



CATALOG

GTS-Precision Tools
PCBN Tool Product Manual



T C C G W 12
Table 0 Table 1 Table 2 Table 3 Table 4 Table 5

CBN Insert model

1-Insert Shape

Mark	Blade Shape
C	Lozenge
D	
V	
S	Square
T	Positive Triangle
R	Rotundity
W	Iso-Angle Hexagon

2-Back Corner

Mark	The Back Corner
B	
C	
N	
P	
O	Other

The band indicates that there are also cases where 10 degrees are used

0-Overall

Mark	Overall
T	One-on-one
	Welded
Z	Composite

4-Hole Type

Mark	Hole Type
N	No holes
A	Cylinder holes
B	One-sided inclination cylinder hole
W	
T	
C	Double-sided inclination cylinder hole
Q	
X	Special

02 04 W D 00 1
Table 6 Table 7 Table 8 Table 9 Table 10 Table 11

3-Tip Height Allows Tolerances

Mark	High Tip Allows Tolerances	The Inner Cut Circle Allows Tolerances	The Thickness Allows Tolerances
A	±0.005	±0.025	±0.025
F	±0.005	±0.013	±0.025
C	±0.013	±0.025	±0.025
H	±0.013	±0.013	±0.025
E	±0.025	±0.025	±0.025
G	±0.025	±0.025	±0.13
M	±0.08~±0.2	±0.05~±0.15	±0.13

6-Thickness

Mark	Thickness
01	1.59
02	2.38
T2	2.78
03	3.18
T3	3.97
04	4.76
05	5.56
06	6.35
07	7.94
09	9.52

5-Cut Round

Shape	Mark	Long Cutting Edge	Inscribed Circle	Shape	Mark	Long Cutting Edge	Inscribed Circle	Shape	Mark	Long Cutting Edge	Inscribed Circle				
	C	05	5.64	5.56		S	05	5.56	5.56		R	08	8	8	
		06	6.4	6.35			06	6.35	6.35			10	10	10	
		08	8	7.94			08	7.94	7.94			12	12	12	
		09	9.7	9.525			09	9.525	9.525			12	12.7	12.7	
		12	12.9	12.7			12	12.7	12.7			15	15.875	15.875	
		16	16.1	15.875			15	15.875	15.875			16	16	16	
		19	19.3	19.05			19	19.05	19.05			19	19.05	19.05	
	D	07	7.7	6.35		T	06	6.9	3.97		W	04	4.3	6.35	
		09	9.7	7.94			08	8.2	4.76			05	5.4	7.94	
		11	11.6	9.525			09	9.6	5.56			06	6.5	9.525	
		15	15.5	12.7			11	11	6.35			08	8.7	12.7	
	V	08	8.3	4.76								10	10.9	15.875	
		09	9.7	5.56											
		11	11.1	6.35											
		16	16.6	9.525											

7-Tip Arc

Mark	Knife Tip Arc
00	0
01	0.1
02	0.2
04	0.4
08	0.8
10	1
12	1.2
16	1.6
24	2.4
M O	Round (metric)

8-Inverted Width

Mark	Size (mm)
U	0.1
V	0.15
W	0.2
X	0.25
Y	0.3
Z	0.35

9-Invert Angle

Mark	Angle
B	5°
P	10°
D	15°
E	20°
F	25°
G	30°

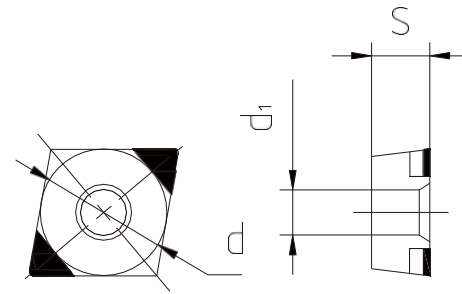
10-Passivation

Mark	Size
05	0.005
10	0.01
15	0.015
20	0.02
25	0.025

11-Number of Heads

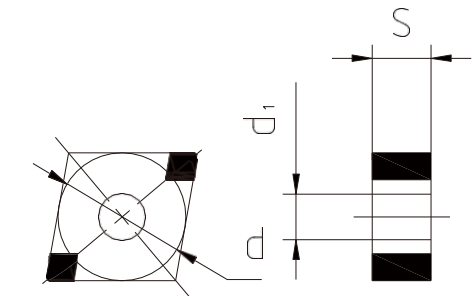
Mark	Number of Heads
1	1
2	2
3	3
4	4
6	6
8	8

CBN Tip Double Edge



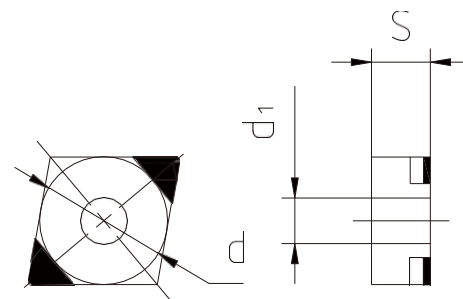
Model	Size			Material			
	d	S	d ₁	GT96S	GT90	GT70	GT50
CCGW060202VE10-2	6.35	2.38	2.8	●	●	●	●
CCGW060202WE10-2				●	●	●	●
CCGW060204VE10-2	6.35	2.38	2.8	●	●	●	●
CCGW060204WE10-2				●	●	●	●
CCGW09T302VE10-2	9.525	3.97	4.4	●	●	●	●
CCGW09T302WE10-2				●	●	●	●
CCGW09T304VE10-2	9.525	3.97	4.4	●	●	●	●
CCGW09T304WE10-2				●	●	●	●
CCGW09T308VE10-2	9.525	3.97	4.4	●	●	●	●
CCGW09T308WE10-2				●	●	●	●

CBN Tip and Four Edge



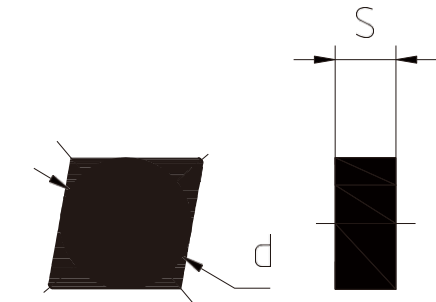
Model	Size			Material			
	d	S	d ₁	GT96S	GT90	GT70	GT50
CNGA 120404 VD10-4	12.7	4.76	5.16	●	●	●	●
CNGA 120404 VE10-4				●	●	●	●
CNGA 120408 VD10-4	12.7	4.76	5.16	●	●	●	●
CNGA 120408 VE10-4				●	●	●	●
CNGA 120412 VD10-4	12.7	4.76	5.16	●	●	●	●
CNGA 120412 VE10-4				●	●	●	●

CBN Tip Double Edge



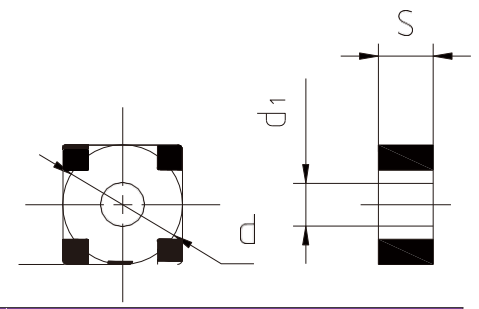
Model	Size			Material			
	d	S	d ₁	GT96S	GT90	GT70	GT50
CNGA120404VD10-2	12.7	4.76	5.16	●	●	●	●
CNGA120404VE10-2				●	●	●	●
CNGA120408VD10-2	12.7	4.76	5.16	●	●	●	●
CNGA120408VE10-2				●	●	●	●
CNGA120412VD10-2	12.7	4.76	5.16	●	●	●	●
CNGA120412VE10-2				●	●	●	●

CBN Solid Insert



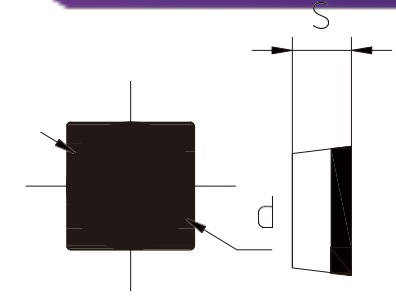
Model	Size		Material			
	d	S	GT96S	GT90	GT70	GT50
TCNGN090304VE10-4	9.525	3.18	●	●	●	●
TCNGN090304WE10-4			●	●	●	●
TCNGN090304XE10-4			●	●	●	●
TCNGN090308VE10-4	9.525	3.18	●	●	●	●
TCNGN090308WE10-4			●	●	●	●
TCNGN090308XE10-4			●	●	●	●
TCNGN090312VE10-4	9.525	3.18	●	●	●	●
TCNGN090312WE10-4			●	●	●	●
TCNGN090312XE10-4			●	●	●	●
TCNGN120408VE10-4	12.7	4.76	●	●	●	●
TCNGN120408WE10-4			●	●	●	●
TCNGN120408XE10-4			●	●	●	●
TCNGN120412VE10-4	12.7	4.76	●	●	●	●
TCNGN120412WE10-4			●	●	●	●
TCNGN120412XE10-4			●	●	●	●

CBN Tip Eight Blade



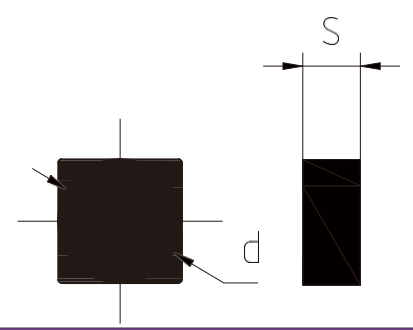
Model	Size			Material			
	d	S	d ₁	GT96S	GT90	GT70	GT50
SNGA120404VE10-8	12.7	4.76	5.16	●	●	●	●
SNGA120404WE10-8				●	●	●	●
SNGA120408VE10-8	12.7	4.76	5.16	●	●	●	●
SNGA120408WE10-8				●	●	●	●
SNGA120412VE10-8	12.7	4.76	5.16	●	●	●	●
SNGA120412WE10-8				●	●	●	●

CBN Full Top



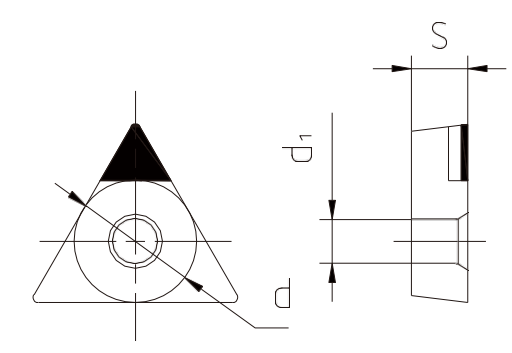
Model	Size		Material			
	d	S	GT96S	GT90	GT70	GT50
ZSPGN090308VE05-4	9.525	3.18	●	●	●	●
ZSPGN090308WE05-4			●	●	●	●
ZSPGN090312VE05-4	9.525	3.18	●	●	●	●
ZSPGN090312WE05-4			●	●	●	●

CBN Solid Insert



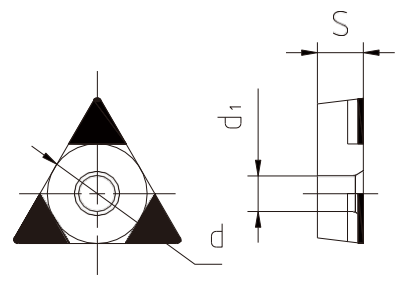
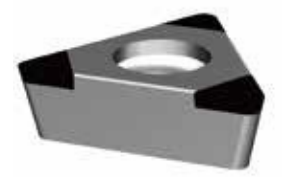
Model	Size		Material			
	d	S	GT96S	GT90	GT70	GT50
TSNGN090308WE15-8	9.525	3.18	●	●	●	●
TSNGN090308WF15-8			●	●	●	●
TSNGN090308XE15-8			●	●	●	●
TSNGN090308XF15-8			●	●	●	●
TSNGN090312WE15-8	9.525	3.18	●	●	●	●
TSNGN090312WF15-8			●	●	●	●
TSNGN090312XE15-8			●	●	●	●
TSNGN090312XF15-8			●	●	●	●
TSNGN120408WE15-8	12.7	4.76	●	●	●	●
TSNGN120408WF15-8			●	●	●	●
TSNGN120408XE15-8			●	●	●	●
TSNGN120408XF15-8			●	●	●	●
TSNGN120412WE15-8	12.7	4.76	●	●	●	●
TSNGN120412WF15-8			●	●	●	●
TSNGN120412XE15-8			●	●	●	●
TSNGN120412XF15-8			●	●	●	●

CBN Tip Single Edge



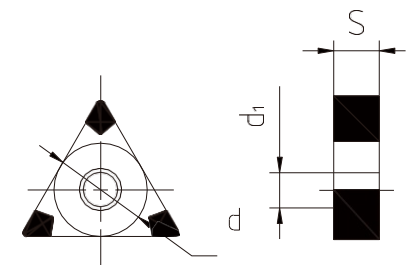
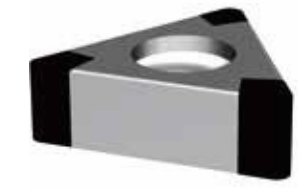
Model	Size			Material			
	d	S	d ₁	GT96S	GT90	GT70	GT50
TCGW090204VD05-1	5.56	2.38	2.5	●	●	●	●
TCGW090204WD05-1				●	●	●	●
TCGW090208VD05-1	5.56	2.38	2.5	●	●	●	●
TCGW090208WD05-1				●	●	●	●
TCGW110204VD05-1	6.35	2.38	2.8	●	●	●	●
TCGW110204WD05-1				●	●	●	●
TCGW110208VD05-1	6.35	2.38	2.8	●	●	●	●
TCGW110208WD05-1				●	●	●	●

CBN Tip Three Edge



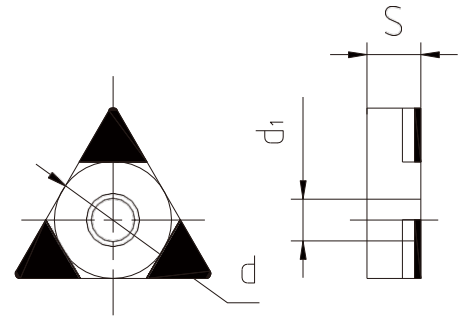
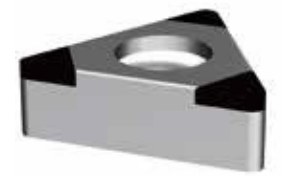
Model	Size			Material			
	d	S	d ₁	GT96S	GT90	GT70	GT50
TCGW090204VD05-3	5.56	2.38	2.5				
TCGW090204WD05-3				●	●	●	●
TCGW090208VD05-3	5.56	2.38	2.5	●	●	●	●
TCGW090208WD05-3				●	●	●	●
TCGW110204VD05-3	6.35	2.38	2.8	●	●	●	●
TCGW110204WD05-3				●	●	●	●
TCGW110208VD05-3	6.35	2.38	2.8	●	●	●	●
TCGW110208WD05-3				●	●	●	●

CBN Tip Six Edge



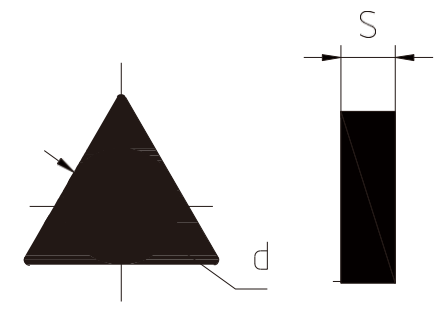
Model	Size			Material			
	d	S	d ₁	GT96S	GT90	GT70	GT50
TNGA160404WE10-6	9.525	4.76	3.81	●	●	●	●
TNGA160404XE10-6				●	●	●	●
TNGA160408WE10-6	9.525	4.76	3.81	●	●	●	●
TNGA160408XE10-6				●	●	●	●
TNGA160412WE10-6	9.525	4.76	3.81	●	●	●	●
TNGA160412XE10-6				●	●	●	●

CBN Tip Three Edge



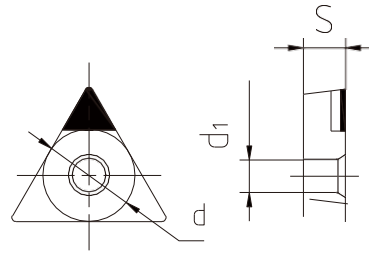
Model	Size			Material			
	d	S	d ₁	GT96S	GT90	GT70	GT50
TNGA160404WE10-3	9.525	4.76	3.81	●	●	●	●
TNGA160404XE10-3				●	●	●	●
TNGA160408WE10-3	9.525	4.76	3.81	●	●	●	●
TNGA160408XE10-3				●	●	●	●
TNGA160412WE10-3	9.525	4.76	3.81	●	●	●	●
TNGA160412XE10-3				●	●	●	●

CBN Full Top



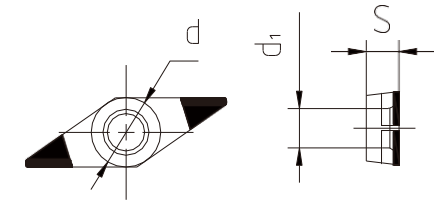
Model	Size		Material			
	d	S	GT96S	GT90	GT70	GT50
TTNGN110304WF10-6	6.35	3.18	●	●	●	●
TTNGN110304XE10-6			●	●	●	●
TTNGN110304XF10-6			●	●	●	●
TTNGN110308WF10-6	6.35	3.18	●	●	●	●
TTNGN110308XE10-6			●	●	●	●
TTNGN110308XF10-6			●	●	●	●
TTNGN110312WF10-6	6.35	3.18	●	●	●	●
TTNGN110312XE10-6			●	●	●	●
TTNGN110312XF10-6			●	●	●	●

CBN Tip Single Edge



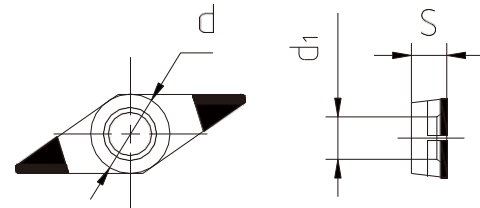
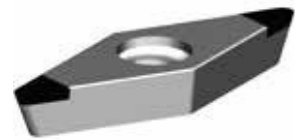
Model	Size			Material			
	d	S	d ₁	GT96S	GT90	GT70	GT50
TPGW090204VD05-1	5.56	2.38	2.5	●	●	●	●
TPGW090204WD05-1				●	●	●	●
TPGW090208VD05-1	5.56	2.38	2.5	●	●	●	●
TPGW090208WD05-1				●	●	●	●
TPGW110204VD05-1	6.35	2.38	2.8	●	●	●	●
TPGW110204WD05-1				●	●	●	●
TPGW110208VD05-1	6.35	2.38	2.8	●	●	●	●
TPGW110208WD05-1				●	●	●	●

CBN Tip Double Edge



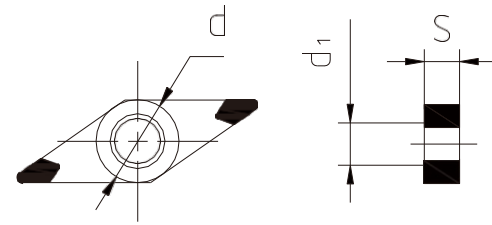
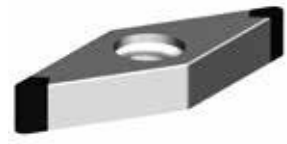
Model	Size			Material			
	d	S	d ₁	GT96S	GT90	GT70	GT50
VCGW110302VD05-2	6.35	3.18	2.8	●	●	●	●
VCGW110302WD05-2				●	●	●	●
VCGW110304VD05-2	6.35	3.18	2.8	●	●	●	●
VCGW110304WD05-2				●	●	●	●
VCGW160404VD05-2	9.525	4.76	4.4	●	●	●	●
VCGW160404WD05-2				●	●	●	●
VCGW160408VD05-2	9.525	4.76	4.4	●	●	●	●
VCGW160408WD05-2				●	●	●	●
VCGW160412VD05-2	9.525	4.76	4.4	●	●	●	●
VCGW160412WD05-2				●	●	●	●

CBN Tip Double Edge



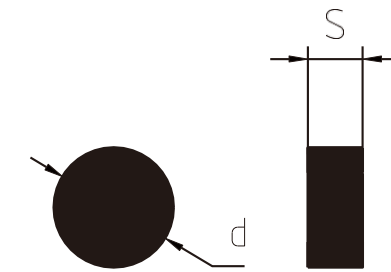
Model	Size			Material			
	d	S	d ₁	GT96S	GT90	GT70	GT50
VBGW160404WE10-2	9.525	4.76	4.4	●	●	●	●
VBGW160404WF10-2				●	●	●	●
VBGW160408WE10-2	9.525	4.76	4.4	●	●	●	●
VBGW160408WF10-2				●	●	●	●
VBGW160412WE10-2	9.525	4.76	4.4	●	●	●	●
VBGW160412WF10-2				●	●	●	●

CBN Tip and Four Edge



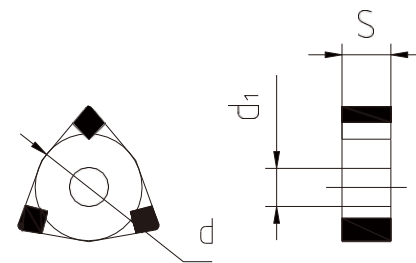
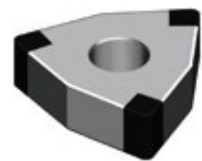
Model	Size			Material			
	d	S	d ₁	GT96S	GT90	GT70	GT50
VNGA160404XD05-4	9.525	4.76	3.81	●	●	●	●
VNGA160404XF05-4				●	●	●	●
VNGA160408XD05-4	9.525	4.76	3.81	●	●	●	●
VNGA160408XF05-4				●	●	●	●
VNGA160412XD05-4	9.525	4.76	3.81	●	●	●	●
VNGA160412XF05-4				●	●	●	●

CBN Full Top



Model	Size		Material			
	d	S	GT96S	GT90	GT70	GT50
TRNGN060300WE10-1	6.35	3.18	●	●	●	●
TRNGN060300WE15-1			●	●	●	●
TRNGN060300XE10-1			●	●	●	●
TRNGN060300XE15-1	9.525	3.18	●	●	●	●
TRNGN090300WE10-1			●	●	●	●
TRNGN090300WE15-1			●	●	●	●
TRNGN090300XE10-1			●	●	●	●
TRNGN090300XE15-1	12.7	4.76	●	●	●	●
TRNGN120400WE10-1			●	●	●	●
TRNGN120400WE15-1			●	●	●	●
TRNGN120400XE10-1			●	●	●	●
TRNGN120400XE15-1			●	●	●	●

CBN Tip Six Edge



Model	Size			Material			
	d	S	d ₁	GT96S	GT90	GT70	GT50
WNGA080404VD05-6	12.7	4.76	5.16	●	●	●	●
WNGA080404VE05-6				●	●	●	●
WNGA080408VD05-6	12.7	4.76	5.16	●	●	●	●
WNGA080408VE05-6				●	●	●	●
WNGA080412VD05-6	12.7	4.76	5.16	●	●	●	●
WNGA080412VE05-6				●	●	●	●