

# CERAMIC

Indexable Inserts for Turning

## Negative With Insert Hole

(Legend)  
 Continuous Cut ● : 1st Choice  
 ○ : 2nd Choice  
 Medium Cut ● : 1st Choice  
 ○ : 2nd Choice  
 Interrupted Cut ● : 1st Choice  
 ○ : 2nd Choice

Recommended Application	P steel			
	M stainless steel			
	K cast iron			
	N non-ferrous metal			
	S exotic alloy			
	H hardened steel			

Ceramic Dimensions (mm)

### 80°Diamond

Shape	ISO Cat. No.	WX120	NB90S	NB100C	Inscribed Circle	Thickness	Nose Radius	Hole Size
	CNGA 120404	—	●	●	12.70	4.76	0.4	5.16
	CNGA 120408	—	●	●			0.8	
	CNGA 120412	—	●	●			1.2	

### 55°Diamond

	DNGA 150404	—	●	—	12.70	4.76	0.4	5.16
	DNGA 150408	—	●	—			0.8	
	DNGA 150412	—	▲	—			1.2	

### Square Type

	SNGA 120404	—	●	—	12.70	4.76	0.4	5.16
	SNGA 120408	—	●	—			0.8	
	SNGA 120412	—	●	—			1.2	

### Triangular Type

	TNGA 160404	—	●	—	9.525	4.76	0.4	3.81
	TNGA 160408	—	●	—			0.8	
	TNGA 160412	—	▲	—			1.2	
	TNGA 160416	—	—	—			1.6	

### 35°Diamond

	VNGA 160404	—	●	—	9.525	4.76	0.4	3.81
	VNGA 160408	—	●	—			0.8	

## Negative Without Insert Hole

(Legend)  
 Continuous Cut ● : 1st Choice  
 ○ : 2nd Choice  
 Medium Cut ● : 1st Choice  
 ○ : 2nd Choice  
 Interrupted Cut ● : 1st Choice  
 ○ : 2nd Choice

Recommended Application	P steel			
	M stainless steel			
	K cast iron			
	N non-ferrous metal			
	S exotic alloy			
	H hardened steel			

Ceramic Dimensions (mm)

### 80°Diamond

Shape	ISO Cat. No.	WX120	NB90S	NB100C	Inscribed Circle	Thickness	Nose Radius	Hole Size
	CNGN 120408	●	—	—	12.70	4.76	0.8	—
	CNGN 120412	▲	—	—			1.2	
	CNGN 120416	●	—	—			1.6	
	CNGN 120712	—	—	—			12.70	

### 55°Diamond

	DNGN 150408	—	●	—	12.70	4.76	0.8	—
	DNGN 150412	—	●	—			1.2	
	DNGN 150416	—	●	—			0.8	
	DNGN 150712	—	●	—			12.70	

### 75°Diamond

	ENGN 130408	—	—	—	12.70	4.76	0.8	—
	ENGN 130412	—	—	—			1.2	
	ENGN 130708	—	●	—			0.8	
	ENGN 130712	—	●	—			12.70	

### Round Type

	RNGN 120400	●	—	—	12.70	4.76	—	—
	RNGN 120700	●	●	—		7.94		
	RNGN 150700	—	—	—		15.875	7.94	

### Square Type

	SNGN 120408	●	●	—	12.70	4.76	0.8	—		
	SNGN 120412	●	●	—			1.2			
	SNGN 120416	●	●	—			1.6			
	SNGN 120420	—	—	—			2.0			
	SNGN 120708	—	▲	—			0.8			
	SNGN 120712	—	●	—			12.70		7.94	1.2
	SNGN 120716	—	▲	—			1.6			
	SNGN 120720	—	●	—			2.0			

### Triangular Type

	TNGN 160404	—	●	—	9.525	4.76	0.4	—
	TNGN 160408	—	●	—			0.8	
	TNGN 160412	—	●	—			1.2	
	TNGN 160712	—	▲	—			9.525	

WX120 is only sold in Japan

B  
Negative inserts

C

D

R

S

T

V

W

Solid CBN  
Ceramic