

# T-CBN SERIES

Tungaloy Report No. 510S1-G

## New FNGA (45°) and YNGA (25°) inserts for expanded application coverage





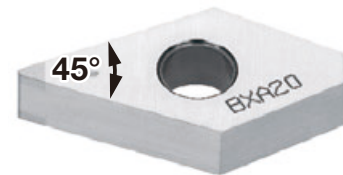
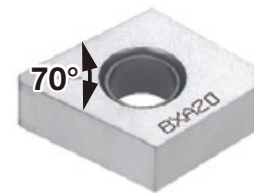
For **high efficiency in finishing** hardened steel, cast iron and sintered metals

## ■ New CBN inserts for general turning

GNGA insert with 70° corner angle

**New** FNGA insert with 45° corner angle

- Smaller corner angle provides the insert with greater clearance between the insert flank and workpiece surface, allowing better chip flow and evacuation.
- Enables greater D.O.C. in face turning applications in which the insert is pulled outward (fed away from the workpiece center).



**New** YNGA insert with 25° corner angle

Allows undercutting, V grooving, and other applications that are not possible with traditional V inserts.



## ■ High versatility

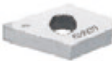
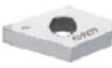
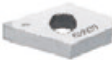

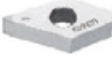

- Existing ISO turning toolholder can be used for these inserts
  - For GNGA insert: use the holder for CN\*\*1204 insert
  - For FNGA insert: use the holder for DN\*\*1504 insert
  - For YNGA insert: use the holder for VN\*\*1604 insert
- No offsets needed compared to ISO inserts, due to same geometry of cutting edge position
- Double sided insert with 2 cutting edges

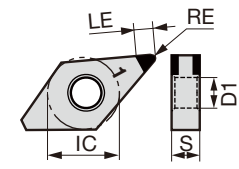


# CBN Insert NEGATIVE TYPE




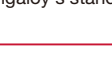

- : Continuous cutting
- ◐ : Light interrupted cutting
- ✱ : Heavy interrupted cutting

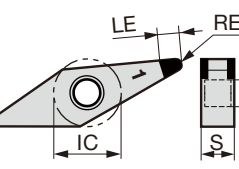
**New**

Shape	Designation	BXM10	BXM20	BXA10	BXA20	BX360	BX470	BX930	Dimension (mm)					Edge prep.				Wiper	Chipbreaker			
									No. of corners	LE	RE	IC	S	D1	Standard	Sharp edge	L			LF	LC	H
<b>2QP-FNGA</b> (Corner angle 45°) 	*2QP-FNGA150402				●				2	2.8	0.2	12.7	4.76	5.16	○							
	*2QP-FNGA150404				●				2	2.6	0.4	12.7	4.76	5.16	○							
	*2QP-FNGA150408				●				2	3	0.8	12.7	4.76	5.16	○							
	*2QP-FNGA150412				●				2	3.3	1.2	12.7	4.76	5.16	○							
	*2QP-FNGA150604				●				2	2.6	0.4	12.7	6.35	5.16	○							
	*2QP-FNGA150608				●				2	3	0.8	12.7	6.35	5.16	○							
<b>2QP-FNGA**-L</b> (Corner angle 45°) 	*2QP-FNGA150404-L				●				2	2.6	0.4	12.7	4.76	5.16		○						
	*2QP-FNGA150408-L				●				2	3	0.8	12.7	4.76	5.16		○						
	*2QP-FNGA150412-L				●				2	3.3	1.2	12.7	4.76	5.16		○						
	*2QP-FNGA150604-L				●				2	2.6	0.4	12.7	6.35	5.16		○						
	*2QP-FNGA150608-L				●				2	3	0.8	12.7	6.35	5.16		○						
	*2QP-FNGA150612-L				●				2	3.3	1.2	12.7	6.35	5.16		○						
<b>2QP-FNGA**-LF</b> (Corner angle 45°) 	*2QP-FNGA150404-LF				●				2	2.6	0.4	12.7	4.76	5.16			○					
	*2QP-FNGA150408-LF				●				2	3	0.8	12.7	4.76	5.16			○					
	*2QP-FNGA150412-LF				●				2	3.3	1.2	12.7	4.76	5.16			○					
	*2QP-FNGA150604-LF				●				2	2.6	0.4	12.7	6.35	5.16			○					
	*2QP-FNGA150608-LF				●				2	3	0.8	12.7	6.35	5.16			○					
	*2QP-FNGA150612-LF				●				2	3.3	1.2	12.7	6.35	5.16			○					
<b>2QP-FNGA**-LC</b> (Corner angle 45°) 	*2QP-FNGA150404-LC				●				2	2.6	0.4	12.7	4.76	5.16				○				
	*2QP-FNGA150408-LC				●				2	3	0.8	12.7	4.76	5.16				○				
	*2QP-FNGA150412-LC				●				2	3.3	1.2	12.7	4.76	5.16				○				
	*2QP-FNGA150604-LC				●				2	2.6	0.4	12.7	6.35	5.16				○				
	*2QP-FNGA150608-LC				●				2	3	0.8	12.7	6.35	5.16				○				
	*2QP-FNGA150612-LC				●				2	3.3	1.2	12.7	6.35	5.16				○				
<b>2QP-FNGA**-H</b> (Corner angle 45°) 	*2QP-FNGA150404-H				●				2	2.6	0.4	12.7	4.76	5.16					○			
	*2QP-FNGA150408-H				●				2	3	0.8	12.7	4.76	5.16					○			
	*2QP-FNGA150412-H				●				2	3.3	1.2	12.7	4.76	5.16					○			
	*2QP-FNGA150604-H				●				2	2.6	0.4	12.7	6.35	5.16					○			
	*2QP-FNGA150608-H				●				2	3	0.8	12.7	6.35	5.16					○			
	*2QP-FNGA150612-H				●				2	3.3	1.2	12.7	6.35	5.16					○			
<b>2QP-FNGG**-HP</b> (Corner angle 45°) 	*2QP-FNGG150404-HP				●				2	2.6	0.4	12.7	4.76	5.16							○	
	*2QP-FNGG150408-HP				●				2	3	0.8	12.7	4.76	5.16							○	
	*2QP-FNGG150412-HP				●				2	3.3	1.2	12.7	4.76	5.16							○	
	*2QP-FNGG150604-HP				●				2	2.6	0.4	12.7	6.35	5.16							○	
	*2QP-FNGG150608-HP				●				2	3	0.8	12.7	6.35	5.16							○	
	*2QP-FNGG150612-HP				●				2	3.3	1.2	12.7	6.35	5.16							○	



**New**

Shape	Designation	BXM10	BXM20	BXA10	BXA20	BX360	BX470	BX930	Dimension (mm)					Edge prep.				Wiper	Chipbreaker			
									No. of corners	LE	RE	IC	S	D1	Standard	Sharp edge	L			LF	LC	H
<b>2QP-YNGA</b> (Corner angle 25°) 	*2QP-YNGA160402				●				2	3.5	0.2	9.525	4.76	3.81	○							
	*2QP-YNGA160404				●				2	3.1	0.4	9.525	4.76	3.81	○							
	*2QP-YNGA160408				●				2	3	0.8	9.525	4.76	3.81	○							
<b>2QP-YNGA**-L</b> (Corner angle 25°) 	*2QP-YNGA160404-L				●				2	3.1	0.4	9.525	4.76	3.81		○						
	*2QP-YNGA160408-L				●				2	3	0.8	9.525	4.76	3.81		○						
<b>2QP-YNGA**-LF</b> (Corner angle 25°) 	*2QP-YNGA160404-LF				●				2	3.1	0.4	9.525	4.76	3.81			○					
	*2QP-YNGA160408-LF				●				2	3	0.8	9.525	4.76	3.81			○					
<b>2QP-YNGA**-LC</b> (Corner angle 25°) 	*2QP-YNGA160404-LC				●				2	3.1	0.4	9.525	4.76	3.81				○				
	*2QP-YNGA160408-LC				●				2	3	0.8	9.525	4.76	3.81				○				
<b>2QP-YNGG**-HP</b> (Corner angle 25°) 	*2QP-YNGG160404-HP				●				2	3.1	0.4	9.525	4.76	3.81							○	
	*2QP-YNGG160408-HP				●				2	3	0.8	9.525	4.76	3.81							○	









\* Tungaloy's standard

● : New product

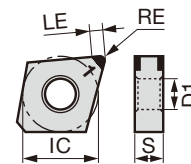
# CBN Insert NEGATIVE TYPE

- : Continuous cutting
- ◐ : Light interrupted cutting
- ✱ : Heavy interrupted cutting

Shape	Designation	Material						Dimension (mm)					Edge prep.									
		P	M	K	N	S	H	No. of corners	LE	RE	IC	S	D1	Standard	Sharp edge	L	LF	LC	H	Wiper	Chipbreaker	
		Steel	Stainless	Cast iron	Non-ferrous	Superalloy	Hard material															BXM10
<b>2QP-GNGA</b> (Corner angle 70°) 	*2QP-GNGA120402		●	●										○								
	*2QP-GNGA120404		●	●	●	●								○								
	*2QP-GNGA120408		●	●	●	●	●	●	●					○								
	*2QP-GNGA120412		●	●	●	●	●	●	●					○								
<b>2QP-GNGA**-L</b> (Corner angle 70°) 	*2QP-GNGA120402-L			●	●										○							
	*2QP-GNGA120404-L			●	●									○								
	*2QP-GNGA120408-L			●	●									○								
	*2QP-GNGA120412-L			●	●									○								
<b>2QP-GNGA**-LF</b> (Corner angle 70°) 	*2QP-GNGA120402-LF			●	●											○						
	*2QP-GNGA120404-LF			●	●									○								
	*2QP-GNGA120408-LF			●	●									○								
	*2QP-GNGA120412-LF			●	●									○								
<b>2QP-GNGA**-LC</b> (Corner angle 70°) 	*2QP-GNGA120402-LC			●	●												○					
	*2QP-GNGA120404-LC			●	●									○								
	*2QP-GNGA120408-LC			●	●									○								
	*2QP-GNGA120412-LC			●	●									○								
<b>2QP-GNGA**-H</b> (Corner angle 70°) 	*2QP-GNGA120404-H			●	●															○		
	*2QP-GNGA120408-H			●	●									○							○	
	*2QP-GNGA120412-H			●	●									○							○	
<b>2QP-GNGG**-HP</b> (Corner angle 70°) 	*2QP-GNGG120404-HP	●	●	●																	○	
	*2QP-GNGG120408-HP	●	●	●																		○
	*2QP-GNGG120412-HP	●	●	●																		○

\* Tungaloy's standard

● : Line up



www.tungaloy.com  
 follow us at:  
 facebook.com/tungaloyjapan  
 twitter.com/tungaloyjapan  
 www.youtube.com/tungaloycorporation



AS9100 Certified  
 78006  
 2015.11.04  
 ISO 14001 Certified  
 EC97J1123  
 1997.11.26

Distributed by:



FIND US ON THE CLOUD!  
 machiningcloud.com

