

Cubic Boron Nitride (PCBN) Inserts

General Info	Insert Hole		Dimensions (Inches)														
	—	No Breaker	Full Tip		Multi Mid-Tip		Multi Mini-Tip		Coated Mini-Tip		Mini-Tip		Inscribed Circle	Thickness	Nose Radius	Max. Depth of Cut	Insert Hole Diameter
			BN100	BNX20	BN250	BN300	BN500	BN600	BNX20	BN250	BN300	BN600					
Sumitomo Cat. No.	New ISO Cat. No.																
CNMA431	CNMA120404	•	•	•	•	•	•						1/2	3/16	1/64	.020	.2031
CNMA432	CNMA120408	•	•	•	•	•	•						1/2	3/16	1/32	.020	.2031
CNMA433	CNMA120412	•	•	•	•	•	•						1/2	3/16	3/64	.020	.2031
2MD-CNMA431	2MD-CNMA120404							•	•	•	•		1/2	3/16	1/64	.020	.2031
2MD-CNMA432	2MD-CNMA120408							•	•	•	•		1/2	3/16	1/32	.020	.2031
2MD-CNMA433	2MD-CNMA120412							•	•	•	•		1/2	3/16	3/64	.020	.2031
NS-CNMA431	NS-CNMA120404											•	1/2	3/16	1/64	.015	.2031
NS-CNMA432	NS-CNMA120408											•	1/2	3/16	1/32	.015	.2031
NS-CNMA433	NS-CNMA120412											•	1/2	3/16	3/64	.015	.2031
NU-CNMA431	NU-CNMA120404											•	1/2	3/16	1/64	.015	.2031
NU-CNMA432	NU-CNMA120408											•	1/2	3/16	1/32	.015	.2031
NU-CNMA433	NU-CNMA120412											•	1/2	3/16	3/64	.015	.2031
NU-CNMA432F	NS-CNMA120408F											•	1/2	3/16	1/32	.015	.2031

Note: Maximum depth of cut is based on hardened steel applications. Other materials may allow for increased maximum depths of cut.
 W = Wiper insert
 F = No edge preparation

Ceramic Inserts	Insert Hole		Dimensions (Inches)														
	—	No Breaker	Solid CBN		Multi Mid-Tip		Multi Mini-Tip		Coated Mini-Tip		Mini-Tip		Inscribed Circle	Thickness	Nose Radius	Max. Depth of Cut	Insert Hole Diameter
			BNS800		BNX10	BNX20	BN250	BN300	BN600	BN700	BNC80	BNC150					
Sumitomo Cat. No.	New ISO Cat. No.																
CNGA432	CNGA120408	•											1/2	3/16	1/32	.150	.2031
CNGA433	CNGA120412	•											1/2	3/16	3/64	.150	.2031
2NU-CNGA431	2NU-CNGA120404					•	•	•	•				1/2	3/16	1/64	.015	.2031
2NU-CNGA431F	2NU-CNGA120404F					•	•	•	•				1/2	3/16	1/64	.015	.2031
2NU-CNGA431T	2NU-CNGA120404T					•	•	•	•				1/2	3/16	1/64	.015	.2031
2NU-CNGA432	2NU-CNGA120408					•	•	•	•				1/2	3/16	1/32	.015	.2031
2NU-CNGA432F	2NU-CNGA120408F					•	•	•	•				1/2	3/16	1/32	.015	.2031
2NU-CNGA432T	2NU-CNGA120408T					•	•	•	•				1/2	3/16	1/32	.015	.2031
2NU-CNGA432W	2NU-CNGA120408W					•	•	•	•				1/2	3/16	1/32	.015	.2031
2NU-CNGA433	2NU-CNGA120412					•	•	•	•				1/2	3/16	3/64	.015	.2031
2NU-CNGA433T	2NU-CNGA120412T					•	•	•	•				1/2	3/16	3/64	.015	.2031
2NC-CNGA432	2NC-CNGA120408									•			1/2	3/16	1/32	.015	.2031
2NC-CNGA433	2NC-CNGA120412									•			1/2	3/16	3/64	.015	.2031
4NC-CNGA431	4NC-CNGA120404									•			1/2	3/16	1/64	.015	.2031
4NC-CNGA432	4NC-CNGA120408									•			1/2	3/16	1/32	.015	.2031
4NC-CNGA433	4NC-CNGA120412									•			1/2	3/16	3/64	.015	.2031
4NC-CNGA431W	4NC-CNGA120404W									•			1/2	3/16	1/64	.015	.2031
4NC-CNGA432W	4NC-CNGA120408W									•			1/2	3/16	1/32	.015	.2031

Note: Maximum depth of cut is based on hardened steel applications. Other materials may allow for increased maximum depths of cut.
 W = Wiper insert
 F = No edge preparation
 T = .004"-.006" X -25° with hone



Wiper inserts allow you to double the feed rate and maintain the same surface finish quality.

Cubic Boron Nitride (PCBN) Inserts

General Info	Insert Hole		Dimensions (Inches)														
	—	No Breaker	Solid CBN		Multi Mid-Tip		Multi Mini-Tip		Coated Mini-Tip		Mini-Tip		Inscribed Circle	Thickness	Nose Radius	Max. Depth of Cut	Insert Hole Diameter
			BNS800		BNX20	BN300	BNX20	BN300	BNX20	BN300	BNX20	BN300					
Sumitomo Cat. No.	New ISO Cat. No.																
CNGX433	CNGX120412	•											1/2	3/16	3/64	.150	—
CNGX434	CNGX120416	•											1/2	3/16	1/16	.150	—

Positive Inserts	Insert Hole		Dimensions (Inches)														
	—	No Breaker	Solid CBN		Multi Mid-Tip		Multi Mini-Tip		Coated Mini-Tip		Mini-Tip		Inscribed Circle	Thickness	Nose Radius	Max. Depth of Cut	Insert Hole Diameter
			BNS800		BNX20	BN300	BNX20	BN300	BNX20	BN300							
Sumitomo Cat. No.	New ISO Cat. No.																
CNG322	CNGN090308	•											3/8	1/8	1/32	.150	—
CNG322F	CNGN090308F	•											3/8	1/8	1/32	.150	—
CNG323	CNGN090312	•											3/8	1/8	3/64	.150	—
CNG323F	CNGN090312F	•											3/8	1/8	3/64	.150	—
CNG432	CNGN120408	•											1/2	3/16	1/32	.150	—
CNG433	CNGN120412	•											1/2	3/16	3/64	.150	—
CNG434	CNGN120416	•											1/2	3/16	1/16	.150	—

F = No edge preparation

Ceramic Inserts	Insert Hole		Dimensions (Inches)																										
	—	No Breaker	Full Tip		Multi Mid-Tip		Multi Mini-Tip		Coated Mini-Tip		Mini-Tip		Inscribed Circle	Thickness	Nose Radius	Max. Depth of Cut	Insert Hole Diameter												
			BN100	BNX20	BN250	BN300	BN500	BN600	BNX20	BN250	BN300	BNX20						BN250	BN300	BNX20	BN250	BN300	BNX20	BN250	BN300	BNX20	BN250	BN300	BNX20
Sumitomo Cat. No.	New ISO Cat. No.																												
DNMA431	DNMA150404	•	•	•	•	•	•						1/2	3/16	1/64	.020	.2031												
DNMA432	DNMA150408	•	•	•	•	•	•						1/2	3/16	1/32	.020	.2031												
DNMA433	DNMA150412	•	•	•	•	•	•						1/2	3/16	3/64	.020	.2031												
2MD-DNMA431	2MD-DNMA150404							•	•				1/2	3/16	1/64	.020	.2031												
2MD-DNMA432	2MD-DNMA150408							•	•				1/2	3/16	1/32	.020	.2031												
2MD-DNMA433	2MD-DNMA150412							•	•				1/2	3/16	3/64	.020	.2031												
NS-DNMA431	NS-DNMA150404											•	1/2	3/16	1/64	.015	.2031												
NS-DNMA432	NS-DNMA150408											•	1/2	3/16	1/32	.015	.2031												
NS-DNMA433	NS-DNMA150412											•	1/2	3/16	3/64	.015	.2031												
NU-DNMA431	NU-DNMA150404											•	1/2	3/16	1/64	.015	.2031												
NU-DNMA432	NU-DNMA150408											•	1/2	3/16	1/32	.015	.2031												
NU-DNMA433	NU-DNMA150412											•	1/2	3/16	3/64	.015	.2031												
NU-DNMA432F	NU-DNMA150408F											•	1/2	3/16	1/32	.015	.2031												

Note: Maximum depth of cut is based on hardened steel applications. Other materials may allow for increased maximum depths of cut.
 F = No edge preparation

- = USA stocked item
- ★ = Worldwide Warehouse item
- ▲ = USA limited availability item



Wiper style CBN should not be applied to concave or convex surfaces. For best results, use a 5° lead toolholder or boring bar.

Cubic Boron Nitride (PCBN) Inserts

General Info	DNGA		Insert Hole						Dimensions (Inches)			
	—	No Breaker	Full Tip	Multi Mid-Tip	Multi Mini-Tip	Coated Mini-Tip	Mini-Tip	Inscribed Circle	Thickness	Nose Radius	Max. Depth of Cut	Insert Hole Diameter
Negative Inserts	2NU-DNGA431	2NU-DNGA150404						1/2	3/16	1/64	.015	.2031
	2NU-DNGA431F	2NU-DNGA150404F								1/64	.015	
	2NU-DNGA431T	2NU-DNGA150404T								1/64	.015	
Positive Inserts	2NU-DNGA432	2NU-DNGA150408								1/32	.015	
	2NU-DNGA432F	2NU-DNGA150408F								1/32	.015	
	2NU-DNGA432T	2NU-DNGA150408T								1/32	.015	
	2NU-DNGA433	2NU-DNGA150412								3/64	.015	
	2NU-DNGA433T	2NU-DNGA150412T								3/64	.015	
Ace-Fix Inserts	2NC-DNGA432	2NC-DNGA150408								1/32	.015	
	2NC-DNGA433	2NC-DNGA150412								3/64	.015	
	4NC-DNGA431	4NC-DNGA150404								1/64	.015	.2031
	4NC-DNGA432	4NC-DNGA150408								1/32	.015	
	4NC-DNGA433	4NC-DNGA150412								3/64	.015	

Note: Maximum depth of cut is based on hardened steel applications. Other materials may allow for increased maximum depths of cut.
 F = No edge preparation
 T = .004"-.006" X -25° with hone

Ceramic Inserts	DNG		Insert Hole						Dimensions (Inches)			
	—	No Breaker	Solid CBN	Multi Mid-Tip	Multi Mini-Tip	Coated Mini-Tip	Mini-Tip	Inscribed Circle	Thickness	Nose Radius	Max. Depth of Cut	Insert Hole Diameter
PCBN & PCD Inserts	DNG322	DNGN110308	*					3/8	1/8	1/32	.150	-
	DNG322F	DNGN110308F	*							1/32	.150	
	DNG323	DNGN110312	*							3/64	.150	
	DNG323F	DNGN110312F	*							3/64	.150	

F = No edge preparation

Swiss Toolholders	RNG		Insert Hole						Dimensions (Inches)			
	RNG	RNGA	Solid CBN	Full Top	Multi Mini-Tip	Coated Mini-Tip	Mini-Tip	Inscribed Circle	Thickness	Nose Radius	Max. Depth of Cut	Insert Hole Diameter
Boring Bars	RNG32	RNGN090300	*					3/8	1/8	-	.150	-
	RNG32F	RNGN090300F	*					3/8	1/8	-	.150	-
	RNG42	RNGN120300	*					1/2	1/8	-	.150	-
	RNG42F	RNGN120300F	*					1/2	1/8	-	.150	-
	RNG43	RNGN120400	*					1/2	3/16	-	.150	-
Technical Info	RNG32B	RNGN090300B						3/8	1/8	-	.020	-
	RNG43B	RNGN120400B						1/2	3/16	-	.020	-
	RNGA094	RNGA094						.354	1/4	-	.020	-

Note: Holders available for RNG/RNGA inserts. Contact the Engineering Department.
 F = No edge preparation
 B = Full top

Cubic Boron Nitride (PCBN) Inserts

General Info	SNMA		Insert Hole						Dimensions (Inches)						
	—	No Breaker	Full Tip	Multi Mid-Tip	Multi Mini-Tip	Coated Mini-Tip	Mini-Tip	Inscribed Circle	Thickness	Nose Radius	Max. Depth of Cut	Insert Hole Diameter			
													Sumitomo Cat. No.	New ISO Cat. No.	BN100
Negative Inserts	SNMA432	SNMA120408	*	*	*	*	*	1/2	3/16	1/32	.020	.2031			
	SNMA433	SNMA120412	*	*	*	*	*			3/64	.020				
Positive Inserts	2MD-SNMA431	2MD-SNMA120404								1/64	.020				
	2MD-SNMA432	2MD-SNMA120408								1/32	.020	.2031			
	2MD-SNMA433	2MD-SNMA120412								3/64	.020				
Ace-Fix Inserts	NS-SNMA431	NS-SNMA120404								1/64	.015				
	NS-SNMA432	NS-SNMA120408								1/32	.015				
	NS-SNMA433	NS-SNMA120412								3/64	.015	.2031			
	NU-SNMA431	NU-SNMA120404								1/64	.015				
	NU-SNMA432	NU-SNMA120408								1/32	.015				
	NU-SNMA433	NU-SNMA120412								3/64	.015				

Note: Maximum depth of cut is based on hardened steel applications. Other materials may allow for increased maximum depths of cut.

Ceramic Inserts	SNGA		Insert Hole						Dimensions (Inches)			
	—	No Breaker	Solid CBN	Multi Mid-Tip	Multi Mini-Tip	Coated Mini-Tip	Mini-Tip	Inscribed Circle	Thickness	Nose Radius	Max. Depth of Cut	Insert Hole Diameter
PCBN & PCD Inserts	SNGA432	SNGA120408	*					1/2	3/16	1/32	.150	-
	SNGA433	SNGA120412	*							3/64	.150	
	2NU-SNGA431	2NU-SNGA120404								1/64	.015	
	2NU-SNGA432	2NU-SNGA120408								1/32	.015	.2031
	2NU-SNGA432T	2NU-SNGA120408T								1/32	.015	
	2NU-SNGA433	2NU-SNGA120412								3/64	.015	
	2NU-SNGA433T	2NU-SNGA120412T								3/64	.015	
	2NC-SNGA432	2NC-SNGA120408								1/32	.015	.2031
	2NC-SNGA433	2NC-SNGA120412								3/64	.015	

T = .004"-.006" X -25° with hone

Swiss Toolholders	SNGX		Insert Hole						Dimensions (Inches)			
	—	No Breaker	Solid CBN	Multi Mid-Tip	Multi Mini-Tip	Coated Mini-Tip	Mini-Tip	Inscribed Circle	Thickness	Nose Radius	Max. Depth of Cut	Insert Hole Diameter
Boring Bars	SNGX433	SNGX120412	*					1/2	3/16	3/64	.150	-
	SNGX434	SNGX120416	*							1/16	.150	

● = USA stocked item
 ★ = Worldwide Warehouse item
 ▲ = USA limited availability item

Cubic Boron Nitride (PCBN) Inserts

General Info	SNG		Insert Hole						Dimensions (Inches)							
	Sumitomo Cat. No.	New ISO Cat. No.	BNS800	Solid CBN	Multi Mid-Tip	Multi Mini-Tip	Coated Mini-Tip	Full Tip	BNS20	BNS500	BNS600	Inscribed Circle	Thickness	Nose Radius	Max. Depth of Cut	Insert Hole Diameter
Negative Inserts	SNG322	SNGN090308	•									3/8	1/8	1/32	.150	
Positive Inserts	SNG322F	SNGN090308F	★									3/8	1/8	1/32	.150	
	SNG323	SNGN090312	•									3/8	1/8	3/64	.150	
	SNG323F	SNGN090312F	★									3/8	1/8	3/64	.150	
	SNG422	SNGN120308	•									1/2	3/16	1/32	.150	
	SNG422F	SNGN120308F	★									1/2	3/16	1/32	.150	
	SNG423	SNGN120312	•									1/2	3/16	3/64	.150	
	SNG423F	SNGN120312F	★									1/2	3/16	3/64	.150	
	SNG424	SNGN120316	•									1/2	3/16	1/16	.150	
	SNG432	SNGN120408	•									1/2	3/16	1/32	.150	
	SNG433	SNGN120412	•									1/2	3/16	3/64	.150	
	SNG434	SNGN120416	•									1/2	3/16	1/16	.150	
	SNG432	SNGN120408							★	★		1/2	3/16	1/32	.020	
	SNG432B	SNGN120408-B								★		1/2	3/16	1/32	.020	

F = No edge preparation
B = Full top

General Info	TNMA		Insert Hole						Dimensions (Inches)													
	Sumitomo Cat. No.	New ISO Cat. No.	BN100	BNX20	BN250	BN300	BN500	BN600	BN250	BN300	BNX10	BNX20	BNX25	BN250	BN300	BN500	BN600	Inscribed Circle	Thickness	Nose Radius	Max. Depth of Cut	Insert Hole Diameter
Ceramic Inserts	TNMA330.5	TNMA160402	•	★														3/8	3/16	1/128	.020	
	TNMA331	TNMA160404	•	•	•	•	•	•										3/8	3/16	1/64	.020	.150
	TNMA332	TNMA160408	•	•	•	•	•	•										3/8	3/16	1/32	.020	.150
	TNMA333	TNMA160412	•	•	•	•	•	•										3/8	3/16	3/64	.020	.150
	TNMA431	TNMA220404	•	•														1/2	3/16	1/64	.020	.2031
	TNMA432	TNMA220408	•	•	•	•	•	•										1/2	3/16	1/32	.020	.2031
	TNMA433	TNMA220412	•	•	•	•	•	•										1/2	3/16	3/64	.020	.2031
Toolholders	3MD-TNMA331	3MD-TNMA160404							•	•								3/8	3/16	1/64	.020	.150
	3MD-TNMA332	3MD-TNMA160408							•	•								3/8	3/16	1/32	.020	.150
	3MD-TNMA333	3MD-TNMA160412							•	•								3/8	3/16	3/64	.020	.150
Swiss Toolholders	NS-TNMA331	NS-TNMA160404																3/8	3/16	1/64	.015	.150
	NS-TNMA332	NS-TNMA160408																3/8	3/16	1/32	.015	.150
	NS-TNMA333	NS-TNMA160412																3/8	3/16	3/64	.015	.150
	NU-TNMA331	NU-TNMA160404									•	•	•	•	•	•	•	3/8	3/16	1/64	.015	.150
	NU-TNMA331F	NU-TNMA160404F									•	•	•	•	•	•	•	3/8	3/16	1/64	.015	.150
	NU-TNMA332	NU-TNMA160408									•	•	•	•	•	•	•	3/8	3/16	1/32	.015	.150
	NU-TNMA332F	NU-TNMA160408F									•	•	•	•	•	•	•	3/8	3/16	1/32	.015	.150
	NU-TNMA333	NU-TNMA160412									•	•	•	•	•	•	•	3/8	3/16	3/64	.015	.150
	NU-TNMA431	NU-TNMA220404									•	•	•	•	•	•	•	1/2	3/16	1/64	.015	.2031
	NU-TNMA432	NU-TNMA220408									•	•	•	•	•	•	•	1/2	3/16	1/32	.015	.2031
	NU-TNMA433	NU-TNMA220412									•	•	•	•	•	•	•	1/2	3/16	3/64	.015	.2031

Note: Maximum depth of cut is based on hardened steel applications. Other materials may allow for increased maximum depths of cut.
F = No edge preparation

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▲ = USA limited availability item

Cubic Boron Nitride (PCBN) Inserts

General Info	TNGA		Insert Hole						Dimensions (Inches)								
	Sumitomo Cat. No.	New ISO Cat. No.	BNS800	Solid CBN	Multi Mid-Tip	Multi Mini-Tip	Coated Mini-Tip	Full Tip	BNS20	BNS25	BNS500	BNS600	Inscribed Circle	Thickness	Nose Radius	Max. Depth of Cut	Insert Hole Diameter
Negative Inserts	TNGA332	TNGA160408	★										3/8	3/16	1/32	.150	.150
	TNGA333	TNGA160412	★										3/8	3/16	3/64	.150	.150
Positive Inserts	3NS-TNGA331	3NS-TNGA160404							★				3/8	3/16	1/64	.015	.150
	3NS-TNGA332	3NS-TNGA160408							★				3/8	3/16	1/32	.015	.150
	3NU-TNGA331	3NU-TNGA160404							★	•	•		3/8	3/16	1/64	.015	.150
	3NU-TNGA331F	3NU-TNGA160404F							★	•	•		3/8	3/16	1/64	.015	.150
	3NU-TNGA331T	3NU-TNGA160404T							★	•	•		3/8	3/16	1/64	.015	.150
	3NU-TNGA332	3NU-TNGA160408							★	•	•		3/8	3/16	1/32	.015	.150
	3NU-TNGA332F	3NU-TNGA160408F							★	•	•		3/8	3/16	1/32	.015	.150
	3NU-TNGA332T	3NU-TNGA160408T							★	•	•		3/8	3/16	1/32	.015	.150
	3NU-TNGA333	3NU-TNGA160412							★	•	•		3/8	3/16	3/64	.015	.150
	6NC-TNGA331	6NC-TNGA160404								•	•	•	3/8	3/16	1/64	.015	.150
	6NC-TNGA332	6NC-TNGA160408								•	•	•	3/8	3/16	1/32	.015	.150
	6NC-TNGA333	6NC-TNGA160412								•	•	•	3/8	3/16	3/64	.015	.150

F = No edge preparation
T = .004"-.006" X -25° with hone

General Info	TNG		Insert Hole						Dimensions (Inches)					
	Sumitomo Cat. No.	New ISO Cat. No.	BNS800	Solid CBN	Full Tip	Multi Mini-Tip	Coated Mini-Tip	Mini-Tip	BNX20	Inscribed Circle	Thickness	Nose Radius	Max. Depth of Cut	Insert Hole Diameter
Ceramic Inserts	TNG222	TNGN110308	•						1/4	1/8	1/32	.150		
	TNG222F	TNGN110312	★						1/4	1/8	1/32	.150		
	TNG223	TNGN160408	•						1/4	1/8	3/64	.150		
	TNG223F	TNGN160412	★						1/4	1/8	3/64	.150		
	TNG332	TNGN160416	•						3/8	3/16	1/32	.150		
	TNG333	TNGN110308F	★						3/8	3/16	3/64	.150		
	TNG334	TNGN110312F	★						3/8	3/16	1/16	.150		
Toolholders	TNG332	TNGN160416							3/8	3/16	1/32	.020		

F = No edge preparation

Swiss Toolholders

Boring Bars

Technical Info

Cubic Boron Nitride (PCBN) Inserts

General Info	VNMA		Insert Hole										Dimensions (Inches)				
	Sumitomo Cat. No.	New ISO Cat. No.	Full Tip		Multi Mid-Tip		Multi Mini-Tip		Coated Mini-Tip		Mini-Tip		Inscribed Circle	Thickness	Nose Radius	Max. Depth of Cut	Insert Hole Diameter
			BN100	BN20	BN250	BN300	BN500	BN600	BNX20	BN250	BN300	BNX20					
	VNMA331	VNMA160404	•	•	•	•	•						3/8	3/16	1/64	.020	.150
	VNMA332	VNMA160408	•	•	•	•	•						3/8	3/16	1/32	.020	.150
	VNMA333	VNMA160412	•										3/8	3/16	3/64	.020	.150
	2MD-VNMA331	2MD-VNMA160404						•	•				3/8	3/16	1/64	.020	.150
	2MD-VNMA332	2MD-VNMA160408						•	•				3/8	3/16	1/32	.020	.150
	2MD-VNMA333	2MD-VNMA160412						•	•				3/8	3/16	3/64	.020	.150
	NS-VNMA331	NS-VNMA160404									•		3/8	3/16	1/64	.015	.150
	NS-VNMA332	NS-VNMA160408									•		3/8	3/16	1/32	.015	.150
	NU-VNMA331	NU-VNMA160404									•	•	•	•	•	•	
	NU-VNMA332	NU-VNMA160408									•	•	•	•	•	•	
	NU-VNMA333	NU-VNMA160412									•	•	•	•	•	•	

Note: Maximum depth of cut is based on hardened steel applications. Other materials may allow for increased maximum depths of cut.

Threading, Grooving, & Cut-Off Inserts	VNGA		Insert Hole										Dimensions (Inches)				
	Sumitomo Cat. No.	New ISO Cat. No.	Full Tip		Multi Mid-Tip		Multi Mini-Tip		Coated Mini-Tip		Mini-Tip		Inscribed Circle	Thickness	Nose Radius	Max. Depth of Cut	Insert Hole Diameter
			BNX20	BNX25	BN250	BN300	BN700	BNC80	BNC150	BNC200	BNC300	BNX20					
	2NS-VNGA331	2NS-VNGA160404											3/8	3/16	1/64	.015	.150
	2NS-VNGA332	2NS-VNGA160408											3/8	3/16	1/32	.015	.150
	2NU-VNGA331	2NU-VNGA160404											3/8	3/16	1/64	.015	.150
	2NU-VNGA332	2NU-VNGA160408											3/8	3/16	1/32	.015	.150
	2NU-VNGA332F	2NU-VNGA160408F											3/8	3/16	1/32	.015	.150
	2NU-VNGA332T	2NU-VNGA160408T											3/8	3/16	1/32	.015	.150
	2NC-VNGA332	2NC-VNGA160408											3/8	3/16	1/32	.015	.150
	4NC-VNGA331	4NC-VNGA160404											3/8	3/16	1/64	.015	.150
	4NC-VNGA332	4NC-VNGA160408											3/8	3/16	1/32	.015	.150
	4NC-VNGA333	4NC-VNGA160412											3/8	3/16	3/64	.015	.150

Note: Maximum depth of cut is based on hardened steel applications. Other materials may allow for increased maximum depths of cut.

F = No edge preparation

T = .004"-.006" X -25° with hone

Swiss Toolholders	WNMA		Insert Hole										Dimensions (Inches)				
	Sumitomo Cat. No.	New ISO Cat. No.	Full Tip		Multi Mid-Tip		Multi Mini-Tip		Coated Mini-Tip		Mini-Tip		Inscribed Circle	Thickness	Nose Radius	Max. Depth of Cut	Insert Hole Diameter
			BNX20								BN250	BN600					
	WNMA432	WNMA080408	•										1/2	3/16	1/32	.020	.2031
	NU-WNMA431	NU-WNMA080404											1/2	3/16	1/64	.015	.2031
	NU-WNMA432	NU-WNMA080408											1/2	3/16	1/32	.015	.2031
	NU-WNMA433	NU-WNMA080412											1/2	3/16	3/64	.015	.2031

Note: Maximum depth of cut is based on hardened steel applications. Other materials may allow for increased maximum depths of cut.

• = USA stocked item

★ = Worldwide Warehouse item

▲ = USA limited availability item

ALMT

Cubic Boron Nitride (PCBN) Inserts

General Info	WNGA		Insert Hole										Dimensions (Inches)				
	Sumitomo Cat. No.	New ISO Cat. No.	Full Tip		Multi Mid-Tip		Multi Mini-Tip		Coated Mini-Tip		Mini-Tip		Inscribed Circle	Thickness	Nose Radius	Max. Depth of Cut	Insert Hole Diameter
			BN700								BNC80	BNC150					
	3NU-WNGA432	3NU-WNGA080408											1/2	3/16	1/32	.015	.2031
	3NU-WNGA433	3NU-WNGA080412											1/2	3/16	3/64	.015	.2031
	6NC-WNGA432	6NC-WNGA080408											1/2	3/16	1/32	.015	.2031

Note: Maximum depth of cut is based on hardened steel applications. Other materials may allow for increased maximum depths of cut.

POSITIVE POLYCRYSTALLINE CUBIC BORON NITRIDE INSERTS

Ceramic Inserts	CCGA		Insert Hole										Dimensions (Inches)				
	Sumitomo Cat. No.	New ISO Cat. No.	Full Tip		Multi Mid-Tip		Multi Mini-Tip		Coated Mini-Tip		Mini-Tip		Inscribed Circle	Thickness	Nose Radius	Max. Depth of Cut	Insert Hole Diameter
			BN700								BNC80	BNC150					
	2NU-CCGA21.50.5	2NU-CCGW060202											1/4	3/32	1/128	.015	.110
	2NU-CCGA21.51	2NU-CCGW060204											1/4	3/32	1/64	.015	.110
	2NU-CCGA21.52	2NU-CCGW060208											1/4	3/32	1/32	.015	.110
	2NU-CCGA21.52	2NU-CCGW09T304											3/8	5/32	1/64	.015	.1732
	2NU-CCGA32.51W	2NU-CCGW09T304W											3/8	5/32	1/64	.015	.1732
	2NU-CCGA32.52	2NU-CCGW09T308											3/8	5/32	1/32	.015	.1732
	2NU-CCGA431	2NU-CCGW120404											1/2	3/16	1/64	.015	.2165
	2NU-CCGA432	2NU-CCGW120408											1/2	3/16	1/32	.015	.2165
	NC-CCGA21.51	NC-CCGW060204											1/4	3/32	1/64	.015	.110
	2NC-CCGA21.50.5	2NC-CCGW060202											1/4	3/32	1/128	.015	.110
	2NC-CCGA21.51	2NC-CCGW060204											1/4	3/32	1/64	.015	.110
	2NC-CCGA32.50.5	2NC-CCGW09T302											3/8	5/32	1/128	.015	.1732
	2NC-CCGA32.51	2NC-CCGW09T304											3/8	5/32	1/64	.015	.1732
	2NC-CCGA32.52	2NC-CCGW09T308											3/8	5/32	1/32	.015	.1732
	NU-CCGA21.50.5	NU-CCGW060202											1/4	3/32	1/128	.015	.110
	NU-CCGA21.50.5F	NU-CCGW060202F											1/4	3/32	1/128	.015	.110
	NU-CCGA21.50.5S	NU-CCGW060202S											1/4	3/32	1/128	.015	.110
	NU-CCGA21.51	NU-CCGW060204											1/4	3/32	1/64	.015	.110
	NU-CCGA32.50.5	NU-CCGW09T302											3/8	5/32	1/128	.015	.1732
	NU-CCGA32.51	NU-CCGW09T304											3/8	5/32	1/64	.015	.1732

Note: Maximum depth of cut is based on hardened steel applications. Other materials may allow for increased maximum depths of cut.

F = No edge preparation

W = Wiper insert

Boring Bars	CCGE		Insert Hole										Dimensions (Inches)				
	Sumitomo Cat. No.	New ISO Cat. No.	Full Tip		Multi Mid-Tip		Multi Mini-Tip		Coated Mini-Tip		Mini-Tip		Inscribed Circle	Thickness	Nose Radius	Max. Depth of Cut	Insert Hole Diameter
			BN250	BN600							BN250	BN600					
	NU-CCGE621	NU-CCGW040104											3/16	1/8	1/64	.015	-
	NU-CCGE622	NU-CCGW040108											3/16	1/8	1/32	.015	-

Note: Maximum depth of cut is based on hardened steel applications. Other materials may allow for increased maximum depths of cut.

General Info

Negative Inserts

Positive Inserts

Ace-Fix Inserts

Threading, Grooving, & Cut-Off Inserts

Ceramic Inserts

PCBN & PCD Inserts

Toolholders

Swiss Toolholders

Boring Bars

Technical Info

ALMT