



PCBN

Polycrystalline Cubic Boron Nitride

HIGH QUALITY

For Hardened Steel (HRC45~65°) Machining !

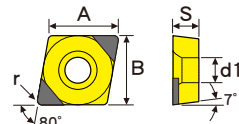
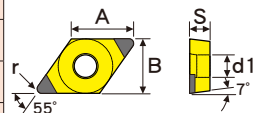
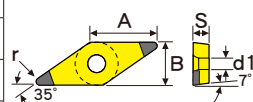
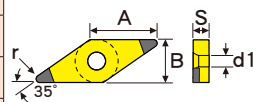
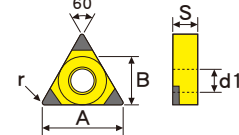
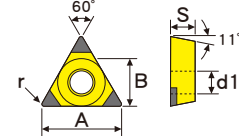
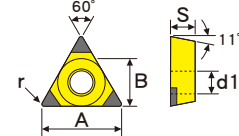
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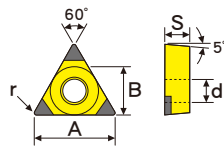
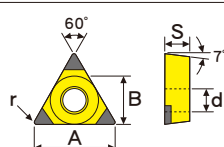
- © For hardened steel (HRC45~65°) machining.
- © We used high quality PCBN material for wear resistance and heat resistance.
- © Special design makes stable and high efficiency.
- © 100% made in Taiwan with full size and stable quality.



High Hardness, Wear Resistance, Heat Resistance

PCBN Turning Insert Size

加工材質	P	Alloy Steels	—	—							● First / ○ Second : Continuous Cutting					
	M	Stainless Steels	—	—							● First / ○ Second : General Cutting					
	K	Cast Iron	—	—							✱ First / ✱ Second : Interrupted Cutting					
	N	Aluminum Alloys	—	—							— NO Recommend					
	S	High Temp Alloys	—	—							F : Finishing					
	H	Hardened Steels	●	●							S : Semi Finishing					
											M : Medium					
											R : Roughing					
Insert				Order No.		Grade				Dimension (mm)					Drawing	
						BC9020	BC9030					A	B	S		r
				CCGW060202		●					6.35	6.35	2.38	0.2	2.8	
				CCGW060204		●					6.35	6.35	2.38	0.4	2.8	
				CCGW09T302		●					9.52	9.52	3.97	0.2	4.4	
				CCGW09T304		●					9.52	9.52	3.97	0.4	4.4	
				CCGW09T308		●					9.52	9.52	3.97	0.8	4.4	
				CCGW120402		●					12.7	12.7	4.76	0.2	5.5	
				CCGW120404		●					12.7	12.7	4.76	0.4	5.5	
F	S	M	R	CCGW120408		●					12.7	12.7	4.76	0.8	5.5	
				DCGW070202		●					7.94	6.35	2.38	0.2	2.8	
				DCGW070204		●					7.94	6.35	2.38	0.4	2.8	
				DCGW11T302		●					11.6	9.52	3.97	0.2	4.4	
F	S	M	R	DCGW11T304		●					11.6	9.52	3.97	0.4	4.4	
				VCGW110302		●					11.1	6.35	3.18	0.2	2.8	
				VCGW110304		●					11.1	6.35	3.18	0.4	2.8	
				VCGW160402		●					16.5	9.52	4.76	0.2	4.4	
F	S	M	R	VCGW160404		●					16.5	9.52	4.76	0.4	4.4	
				VNGA160402		●					16.5	9.52	4.76	0.2	3.81	
				VNGA160404		●					16.5	9.52	4.76	0.4	3.81	
				VNGA160408		●					16.5	9.52	4.76	0.8	3.81	
F	S	M	R													
				TNGA160402			●				16.5	9.52	4.76	0.2	3.81	
				TNGA160404			●				16.5	9.52	4.76	0.4	3.81	
				TNGA160408			●				16.5	9.52	4.76	0.8	3.81	
F	S	M	R													
				TPGW080202			●				8.2	4.76	2.38	0.2	2.4	
				TPGW080204			●				8.2	4.76	2.38	0.4	2.4	
				TPGW080208			●				8.2	4.76	2.38	0.8	2.4	
F	S	M	R													
				TPGW110302			●				11.0	6.35	3.18	0.2	3.4	
				TPGW110304			●				11.0	6.35	3.18	0.4	3.4	
				TPGW110308			●				11.0	6.35	3.18	0.8	3.4	
F	S	M	R													

加工材質	P	Alloy Steels		—				● First / ○ Second : Continuous Cutting					
	M	Stainless Steels		—				● First / ⊙ Second : General Cutting					
	K	Cast Iron		—				⊛ First / ⊛ Second : Interrupted Cutting					
	N	Aluminum Alloys		—				— NO Recommend					
	S	High Temp Alloys		—				F : Finishing					
	H	Hardened Steels		●				S : Semi Finishing					
								M : Medium					
								R : Roughing					
Insert	Order No.	Grade					Dimension (mm)					Drawing	
		BC9020	BC9030					A	B	S	r		d1
		TBGW060104		●				6.9	3.97	1.59	0.4	2.2	
F	S	M	R										
		TCGW110204		●				11.0	6.35	2.38	0.4	2.8	
F	S	M	R										

PCBN Turning Insert Grades

Grade Type	Cutting Edges	CBN %	Coolant	Type of Operation
BC9020	2	90%	Dry	← Continuous — General — Interrupted →
BC9030	3		Wet	

PCBN Turning Condition Table

Material	Powder Metallurgy	Hardened Steels
Material Code	—	SKT,SKD
Hardness	HB≥200	HRC45 ~ 65
Vc	80 ~ 120m/min	100 ~ 150m/min
f (mm/rev)	0.05 ~ 0.30	0.05 ~ 0.30
Ap (mm) Roughing	0.25 ~ 0.30	0.25 ~ 0.30
Ap (mm) Finishing	0.05 ~ 0.20	0.05 ~ 0.20

※ Cutting formula : $S = V_c \times 1000 / D / \pi (3.14)$ $F = f \times S$

※ For powder metallurgy, we recommend choosing the CPBN which contains CBN more than 50%.



MADE IN TAIWAN

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PCBN TURNING INSERTS