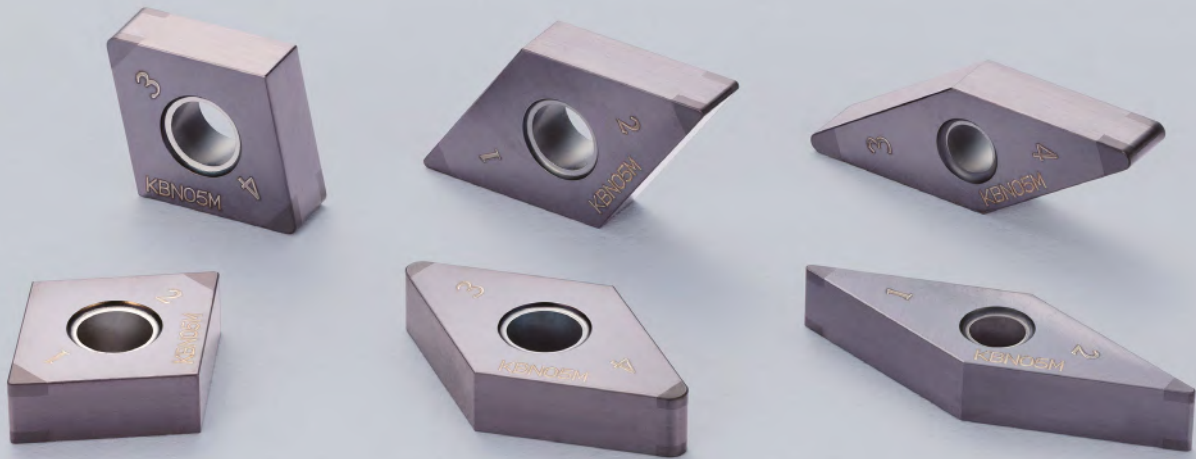


KBN05M



Economical double-sided insert now added to KBN05M lineup

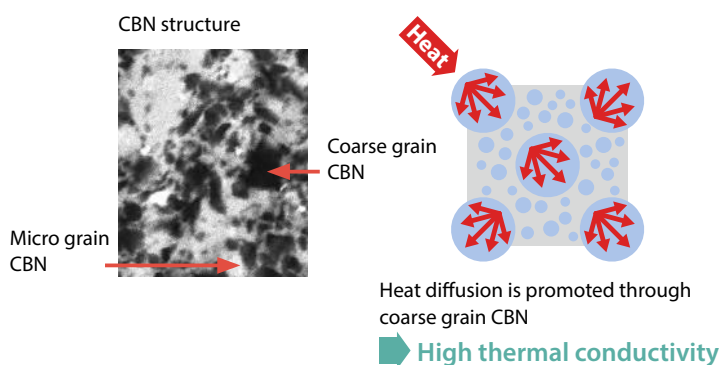
KBN05M is used in a wide range of applications from continuous (high-speed finishing) to interrupted machining.

Save on insert costs with economical double-sided multi-edge inserts.

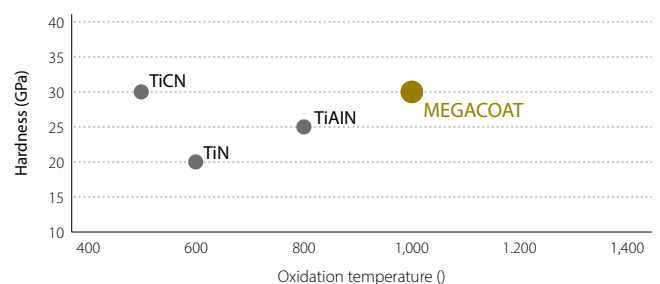
- Hybrid Grain Structure (KBN05M)
- Mixed structure of micro grain CBN and coarse grain CBN

Superior wear and Oxidation Resistance with MEGACOAT

➡ BN possesses high hardness, toughness and thermal resistance characteristics

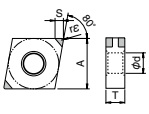
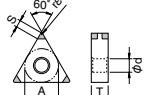


Coating properties



Low Oxidation resistance High

Negative type inserts

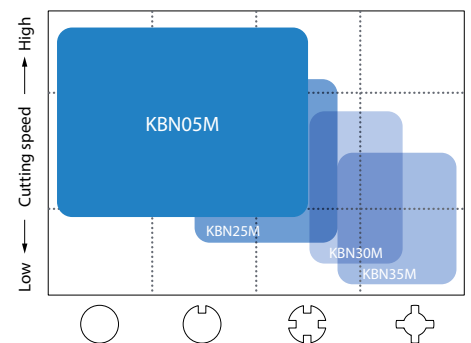
Shape		Description	Edge specification	Dimensions (mm)					No. of edges	KBN05M				
				I.C.	Thickness	Hole	Corner-R (r _e)	S						
		CNGA 120404ME4	S01225	12.70	4.76	5.16	0.4	2.6	4	●				
		120408ME4					0.8	2.6		●				
		120412ME4					1.2	2.5		●				
	DNGA 150404ME4 150408ME4 150412ME4						0.4	2.6		●				
							0.8	2.2		●				
							1.2	1.9		●				
		TNGA 160404ME6		9.525		3.81	6	0.4	2.7	6	●			
		160408ME6						0.8	2.4		●			
		160412ME6						1.2	2.1		●			
	VNGA 160404ME4 160408ME4							0.4	2.0	4	●			
								0.8	1.8		●			

S01225: 0.12 mm X 25° Chamfered + honed cutting edge

● Available

Recommended cutting conditions

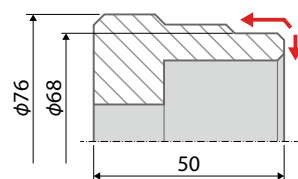
Workpiece	Hardness	Application		Cutting conditions		
				Vc (m/min)	ap (mm)	(mm/rev)
Hardened material	> 55 HRC	General finishing	Continuous to interrupted	100 – 150 – 200	0.05 – 0.3 – 0.5	0.05 – 0.08 – 0.1



Case studies (KBN05M single-sided)

Gear 20Cr4 (58HRC)

External facing and chamfering
Vc = 130 m/min
ap = 0.6 mm
f = 0.12 mm/rev
Wet
CNGA120408S01225ME
KBN05M



Tool Life

KBN05M

300 pcs/edge

Tool Life
x1.5

Competitor A

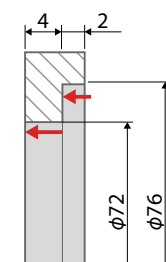
200 pcs/edge

KBN05M achieved 1.5 times longer tool life than Competitor A

(User evaluation)

Stator 15CrMo5 (55HRC)

Internal machining
Vc = 170 m/min
ap = 0.4 mm
f = 0.1 mm/rev
Wet
CNGA120408S01225ME
KBN05M



Tool Life

KBN05M

600 pcs/edge

Tool Life
x2

Competitor B

300 pcs/edge

KBN05M tool life was twice that of Competitor B

(User evaluation)