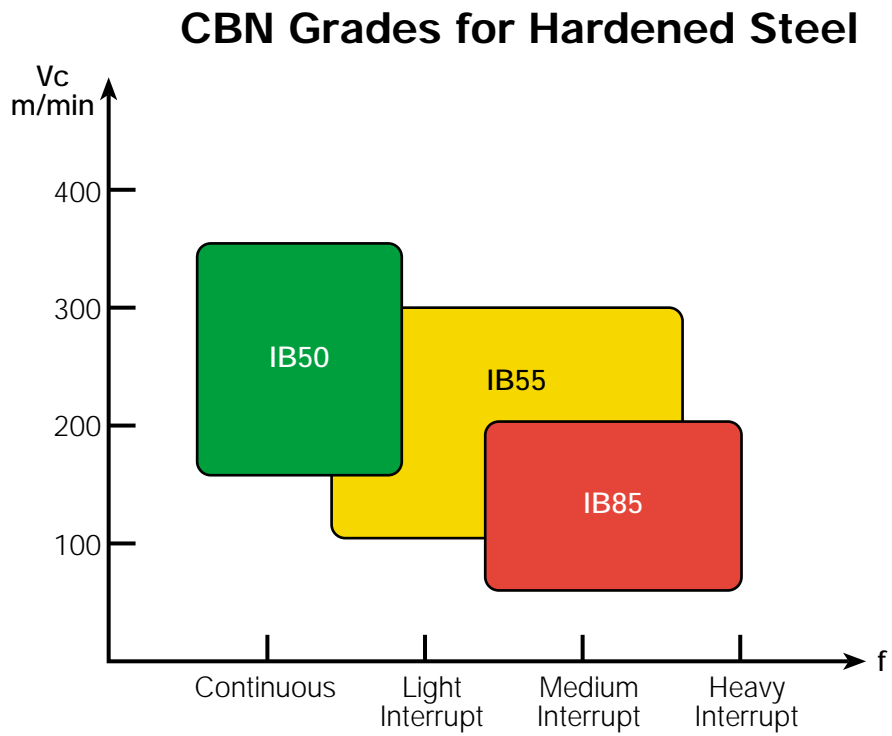


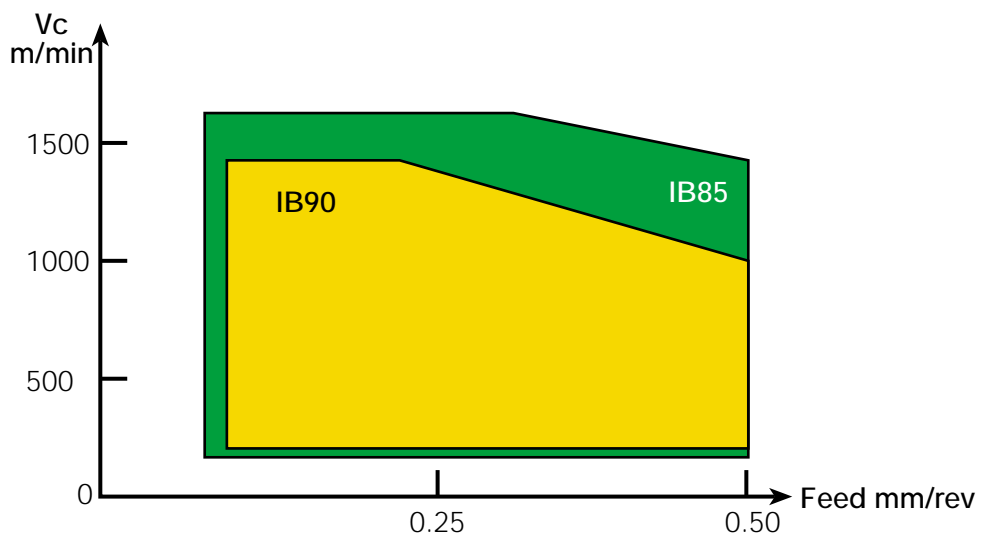


## Diagram 1



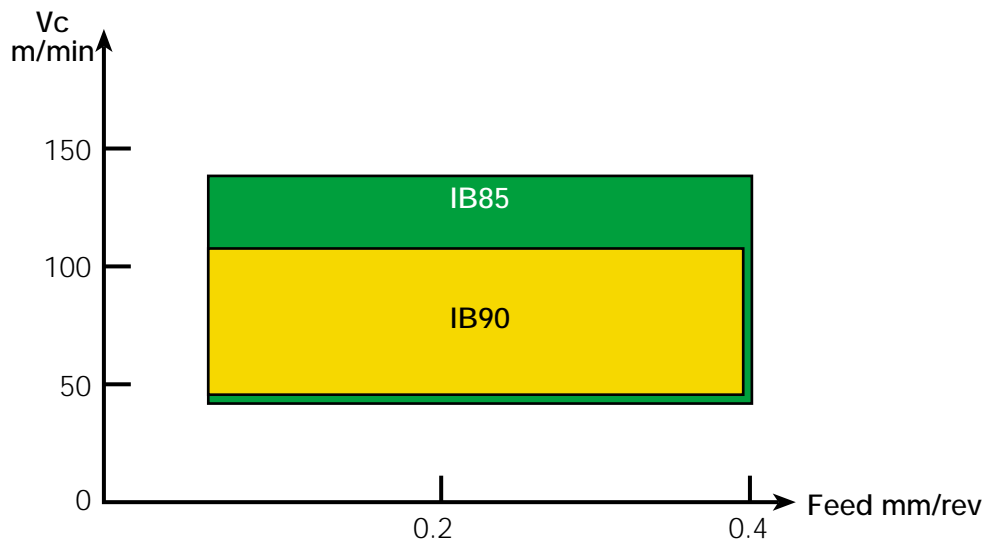
## Diagram 2

### IB85 Application Machining Grey Cast Iron (200-280HBN)



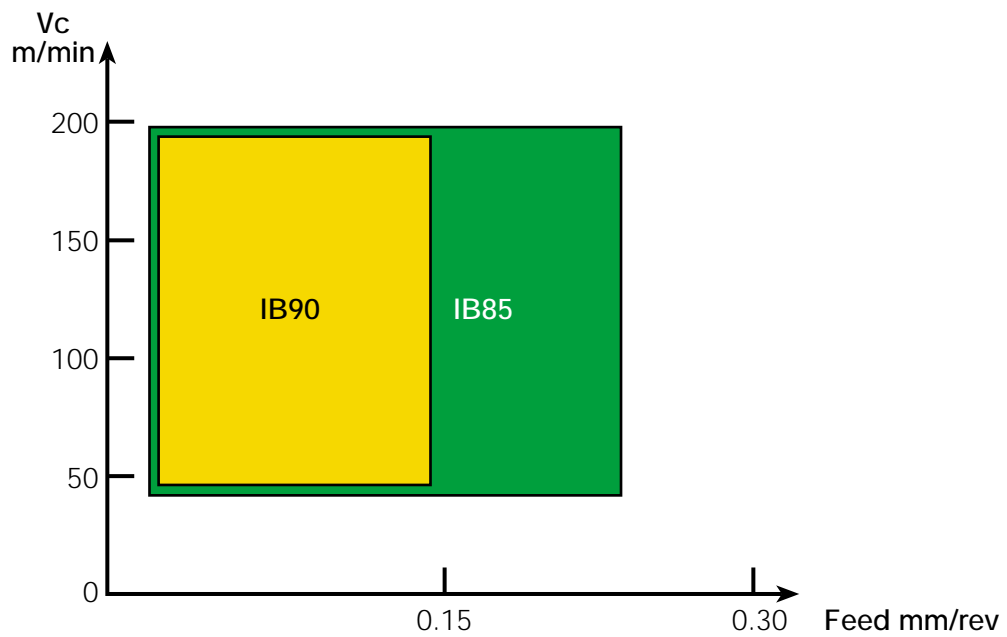
**Diagram 3**

**IB85 Application  
Machining Hard Cast Iron >45 HRC**



**Diagram 4**

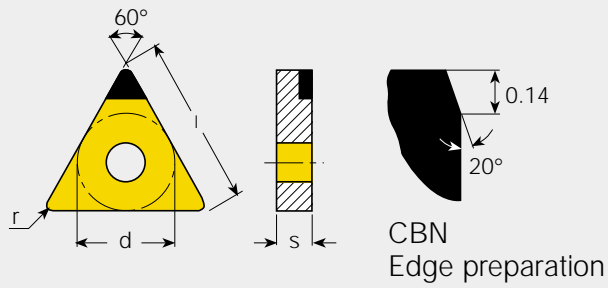
**IB85 Application  
Machining Heat Resistant Alloys >35 HRC**



## CBN Triangular Inserts



Tolerances  
 $d = \pm 0.05$   
 $s = \pm 0.13$



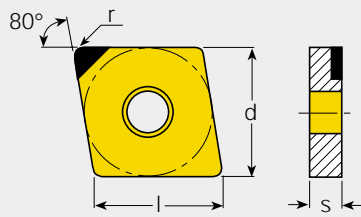
Designation	Dimensions								
	l	d	s	r	IB50	IB55	IB85	IB90	ID5
TNMA 160404T	16.5	9.52	4.76	0.4	●	●	●		
TNMA 160408T	16.5	9.52	4.76	0.8	●	●	●	●	

- Cast Iron
- Hardened Steel

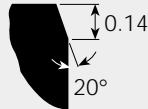
## CBN and PCD 80° Rhombic Inserts



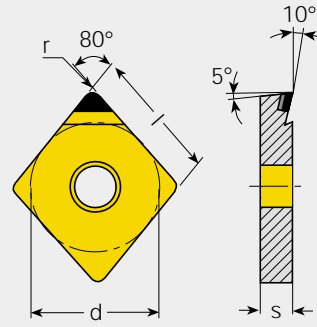
Tolerances  
 $d = \pm 0.08$   
 $s = \pm 0.13$



**CNMA - CBN**



CBN  
Edge preparation



**CNMA - PCD (1)**

Designation	Dimensions								
	l	d	s	r	IB50	IB55	IB85	IB90	ID5
CNMA 120404T	12.9	12.7	4.76	0.4	●	●	●	●	
CNMA 120408T	12.9	12.7	4.76	0.8	●	●	●	●	
CNMA 120408T-WG (2)	12.9	12.7	4.76	0.8	●	●	●	●	
CNMA 120412T	12.9	12.7	4.76	1.2		●			
CNMA 120404 (1)	12.9	12.7	4.76	0.4					●
CNMA 120408 (1)	12.9	12.7	4.76	0.8					●

PCD - Sharp cutting edge

(1) For positive rake other than 10°  
 add to designation P : :

For example: CNMA 120404 P15  
 will be supplied with 15° rake angle.

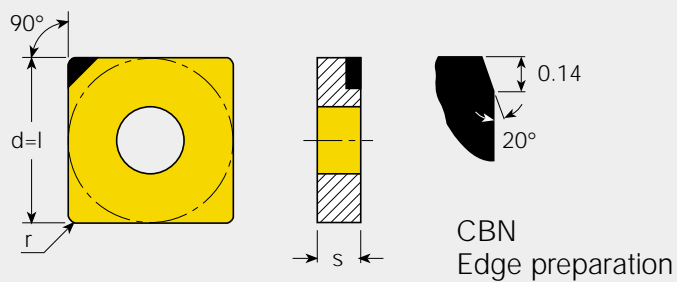
(2) Wiper insert for high feed finishing,  
 eliminates grinding.

- Cast Iron
- Aluminum Alloy (Si<12%)
- Hardened Steel

## CBN Square Inserts



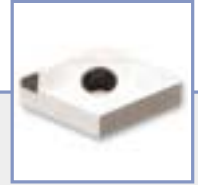
Tolerances  
 $d = \pm 0.08$   
 $s = \pm 0.13$



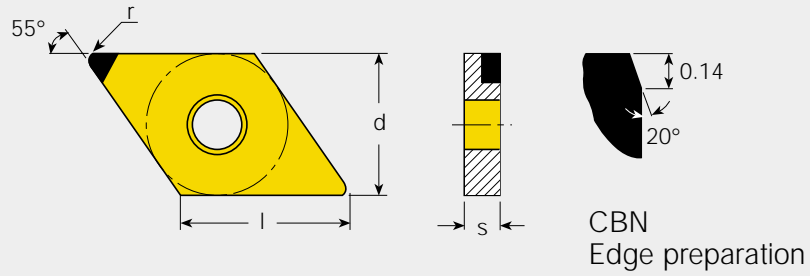
Designation	Dimensions								
	l	d	s	r	IB50	IB55	IB85	IB90	ID5
SNMA 120404T	12.7	12.7	4.76	0.4			●	●	
SNMA 120408T	12.7	12.7	4.76	0.8	●	●	●	●	
SNMA 120412T	12.7	12.7	4.76	1.2			●		

- Cast Iron
- Hardened Steel

## CBN 55° Rhombic Inserts



Tolerances  
 $d = \pm 0.08$   
 $s = \pm 0.13$



Designation	Dimensions								
	l	d	s	r	IB50	IB55	IB85	IB90	ID5
DNMA 150404T	15.5	12.7	4.76	0.4		●			
DNMA 150408T	15.5	12.7	4.76	0.8	●	●			
DNMA 150412T	15.5	12.7	4.76	1.2		●			
DNMA 150604T	15.5	12.7	6.35	0.4		●			
DNMA 150608T	15.5	12.7	6.35	0.8		●			
DNMA 150612T	15.5	12.7	6.35	1.2	●	●			

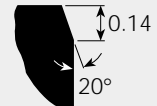
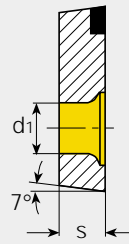
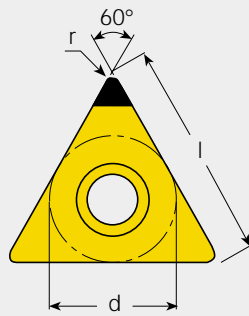
● Hardened Steel

# ISOTURN

## CBN and PCD 11° Clearance Triangular Inserts



Tolerances  
 $d = \pm 0.05$   
 $s = \pm 0.13$



CBN  
 Edge preparation

Designation	Dimensions									
	l	d	s	r	d <sub>1</sub>	IB50	IB55	IB85	IB90	ID5
TCMT 110204T	11	6.35	2.38	0.4	2.8	●	●			
TCMT 110204	11	6.35	2.38	0.4	2.8					●

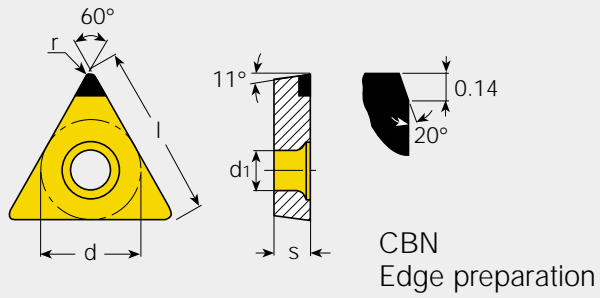
PCD-sharp cutting edge.

- Aluminum Alloy (Si<12%)
- Hardened Steel

# ISOTURN

## CBN and PCD 11° Clearance Triangular Inserts for Fine Boring

Tolerances  
 $d = \pm 0.025$   
 $s = \pm 0.13$



Designation										
	l	d	s	r	d <sub>1</sub>	IB50	IB55	IB85	IB90	ID5
TPGX 090202	9.52	5.56	2.4	0.2	3.0					●
TPGX 090202T	9.52	5.56	2.4	0.2	3.0	●			●	
TPGX 090204	9.52	5.56	2.4	0.4	3.0					●
TPGX 090204T	9.52	5.56	2.4	0.4	3.0	●			●	
TPGX 110302	11.00	6.35	3.2	0.2	3.5					●
TPGX 110302T	11.00	6.35	3.2	0.2	3.5	●			●	
TPGX 110304	11.00	6.35	3.2	0.4	3.5					●
TPGX 110304T	11.00	6.35	3.2	0.4	3.5	●			●	

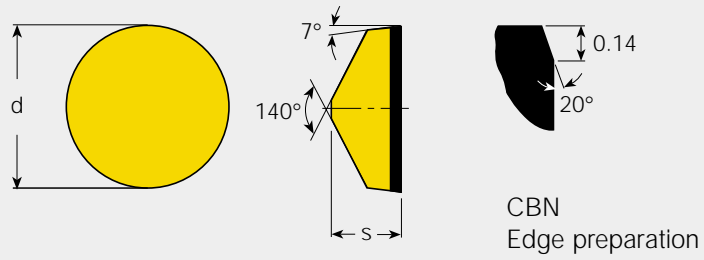
PCD-sharp cutting edge.

- Cast Iron
- Aluminum Alloy (Si<12%)
- Hardened Steel

## CBN 7° Clearance Round Inserts



Tolerances  
 $d = \pm 0.025$   
 $s = \pm 0.13$



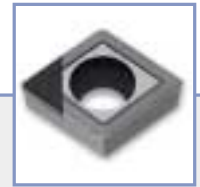
Designation	Dimensions						
	d	s	IB50	IB55	IB85	IB90	ID5
RCGX 060300T	6.35	3.18			● (1)	●	
RCGX 090300T	9.52	3.18				●	
RCGX 120400T	12.70	4.76				●	

(1) 120° Bottom

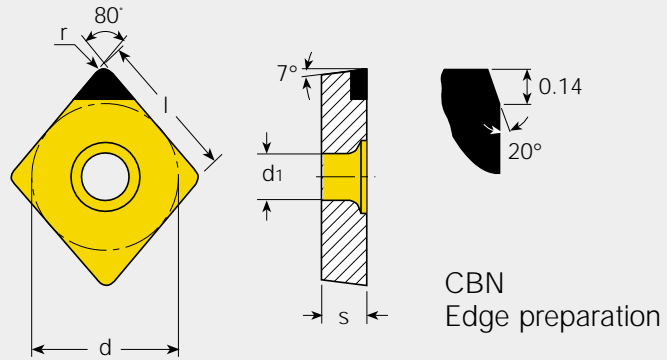
- Cast Iron
- Hardened Steel

# ISOTURN

## CBN and PCD 7° Clearance 80° Rhombic Inserts



Tolerances  
 $d = \pm 0.05$   
 $s = \pm 0.13$



Designation	Dimensions									
	l	d	s	r	d <sub>1</sub>	IB50	IB55	IB85	IB90	ID5
CCMT 060202T	6.3	6.35	2.38	0.2	2.8		●			
CCMT 060204T	6.3	6.35	2.38	0.4	2.8		●			
CCMT 09T304T	9.5	9.52	3.97	0.4	4.4		●			
CCMT 09T308T	9.5	9.52	3.97	0.8	4.4		●			
CCMT 060204	6.3	6.35	2.38	0.4	2.8					●
CCMT 09T304	9.5	9.52	3.97	0.4	4.4					●

PCD-sharp cutting edge.

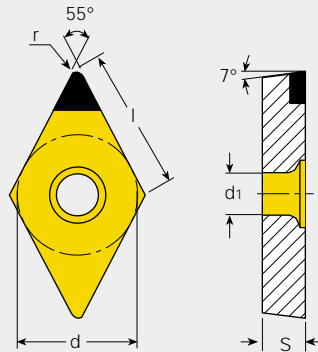
- Aluminum Alloy (Si<12%)
- Hardened Steel

# ISOTURN

## CBN and PCD 7° Clearance PCD 55° Rhombic Inserts



Tolerances  
 $d = \pm 0.05$   
 $s = \pm 0.13$



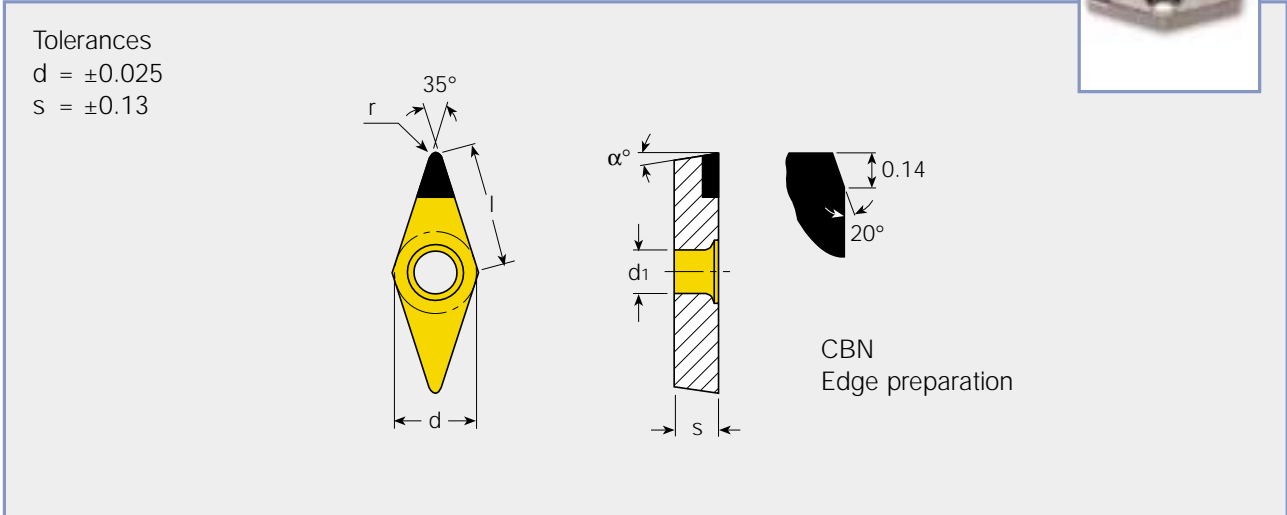
CBN  
Edge preparation

Designation	Dimensions									
	l	d	s	r	d <sub>1</sub>	IB50	IB55	IB85	IB90	ID5
DCMT 11T304T	11.6	9.52	3.97	0.4	4.4		●			
DCMT 11T308T	11.6	9.52	3.97	0.8	4.4		●			
DCMT 11T302	11.6	9.52	3.97	0.2	4.4					●
DCMT 11T304	11.6	9.52	3.97	0.4	4.4					●
DCMT 11T308	11.6	9.52	3.97	0.8	4.4					●

PCD-sharp cutting edge.

- Aluminum Alloy (Si<12%)
- Hardened Steel

## CBN and PCD 35° Rhombic Inserts



Designation	Dimensions											
	l	d	s	r	$\alpha$	$d_1$	IB50	IB55	IB85	IB90	ID5	
VCGT 160404	16.6	9.52	4.76	0.4	7	4.4					●	
VCGT 160408	16.6	9.52	4.76	0.8	7	4.4					●	
VBMT 160404T	16.6	9.52	4.76	0.4	5	4.4	●	●				

PCD-sharp cutting edge.

- Aluminum Alloy (Si<12%)
- Hardened Steel