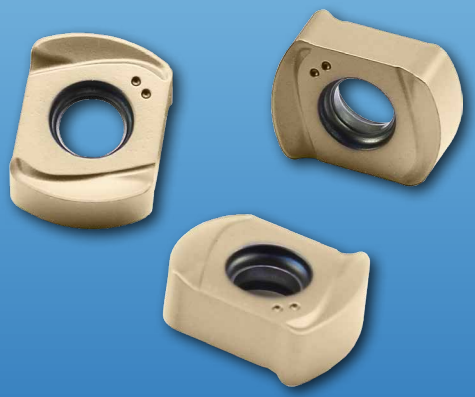
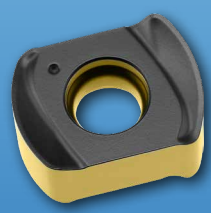
CXBN High Feed Milling

BNMX

- High feed and low cutting force offers better productivity.
- Use BNMX double-sided inserts with 4 cutting edges.
- Many insert geometries for wide range cutting applications.
- Winstar BNMX inserts are now available with CVD grades CX37TA and CX47TA for improved tool life in dry cutting.





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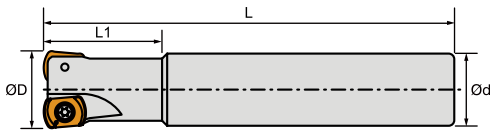
Milling Tools



Insert Brand : Winstar, Taegutec, ...

Order No.	D	L1	L	d	T	Inserts	Screw	Wrench	Stock
ICXBNE602015130	15	26	130	16	2	BNMX0603	ITS3004	ITK08	●
ICXBNE602016130	16	26	130	16	2				●
ICXBNE602017130	17	26	130	16	2				●
ICXBNE602018130	18	25	130	20	2				●
ICXBNE603020150	20	40	150	20	3				●
ICXBNE603021150	21	40	150	20	3				●
ICXBNE604025150	25	40	150	25	4				●
ICXBNE604026150	26	30	150	25	4				●
ICXBNE604032200	32	45	200	32	4				●
ICXBNE903025150	25	40	150	25	3	BNMX0904	ITS4009	ITK15	●
ICXBNE903032150	32	40	150	32	3				●

Inch Size

Order No.	D	L1	L	d	T	Inserts	Screw	Wrench	Stock
IECXBN602062400	.625"	1.25"	4"	.625"	2	BNMX0603	ITS3004	ITK08	●
IECXBN603075500	.750"	1.50"	5"	.750"	3				●
IECXBN604100600	1.000"	2.00"	6"	1.000"	4				●
IECXBN903100600	1.000"	2.00"	6"	1.000"	3	BNMX0904	ITS4009	ITK15	●
IECXBN903125600	1.250"	2.50"	6"	1.250"	3				●

● stock ○ by inquiry

Customize available.

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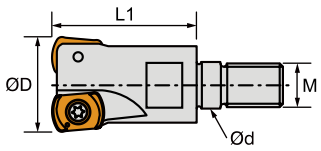
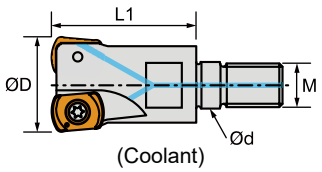
Modular Milling Heads





(Coolant)

Insert Brand : Winstar, Taegutec, ...

Order No.	D	L1	d	M	T	Coolant Hole	Inserts	Screw	Wrench	Stock
ICXBNM602016080	16	26	8.5	M8	2		BNMX0603	ITS3004	ITK08	●
ICXBNM602016081	16	26	8.5	M8	2	✓				●
ICXBNM603020100	20	30	10.5	M10	3					●
ICXBNM603020101	20	30	10.5	M10	3	✓				●
ICXBNM603021100	21	30	10.5	M10	3					●
ICXBNM603025120	25	35	12.5	M12	3					●
ICXBNM604025120	25	35	12.5	M12	4					●
ICXBNM604025121	25	35	12.5	M12	4	✓				●
ICXBNM603026120	26	35	12.5	M12	3					●
ICXBNM604032161	32	40	17.0	M16	4	✓				●
ICXBNM605032160	32	40	17.0	M16	5					●
ICXBNM605032161	32	40	17.0	M16	5	✓				●
ICXBNM606040161	40	43	17.0	M16	6	✓				●
ICXBNM903025121	25	35	12.5	M12	3	✓	BNMX0904	ITS4009	ITK15	●
ICXBNM904032161	32	40	17.0	M16	4	✓				●
ICXBNM904035161	35	43	17.0	M16	4	✓				○
ICXBNM905042161	42	43	17.0	M16	5	✓				●

● stock ○ by inquiry

※ For screw-in type adapter, please refer to Tooling System

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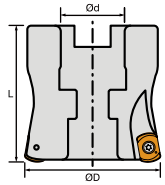
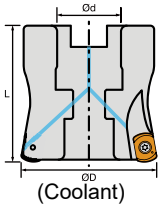
Milling Tools





(Coolant)

Insert Brand : Winstar, Taegutec, ...

Order No.	D	L	d	T	Coolant Hole	Inserts	Screw	Wrench	Stock
ICXBNF606040220	40	50	22	6		BNMX0603	ITS3004	ITK08	●
ICXBNF606040221	40	50	22	6	✓				●
ICXBNF607050220	50	50	22	7					●
ICXBNF607050221	50	50	22	7	✓				●
ICXBNF607052221	52	50	22	7	✓				○
ICXBNF607063220	63	50	22	7					●
ICXBNF906050221	50	50	22	6	✓	BNMX0904	ITS3504	ITK15	●
ICXBNF906052221	52	50	22	6	✓				●
ICXBNF907063220	63	50	22	7			ITS4009		●
ICXBNF907063271	63	50	27	7	✓		ITS3504		●
ICXBNF907066271	66	50	27	7	✓				○
ICXBNF908080271	80	50	27	8	✓				●
ICXBNF910100321	100	50	32	10	✓				●

Inch Size

Order No.	D	L	d	T	Coolant Hole	Inserts	Screw	Wrench	Stock
ICXBNF606040220	2"	1.57"	.750"	7		BNMX0603	ITS3004	ITK08	●
ICXBNF606040221	2"	1.57"	.750"	7	✓				●
ICXBNF607050220	2"	1.57"	.750"	6		BNMX0904	ITS4009	ITK15	●

● stock ○ by inquiry

Customize available.

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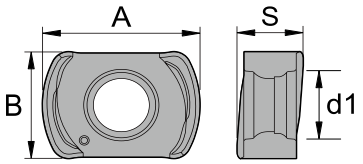
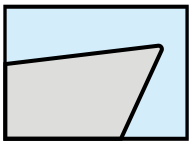
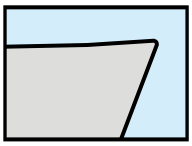
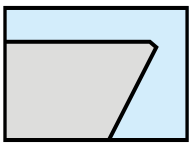
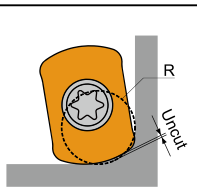
Insert Specifications

Insert	Dimensions (mm)				
	A	B	S	d1	
BNMX0603	9.00	6.39	3.73	3.2	
BNMX0904	11.94	9.20	4.79	4.2	

Insert Geometry

Chipbreaker	Application
 **SG**	Semi-finishing cutting with sharp geometry design for carbon steel, alloy steel, stainless steel and difficult-to-cut material.
 **MG**	Medium cutting with low cutting force for carbon steel, alloy steel, stainless steel, high temperature alloy and cast iron.
 **RG**	Rough cutting with strong geometry design for steel, alloy steel and hardened steel.

Corner R Programming

Designation	Approx. R (mm)		
	Input. R	Uncut	
BNMX0603	2.0	0.42	
BNMX0904	2.5	0.61	

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Insert Grade

Grade Type	Coating Color	Properties	Application	Working Material						Industry Area
				P	M	K	N	S	H	
CX23AX (PVD)		• Wear resistance	• Continuous finishing machining • For hardened steel is 1st recommended	○	○	○		○	●	• Mold & Die • Hardened parts
CX33TX (PVD)		• Wear resistance • Anti-corrosion	• Medium to roughing • General machining • For carbon steel & alloy steel is 1st recommended	●	●	●		○	●	• Mold & Die • Automotive • Machinery • Aerospace
CX33UX (PVD)		• Wear resistance • Anti-corrosion • Low friction	• Semi-finishing to roughing • General machining • For exotic materials is 1st recommended	●	●	●		●	●	• Mold & Die • Automotive • Machinery • Aerospace
CX37TA (CVD)		• Wear resistance • Impact resistance	• Medium to roughing • For cast iron is 1st recommended	●	○	●		○	○	• Automotive • Machinery
CX43TX (PVD)		• Tough substrate • Anti-corrosion	• Medium to roughing • Interrupted machining • For stainless steel is 1st recommended	●	●	○		●		• Electronics • Medical • Aerospace
CX47TA (CVD)		• High impact resistance • High toughness	• Roughing • Interrupted machining • For alloy steel & stainless steel are recommended	●	●	○		○	○	• Machinery • Aerospace • Energy

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Insert Designation

Insert	Order No.	Code-Chipbreaker-Grade	Working Material					
			P	M	K	N	S	H
	IBNMX0603SG23AX	BNMX0603-SG-CX23AX	○	○	○		○	●
	IBNMX0603SG33TX	BNMX0603-SG-CX33TX	●	●	●		○	●
	IBNMX0603SG33UX	BNMX0603-SG-CX33UX	●	●	●		●	●
	IBNMX0603SG43TX	BNMX0603-SG-CX43TX	●	●	●		●	
	IBNMX0603MG23AX	BNMX0603-MG-CX23AX	○	○	○		○	●
	IBNMX0603MG33TX	BNMX0603-MG-CX33TX	●	●	●		○	●
	IBNMX0603MG33UX	BNMX0603-MG-CX33UX	●	●	●		●	●
	IBNMX0603MG43TX	BNMX0603-MG-CX43TX	●	●	●		●	
	IBNMX0603MG37TA	BNMX0603-MG-CX37TA	○	○	●		○	○
	IBNMX0603MG47TA	BNMX0603-MG-CX47TA	●	●	○		●	○
	IBNMX0603RG23AX	BNMX0603-RG-CX23AX	○	○	○		○	●
	IBNMX0603RG33TX	BNMX0603-RG-CX33TX	●	●	●		○	●
	IBNMX0603RG43TX	BNMX0603-RG-CX43TX	●	●	●		●	
	IBNMX0603RG37TA	BNMX0603-RG-CX37TA	○	○	●		○	○
	IBNMX0603RG47TA	BNMX0603-RG-CX47TA	●	●	○		●	○
	IBNMX0904MG23AX	BNMX0904-MG-CX23AX	○	○	○		○	●
	IBNMX0904MG33TX	BNMX0904-MG-CX33TX	●	●	●		○	●
	IBNMX0904MG33UX	BNMX0904-MG-CX33UX	●	●	●		●	●
	IBNMX0904MG43TX	BNMX0904-MG-CX43TX	●	●	●		●	
	IBNMX0904MG37TA	BNMX0904-MG-CX37TA	○	○	●		○	○
	IBNMX0904MG47TA	BNMX0904-MG-CX47TA	●	●	○		●	○

Recommended Cutting Conditions

Working Material	BNMX0603			BNMX0904		
	Vc	fz	ap	Vc	fz	ap
Carbon Steel / Alloy Steel	120 ~ 250	0.4 ~ 1.6	0.3 ~ 0.9	120 ~ 250	0.4 ~ 2.0	0.3 ~ 1.4
Stainless Steel	100 ~ 180	0.3 ~ 1.2	0.3 ~ 0.7	100 ~ 180	0.3 ~ 1.6	0.3 ~ 1.2
Cast Iron	120 ~ 250	0.4 ~ 1.6	0.3 ~ 0.9	120 ~ 250	0.4 ~ 2.0	0.3 ~ 1.4
High Temperature Alloy	40 ~ 100	0.3 ~ 0.8	0.3 ~ 0.6	40 ~ 100	0.3 ~ 1.2	0.3 ~ 1.2
Hardened Steel	50 ~ 100	0.3 ~ 1.0	0.3 ~ 0.6	50 ~ 100	0.3 ~ 1.4	0.3 ~ 1.2