

Diagram 1

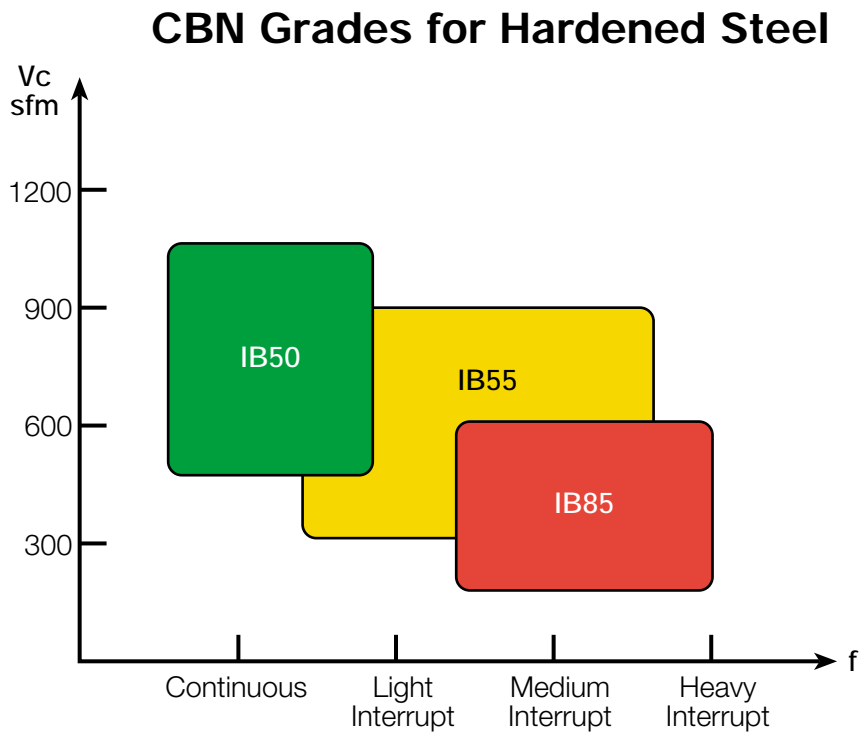


Diagram 2

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

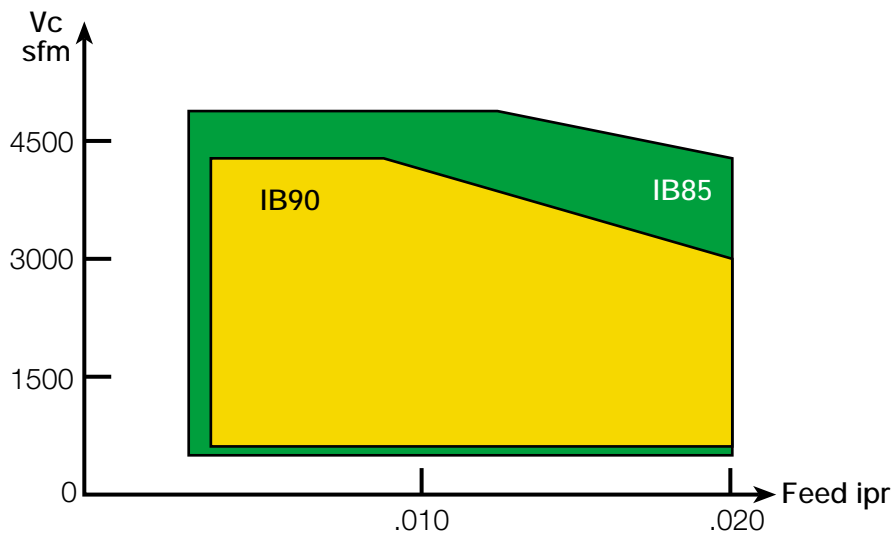


Diagram 3

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

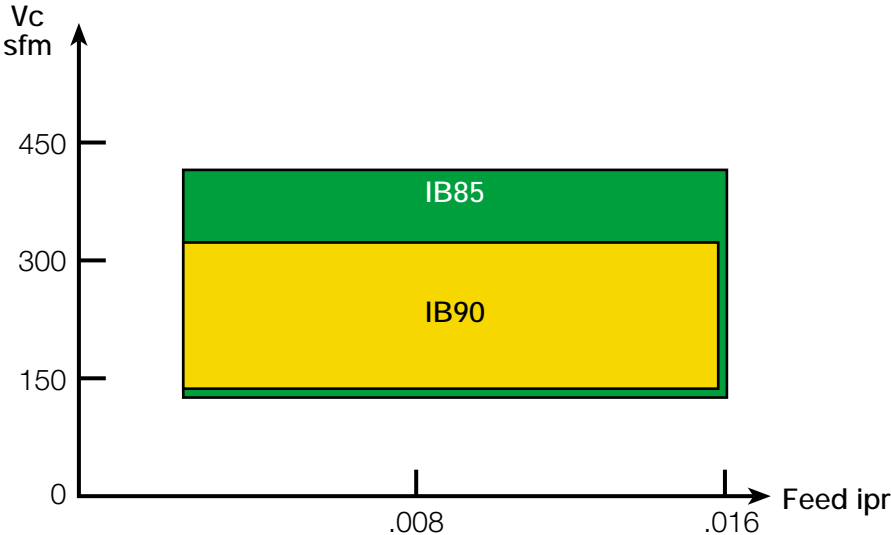
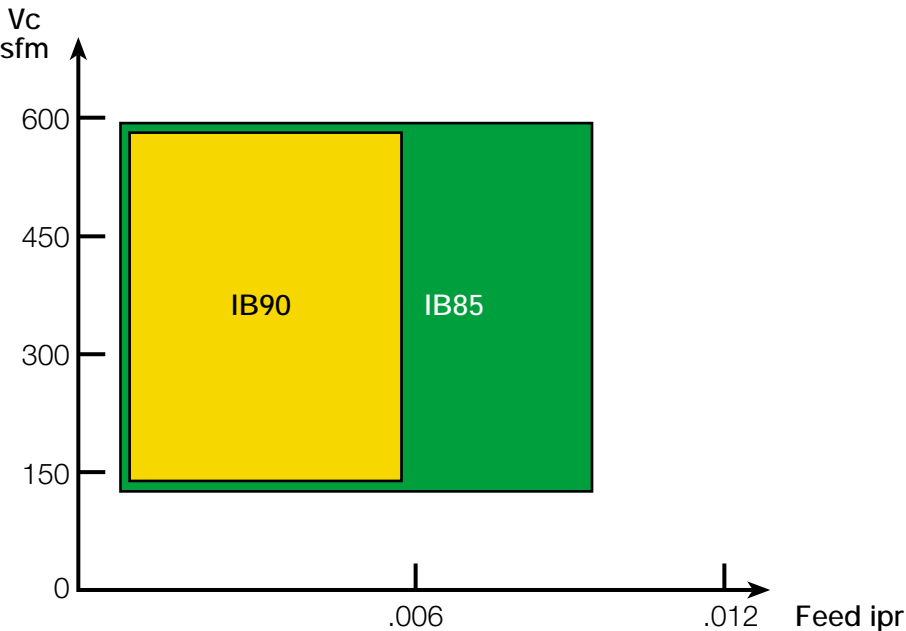


Diagram 4

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

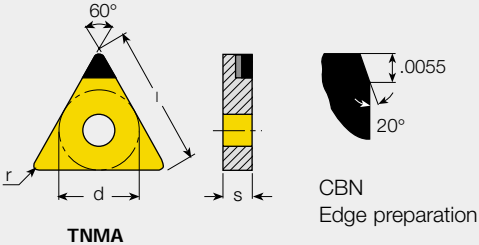


ISO TURN

CBN Triangular Inserts



Tolerances
 $d = \pm .002$
 $s = \pm .005$

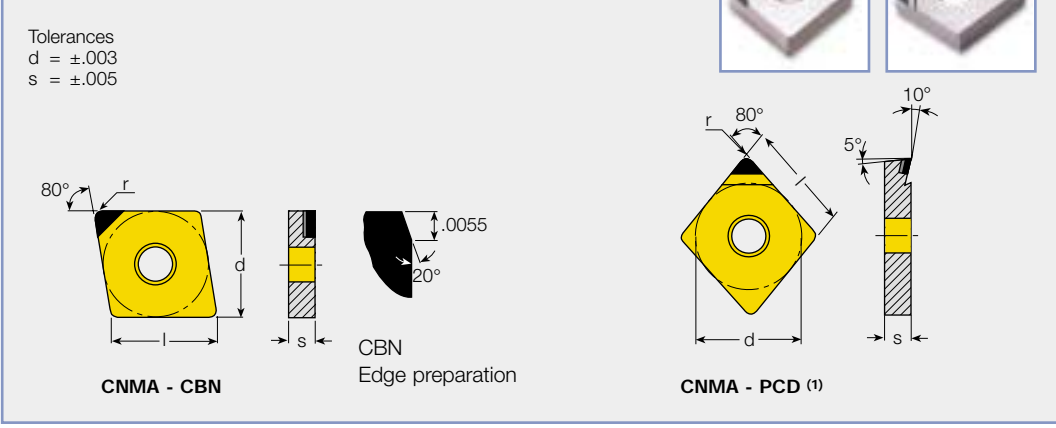


Designation	Dimensions				IB50	IB55	IB85	IB90	ID5
	l	d	s	r					
TNMA 331T	.650	.375	.188	.016	●	●	●		
TNMA 332T	.650	.375	.188	.031	●	●	●	●	

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

ISO TURN

CBN & PCD 80° Rhombic Inserts

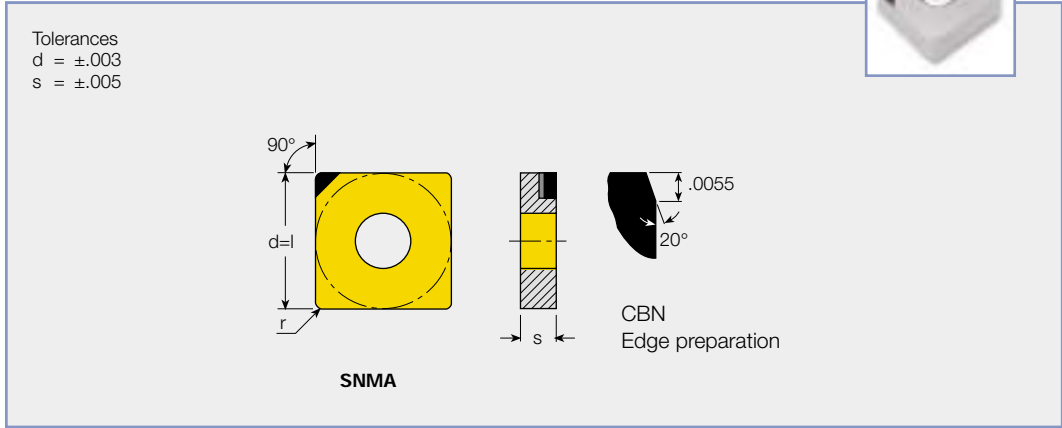
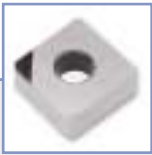


Designation	Dimensions								
	l	d	s	r	IB50	IB55	IB85	IB90	ID5
CNMA 431T	.508	.500	.188	.016	●	●	●	●	
CNMA 432T	.508	.500	.188	.031	●	●	●	●	
CNMA 432T-WG ⁽²⁾	.508	.500	.188	.031	●	●	●	●	
CNMA 433T	.508	.500	.188	.047		●			
CNMA 431 ⁽¹⁾	.508	.500	.188	.016					●
CNMA 432 ⁽¹⁾	.508	.500	.188	.031					●

- PCD - Sharp cutting edge
- Hardened Steel
 - Cast Iron
 - Aluminum Alloy (Si<12%)
- ⁽¹⁾ For positive rake other than 10° add to designation P : :
 For example: CNMA 431 P15 will be supplied with 15° rake angle.
- ⁽²⁾ Wiper insert for high feed finishing, eliminates grinding.

ISO TURN

CBN Ceramic Square Inserts



Designation	Dimensions								
	l	d	s	r	IB50	IB55	IB85	IB90	ID5
SNMA 431T	.500	.500	.188	.016			●		
SNMA 432T	.500	.500	.188	.031	●	●	●	●	
SNMA 433T	.500	.500	.188	.047			●	●	

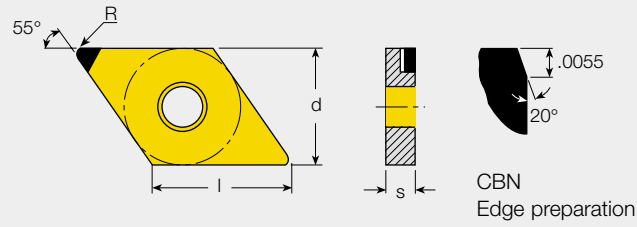
- Hardened Steel
- Cast Iron
- Aluminum Alloy (Si<12%)

ISO TURN

CBN 55° Rhombic Inserts



Tolerances
 $d = \pm .003$
 $s = \pm .005$



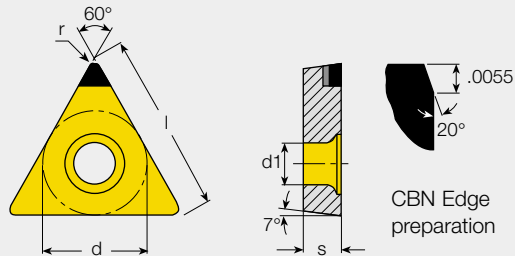
Designation	Dimensions								
	l	d	s	r	IB50	IB55	IB85	IB90	ID5
DNMA 431T	.610	.500	.188	.016		●			
DNMA 432T	.610	.500	.188	.031	●	●			
DNMA 433T	.610	.500	.188	.047		●			
DNMA 441T	.610	.500	.250	.016	●	●			
DNMA 442T	.610	.500	.250	.031		●			
DNMA 443T	.610	.500	.250	.047	●	●			

● Hardened Steel

ISO TURN

CBN & PCD 11° Clearance Positive Triangular Inserts

Tolerances
 $d = \pm .002$
 $s = \pm .005$



Designation	Dimensions									
	l	d	s	r	d ₁	IB50	IB55	IB85	IB90	ID5
TCMT 2-1T	.433	.250	.094	.016	.110	●	●			
TCMT 2-1	.433	.250	.094	.016	.110					●

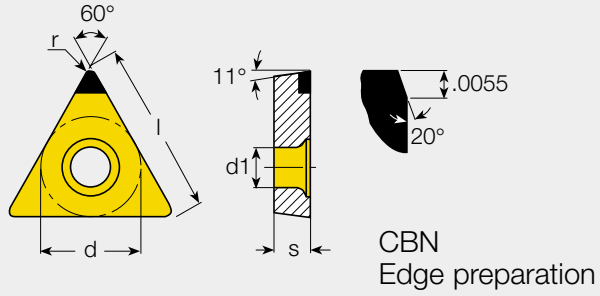
PCD-sharp cutting edge.

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

ISO TURN

CBN and PCD 11° Clearance
Triangular Inserts for Fine Boring

Tolerances
d = ±.001
s = ±.005



Designation										
	l	d	s	r	d ₁	IB50	IB55	IB85	IB90	ID5
TPGX 730	.354	.219	.094	.008	.098					●
TPGX 730T	.354	.219	.094	.008	.098	●			●	
TPGX 731	.354	.219	.094	.016	.098					●
TPGX 731T	.354	.219	.094	.016	.098	●			●	
TPGX 220	.433	.250	.125	.008	.138					●
TPGX 220T	.433	.250	.125	.008	.138	●			●	
TPGX 221	.433	.250	.125	.016	.138					●
TPGX 221T	.433	.250	.125	.016	.138	●			●	

PCD-sharp cutting edge.

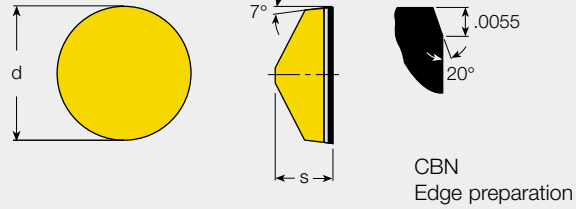
- Cast Iron
- Aluminum Alloy (Si<12%)
- Hardened Steel

ISO TURN

CBN Round Inserts



Tolerances
 $d = \pm .001$
 $s = \pm .005$



Designation	Dimensions						
	d	s	IB50	IB55	IB85	IB90	ID5
RCGX 060300T	.250	.125			● (1)	●	
RCGX 090300T	.375	.125				●	
RCGX 120400T	.500	.187				●	

(1) 120° Bottom

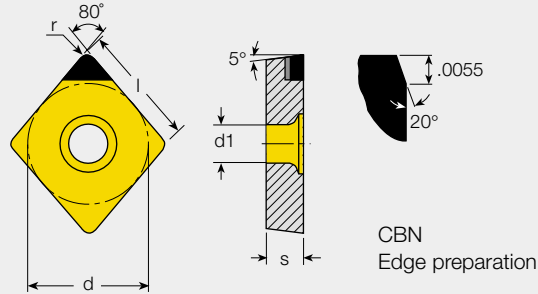
- Cast Iron
- Hardened Steel

ISO TURN

PCD 80° Rhombic Inserts



Tolerances
 $d = \pm .002$
 $s = \pm .005$



Designation	l	d	s	r	d ₁	IB50	IB55	IB85	IB90	ID5
CCMT 2-0T	.248	.250	.094	.008	.110		●			●
CCMT 2-1T	.248	.250	.094	.016	.110		●			●
CCMT 3-1T	.374	.375	.156	.016	.173		●			
CCMT 3-2T	.374	.375	.156	.031	.173		●			

PCD-sharp cutting edge.

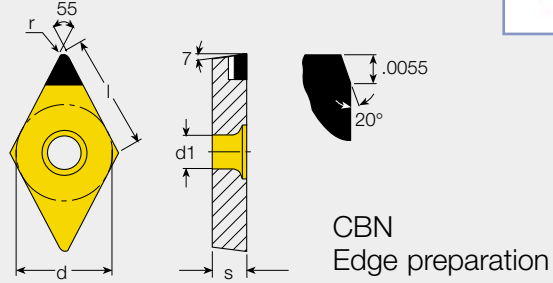
- Aluminum Alloy (Si<12%)
- Hardened Steel

ISO TURN

CBN and PCD 55° Rhombic Inserts



Tolerances
 $d = \pm .002$
 $s = \pm .005$



Designation										
	l	d	s	r	d ₁	IB50	IB55	IB85	IB90	ID5
DCMT 3-1T	.457	.375	.156	.016	.173		●			
DCMT 3-2T	.457	.375	.156	.031	.173		●			
DCMT 3-0	.457	.375	.156	.008	.173					●
DCMT 3-1	.457	.375	.156	.016	.173					●
DCMT 3-2	.457	.375	.156	.031	.173					●

PCD-sharp cutting edge.

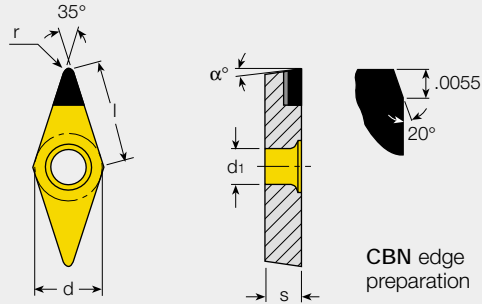
- Aluminum Alloy (Si<12%)
- Hardened Steel

ISO TURN

CBN and PCD 80° Rhombic Inserts



Tolerances
 $d = \pm .001$
 $s = \pm .005$



CBN edge preparation

Designation	Dimensions										
	l	d	s	r	α	d_1	IB50	IB55	IB85	IB90	ID5
VCGT 331	.654	.375	.188	.016	7	.173					●
VCGT 332	.654	.375	.188	.031	7	.173					●
VBMT 331T	.654	.375	.188	.016	5	.173	●	●			

PCD-sharp cutting edge.

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