

NPN

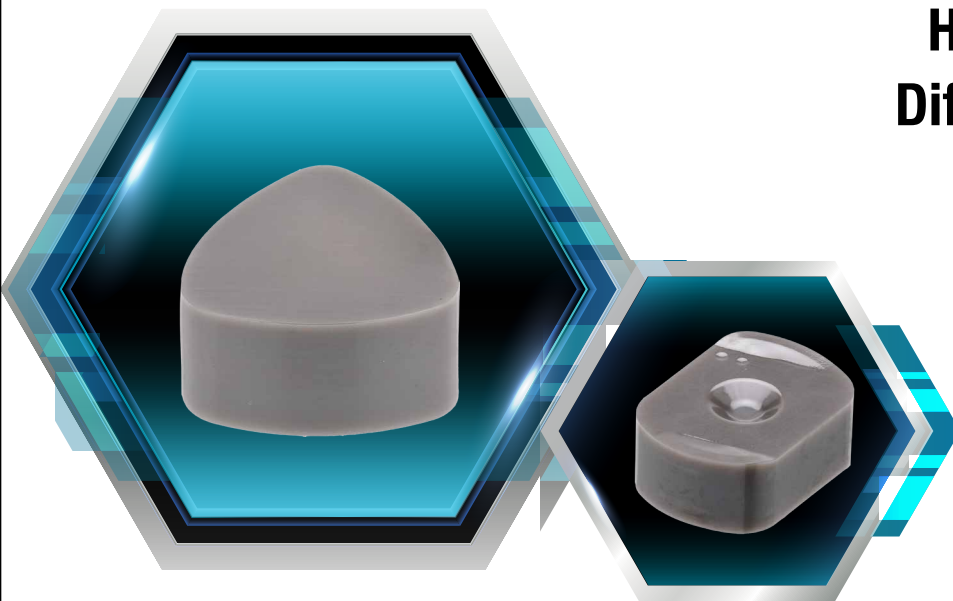
New Product News



CERAMIC SPEED

HARDPART & EXOTIC MATERIALS

New Ceramic Insert Lines for High-Speed, High Feed Machining of Difficult-to-cut Materials



KEY POINT

TaeguTec has launched a new ceramic milling line designed for high productivity through high-feed, high-speed machining of difficult-to-cut materials (HRSA).

With the growing demand of both the aerospace and power generation industries, the nature of the related industries' components from difficult-to-cut materials — where materials maintain strength even in high temperatures — also grows. These materials have very low heat conductivity and are extremely difficult to machine, making it difficult to improve productivity. To meet these market demands, TaeguTec has launched a new ceramic milling line of inserts and cutters — **CERAMIC-SPEED**.

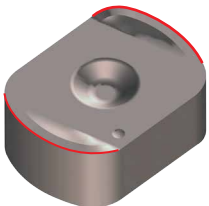
Based on a unique combination of a ceramic grade suitable for high-speed machining and a unique and large radius shape for high feed machining, the **CERAMIC-SPEED** line is a high productivity solution for the machining of difficult-to-cut materials.

The BNGX insert series comes in two sizes: 09 mm and 12 mm. Cutters come in both end mill and face mill types. They are dedicated to a variety of applications including facing, shouldering, slotting, straight ramping and helical ramping.

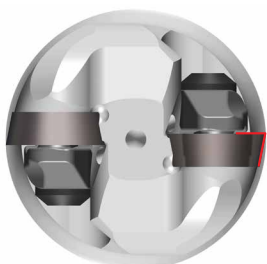
For further technical questions, please contact TaeguTec's product manager.

BNGX 09 Features

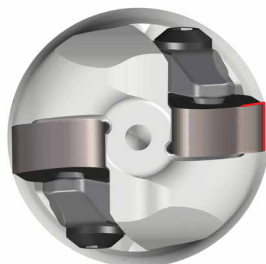
- Double-sided four corner dimple type insert



- Unique insert geometry for high feed applications with positive cutting edges
- Large corner radius for increased tool life
- More rigid design with stable machining compared to the existing RPGN inserts

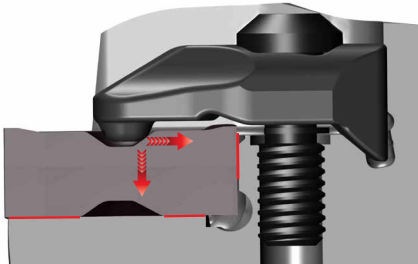


RPGN



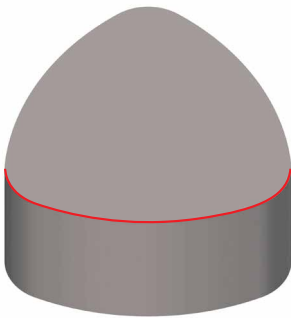
BNGX 09

- Positive rake angle and good chip evacuation
- Strong clamping by dimple type insert and clamp

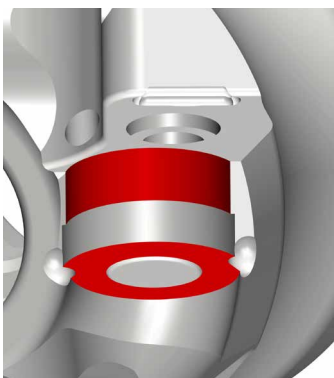


BNGX 12 Features

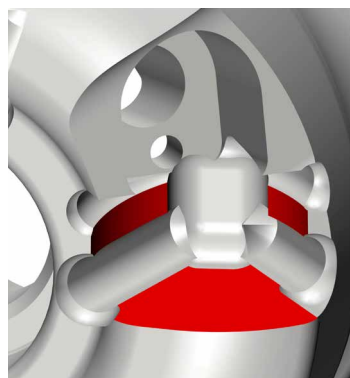
- Strong double-sided six corner insert



- Large corner radius insert for high feed machining
 - Replaces ISO RNGN 12 insert
 - Increased tool life
- Three-sided contact for stable clamping

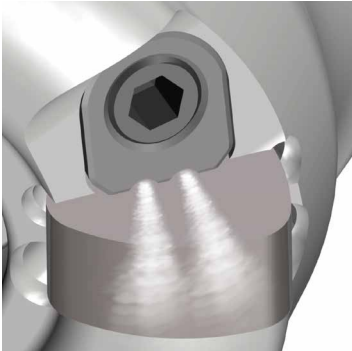


ISO RNGN

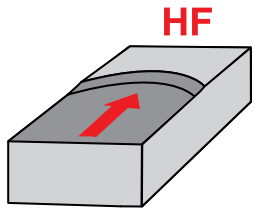


BNGX 12

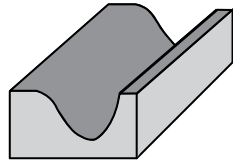
- Direct air cooling through the wedge clamp



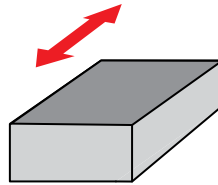
A wide variety of applications



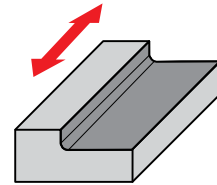
High feed milling



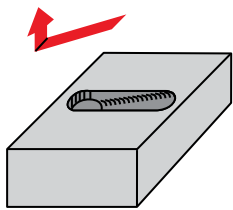
Profiling



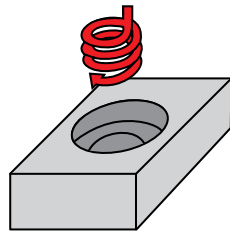
Facing



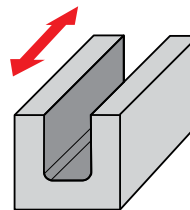
Shouldering



Straight ramping



Helical ramping



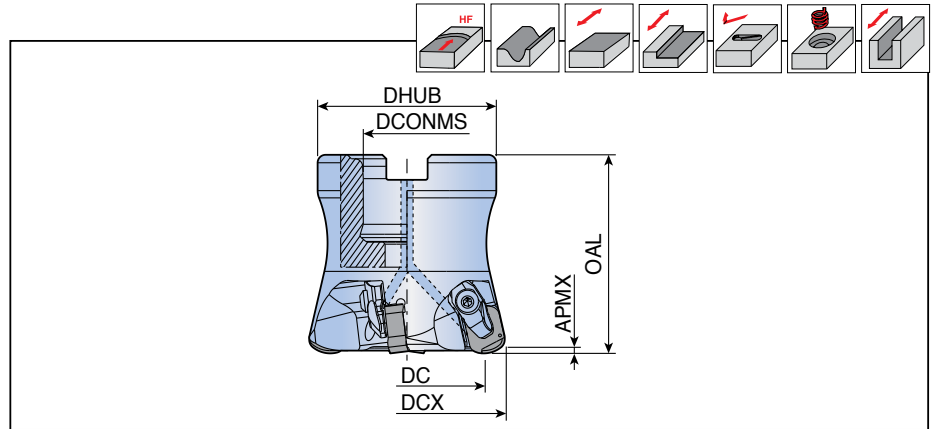
Slotting

Applied parts



TFMBN-09CH

High feed face mills



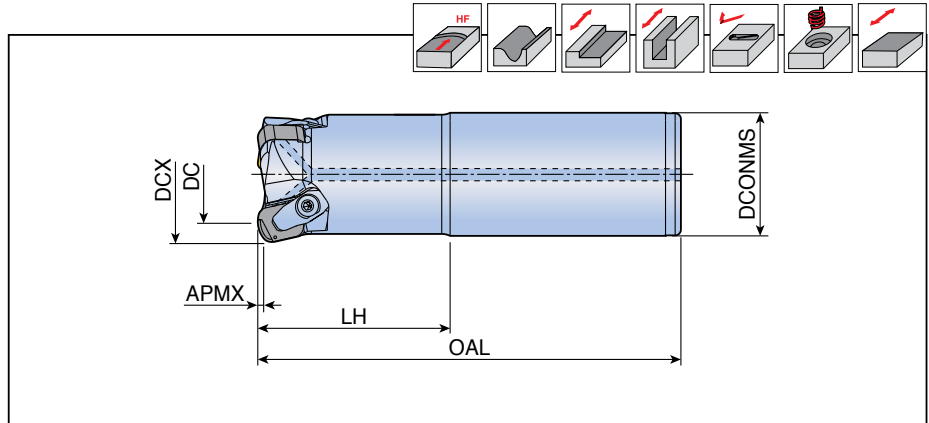
Designation		Dimension (mm)						Coolant	Arbor type	Kg	Mounting bolt	Insert
		DCX	DC	DCONMS	DHUB	OAL	APMX					
TFMBN 440-16R-09CH	4	40	29.4	16	38	40	1.5	●	A	0.2	SH M8x30	BNGX 0904...
350-22R-09CH	3	50	39.4	22	45	40	1.5	●	A	0.5	SH M10x30	
550-22R-09CH	5	50	39.4	22	45	40	1.5	●	A	0.4	SH M10x30	

Spare parts

Designation	Clamp 	Screw 	Snap ring 	Wrench 	
TFMBN-09CH	CCL-3S	CLS-35A120	CSR 1.25	L-W 2	

TEBN-09CH

High feed end mills



Designation	Z	Dimension (mm)						Coolant	Insert
		DCX	DC	DCONMS	OAL	LH	APMX		
TEBN 225-25-09CH-L100	2	25	14.8	25	100	40	1.5	x	BNGX 0904...
325-25-09CH-L100	3	25	14.8	25	100	40	1.5	x	
332-32-09CH-L120	3	32	21.5	32	120	40	1.5	●	
440-32-09CH-L120	4	40	29.4	32	120	40	1.5	●	

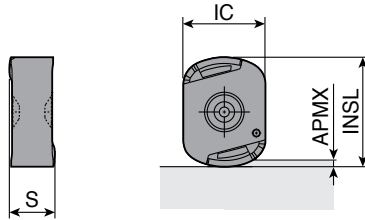
Spare parts

Designation	Clamp	Screw	Snap ring	Wrench	
TEBN-09CH	CCL-3S	CLS-35A120	CSR 1.25	L-W 2	

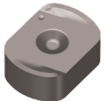
BNGX 09



High feed inserts



Size	Dimension (mm)					
	INSL	IC	S	APMX		
09	12	9	5	1.5		

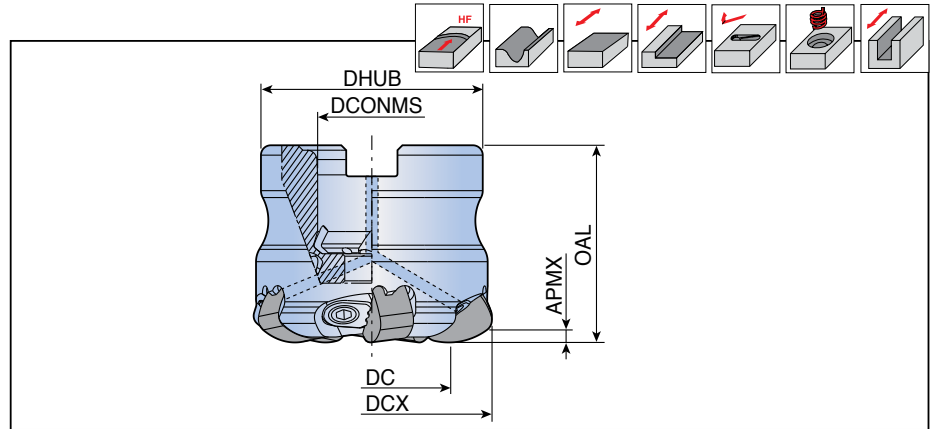
Insert	Designation	Recommended machining conditions		Ceramic		Coated						Uncoated			
		ap (mm)	Feed (mm/tooth)	TC3030	TC3020	TT9080	TT9030	TT8080	TT8020	TT8525	TT7080	TT7515	TT6080	K10	
	BNGX 0904 CH-E04	0.5-1.0	0.35-0.15	●											

● E04: Honing 0.04-0.05 mm

●: Standard items

TFMBN-12

High feed face mills



Designation		Dimension (mm)						Coolant	Arbor type	Kg	Mounting bolt	Insert
		DCX	DC	DCONMS	DHUB	OAL	APMX					
TFMBN 450-22R-12	4	50	32.8	22	45	40	2.5	●	A	0.3	SH M10x30	BNGX 1207...
550-22R-12	5	50	32.8	22	45	40	2.5	●	A	0.3	SH M10x30	
663-22R-12	6	63	45.7	22	47	40	2.5	●	A	0.4	SH M10x30	
763-22R-12	7	63	45.7	22	47	40	2.5	●	A	0.4	SH M10x30	
780-27R-12	7	80	62.6	27	70	50	2.5	●	A	1.2	SH M12x35	
880-27R-12	8	80	62.6	27	70	50	2.5	●	A	1.2	SH M12x35	

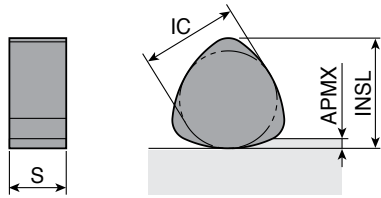
Spare parts

Designation	Wedge	Screw	Wrench		
TFMBN-12	WFZ 6-C	WS 6	T-W 3		

BNGX 12



High feed inserts



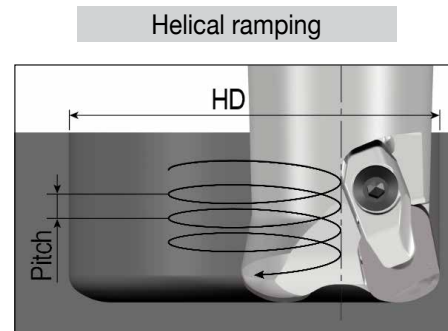
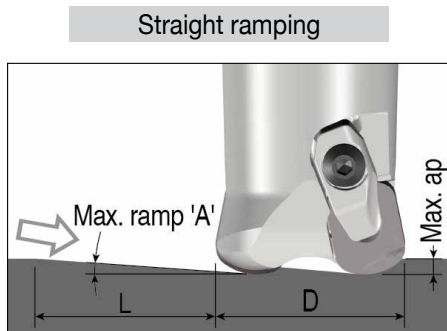
Size	Dimension (mm)					
	INSL	IC	S	APMX		
12	13.6	12	7	2.5		

Insert	Designation	Recommended machining conditions		Ceramic		Coated						Uncoated			
		ap (mm)	Feed (mm/tooth)	TC3030	TC3020	TT9080	TT9030	TT8080	TT8020	TT8525	TT7080	TT7515	TT6080	K10	
	BNGX 1207-E04	1.0-2.0	0.35-0.15	●											

● E04: Honing 0.04-0.05 mm

●: Standard items

Ramping Data

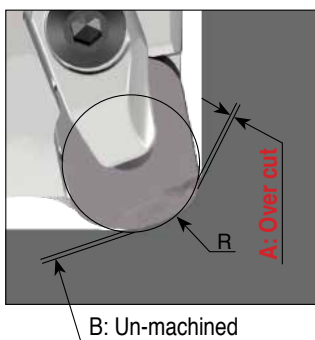


BNGX 09

(unit: mm)

Cutter dia.(D)	Straight ramp down			Helical ramp down		
	Max. ramp (A°)	Max. ap	Min. length (L)	Min. dia.(HD)	Max. dia.(HD)	Max. pitch/rev.
Ø25	1.2	1.5	55	39	50	0.9
Ø32	0.6		132	53	64	0.6
Ø40	0.6		143	69	80	0.7
Ø50	0.5		156	89	100	0.9
						1.0

Programming technical data



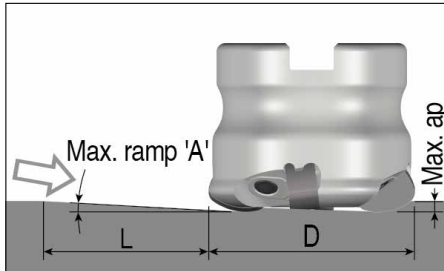
	R Program	A Over cut	B Un-machined
BNGX 09	3.0	0.00	0.61
	3.4	0.00	0.46
	3.5	0.01	0.43
	4.0	0.12	0.26

 : Recommended program 'R'

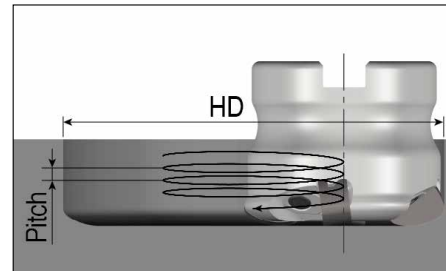
Ramping Data



Straight ramping



Helical ramping

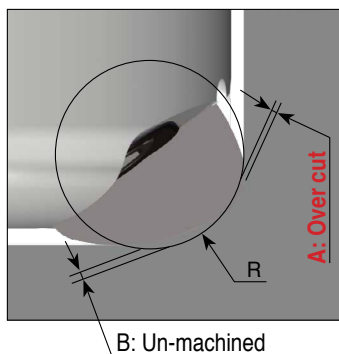


BNGX 12

(unit: mm)

Cutter dia.(D)	Straight ramp down			Helical ramp down		
	Max. ramp (A°)	Max. ap	Min. length (L)	Min. dia.(HD)	Max. dia.(HD)	Max. pitch/rev.
Ø50	0.6	2.5	239	84	100	1.1
Ø63	0.5			287	110	126
Ø80	0.4		318	144	160	1.3

Programming technical data



	R Program	A Over cut	B Un-machined
BNGX 12	4.0	0.00	1.18
	4.5	0.00	1.00
	5.0	0.03	0.84

: Recommended program 'R'

KIT COLLECTIONS

These kit products are available in the format listed below.



Cat. No.	Designation	Bill of materials	Qty.
6336294	KISFT-TEBN 325-25-09CH	TEBN 325-25-09CH-L100	1
		BNGX 0904 CH-E04 TC3030	6
6336295	KISFT-TEBN 332-32-09CH	TEBN 332-32-09CH-L120	1
		BNGX 0904 CH-E04 TC3030	6
6336296	KISFT-TFMBN 550-22R-12	TFMBN 550-22R-12	1
		BNGX 1207-E04 TC3030	10



Cat. No.	Designation	Bill of materials	Qty.
6337876	KISFS-TEBN 325-25-09CH	TEBN 325-25-09CH-L100	1
		BNGX 0904 CH-E04 TC3030	50
6337877	KISFS-TEBN 322-32-09CH	TEBN 332-32-09CH-L120	1
		BNGX 0904 CH-E04 TC3030	50
6337878	KISFS-TFMBN 550-22R-12	TFMBN 550-22R-12	1
		BNGX 1207-E04 TC3030	50



Cat. No.	Designation	Bill of materials	Qty.
6338445	KISFF-A-BNGX 09-E04TC3030	BNGX 0904 CH-E04 TC3030	100
6338446	KISFF-B-BNGX 09-E04TC3030		300
6338447	KISFF-A-BNGX 12-E04TC3030	BNGX 1207-E04 TC3030	100
6338448	KISFF-B-BNGX 12-E04TC3030		300