




Negative inserts · Multi-corner type

Specification	Shape	Cat. No.	Stocked grades									No. of corner	Dimensions (mm)					Applicable TAC Toolholders		
			BXM10	BXM20	BXC50	BX310	BX330	BX360	BX380	BX470	BX480		BX910	BX930	BX950	Inner circle ød	Thickness s		Hole dia. ød1	Corner radius rε
Sharp edge		2QP-CNGA120402F											2	12.7	4.76	5.16	0.2	2.3	TAC External Toolholders (4-14 ~)	
		2QP-CNGA120404F											2	12.7	4.76	5.16	0.4	2.3		
		2QP-CNGA120408F											2	12.7	4.76	5.16	0.8	2.2		
		2QP-CNGA120412F											2	12.7	4.76	5.16	1.2	2.4		
General purpose		2QP-CNGA120402											2	12.7	4.76	5.16	0.2	2.3	TAC Internal Toolholders (5-33 ~)	
		2QP-CNGA120404	●	●		●	●	●	●	●	●	●	2	12.7	4.76	5.16	0.4	2.3		
		2QP-CNGA120408	●	●		●	●	●	●	●	●	●	2	12.7	4.76	5.16	0.8	2.2		
		2QP-CNGA120412		●		●	●	●	●	●	●	●	2	12.7	4.76	5.16	1.2	2.4		
Light honing		2QP-CNGA120404-L	●	●			●						2	12.7	4.76	5.16	0.4	2.3		
		2QP-CNGA120408-L	●	●			●						2	12.7	4.76	5.16	0.8	2.2		
		2QP-CNGA120412-L	●	●			●						2	12.7	4.76	5.16	1.2	2.4		
Heavy honing		2QP-CNGA120404-H		●				●	●				2	12.7	4.76	5.16	0.4	2.3		
	2QP-CNGA120408-H		●				●	●				2	12.7	4.76	5.16	0.8	2.2			
	2QP-CNGA120412-H		●				●	●				2	12.7	4.76	5.16	1.2	2.4			
Wiper edge	2QP-CNGA120404WL	●	●									2	12.7	4.76	5.16	0.4	2.3			
	2QP-CNGA120408WL	●	●									2	12.7	4.76	5.16	0.8	2.2			
	2QP-CNGA120412WL	●	●									2	12.7	4.76	5.16	1.2	2.4			
Wiper edge	2QP-CNMA120404W						●					2	12.7	4.76	5.16	0.4	2.3			
	2QP-CNMA120408W						●					2	12.7	4.76	5.16	0.8	2.2			
	2QP-CNMA120412W						●					2	12.7	4.76	5.16	1.2	2.4			
General purpose	T2QP-CNGA120404							●				2	12.7	4.76	5.16	0.4	2.3			
	T2QP-CNGA120408							●				2	12.7	4.76	5.16	0.8	2.2			
General purpose		4QP-CNGA120404			●							4	12.7	4.76	5.16	0.4	2.3			
		4QP-CNGA120408			●								4	12.7	4.76	5.16	0.8		2.2	
		4QP-CNGA120412			●								4	12.7	4.76	5.16	1.2		2.4	
Heavy honing		4QP-CNGA120404-H											4	12.7	4.76	5.16	0.4	2.3		
		4QP-CNGA120408-H											4	12.7	4.76	5.16	0.8	2.2		
		4QP-CNGA120412-H											4	12.7	4.76	5.16	1.2	2.4		
Wiper edge		4QP-CNMA120404W						●					4	12.7	4.76	5.16	0.4	2.3		
		4QP-CNMA120408W						●					4	12.7	4.76	5.16	0.8	2.2		
		4QP-CNMA120412W						●					4	12.7	4.76	5.16	1.2	2.4		
Sharp edge			2QP-DNGA150402F										2	12.7	4.76	5.16	0.2	2.7	TAC External Toolholders (4-21 ~)	
			2QP-DNGA150404F											2	12.7	4.76	5.16	0.4		2.5
			2QP-DNGA150408F											2	12.7	4.76	5.16	0.8		2.1
	2QP-DNGA150412F												2	12.7	4.76	5.16	1.2	2		
General purpose	2QP-DNGA150404		●	●		●	●	●	●	●	●	●	2	12.7	4.76	5.16	0.4	2.5	TAC Internal Toolholders (5-34 ~)	
	2QP-DNGA150408		●	●		●	●	●	●	●	●	●	2	12.7	4.76	5.16	0.8	2.1		
	2QP-DNGA150412		●	●		●	●	●		●	●	●	2	12.7	4.76	5.16	1.2	2		
Light honing	2QP-DNGA150404-L		●	●			●						2	12.7	4.76	5.16	0.4	2.5		
	2QP-DNGA150408-L		●	●			●						2	12.7	4.76	5.16	0.8	2.1		
	2QP-DNGA150412-L			●			●						2	12.7	4.76	5.16	1.2	2		
Heavy honing	2QP-DNGA150404-H			●				●	●				2	12.7	4.76	5.16	0.4	2.5		
	2QP-DNGA150408-H			●				●	●				2	12.7	4.76	5.16	0.8	2.1		
	2QP-DNGA150412-H		●				●	●				2	12.7	4.76	5.16	1.2	2			
Wiper edge	2QP-DNGA150404WJ	●	●									2	12.7	4.76	5.16	0.4	2.3			
	2QP-DNGA150408WJ	●	●									2	12.7	4.76	5.16	0.8	2.1			
General purpose	2QP-DNGA150604	●	●									2	12.7	6.35	5.16	0.4	2.5			
	2QP-DNGA150608	●	●									2	12.7	6.35	5.16	0.8	2.1			
	2QP-DNGA150612	●	●									2	12.7	6.35	5.16	1.2	2			

Note: Letter "T" in the first position of Cat. No. shows that the standard packing quantity is 10 pieces.

● : Stocked item

















3-6 Please refer to wiper type inserts, W, WL, WJ.

Standard honing specifications

3-6

Grades	BXM10	BXM20	BXC50	BX310	BX330	BX360	BX380	BX470	BX480	BX910	BX930	BX950
Negative inserts	S01325	S01325	S01325	S01325	S01325	S01325	S01325	T01315	S01325	S01315	S01315	S01325
Positive inserts	S01325	S01325	-	S00515	S00515	S00515	-	T01315	-	S01315	S00515	S00515

Negative inserts · Multi-corner type

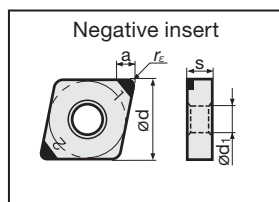
Specification	Shape	Cat. No.	Stocked grades													No. of corner	Dimensions (mm)					Applicable TAC toolholders
			BXM10	BXM20	BXC50	BX310	BX330	BX360	BX380	BX470	BX480	BX910	BX930	BX950	Inner circle ød		Thickness s	Hole dia. ød1	Corner radius rε	CBN length a		
General purpose		4QP-DNGA150404			●										4	12.7	4.76	5.16	0.4	2.5	TAC External Toolholders (4-21 ~) TAC Internal Toolholders (5-34 ~)	
		4QP-DNGA150408			●										4	12.7	4.76	5.16	0.8	2.1		
		4QP-DNGA150412			●										4	12.7	4.76	5.16	1.2	2		
Heavy honing		4QP-DNGA150404-H												4	12.7	4.76	5.16	0.4	2.5			
		4QP-DNGA150408-H												4	12.7	4.76	5.16	0.8	2.1			
		4QP-DNGA150412-H												4	12.7	4.76	5.16	1.2	2			
General purpose		2QP-SNGA120404		●		●	●	●	●		●	●	●	2	12.7	4.76	5.16	0.4	2.4	TAC External Toolholders (4-25 ~) TAC Internal Toolholders (5-35 ~)		
		2QP-SNGA120408		●		●	●	●	●		●	●	●	2	12.7	4.76	5.16	0.8	2.4			
		2QP-SNGA120412		●		●	●	●	●		●	●	●	2	12.7	4.76	5.16	1.2	2.4			
Light honing		2QP-SNGA120404-L					●						2	12.7	4.76	5.16	0.4	2.4				
		2QP-SNGA120408-L					●						2	12.7	4.76	5.16	0.8	2.4				
		2QP-SNGA120412-L					●						2	12.7	4.76	5.16	1.2	2.4				
Heavy honing		2QP-SNGA120404-H						●	●				2	12.7	4.76	5.16	0.4	2.4				
		2QP-SNGA120408-H							●	●			2	12.7	4.76	5.16	0.8	2.4				
		2QP-SNGA120412-H								●	●		2	12.7	4.76	5.16	1.2	2.4				
General purpose		4QP-SNGA120404			●								4	12.7	4.76	5.16	0.4	2.4				
		4QP-SNGA120408			●								4	12.7	4.76	5.16	0.8	2.4				
		4QP-SNGA120412			●								4	12.7	4.76	5.16	1.2	2.4				
Heavy honing		4QP-SNGA120408-H											4	12.7	4.76	5.16	0.8	2.4				
		4QP-SNGA120412-H											4	12.7	4.76	5.16	1.2	2.4				
														4	12.7	4.76	5.16	1.2		2.4		
General purpose		2QP-SNGN090308										●	2	9.525	3.18	-	0.8	2.4				
		2QP-SNGN090312											●	2	9.525	3.18	-	1.2	2.4			
Sharp edge		3QP-TNGA160402F												3	9.525	4.76	3.81	0.2	2.3	TAC External Toolholders (4-24 ~)		
		3QP-TNGA160404F											●	3	9.525	4.76	3.81	0.4	2.2			
		3QP-TNGA160408F											●	3	9.525	4.76	3.81	0.8	1.9			
		3QP-TNGA160412F												3	9.525	4.76	3.81	1.2	2.4			
General purpose		3QP-TNGA160404	●	●		●	●	●	●	●		●	●	3	9.525	4.76	3.81	0.4	2.2	TAC Internal Toolholders (5-36 ~)		
		3QP-TNGA160408	●	●		●	●	●	●	●		●	●	3	9.525	4.76	3.81	0.8	1.9			
		3QP-TNGA160412	●	●		●	●	●	●	●		●	●	3	9.525	4.76	3.81	1.2	2.4			
Light honing		3QP-TNGA160404-L	●	●		●							3	9.525	4.76	3.81	0.4	2.2				
		3QP-TNGA160408-L	●	●		●								3	9.525	4.76	3.81	0.8	1.9			
		3QP-TNGA160412-L	●	●		●								3	9.525	4.76	3.81	1.2	2.4			
Heavy honing		3QP-TNGA160404-H		●				●	●				3	9.525	4.76	3.81	0.4	2.2				
		3QP-TNGA160408-H		●					●	●				3	9.525	4.76	3.81	0.8	1.9			
		3QP-TNGA160412-H		●						●	●			3	9.525	4.76	3.81	1.2	2.4			
Wiper edge		3QP-TNGA160404WG		●									3	9.525	4.76	3.81	0.4	2.4				
		3QP-TNGA160408WG	●	●										3	9.525	4.76	3.81	0.8	2.2			
General purpose		T3QP-TNGA160404							●				3	9.525	4.76	3.81	0.4	2.2				
		T3QP-TNGA160408								●				3	9.525	4.76	3.81	0.8	1.9			
General purpose		6QP-TNGA160404			●								6	9.525	4.76	3.81	0.4	2.2				
		6QP-TNGA160408			●									6	9.525	4.76	3.81	0.8		1.9		
		6QP-TNGA160412			●									6	9.525	4.76	3.81	1.2		2.4		
Heavy honing		6QP-TNGA160404-H											6	9.525	4.76	3.81	0.4	2.2				
		6QP-TNGA160408-H												6	9.525	4.76	3.81	0.8		1.9		
		6QP-TNGA160412-H												6	9.525	4.76	3.81	1.2		2.4		

Note:

Letter "T" in the first position of Cat. No. shows that the standard packing quantity is 10 pieces.

● : Stocked item

➤ 3-6 Please refer to wiper type inserts, WG.



Standard honing specifications

➤ 3-6

Grades	BXM10	BXM20	BXC50	BX310	BX330	BX360	BX380	BX470	BX480	BX910	BX930	BX950
Negative inserts	S01325	S01325	S01325	S01325	S01325	S01325	S01325	T01315	S01325	S01315	S01315	S01325
Positive inserts	S01325	S01325	-	S00515	S00515	S00515	-	T01315	-	S01315	S00515	S00515

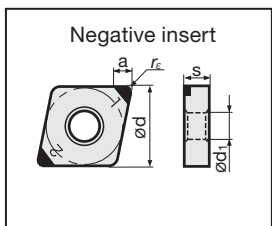
Negative inserts · Multi-corner type

Specification	Shape	Cat. No.	Stocked grades									No. of corner	Dimensions (mm)					Applicable TAC toolholders		
			BXM10	BXM20	BXC50	BX310	BX330	BX360	BX380	BX470	BX480		BX930	BX950	Inner circle ød	Thickness s	Hole dia. ød1		Corner radius rε	CBN Length a
General purpose		2QP-VNGA160402											2	9.525	4.76	3.81	0.2	3.5	TAC External Toolholders (4-30 ~)	
		2QP-VNGA160404	●	●		●	●	●	●	●	●	●	●	2	9.525	4.76	3.81	0.4		3.1
Light honing		2QP-VNGA160408	●	●		●	●	●	●	●	●	●	●	2	9.525	4.76	3.81	0.8	2.2	TAC Internal Toolholders (5-37 ~)
		2QP-VNGA160412		●										2	9.525	4.76	3.81	1.2	3	
Heavy honing		2QP-VNGA160404-L	●	●			●							2	9.525	4.76	3.81	0.4	3.1	
		2QP-VNGA160408-L	●	●			●							2	9.525	4.76	3.81	0.8	2.2	
		2QP-VNGA160404-H		●				●	●					2	9.525	4.76	3.81	0.4	3.1	
		2QP-VNGA160408-H		●				●	●					2	9.525	4.76	3.81	0.8	2.2	
General purpose		4QP-VNGA160404			●									4	9.525	4.76	3.81	0.4	3.1	TAC External Toolholders (4-17 ~)
		4QP-VNGA160408			●									4	9.525	4.76	3.81	0.8	2.2	
Reinforced cutting edge	4QP-VNGA160412												4	9.525	4.76	3.81	1.2	3		
	4QP-VNGA160404-H												4	9.525	4.76	3.81	0.4	3.1		
Wiper edge	4QP-VNGA160408-H												4	9.525	4.76	3.81	0.8	2.2		
	3QP-WNGA080408	●	●		●	●	●	●		●	●	●	3	12.7	4.76	5.16	0.8	2.2	TAC Internal Toolholders (5-38 ~)	
General purpose	3QP-WNGA080408WL	●	●									3	12.7	4.76	5.16	0.8	2.2			
General purpose	6QP-WNGA080408			●									6	12.7	4.76	5.16	0.8	2.2		

3 PCD and PCBN Tools

3-6 Please refer to wiper type inserts, WL.

● : Stocked item



Standard honing specifications

3-6

Grades	BXM10	BXM20	BXC50	BX310	BX330	BX360	BX380	BX470	BX480	BX910	BX930	BX950
Negative inserts	S01325	S01325	S01325	S01325	S01325	S01325	S01325	T01315	S01325	S01315	S01315	S01325
Positive inserts	S01325	S01325	-	S00515	S00515	S00515	-	T01315	-	S01315	S00515	S00515

Negative inserts · Multi-corner type Hard Breaker (T-CBN inserts with chipbreaker)

3

PCD and PCBN Tools

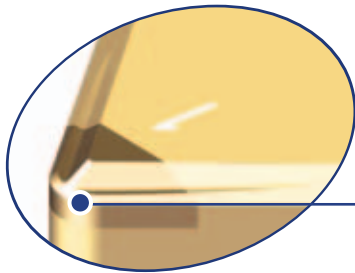
Specification	Shape	Cat. No.	Stocked grades		No. of corner	Dimensions (mm)					Applicable TAC toolholders	
			BX	M20		Inner circle ød	Thickness s	Hole dia. ød1	Corner radius rε	CBN Length a		
With chip-breaker		2QP-CNGM120408-HF	●		2	12.7	4.76	5.16	0.8	2.2	TAC External Toolholders (4-14 ~)	
		2QP-CNGM120412-HF	●		2	12.7	4.76	5.16	1.2	2.4		
		2QP-DNGM150408-HF	●		2	12.7	4.76	5.16	0.8	2.1		TAC Internal Toolholders (5-33 ~)
		2QP-DNGM150412-HF	●		2	12.7	4.76	5.16	1.2	2		
		3QP-TNGM160408-HF	●		3	9.525	4.76	3.81	0.8	1.9		
		3QP-TNGM160412-HF	●		3	9.525	4.76	3.81	1.2	2.4		
	2QP-VNGM160408-HF	●		2	9.525	4.76	3.81	0.8	2.2			
With chip-breaker		2QP-CNGM120408-HM	●		2	12.7	4.76	5.16	0.8	2.2		
		2QP-CNGM120412-HM	●		2	12.7	4.76	5.16	1.2	2.4		
		2QP-DNGM150408-HM	●		2	12.7	4.76	5.16	0.8	2.1		
		2QP-DNGM150412-HM	●		2	12.7	4.76	5.16	1.2	2		
		3QP-TNGM160408-HM	●		3	9.525	4.76	3.81	0.8	1.9		
		3QP-TNGM160412-HM	●		3	9.525	4.76	3.81	1.2	2.2		
		2QP-VNGM160408-HM	●		2	9.525	4.76	3.81	0.8	2.4		

● : Stocked item

“Hard Breakers” for removing the carburized layer

Two types of chipbreaker provide excellent chip control in a wide application range !

HF type For finishing

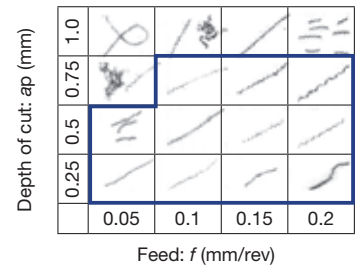


Single sided CBN insert provides higher stability in heavy machining.

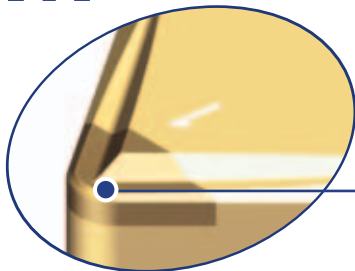
Excellent chip control in small DoC due to the high functional nose. Delivers exceptional surface finishes.

Example of chips

HF Chipbreaker



HM type For medium cutting

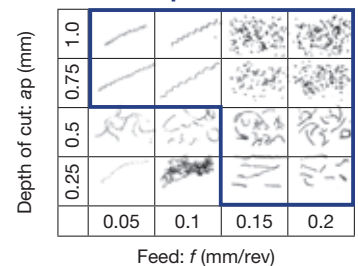


Single sided CBN insert provides higher stability in heavy machining.

Providing ideal chip control in large DoC by the well designed chipbreaker. Suitable for medium cutting or roughing.

Example of chips

HM Chipbreaker



Negative inserts · One-corner type

Application & features	Shape	Cat. No.	Stocked grades		No. of corner	Dimensions (mm)					Applicable TAC toolholders
			T-CBN			Inner circle ød	Thick ness s	Hole dia. ød1	Corner radius rE	CBN length a	
			BX360								
Finishing to medium cutting		CNGA120402-QBN	●		1	12.7	4.76	5.16	0.2	4.1	TAC External Toolholders (4-14 ~) TAC Internal Toolholders (5-53 ~)
		CNGA120404-QBN	●		1	12.7	4.76	5.16	0.4	4.0	
		CNGA120408-QBN	●		1	12.7	4.76	5.16	0.8	3.9	
		CNGA120412-QBN	●		1	12.7	4.76	5.16	1.2	3.9	
		CNGN090404-QBN			1	9.525	4.76	-	0.4	3.8	
		CNGN090408-QBN			1	9.525	4.76	-	0.8	3.8	
		DNGA150402-QBN	●		1	12.7	4.76	5.16	0.2	4.3	TAC External Toolholders (4-21 ~)
		DNGA150404-QBN	●		1	12.7	4.76	5.16	0.4	4.1	
		DNGA150408-QBN	●		1	12.7	4.76	5.16	0.8	3.8	TAC Internal Toolholders (5-34 ~)
DNGA150412-QBN		●		1	12.7	4.76	5.16	1.2	3.4		
Finishing to medium cutting		SNGA120402-QBN	●		1	12.7	4.76	5.16	0.2	4.1	TAC External Toolholders (4-25 ~) TAC Internal Toolholders (5-35 ~)
		SNGA120404-QBN	●		1	12.7	4.76	5.16	0.4	4.1	
		SNGA120408-QBN	●		1	12.7	4.76	5.16	0.8	4.1	
		SNGA120412-QBN	●		1	12.7	4.76	5.16	1.2	4.1	
Finishing to medium cutting		SNGN120402-QBN			1	12.7	4.76	-	0.2	4.1	TAC External Toolholders (4-50 ~)
		SNGN120404-QBN			1	12.7	4.76	-	0.4	4.1	
		SNGN120408-QBN			1	12.7	4.76	-	0.8	4.1	
		SNGN120412-QBN			1	12.7	4.76	-	1.2	4.1	
Finishing to medium cutting		TNGA160402-QBN	●		1	9.525	4.76	3.81	0.2	4.4	TAC External Toolholders (4-24 ~) TAC Internal Toolholders (5-36 ~)
		TNGA160404-QBN	●		1	9.525	4.76	3.81	0.4	4.2	
		TNGA160408-QBN	●		1	9.525	4.76	3.81	0.8	4.0	
		TNGA160412-QBN	●		1	9.525	4.76	3.81	1.2	3.7	
Finishing to medium cutting		TNGN160402-QBN			1	9.525	4.76	-	0.2	4.4	TAC External Toolholders (4-47 ~)
		TNGN160404-QBN			1	9.525	4.76	-	0.4	4.2	
		TNGN160408-QBN			1	9.525	4.76	-	0.8	4.0	
		TNGN160412-QBN			1	9.525	4.76	-	1.2	3.7	

● : Stocked item

Standard honing specifications

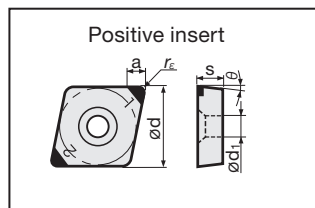
3-6

Grades	BXM10	BXM20	BXC50	BX310	BX330	BX360	BX380	BX470	BX480	BX910	BX930	BX950
Negative inserts	S01325	S01325	S01325	S01325	S01325	S01325	S01325	T01315	S01325	S01315	S01315	S01325
Positive inserts	S01325	S01325	-	S00515	S00515	S00515	-	T01315	-	S01315	S00515	S00515

Positive inserts · Multi-corner type (G class)

Specification	Shape	Cat. No.	Stocked grades				No. of corner	Dimensions (mm)					Applicable TAC toolholders	
			BXM10	BXM20	BX470	BX910		Clearance angle θ	Inner circle ϕd	Thickness s	Hole dia. ϕd_1	Corner radius r ϵ		CBN Length a
General purpose		2QP-CCGW060202	●	●			2	7°	6.35	2.38	2.8	0.2	2.3	TAC External Toolholders (4-63 ~)
		2QP-CCGW060204	●	●	●		2	7°	6.35	2.38	2.8	0.4	2.3	
General purpose		2QP-CCGW09T302					2	7°	9.525	3.97	4.4	0.2	2.3	TAC Internal Toolholders (5-12 ~)
		2QP-CCGW09T304	●	●	●		2	7°	9.525	3.97	4.4	0.4	2.3	
		2QP-CCGW09T308	●	●	●		2	7°	9.525	3.97	4.4	0.8	2.2	
		2QP-DCGW070202	●	●			2	7°	6.35	2.38	2.8	0.2	2.7	
General purpose		2QP-DCGW070204	●	●	●		2	7°	6.35	2.38	2.8	0.4	2.5	TAC External Toolholders (4-63 ~)
		2QP-DCGW070208			●		2	7°	6.35	2.38	2.8	0.8	2.5	
Sharp edge		2QP-DCGW11T302F			●		2	7°	9.525	3.97	4.4	0.2	2.7	TAC Internal Toolholders (5-16 ~)
		2QP-DCGW11T304F			●		2	7°	9.525	3.97	4.4	0.4	2.5	
General purpose		2QP-DCGW11T302	●	●			2	7°	9.525	3.97	4.4	0.2	2.7	
		2QP-DCGW11T304	●	●	●		2	7°	9.525	3.97	4.4	0.4	2.5	
		2QP-DCGW11T308	●	●	●		2	7°	9.525	3.97	4.4	0.8	2.1	
General purpose		2QP-SPGW09T308				●	2	11°	9.525	3.97	4.4	0.8	2.4	
		2QP-SPGW09T312				●	2	11°	9.525	3.97	4.4	1.2	2.4	
General purpose		2QP-SPGW120408				●	2	11°	12.7	4.76	5.5	0.8	2.4	
		2QP-SPGW120412				●	2	11°	12.7	4.76	5.5	1.2	2.4	
		2QP-SPGW120416				●	2	11°	12.7	4.76	5.5	1.6	2.4	
General purpose		2QP-SPGN090308				●	2	11°	9.525	3.18	-	0.8	2.4	
		2QP-SPGN090312				●	2	11°	9.525	3.18	-	1.2	2.4	
General purpose		3QP-TPGW080202					3	11°	4.76	2.38	2.3	0.2	2.4	TAC Internal Toolholders (5-20 ~)
		3QP-TPGW080204	●	●			3	11°	4.76	2.38	2.3	0.4	2.2	
General purpose		3QP-TPGW090202		●			3	11°	5.56	2.38	2.5	0.2	2.3	
		3QP-TPGW090204	●	●			3	11°	5.56	2.38	2.5	0.4	2.2	
General purpose		3QP-TPGW110202		●			3	11°	6.35	2.38	2.8	0.2	2.3	
		3QP-TPGW110204	●	●	●		3	11°	6.35	2.38	2.8	0.4	2.2	
General purpose		3QP-TPGW110208			●		3	11°	6.35	2.38	2.8	0.8	2.2	
		3QP-TPGW110302F					3	11°	6.35	3.18	3.4	0.2	2.3	
Sharp edge		3QP-TPGW110304F			●		3	11°	6.35	3.18	3.4	0.4	2.2	
		3QP-TPGW110308F			●		3	11°	6.35	3.18	3.4	0.8	2	
General purpose		3QP-TPGW110302		●			3	11°	6.35	3.18	3.4	0.2	2.3	
		3QP-TPGW110304	●	●	●		3	11°	6.35	3.18	3.4	0.4	2.2	
		3QP-TPGW110308	●	●	●	●	3	11°	6.35	3.18	3.4	0.8	1.9	
General purpose		3QP-TPGW130302		●			3	11°	7.94	3.18	3.4	0.2	2.3	
		3QP-TPGW130304	●	●			3	11°	7.94	3.18	3.4	0.4	2.2	
		3QP-TPGW130308					3	11°	7.94	3.18	3.4	0.8	2	
General purpose		3QP-TPGW16T302					3	11°	9.525	3.97	4.4	0.2	2.3	
		3QP-TPGW16T304	●	●			3	11°	9.525	3.97	4.4	0.4	2.2	
		3QP-TPGW16T308	●	●			3	11°	9.525	3.97	4.4	0.8	1.9	
Sharp edge		3QP-TPGW160402F					3	11°	9.525	4.76	4.4	0.2	2.3	
		3QP-TPGW160404F					3	11°	9.525	4.76	4.4	0.4	2.2	
		3QP-TPGW160408F					3	11°	9.525	4.76	4.4	0.8	2	
General purpose		3QP-TPGW160404	●	●			3	11°	9.525	4.76	4.4	0.4	2.2	
		3QP-TPGW160408		●			3	11°	9.525	4.76	4.4	0.8	2	
General purpose		3QP-TPGN110308				●	3	11°	6.35	3.18	-	0.8	1.9	
		3QP-TPGN110312				●	3	11°	6.35	3.18	-	1.2	2.4	

● : Stocked item



Standard honing specifications

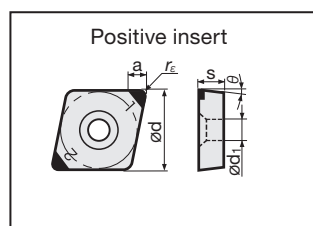
▶ 3-6

Grades	BXM10	BXM20	BXC50	BX310	BX330	BX360	BX380	BX470	BX480	BX910	BX930	BX950
Negative inserts	S01325	S01325	S01325	S01325	S01325	S01325	S01325	T01315	S01325	S01315	S01315	S01325
Positive inserts	S01325	S01325	-	S00515	S00515	S00515	-	T01315	-	S01315	S00515	S00515

Positive inserts · Multi-corner type (G class)

Specification	Shape	Cat. No.	Stocked grades		No. of corner	Dimensions (mm)						Applicable TAC toolholders
			BXM10	BXM20		Clearance angle θ	Inner circle ϕd	Thickness s	Hole dia. ϕd_1	Corner radius r_E	CBN Length a	
General purpose		2QP-VBGW110302			2	5°	6.35	3.18	2.8	0.2	3.5	TAC External Toolholders (4-83 ~)
		2QP-VBGW110304	●	●	2	5°	6.35	3.18	2.8	0.4	3.1	
		2QP-VBGW110308	●	●	2	5°	6.35	3.18	2.8	0.8	2.2	
		2QP-VBGW160402			2	5°	9.525	4.76	4.4	0.2	3.5	
		2QP-VBGW160404	●	●	2	5°	9.525	4.76	4.4	0.4	3.1	
		2QP-VBGW160408	●	●	2	5°	9.525	4.76	4.4	0.8	2.2	
General purpose		2QP-VCGW160402			2	7°	9.525	4.76	4.4	0.2	3.5	TAC External Toolholders (4-65 ~)
		2QP-VCGW160404	●	●	2	7°	9.525	4.76	4.4	0.4	3.1	TAC Internal Toolholders (5-24 ~)
		2QP-VCGW160408			2	7°	9.525	4.76	4.4	0.8	2.2	

● : Stocked item



Standard honing specifications

▶ 3-6

Grades	BXM10	BXM20	BXC50	BX310	BX330	BX360	BX380	BX470	BX480	BX910	BX930	BX950
Negative inserts	S01325	S01325	S01325	S01325	S01325	S01325	S01325	T01315	S01325	S01315	S01315	S01325
Positive inserts	S01325	S01325	-	S00515	S00515	S00515	-	T01315	-	S01315	S00515	S00515

Positive inserts · Multi-corner type

3
PCD and PCBN Tools

Specification	Shape	Cat. No.	Stocked grades					No. of corner	Dimensions (mm)					Applicable TAC toolholders	
			BX310	BX330	BX360	BX930	BX950		Clearance angle θ	Inner circle ød	Thickness s	Hole dia. ød1	Corner radius rε		CBN Length a
Finishing General purpose		2QP-CCMW060202	●	●	●	●	●	2	7°	6.35	2.38	2.8	0.2	2.3	TAC External Toolholders (4-63 ~) TAC Internal Toolholders (5-12 ~)
		2QP-CCMW060204	●	●	●	●	●	2	7°	6.35	2.38	2.8	0.4	2.3	
		2QP-CCMW09T304	●	●	●	●	●	2	7°	9.525	3.97	4.4	0.4	2.3	
		2QP-CCMW09T308	●	●	●	●	●	2	7°	9.525	3.97	4.4	0.8	2.2	
Finishing General purpose		2QP-DCMW070202	●	●	●	●	●	2	7°	6.35	2.38	2.8	0.2	2.7	TAC External Toolholders (4-63 ~) TAC Internal Toolholders (5-16 ~)
		2QP-DCMW070204	●	●	●	●	●	2	7°	6.35	2.38	2.8	0.4	2.5	
		2QP-DCMW11T302	●	●	●	●	●	2	7°	9.525	3.97	4.4	0.2	2.7	
		2QP-DCMW11T304	●	●	●	●	●	2	7°	9.525	3.97	4.4	0.4	2.5	
		2QP-DCMW11T308	●	●	●	●	●	2	7°	9.525	3.97	4.4	0.8	2.1	
		2QP-SPMN090304	●	●	●	●	●	2	11°	9.525	3.18	-	0.4	2.4	TAC External Toolholders (4-73) TAC Internal Toolholders (5-61)
		2QP-SPMN090308	●	●	●	●	●	2	11°	9.525	3.18	-	0.8	2.4	
Finishing General purpose		3QP-TPMW080204	●	●	●	●	●	3	11°	4.76	2.38	2.3	0.4	2.2	TAC Internal Toolholders (5-20 ~)
		3QP-TPMW090202	●	●	●	●	●	3	11°	5.56	2.38	2.5	0.2	2.3	
		3QP-TPMW090204	●	●	●	●	●	3	11°	5.56	2.38	2.5	0.4	2.2	
		3QP-TPMW110202	●	●	●	●	●	3	11°	6.35	2.38	2.8	0.2	2.3	
		3QP-TPMW110204	●	●	●	●	●	3	11°	6.35	2.38	2.8	0.4	2.2	
		3QP-TPMW110302	●	●	●	●	●	3	11°	6.35	3.18	3.4	0.2	2.4	
		3QP-TPMW110304	●	●	●	●	●	3	11°	6.35	3.18	3.4	0.4	2.2	
		3QP-TPMW110308	●	●	●	●	●	3	11°	6.35	3.18	3.4	0.8	1.9	
		3QP-TPMW130302	●	●	●	●	●	3	11°	7.94	3.18	3.4	0.2	2.4	
		3QP-TPMW130304	●	●	●	●	●	3	11°	7.94	3.18	3.4	0.4	2.2	
		3QP-TPMW16T304	●	●	●	●	●	3	11°	9.525	3.97	4.4	0.4	2.2	
		3QP-TPMW16T308	●	●	●	●	●	3	11°	9.525	3.97	4.4	0.8	1.9	
		3QP-TPMW160404	●	●	●	●	●	3	11°	9.525	4.76	4.4	0.4	2.2	
3QP-TPMW160408	●	●	●	●	●	3	11°	9.525	4.76	4.4	0.8	1.9			
Finishing to medium cutting General purpose		3QP-TPMN110302	●	●	●	●	●	3	11°	6.35	3.18	-	0.2	2.3	TAC External Toolholders (4-73) TAC Internal Toolholders (5-50)
		3QP-TPMN110304	●	●	●	●	●	3	11°	6.35	3.18	-	0.4	2.2	
		3QP-TPMN110308	●	●	●	●	●	3	11°	6.35	3.18	-	0.8	1.9	
		3QP-TPMN160304	●	●	●	●	●	3	11°	9.525	3.18	-	0.4	2.2	
		3QP-TPMN160308	●	●	●	●	●	3	11°	9.525	3.18	-	0.8	1.9	
Finishing General purpose		2QP-VBMW110304	●	●	●	●	●	2	5°	6.35	3.18	2.8	0.4	3.1	TAC External Toolholders (4-83 ~) TAC Internal Toolholders (5-22 ~)
		2QP-VBMW110308	●	●	●	●	●	2	5°	6.35	3.18	2.8	0.8	2.2	
		2QP-VBMW160404	●	●	●	●	●	2	5°	9.525	4.76	4.4	0.4	2.2	
		2QP-VBMW160408	●	●	●	●	●	2	5°	9.525	4.76	4.4	0.8	2.2	
Finishing General purpose		2QP-VCMW160404	●	●	●	●	●	2	5°	9.525	4.76	4.4	0.4	2.2	TAC External Toolholders (4-65 ~) TAC Internal Toolholders (5-24 ~)






● : Stocked item

Standard honing specifications

▶ 3-6

Grades	BXM10	BXM20	BXC50	BX310	BX330	BX360	BX380	BX470	BX480	BX910	BX930	BX950
Negative inserts	S01325	S01325	S01325	S01325	S01325	S01325	S01325	T01315	S01325	S01315	S01315	S01325
Positive inserts	S01325	S01325	-	S00515	S00515	S00515	-	T01315	-	S01315	S00515	S00515

Positive inserts · One-corner type



Application & features	Shape	Cat. No.	Stocked grades		No. of corner	Dimensions (mm)					Applicable TAC toolholders	
			T-CBN	BX330		Clearance angle θ	Inner circle ϕd	Thick ness s	Hole dia. ϕd_1	Corner radius r_E		CBN length a
Finishing General purpose Packing Qty: 2 pcs.		Q-CCMW060204	●		1	7°	6.35	2.38	2.8	0.4	2.5	TAC External Toolholders (4-63 ~) TAC Internal Toolholders (5-12 ~)
		Q-CCMW09T304	●		1	7°	9.525	3.97	4.4	0.4	2.5	
		Q-DCMW070204	●		1	7°	6.35	2.38	2.8	0.4	2.1	TAC External Toolholders (4-63 ~) TAC Internal Toolholders (5-16 ~)
		Q-DCMW11T304	●		1	7°	9.525	3.97	4.4	0.4	2.1	
		Q-SPGN090304	●		1	11°	9.525	3.18	-	0.4	2.8	TAC External Toolholders (4-73) TAC Internal Toolholders (5-61)
		Q-SPGN090308	●		1	11°	9.525	3.18	-	0.8	2.8	
		Q-TPMW080204	●		1	11°	4.76	2.38	2.3	0.4	2.2	TAC Internal Toolholders (5-20 ~)
		Q-TPMW090202	●		1	11°	5.56	2.38	2.5	0.2	2.4	
		Q-TPMW090204	●		1	11°	5.56	2.38	2.5	0.4	2.3	
		Q-TPMW110202	●		1	11°	6.35	2.38	2.8	0.2	2.4	
		Q-TPMW110204	●		1	11°	6.35	2.38	2.8	0.4	2.2	
		Q-TPMW110304	●		1	11°	6.35	3.18	3.4	0.4	2.2	
		Q-TPMW110308	●		1	11°	6.35	3.18	3.4	0.8	1.9	
		Q-TPMW130302	●		1	11°	7.94	3.18	3.4	0.2	2.4	
		Q-TPMW130304	●		1	11°	7.94	3.18	3.4	0.4	2.3	
		Q-TPMW16T304	●		1	11°	9.525	3.97	4.4	0.4	2.3	
		Q-TPMW160404	●		1	11°	9.525	4.76	4.4	0.4	2.3	
		Q-TPMW160408	●		1	11°	9.525	4.76	4.4	0.8	1.9	
		Q-TPGN110304	●		1	11°	6.35	3.18	-	0.4	2.2	TAC External Toolholders (4-73) TAC Internal Toolholders (5-50)
		Q-TPGN110308	●		1	11°	6.35	3.18	-	0.8	2.2	
Q-TPGN160304		●		1	11°	9.525	3.18	-	0.4	2.3		
Q-TPGN160308		●		1	11°	9.525	3.18	-	0.8	1.9		

3
PCD and PCBN Tools

MINI T-CBN

● : Stocked item

Positive inserts · Mini

Application & features	Shape	Cat. No.	Stocked grades		No. of corner	Dimensions (mm)					Applicable TAC toolholders	
			T-CBN	BX310		Clearance angle θ	Inner circle ϕd	Thick ness s	Hole dia. ϕd_1	Corner radius r_E		CBN length a
Finishing to medium cutting		1QP-CCGW03X102	●		1	7°	3.57	1.39	1.9	0.2	1.4	TAC Internal Toolholders (5-12)
		1QP-CCGW03X104	●		1	7°	3.57	1.39	1.9	0.4	1.3	
		1QP-CCGW04T102	●		1	7°	4.37	1.79	2.3	0.2	1.9	
		1QP-CCGW04T104	●		1	7°	4.37	1.79	2.3	0.4	1.8	
		1QP-EPGW03X102	●		1	11°	3.57	1.39	1.9	0.2	1.4	TAC Internal Toolholders (5-28) Tooling Systems (12-41)
		1QP-EPGW03X104	●		1	11°	3.57	1.39	1.9	0.4	1.3	
		1QP-EPGW040102	●		1	11°	3.97	1.59	2.3	0.2	1.7	
		1QP-EPGW040104	●		1	11°	3.97	1.59	2.3	0.4	1.6	







● : Stocked item

Standard honing specifications

▶ 3-6

Grades	BXM10	BXM20	BXC50	BX310	BX330	BX360	BX380	BX470	BX480	BX910	BX930	BX950
Negative inserts	S01325	S01325	S01325	S01325	S01325	S01325	S01325	T01315	S01325	S01315	S01315	S01325
Positive inserts	S01325	S01325	-	S00515	S00515	S00515	-	T01315	-	S01315	S00515	S00515

Positive inserts · One-corner type

Application & features	Shape	Cat. No.	Stocked grades		No. of corner	Dimensions (mm)					Applicable TAC toolholders	
			T-CBN	BX360		Clearance angle	Inner circle	Thickness	Hole dia.	Corner radius		CBN length
						θ	ϕd	s	ϕd_1	r_E		a
Finishing to medium cutting		SPGN090304-QBN	●		1	11°	9.525	3.18	–	0.4	4.1	TAC External Toolholders (4-73) TAC Internal Toolholders (5-61)
		SPGN090308-QBN	●		1	11°	9.525	3.18	–	0.8	4.1	
		SPGN090312-QBN	●		1	11°	9.525	3.18	–	1.2	4.1	
		SPGN120308-QBN	●		1	11°	12.7	3.18	–	0.8	4.1	
		SPGN120312-QBN	●		1	11°	12.7	3.18	–	1.2	4.1	
Finishing to medium cutting		TPGW090202-QBN	●		1	11°	5.56	2.38	2.5	0.2	3.3	TAC Internal Toolholders (5-20 ~)
		TPGW090204-QBN	●		1	11°	5.56	2.38	2.5	0.4	3.2	
		TPGW110202-QBN	●		1	11°	6.35	2.38	2.8	0.2	3.9	
		TPGW110204-QBN	●		1	11°	6.35	2.38	2.8	0.4	3.7	
		TPGW130302-QBN	●		1	11°	7.94	3.18	3.4	0.2	3.9	
		TPGW130304-QBN	●		1	11°	7.94	3.18	3.4	0.4	3.7	
		TPGW16T302-QBN	●		1	11°	9.525	3.97	4.4	0.2	4.4	
		TPGW16T304-QBN	●		1	11°	9.525	3.97	4.4	0.4	4.2	
		TPGW16T308-QBN	●		1	11°	9.525	3.97	4.4	0.8	4	TAC External Toolholders (4-73) TAC Internal Toolholders (5-50)
		TPGN110304-QBN	●		1	11°	6.35	3.18	–	0.4	3.7	
		TPGN110308-QBN	●		1	11°	6.35	3.18	–	0.8	3.5	
		TPGN160304-QBN	●		1	11°	9.525	3.18	–	0.4	4.2	
		TPGN160308-QBN	●		1	11°	9.525	3.18	–	0.8	4	
Finishing		TBGN060104-15-QBN	●		3	5°	3.97	1.59	–	0.4	6.4	
		TBGN060108-15-QBN	●		3	5°	3.97	1.59	–	0.8	6	
Finishing to medium cutting		CPGA090204-QBN	●		1	11°	9.525	2.38	4	0.4	4	Tungaloy's former toolholders (Not ISO)
		CPGA090208-QBN	●		1	11°	9.525	2.38	4	0.8	3.8	
Finishing to medium cutting		TPGA090202-QBN	●		1	11°	5.56	2.38	3.2	0.2	3.1	Tungaloy's former toolholders (Not ISO)
		TPGA090204-QBN	●		1	11°	5.56	2.38	3.2	0.4	2.9	
		TPGA110202-QBN	●		1	11°	6.35	2.38	3	0.2	3.9	
		TPGA110204-QBN	●		1	11°	6.35	2.38	3	0.4	3.7	
		TPGA110302-QBN	●		1	11°	6.35	3.18	3	0.2	3.9	
		TPGA110304-QBN	●		1	11°	6.35	3.18	3	0.4	3.7	
		TPGA160302-QBN	●		1	11°	9.525	3.18	4	0.2	4.4	
		TPGA160304-QBN	●		1	11°	9.525	3.18	4	0.4	4.2	
		TPGA160308-QBN	●		1	11°	9.525	3.18	4	0.8	4	





● : Stocked item

Standard honing specifications

▶ 3-6

Grades	BXM10	BXM20	BXC50	BX310	BX330	BX360	BX380	BX470	BX480	BX910	BX930	BX950
Negative inserts	S01325	S01325	S01325	S01325	S01325	S01325	S01325	T01315	S01325	S01315	S01315	S01325
Positive inserts	S01325	S01325	–	S00515	S00515	S00515	–	T01315	–	S01315	S00515	S00515

Coated Solid T-CBN (BXC90)





Application & features	Shape	Cat. No.	Stocked grades	Dimensions (mm)		
			Coated Solid T-CBN	Inner circle: ϕd	Thickness: s	Corner radius: r_E
			BXC90			
Finishing to heavy cutting		S-CNGN090308	●	9.525	3.18	0.8
		S-CNGN090312	●	9.525	3.18	1.2
		S-CNGN120408	●	12.7	4.76	0.8
		S-CNGN120412	●	12.7	4.76	1.2
		S-RNGN090300	●	9.525	3.18	–
		S-RNGN120400	●	12.7	4.76	–
		S-SNGN090308	●	9.525	3.18	0.8
		S-SNGN090312	●	9.525	3.18	1.2
		S-SNGN120308	●	12.7	3.18	0.8
		S-SNGN120312	●	12.7	3.18	1.2
		S-SNGN120408	●	12.7	4.76	0.8
		S-SNGN120412	●	12.7	4.76	1.2
		S-TNGN110308	●	6.35	3.18	0.8
		S-TNGN110312	●	6.35	3.18	1.2
		S-TNGN160408	●	9.525	4.76	0.8
		S-TNGN160412	●	9.525	4.76	1.2

3
PCD and PCBN Tools

T-CBN Series

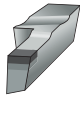
Solid T-CBN (BX90S)

● : Stocked item

Application & features	Shape	Cat. No.	Stocked grades	Dimensions (mm)		
			Solid T-CBN	Inner circle: ϕd	Thickness: s	Corner radius: r_E
			BX90S			
Finishing to heavy cutting		S-CNMN090308		9.25	3.18	0.8
		S-CNMN090312		9.525	3.18	1.2
		S-CNMN120408		12.7	4.76	0.8
		S-CNMN120412		12.7	4.76	1.2
		S-RNMN090300		9.525	3.18	–
		S-RNMN120400		12.7	4.76	–
		S-SNMN090308		9.525	3.18	0.8
		S-SNMN090312		9.525	3.18	1.2
		S-SNMN120308		12.7	3.18	0.8
		S-SNMN120312		12.7	3.18	1.2
		S-SNMN120408		12.7	4.76	0.8
		S-SNMN120412		12.7	4.76	1.2
		S-TNMN110308		6.35	3.18	0.8
		S-TNMN110312		6.35	3.18	1.2
		S-TNMN160408		9.525	4.76	0.8
		S-TNMN160412		9.525	4.76	1.2

T-CBN Series

T-CBN (PCBN tipped) grooving Inserts

Application & features	Shape	Cat. No.	Stocked grades	No. of corner	Dimensions (mm)			Applicable TAC toolholders
			T-CBN		Groove width ± 0.05	Max. groove depth	Corner radius r_E	
			BX360					
			R		L			
Grooving		XGR/L6310S-QBN		1	1.0	1.5	0.2	TAC toolholders: GX-□□□□R/LE (6-49) TAC boring toolholders: GX-□□□□L/RI (Min. bore dia. $\phi 55$) (6-92)
		XGR/L6315S-QBN	●	1	1.5	2.3	0.2	
		XGR/L6320S-QBN	●	1	2.0	3	0.2	
		XGR/L6325S-QBN	●	1	2.5	3.8	0.2	
		XGR/L6330S-QBN	●	1	3.0	4.5	0.2	
		XGR/L6335S-QBN	●	1	3.5	5.3	0.2	
		XGR/L6340S-QBN	●	1	4.0	6	0.2	
		XGR/L6345S-QBN	●	1	4.5	6	0.2	

● : Stocked item