0.4	-	-	-	-	-	-																										
	VNGA160408BQE004	E004	35	9.525	4.76	-	0.8	-	-	-	-	-	-	●																									
	VNGA160408BQT00520	T00520	35	9.525	4.76	-	0.8	-	-	-	-	-	-	●																									
	VNGA160408S02025	S02025	35	9.525	4.76	-	0.8	-	-	-	-	-	-																										
	VNGA160408T00520	T00520	35	9.525	4.76	-	0.8	-	-	-	-	-	-																										
	VNGA160408T01020	T01020	35	9.525	4.76	-	0.8	-	-	-	-	-	-																										
	VNGA160408T01025	T01025	35	9.525	4.76	-	0.8	-	-	-	-	-	-																										
	VNGA160408X01015	X01015	35	9.525	4.76	-	0.8	-	-	-	-	-	-																										
	VNGA160408X01015-10	X01015	35	9.525	4.76	-	0.8	-	-	-	-	-	-																										
	VNGA160408Z02025	Z02025	35	9.525	4.76	-	0.8	-	-	-	-	-	-																										
	VNGA160412BQT00520	T00520	35	9.525	4.76	-	1.2	-	-	-	-	-	-	●																									
	VNGA160412S02025	S02025	35	9.525	4.76	-	1.2	-	-	-	-	-	-																										
	VNGA160412T01020	T01020	35	9.525	4.76	-	1.2	-	-	-	-	-	-																										
	VNGA160412T01025	T01025	35	9.525	4.76	-	1.2	-	-	-	-	-	-																										
	VNGA160412X01015	X01015	35	9.525	4.76	-	1.2	-	-	-	-	-	-																										
	VNGA160412X01015-10	X01015	35	9.525	4.76	-	1.2	-	-	-	-	-	-																										
	VNGA160412Z02025	Z02025	35	9.525	4.76	-	1.2	-	-	-	-	-	-																										
	VNGA220424T01020	T01020	35	12.7	4.76	-	2.4	-	-	-	-	-	-																										

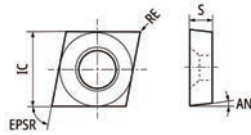
Turning Insert  
D

WNGA



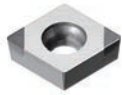
Steel	
Stainless Steel	●●●●●●●●●●
Cast Iron	●●●●●○●●○●
Non-Ferrous Material	
Heat Resistant Alloy	●●●●●●●●●●●●●●
Hardened Material	●○●●●●
Others (non-metallic)	

Shape	Item Number (ISO)	CECC	EPSR °	IC mm	S mm	AN °	RE mm	D1 mm	D2 mm	INSL mm	S1 mm	W1 mm	BIDEMICS				NTK PVD 450	Alumina Ceramics							Silicon Nitride Ceramics					Whisker Ceramics								
													PVD		JX1	JX3		HC1	HW2	HC2	HC4	HC6	HC7	ZC7	SX3	SX5	SX7	SX9	SX6	SP9	CVD	WA1	WA5					
													120	JP2																				450	HC1	HW2	HC2	HC4
	WNGA080408T00520	T00520	80	12.7	4.76	-	0.8	-	-	-	-	-	-																									
	WNGA080408T01020	T01020	80	12.7	4.76	-	0.8	-	-	-	-	-	-																									
	WNGA080408T02020	T02020	80	12.7	4.76	-	0.8	-	-	-	-	-	-																									
	WNGA080412T00520	T00520	80	12.7	4.76	-	1.2	-	-	-	-	-	-																									
	WNGA080412T01020	T01020	80	12.7	4.76	-	1.2	-	-	-	-	-	-																									
	WNGA080412T02020	T02020	80	12.7	4.76	-	1.2	-	-	-	-	-	-																									
	WNGA080416T02020	T02020	80	12.7	4.76	-	1.6	-	-	-	-	-	-																									

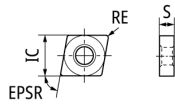


Steel	
Stainless Steel	
Cast Iron	● ● ● ● ○ ○
Non-Ferrous Material	
Heat Resistant Alloy	
Hardened Material	● ● ● ● ●
Others (non-metallic)	

Shape	Item Number (ISO)	CECC	EPSR °	IC mm	S mm	AN °	RE mm	D2 mm	Length of edge	No. of edge	S1 mm	CBN									
												B16 PVD	B22	B23	B30	B36	B6K PVD	B40	B52	B5K PVD	
	CCGW060202PDFNX	Up-sharp edge	80	6.35	2.38	7	0.2	-	2.3	2	-						●				●
	CCGW060202PDS01015	S01015	80	6.35	2.38	7	0.2	-	2.3	2	-						●			●	●
	CCGW060202PDS01325	S01325	80	6.35	2.38	7	0.2	-	2.3	2	-						●			●	
	CCGW060202PDS01535	S01535	80	6.35	2.38	7	0.2	-	2.3	2	-						●			●	
	CCGW060204PDFNX	Up-sharp edge	80	6.35	2.38	7	0.4	-	2.3	2	-						●				
	CCGW060204PDS01015	S01015	80	6.35	2.38	7	0.4	-	2.3	2	-						●			●	●
	CCGW060204PDS01325	S01325	80	6.35	2.38	7	0.4	-	2.3	2	-						●			●	●
	CCGW060204PDS01535	S01535	80	6.35	2.38	7	0.4	-	2.3	2	-						●			●	
	CCGW060208PDFNX	Up-sharp edge	80	6.35	2.38	7	0.8	-	2.2	2	-										●
	CCGW060208PDS01015	S01015	80	6.35	2.38	7	0.8	-	2.2	2	-						●			●	●
	CCGW060208PDS01325	S01325	80	6.35	2.38	7	0.8	-	2.2	2	-						●			●	●
	CCGW060208PDS01535	S01535	80	6.35	2.38	7	0.8	-	2.2	2	-						●			●	●
	CCGW060208PDT01520	T01520	80	6.35	2.38	7	0.8	-	2.2	2	-						●				
	CCGW09T302PDFNX	Up-sharp edge	80	9.525	3.97	7	0.2	-	2.3	2	-						●				●
	CCGW09T302PDS01015	S01015	80	9.525	3.97	7	0.2	-	2.3	2	-						●			●	●
	CCGW09T302PDS01325	S01325	80	9.525	3.97	7	0.2	-	2.3	2	-						●			●	●
	CCGW09T302PDS01535	S01535	80	9.525	3.97	7	0.2	-	2.3	2	-						●			●	●
	CCGW09T304PDFNX	Up-sharp edge	80	9.525	3.97	7	0.4	-	2.3	2	-						●				●
	CCGW09T304PDS01015	S01015	80	9.525	3.97	7	0.4	-	2.3	2	-						●			●	●
	CCGW09T304PDS01325	S01325	80	9.525	3.97	7	0.4	-	2.3	2	-						●			●	●
	CCGW09T304PDS01535	S01535	80	9.525	3.97	7	0.4	-	2.3	2	-						●			●	●
	CCGW09T308PDFNX	Up-sharp edge	80	9.525	3.97	7	0.8	-	2.2	2	-						●				
	CCGW09T308PDS01015	S01015	80	9.525	3.97	7	0.8	-	2.2	2	-						●			●	●
	CCGW09T308PDS01535	S01535	80	9.525	3.97	7	0.8	-	2.2	2	-						●			●	●
	CCGW09T308PTS01325	S01325	80	9.525	3.97	7	0.8	-	2.2	2	-						●			●	●
	CCGW09T312PDFNX	Up-sharp edge	80	9.525	3.97	7	1.2	-	2.7	2	-										●
	CCGW09T312PDS01015	S01015	80	9.525	3.97	7	1.2	-	2.7	2	-										●
	CCGW09T312PTS01325	S01325	80	9.525	3.97	7	1.2	-	2.7	2	-						●				

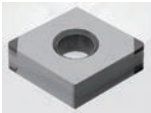


D Turning Insert



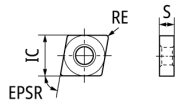
Steel										
Stainless Steel										
Cast Iron										
Non-Ferrous Material										
Heat Resistant Alloy										
Hardened Material										
Others (non-metallic)										

Shape	Item Number (ISO)	CECC	EPSR °	IC mm	S mm	AN °	RE mm	D2 mm	Length of edge	No. of edge	S1 mm	CBN									
												B16 PVD	B22	B23	B30	B36	B6K PVD	B40	B52	B5K PVD	
	CNGA120402PQS01015	S01015	80	12.7	4.76	-	0.2	-	2.3	4	-										
	CNGA120402PQS01325	S01325	80	12.7	4.76	-	0.2	-	2.3	4	-										
	CNGA120402PQS01535	S01535	80	12.7	4.76	-	0.2	-	2.3	4	-										
	CNGA120402PQT01020	T01020	80	12.7	4.76	-	0.2	-	2.3	4	-										
	CNGA120404PDFNX	Up-sharp edge	80	12.7	4.76	-	0.4	-	2.3	2	-										
	CNGA120404PQFNX	Up-sharp edge	80	12.7	4.76	-	0.4	-	2.3	4	-										
	CNGA120404PQS01015	S01015	80	12.7	4.76	-	0.4	-	2.3	4	-										
	CNGA120404PQS01020	S01020	80	12.7	4.76	-	0.4	-	2.3	4	-										
	CNGA120404PQS01325	S01325	80	12.7	4.76	-	0.4	-	2.3	4	-										
	CNGA120404PQS01535	S01535	80	12.7	4.76	-	0.4	-	2.3	4	-										
	CNGA120404PQT01020	T01020	80	12.7	4.76	-	0.4	-	2.3	4	-										
	CNGA120408PDFNX	Up-sharp edge	80	12.7	4.76	-	0.8	-	2.2	2	-										
	CNGA120408PQFNX	Up-sharp edge	80	12.7	4.76	-	0.8	-	2.2	4	-										
	CNGA120408PQS01015	S01015	80	12.7	4.76	-	0.8	-	2.2	4	-										
	CNGA120408PQS01020	S01020	80	12.7	4.76	-	0.8	-	2.2	4	-										
	CNGA120408PQS01325	S01325	80	12.7	4.76	-	0.8	-	2.2	4	-										
	CNGA120408PQS01535	S01535	80	12.7	4.76	-	0.8	-	2.2	4	-										
	CNGA120408PQT00515	T00515	80	12.7	4.76	-	0.8	-	2.2	4	-										
	CNGA120408PQT01020	T01020	80	12.7	4.76	-	0.8	-	2.2	4	-										
	CNGA120412PDFNX	Up-sharp edge	80	12.7	4.76	-	1.2	-	2.7	2	-										
	CNGA120412PQFNX	Up-sharp edge	80	12.7	4.76	-	1.2	-	2.7	4	-										
	CNGA120412PQS01015	S01015	80	12.7	4.76	-	1.2	-	2.7	4	-										
	CNGA120412PQS01020	S01020	80	12.7	4.76	-	1.2	-	2.7	4	-										
	CNGA120412PQS01325	S01325	80	12.7	4.76	-	1.2	-	2.7	4	-										
	CNGA120412PQS01535	S01535	80	12.7	4.76	-	1.2	-	2.7	4	-										
	CNGA120412PQT00515	T00515	80	12.7	4.76	-	1.2	-	2.7	4	-										
	CNGA120412PQT01020	T01020	80	12.7	4.76	-	1.2	-	2.7	4	-										
	CNGA120416PQS01015	S01015	80	12.7	4.76	-	1.6	-	2.6	4	-										
	CNGA120416PQS01020	S01020	80	12.7	4.76	-	1.6	-	2.6	4	-										
	CNGA120416PQS01325	S01325	80	12.7	4.76	-	1.6	-	2.6	4	-										
	CNGA120416PQS01535	S01535	80	12.7	4.76	-	1.6	-	2.6	4	-										
	CNGA120416PQT01020	T01020	80	12.7	4.76	-	1.6	-	2.6	4	-										
	CNGA120420PQS01015	S01015	80	12.7	4.76	-	2	-	2.6	4	-										
	CNGA120420PQS01020	S01020	80	12.7	4.76	-	2	-	2.6	4	-										
	CNGA120420PQS01325	S01325	80	12.7	4.76	-	2	-	2.6	4	-										
	CNGA120420PQS01535	S01535	80	12.7	4.76	-	2	-	2.6	4	-										
	CNGA120420PQT01020	T01020	80	12.7	4.76	-	2	-	2.6	4	-										



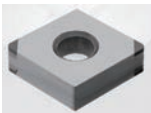
Turning Insert D

CNGA-W with wiper for higher feed

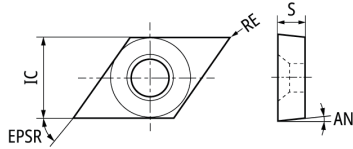


Steel										
Stainless Steel										
Cast Iron										
Non-Ferrous Material										
Heat Resistant Alloy										
Hardened Material										
Others (non-metallic)										

Shape	Item Number (ISO)	CECC	EPSR °	IC mm	S mm	AN °	RE mm	D2 mm	Length of edge	No. of edge	S1 mm	CBN									
												B16 PVD	B22	B23	B30	B36	B6K PVD	B40	B52	B5K PVD	
	CNGA120404PQWS01015	S01015	80	12.7	4.76	-	0.4	-	2.3	4	-										
	CNGA120404PQWS01535	S01535	80	12.7	4.76	-	0.4	-	2.3	4	-										
	CNGA120408PQWS01015	S01015	80	12.7	4.76	-	0.8	-	2.2	4	-										
	CNGA120408PQWS01535	S01535	80	12.7	4.76	-	0.8	-	2.2	4	-										
	CNGA120412PQWS01015	S01015	80	12.7	4.76	-	1.2	-	2.7	4	-										
	CNGA120412PQWS01535	S01535	80	12.7	4.76	-	1.2	-	2.7	4	-										



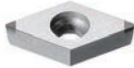
Wiper Width: 0.25mm  
Applicable holders: 95°cutting edge angle (C31, CCLN).



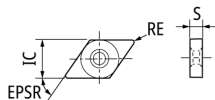
Steel	
Stainless Steel	
Cast Iron	● ● ● ● ○ ○
Non-Ferrous Material	
Heat Resistant Alloy	
Hardened Material	● ● ● ● ● ●
Others (non-metallic)	

Shape	Item Number (ISO)	CECC	EPSR °	IC mm	S mm	AN °	RE mm	D2 mm	Length of edge	No. of edge	S1 mm	CBN										
												B16 PVD	B22	B23	B30	B36	B6K PVD	B40	B52	B5K PVD		
	DCGW070202PDFNX	Up-sharp edge	55	6.35	2.38	7	0.2	-	2.4	2	-											●
	DCGW070202PDS01015	S01015	55	6.35	2.38	7	0.2	-	2.4	2	-											●
	DCGW070202PDS01535	S01535	55	6.35	2.38	7	0.2	-	2.4	2	-											●
	DCGW070204PDFNX	Up-sharp edge	55	6.35	2.38	7	0.4	-	2.2	2	-				●							●
	DCGW070204PDS01015	S01015	55	6.35	2.38	7	0.4	-	2.2	2	-											●
	DCGW070204PDS01535	S01535	55	6.35	2.38	7	0.4	-	2.2	2	-											●
	DCGW070208PDFNX	Up-sharp edge	55	6.35	2.38	7	0.8	-	1.9	2	-											●
	DCGW070208PDS01015	S01015	55	6.35	2.38	7	0.8	-	1.9	2	-											● ●
	DCGW070208PDS01535	S01535	55	6.35	2.38	7	0.8	-	1.9	2	-											●
	DCGW070208PTS01325	S01325	55	6.35	2.38	7	0.8	-	1.9	2	-											●
	DCGW11T301PDS01015	S01015	55	9.525	3.97	7	0.1	-	2.3	2	-											●
	DCGW11T302PDFNX	Up-sharp edge	55	9.525	3.97	7	0.2	-	2.4	2	-				●							●
	DCGW11T302PDS01015	S01015	55	9.525	3.97	7	0.2	-	2.4	2	-					●						● ● ●
	DCGW11T302PTS01325	S01325	55	9.525	3.97	7	0.2	-	2.4	2	-					●						● ● ●
	DCGW11T302PDS01535	S01535	55	9.525	3.97	7	0.2	-	2.4	2	-					●						● ● ●
	DCGW11T304PDFNX	Up-sharp edge	55	9.525	3.97	7	0.4	-	2.2	2	-				●							●
	DCGW11T304PDS01015	S01015	55	9.525	3.97	7	0.4	-	2.2	2	-					●						● ● ● ●
	DCGW11T304PDS01535	S01535	55	9.525	3.97	7	0.4	-	2.2	2	-					●						● ● ●
	DCGW11T304PDT01015	T01015	55	9.525	3.97	7	0.4	-	2.2	2	-					●						●
	DCGW11T304PTS01325	S01325	55	9.525	3.97	7	0.4	-	2.2	2	-					●						● ● ●
	DCGW11T308PDFNX	Up-sharp edge	55	9.525	3.97	7	0.8	-	1.9	2	-											●
	DCGW11T308PDS01015	S01015	55	9.525	3.97	7	0.8	-	1.9	2	-											● ●
	DCGW11T308PTS01325	S01325	55	9.525	3.97	7	0.8	-	1.9	2	-											● ● ●
	DCGW11T308PDS01535	S01535	55	9.525	3.97	7	0.8	-	1.9	2	-											● ● ●
	DCGW11T312PDS01015	S01015	55	9.525	3.97	7	1.2	-	2.6	2	-											●

D Turning Insert







Steel

Stainless Steel

Cast Iron ● ● ● ● ○ ○

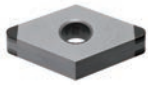
Non-Ferrous Material

Heat Resistant Alloy

Hardened Material ● ● ● ● ● ●

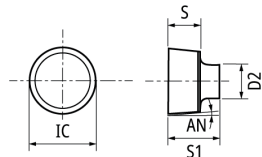
Others (non-metallic)

Shape	Item Number (ISO)	CECC	EPSR °	IC mm	S mm	AN °	RE mm	D2 mm	Length of edge	No. of edge	S1 mm	CBN											
												B16 PVD	B22	B23	B30	B36	B6K PVD	B40	B52	B5K PVD			
	DNGA150402PQS01015	S01015	55	12.7	4.76	-	0.2	-	2.4	4	-												
	DNGA150402PQS01325	S01325	55	12.7	4.76	-	0.2	-	2.4	4	-												
	DNGA150402PQS01535	S01535	55	12.7	4.76	-	0.2	-	2.4	4	-												
	DNGA150402PQT01020	T01020	55	12.7	4.76	-	0.2	-	2.4	4	-												
	DNGA150404PDFNX	Up-sharp edge	55	12.7	4.76	-	0.4	-	2.2	2	-												
	DNGA150404PQFNX	Up-sharp edge	55	12.7	4.76	-	0.4	-	2.2	4	-												
	DNGA150404PQS01015	S01015	55	12.7	4.76	-	0.4	-	2.2	4	-												
	DNGA150404PQS01020	S01020	55	12.7	4.76	-	0.4	-	2.2	4	-												
	DNGA150404PQS01325	S01325	55	12.7	4.76	-	0.4	-	2.2	4	-												
	DNGA150404PQS01535	S01535	55	12.7	4.76	-	0.4	-	2.2	4	-												
	DNGA150404PQT01020	T01020	55	12.7	4.76	-	0.4	-	2.2	4	-												
	DNGA150408PDFNX	Up-sharp edge	55	12.7	4.76	-	0.8	-	1.9	2	-												
	DNGA150408PQFNX	Up-sharp edge	55	12.7	4.76	-	0.8	-	1.9	4	-												
	DNGA150408PQS01015	S01015	55	12.7	4.76	-	0.8	-	1.9	4	-												
	DNGA150408PQS01020	S01020	55	12.7	4.76	-	0.8	-	1.9	4	-												
	DNGA150408PQS01325	S01325	55	12.7	4.76	-	0.8	-	1.9	4	-												
	DNGA150408PQS01535	S01535	55	12.7	4.76	-	0.8	-	1.9	4	-												
	DNGA150408PQT01020	T01020	55	12.7	4.76	-	0.8	-	1.9	4	-												
	DNGA150412PDFNX	Up-sharp edge	55	12.7	4.76	-	1.2	-	2.6	2	-												
	DNGA150412PQFNX	Up-sharp edge	55	12.7	4.76	-	1.2	-	2.6	4	-												
	DNGA150412PQS01015	S01015	55	12.7	4.76	-	1.2	-	2.6	4	-												
	DNGA150412PQS01020	S01020	55	12.7	4.76	-	1.2	-	2.6	4	-												
	DNGA150412PQS01325	S01325	55	12.7	4.76	-	1.2	-	2.6	4	-												
	DNGA150412PQS01535	S01535	55	12.7	4.76	-	1.2	-	2.6	4	-												
	DNGA150412PQT01020	T01020	55	12.7	4.76	-	1.2	-	2.6	4	-												
	DNGA150416PQS01015	S01015	55	12.7	4.76	-	1.6	-	2.2	4	-												
	DNGA150416PQS01020	S01020	55	12.7	4.76	-	1.6	-	2.2	4	-												
	DNGA150416PQS01325	S01325	55	12.7	4.76	-	1.6	-	2.2	4	-												
	DNGA150416PQS01535	S01535	55	12.7	4.76	-	1.6	-	2.2	4	-												
	DNGA150416PQT01020	T01020	55	12.7	4.76	-	1.6	-	2.2	4	-												
	DNGA150420PQS01015	S01015	55	12.7	4.76	-	2	-	2.4	4	-												
	DNGA150420PQS01325	S01325	55	12.7	4.76	-	2	-	2.4	4	-												
	DNGA150420PQS01535	S01535	55	12.7	4.76	-	2	-	2.4	4	-												
	DNGA150602PQS01015	S01015	55	12.7	6.35	-	0.2	-	2.4	4	-												
	DNGA150604PQS01015	S01015	55	12.7	6.35	-	0.4	-	2.2	4	-												
	DNGA150604PQS01325	S01325	55	12.7	6.35	-	0.4	-	2.2	4	-												
	DNGA150604PQT01020	T01020	55	12.7	6.35	-	0.4	-	2.2	4	-												
	DNGA150608PQS01015	S01015	55	12.7	6.35	-	0.8	-	1.9	4	-												
	DNGA150608PQS01325	S01325	55	12.7	6.35	-	0.8	-	1.9	4	-												
	DNGA150608PQT01020	T01020	55	12.7	6.35	-	0.8	-	1.9	4	-												
	DNGA150612PQS01015	S01015	55	12.7	6.35	-	1.2	-	2.6	4	-												
	DNGA150612PQS01325	S01325	55	12.7	6.35	-	1.2	-	2.6	4	-												
	DNGA150612PQT01020	T01020	55	12.7	6.35	-	1.2	-	2.6	4	-												
	DNGA150616PQS01015	S01015	55	12.7	6.35	-	1.6	-	2.2	4	-												
	DNGA150616PQS01325	S01325	55	12.7	6.35	-	1.6	-	2.2	4	-												
	DNGA150616PQT01020	T01020	55	12.7	6.35	-	1.6	-	2.2	4	-												




Turning Insert  
D

## RBGX

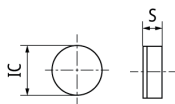


Steel	
Stainless Steel	
Cast Iron	● ● ● ● ○ ○
Non-Ferrous Material	
Heat Resistant Alloy	
Hardened Material	● ● ● ● ●
Others (non-metallic)	



Shape	Item Number (ISO)	CECC	EPSR °	IC mm	S mm	AN °	RE mm	D2 mm	Length of edge	No. of edge	S1 mm	CBN									
												B16 PVD	B22	B23	B30	B36	B6K PVD	B40	B52	B5K PVD	
	RBGX16S	S01015	-	16	8	5	-	8	-	-	13	●									
	RBGX20S	S01015	-	20	10	5	-	10	-	-	15	●									

D Turning Insert

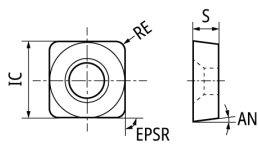
## RN.N



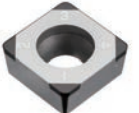
Steel	
Stainless Steel	
Cast Iron	● ● ● ● ○ ○
Non-Ferrous Material	
Heat Resistant Alloy	
Hardened Material	● ● ● ● ●
Others (non-metallic)	

Shape	Item Number (ISO)	CECC	EPSR °	IC mm	S mm	AN °	RE mm	D2 mm	Length of edge	No. of edge	S1 mm	CBN									
												B16 PVD	B22	B23	B30	B36	B6K PVD	B40	B52	B5K PVD	
	RNMN120300ST01025	T01025	-	12.7	3.18	-	-	-	-	-	-	●									
	RNMN120400ST01025	T01025	-	12.7	4.76	-	-	-	-	-	-	●									
	RNGN120400S	Z01015	-	12.7	4.76	-	-	-	-	-	-	●									

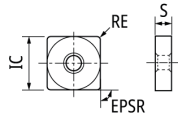
## SCGW



Steel	
Stainless Steel	
Cast Iron	● ● ● ● ○ ○
Non-Ferrous Material	
Heat Resistant Alloy	
Hardened Material	● ● ● ● ●
Others (non-metallic)	

Shape	Item Number (ISO)	CECC	EPSR °	IC mm	S mm	AN °	RE mm	D2 mm	Length of edge	No. of edge	S1 mm	CBN									
												B16 PVD	B22	B23	B30	B36	B6K PVD	B40	B52	B5K PVD	
	SCGW09T304PQZ01015	Z01015	90	9.525	3.97	7	0.4	-	1.5	4	-	●									
	SCGW09T308PQZ01015	Z01015	90	9.525	3.97	7	0.8	-	1.3	4	-	●									

# SNGA

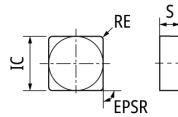


Steel												
Stainless Steel												
Cast Iron												
Non-Ferrous Material												
Heat Resistant Alloy												
Hardened Material												
Others (non-metallic)												

Shape	Item Number (ISO)	CECC	EPSR °	IC mm	S mm	AN °	RE mm	D2 mm	Length of edge	No. of edge	S1 mm	CBN										
												B16 PVD	B22	B23	B30	B36	B6K PVD	B40	B52	B5K PVD		
	SNGA120402PES01325	S01325	90	12.7	4.76	-	0.2	-	2.3	8	-											
	SNGA120404PES01015	S01015	90	12.7	4.76	-	0.4	-	2.3	8	-											
	SNGA120404PES01020	S01020	90	12.7	4.76	-	0.4	-	2.3	8	-											
	SNGA120404PES01325	S01325	90	12.7	4.76	-	0.4	-	2.3	8	-											
	SNGA120404PES01535	S01535	90	12.7	4.76	-	0.4	-	2.3	8	-											
	SNGA120404PET01020	T01020	90	12.7	4.76	-	0.4	-	2.3	8	-											
	SNGA120408PES01015	S01015	90	12.7	4.76	-	0.8	-	2.3	8	-											
	SNGA120408PES01020	S01020	90	12.7	4.76	-	0.8	-	2.3	8	-											
	SNGA120408PES01325	S01325	90	12.7	4.76	-	0.8	-	2.3	8	-											
	SNGA120408PES01535	S01535	90	12.7	4.76	-	0.8	-	2.3	8	-											
	SNGA120408PET01020	T01020	90	12.7	4.76	-	0.8	-	2.3	8	-											
	SNGA120412PES01015	S01015	90	12.7	4.76	-	1.2	-	2.8	8	-											
	SNGA120412PES01020	S01020	90	12.7	4.76	-	1.2	-	2.8	8	-											
	SNGA120412PES01325	S01325	90	12.7	4.76	-	1.2	-	2.8	8	-											
	SNGA120412PES01535	S01535	90	12.7	4.76	-	1.2	-	2.8	8	-											
	SNGA120412PET01020	T01020	90	12.7	4.76	-	1.2	-	2.8	8	-											
	SNGA120416PES01015	S01015	90	12.7	4.76	-	1.6	-	2.8	8	-											
	SNGA120416PES01325	S01325	90	12.7	4.76	-	1.6	-	2.8	8	-											
	SNGA120416PET01020	T01020	90	12.7	4.76	-	1.6	-	2.8	8	-											

Turning Insert  
**D**

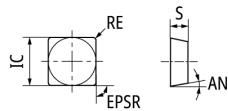
# SNMN



Steel												
Stainless Steel												
Cast Iron												
Non-Ferrous Material												
Heat Resistant Alloy												
Hardened Material												
Others (non-metallic)												

Shape	Item Number (ISO)	CECC	EPSR °	IC mm	S mm	AN °	RE mm	D2 mm	Length of edge	No. of edge	S1 mm	CBN										
												B16 PVD	B22	B23	B30	B36	B6K PVD	B40	B52	B5K PVD		
	SNMN090308ST00525	T00525	90	9.525	3.18	-	0.8	-	-	8	-											
	SNMN090312ST01025	T01025	90	9.525	3.18	-	1.2	-	-	8	-											
	SNMN120308ST01025	T01025	90	12.7	3.18	-	0.8	-	-	8	-											
	SNMN120312ST01025	T01025	90	12.7	3.18	-	1.2	-	-	8	-											
	SNMN120408ST01025	T01025	90	12.7	4.76	-	0.8	-	-	8	-											
	SNMN120412ST02025	T02025	90	12.7	4.76	-	1.2	-	-	8	-											
	SNMN120416ST02025	T02025	90	12.7	4.76	-	1.6	-	-	8	-											

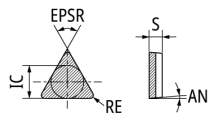
# SPGN



Steel
Stainless Steel
Cast Iron
Non-Ferrous Material
Heat Resistant Alloy
Hardened Material
Others (non-metallic)

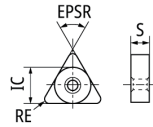
Shape	Item Number (ISO)	CECC	EPSR °	IC mm	S mm	AN °	RE mm	D2 mm	Length of edge	No. of edge	S1 mm	CBN											
												B16 PVD	B22	B23	B30	B36	B6K PVD	B40	B52	B5K PVD			
	SPGN090304PQS01015	S01015	90	9.525	3.18	11	0.4	-	2.3	4	-												
	SPGN090304PQS01020	S01020	90	9.525	3.18	11	0.4	-	2.3	4	-												
	SPGN090304PQS01535	S01535	90	9.525	3.18	11	0.4	-	2.3	4	-												
	SPGN090304PQT01020	T01020	90	9.525	3.18	11	0.4	-	2.3	4	-												
	SPGN090308PQS01015	S01015	90	9.525	3.18	11	0.8	-	2.3	4	-												
	SPGN090308PQS01020	S01020	90	9.525	3.18	11	0.8	-	2.3	4	-												
	SPGN090308PQS01535	S01535	90	9.525	3.18	11	0.8	-	2.3	4	-												
	SPGN090308PQT01020	T01020	90	9.525	3.18	11	0.8	-	2.3	4	-												
	SPGN090312PQS01015	S01015	90	9.525	3.18	11	1.2	-	2.8	4	-												
	SPGN090312PQS01020	S01020	90	9.525	3.18	11	1.2	-	2.8	4	-												
	SPGN090312PQS01535	S01535	90	9.525	3.18	11	1.2	-	2.8	4	-												
	SPGN090312PQT01020	T01020	90	9.525	3.18	11	1.2	-	2.8	4	-												

# TBGN



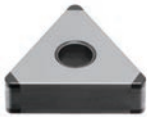
Steel
Stainless Steel
Cast Iron
Non-Ferrous Material
Heat Resistant Alloy
Hardened Material
Others (non-metallic)

Shape	Item Number (ISO)	CECC	EPSR °	IC mm	S mm	AN °	RE mm	D2 mm	Length of edge	No. of edge	S1 mm	CBN											
												B16 PVD	B22	B23	B30	B36	B6K PVD	B40	B52	B5K PVD			
	TBGN060102SS01015	S01015	60	3.97	1.59	5	0.2	-	6.5	3	-												
	TBGN060104SS01015	S01015	60	3.97	1.59	5	0.4	-	6.3	3	-												
	TBGN060108SS01015	S01015	60	3.97	1.59	5	0.8	-	5.7	3	-												



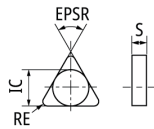
Steel	
Stainless Steel	
Cast Iron	● ● ● ● ○ ○
Non-Ferrous Material	
Heat Resistant Alloy	
Hardened Material	● ● ● ● ●
Others (non-metallic)	

Shape	Item Number (ISO)	CECC	EP SR	IC	S	AN	RE	D2	Length of edge	No. of edge	S1	CBN											
			°	mm	mm	°	mm	mm	mm	mm	mm	B16 PVD	B22	B23	B30	B36	B6K PVD	B40	B52	B5K PVD			
	TNGA160401PHFNX	Up-sharp edge	60	9.525	4.76	-	0.1	-	2.1	6	-												●
	TNGA160401PHS01015	S01015	60	9.525	4.76	-	0.1	-	2.1	6	-						●	●	●	●	●	●	
	TNGA160401PHS01325	S01325	60	9.525	4.76	-	0.1	-	2.1	6	-						●	●	●	●	●	●	
	TNGA160401PHS01535	S01535	60	9.525	4.76	-	0.1	-	2.1	6	-										●	●	
	TNGA160402PHFNX	Up-sharp edge	60	9.525	4.76	-	0.2	-	2.2	6	-							●					●
	TNGA160402PHS01015	S01015	60	9.525	4.76	-	0.2	-	2.2	6	-							●	●	●	●	●	●
	TNGA160402PHS01325	S01325	60	9.525	4.76	-	0.2	-	2.2	6	-							●	●	●	●	●	●
	TNGA160402PHS01535	S01535	60	9.525	4.76	-	0.2	-	2.2	6	-							●			●	●	●
	TNGA160402PTFNX	Up-sharp edge	60	9.525	4.76	-	0.2	-	2.2	3	-								●				
	TNGA160404PHFNX	Up-sharp edge	60	9.525	4.76	-	0.4	-	2	6	-												●
	TNGA160404PHS01015	S01015	60	9.525	4.76	-	0.4	-	2	6	-								●	●	●	●	●
	TNGA160404PHS01020	S01020	60	9.525	4.76	-	0.4	-	2	6	-								●				●
	TNGA160404PHS01325	S01325	60	9.525	4.76	-	0.4	-	2	6	-								●	●	●	●	●
	TNGA160404PHS01535	S01535	60	9.525	4.76	-	0.4	-	2	6	-								●	●	●	●	●
	TNGA160404PHT01020	T01020	60	9.525	4.76	-	0.4	-	2	6	-								●				●
	TNGA160404PTFNX	Up-sharp edge	60	9.525	4.76	-	0.4	-	2	3	-								●				
	TNGA160408PHFNX	Up-sharp edge	60	9.525	4.76	-	0.8	-	1.7	6	-												●
	TNGA160408PHS01015	S01015	60	9.525	4.76	-	0.8	-	1.7	6	-								●	●	●	●	●
	TNGA160408PHS01020	S01020	60	9.525	4.76	-	0.8	-	1.7	6	-									●			●
	TNGA160408PHS01325	S01325	60	9.525	4.76	-	0.8	-	1.7	6	-								●	●	●	●	●
	TNGA160408PHS01535	S01535	60	9.525	4.76	-	0.8	-	1.7	6	-								●	●	●	●	●
	TNGA160408PHT01020	T01020	60	9.525	4.76	-	0.8	-	1.7	6	-								●				●
	TNGA160408PTFNX	Up-sharp edge	60	9.525	4.76	-	0.8	-	1.7	3	-									●			
	TNGA160412PHFNX	Up-sharp edge	60	9.525	4.76	-	1.2	-	2.3	6	-												●
	TNGA160412PHS01015	S01015	60	9.525	4.76	-	1.2	-	2.3	6	-								●	●	●	●	●
	TNGA160412PHS01020	S01020	60	9.525	4.76	-	1.2	-	2.3	6	-									●			●
	TNGA160412PHS01325	S01325	60	9.525	4.76	-	1.2	-	2.3	6	-									●	●	●	●
	TNGA160412PHS01535	S01535	60	9.525	4.76	-	1.2	-	2.3	6	-									●	●	●	●
	TNGA160412PHT01020	T01020	60	9.525	4.76	-	1.2	-	2.3	6	-									●			●
	TNGA160412PTFNX	Up-sharp edge	60	9.525	4.76	-	1.2	-	2.3	3	-										●		
	TNGA160416PHS01015	S01015	60	9.525	4.76	-	1.6	-	2.1	6	-									●		●	●
	TNGA160416PHS01325	S01325	60	9.525	4.76	-	1.6	-	2.1	6	-									●	●		●
	TNGA160416PHS01535	S01535	60	9.525	4.76	-	1.6	-	2.1	6	-									●	●		●
	TNGA160416PHT01020	T01020	60	9.525	4.76	-	1.6	-	2.1	6	-									●			●
	TNGA220412PHS01015	S01015	60	12.7	4.76	-	1.2	-	2.3	6	-											●	
	TNGA220412PHS01535	S01535	60	12.7	4.76	-	1.2	-	2.3	6	-											●	



Turning Insert D

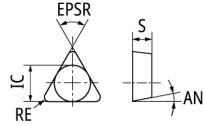
TNMN



Steel	
Stainless Steel	
Cast Iron	● ● ● ● ○ ○
Non-Ferrous Material	
Heat Resistant Alloy	
Hardened Material	● ● ● ● ●
Others (non-metallic)	

Shape	Item Number (ISO)	CECC	EP SR	IC	S	AN	RE	D2	Length of edge	No. of edge	S1	CBN											
			°	mm	mm	°	mm	mm	mm	mm	mm	B16 PVD	B22	B23	B30	B36	B6K PVD	B40	B52	B5K PVD			
	TNMN110312ST01025	T01025	60	6.35	3.18	-	1.2	-	-	6	-											●	
	TNMN160408ST01025	T01025	60	9.525	4.76	-	0.8	-	-	6	-												●
	TNMN160412ST01025	T01025	60	9.525	4.76	-	1.2	-	-	6	-												●
	TNMN160412ST02025	T02025	60	9.525	4.76	-	1.2	-	-	6	-												●



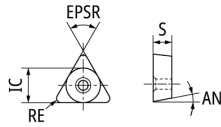


Steel	
Stainless Steel	
Cast Iron	● ● ● ● ○ ○
Non-Ferrous Material	
Heat Resistant Alloy	
Hardened Material	● ● ● ● ●
Others (non-metallic)	

Shape	Item Number (ISO)	CECC	EPSR	IC	S	AN	RE	D2	Length of edge	No. of edge	S1	CBN												
			°	mm	mm	°	mm	mm	mm	mm	mm	B16 PVD	B22	B23	B30	B36	B6K PVD	B40	B52	B5K PVD				
	TPGN110302PTS01015	S01015	60	6.35	3.18	11	0.2	-	2.2	3	-													●
	TPGN110302PTS01020	S01020	60	6.35	3.18	11	0.2	-	2.2	3	-													●
	TPGN110302PTS01325	S01325	60	6.35	3.18	11	0.2	-	2.2	3	-													● ●
	TPGN110302PTS01535	S01535	60	6.35	3.18	11	0.2	-	2.2	3	-													● ●
	TPGN110304PTS01015	S01015	60	6.35	3.18	11	0.4	-	2	3	-													● ●
	TPGN110304PTS01020	S01020	60	6.35	3.18	11	0.4	-	2	3	-													●
	TPGN110304PTS01325	S01325	60	6.35	3.18	11	0.4	-	2	3	-													● ●
	TPGN110304PTS01535	S01535	60	6.35	3.18	11	0.4	-	2	3	-													● ●
	TPGN110304PTT01020	T01020	60	6.35	3.18	11	0.4	-	2	3	-					●								
	TPGN110308PTS01015	S01015	60	6.35	3.18	11	0.8	-	1.7	3	-													● ●
	TPGN110308PTS01020	S01020	60	6.35	3.18	11	0.8	-	1.7	3	-													●
	TPGN110308PTS01325	S01325	60	6.35	3.18	11	0.8	-	1.7	3	-													● ●
	TPGN110308PTS01535	S01535	60	6.35	3.18	11	0.8	-	1.7	3	-													● ●
	TPGN110308PTT01020	T01020	60	6.35	3.18	11	0.8	-	1.7	3	-					●								
	TPGN110312PTS01015	S01015	60	6.35	3.18	11	1.2	-	2.3	3	-													● ●
	TPGN110312PTS01020	S01020	60	6.35	3.18	11	1.2	-	2.3	3	-													●
	TPGN110312PTS01325	S01325	60	6.35	3.18	11	1.2	-	2.3	3	-													● ●
	TPGN110312PTS01535	S01535	60	6.35	3.18	11	1.2	-	2.3	3	-													● ●
	TPGN110312PTT01020	T01020	60	6.35	3.18	11	1.2	-	2.3	3	-					●								
	TPGN160302PTS01015	S01015	60	9.525	3.18	11	0.2	-	2.2	3	-													● ●
	TPGN160302PTS01325	S01325	60	9.525	3.18	11	0.2	-	2.2	3	-													● ●
	TPGN160302PTS01535	S01535	60	9.525	3.18	11	0.2	-	2.2	3	-													● ●
	TPGN160304PTS01015	S01015	60	9.525	3.18	11	0.4	-	2	3	-													● ●
	TPGN160304PTS01020	S01020	60	9.525	3.18	11	0.4	-	2	3	-													●
	TPGN160304PTS01325	S01325	60	9.525	3.18	11	0.4	-	2	3	-													● ●
	TPGN160304PTS01535	S01535	60	9.525	3.18	11	0.4	-	2	3	-													● ●
	TPGN160304PTT01020	T01020	60	9.525	3.18	11	0.4	-	2	3	-					●								
	TPGN160308PTS01015	S01015	60	9.525	3.18	11	0.8	-	1.7	3	-													● ●
	TPGN160308PTS01020	S01020	60	9.525	3.18	11	0.8	-	1.7	3	-													●
	TPGN160308PTS01325	S01325	60	9.525	3.18	11	0.8	-	1.7	3	-													● ●
	TPGN160308PTS01535	S01535	60	9.525	3.18	11	0.8	-	1.7	3	-													● ●
	TPGN160308PTT01020	T01020	60	9.525	3.18	11	0.8	-	1.7	3	-					●								
	TPGN160312PTS01015	S01015	60	9.525	3.18	11	1.2	-	2.3	3	-													● ●
	TPGN160312PTS01020	S01020	60	9.525	3.18	11	1.2	-	2.3	3	-													●
	TPGN160312PTS01325	S01325	60	9.525	3.18	11	1.2	-	2.3	3	-													● ●
	TPGN160312PTS01535	S01535	60	9.525	3.18	11	1.2	-	2.3	3	-													● ●
	TPGN160312PTT01020	T01020	60	9.525	3.18	11	1.2	-	2.3	3	-					●								

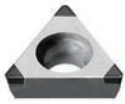
D Turning Insert



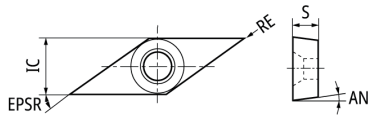


Steel	
Stainless Steel	
Cast Iron	● ● ● ● ○ ○
Non-Ferrous Material	
Heat Resistant Alloy	
Hardened Material	● ● ● ● ●
Others (non-metallic)	

Shape	Item Number (ISO)	CECC	EPSR	IC	S	AN	RE	D2	Length of edge	No. of edge	S1	CBN											
			°	mm	mm	°	mm	mm			mm	B16 PVD	B22	B23	B30	B36	B6K PVD	B40	B52	B5K PVD			
	TPGW090202PTS01015	S01015	60	5.56	2.38	11	0.2	-	2.2	3	-	●	●	●	●	●	●	●	●	●	●	●	●
	TPGW090202PTS01325	S01325	60	5.56	2.38	11	0.2	-	2.2	3	-	●	●	●	●	●	●	●	●	●	●	●	●
	TPGW090202PTS01535	S01535	60	5.56	2.38	11	0.2	-	2.2	3	-	●	●	●	●	●	●	●	●	●	●	●	●
	TPGW090204PTS01015	S01015	60	5.56	2.38	11	0.4	-	2	3	-	●	●	●	●	●	●	●	●	●	●	●	●
	TPGW090204PTS01325	S01325	60	5.56	2.38	11	0.4	-	2	3	-	●	●	●	●	●	●	●	●	●	●	●	●
	TPGW090204PTS01535	S01535	60	5.56	2.38	11	0.4	-	2	3	-	●	●	●	●	●	●	●	●	●	●	●	●
	TPGW090208PTS01015	S01015	60	5.56	2.38	11	0.8	-	1.7	3	-	●	●	●	●	●	●	●	●	●	●	●	●
	TPGW090208PTS01325	S01325	60	5.56	2.38	11	0.8	-	1.7	3	-	●	●	●	●	●	●	●	●	●	●	●	●
	TPGW090208PTS01535	S01535	60	5.56	2.38	11	0.8	-	1.7	3	-	●	●	●	●	●	●	●	●	●	●	●	●
	TPGW090312PTS01015	S01015	60	5.56	3.18	11	1.2	-	2.3	3	-	●	●	●	●	●	●	●	●	●	●	●	●
	TPGW090312PTS01325	S01325	60	5.56	3.18	11	1.2	-	2.3	3	-	●	●	●	●	●	●	●	●	●	●	●	●
	TPGW090312PTS01535	S01535	60	5.56	3.18	11	1.2	-	2.3	3	-	●	●	●	●	●	●	●	●	●	●	●	●
	TPGW110302PTS01015	S01015	60	6.35	3.18	11	0.2	-	2.2	3	-	●	●	●	●	●	●	●	●	●	●	●	●
	TPGW110302PTS01325	S01325	60	6.35	3.18	11	0.2	-	2.2	3	-	●	●	●	●	●	●	●	●	●	●	●	●
	TPGW110302PTS01535	S01535	60	6.35	3.18	11	0.2	-	2.2	3	-	●	●	●	●	●	●	●	●	●	●	●	●
	TPGW110302PTT01020	T01020	60	6.35	3.18	11	0.2	-	2.2	3	-	●	●	●	●	●	●	●	●	●	●	●	●
	TPGW110304PTS01015	S01015	60	6.35	3.18	11	0.4	-	2	3	-	●	●	●	●	●	●	●	●	●	●	●	●
	TPGW110304PTS01325	S01325	60	6.35	3.18	11	0.4	-	2	3	-	●	●	●	●	●	●	●	●	●	●	●	●
	TPGW110304PTS01535	S01535	60	6.35	3.18	11	0.4	-	2	3	-	●	●	●	●	●	●	●	●	●	●	●	●
	TPGW110304PTT01020	T01020	60	6.35	3.18	11	0.4	-	2	3	-	●	●	●	●	●	●	●	●	●	●	●	●
	TPGW110304PTT01515	T01515	60	6.35	3.18	11	0.4	-	2	3	-	●	●	●	●	●	●	●	●	●	●	●	●
	TPGW110308PTS01015	S01015	60	6.35	3.18	11	0.8	-	1.7	3	-	●	●	●	●	●	●	●	●	●	●	●	●
	TPGW110308PTS01325	S01325	60	6.35	3.18	11	0.8	-	1.7	3	-	●	●	●	●	●	●	●	●	●	●	●	●
	TPGW110308PTS01535	S01535	60	6.35	3.18	11	0.8	-	1.7	3	-	●	●	●	●	●	●	●	●	●	●	●	●
	TPGW110308PTT01020	T01020	60	6.35	3.18	11	0.8	-	1.7	3	-	●	●	●	●	●	●	●	●	●	●	●	●
	TPGW110308PTT01515	T01515	60	6.35	3.18	11	0.8	-	1.7	3	-	●	●	●	●	●	●	●	●	●	●	●	●
	TPGW110312PTS01015	S01015	60	6.35	3.18	11	1.2	-	2.3	3	-	●	●	●	●	●	●	●	●	●	●	●	●
	TPGW110312PTS01325	S01325	60	6.35	3.18	11	1.2	-	2.3	3	-	●	●	●	●	●	●	●	●	●	●	●	●
	TPGW110312PTS01535	S01535	60	6.35	3.18	11	1.2	-	2.3	3	-	●	●	●	●	●	●	●	●	●	●	●	●
	TPGW110312PTT01020	T01020	60	6.35	3.18	11	1.2	-	2.3	3	-	●	●	●	●	●	●	●	●	●	●	●	●
	TPGW110312PTT01515	T01515	60	6.35	3.18	11	1.2	-	2.3	3	-	●	●	●	●	●	●	●	●	●	●	●	●



Turning Insert D



Steel	
Stainless Steel	
Cast Iron	● ● ● ● ○ ○
Non-Ferrous Material	
Heat Resistant Alloy	
Hardened Material	● ● ● ● ● ●
Others (non-metallic)	

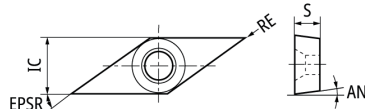
Shape	Item Number (ISO)	CECC	EPSR °	IC mm	S mm	AN °	RE mm	D2 mm	Length of edge	No. of edge	S1 mm	CBN										
												B16 PVD	B22	B23	B30	B36	B6K PVD	B40	B52	B5K PVD		
	VBGW110302PDFNX	Up-sharp edge	35	6.35	3.18	5	0.2	-	2.6	2	-					●						
	VBGW110302PDS01015	S01015	35	6.35	3.18	5	0.2	-	2.6	2	-					●						●
	VBGW110302PDS01535	S01535	35	6.35	3.18	5	0.2	-	2.6	2	-					●						●
	VBGW110302PDS01325	S01325	35	6.35	3.18	5	0.2	-	2.6	2	-					●						●
	VBGW110304PDFNX	Up-sharp edge	35	6.35	3.18	5	0.4	-	2.5	2	-					●						
	VBGW110304PDS01015	S01015	35	6.35	3.18	5	0.4	-	2.5	2	-					●						●
	VBGW110304PDS01535	S01535	35	6.35	3.18	5	0.4	-	2.5	2	-					●						●
	VBGW110304PDT01020	T01020	35	6.35	3.18	5	0.4	-	2.5	2	-					●						
	VBGW110304PDS01325	S01325	35	6.35	3.18	5	0.4	-	2.5	2	-					●						●
	VBGW110308PDS01015	S01015	35	6.35	3.18	5	0.8	-	1.6	2	-											●
	VBGW110308PDS01535	S01535	35	6.35	3.18	5	0.8	-	1.6	2	-											●
	VBGW110308PDT01020	T01020	35	6.35	3.18	5	0.8	-	1.6	2	-					●						
	VBGW110308PDS01325	S01325	35	6.35	3.18	5	0.8	-	1.6	2	-											●
	VBGW110312PDS01015	S01015	35	6.35	3.18	5	1.2	-	2.7	2	-											●
	VBGW110312PDS01535	S01535	35	6.35	3.18	5	1.2	-	2.7	2	-											●
	VBGW110312PDT01020	T01020	35	6.35	3.18	5	1.2	-	2.7	2	-					●						
	VBGW110312PDS01325	S01325	35	6.35	3.18	5	1.2	-	2.7	2	-											●
	VBGW160402PDS01015	S01015	35	9.525	4.76	5	0.2	-	2.6	2	-											●
	VBGW160402PDS01535	S01535	35	9.525	4.76	5	0.2	-	2.6	2	-											●
	VBGW160402PDS01325	S01325	35	9.525	4.76	5	0.2	-	2.6	2	-											●
	VBGW160404PDS01015	S01015	35	9.525	4.76	5	0.4	-	2.5	2	-											●
	VBGW160404PDS01535	S01535	35	9.525	4.76	5	0.4	-	2.5	2	-											●
	VBGW160404PDS01325	S01325	35	9.525	4.76	5	0.4	-	2.5	2	-											●
	VBGW160408PDS01015	S01015	35	9.525	4.76	5	0.8	-	1.6	2	-						●					●
	VBGW160408PDS01535	S01535	35	9.525	4.76	5	0.8	-	1.6	2	-						●					●
	VBGW160408PDS01325	S01325	35	9.525	4.76	5	0.8	-	1.6	2	-						●					●
	VBGW160412PDS01015	S01015	35	9.525	4.76	5	1.2	-	2.7	2	-											●
	VBGW160412PDS01535	S01535	35	9.525	4.76	5	1.2	-	2.7	2	-											●
	VBGW160412PDS01325	S01325	35	9.525	4.76	5	1.2	-	2.7	2	-											●



D Turning Insert



VCGW



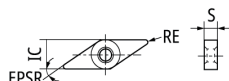
Steel	
Stainless Steel	
Cast Iron	● ● ● ● ○ ○
Non-Ferrous Material	
Heat Resistant Alloy	
Hardened Material ● ● ● ● ●	
Others (non-metallic)	

Shape	Item Number (ISO)	CECC	EPSR °	IC mm	S mm	AN °	RE mm	D2 mm	Length of edge	No. of edge	S1 mm	CBN					
												B16 PVD	B22	B23	B30	B36	B6K PVD
	VCGW080202PDS01015	S01015	35	4.76	2.38	7	0.2	-	2.6	2	-						●
	VCGW080204PDS01015	S01015	35	4.76	2.38	7	0.4	-	2.5	2	-						●
	VCGW080208PDS01015	S01015	35	4.76	2.38	7	0.8	-	1.6	2	-						●
	VCGW110302PDS01015	S01015	35	6.35	3.18	7	0.2	-	2.6	2	-						●
	VCGW110302PDS01535	S01535	35	6.35	3.18	7	0.2	-	2.6	2	-						●
	VCGW110304PDS01015	S01015	35	6.35	3.18	7	0.4	-	2.5	2	-						●
	VCGW110304PDS01535	S01535	35	6.35	3.18	7	0.4	-	2.5	2	-						●
	VCGW110308PDS01015	S01015	35	6.35	3.18	7	0.8	-	1.6	2	-						●
	VCGW110308PDS01535	S01535	35	6.35	3.18	7	0.8	-	1.6	2	-						●
	VCGW110312PDS01015	S01015	35	6.35	3.18	7	1.2	-	2.7	2	-						●
	VCGW110312PDS01535	S01535	35	6.35	3.18	7	1.2	-	2.7	2	-						●
	VCGW160402PDS01015	S01015	35	9.525	4.76	7	0.2	-	2.6	2	-						●
	VCGW160402PDS01535	S01535	35	9.525	4.76	7	0.2	-	2.6	2	-						●
	VCGW160404PDS01015	S01015	35	9.525	4.76	7	0.4	-	2.5	2	-						●
	VCGW160404PDS01535	S01535	35	9.525	4.76	7	0.4	-	2.5	2	-						●
	VCGW160404PDT01020	T01020	35	9.525	4.76	7	0.4	-	2.5	2	-						●
	VCGW160408PDS01015	S01015	35	9.525	4.76	7	0.8	-	1.6	2	-						●
	VCGW160408PDS01535	S01535	35	9.525	4.76	7	0.8	-	1.6	2	-						●
	VCGW160408PDT01020	T01020	35	9.525	4.76	7	0.8	-	1.6	2	-						●
	VCGW160412PDS01015	S01015	35	9.525	4.76	7	1.2	-	2.7	2	-						●
	VCGW160412PDS01535	S01535	35	9.525	4.76	7	1.2	-	2.7	2	-						●
	VCGW160412PDT01020	T01020	35	9.525	4.76	7	1.2	-	2.7	2	-						●



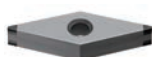
Turning Insert  
**D**

VNGA



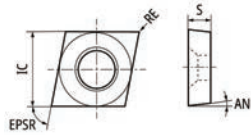
Steel	
Stainless Steel	
Cast Iron	● ● ● ● ○ ○
Non-Ferrous Material	
Heat Resistant Alloy	
Hardened Material ● ● ● ● ●	
Others (non-metallic)	

Shape	Item Number (ISO)	CECC	EPSR °	IC mm	S mm	AN °	RE mm	D2 mm	Length of edge	No. of edge	S1 mm	CBN					
												B16 PVD	B22	B23	B30	B36	B6K PVD
	VNGA160401PQS01015	S01015	35	9.525	4.76	-	0.1	-	2.7	4	-						●
	VNGA160401PQS01535	S01535	35	9.525	4.76	-	0.1	-	2.7	4	-						●
	VNGA160402PDFNX	Up-sharp edge	35	9.525	4.76	-	0.2	-	2.6	2	-						●
	VNGA160402PQFNX	Up-sharp edge	35	9.525	4.76	-	0.2	-	2.6	4	-						●
	VNGA160402PQS01015	S01015	35	9.525	4.76	-	0.2	-	2.6	4	-						●
	VNGA160402PQS01325	S01325	35	9.525	4.76	-	0.2	-	2.6	4	-						●
	VNGA160402PQS01535	S01535	35	9.525	4.76	-	0.2	-	2.6	4	-						●
	VNGA160402PQT01020	T01020	35	9.525	4.76	-	0.2	-	2.6	4	-						●
	VNGA160404PDFNX	Up-sharp edge	35	9.525	4.76	-	0.4	-	2.5	2	-						●
	VNGA160404PQFNX	Up-sharp edge	35	9.525	4.76	-	0.4	-	2.5	4	-						●
	VNGA160404PQS01015	S01015	35	9.525	4.76	-	0.4	-	2.5	4	-						●
	VNGA160404PQS01325	S01325	35	9.525	4.76	-	0.4	-	2.5	4	-						●
	VNGA160404PQS01535	S01535	35	9.525	4.76	-	0.4	-	2.5	4	-						●
	VNGA160404PQT01020	T01020	35	9.525	4.76	-	0.4	-	2.5	4	-						●
	VNGA160408PDFNX	Up-sharp edge	35	9.525	4.76	-	0.8	-	1.6	2	-						●
	VNGA160408PQFNX	Up-sharp edge	35	9.525	4.76	-	0.8	-	1.6	4	-						●
	VNGA160408PQS01015	S01015	35	9.525	4.76	-	0.8	-	1.6	4	-						●
	VNGA160408PQS01325	S01325	35	9.525	4.76	-	0.8	-	1.6	4	-						●
	VNGA160408PQS01535	S01535	35	9.525	4.76	-	0.8	-	1.6	4	-						●
	VNGA160408PQT01020	T01020	35	9.525	4.76	-	0.8	-	1.6	4	-						●
	VNGA160412PDFNX	Up-sharp edge	35	9.525	4.76	-	1.2	-	2.7	2	-						●
	VNGA160412PQS01015	S01015	35	9.525	4.76	-	1.2	-	2.7	4	-						●
	VNGA160412PQS01325	S01325	35	9.525	4.76	-	1.2	-	2.7	4	-						●
	VNGA160412PQS01535	S01535	35	9.525	4.76	-	1.2	-	2.7	4	-						●
	VNGA160412PQT01020	T01020	35	9.525	4.76	-	1.2	-	2.7	4	-						●



# PCD / Diamond Coating

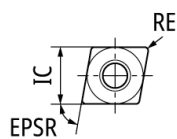
## CCM.



Steel
Stainless Steel
Cast Iron
Non-Ferrous Material
Heat Resistant Alloy
Hardened Material
Others (non-metallic)

Shape	Item Number (ISO)	CECC	EPSR °	IC mm	S mm	AN °	RE mm	No. of edge	PCD		Diamond Coating
									PD1	PD2	UC1
	CCMT060201PBF	Up-sharp edge	80	6.35	2.38	7	0.1	1			●
	CCMT060202PBF	Up-sharp edge	80	6.35	2.38	7	0.2	1			●
	CCMT060204PBF	Up-sharp edge	80	6.35	2.38	7	0.4	1			●
	CCMT09T301PBF	Up-sharp edge	80	9.525	3.97	7	0.1	1			●
	CCMT09T302PBF	Up-sharp edge	80	9.525	3.97	7	0.2	1			●
	CCMT09T304PBF	Up-sharp edge	80	9.525	3.97	7	0.4	1			●
	CCMT09T302PF	Up-sharp edge	80	9.525	3.97	7	0.2	1			●
	CCMT09T304PF	Up-sharp edge	80	9.525	3.97	7	0.4	1			●
	CCMW09T301	Up-sharp edge	80	9.525	3.97	7	0.1	1	●		
	CCMW09T302	Up-sharp edge	80	9.525	3.97	7	0.2	1	●		
	CCMW09T304	Up-sharp edge	80	9.525	3.97	7	0.4	1	●		
	CCMW09T308	Up-sharp edge	80	9.525	3.97	7	0.8	1	●		

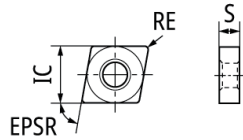
## CNM.



Steel
Stainless Steel
Cast Iron
Non-Ferrous Material
Heat Resistant Alloy
Hardened Material
Others (non-metallic)

Shape	Item Number (ISO)	CECC	EPSR °	IC mm	S mm	AN °	RE mm	No. of edge	PCD		Diamond Coating
									PD1	PD2	UC1
	CNMG120404FNZP	Up-sharp edge	80	12.7	4.76	-	0.4	4			●
	CNMG120408FNZP	Up-sharp edge	80	12.7	4.76	-	0.8	4			●
	CNMX120404PF	Up-sharp edge	80	12.7	4.76	-	0.4	1			●
	CNMX120408PF	Up-sharp edge	80	12.7	4.76	-	0.8	1			●

## DCM.



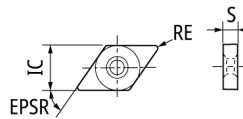
Steel			
Stainless Steel			
Cast Iron			
Non-Ferrous Material	●	●	●
Heat Resistant Alloy			
Hardened Material			
Others (non-metallic)			●

Shape	Item Number (ISO)	CECC	EPSR °	IC mm	S mm	AN °	RE mm	No. of edge	PCD		Diamond Coating
									PD1	PD2	UC1
	DCMT070201PBF	Up-sharp edge	55	6.35	2.38	7	0.1	1		●	
	DCMT070202PBF	Up-sharp edge	55	6.35	2.38	7	0.2	1		●	
	DCMT11T301PBF	Up-sharp edge	55	9.525	3.97	7	0.1	1		●	
	DCMT11T302PBF	Up-sharp edge	55	9.525	3.97	7	0.2	1		●	
	DCMT11T304PBF	Up-sharp edge	55	9.525	3.97	7	0.4	1		●	
	DCMT070201PF	Up-sharp edge	55	6.35	2.38	7	0.1	1		●	
	DCMT070202PF	Up-sharp edge	55	6.35	2.38	7	0.2	1		●	
	DCMT11T302PF	Up-sharp edge	55	9.525	3.97	7	0.2	1		●	
	DCMT11T304PF	Up-sharp edge	55	9.525	3.97	7	0.4	1		●	
	DCMW11T301	Up-sharp edge	55	9.525	3.97	7	0.1	1	●		
	DCMW11T302	Up-sharp edge	55	9.525	3.97	7	0.2	1	●		
	DCMW11T304	Up-sharp edge	55	9.525	3.97	7	0.4	1	●		
	DCMW11T308	Up-sharp edge	55	9.525	3.97	7	0.8	1	●		
	DCMT11T301FNAM3	Up-sharp edge	55	9.525	3.97	7	0.1	2			●
	DCMT11T302FNAM3	Up-sharp edge	55	9.525	3.97	7	0.2	2			●
	DCMT11T304FNAM3	Up-sharp edge	55	9.525	3.97	7	0.4	2			●

Turning Insert

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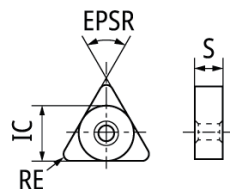
## DNMX



Steel			
Stainless Steel			
Cast Iron			
Non-Ferrous Material	●	●	●
Heat Resistant Alloy			
Hardened Material			
Others (non-metallic)			●

Shape	Item Number (ISO)	CECC	EPSR °	IC mm	S mm	AN °	RE mm	No. of edge	PCD		Diamond Coating
									PD1	PD2	UC1
	DNMX150404PF	Up-sharp edge	55	12.7	4.76	-	0.4	1		●	
	DNMX150408PF	Up-sharp edge	55	12.7	4.76	-	0.8	1		●	

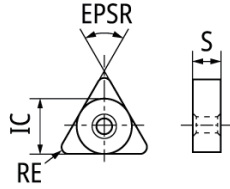
## TNMX



Steel			
Stainless Steel			
Cast Iron			
Non-Ferrous Material	●	●	●
Heat Resistant Alloy			
Hardened Material			
Others (non-metallic)			●

Shape	Item Number (ISO)	CECC	EPSR °	IC mm	S mm	AN °	RE mm	No. of edge	PCD		Diamond Coating
									PD1	PD2	UC1
	TNMX160404PF	Up-sharp edge	60	9.525	4.76	-	0.4	1		●	
	TNMX160408PF	Up-sharp edge	60	9.525	4.76	-	0.8	1		●	

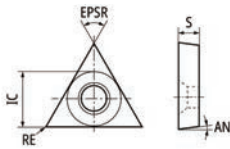
## TNMG



Steel			
Stainless Steel			
Cast Iron			
Non-Ferrous Material	●	●	●
Heat Resistant Alloy			
Hardened Material			
Others (non-metallic)			●

Shape	Item Number (ISO)	CECC	EPSR	IC	S	AN	RE	No. of edge	PCD		Diamond Coating
			°	mm	mm	°	mm		PD1	PD2	UC1
	TNMG160402FNZP	Up-sharp edge	60	9.525	4.76	-	0.2	6			●
	TNMG160404FNZP	Up-sharp edge	60	9.525	4.76	-	0.4	6			●
	TNMG160408FNZP	Up-sharp edge	60	9.525	4.76	-	0.8	6			●

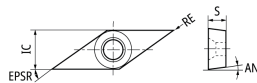
## TPM.



Steel			
Stainless Steel			
Cast Iron			
Non-Ferrous Material	●	●	●
Heat Resistant Alloy			
Hardened Material			
Others (non-metallic)			●

Shape	Item Number (ISO)	CECC	EPSR	IC	S	AN	RE	No. of edge	PCD		Diamond Coating
			°	mm	mm	°	mm		PD1	PD2	UC1
	TPMH110302FRF1	Up-sharp edge	60	6.35	3.18	11	0.2	3			●
	TPMH110304FRF1	Up-sharp edge	60	6.35	3.18	11	0.4	3			●
	TPMT090201PBF	Up-sharp edge	60	5.56	2.38	11	0.1	1		●	
	TPMT090202PBF	Up-sharp edge	60	5.56	2.38	11	0.2	1		●	
	TPMT090204PBF	Up-sharp edge	60	5.56	2.38	11	0.4	1		●	
	TPMT110301PBF	Up-sharp edge	60	6.35	3.18	11	0.1	1		●	
	TPMT110302PBF	Up-sharp edge	60	6.35	3.18	11	0.2	1		●	
	TPMT110304PBF	Up-sharp edge	60	6.35	3.18	11	0.4	1		●	
	TPMT090202PF	Up-sharp edge	60	5.56	2.38	11	0.2	1		●	
	TPMT090204PF	Up-sharp edge	60	5.56	2.38	11	0.4	1		●	
	TPMT110302PF	Up-sharp edge	60	6.35	3.18	11	0.2	1		●	
	TPMT110304PF	Up-sharp edge	60	6.35	3.18	11	0.4	1		●	

## VCMW

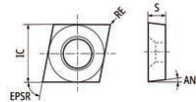


Steel			
Stainless Steel			
Cast Iron			
Non-Ferrous Material	●	●	●
Heat Resistant Alloy			
Hardened Material			
Others (non-metallic)			●

Shape	Item Number (ISO)	CECC	EPSR	IC	S	AN	RE	No. of edge	PCD		Diamond Coating
			°	mm	mm	°	mm		PD1	PD2	UC1
	VCMW110301	Up-sharp edge	35	6.35	3.18	7	0.1	1		●	
	VCMW110302	Up-sharp edge	35	6.35	3.18	7	0.2	1		●	
	VCMW110304	Up-sharp edge	35	6.35	3.18	7	0.4	1		●	

# Carbide

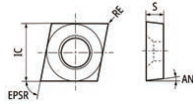
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	Steel													
<b>Steel</b>	○	●	●	●	●	●	●	●	●	●	●	●	●	●
<b>Stainless Steel</b>	●	○	○	○	●	○	●	●	●	●	●	●	●	●
<b>Cast Iron</b>													●	
<b>Non-Ferrous Material</b>											○	○		●
<b>Heat Resistant Alloy</b>		●	○	○										
<b>Hardened Material</b>		○	○	○										
<b>Others (non-metallic)</b>														●

Shape	Item Number	CECC	EPSR	IC	S	AN	RE	BS	Carbide												
									PVD	PVD	PVD	PVD	PVD	PVD	PVD	PVD	CVD	CVD	Uncoated		
									ST4	DM4	DT4	QM3	TM4	VM1	ZM3	CP1	CP7	KM1			
	CCGT09T300YL	Up-sharp edge	80	9.525	3.97	7	0.03	-				●		●							
	CCGT09T301MYL	Up-sharp edge	80	9.525	3.97	7	0.08	-	●	●	●	●	●								
	CCGT09T302MYL	Up-sharp edge	80	9.525	3.97	7	0.18	-	●	●	●	●	●								
	CCGT09T304MYL	Up-sharp edge	80	9.525	3.97	7	0.38	-	●	●	●	●	●								
	CCGT09T308MYL	Up-sharp edge	80	9.525	3.97	7	0.78	-	●	●	●	●	●								
	CCGT060201MCL	Up-sharp edge	80	6.35	2.38	7	0.08	-	●	●	●	●	●								
	CCGT060202MCL	Up-sharp edge	80	6.35	2.38	7	0.18	-	●	●	●	●	●								
	CCGT09T300CL	Up-sharp edge	80	9.525	3.97	7	0.03	-				●		●							
	CCGT09T301MCL	Up-sharp edge	80	9.525	3.97	7	0.08	-	●	●	●	●	●								
	CCGT09T302MCL	Up-sharp edge	80	9.525	3.97	7	0.18	-	●	●	●	●	●								
	CCGT09T304MCL	Up-sharp edge	80	9.525	3.97	7	0.38	-	●	●	●	●	●								
	CCGT060200FNAM3	Up-sharp edge	80	6.35	2.38	7	0.03	-				●		●		●					
	CCGT060201MFNAM3	Up-sharp edge	80	6.35	2.38	7	0.08	-	●			●		●							
	CCGT060202FNAM3	Up-sharp edge	80	6.35	2.38	7	0.2	-								●		●			
	CCGT060202MFNAM3	Up-sharp edge	80	6.35	2.38	7	0.18	-	●			●		●							
	CCGT060204FNAM3	Up-sharp edge	80	6.35	2.38	7	0.4	-										●			
	CCGT060204MFNAM3	Up-sharp edge	80	6.35	2.38	7	0.38	-	●			●		●							
	CCGT09T300FNAM3	Up-sharp edge	80	9.525	3.97	7	0.03	-				●		●		●					
	CCGT09T301MFNAM3	Up-sharp edge	80	9.525	3.97	7	0.08	-	●			●		●		●					
	CCGT09T302FNAM3	Up-sharp edge	80	9.525	3.97	7	0.2	-				●		●		●					
	CCGT09T302MFNAM3	Up-sharp edge	80	9.525	3.97	7	0.18	-	●			●		●		●					
	CCGT09T304FNAM3	Up-sharp edge	80	9.525	3.97	7	0.4	-				●		●		●					
	CCGT09T304MFNAM3	Up-sharp edge	80	9.525	3.97	7	0.38	-	●			●		●		●					
	CCMT060202FNAM3	Up-sharp edge	80	6.35	2.38	7	0.2	-				●									
	CCMT060204FNAM3	Up-sharp edge	80	6.35	2.38	7	0.4	-				●									
	CCMT09T302FNAM3	Up-sharp edge	80	9.525	3.97	7	0.2	-				●									
	CCMT09T304FNAM3	Up-sharp edge	80	9.525	3.97	7	0.4	-				●									
	CCMT09T308FNAM3	Up-sharp edge	80	9.525	3.97	7	0.8	-				●									
	CCGT060200AZ7	Up-sharp edge	80	6.35	2.38	7	0.03	-						●							
	CCGT060201MAZ7	Up-sharp edge	80	6.35	2.38	7	0.08	-						●							
	CCGT060202MAZ7	Up-sharp edge	80	6.35	2.38	7	0.18	-						●							
	CCGT09T300AZ7	Up-sharp edge	80	9.525	3.97	7	0.03	-					●	●	●		●				
	CCGT09T301MAZ7	Up-sharp edge	80	9.525	3.97	7	0.08	-					●	●	●		●				
	CCGT09T302MAZ7	Up-sharp edge	80	9.525	3.97	7	0.18	-					●	●	●		●				
	CCGT09T304MAZ7	Up-sharp edge	80	9.525	3.97	7	0.38	-					●	●	●		●				
	CCMT060202E002AZ8	E002	80	6.35	2.38	7	0.2	-													●
	CCMT060204E004AZ8	E004	80	6.35	2.38	7	0.4	-													●
	CCMT060208E004AZ8	E004	80	6.35	2.38	7	0.8	-													●
	CCMT09T302E002AZ8	E002	80	6.35	2.38	7	0.2	-													●
	CCMT09T304E004AZ8	E004	80	6.35	2.38	7	0.4	-													●
	CCMT09T308E004AZ8	E004	80	6.35	2.38	7	0.8	-													●
	CCGT060200RS	Up-sharp edge	80	6.35	2.38	7	0.03	-				●				●		●			
	CCGT060200LS	Up-sharp edge	80	6.35	2.38	7	0.03	-								●		●			
	CCGT060201MRS	Up-sharp edge	80	6.35	2.38	7	0.08	-				●	●								
	CCGT060201RS	Up-sharp edge	80	6.35	2.38	7	0.1	-								●		●			
	CCGT060201LS	Up-sharp edge	80	6.35	2.38	7	0.1	-								●		●			
	CCGT060202MRS	Up-sharp edge	80	6.35	2.38	7	0.18	-				●	●								
	CCGT060202RS	Up-sharp edge	80	6.35	2.38	7	0.2	-								●		●			
	CCGT060202LS	Up-sharp edge	80	6.35	2.38	7	0.2	-								●		●			
	CCGT060204RS	Up-sharp edge	80	6.35	2.38	7	0.4	-													
	CCGT09T300RS	Up-sharp edge	80	9.525	3.97	7	0.03	-				●		●		●		●			
	CCGT09T300LS	Up-sharp edge	80	9.525	3.97	7	0.03	-								●					
	CCGT09T301MRS	Up-sharp edge	80	9.525	3.97	7	0.08	-				●	●	●							
	CCGT09T301RS	Up-sharp edge	80	9.525	3.97	7	0.1	-					●		●		●				
	CCGT09T301LS	Up-sharp edge	80	9.525	3.97	7	0.1	-						●		●		●			
	CCGT09T302MRS	Up-sharp edge	80	9.525	3.97	7	0.18	-				●	●	●							
	CCGT09T302RS	Up-sharp edge	80	9.525	3.97	7	0.2	-						●		●		●			
	CCGT09T302LS	Up-sharp edge	80	9.525	3.97	7	0.2	-									●				

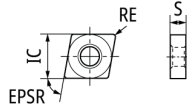
Turning Insert  
D



Steel	○	●	●	●	●	●	●	●	●	●
Stainless Steel	●	○	○	○	●	○	●	●	●	●
Cast Iron										●
Non-Ferrous Material								○	○	●
Heat Resistant Alloy		●	○	○						
Hardened Material		○	○	○						
Others (non-metallic)										●

Shape	Item Number	CECC	EPSR	IC	S	AN	RE	BS	Carbide												
									PVD	PVD	PVD	PVD	PVD	PVD	PVD	PVD	PVD	PVD	PVD	PVD	
									ST4	DM4	DT4	QM3	TM4	VM1	ZM3	CP1	CP7	KM1	Uncoated		
	CCGT09T304MRS	Up-sharp edge	80	9.525	3.97	7	0.38	-			●	●	●								
	CCGT09T304RS	Up-sharp edge	80	9.525	3.97	7	0.4	-				●									
	CCGT060200RU	Up-sharp edge	80	6.35	2.38	7	0.03	-			●									●	
	CCGT060201RU	Up-sharp edge	80	6.35	2.38	7	0.1	-			●									●	
	CCGT060201LU	Up-sharp edge	80	6.35	2.38	7	0.1	-												●	
	CCGT060202RU	Up-sharp edge	80	6.35	2.38	7	0.2	-			●									●	
	CCGT060202LU	Up-sharp edge	80	6.35	2.38	7	0.2	-												●	
	CCGT09T300RU1	Up-sharp edge	80	9.525	3.97	7	0.03	-			●			●						●	
	CCGT09T300LU1	Up-sharp edge	80	9.525	3.97	7	0.03	-												●	
	CCGT09T301RU1	Up-sharp edge	80	9.525	3.97	7	0.1	-			●			●						●	
	CCGT09T301LU1	Up-sharp edge	80	9.525	3.97	7	0.1	-												●	
	CCGT09T302RU1	Up-sharp edge	80	9.525	3.97	7	0.2	-			●			●						●	
	CCGT09T302LU1	Up-sharp edge	80	9.525	3.97	7	0.2	-												●	
	CCGT09T304RU1	Up-sharp edge	80	9.525	3.97	7	0.4	-			●			●						●	
	CCGT09T304LU1	Up-sharp edge	80	9.525	3.97	7	0.4	-												●	
	CCET0602005RKHG	Up-sharp edge	80	6.35	2.38	7	0.05	-												●	
	CCET0602005LKHG	Up-sharp edge	80	6.35	2.38	7	0.05	-													●
	CCET0602008RKHG	Up-sharp edge	80	6.35	2.38	7	0.08	-													●
	CCET0602008LKHG	Up-sharp edge	80	6.35	2.38	7	0.08	-													●
	CCET0602018RKHG	Up-sharp edge	80	6.35	2.38	7	0.18	-													●
	CCET0602018LKHG	Up-sharp edge	80	6.35	2.38	7	0.18	-													●
	CCET060202RKHG	Up-sharp edge	80	6.35	2.38	7	0.2	-													●
	CCET060202LKHG	Up-sharp edge	80	6.35	2.38	7	0.2	-													●
	CCET09T3005RKHG	Up-sharp edge	80	9.525	3.97	7	0.05	-						●		●					
	CCET09T3005LKHG	Up-sharp edge	80	9.525	3.97	7	0.05	-								●					
	CCET09T3008RKHG	Up-sharp edge	80	9.525	3.97	7	0.08	-						●		●					
	CCET09T3008LKHG	Up-sharp edge	80	9.525	3.97	7	0.08	-								●					
	CCET09T3018RKHG	Up-sharp edge	80	9.525	3.97	7	0.18	-						●		●					
	CCET09T3018LKHG	Up-sharp edge	80	9.525	3.97	7	0.18	-								●					
	CCET09T302RKHG	Up-sharp edge	80	9.525	3.97	7	0.2	-						●		●					
CCET09T302LKHG	Up-sharp edge	80	9.525	3.97	7	0.2	-								●						
	CCGT060201FRF1	Up-sharp edge	80	6.35	2.38	7	0.1	-		●			●		●						
	CCGT060202FRF1	Up-sharp edge	80	6.35	2.38	7	0.2	-		●			●		●						
	CCGT060204FRF1	Up-sharp edge	80	6.35	2.38	7	0.4	-		●			●		●						
	CCGT09T302FRF1	Up-sharp edge	80	6.35	2.38	7	0.2	-		●			●		●						
	CCGT09T304FRF1	Up-sharp edge	80	6.35	2.38	7	0.4	-		●			●		●						
	CCGW09T30V	Ⓜ Up-sharp edge	80	9.525	3.97	7	0	-													●
CCGW09T300FN	Up-sharp edge	80	9.525	3.97	7	0.03	-													●	
CCGW09T300H	Ⓜ Up-sharp edge	80	9.525	3.97	7	0.03	-													●	
CCGW09T301FN	Up-sharp edge	80	9.525	3.97	7	0.1	-													●	
CCGW09T301H	Ⓜ Up-sharp edge	80	9.525	3.97	7	0.1	-													●	
CCGW09T301P	Ⓜ Up-sharp edge	80	9.525	3.97	7	0.1	-													●	
CCGW09T302H	Ⓜ Up-sharp edge	80	9.525	3.97	7	0.2	-													●	
CCGW09T302MP	Up-sharp edge	80	9.525	3.97	7	0.18	-					●									
CCGW09T302P	Ⓜ Up-sharp edge	80	9.525	3.97	7	0.2	-													●	

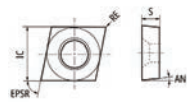
D Turning Insert



Steel	○	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●
Stainless Steel	●	○	○	○	●	○	●	○	●	○	●	○	●	○	●	○	●	○	●	○
Cast Iron																				●
Non-Ferrous Material														○		○				●
Heat Resistant Alloy										●	○	○								
Hardened Material										○	○	○								
Others (non-metallic)																				●

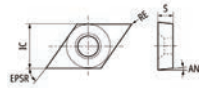
Shape	Item Number (ISO)	CECC	EPSR °	IC mm	S mm	AN °	RE mm	BS mm	Carbide										Uncoated KM1		
									PVD	PVD	PVD	PVD	PVD	PVD	PVD	PVD	PVD	PVD		PVD	
									ST4	DM4	DT4	QM3	TM4	VM1	ZM3	CP1	CP7	CP7			
	CNMG120404FNUL	Up-sharp edge	80	12.7	4.76	-	0.4	-		●		●	●								
	CNMG120408FNUL	Up-sharp edge	80	12.7	4.76	-	0.8	-		●		●	●								
	CNMG120404FNZP	Up-sharp edge	80	12.7	4.76	-	0.4	-		●		●				●					
	CNMG120408FNZP	Up-sharp edge	80	12.7	4.76	-	0.8	-		●		●				●					
	CNMG120408T00525Z5	T00525	80	12.7	4.76	-	0.8	-		●		●									
	CNMG120408G	-	80	12.7	4.76	-	0.8	-													●
	CNMG120412G	-	80	12.7	4.76	-	1.2	-													●
	CNMG120416G	-	80	12.7	4.76	-	1.6	-													●

Turning Insert D



Steel	○	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●
Stainless Steel	●	○	○	○	●	○	●	○	●	○	●	○	●	○	●	○	●	○	●	○
Cast Iron																				●
Non-Ferrous Material														○		○				●
Heat Resistant Alloy										●	○	○								
Hardened Material										○	○	○								
Others (non-metallic)																				●

Shape	Item Number (ISO)	CECC	EPSR °	IC mm	S mm	AN °	RE mm	BS mm	Carbide										Uncoated KM1		
									PVD	PVD	PVD	PVD	PVD	PVD	PVD	PVD	PVD	PVD		PVD	
									ST4	DM4	DT4	QM3	TM4	VM1	ZM3	CP1	CP7	CP7			
	CPGH060202FNAM5	Up-sharp edge	80	6.35	2.38	11	0.2	-							●					●	
	CPGH080202FNAM5	Up-sharp edge	80	6.35	2.38	11	0.2	-							●					●	
	CPGM090302FNAM5	Up-sharp edge	80	9.525	3.18	11	0.2	-							●					●	
	CPGM090304FNAM5	Up-sharp edge	80	9.525	3.18	11	0.4	-							●					●	
	CPGM090308FNAM5	Up-sharp edge	80	9.525	3.18	11	0.8	-							●					●	
	CPGH040101FRF1	Up-sharp edge	80	4.76	1.59	11	0.1	-	●				●	●							
	CPGH040102FRF1	Up-sharp edge	80	4.76	1.59	11	0.2	-	●				●	●							
	CPGH040104FRF1	Up-sharp edge	80	4.76	1.59	11	0.4	-	●				●	●							
	CPGH060202FRF1	Up-sharp edge	80	6.35	2.38	11	0.2	-	●				●	●							
	CPGH060204FRF1	Up-sharp edge	80	6.35	2.38	11	0.4	-	●				●	●							
	CPGH040101LS	Up-sharp edge	80	4.76	1.59	11	0.1	-					●	●							
	CPGH040102LS	Up-sharp edge	80	4.76	1.59	11	0.2	-					●	●							
	CPGH040104LS	Up-sharp edge	80	4.76	1.59	11	0.4	-					●	●							
	CPGH060202LS	Up-sharp edge	80	6.35	2.38	11	0.2	-					●	●							
	CPGH060204LS	Up-sharp edge	80	6.35	2.38	11	0.4	-					●	●							
	CPGH060202FLA	Up-sharp edge	80	6.35	2.38	11	0.2	-													●
	CPGH060204FLA	Up-sharp edge	80	6.35	2.38	11	0.4	-													●
	CPGH080202FLA	Up-sharp edge	80	6.35	2.38	11	0.2	-													●
	CPGH080204FLA	Up-sharp edge	80	6.35	2.38	11	0.4	-													●
	CPGH040102FLA1	Up-sharp edge	80	4.76	1.59	11	0.2	-													●
	CPGH040104FLA1	Up-sharp edge	80	4.76	1.59	11	0.4	-													●



Steel	○	●	●	●	●	●	●	●	●	●
Stainless Steel	●	○	○	○	●	○	●	○	●	○
Cast Iron									●	
Non-Ferrous Material						○		○		●
Heat Resistant Alloy		●	○	○						
Hardened Material		○	○	○						
Others (non-metallic)										●

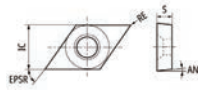
Shape	Item Number	CECC	EPSR	IC	S	AN	RE	BS	Carbide													
									PVD	PVD	PVD	PVD	PVD	PVD	PVD	PVD	PVD	PVD	CVD	CVD	Uncoated	
									ST4	DM4	DT4	QM3	TM4	VM1	ZM3	CP1	CP7	KM1				
(ISO)	°	mm	mm	°	mm	mm																
	DCGT11T301MRTMV	Up-sharp edge	55	9.525	3.97	7	0.08	-	●	●					●							
	DCGT11T301MRTMV2	Up-sharp edge	55	9.525	3.97	7	0.08	-	●	●					●							
	DCGT11T302MRTMV	Up-sharp edge	55	9.525	3.97	7	0.18	-	●	●					●							
	DCGT11T302MRTMV2	Up-sharp edge	55	9.525	3.97	7	0.18	-	●	●					●							
	DCGT11T304MRTMV	Up-sharp edge	55	9.525	3.97	7	0.38	-	●	●					●							
	DCGT11T304MRTMV2	Up-sharp edge	55	9.525	3.97	7	0.38	-	●	●					●							
	DCGT070201MYL	Up-sharp edge	55	6.35	2.38	7	0.08	-		●			●									
	DCGT070202MYL	Up-sharp edge	55	6.35	2.38	7	0.18	-		●			●									
	DCGT070204MYL	Up-sharp edge	55	6.35	2.38	7	0.38	-		■			■									
	DCGT11T300YL	Up-sharp edge	55	9.525	3.97	7	0.03	-				●		●								
	DCGT11T301MYL	Up-sharp edge	55	9.525	3.97	7	0.08	-	●	●	●	●	●	●								
	DCGT11T302MYL	Up-sharp edge	55	9.525	3.97	7	0.18	-	●	●	●	●	●	●								
	DCGT11T304MYL	Up-sharp edge	55	9.525	3.97	7	0.38	-	●	●	●	●	●	●								
DCGT11T308MYL	Up-sharp edge	55	9.525	3.97	7	0.78	-	●	●	●	●	●	●									
	DCGT070201MCL	Up-sharp edge	55	6.35	2.38	7	0.08	-	●	●	●	●	●	●								
	DCGT070202MCL	Up-sharp edge	55	6.35	2.38	7	0.18	-	●	●	●	●	●	●								
	DCGT070204MCL	Up-sharp edge	55	6.35	2.38	7	0.38	-	●	●	●	●	●	●								
	DCGT11T301MCL	Up-sharp edge	55	9.525	3.97	7	0.08	-	●	●	●	●	●	●								
	DCGT11T302MCL	Up-sharp edge	55	9.525	3.97	7	0.18	-	●	●	●	●	●	●								
	DCGT11T304MCL	Up-sharp edge	55	9.525	3.97	7	0.38	-	●	●	●	●	●	●								
	DCGT070200FNAM3	Up-sharp edge	55	6.35	2.38	7	0.03	-				●		●	●	●						
	DCGT070201FNAM3	Up-sharp edge	55	6.35	2.38	7	0.1	-							●	●						
	DCGT070202FNAM3	Up-sharp edge	55	6.35	2.38	7	0.2	-								●	●					
	DCGT070204FNAM3	Up-sharp edge	55	6.35	2.38	7	0.4	-									●	●				
	DCGT070201MFNAM3	Up-sharp edge	55	6.35	2.38	7	0.08	-	●			●	●	●	●							
	DCGT070202MFNAM3	Up-sharp edge	55	6.35	2.38	7	0.18	-	●			●	●	●	●							
	DCGT070204MFNAM3	Up-sharp edge	55	6.35	2.38	7	0.38	-	●			●	●	●	●							
	DCGT11T300FNAM3	Up-sharp edge	55	9.525	3.97	7	0.03	-				●		●	●	●						
	DCGT11T301MFNAM3	Up-sharp edge	55	9.525	3.97	7	0.08	-	●			●	●	●	●	●	●					
	DCGT11T302FNAM3	Up-sharp edge	55	9.525	3.97	7	0.2	-					●		●	●						
	DCGT11T302MFNAM3	Up-sharp edge	55	9.525	3.97	7	0.18	-	●			●	●	●	●	●	●					
	DCGT11T304FNAM3	Up-sharp edge	55	9.525	3.97	7	0.4	-					●		●	●						
	DCGT11T304MFNAM3	Up-sharp edge	55	9.525	3.97	7	0.38	-	●			●	●	●	●	●	●					
	DCMT070202FNAM3	Up-sharp edge	55	6.35	2.38	7	0.2	-				●										
	DCMT070204FNAM3	Up-sharp edge	55	6.35	2.38	7	0.4	-					●									
DCMT11T302FNAM3	Up-sharp edge	55	9.525	3.97	7	0.2	-					●										
DCMT11T304FNAM3	Up-sharp edge	55	9.525	3.97	7	0.4	-					●										
DCMT11T308FNAM3	Up-sharp edge	55	9.525	3.97	7	0.8	-					●										
	DCGT070201MAMX	Up-sharp edge	55	6.35	2.38	7	0.08	-				●	●		●							
	DCGT070202MAMX	Up-sharp edge	55	6.35	2.38	7	0.18	-					●	●		●						
	DCGT070204MAMX	Up-sharp edge	55	6.35	2.38	7	0.38	-					●	●		●						
	DCGT11T301MAMX	Up-sharp edge	55	9.525	3.97	7	0.08	-					●	●		●						
	DCGT11T302MAMX	Up-sharp edge	55	9.525	3.97	7	0.18	-					●	●		●						
	DCGT11T304MAMX	Up-sharp edge	55	9.525	3.97	7	0.38	-					●	●		●						
	DCGT070200AZ7	Up-sharp edge	55	6.35	2.38	7	0.03	-							●							
	DCGT070201MAZ7	Up-sharp edge	55	6.35	2.38	7	0.08	-							●							
	DCGT070202MAZ7	Up-sharp edge	55	6.35	2.38	7	0.18	-							●							
	DCGT11T300AZ7	Up-sharp edge	55	9.525	3.97	7	0.03	-					●	●	●				●			
	DCGT11T301MAZ7	Up-sharp edge	55	9.525	3.97	7	0.08	-					●	●	●				●			
	DCGT11T302MAZ7	Up-sharp edge	55	9.525	3.97	7	0.18	-					●	●	●				●			
	DCGT11T304MAZ7	Up-sharp edge	55	9.525	3.97	7	0.38	-					●	●	●				●			
	DCGT11T308AZ7	Up-sharp edge	55	9.525	3.97	7	0.8	-					●	●		●						
	DCMT11T304E004AZ8	E004	55	9.525	3.97	7	0.4	-												●		
	DCMT11T308E004AZ8	E004	55	9.525	3.97	7	0.8	-													●	





Steel	○	●	●	●	●	●	●	●	●
Stainless Steel	●	○	○	○	●	○	●	●	●
Cast Iron									●
Non-Ferrous Material						○	○		●
Heat Resistant Alloy		●	○	○					
Hardened Material		○	○	○					
Others (non-metallic)									●

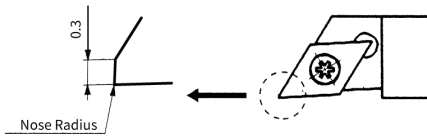
Shape	Item Number (ISO)	CECC	EPSR °	IC mm	S mm	AN °	RE mm	BS mm	Carbide											Uncoated	
									PVD	PVD	PVD	PVD	PVD	PVD	PVD	PVD	CVD	CVD	CVD		
									ST4	DM4	DT4	QM3	TM4	VM1	ZM3	CP1	CP7	KM1			
	DCGT070200RS	Up-sharp edge	55	6.35	2.38	7	0.03	-			●				●	●					
	DCGT070200LS	Up-sharp edge	55	6.35	2.38	7	0.03	-							●	●					
	DCGT070201MRS	Up-sharp edge	55	6.35	2.38	7	0.08	-			●	●									
	DCGT070201RS	Up-sharp edge	55	6.35	2.38	7	0.1	-							●	●					
	DCGT070201LS	Up-sharp edge	55	6.35	2.38	7	0.1	-							●	●					
	DCGT070202MRS	Up-sharp edge	55	6.35	2.38	7	0.18	-			●	●									
	DCGT070202RS	Up-sharp edge	55	6.35	2.38	7	0.2	-							●	●					
	DCGT070202LS	Up-sharp edge	55	6.35	2.38	7	0.2	-							●	●					
	DCGT070204RS	Up-sharp edge	55	6.35	2.38	7	0.4	-							●						
	DCGT11T300RS	Up-sharp edge	55	9.525	3.97	7	0.03	-			●			●	●	●					
	DCGT11T300LS	Up-sharp edge	55	9.525	3.97	7	0.03	-							●						
	DCGT11T301MRS	Up-sharp edge	55	9.525	3.97	7	0.08	-			●	●	●								
	DCGT11T301RS	Up-sharp edge	55	9.525	3.97	7	0.1	-				●			●	●					
	DCGT11T301LS	Up-sharp edge	55	9.525	3.97	7	0.1	-							●						
	DCGT11T302MRS	Up-sharp edge	55	9.525	3.97	7	0.18	-			●	●	●								
	DCGT11T302RS	Up-sharp edge	55	9.525	3.97	7	0.2	-				●			●	●					
	DCGT11T302LS	Up-sharp edge	55	9.525	3.97	7	0.2	-							●						
	DCGT11T304MRS	Up-sharp edge	55	9.525	3.97	7	0.38	-			●	●	●								
DCGT11T304RS	Up-sharp edge	55	9.525	3.97	7	0.4	-				●										
	DCGT070200RU	Up-sharp edge	55	6.35	2.38	7	0.03	-							●	●					
	DCGT070201RU	Up-sharp edge	55	6.35	2.38	7	0.1	-							●	●					
	DCGT070202RU	Up-sharp edge	55	6.35	2.38	7	0.2	-							●	●					
	DCGT070202LU	Up-sharp edge	55	6.35	2.38	7	0.2	-								●					
	DCGT11T300RU1	Up-sharp edge	55	9.525	3.97	7	0.03	-			●			●	●	●					
	DCGT11T300LU1	Up-sharp edge	55	9.525	3.97	7	0.03	-								●					
	DCGT11T301RU1	Up-sharp edge	55	9.525	3.97	7	0.1	-			●			●	●	●					
	DCGT11T301LU1	Up-sharp edge	55	9.525	3.97	7	0.1	-								●					
	DCGT11T302RU1	Up-sharp edge	55	9.525	3.97	7	0.2	-			●			●	●	●					
	DCGT11T302LU1	Up-sharp edge	55	9.525	3.97	7	0.2	-								●					
	DCGT11T304RU1	Up-sharp edge	55	9.525	3.97	7	0.4	-			●			●	●	●					
	DCGT11T304LU1	Up-sharp edge	55	9.525	3.97	7	0.4	-								●					
	DCET0702005RKHG	Up-sharp edge	55	6.35	2.38	7	0.05	-							●						
	DCET0702005LKHG	Up-sharp edge	55	6.35	2.38	7	0.05	-							●						
	DCET0702008RKHG	Up-sharp edge	55	6.35	2.38	7	0.08	-							●						
	DCET0702008LKHG	Up-sharp edge	55	6.35	2.38	7	0.08	-							●						
	DCET0702018RKHG	Up-sharp edge	55	6.35	2.38	7	0.18	-							●						
	DCET0702018LKHG	Up-sharp edge	55	6.35	2.38	7	0.18	-							●						
	DCET070202RKHG	Up-sharp edge	55	6.35	2.38	7	0.2	-							●						
	DCET070202LKHG	Up-sharp edge	55	6.35	2.38	7	0.2	-							●						
	DCET11T3005RKHG	Up-sharp edge	55	9.525	3.97	7	0.05	-						●	●	●					
	DCET11T3005LKHG	Up-sharp edge	55	9.525	3.97	7	0.05	-							●						
	DCET11T3008RKHG	Up-sharp edge	55	9.525	3.97	7	0.08	-						●	●	●					
	DCET11T3008LKHG	Up-sharp edge	55	9.525	3.97	7	0.08	-							●						
	DCET11T3018RKHG	Up-sharp edge	55	9.525	3.97	7	0.18	-						●	●	●					
	DCET11T3018LKHG	Up-sharp edge	55	9.525	3.97	7	0.18	-							●						
DCET11T302RKHG	Up-sharp edge	55	9.525	3.97	7	0.2	-						●	●	●						
DCET11T302LKHG	Up-sharp edge	55	9.525	3.97	7	0.2	-							●							
	DCET0702008RUHG	Up-sharp edge	55	6.35	2.38	7	0.08	-							●						
	DCET11T3008RUHG	Up-sharp edge	55	9.525	3.97	7	0.08	-							●						
	DCET11T301MRAT	Ⓜ Up-sharp edge	55	9.525	3.97	7	0.08	-						●							
	DCET11T302MRAT	Ⓜ Up-sharp edge	55	9.525	3.97	7	0.18	-						●							
	DCGT11T3005AM3-WP	Up-sharp edge	55	9.525	3.97	7	0.05	(0.3)		●	●	●									
	DCGT11T3015AM3-WP	Up-sharp edge	55	9.525	3.97	7	0.15	(0.3)		●	●	●									
	DCGT0702005RS-WP	Up-sharp edge	55	6.35	2.38	7	0.05	(0.3)					●		●	●					
	DCGT0702005LS-WP	Up-sharp edge	55	6.35	2.38	7	0.05	(0.3)								●					
	DCGT0702015RS-WP	Up-sharp edge	55	6.35	2.38	7	0.15	(0.3)					●			●	●				
	DCGT0702015LS-WP	Up-sharp edge	55	6.35	2.38	7	0.15	(0.3)								●					
	DCGT11T3005RS-WP	Up-sharp edge	55	9.525	3.97	7	0.05	(0.3)					●		●	●					
	DCGT11T3015RS-WP	Up-sharp edge	55	9.525	3.97	7	0.15	(0.3)					●			●					



Steel	○	●	●	●	●	●	●	●	●
Stainless Steel	●	○	○	○	●	○	●	●	●
Cast Iron									●
Non-Ferrous Material						○	○		●
Heat Resistant Alloy		●	○	○					
Hardened Material		○	○	○					
Others (non-metallic)									●

Shape	Item Number	CECC	EPSR	IC	S	AN	RE	BS	Carbide												
									PVD	PVD	PVD	PVD	PVD	PVD	PVD	PVD	PVD	CVD	CVD	Uncoated	
									ST4	DM4	DT4	QM3	TM4	VM1	ZM3	CP1	CP7	KM1			
	DCGT0702005RU-WP	Up-sharp edge	55	6.35	2.38	7	0.05	(0.3)					●		●	●					
	DCGT0702015RU-WP	Up-sharp edge	55	6.35	2.38	7	0.15	(0.3)					●			●					
	DCGT11T3005RU1-WP	Up-sharp edge	55	9.525	3.97	7	0.05	(0.3)					●		●	●					
	DCGT11T3015RU1-WP	Up-sharp edge	55	9.525	3.97	7	0.15	(0.3)					●		●						
	DCGW07020V	Up-sharp edge	55	6.35	2.38	7	0	-							●						
	DCGW070200FN	Up-sharp edge	55	6.35	2.38	7	0.03	-									●				
	DCGW070200H	Up-sharp edge	55	6.35	2.38	7	0.03	-													●
	DCGW070201FN	Up-sharp edge	55	6.35	2.38	7	0.1	-									●				
	DCGW070201H	Up-sharp edge	55	6.35	2.38	7	0.1	-													●
	DCGW070202H	Up-sharp edge	55	6.35	2.38	7	0.2	-													●
	DCGW11T30V	Up-sharp edge	55	9.525	3.97	7	0	-								●					
	DCGW11T300FN	Up-sharp edge	55	9.525	3.97	7	0.03	-										●			
	DCGW11T300H	Up-sharp edge	55	9.525	3.97	7	0.03	-													●
	DCGW11T301FN	Up-sharp edge	55	9.525	3.97	7	0.1	-									●				
	DCGW11T301H	Up-sharp edge	55	9.525	3.97	7	0.1	-										●			
	DCGW11T302H	Up-sharp edge	55	9.525	3.97	7	0.2	-											●		
	DCGW0702005RH-WP	Up-sharp edge	55	6.35	2.38	7	0.05	(0.3)													●
	DCGW11T3005RH-WP	Up-sharp edge	55	9.525	3.97	7	0.05	(0.3)													●

### Features of DC.T-WP insert



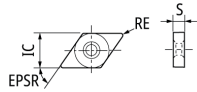
NTK WP style inserts have a wiper facet design.

The insert has a 0.3mm flat on the cutting edge when the insert is set into the toolholder.

The flat on the cutting edge ensures a superior surface when feed rates are increased.

WP style inserts can be used in toolholders: SDJC, CH-SDUL and DS-SDUL.

# DN.G

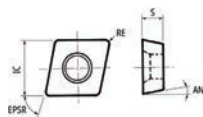


Steel	○	●	●	●	●	●	●	●	●
Stainless Steel	●	○	○	○	●	○	●	●	●
Cast Iron									●
Non-Ferrous Material						○		○	●
Heat Resistant Alloy		●	○	○					
Hardened Material		○	○	○					
Others (non-metallic)									●

Shape	Item Number (ISO)	CECC	EPSR °	IC mm	S mm	AN °	RE mm	BS mm	Carbide										Uncoated KM1	
									PVD	PVD	PVD	PVD	PVD	PVD	PVD	PVD	PVD	PVD		PVD
									ST4	DM4	DT4	QM3	TM4	VM1	ZM3	CP1	CP7			
	DNMG150404FNZP	Up-sharp edge	55	12.7	4.76	-	0.4	-		●		●					●			
	DNMG150408FNZP	Up-sharp edge	55	12.7	4.76	-	0.8	-		●		●					●			
	DNMG150408T00525Z5	T00525	55	12.7	4.76	-	0.8	-		●		●								
	DNMG150404TNG	T01025	55	12.7	4.76	-	0.4	-					●							
	DNMG150404G	-	55	12.7	4.76	-	0.4	-										●		
	DNMG150408G	-	55	12.7	4.76	-	0.8	-										●		
	DNMG150412G	-	55	12.7	4.76	-	1.2	-										●		
																			●	

Turning Insert  
**D**

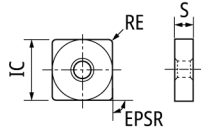
# ERGH



Steel	○	●	●	●	●	●	●	●	●
Stainless Steel	●	○	○	○	●	○	●	●	●
Cast Iron									●
Non-Ferrous Material								○	○
Heat Resistant Alloy		●	○	○					
Hardened Material		○	○	○					
Others (non-metallic)									●

Shape	Item Number (ISO)	CECC	EPSR °	IC mm	S mm	AN °	RE mm	BS mm	Carbide										Uncoated KM1
									PVD	PVD	PVD	PVD	PVD	PVD	PVD	PVD	PVD	PVD	
									ST4	DM4	DT4	QM3	TM4	VM1	ZM3	CP1	CP7		
	ERGHT30101FRF1	Up-sharp edge	75	3.97	1.59	9	0.1	-		●			●	●					
	ERGHT30102FRF1	Up-sharp edge	75	3.97	1.59	9	0.2	-		●			●	●					
	ERGHT30104FRF1	Up-sharp edge	75	3.97	1.59	9	0.4	-		●			●	●					
	ERGHT30102FRA2	Up-sharp edge	75	3.97	1.59	9	0.2	-						●			●		
	ERGHT30102FLA2	Up-sharp edge	75	3.97	1.59	9	0.2	-						●			●		
	ERGHT30104FRA2	Up-sharp edge	75	3.97	1.59	9	0.4	-						●			●		
	ERGHT30104FLA2	Up-sharp edge	75	3.97	1.59	9	0.4	-						●			●		

# SNMG

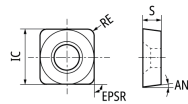


Steel	○	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●
Stainless Steel	●	○	○	○	●	○	●	○	●	○	●	○	●	○	●	○	●	○	●	○
Cast Iron																			●	●
Non-Ferrous Material													○		○					●
Heat Resistant Alloy					●	○	○													
Hardened Material										○	○	○								
Others (non-metallic)																				●

Shape	Item Number (ISO)	CECC	EPSR °	IC mm	S mm	AN °	RE mm	BS mm	Carbide													
									PVD	PVD	PVD	PVD	PVD	PVD	PVD	PVD	PVD	PVD	PVD	PVD		
									ST4	DM4	DT4	QM3	TM4	VM1	ZM3	CP1	CP7	KM1	Uncoated			
	SNMG120408T00525Z5	T00525	90	12.7	4.76	-	0.8	-		●		●										
	SNMG120408G	-	90	12.7	4.76	-	0.8	-														●
	SNMG120412G	-	90	12.7	4.76	-	1.2	-														●
	SNMG120416G	-	90	12.7	4.76	-	1.6	-														●

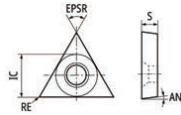
D Turning Insert

# SDEW



Steel	○	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●
Stainless Steel	●	○	○	○	●	○	●	○	●	○	●	○	●	○	●	○	●	○	●	○
Cast Iron																			●	●
Non-Ferrous Material													○		○					●
Heat Resistant Alloy					●	○	○													
Hardened Material										○	○	○								
Others (non-metallic)																				●

Shape	Item Number (ISO)	CECC	EPSR °	IC mm	S mm	AN °	RE mm	BS mm	Carbide													
									PVD	PVD	PVD	PVD	PVD	PVD	PVD	PVD	PVD	PVD	PVD			
									ST4	DM4	DT4	QM3	TM4	VM1	ZM3	CP1	CP7	KM1	Uncoated			
	SDEW060202FN	Up-sharp edge	90	6.35	2.38	15	0.2	-														●

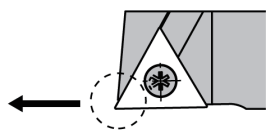
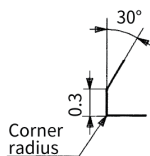


Steel	○	●	●	●	●	●	●	●	●
Stainless Steel	●	○	○	○	●	○	●	●	●
Cast Iron									●
Non-Ferrous Material						○	○		●
Heat Resistant Alloy		●	○	○					
Hardened Material		○	○	○					
Others (non-metallic)									●

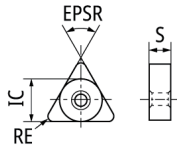
Shape	Item Number	CECC	EPSR	IC	S	AN	RE	BS	Carbide											Uncoated	
									PVD	PVD	PVD	PVD	PVD	PVD	PVD	PVD	PVD	CVD	CVD		KM1
									ST4	DM4	DT4	QM3	TM4	VM1	ZM3	CP1	CP7				
	TCGH060101FRF05	Up-sharp edge	60	3.97	1.59	7	0.1	-	●				●	●							
	TCGH060102FLF05	Up-sharp edge	60	3.97	1.59	7	0.2	-					●			●					
	TCGH060102FRF05	Up-sharp edge	60	3.97	1.59	7	0.2	-	●				●	●		●					
	TCGH060104FRF05	Up-sharp edge	60	3.97	1.59	7	0.4	-	●				●	●		●					
	TCGT090201RS	Up-sharp edge	60	5.56	2.38	7	0.1	-							●		●				
	TCGT090201LS	Up-sharp edge	60	5.56	2.38	7	0.1	-							●						
	TCGT090202RS	Up-sharp edge	60	5.56	2.38	7	0.2	-									●				
	TCGT110201RS	Up-sharp edge	60	6.35	2.38	7	0.1	-							●		●				
	TCGT110201LS	Up-sharp edge	60	6.35	2.38	7	0.1	-							●						
	TCGT090201RU	Up-sharp edge	60	5.56	2.38	7	0.1	-									●				
	TCGT090202RU	Up-sharp edge	60	5.56	2.38	7	0.2	-									●				
	TCGH060102FLK	Up-sharp edge	60	3.97	1.59	7	0.2	-						●							
	TCGH060104FLK	Up-sharp edge	60	3.97	1.59	7	0.4	-						●							
	TCGH060102FLB1	Up-sharp edge	60	3.97	1.59	7	0.2	-						●		●					
	TCGH060104FLB1	Up-sharp edge	60	3.97	1.59	7	0.4	-						●		●					
	TCGT0902005RS-WP	Up-sharp edge	60	5.56	2.38	7	0.05	(0.3)									●				
	TCGT0902005LS-WP	Up-sharp edge	60	5.56	2.38	7	0.05	(0.3)									●				
	TCGT0902015RS-WP	Up-sharp edge	60	5.56	2.38	7	0.15	(0.3)									●				
	TCGT0902015LS-WP	Up-sharp edge	60	5.56	2.38	7	0.15	(0.3)									●				
	TCGT1102005RS-WP	Up-sharp edge	60	6.35	2.38	7	0.05	(0.3)									●				
	TCGT1102015RS-WP	Up-sharp edge	60	6.35	2.38	7	0.15	(0.3)									●				
	TCGT0902005RU-WP	Up-sharp edge	60	5.56	2.38	7	0.05	(0.3)									●				
	TCGT0902015RU-WP	Up-sharp edge	60	5.56	2.38	7	0.15	(0.3)									●				
	TCGT1102005RU1-WP	Up-sharp edge	60	6.35	2.38	7	0.05	(0.3)									●				
	TCGT1102015RU1-WP	Up-sharp edge	60	6.35	2.38	7	0.15	(0.3)									●				
	TCGW06T108FN	Up-sharp edge	60	3.97	1.98	7	0.8	-									●				
	TCGW090200FN	Up-sharp edge	60	5.56	2.38	7	0.03	-									●				
	TCGW090201FN	Up-sharp edge	60	5.56	2.38	7	0.1	-									●				
	TCGW110200FN	Up-sharp edge	60	6.35	2.38	7	0.03	-									●				
	TCGW110201FN	Up-sharp edge	60	6.35	2.38	7	0.1	-									●				

Turning Insert D

Features of TCGT-WP insert



NTK WP style inserts have a wiper facet design.  
 The insert has a 0.3mm flat on the cutting edge when the insert is set into the toolholder.  
 The flat on the cutting edge ensures a superior surface when feed rates are increased.  
 WP style inserts can be used in toolholders: STAC

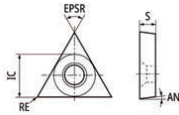


Steel	○	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●
Stainless Steel	●	○	○	○	●	○	●	●	●	●	●	●	●	●	●	●	●	●	●
Cast Iron																		●	
Non-Ferrous Material													○		○				●
Heat Resistant Alloy																			●
Hardened Material													○	○	○				
Others (non-metallic)																			●

Shape	Item Number (ISO)	CECC	EPSR °	IC mm	S mm	AN °	RE mm	BS mm	Carbide													
									PVD	PVD	PVD	PVD	PVD	PVD	PVD	PVD	PVD	PVD	PVD	PVD	PVD	PVD
									ST4	DM4	DT4	QM3	TM4	VM1	ZM3	CP1	CP7	Uncoated KM1				
	TNGG160401MFNUL	Up-sharp edge	60	9.525	4.76	-	0.1	-	●	●		●	●									
	TNGG160402MFNUL	Up-sharp edge	60	9.525	4.76	-	0.2	-	●	●		●	●									
	TNGG160404MFNUL	Up-sharp edge	60	9.525	4.76	-	0.4	-	●	●		●	●									
	TNGG160408MFNUL	Up-sharp edge	60	9.525	4.76	-	0.8	-	●	●		●	●									
	TNGG160402FNZP	Up-sharp edge	60	9.525	4.76	-	0.2	-		●		●	●	●	●							
	TNGG160404FNZP	Up-sharp edge	60	9.525	4.76	-	0.4	-		●		●	●	●	●							
	TNGG160408FNZP	Up-sharp edge	60	9.525	4.76	-	0.8	-		●		●	●	●	●							
	TNMG160408G	-	60	9.525	4.76	-	0.8	-											●			
	TNMG160412G	-	60	9.525	4.76	-	1.2	-											●			
	TNMG160404T00525Z5	T00525	60	9.525	4.76	-	0.4	-		●		●										
	TNMG160408T00525Z5	T00525	60	9.525	4.76	-	0.8	-		●		●										
	TNEG160402FLD1	Up-sharp edge	60	9.525	4.76	-	0.2	-						●								
	TNEG160402FRD1	Up-sharp edge	60	9.525	4.76	-	0.2	-						●								
	TNEG160404FLD1	Up-sharp edge	60	9.525	4.76	-	0.4	-						●								
	TNEG160404FRD1	Up-sharp edge	60	9.525	4.76	-	0.4	-						●								
	TNEG160408FLD1	Up-sharp edge	60	9.525	4.76	-	0.8	-						●								
	TNEG160408FRD1	Up-sharp edge	60	9.525	4.76	-	0.8	-						●								
	TNGG160401FRU2	Up-sharp edge	60	9.525	4.76	-	0.1	-							●	●						
	TNGG160402FLU2	Up-sharp edge	60	9.525	4.76	-	0.2	-		●						●						
	TNGG160402FRU2	Up-sharp edge	60	9.525	4.76	-	0.2	-		●						●						
	TNGG160404FLU2	Up-sharp edge	60	9.525	4.76	-	0.4	-		●						●						
	TNGG160404FRU2	Up-sharp edge	60	9.525	4.76	-	0.4	-		●						●						
	TNGG160408FLU2	Up-sharp edge	60	9.525	4.76	-	0.8	-								●						
	TNGG160408FRU2	Up-sharp edge	60	9.525	4.76	-	0.8	-								●						
	TNGG160402FRC	Up-sharp edge	60	9.525	4.76	-	0.2	-									●					
	TNGG160401FRDA	Up-sharp edge	60	9.525	4.76	-	0.1	-							●	●						

D Turning Insert

# TPGH

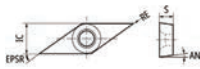


Steel	○	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●
Stainless Steel	●	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○
Cast Iron																					●
Non-Ferrous Material																					○
Heat Resistant Alloy																					●
Hardened Material																					○
Others (non-metallic)																					●

Shape	Item Number (ISO)	CECC	EPSR °	IC mm	S mm	AN °	RE mm	BS mm	Carbide											Uncoated KM1		
									PVD	PVD	PVD	PVD	PVD	PVD	PVD	PVD	PVD	PVD	PVD		PVD	
									ST4	DM4	DT4	QM3	TM4	VM1	ZM3	CP1	CP7					
	TPGH090202RFG	Up-sharp edge	60	5.56	2.38	11	0.2	-	●	●			●	●								
	TPGH090204RFG	Up-sharp edge	60	5.56	2.38	11	0.4	-	●	●			●	●								
	TPGH110302RFG	Up-sharp edge	60	6.35	3.18	11	0.2	-	●	●			●	●								
	TPGH110304RFG	Up-sharp edge	60	6.35	3.18	11	0.4	-	●	●			●	●								
	TPGH080202FRF1	Up-sharp edge	60	4.76	2.38	11	0.2	-						●	●	●						
	TPGH080204FRF1	Up-sharp edge	60	4.76	2.38	11	0.4	-						●	●	●						
	TPGH090201FRF1	Up-sharp edge	60	5.56	2.38	11	0.1	-	●	●			●	●								
	TPGH090202FRF1	Up-sharp edge	60	5.56	2.38	11	0.2	-	●	●			●	●	●	●						
	TPGH090204FRF1	Up-sharp edge	60	5.56	2.38	11	0.4	-	●	●			●	●	●	●						
	TPGH090208FRF1	Up-sharp edge	60	5.56	2.38	11	0.8	-	●	●			●	●	●	●						
	TPGH110302FRF1	Up-sharp edge	60	6.35	3.18	11	0.2	-	●	●			●	●	●	●						
	TPGH110304FRF1	Up-sharp edge	60	6.35	3.18	11	0.4	-	●	●			●	●	●	●						
	TPGH110308FRF1	Up-sharp edge	60	6.35	3.18	11	0.8	-	●	●			●	●	●	●						
	TPGH090202FLK	Up-sharp edge	60	5.56	2.38	11	0.2	-						●								
	TPGH090204FLK	Up-sharp edge	60	5.56	2.38	11	0.4	-						●								
	TPGH090208FLK	Up-sharp edge	60	5.56	2.38	11	0.8	-						●								
	TPGH090202FLB2	Up-sharp edge	60	5.56	2.38	11	0.2	-						●			●					
	TPGH090204FLB2	Up-sharp edge	60	5.56	2.38	11	0.4	-						●			●					
	TPGH090208FLB2	Up-sharp edge	60	5.56	2.38	11	0.8	-						●			●					
	TPGH080202FLB3	Up-sharp edge	60	4.76	2.38	11	0.2	-						●			●					
	TPGH080204FLB3	Up-sharp edge	60	4.76	2.38	11	0.4	-						●			●					

Turning Insert  
**D**

# VBGT



Steel	○	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●
Stainless Steel	●	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○
Cast Iron																					●
Non-Ferrous Material																					○
Heat Resistant Alloy																					●
Hardened Material																					○
Others (non-metallic)																					●

Shape	Item Number (ISO)	CECC	EPSR °	IC mm	S mm	AN °	RE mm	BS mm	Carbide											Uncoated KM1		
									PVD	PVD	PVD	PVD	PVD	PVD	PVD	PVD	PVD	PVD	PVD			
									ST4	DM4	DT4	QM3	TM4	VM1	ZM3	CP1	CP7					
	VBGT160402FNLY	Up-sharp edge	35	9.525	4.76	5	0.2	-	●	●				●								
	VBGT160404FNLY	Up-sharp edge	35	9.525	4.76	5	0.4	-	●	●				●								
	VBGT160408FNLY	Up-sharp edge	35	9.525	4.76	5	0.8	-	●	●				●								

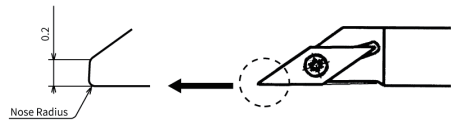


Steel	○	●	●	●	●	●	●	●	●	●
Stainless Steel	●	○	○	○	●	○	●	●	●	●
Cast Iron										●
Non-Ferrous Material							○	○		●
Heat Resistant Alloy		●	○	○						
Hardened Material		○	○	○						
Others (non-metallic)										●

Turning Insert

Shape	Item Number (ISO)	CECC	EPSR °	IC mm	S mm	AN °	RE mm	BS mm	Carbide														
									PVD	PVD	PVD	PVD	PVD	PVD	PVD	PVD	PVD	PVD	CVD	CVD	Uncoated		
									ST4	DM4	DT4	QM3	TM4	VM1	ZM3	CP1	CP7	KM1					
	VCGT110301MYL	Up-sharp edge	35	6.35	3.18	7	0.08	-	●	●	●	●	●										
	VCGT110302MYL	Up-sharp edge	35	6.35	3.18	7	0.18	-	●	●	●	●	●										
	VCGT110304MYL	Up-sharp edge	35	6.35	3.18	7	0.38	-	●	●	●	●	●										
	VCGT110202MCL	Up-sharp edge	35	6.35	2.38	7	0.18	-		●	●	●	●										
	VCGT110301MCL	Up-sharp edge	35	6.35	3.18	7	0.08	-	●	●	●	●	●										
	VCGT110302MCL	Up-sharp edge	35	6.35	3.18	7	0.18	-	●	●	●	●	●										
	VCGT110300FNAM3	Up-sharp edge	35	6.35	3.18	7	0.03	-				●		●	●								
	VCGT110301MFnAM3	Up-sharp edge	35	6.35	3.18	7	0.08	-	●			●	●	●	●								
	VCGT110301FNAM3	Up-sharp edge	35	6.35	3.18	7	0.1	-				●	●	●	●							●	
	VCGT110302MFnAM3	Up-sharp edge	35	6.35	3.18	7	0.18	-	●			●	●	●	●								
	VCGT110302FNAM3	Up-sharp edge	35	6.35	3.18	7	0.2	-								●	●						
	VCGT110304MFnAM3	Up-sharp edge	35	6.35	3.18	7	0.38	-	●			●	●	●	●								
	VCMT110302FNAM3	Up-sharp edge	35	6.35	3.18	7	0.2	-				●											
	VCMT110304FNAM3	Up-sharp edge	35	6.35	3.18	7	0.4	-				●											
	VCGT110300AZ7	Up-sharp edge	35	6.35	3.18	7	0.03	-					●								●		
	VCGT110301MAZ7	Up-sharp edge	35	6.35	3.18	7	0.08	-					●								●		
	VCGT110302MAZ7	Up-sharp edge	35	6.35	3.18	7	0.18	-					●								●		
	VCGT110304MAZ7	Up-sharp edge	35	6.35	3.18	7	0.38	-					●								●		
	VCGT130300FR2M	Up-sharp edge	35	7.94	3.18	7	-	-					●										
	VCGT130300FL2M	Up-sharp edge	35	7.94	3.18	7	-	-					●										
	VCGT130301FR2M	Up-sharp edge	35	7.94	3.18	7	-	-					●										
	VCGT130301FL2M	Up-sharp edge	35	7.94	3.18	7	-	-					●										
	VCGT110300RU	Up-sharp edge	35	6.35	3.18	7	0.03	-								●	●						
	VCGT110301MRU	Up-sharp edge	35	6.35	3.18	7	0.08	-					●										
	VCGT110301RU	Up-sharp edge	35	6.35	3.18	7	0.1	-								●	●						
	VCGT110302MRU	Up-sharp edge	35	6.35	3.18	7	0.18	-					●										
	VCGT110302RU	Up-sharp edge	35	6.35	3.18	7	0.2	-								●	●						
	VCET1103008RUHG	Up-sharp edge	35	6.35	3.18	7	0.08	-								●							
	VCGT1103005RU-WP	Up-sharp edge	35	6.35	3.18	7	0.05	(0.2)								●	●						
	VCGT110301RU-WP	Up-sharp edge	35	6.35	3.18	7	0.1	(0.2)								●	●						
	VCGT1103005RSX-WP	Ⓜ Up-sharp edge	35	6.35	3.18	7	0.05	(0.2)								●	●						
	VCGT110301RSX-WP	Ⓜ Up-sharp edge	35	6.35	3.18	7	0.1	(0.2)								●	●						
	VCGW110300H	Ⓜ Up-sharp edge	35	6.35	3.18	7	0.03	-															●
	VCGW110301H	Ⓜ Up-sharp edge	35	6.35	3.18	7	0.1	-															●
	VCGW110302H	Ⓜ Up-sharp edge	35	6.35	3.18	7	0.2	-															●

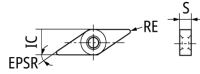
**Features of VCGT-WP insert**



NTK WP style inserts have a wiper facet design. The insert has a 0.2mm flat on the cutting edge when the insert is set into the toolholder. The flat on the cutting edge ensures a superior surface when feed rates are increased. WP style inserts can be used in toolholders: SVAC



# VN.G



Steel	○	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●
Stainless Steel	●	○	○	○	●	○	●	●	●	●	●	●	●	●	●	●	●	●	●	●
Cast Iron																				●
Non-Ferrous Material													○	○	○	○	○	○	○	○
Heat Resistant Alloy					●	○	○													
Hardened Material					○	○	○													
Others (non-metallic)																				●

Shape	Item Number (ISO)	CECC	EPSR °	IC mm	S mm	AN °	RE mm	BS mm	Carbide										Uncoated KM1		
									PVD	PVD	PVD	PVD	PVD	PVD	PVD	PVD	PVD	PVD		PVD	
									ST4	DM4	DT4	QM3	TM4	VM1	ZM3	CP1	CP7				
	VNNG160402FNZP	Up-sharp edge	35	9.525	4.76	-	0.2	-													
	VNNG160404FNZP	Up-sharp edge	35	9.525	4.76	-	0.4	-													
	VNNG160408FNZP	Up-sharp edge	35	9.525	4.76	-	0.8	-													
	VNMG160404G	-	35	9.525	4.76	-	0.4	-													●
	VNMG160408G	-	35	9.525	4.76	-	0.8	-													●
	VNMG160412G	-	35	9.525	4.76	-	1.2	-													●
	VNMG160404T00525AM1	T00525	35	9.525	4.76	-	0.4	-													
	VNMG160408T00525AM1	T00525	35	9.525	4.76	-	0.8	-													

# VP.T

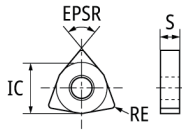


Steel	○	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●
Stainless Steel	●	○	○	○	●	○	●	●	●	●	●	●	●	●	●	●	●	●	●	●
Cast Iron																				●
Non-Ferrous Material													○	○	○	○	○	○	○	○
Heat Resistant Alloy					●	○	○													
Hardened Material					○	○	○													
Others (non-metallic)																				●

Shape	Item Number (ISO)	CECC	EPSR °	IC mm	S mm	AN °	RE mm	BS mm	Carbide										Uncoated KM1			
									PVD	PVD	PVD	PVD	PVD	PVD	PVD	PVD	PVD	PVD		PVD		
									ST4	DM4	DT4	QM3	TM4	VM1	ZM3	CP1	CP7					
	VPET0802005LKHG	Up-sharp edge	35	4.76	2.38	11	0.05	-														
	VPET0802008RKHG	Up-sharp edge	35	4.76	2.38	11	0.08	-														
	VPET0802008LKHG	Up-sharp edge	35	4.76	2.38	11	0.08	-														
	VPET0802018RKHG	Up-sharp edge	35	4.76	2.38	11	0.18	-														
	VPET0802018LKHG	Up-sharp edge	35	4.76	2.38	11	0.18	-														
	VPET080202RKHG	Up-sharp edge	35	4.76	2.38	11	0.2	-														
	VPET080202LKHG	Up-sharp edge	35	4.76	2.38	11	0.2	-														
	VPET1103005RKHG	Up-sharp edge	35	6.35	3.18	11	0.05	-														
	VPET1103005LKHG	Up-sharp edge	35	6.35	3.18	11	0.05	-														
	VPET1103008RKHG	Up-sharp edge	35	6.35	3.18	11	0.08	-														
	VPET1103008LKHG	Up-sharp edge	35	6.35	3.18	11	0.08	-														
	VPET1103018RKHG	Up-sharp edge	35	6.35	3.18	11	0.18	-														
	VPET1103018LKHG	Up-sharp edge	35	6.35	3.18	11	0.18	-														
	VPET110302RKHG	Up-sharp edge	35	6.35	3.18	11	0.2	-														
	VPET110302LKHG	Up-sharp edge	35	6.35	3.18	11	0.2	-														
		VPET0802008LUHG	Up-sharp edge	35	4.76	2.38	11	0.08	-													
		VPET0802008RUHG	Up-sharp edge	35	4.76	2.38	11	0.08	-													
		VPGT110300FNAM3	Up-sharp edge	35	6.35	3.18	11	0.03	-													
VPGT110301MFNAM3		Up-sharp edge	35	6.35	3.18	11	0.08	-														
VPGT110302MFNAM3		Up-sharp edge	35	6.35	3.18	11	0.18	-														

Turning Insert

D



Steel	○	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●
Stainless Steel	●	○	○	○	●	○	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●
Cast Iron																					●
Non-Ferrous Material													○			○					●
Heat Resistant Alloy													●	○	○						
Hardened Material													○	○	○						
Others (non-metallic)																					●

Shape	Item Number (ISO)	CECC	EPSR °	IC mm	S mm	AN °	RE mm	BS mm	Carbide											Uncoated KM1		
									PVD	PVD	PVD	PVD	PVD	PVD	PVD	PVD	PVD	PVD	PVD		PVD	
									ST4	DM4	DT4	QM3	TM4	VM1	ZM3	CP1	CP7					
	WNGG080404FNUL	Up-sharp edge	80	12.7	4.76	-	0.4	-		●		●	●									
	WNGG080408FNUL	Up-sharp edge	80	12.7	4.76	-	0.8	-		●		●	●									
	WNGG080404FNZP	Up-sharp edge	80	12.7	4.76	-	0.4	-		●		●					●					
	WNGG080408FNZP	Up-sharp edge	80	12.7	4.76	-	0.8	-		●		●					●					
	WNMG080408T00525Z5	T00525	80	12.7	4.76	-	0.8	-		●		●										
	WNMG080412T00525Z5	T00525	80	12.7	4.76	-	1.2	-		●		●										
	WNMG080408G	-	80	12.7	4.76	-	0.8	-														●
	WNMG080412G	-	80	12.7	4.76	-	1.2	-														●

D Turning Insert