

## C.B.N. Turning Inserts

SOWA C.B.N. products are made from Cubic Boron Nitride powder and special ceramic binder.  
SOWA C.B.N. can provide excellent cutting performance for hardened steel and cast iron having high hardness.  
Using a C.B.N. can replace additional grinding processes, thus saving costs.

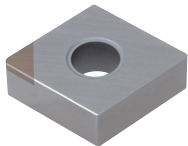
- Suitable for sintered alloy, hard material, heat treated alloy · Excellent surface finish at the cutting of hardened steel.
- Excellent for cast iron cutting

### Recommended Cutting Condition

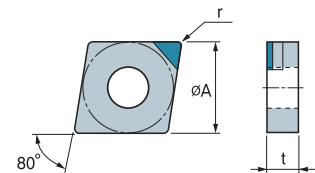
\*For additional technical information see page E161

Workpiece	Speed (sfm)	Feed Turning(ipr) Milling(ipt)	Depth (inch)	1st Recommended Grade
Gray Cast Iron (180~230 HRB)	1325 ~ 3275	0.004 ~ 0.02	0.005 ~ 0.04	KB350
	1325 ~ 3275	0.004 ~ 0.02	0.005 ~ 0.04	KB360
Heat Treated Steel (over 45HRC)	325 ~ 450	0.001 ~ 0.012	0.005 ~ 0.04	KB320 KB330
High Temp Alloy (over 45HRC)	175 ~ 600	0.002 ~ 0.008	0.005 ~ 0.04	KB360
Sintered Alloy	175 ~ 825	0.001 ~ 0.008	0.005 ~ 0.04	KB360
Carbide Roll, High Speed Steel Roll	150 ~ 200	0.024 ~ 0.031	0.08 ~ 0.16	KB360

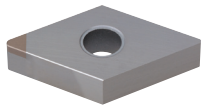
## CNMA



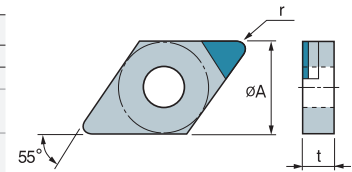
Designation	ISO	C.B.N.			(inch)			Applicable Holders	
		KB320	KB350	KB360	A	t	r	Holder	Page No.
CNMA 432	120408	146131	147886	147965	1/2	3/16	1/32	Turning	
		\$ 56.96	\$ 25.66	\$ 25.66				MCKNR/L	E48
								MCLNR/L	E48
								MCLNR/L	E64
							PCLNR/L	E67	



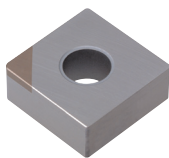
## DNMA



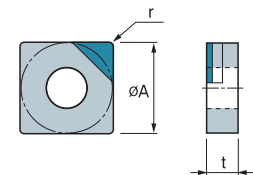
Designation	ISO	C.B.N.			(inch)			Applicable Holders	
		KB320	KB350	KB360	A	t	r	Holder	Page No.
DNMA 432	120408	146132			1/2	3/16	1/32	Turning	
		\$ 56.96						MDJNR/L	E49
								PSDNR/L	E67
								PDUNR/L	E68



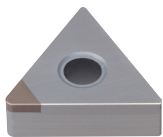
## SNMA



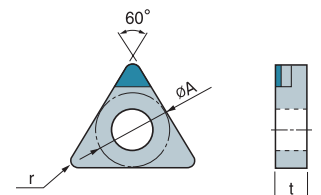
Designation	ISO	C.B.N.			(inch)			Applicable Holders	
		KB320	KB350	KB360	A	t	r	Holder	Page No.
SNMA 432	120408	146133			1/2	3/16	1/32	Turning	
		\$ 25.66						MSDNN	E50
								MSKNR/L	E50
SNMA-433	120412	146134			1/2	3/16	3/64	Boring	
		\$ 25.66						MSRNR/L	E51
								PSKNR/L	E68



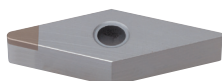
## TNMA



Designation	ISO	C.B.N.			(inch)			Applicable Holders	
		KB320	KB350	KB360	A	t	r	Holder	Page No.
TNMA 332	160408	146139			3/8	3/16	1/32	Turning	
		\$ 24.86						MTFNR/L	E52
								MTENN	E52
TNMA-432	220408	146141			1/2	3/16	1/32	Boring	
		\$ 25.66						MTJNR/L	E53
								PTFNR/L	E69



## VNMA



Designation	ISO	C.B.N.			(inch)			Applicable Holders		
		KB320	KB350	KB360	A	t	r	Hole	Holder	Page No.
VNMA 331	160402			147968	3/8	3/16	1/64		Turning	
				\$ 27.46					MVJNR/L	E54

