



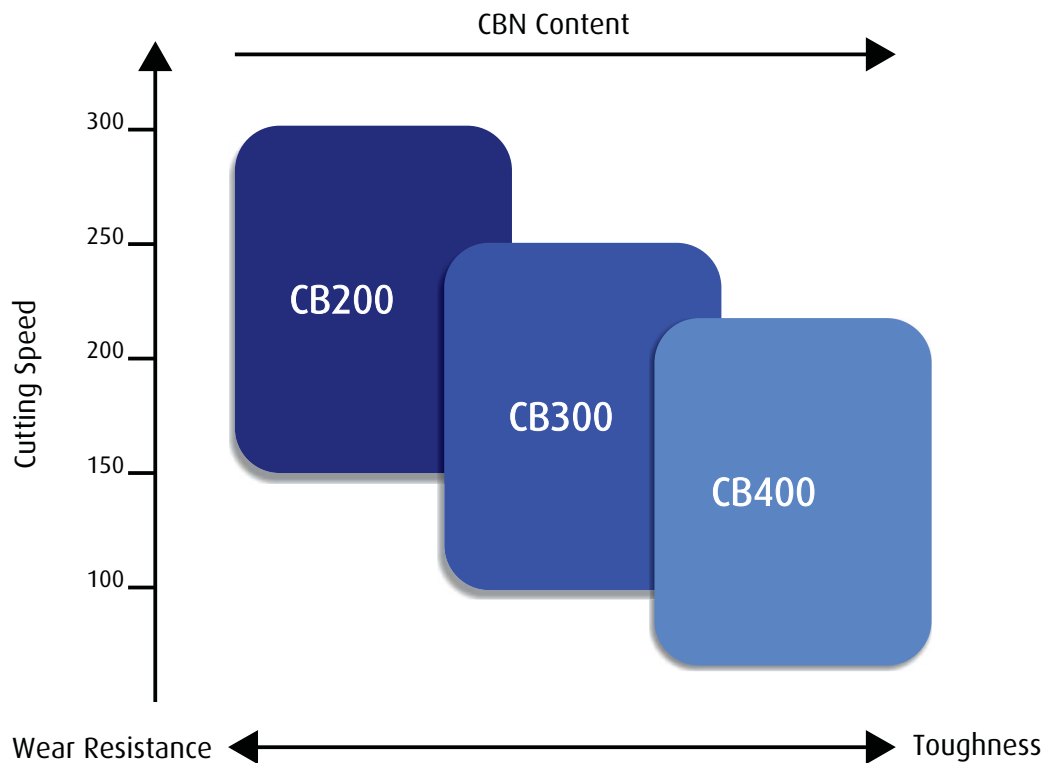
PCBN Inserts



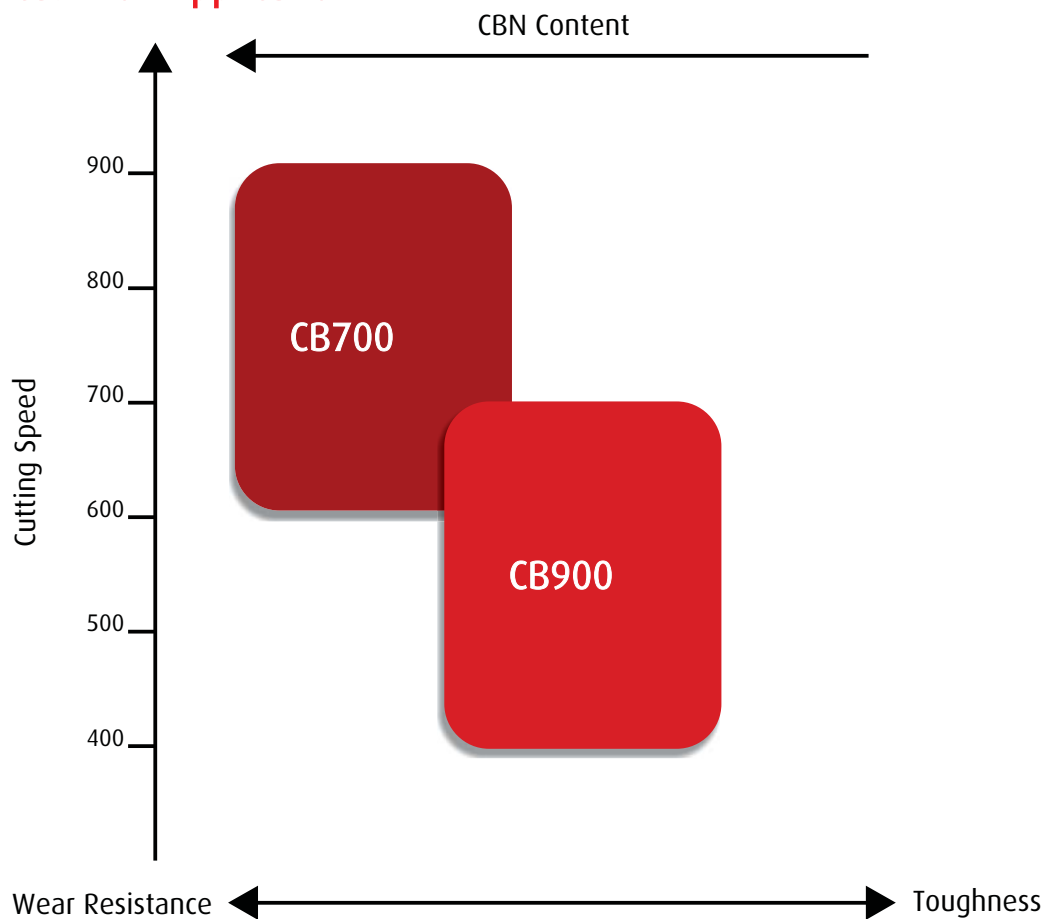


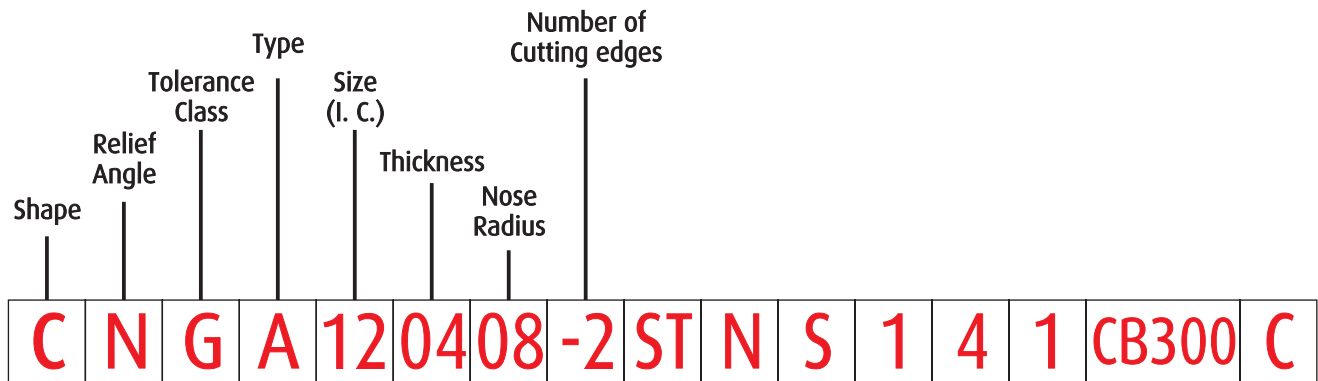
Grade Details	i
Insert Nomenclature	ii
Brazed PCBN	01
Solid Corner PCBN	17
Solid PCBN	20

Hardened Steel Application



Cast Iron Application





INSERT TYPE	
MT	MINI TIPPED CORNER
FT	FULL TOP PCBN
SS	SOLID PCBN
SW	SOLID PCBN CORNER TYPE 'W'
SU	SOLID PCBN CORNER

CUTTING EDGE DESIGN	
N	NOSE RADIUS
W	WIPER
C	CHIP BREAKER

Cutting Edge Design	
E	ONLY HONED
T	ONLY CHAMFERED
S	CHAMFERED + HONED
F	SHARP EDGE
P	DOUBLE CHAMFERED

CHAMER WIDTH (mm)	
0	-
1	0.05
2	0.10
3	0.15
4	0.20
6	0.30
8	Special

CHAMFER ANGLE	
0	-
2	10°
3	15°
4	20°
5	25°
6	30°
7	35°
9	45°

HONED RADIUS (mm)	
-	0.000
0	0.002
1	0.005
2	0.010
4	0.020
6	0.030

Grade	
CB 200	HARD STEEL - FINISH CONTINUOUS
CB 300	HARD STEEL - GENERAL
CB 400	HARD STEEL - INTERRUPTION
CB 700	CAST IRON - ROUGH
CB 900	CAST IRON - FINISH
CB 750	SOLID PCBN CAST IRON
CB 850	SOLID PCBN HARDENED STEEL/CAST IRON

SURFACE TREATMENT	
-	UNCOATED
C	COATED

CC 80° PCBN Positive Inserts



S130	S251	S271
Sharp Cutting Edge	Standard Cutting Edge	Strong Cutting Edge

Shape	ISO	Grade					ANSI	Dimensions in mm				
		CB200	CB300	CB400	CB700	CB900		ic	Ød	s	r	la
	CCGW060202-1NS130	●	●	●			CCGW2(1.5)(0.5)-1NS130	6.35	2.8	2.38	0.2	2.2
	-1NS251	●	●				-1NS251	6.35	2.8	2.38	0.2	2.2
	-1NS271		●	●			-1NS271	6.35	2.8	2.38	0.2	2.2
	CCGW060204-1NS130	●	●	●			CCGW2(1.5)1-1NS130	6.35	2.8	2.38	0.4	2.2
	-1NS251	●	●				-1NS251	6.35	2.8	2.38	0.4	2.2
	-1NS271		●	●			-1NS271	6.35	2.8	2.38	0.4	2.2
	CCGW060208-1NS130	●	●	●			CCGW2(1.5)2-1NS130	6.35	2.8	2.38	0.8	2.2
	-1NS251	●	●				-1NS251	6.35	2.8	2.38	0.8	2.2
	-1NS271		●	●			-1NS271	6.35	2.8	2.38	0.8	2.2
	CCGW060202-2NS130	●	●	●			CCGW2(1.5)(0.5)-2NS130	6.35	2.8	2.38	0.2	2.2
	-2NS251	●	●				-2NS251	6.35	2.8	2.38	0.2	2.2
	-2NS271		●	●			-2NS271	6.35	2.8	2.38	0.2	2.2
	CCGW060204-2NS130	●	●	●			CCGW2(1.5)1-2NS130	6.35	2.8	2.38	0.4	2.2
	-2NS251	●	●				-2NS251	6.35	2.8	2.38	0.4	2.2
	-2NS271		●	●			-2NS271	6.35	2.8	2.38	0.4	2.2
	CCGW060208-2NS130	●	●	●			CCGW2(1.5)2-2NS130	6.35	2.8	2.38	0.8	2.2
	-2NS251	●	●				-2NS251	6.35	2.8	2.38	0.8	2.2
	-2NS271		●	●			-2NS271	6.35	2.8	2.38	0.8	2.2

CC 80° PCBN Positive Inserts



S251	S130	S271
Standard Cutting Edge	Sharp Cutting Edge	Strong Cutting Edge

Shape	ISO	Grade					ANSI	Dimensions in mm				
		CB200	CB300	CB400	CB700	CB900		ic	Ød	s	r	la
	CCGW09T302-1NS130	●	●	●			CCGW3(2.5)(0.5)-1NS130	9.525	4.4	3.97	0.2	2.2
	-1NS251	●	●				-1NS251	9.525	4.4	3.97	0.2	2.2
	-1NS271		●	●			-1NS271CCGW3(2.5)1	9.525	4.4	3.97	0.2	2.2
	CCGW09T304-1NS130	●	●	●			-1NS130	9.525	4.4	3.97	0.4	2.2
	-1NS251	●	●				-1NS251	9.525	4.4	3.97	0.4	2.2
	-1NS271		●	●			-1NS271	9.525	4.4	3.97	0.4	2.2
	CCGW09T308-1NS130	●	●	●			CCGW3(2.5)2-1NS130	9.525	4.4	3.97	0.8	2.2
	-1NS251	●	●				-1NS251	9.525	4.4	3.97	0.8	2.2
	-1NS271		●	●			-1NS271	9.525	4.4	3.97	0.8	2.2
	CCGW09T302-2NS130	●	●	●			CCGW3(2.5)(0.5)-2NS130	9.525	4.4	3.97	0.2	2.2
	-2NS251	●	●				-2NS251	9.525	4.4	3.97	0.2	2.2
	-2NS271		●	●			-2NS271	9.525	4.4	3.97	0.2	2.2
	CCGW09T304-2NS130	●	●	●			CCGW3(2.5)1-2NS130	9.525	4.4	3.97	0.4	2.2
	-2NS251	●	●				-2NS251	9.525	4.4	3.97	0.4	2.2
	-2NS271		●	●			-2NS271	9.525	4.4	3.97	0.4	2.2
	CCGW09T308-2NS130	●	●	●			CCGW3(2.5)2-2NS130	9.525	4.4	3.97	0.8	2.2
	-2NS251	●	●				-2NS251	9.525	4.4	3.97	0.8	2.2
	-2NS271		●	●			-2NS271	9.525	4.4	3.97	0.8	2.2

Example : ISO - CCGW09T308-2NS251 CB300
ANSI - CCGW3(2.5)2-2NS251 CB300



CC 80° PCBN Positive Inserts



S130	S251	S271
Sharp Cutting Edge	Standard Cutting Edge	Strong Cutting Edge

Shape	ISO	Grade					ANSI	Dimensions in mm				
		CB200	CB300	CB400	CB700	CB900		ic	Ød	s	r	la
	CCGW120402-1NS130	●	●	●			CCGW43(0.5)-1NS130	12.7	5.5	4.46	0.2	2.2
	-1NS251	●	●				-1NS251	12.7	5.5	4.46	0.2	2.2
	-1NS271		●	●			-1NS271	12.7	5.5	4.46	0.2	2.2
	CCGW120404-1NS130	●	●	●			CCGW431-1NS130	12.7	5.5	4.46	0.4	2.2
	-1NS251	●	●				-1NS251	12.7	5.5	4.46	0.4	2.2
	-1NS271		●	●			-1NS271	12.7	5.5	4.46	0.4	2.2
	CCGW120408-1NS130	●	●	●			CCGW432-1NS130	12.7	5.5	4.46	0.8	2.2
	-1NS251	●	●				-1NS251	12.7	5.5	4.46	0.8	2.2
	-1NS271		●	●			-1NS271	12.7	5.5	4.46	0.8	2.2
	CCGW120412-1NS130	●	●	●			CCGW433-1NS130	12.7	5.5	4.46	1.2	2.2
	-1NS251	●	●				-1NS251	12.7	5.5	4.46	1.2	2.2
	-1NS271		●	●			-1NS271	12.7	5.5	4.46	1.2	2.2
	CCGW120402-2NS130	●	●	●			CCGW43(0.5)-2NS130	12.7	5.5	4.46	0.2	2.2
	-2NS251	●	●				-2NS251	12.7	5.5	4.46	0.2	2.2
	-2NS271		●	●			-2NS271	12.7	5.5	4.46	0.2	2.2
	CCGW120404-2NS130	●	●	●			CCGW431-2NS130	12.7	5.5	4.46	0.4	2.2
	-2NS251	●	●				-2NS251	12.7	5.5	4.46	0.4	2.2
	-2NS271		●	●			-2NS271	12.7	5.5	4.46	0.4	2.2
	CCGW120408-2NS130	●	●	●			CCGW432-2NS130	12.7	5.5	4.46	0.8	2.2
	-2NS251	●	●				-2NS251	12.7	5.5	4.46	0.8	2.2
	-2NS271		●	●			-2NS271	12.7	5.5	4.46	0.8	2.2
	CCGW120412-2NS130	●	●	●			CCGW433-2NS130	12.7	5.5	4.46	1.2	2.2
	-2NS251	●	●				-2NS251	12.7	5.5	4.46	1.2	2.2
	-2NS271		●	●			-2NS271	12.7	5.5	4.46	1.2	2.2

DC 55° PCBN Positive Inserts



S130	S251	S271
Sharp Cutting Edge	Standard Cutting Edge	Strong Cutting Edge

Shape	ISO	Grade					ANSI	Dimensions in mm				
		CB200	CB300	CB400	CB700	CB900		ic	Ød	s	r	la
	DCGW070202-1NS130	●	●	●			DCGW2(1.5)(0.5)-1NS130	6.35	2.8	2.38	0.2	2.2
	-1NS251	●	●				-1NS251	6.35	2.8	2.38	0.2	2.2
	-1NS271		●	●			-1NS271	6.35	2.8	2.38	0.2	2.2
	DCGW070204-1NS130	●	●	●			DCGW2(1.5)1--NS130	6.35	2.8	2.38	0.4	2.2
	-1NS251	●	●				-1NS251	6.35	2.8	2.38	0.4	2.2
	-1NS271		●	●			-1NS271	6.35	2.8	2.38	0.4	2.2
	DCGW070208-1NS130	●	●	●			DCGW2(1.5)2-1NS130	6.35	2.8	2.38	0.8	2.2
	-1NS251	●	●				-1NS251	6.35	2.8	2.38	0.8	2.2
	-1NS271		●	●			-1NS271	6.35	2.8	2.38	0.8	2.2
	DCGW070202-2NS130	●	●	●			DCGW2(1.5)(0.5)-2NS130	6.35	2.8	2.38	0.2	2.2
	-2NS251	●	●				-2NS251	6.35	2.8	2.38	0.2	2.2
	-2NS271		●	●			-2NS271	6.35	2.8	2.38	0.2	2.2
	DCGW070204-2NS130	●	●	●			DCGW2(1.5)1-2NS130	6.35	2.8	2.38	0.4	2.2
	-2NS251	●	●				-2NS251	6.35	2.8	2.38	0.4	2.2
	-2NS271		●	●			-2NS271	6.35	2.8	2.38	0.4	2.2
	DCGW070208-2NS130	●	●	●			DCGW2(1.5)2-2NS130	6.35	2.8	2.38	0.8	2.2
	-2NS251	●	●				-2NS251	6.35	2.8	2.38	0.8	2.2
	-2NS271		●	●			-2NS271	6.35	2.8	2.38	0.8	2.2

DC 55° PCBN Positive Inserts



S251	S130	S271
Standard Cutting Edge	Sharp Cutting Edge	Strong Cutting Edge

Shape	ISO	Grade					ANSI	Dimensions in mm				
		CB200	CB300	CB400	CB700	CB900		ic	Ød	s	r	la
	DCGW11T302-1NS130	●	●	●			DCGW3(2.5)(0.5)-1NS130	9.525	4.4	3.97	0.2	2.2
	-1NS251	●	●				-1NS251	9.525	4.4	3.97	0.2	2.2
	-1NS271		●	●			-1NS271	9.525	4.4	3.97	0.2	2.2
	DCGW11T304-1NS130	●	●	●			DCGW3(2.5)1-1NS130	9.525	4.4	3.97	0.4	2.2
	-1NS251	●	●				-1NS251	9.525	4.4	3.97	0.4	2.2
	-1NS271		●	●			-1NS271	9.525	4.4	3.97	0.4	2.2
	DCGW11T308-1NS130	●	●	●			DCGW3(2.5)2-1NS130	9.525	4.4	3.97	0.8	2.2
	-1NS251	●	●				-1NS251	9.525	4.4	3.97	0.8	2.2
	-1NS271		●	●			-1NS271	9.525	4.4	3.97	0.8	2.2
	DCGW11T312-1NS130	●	●	●			DCGW3(2.5)3-1NS130	9.525	4.4	3.97	1.2	2.2
	-1NS251	●	●				-1NS251	9.525	4.4	3.97	1.2	2.2
	-1NS271		●	●			-1NS271	9.525	4.4	3.97	1.2	2.2
	DCGW11T302-2NS130	●	●	●			DCGW3(2.5)(0.5)-2NS130	9.525	4.4	3.97	0.2	2.2
	-2NS251	●	●				-2NS251	9.525	4.4	3.97	0.2	2.2
	-2NS271		●	●			-2NS271	9.525	4.4	3.97	0.2	2.2
	DCGW11T304-2NS130	●	●	●			DCGW3(2.5)1-2NS130	9.525	4.4	3.97	0.4	2.2
	-2NS251	●	●				-2NS251	9.525	4.4	3.97	0.4	2.2
	-2NS271		●	●			-2NS271	9.525	4.4	3.97	0.4	2.2
	DCGW11T308-2NS130	●	●	●			DCGW3(2.5)2-2NS130	9.525	4.4	3.97	0.8	2.2
	-2NS251	●	●				-2NS251	9.525	4.4	3.97	0.8	2.2
	-2NS271		●	●			-2NS271	9.525	4.4	3.97	0.8	2.2
	DCGW11T312-2NS130	●	●	●			DCGW3(2.5)3-2NS130	9.525	4.4	3.97	1.2	2.2
	-2NS251	●	●				-2NS251	9.525	4.4	3.97	1.2	2.2
	-2NS271		●	●			-2NS271	9.525	4.4	3.97	1.2	2.2

Example : ISO - DCGW11T308-2NS251 CB300
ANSI - DCGW3(2.5)2-2NS251 CB300



TP 60° PCBN Positive Inserts



S130	S251	S271
Sharp Cutting Edge	Standard Cutting Edge	Strong Cutting Edge

Shape	ISO	Grade					ANSI	Dimensions in mm				
		CB200	CB300	CB400	CB700	CB900		ic	Ød	s	r	la
	TPGW080202-1NS130	●	●	●			TPGW(1.5)(1.5)(0.5)-1NS130	6.35	2.4	2.38	0.2	2.2
	-1NS251	●	●				-1NS251	6.35	2.4	2.38	0.2	2.2
	-1NS271		●	●			-1NS271	6.35	2.4	2.38	0.2	2.2
	TPGW080204-1NS130	●	●	●			TPGW(1.5)(1.5)1-1NS130	6.35	2.4	2.38	0.4	2.2
	-1NS251	●	●				-1NS251	6.35	2.4	2.38	0.4	2.2
	-1NS271		●	●			-1NS271	6.35	2.4	2.38	0.4	2.2
	TPGW080202-3NS130	●	●	●			TPGW(1.5)(0.5)(0.5)-3NS130	6.35	2.4	2.38	0.2	2.2
	-3NS251	●	●				-3NS251	6.35	2.4	2.38	0.2	2.2
	-3NS271		●	●			-3NS271	6.35	2.4	2.38	0.2	2.2
	TPGW080204-3NS130	●	●	●			TPGW(1.5)(1.5)1-3NS130	6.35	2.4	2.38	0.4	2.2
	-3NS251	●	●				-3NS251	6.35	2.4	2.38	0.4	2.2
	-3NS271		●	●			-3NS271	6.35	2.4	2.38	0.4	2.2

TP 60° PCBN Positive Inserts



S251	S130	S271
Standard Cutting Edge	Sharp Cutting Edge	Strong Cutting Edge

Shape	ISO	Grade					ANSI	Dimensions in mm				
		CB200	CB300	CB400	CB700	CB900		ic	Ød	s	r	la
	TPGW090202-1NS130	●	●	●			TPGW(1.8)(1.5)(0.5)-1NS130	5.56	2.5	2.38	0.2	2.2
	-1NS251	●	●				-1NS251	5.56	2.5	2.38	0.2	2.2
	-1NS271		●	●			-1NS271	5.56	2.5	2.38	0.2	2.2
	TPGW090204-1NS130	●	●	●			TPGW(1.8)(1.5)1-1NS130	5.56	2.5	2.38	0.4	2.2
	-1NS251	●	●				-1NS251	5.56	2.5	2.38	0.4	2.2
	-1NS271		●	●			-1NS271	5.56	2.5	2.38	0.4	2.2
	TPGW090208-1NS130	●	●	●			TPGW(1.8)(1.5)2-1NS130	5.56	2.5	2.38	0.8	2.2
	-1NS251	●	●				-1NS251	5.56	2.5	2.38	0.8	2.2
	-1NS271		●	●			-1NS271	5.56	2.5	2.38	0.8	2.2
	TPGW090202-3NS130	●	●	●			TPGW(1.8)(1.5)(0.5)-3NS130	5.56	2.5	2.38	0.2	2.2
	-1NS251	●	●				-1NS251	5.56	2.5	2.38	0.2	2.2
	-1NS271		●	●			-1NS271	5.56	2.5	2.38	0.2	2.2
	TPGW090204-3NS130	●	●				TPGW(1.8)(1.5)1-3NS130	5.56	2.5	2.38	0.4	2.2
	-1NS251		●	●			-1NS251	5.56	2.5	2.38	0.4	2.2
	-1NS271	●	●				-1NS271	5.56	2.5	2.38	0.4	2.2
	TPGW090208-3NS130		●	●			TPGW(1.8)(1.5)2-3NS130	5.56	2.5	2.38	0.8	2.2
	-1NS251	●	●				-1NS251	5.56	2.5	2.38	0.8	2.2
	-1NS271		●	●			-1NS271	5.56	2.5	2.38	0.8	2.2

Example : ISO - TPGW090208-3NS251 CB300
ANSI - TPGW(1.8)(1.5)2-3NS251 CB300

TP 60° PCBN Positive Inserts



S130	S251	S271
Sharp Cutting Edge	Standard Cutting Edge	Strong Cutting Edge

Shape	ISO	Grade					ANSI	Dimensions in mm				
		CB200	CB300	CB400	CB700	CB900		ic	Ød	s	r	la
	TPGW110302-1NS130	●	●	●			TPGW22(0.5)-1NS130	6.35	2.8	3.18	0.2	2.2
	-1NS251	●	●				-1NS251	6.35	2.8	3.18	0.2	2.2
	-1NS271		●	●			-1NS271	6.35	2.8	3.18	0.2	2.2
	TPGW110304-1NS130	●	●	●			TPGW221-1NS130	6.35	2.8	3.18	0.4	2.2
	-1NS251	●	●				-1NS251	6.35	2.8	3.18	0.4	2.2
	-1NS271		●	●			-1NS271	6.35	2.8	3.18	0.4	2.2
	TPGW110302-3NS130	●	●	●			TPGW22(0.5)-3NS130	6.35	2.8	3.18	0.2	2.2
	-3NS251	●	●				-3NS251	6.35	2.8	3.18	0.2	2.2
	-3NS271		●	●			-3NS271	6.35	2.8	3.18	0.2	2.2
	TPGW110304-3NS130	●	●	●			TPGW221-3NS130	6.35	2.8	3.18	0.4	2.2
	-3NS251	●	●				-3NS251	6.35	2.8	3.18	0.4	2.2
	-3NS271		●	●			-3NS271	6.35	2.8	3.18	0.4	2.2

TP 60° PCBN Positive Inserts



S251	S130	S271
Standard Cutting Edge	Sharp Cutting Edge	Strong Cutting Edge

Shape	ISO	Grade					ANSI	Dimensions in mm				
		CB200	CB300	CB400	CB700	CB900		ic	Ød	s	r	la
	TPGW160302-1NS130	●	●	●			TPGW32(0.5)-1NS130	6.35	4.4	3.18	0.2	2.2
	-1NS251	●	●				-1NS251	6.35	4.4	3.18	0.2	2.2
	-1NS271		●	●			-1NS271	6.35	4.4	3.18	0.2	2.2
	TPGW160304-1NS130	●	●	●			TPGW321-1NS130	6.35	4.4	3.18	0.4	2.2
	-1NS251	●	●				-1NS251	6.35	4.4	3.18	0.4	2.2
	-1NS271		●	●			-1NS271	6.35	4.4	3.18	0.4	2.2
	TPGW160308-1NS130	●	●	●			TPGW322-1NS130	6.35	4.4	3.18	0.8	2.2
	-1NS251	●	●				-1NS251	6.35	4.4	3.18	0.8	2.2
	-1NS271		●	●			-1NS271	6.35	4.4	3.18	0.8	2.2
	TPGW160302-3NS130	●	●	●			TPGW32(0.5)-3NS130	6.35	4.4	3.18	0.2	2.2
	-3NS251	●	●				-3NS251	6.35	4.4	3.18	0.2	2.2
	-3NS271		●	●			-3NS271	6.35	4.4	3.18	0.2	2.2
	TPGW160304-3NS130	●	●				TPGW321-3NS130	6.35	4.4	3.18	0.4	2.2
	-3NS251		●	●			-3NS251	6.35	4.4	3.18	0.4	2.2
	-3NS271	●	●				-3NS271	6.35	4.4	3.18	0.4	2.2
	TPGW160308-3NS130		●	●			TPGW322-3NS130	6.35	4.4	3.18	0.8	2.2
	-3NS251	●	●				-3NS251	6.35	4.4	3.18	0.8	2.2
	-3NS271		●	●			-3NS271	6.35	4.4	3.18	0.8	2.2

Example : ISO - TPGW160308-3NS251 CB300
ANSI - TPGW322-3NS251 CB300



TP 60° PCBN Positive Inserts



S130	S251	S271
Sharp Cutting Edge	Standard Cutting Edge	Strong Cutting Edge

Shape	ISO	Grade					ANSI	Dimensions in mm				
		CB200	CB300	CB400	CB700	CB900		ic	Ød	s	r	la
	TPGW160402-1NS130	●	●	●			TPGW33(0.5)-1NS130	6.35	4.4	4.76	0.2	2.2
	-1NS251	●	●				-1NS251	6.35	4.4	4.76	0.2	2.2
	-1NS271		●	●			-1NS271	6.35	4.4	4.76	0.2	2.2
	TPGW160404-1NS130	●	●	●			TPGW331-1NS130	6.35	4.4	4.76	0.4	2.2
	-1NS251	●	●				-1NS251	6.35	4.4	4.76	0.4	2.2
	-1NS271		●	●			-1NS271	6.35	4.4	4.76	0.4	2.2
	TPGW160408-1NS130	●	●	●			TPGW332-1NS130	6.35	4.4	4.76	0.8	2.2
	-1NS251	●	●				-1NS251	6.35	4.4	4.76	0.8	2.2
	-1NS271		●	●			-1NS271	6.35	4.4	4.76	0.8	2.2
	TPGW160402-3NS130	●	●	●			TPGW33(0.5)-3NS130	6.35	4.4	4.76	0.2	2.2
	-3NS251	●	●				-3NS251	6.35	4.4	4.76	0.2	2.2
	-3NS271		●	●			-3NS271	6.35	4.4	4.76	0.2	2.2
	TPGW160404-3NS130	●	●	●			TPGW331-3NS130	6.35	4.4	4.76	0.4	2.2
	-3NS251	●	●				-3NS251	6.35	4.4	4.76	0.4	2.2
	-3NS271		●	●			-3NS271	6.35	4.4	4.76	0.4	2.2
	TPGW160408-3NS130	●	●	●			TPGW332-3NS130	6.35	4.4	4.76	0.8	2.2
	-3NS251	●	●				-3NS251	6.35	4.4	4.76	0.8	2.2
	-3NS271		●	●			-3NS271	6.35	4.4	4.76	0.8	2.2

Example : ISO - TPGW160408-3NS251 CB300
ANSI - TPGW332-3NS251 CB300

VB 35° PCBN Positive Inserts



S130	S251	S271
Sharp Cutting Edge	Standard Cutting Edge	Strong Cutting Edge

Shape	ISO	Grade					ANSI	Dimensions in mm				
		CB200	CB300	CB400	CB700	CB900		ic	Ød	s	r	la
	VBGW110302-1NS130	●	●	●			VBGW22(0.5)-1NS130	6.35	2.8	3.18	0.2	2.2
	-1NS251	●	●				-1NS251	6.35	2.8	3.18	0.2	2.2
	-1NS271		●	●			-1NS271	6.35	2.8	3.18	0.2	2.2
	VBGW110304-1NS130	●	●	●			VBGW221-1NS130	6.35	2.8	3.18	0.4	2.2
	-1NS251	●	●				-1NS251	6.35	2.8	3.18	0.4	2.2
	-1NS271		●	●			-1NS271	6.35	2.8	3.18	0.4	2.2
	VBGW110308-1NS130	●	●	●			VBGW222-1NS130	6.35	2.8	3.18	0.8	2.2
	-1NS251	●	●				-1NS251	6.35	2.8	3.18	0.8	2.2
	-1NS271		●	●			-1NS271	6.35	2.8	3.18	0.8	2.2
	VBGW110302-2NS130	●	●	●			VBGW22(0.5)-2NS130	6.35	2.8	3.18	0.2	2.2
	-2NS251	●	●				-2NS251	6.35	2.8	3.18	0.2	2.2
	-2NS271		●	●			-2NS271	6.35	2.8	3.18	0.2	2.2
	VBGW110304-2NS130	●	●	●			VBGW221-2NS130	6.35	2.8	3.18	0.4	2.2
	-2NS251	●	●				-2NS251	6.35	2.8	3.18	0.4	2.2
	-2NS271		●	●			-2NS271	6.35	2.8	3.18	0.4	2.2
	VBGW110308-2NS130	●	●	●			VBGW222-2NS130	6.35	2.8	3.18	0.8	2.2
	-2NS251	●	●				-2NS251	6.35	2.8	3.18	0.8	2.2
	-2NS271		●	●			-2NS271	6.35	2.8	3.18	0.8	2.2

VB 35° PCBN Positive Inserts



S251	S130	S271
Standard Cutting Edge	Sharp Cutting Edge	Strong Cutting Edge

Shape	ISO	Grade					ANSI	Dimensions in mm				
		CB200	CB300	CB400	CB700	CB900		ic	Ød	s	r	la
	VBGW160402-1NS130	●	●	●			VBGW33(0.5)-1NS130	9.525	4.4	4.76	0.2	2.2
	-1NS251	●	●				-1NS251	9.525	4.4	4.76	0.2	2.2
	-1NS271		●	●			-1NS271	9.525	4.4	4.76	0.2	2.2
	VBGW160404-1NS130	●	●	●			VBGW331-1NS130	9.525	4.4	4.76	0.4	2.2
	-1NS251	●	●				-1NS251	9.525	4.4	4.76	0.4	2.2
	-1NS271		●	●			-1NS271	9.525	4.4	4.76	0.4	2.2
	VBGW160408-1NS130	●	●	●			VBGW332-1NS130	9.525	4.4	4.76	0.8	2.2
	-1NS251	●	●				-1NS251	9.525	4.4	4.76	0.8	2.2
	-1NS271		●	●			-1NS271	9.525	4.4	4.76	0.8	2.2
	VBGW160412-1NS130	●	●	●			VBGW333-4NS130	9.525	4.4	4.76		2.2
	-1NS251	●	●				-1NS251	9.525	4.4	4.76		2.2
	-1NS271		●	●			-1NS271	9.525	4.4	4.76		2.2
	VBGW160402-2NS130	●	●	●			VBGW33(0.5)-2NS130	9.525	4.4	4.76	0.2	2.2
	-2NS251	●	●				-2NS251	9.525	4.4	4.76	0.2	2.2
	-2NS271		●	●			-2NS271	9.525	4.4	4.76	0.2	2.2
	VBGW160404-2NS130	●	●	●			VBGW331-2NS130	9.525	4.4	4.76	0.4	2.2
	-2NS251	●	●				-2NS251	9.525	4.4	4.76	0.4	2.2
	-2NS271		●	●			-2NS271	9.525	4.4	4.76	0.4	2.2
	VBGW160408-2NS130	●	●	●			VBGW332-2NS130	9.525	4.4	4.76	0.8	2.2
	-2NS251	●	●				-2NS251	9.525	4.4	4.76	0.8	2.2
	-2NS271		●	●			-2NS271	9.525	4.4	4.76	0.8	2.2
	VBGW160412-1NS130	●	●	●			VBGW333-4NS130	9.525	4.4	4.76		2.2
	-1NS251	●	●				-1NS251	9.525	4.4	4.76		2.2
	-1NS271		●	●			-1NS271	9.525	4.4	4.76		2.2

Example : ISO - VBGW160408-2NS251 CB300
ANSI - VBGW332-2NS251 CB300



VC 35° PCBN Positive Inserts



S130	S251	S271
Sharp Cutting Edge	Standard Cutting Edge	Strong Cutting Edge

Shape	ISO	Grade					ANSI	Dimensions in mm				
		CB200	CB300	CB400	CB700	CB900		ic	Ød	s	r	la
	VCGW080202-1NS130	●	●	●			VCGW(1.5)(1.5)(0.5)-1NS130	6.35	2.3	2.38	0.2	2.2
	-1NS251	●	●	●			-1NS251	6.35	2.3	2.38	0.2	2.2
	-1NS271	●	●	●			-1NS271	6.35	2.3	2.38	0.2	2.2
	VCGW080204-1NS130	●	●	●			VCGW(1.5)(1.5)1-1NS130	6.35	2.3	2.38	0.4	2.2
	-1NS251	●	●	●			-1NS251	6.35	2.3	2.38	0.4	2.2
	-1NS271	●	●	●			-1NS271	6.35	2.3	2.38	0.4	2.2
	VCGW080208-1NS130	●	●	●			VCGW(1.5)(1.5)2-1NS130	6.35	2.3	2.38	0.8	2.2
	-1NS251	●	●	●			-1NS251	6.35	2.3	2.38	0.8	2.2
	-1NS271	●	●	●			-1NS271	6.35	2.3	2.38	0.8	2.2
	VCGW080202-2NS130	●	●	●			VCGW(1.5)(1.5)(0.5)-2NS130	6.35	2.3	2.38	0.2	2.2
	-2NS251	●	●	●			-2NS251	6.35	2.3	2.38	0.2	2.2
	-2NS271	●	●	●			-2NS271	6.35	2.3	2.38	0.2	2.2
	VCGW080204-2NS130	●	●	●			VCGW(1.5)(1.5)1-2NS130	6.35	2.3	2.38	0.4	2.2
	-2NS251	●	●	●			-2NS251	6.35	2.3	2.38	0.4	2.2
	-2NS271	●	●	●			-2NS271	6.35	2.3	2.38	0.4	2.2
	VCGW080208-2NS130	●	●	●			VCGW(1.5)(1.5)2-2NS130	6.35	2.3	2.38	0.8	2.2
	-2NS251	●	●	●			-2NS251	6.35	2.3	2.38	0.8	2.2
	-2NS271	●	●	●			-2NS271	6.35	2.3	2.38	0.8	2.2

VC 35° PCBN Positive Inserts



S251	S130	S271
Standard Cutting Edge	Sharp Cutting Edge	Strong Cutting Edge

Shape	ISO	Grade					ANSI	Dimensions in mm				
		CB200	CB300	CB400	CB700	CB900		ic	Ød	s	r	la
	VCGW110302-1NS130	●	●	●			VCGW22(0.5)-1NS130	6.35	2.8	3.18	0.2	2.2
	-1NS251	●	●	●			-1NS251	6.35	2.8	3.18	0.2	2.2
	-1NS271	●	●	●			-1NS271	6.35	2.8	3.18	0.2	2.2
	VCGW110304-1NS130	●	●	●			VCGW221-1NS130	6.35	2.8	3.18	0.4	2.2
	-1NS251	●	●	●			-1NS251	6.35	2.8	3.18	0.4	2.2
	-1NS271	●	●	●			-1NS271	6.35	2.8	3.18	0.4	2.2
	VCGW110308-1NS130	●	●	●			VCGW222-1NS130	6.35	2.8	3.18	0.8	2.2
	-1NS251	●	●	●			-1NS251	6.35	2.8	3.18	0.8	2.2
	-1NS271	●	●	●			-1NS271	6.35	2.8	3.18	0.8	2.2
	VCGW110302-2NS130	●	●	●			VCGW22(0.5)-2NS130	6.35	2.8	3.18	0.2	2.2
	-2NS251	●	●	●			-2NS251	6.35	2.8	3.18	0.2	2.2
	-2NS271	●	●	●			-2NS271	6.35	2.8	3.18	0.2	2.2
	VCGW110304-2NS130	●	●	●			VCGW221-2NS130	6.35	2.8	3.18	0.4	2.2
	-2NS251	●	●	●			-2NS251	6.35	2.8	3.18	0.4	2.2
	-2NS271	●	●	●			-2NS271	6.35	2.8	3.18	0.4	2.2
	VCGW110308-2NS130	●	●	●			VCGW222-2NS130	6.35	2.8	3.18	0.8	2.2
	-2NS251	●	●	●			-2NS251	6.35	2.8	3.18	0.8	2.2
	-2NS271	●	●	●			-2NS271	6.35	2.8	3.18	0.8	2.2

Example : ISO - VCGW110308-2NS251 CB300
ANSI - VCGW222-2NS251 CB300

VC 35° PCBN Positive Inserts



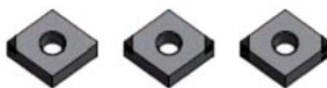
S130	S251	S271
Sharp Cutting Edge	Standard Cutting Edge	Strong Cutting Edge

Shape	ISO	Grade					ANSI	Dimensions in mm				
		CB200	CB300	CB400	CB700	CB900		ic	Ød	s	r	la
	VCGW160402-1NS130	●	●	●			VCGW33(0.5)-1NS130	9.525	4.4	4.76	0.2	2.2
	-1NS251	●	●				-1NS251	9.525	4.4	4.76	0.2	2.2
	-1NS271		●	●			-1NS271	9.525	4.4	4.76	0.2	2.2
	VCGW160404-1NS130	●	●	●			VCGW331-1NS130	9.525	4.4	4.76	0.4	2.2
	-1NS251	●	●				-1NS251	9.525	4.4	4.76	0.4	2.2
	-1NS271		●	●			-1NS271	9.525	4.4	4.76	0.4	2.2
	VCGW160408-1NS130	●	●	●			VCGW332-1NS130	9.525	4.4	4.76	0.8	2.2
	-1NS251	●	●				-1NS251	9.525	4.4	4.76	0.8	2.2
	-1NS271		●	●			-1NS271	9.525	4.4	4.76	0.8	2.2
	VCGW160402-2NS130	●	●	●			VCGW33(0.5)-2NS130	9.525	4.4	4.76	0.2	2.2
	-2NS251	●	●				-2NS251	9.525	4.4	4.76	0.2	2.2
	-2NS271		●	●			-2NS271	9.525	4.4	4.76	0.2	2.2
	VCGW160404-2NS130	●	●	●			VCGW331-2NS130	9.525	4.4	4.76	0.4	2.2
	-2NS251	●	●				-2NS251	9.525	4.4	4.76	0.4	2.2
	-2NS271		●	●			-2NS271	9.525	4.4	4.76	0.4	2.2
	VCGW160408-2NS130	●	●	●			VCGW332-2NS130	9.525	4.4	4.76	0.8	2.2
	-2NS251	●	●				-2NS251	9.525	4.4	4.76	0.8	2.2
	-2NS271		●	●			-2NS271	9.525	4.4	4.76	0.8	2.2

Example : ISO - VCGW160408-2NS251 CB300
ANSI - VCGW332-2NS251 CB300



CN 80° PCBN Negative Inserts

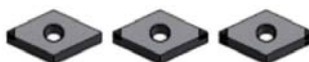


S130	S251	S271
Sharp Cutting Edge	Standard Cutting Edge	Strong Cutting Edge

Shape	ISO	Grade					ANSI	Dimensions in mm				
		CB200	CB300	CB400	CB700	CB900		ic	Ød	s	r	la
	CNGA120402-1NS130	●	●	●			CNGA43(0.5)-1NS130	12.7	5.16	4.76	0.2	2.2
	-1NS251	●	●				-1NS251	12.7	5.16	4.76	0.2	2.2
	-1NS271		●	●			-1NS271	12.7	5.16	4.76	0.2	2.2
	CNGA120404-1NS130	●	●	●			CNGA431-1NS130	12.7	5.16	4.76	0.4	2.2
	-1NS251	●	●				-1NS251	12.7	5.16	4.76	0.4	2.2
	-1NS271		●	●			-1NS271	12.7	5.16	4.76	0.4	2.2
	CNGA120408-1NS130	●	●	●			CNGA432-1NS130	12.7	5.16	4.76	0.8	2.2
	-1NS251	●	●				-1NS251	12.7	5.16	4.76	0.8	2.2
	-1NS271		●	●			-1NS271	12.7	5.16	4.76	0.8	2.2
	CNGA120412-1NS130	●	●	●			CNGA433-1NS130	12.7	5.16	4.76	1.2	2.2
	-1NS251	●	●				-1NS251	12.7	5.16	4.76	1.2	2.2
	-1NS271		●	●			-1NS271	12.7	5.16	4.76	1.2	2.2
	CNGA120402-2NS130	●	●	●			CNGA43(0.5)-2NS130	12.7	5.16	4.76	0.2	2.2
	-2NS251	●	●				-2NS251	12.7	5.16	4.76	0.2	2.2
	-2NS271		●	●			-2NS271	12.7	5.16	4.76	0.2	2.2
	CNGA120404-2NS130	●	●	●			CNGA431-2NS130	12.7	5.16	4.76	0.4	2.2
	-2NS251	●	●				-2NS251	12.7	5.16	4.76	0.4	2.2
	-2NS271		●	●			-2NS271	12.7	5.16	4.76	0.4	2.2
	CNGA120408-2NS130	●	●	●			CNGA432-2NS130	12.7	5.16	4.76	0.8	2.2
	-2NS251	●	●				-2NS251	12.7	5.16	4.76	0.8	2.2
	-2NS271		●	●			-2NS271	12.7	5.16	4.76	0.8	2.2
	CNGA120412-2NS130	●	●	●			CNGA433-2NS130	12.7	5.16	4.76	1.2	2.2
	-2NS251	●	●				-2NS251	12.7	5.16	4.76	1.2	2.2
	-2NS271		●	●			-2NS271	12.7	5.16	4.76	1.2	2.2
	CNGA120402-4NS130	●	●	●			CNGA43(0.5)-4NS130	12.7	5.16	4.76	0.2	2.2
	-4NS251	●	●				-4NS251	12.7	5.16	4.76	0.2	2.2
	-4NS271		●	●			-4NS271	12.7	5.16	4.76	0.2	2.2
	CNGA120404-4NS130	●	●	●			CNGA431-4NS130	12.7	5.16	4.76	0.4	2.2
	-4NS251	●	●				-4NS251	12.7	5.16	4.76	0.4	2.2
	-4NS271		●	●			-4NS271	12.7	5.16	4.76	0.4	2.2
	CNGA120408-4NS130	●	●	●			CNGA432-4NS130	12.7	5.16	4.76	0.8	2.2
	-4NS251	●	●				-4NS251	12.7	5.16	4.76	0.8	2.2
	-4NS271		●	●			-4NS271	12.7	5.16	4.76	0.8	2.2
	CNGA120412-4NS130	●	●	●			CNGA433-4NS130	12.7	5.16	4.76	1.2	2.2
	-4NS251	●	●				-4NS251	12.7	5.16	4.76	1.2	2.2
	-4NS271		●	●			-4NS271	12.7	5.16	4.76	1.2	2.2

Example : ISO - CNGA120408-4NS251 CB300
ANSI - CNGA432-4NS251 CB300

DN 55° PCBN Negative Inserts



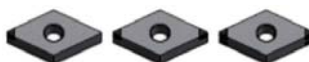
S130	S251	S271
Sharp Cutting Edge	Standard Cutting Edge	Strong Cutting Edge

Shape	ISO	Grade					ANSI	Dimensions in mm				
		CB200	CB300	CB400	CB700	CB900		ic	Ød	s	r	la
	DNGA150402-1NS130	●	●	●			DNGA43(0.5)-1NS130	12.7	5.16	4.76	0.2	2.2
	-1NS251	●	●				-1NS251	12.7	5.16	4.76	0.2	2.2
	-1NS271		●	●			-1NS271	12.7	5.16	4.76	0.2	2.2
	DNGA150404-1NS130	●	●	●			DNGA431-1NS130	12.7	5.16	4.76	0.4	2.2
	-1NS251	●	●				-1NS251	12.7	5.16	4.76	0.4	2.2
	-1NS271		●	●			-1NS271	12.7	5.16	4.76	0.4	2.2
	DNGA150408-1NS130	●	●	●			DNGA432-1NS130	12.7	5.16	4.76	0.8	2.2
	-1NS251	●	●				-1NS251	12.7	5.16	4.76	0.8	2.2
	-1NS271		●	●			-1NS271	12.7	5.16	4.76	0.8	2.2
	DNGA150412-1NS130	●	●	●			DNGA433-1NS130	12.7	5.16	4.76	1.2	2.2
	-1NS251	●	●				-1NS251	12.7	5.16	4.76	1.2	2.2
	-1NS271		●	●			-1NS271	12.7	5.16	4.76	1.2	2.2
	DNGA150402-2NS130	●	●	●			DNGA43(0.5)-2NS130	12.7	5.16	4.76	0.2	2.2
	-2NS251	●	●				-2NS251	12.7	5.16	4.76	0.2	2.2
	-2NS271		●	●			-2NS271	12.7	5.16	4.76	0.2	2.2
	DNGA150404-2NS130	●	●	●			DNGA431-2NS130	12.7	5.16	4.76	0.4	2.2
	-2NS251	●	●				-2NS251	12.7	5.16	4.76	0.4	2.2
	-2NS271		●	●			-2NS271	12.7	5.16	4.76	0.4	2.2
	DNGA150408-2NS130	●	●	●			DNGA432-2NS130	12.7	5.16	4.76	0.8	2.2
	-2NS251	●	●				-2NS251	12.7	5.16	4.76	0.8	2.2
	-2NS271		●	●			-2NS271	12.7	5.16	4.76	0.8	2.2
	DNGA150412-2NS130	●	●	●			DNGA433-2NS130	12.7	5.16	4.76	1.2	2.2
	-2NS251	●	●				-2NS251	12.7	5.16	4.76	1.2	2.2
	-2NS271		●	●			-2NS271	12.7	5.16	4.76	1.2	2.2
	DNGA150402-4NS130	●	●	●			DNGA43(0.5)-4NS130	12.7	5.16	4.76	0.2	2.2
	-4NS251	●	●				-4NS251	12.7	5.16	4.76	0.2	2.2
	-4NS271		●	●			-4NS271	12.7	5.16	4.76	0.2	2.2
	DNGA150404-4NS130	●	●	●			DNGA431-4NS130	12.7	5.16	4.76	0.4	2.2
	-4NS251	●	●				-4NS251	12.7	5.16	4.76	0.4	2.2
	-4NS271		●	●			-4NS271	12.7	5.16	4.76	0.4	2.2
	DNGA150408-4NS130	●	●	●			DNGA432-4NS130	12.7	5.16	4.76	0.8	2.2
	-4NS251	●	●				-4NS251	12.7	5.16	4.76	0.8	2.2
	-4NS271		●	●			-4NS271	12.7	5.16	4.76	0.8	2.2
	DNGA150412-4NS130	●	●	●			DNGA433-4NS130	12.7	5.16	4.76	1.2	2.2
	-4NS251	●	●				-4NS251	12.7	5.16	4.76	1.2	2.2
	-4NS271		●	●			-4NS271	12.7	5.16	4.76	1.2	2.2

Example : ISO - DNGA150408-4NS251 CB300
ANSI - DNGA432-4NS251 CB300



DN 55° PCBN Negative Inserts



S130	S251	S271
Sharp Cutting Edge	Standard Cutting Edge	Strong Cutting Edge

Shape	ISO	Grade					ANSI	Dimensions in mm				
		CB200	CB300	CB400	CB700	CB900		ic	Ød	s	r	la
	DNGA150602-1NS130	●	●	●			DNGA44(0.5)-1NS130	12.7	5.16	6.35	0.2	2.2
	-1NS251	●	●				-1NS251	12.7	5.16	6.35	0.2	2.2
	-1NS271		●	●			-1NS271	12.7	5.16	6.35	0.2	2.2
	DNGA150604-1NS130	●	●	●			DNGA441-1NS130	12.7	5.16	6.35	0.4	2.2
	-1NS251	●	●				-1NS251	12.7	5.16	6.35	0.4	2.2
	-1NS271		●	●			-1NS271	12.7	5.16	6.35	0.4	2.2
	DNGA150608-1NS130	●	●	●			DNGA442-1NS130	12.7	5.16	6.35	0.8	2.2
	-1NS251	●	●				-1NS251	12.7	5.16	6.35	0.8	2.2
	-1NS271		●	●			-1NS271	12.7	5.16	6.35	0.8	2.2
	DNGA150612-1NS130	●	●	●			DNGA443-1NS130	12.7	5.16	6.35	1.2	2.2
	-1NS251	●	●				-1NS251	12.7	5.16	6.35	1.2	2.2
	-1NS271		●	●			-1NS271	12.7	5.16	6.35	1.2	2.2
	DNGA150602-2NS130	●	●	●			DNGA44(0.5)-2NS130	12.7	5.16	6.35	0.2	2.2
	-2NS251	●	●				-2NS251	12.7	5.16	6.35	0.2	2.2
	-2NS271		●	●			-2NS271	12.7	5.16	6.35	0.2	2.2
	DNGA150604-2NS130	●	●	●			DNGA441-2NS130	12.7	5.16	6.35	0.4	2.2
	-2NS251	●	●				-2NS251	12.7	5.16	6.35	0.4	2.2
	-2NS271		●	●			-2NS271	12.7	5.16	6.35	0.4	2.2
	DNGA150608-2NS130	●	●	●			DNGA442-2NS130	12.7	5.16	6.35	0.8	2.2
	-2NS251	●	●				-2NS251	12.7	5.16	6.35	0.8	2.2
	-2NS271		●	●			-2NS271	12.7	5.16	6.35	0.8	2.2
	DNGA150612-2NS130	●	●	●			DNGA443-2NS130	12.7	5.16	6.35	1.2	2.2
	-2NS251	●	●				-2NS251	12.7	5.16	6.35	1.2	2.2
	-2NS271		●	●			-2NS271	12.7	5.16	6.35	1.2	2.2
	DNGA150602-4NS130	●	●	●			DNGA44(0.5)-4NS130	12.7	5.16	6.35	0.2	2.2
	-4NS251	●	●				-4NS251	12.7	5.16	6.35	0.2	2.2
	-4NS271		●	●			-4NS271	12.7	5.16	6.35	0.2	2.2
	DNGA150604-4NS130	●	●	●			DNGA441-4NS130	12.7	5.16	6.35	0.4	2.2
	-4NS251	●	●				-4NS251	12.7	5.16	6.35	0.4	2.2
	-4NS271		●	●			-4NS271	12.7	5.16	6.35	0.4	2.2
	DNGA150608-4NS130	●	●	●			DNGA442-4NS130	12.7	5.16	6.35	0.8	2.2
	-4NS251	●	●				-4NS251	12.7	5.16	6.35	0.8	2.2
	-4NS271		●	●			-4NS271	12.7	5.16	6.35	0.8	2.2
	DNGA150612-4NS130	●	●	●			DNGA443-4NS130	12.7	5.16	6.35	1.2	2.2
	-4NS251	●	●				-4NS251	12.7	5.16	6.35	1.2	2.2
	-4NS271		●	●			-4NS271	12.7	5.16	6.35	1.2	2.2

Example : ISO - DNGA150608-4NS251 CB300
ANSI - DNGA442-4NS251 CB300

SN 90° PCBN Negative Inserts



S130	S251	S271
Sharp Cutting Edge	Standard Cutting Edge	Strong Cutting Edge

Shape	ISO	Grade					ANSI	Dimensions in mm				
		CB200	CB300	CB400	CB700	CB900		ic	Ød	s	r	la
	SNGA120402-1NS130	●	●	●			SNGA43(0.5)-1NS130	12.7	5.16	4.76	0.2	2.2
	-1NS251	●	●				-1NS251	12.7	5.16	4.76	0.2	2.2
	-1NS271		●	●			-1NS271	12.7	5.16	4.76	0.2	2.2
	SNGA120404-1NS130	●	●	●			SNGA431-1NS130	12.7	5.16	4.76	0.4	2.2
	-1NS251	●	●				-1NS251	12.7	5.16	4.76	0.4	2.2
	-1NS271		●	●			-1NS271	12.7	5.16	4.76	0.4	2.2
	SNGA120408-1NS130	●	●	●			SNGA432-1NS130	12.7	5.16	4.76	0.8	2.2
	-1NS251	●	●				-1NS251	12.7	5.16	4.76	0.8	2.2
	-1NS271		●	●			-1NS271	12.7	5.16	4.76	0.8	2.2
	SNGA120412-1NS130	●	●	●			SNGA433-1NS130	12.7	5.16	4.76	1.2	2.2
	-1NS251	●	●				-1NS251	12.7	5.16	4.76	1.2	2.2
	-1NS271		●	●			-1NS271	12.7	5.16	4.76	1.2	2.2
	SNGA120402-4NS130	●	●	●			SNGA43(0.5)-4NS130	12.7	5.16	4.76	0.2	2.2
	-4NS251	●	●				-4NS251	12.7	5.16	4.76	0.2	2.2
	-4NS271		●	●			-4NS271	12.7	5.16	4.76	0.2	2.2
	SNGA120404-4NS130	●	●	●			SNGA431-4NS130	12.7	5.16	4.76	0.4	2.2
	-4NS251	●	●				-4NS251	12.7	5.16	4.76	0.4	2.2
	-4NS271		●	●			-4NS271	12.7	5.16	4.76	0.4	2.2
	SNGA120408-4NS130	●	●	●			SNGA432-4NS130	12.7	5.16	4.76	0.8	2.2
	-4NS251	●	●				-4NS251	12.7	5.16	4.76	0.8	2.2
	-4NS271		●	●			-4NS271	12.7	5.16	4.76	0.8	2.2
	SNGA120412-4NS130	●	●	●			SNGA433-4NS130	12.7	5.16	4.76	1.2	2.2
	-4NS251	●	●				-4NS251	12.7	5.16	4.76	1.2	2.2
	-4NS271		●	●			-4NS271	12.7	5.16	4.76	1.2	2.2
	SNGA120402-8NS130	●	●	●			SNGA43(0.5)-8NS130	12.7	5.16	4.76	0.2	2.2
	-8NS251	●	●				-8NS251	12.7	5.16	4.76	0.2	2.2
	-8NS271		●	●			-8NS271	12.7	5.16	4.76	0.2	2.2
	SNGA120404-8NS130	●	●	●			SNGA431-8NS130	12.7	5.16	4.76	0.4	2.2
	-8NS251	●	●				-8NS251	12.7	5.16	4.76	0.4	2.2
	-8NS271		●	●			-8NS271	12.7	5.16	4.76	0.4	2.2
	SNGA120408-8NS130	●	●	●			SNGA432-8NS130	12.7	5.16	4.76	0.8	2.2
	-8NS251	●	●				-8NS251	12.7	5.16	4.76	0.8	2.2
	-8NS271		●	●			-8NS271	12.7	5.16	4.76	0.8	2.2
	SNGA120412-8NS130	●	●	●			SNGA433-8NS130	12.7	5.16	4.76	1.2	2.2
	-8NS251	●	●				-8NS251	12.7	5.16	4.76	1.2	2.2
	-8NS271		●	●			-8NS271	12.7	5.16	4.76	1.2	2.2

Example : ISO - SNGA120408-8NS251 CB300
ANSI - SNGA432-8NS251 CB300



TN 60° PCBN Negative Inserts



S130	S251	S271
Sharp Cutting Edge	Standard Cutting Edge	Strong Cutting Edge

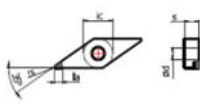
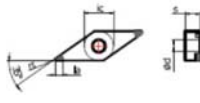
Shape	ISO	Grade					ANSI	Dimensions in mm				
		CB200	CB300	CB400	CB700	CB900		ic	Ød	s	r	la
	TNGA160402-1NS130	●	●	●			TNGA33(0.5)-1NS130	9.525	3.81	4.76	0.2	2.2
	-1NS251	●	●				-1NS251	9.525	3.81	4.76	0.2	2.2
	-1NS271		●	●			-1NS271	9.525	3.81	4.76	0.2	2.2
	TNGA160404-1NS130	●	●	●			TNGA331-1NS130	9.525	3.81	4.76	0.4	2.2
	-1NS251	●	●				-1NS251	9.525	3.81	4.76	0.4	2.2
	-1NS271		●	●			-1NS271	9.525	3.81	4.76	0.4	2.2
	TNGA160408-1NS130	●	●	●			TNGA332-1NS130	9.525	3.81	4.76	0.8	2.2
	-1NS251	●	●				-1NS251	9.525	3.81	4.76	0.8	2.2
	-1NS271		●	●			-1NS271	9.525	3.81	4.76	0.8	2.2
	TNGA160412-1NS130	●	●	●			TNGA333-1NS130	9.525	3.81	4.76	1.2	2.2
	-1NS251	●	●				-1NS251	9.525	3.81	4.76	1.2	2.2
	-1NS271		●	●			-1NS271	9.525	3.81	4.76	1.2	2.2
	TNGA160402-3NS130	●	●	●			TNGA33(0.5)-3NS130	9.525	3.81	4.76	0.2	2.2
	-3NS251	●	●				-3NS251	9.525	3.81	4.76	0.2	2.2
	-3NS271		●	●			-3NS271	9.525	3.81	4.76	0.2	2.2
	TNGA160404-3NS130	●	●	●			TNGA331-3NS130	9.525	3.81	4.76	0.4	2.2
	-3NS251	●	●				-3NS251	9.525	3.81	4.76	0.4	2.2
	-3NS271		●	●			-3NS271	9.525	3.81	4.76	0.4	2.2
	TNGA160408-3NS130	●	●	●			TNGA332-3NS130	9.525	3.81	4.76	0.8	2.2
	-3NS251	●	●				-3NS251	9.525	3.81	4.76	0.8	2.2
	-3NS271		●	●			-3NS271	9.525	3.81	4.76	0.8	2.2
	TNGA160412-3NS130	●	●	●			TNGA333-3NS130	9.525	3.81	4.76	1.2	2.2
	-3NS251	●	●				-3NS251	9.525	3.81	4.76	1.2	2.2
	-3NS271		●	●			-3NS271	9.525	3.81	4.76	1.2	2.2
	TNGA160402-6NS130	●	●	●			TNGA33(0.5)-6NS130	9.525	3.81	4.76	0.2	2.2
	-6NS251	●	●				-6NS251	9.525	3.81	4.76	0.2	2.2
	-6NS271		●	●			-6NS271	9.525	3.81	4.76	0.2	2.2
	TNGA160404-6NS130	●	●	●			TNGA331-6NS130	9.525	3.81	4.76	0.4	2.2
	-6NS251	●	●				-6NS251	9.525	3.81	4.76	0.4	2.2
	-6NS271		●	●			-6NS271	9.525	3.81	4.76	0.4	2.2
	TNGA160408-6NS130	●	●	●			TNGA332-6NS130	9.525	3.81	4.76	0.8	2.2
	-6NS251	●	●				-6NS251	9.525	3.81	4.76	0.8	2.2
	-6NS271		●	●			-6NS271	9.525	3.81	4.76	0.8	2.2
	TNGA160412-6NS130	●	●	●			TNGA333-6NS130	9.525	3.81	4.76	1.2	2.2
	-6NS251	●	●				-6NS251	9.525	3.81	4.76	1.2	2.2
	-6NS271		●	●			-6NS271	9.525	3.81	4.76	1.2	2.2

Example : ISO - TNGA160408-6NS251 CB300
ANSI - TNGA332-6NS251 CB300

VN 35° PCBN Negative Inserts



S130	S251	S271
Sharp Cutting Edge	Standard Cutting Edge	Strong Cutting Edge

Shape	ISO	Grade					ANSI	Dimensions in mm				
		CB200	CB300	CB400	CB700	CB900		ic	Ød	s	r	la
	VNGA160402-1NS130	●	●	●			VNGA33(0.5)-1NS130	9.525	3.81	4.76	0.2	2.2
	-1NS251	●	●				-1NS251	9.525	3.81	4.76	0.2	2.2
	-1NS271		●	●			-1NS271	9.525	3.81	4.76	0.2	2.2
	VNGA160404-1NS130	●	●	●			VNGA331-1NS130	9.525	3.81	4.76	0.4	2.2
	-1NS251	●	●				-1NS251	9.525	3.81	4.76	0.4	2.2
	-1NS271		●	●			-1NS271	9.525	3.81	4.76	0.4	2.2
	VNGA160408-1NS130	●	●	●			VNGA332-1NS130	9.525	3.81	4.76	0.8	2.2
	-1NS251	●	●				-1NS251	9.525	3.81	4.76	0.8	2.2
	-1NS271		●	●			-1NS271	9.525	3.81	4.76	0.8	2.2
	VNGA160412-1NS130	●	●	●			VNGA333-1NS130	9.525	3.81	4.76	1.2	2.2
	-1NS251	●	●				-1NS251	9.525	3.81	4.76	1.2	2.2
	-1NS271		●	●			-1NS271	9.525	3.81	4.76	1.2	2.2
	VNGA160402-2NS130	●	●	●			VNGA33(0.5)-2NS130	9.525	3.81	4.76	0.2	2.2
	-2NS251	●	●				-2NS251	9.525	3.81	4.76	0.2	2.2
	-2NS271		●	●			-2NS271	9.525	3.81	4.76	0.2	2.2
	VNGA160404-2NS130	●	●	●			VNGA331-2NS130	9.525	3.81	4.76	0.4	2.2
	-2NS251	●	●				-2NS251	9.525	3.81	4.76	0.4	2.2
	-2NS271		●	●			-2NS271	9.525	3.81	4.76	0.4	2.2
	VNGA160408-2NS130	●	●	●			VNGA332-2NS130	9.525	3.81	4.76	0.8	2.2
	-2NS251	●	●				-2NS251	9.525	3.81	4.76	0.8	2.2
	-2NS271		●	●			-2NS271	9.525	3.81	4.76	0.8	2.2
	VNGA160412-2NS130	●	●	●			VNGA333-2NS130	9.525	3.81	4.76	1.2	2.2
	-2NS251	●	●				-2NS251	9.525	3.81	4.76	1.2	2.2
	-2NS271		●	●			-2NS271	9.525	3.81	4.76	1.2	2.2
	VNGA160402-4NS130	●	●	●			VNGA33(0.5)-4NS130	9.525	3.81	4.76	0.2	2.2
	-4NS251	●	●				-4NS251	9.525	3.81	4.76	0.2	2.2
	-4NS271		●	●			-4NS271	9.525	3.81	4.76	0.2	2.2
	VNGA160404-4NS130	●	●	●			VNGA331-4NS130	9.525	3.81	4.76	0.4	2.2
	-4NS251	●	●				-4NS251	9.525	3.81	4.76	0.4	2.2
	-4NS271		●	●			-4NS271	9.525	3.81	4.76	0.4	2.2
	VNGA160408-4NS130	●	●	●			VNGA332-4NS130	9.525	3.81	4.76	0.8	2.2
	-4NS251	●	●				-4NS251	9.525	3.81	4.76	0.8	2.2
	-4NS271		●	●			-4NS271	9.525	3.81	4.76	0.8	2.2
	VNGA160412-4NS130	●	●	●			VNGA333-4NS130	9.525	3.81	4.76	1.2	2.2
	-4NS251	●	●				-4NS251	9.525	3.81	4.76	1.2	2.2
	-4NS271		●	●			-4NS271	9.525	3.81	4.76	1.2	2.2

Example : ISO - VNGA160408-4NS251 CB300
ANSI - VNGA332-4NS251 CB300



WN 80° PCBN Negative Inserts



S130	S251	S271
Sharp Cutting Edge	Standard Cutting Edge	Strong Cutting Edge

Shape	ISO	Grade					ANSI	Dimensions in mm				
		CB200	CB300	CB400	CB700	CB900		ic	Ød	s	r	la
	WNGA080402-1NS130	●	●	●			WNGA43(0.5)-1NS130	12.7	5.16	4.76	0.2	2.2
	-1NS251	●	●				-1NS251	12.7	5.16	4.76	0.2	2.2
	-1NS271		●	●			-1NS271	12.7	5.16	4.76	0.2	2.2
	WNGA080404-1NS130	●	●	●			WNGA431-1NS130	12.7	5.16	4.76	0.4	2.2
	-1NS251	●	●				-1NS251	12.7	5.16	4.76	0.4	2.2
	-1NS271		●	●			-1NS271	12.7	5.16	4.76	0.4	2.2
	WNGA080408-1NS130	●	●	●			WNGA432-1NS130	12.7	5.16	4.76	0.8	2.2
	-1NS251	●	●				-1NS251	12.7	5.16	4.76	0.8	2.2
	-1NS271		●	●			-1NS271	12.7	5.16	4.76	0.8	2.2
	WNGA080412-1NS130	●	●	●			WNGA433-1NS130	12.7	5.16	4.76	1.2	2.2
	-1NS251	●	●				-1NS251	12.7	5.16	4.76	1.2	2.2
	-1NS271		●	●			-1NS271	12.7	5.16	4.76	1.2	2.2
	WNGA080402-3NS130	●	●	●			WNGA43(0.5)-3NS130	12.7	5.16	4.76	0.2	2.2
	-3NS251	●	●				-3NS251	12.7	5.16	4.76	0.2	2.2
	-3NS271		●	●			-3NS271	12.7	5.16	4.76	0.2	2.2
	WNGA080404-3NS130	●	●	●			WNGA431-3NS130	12.7	5.16	4.76	0.4	2.2
	-3NS251	●	●				-3NS251	12.7	5.16	4.76	0.4	2.2
	-3NS271		●	●			-3NS271	12.7	5.16	4.76	0.4	2.2
	WNGA080408-3NS130	●	●	●			WNGA432-3NS130	12.7	5.16	4.76	0.8	2.2
	-3NS251	●	●				-3NS251	12.7	5.16	4.76	0.8	2.2
	-3NS271		●	●			-3NS271	12.7	5.16	4.76	0.8	2.2
	WNGA080412-3NS130	●	●	●			WNGA433-3NS130	12.7	5.16	4.76	1.2	2.2
	-3NS251	●	●				-3NS251	12.7	5.16	4.76	1.2	2.2
	-3NS271		●	●			-3NS271	12.7	5.16	4.76	1.2	2.2
	WNGA080402-6NS130	●	●	●			WNGA43(0.5)-6NS130	12.7	5.16	4.76	0.2	2.2
	-6NS251	●	●				-6NS251	12.7	5.16	4.76	0.2	2.2
	-6NS271		●	●			-6NS271	12.7	5.16	4.76	0.2	2.2
	WNGA080404-6NS130	●	●	●			WNGA431-6NS130	12.7	5.16	4.76	0.4	2.2
	-6NS251	●	●				-6NS251	12.7	5.16	4.76	0.4	2.2
	-6NS271		●	●			-6NS271	12.7	5.16	4.76	0.4	2.2
	WNGA080408-6NS130	●	●	●			WNGA432-6NS130	12.7	5.16	4.76	0.8	2.2
	-6NS251	●	●				-6NS251	12.7	5.16	4.76	0.8	2.2
	-6NS271		●	●			-6NS271	12.7	5.16	4.76	0.8	2.2
	WNGA080412-6NS130	●	●	●			WNGA433-6NS130	12.7	5.16	4.76	1.2	2.2
	-6NS251	●	●				-6NS251	12.7	5.16	4.76	1.2	2.2
	-6NS271		●	●			-6NS271	12.7	5.16	4.76	1.2	2.2

Example : ISO - WNGA080408-6NS251 CB300
ANSI - WNGA432-6NS251 CB300



Solid Corner PCBN Inserts



Solid Corner PCBN Inserts

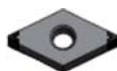
CN 80° PCBN Negative Inserts



S130	S251	S271
Sharp Cutting Edge	Standard Cutting Edge	Strong Cutting Edge

Shape	ISO	Grade					ANSI	Dimensions in mm				
		CB200	CB300	CB400	CB700	CB900		ic	Ød	s	r	la
	CNGA120402-4NS130	●	●	●			CNGA43(0.5)-4NS130	12.7	5.16	4.76	0.2	2.2
	-4NS251	●	●				-4NS251	12.7	5.16	4.76	0.2	2.2
	-4NS271		●	●			-4NS271	12.7	5.16	4.76	0.2	2.2
	CNGA120404-4NS130	●	●	●			CNGA431-4NS130	12.7	5.16	4.76	0.4	2.2
	-4NS251	●	●				-4NS251	12.7	5.16	4.76	0.4	2.2
	-4NS271		●	●			-4NS271	12.7	5.16	4.76	0.4	2.2
	CNGA120408-4NS130	●	●	●			CNGA432-4NS130	12.7	5.16	4.76	0.8	2.2
	-4NS251	●	●				-4NS251	12.7	5.16	4.76	0.8	2.2
	-4NS271		●	●			-4NS271	12.7	5.16	4.76	0.8	2.2
	CNGA120412-4NS130	●	●	●			CNGA433-4NS130	12.7	5.16	4.76	1.2	2.2
	-4NS251	●	●				-4NS251	12.7	5.16	4.76	1.2	2.2
	-4NS271		●	●			-4NS271	12.7	5.16	4.76	1.2	2.2

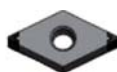
DN 55° PCBN Negative Inserts



S130	S251	S271
Sharp Cutting Edge	Standard Cutting Edge	Strong Cutting Edge

Shape	ISO	Grade					ANSI	Dimensions in mm				
		CB200	CB300	CB400	CB700	CB900		ic	Ød	s	r	la
	DNGA150402-4NS130	●	●	●			DNGA43(0.5)-4NS130	12.7	5.16	4.76	0.2	2.2
	-4NS251	●	●				-4NS251	12.7	5.16	4.76	0.2	2.2
	-4NS271		●	●			-4NS271	12.7	5.16	4.76	0.2	2.2
	DNGA150404-4NS130	●	●	●			DNGA431-4NS130	12.7	5.16	4.76	0.4	2.2
	-4NS251	●	●				-4NS251	12.7	5.16	4.76	0.4	2.2
	-4NS271		●	●			-4NS271	12.7	5.16	4.76	0.4	2.2
	DNGA150408-4NS130	●	●	●			DNGA432-4NS130	12.7	5.16	4.76	0.8	2.2
	-4NS251	●	●				-4NS251	12.7	5.16	4.76	0.8	2.2
	-4NS271		●	●			-4NS271	12.7	5.16	4.76	0.8	2.2
	DNGA150412-4NS130	●	●	●			DNGA433-4NS130	12.7	5.16	4.76	1.2	2.2
	-4NS251	●	●				-4NS251	12.7	5.16	4.76	1.2	2.2
	-4NS271		●	●			-4NS271	12.7	5.16	4.76	1.2	2.2

DN 55° PCBN Negative Inserts



S130	S251	S271
Sharp Cutting Edge	Standard Cutting Edge	Strong Cutting Edge

Shape	ISO	Grade					ANSI	Dimensions in mm				
		CB200	CB300	CB400	CB700	CB900		ic	Ød	s	r	la
	DNGA150602-4NS130	●	●	●			DNGA43(0.5)-4NS130	12.7	5.16	6.35	0.2	2.2
	-4NS251	●	●				-4NS251	12.7	5.16	6.35	0.2	2.2
	-4NS271		●	●			-4NS271	12.7	5.16	6.35	0.2	2.2
	DNGA150604-4NS130	●	●	●			DNGA441-4NS130	12.7	5.16	6.35	0.4	2.2
	-4NS251	●	●				-4NS251	12.7	5.16	6.35	0.4	2.2
	-4NS271		●	●			-4NS271	12.7	5.16	6.35	0.4	2.2
	DNGA150608-4NS130	●	●	●			DNGA442-4NS130	12.7	5.16	6.35	0.8	2.2
	-4NS251	●	●				-4NS251	12.7	5.16	6.35	0.8	2.2
	-4NS271		●	●			-4NS271	12.7	5.16	6.35	0.8	2.2
	DNGA150612-4NS130	●	●	●			DNGA443-4NS130	12.7	5.16	6.35	1.2	2.2
	-4NS251	●	●				-4NS251	12.7	5.16	6.35	1.2	2.2
	-4NS271		●	●			-4NS271	12.7	5.16	6.35	1.2	2.2

Example : ISO - DNGA150602-4NS251 CB300
ANSI - DNGA43(0.5)-4NS251 CB300

SN 90° PCBN Negative Inserts


S130	S251	S271
Sharp Cutting Edge	Standard Cutting Edge	Strong Cutting Edge

Shape	ISO	Grade					ANSI	Dimensions in mm				
		CB200	CB300	CB400	CB700	CB900		ic	Ød	s	r	la
	SNGA120402-8NS130	●	●	●			SNGA43(0.5)-8NS130	12.7	5.16	4.76	0.2	2.2
	-8NS251	●	●				-8NS251	12.7	5.16	4.76	0.2	2.2
	-8NS271		●	●			-8NS271	12.7	5.16	4.76	0.2	2.2
	SNGA120404-8NS130	●	●	●			SNGA431-8NS130	12.7	5.16	4.76	0.4	2.2
	-8NS251	●	●				-8NS251	12.7	5.16	4.76	0.4	2.2
	-8NS271		●	●			-8NS271	12.7	5.16	4.76	0.4	2.2
	SNGA120408-8NS130	●	●	●			SNGA432-8NS130	12.7	5.16	4.76	0.8	2.2
	-8NS251	●	●				-8NS251	12.7	5.16	4.76	0.8	2.2
	-8NS271		●	●			-8NS271	12.7	5.16	4.76	0.8	2.2
	SNGA120412-8NS130	●	●	●			SNGA433-8NS130	12.7	5.16	4.76	1.2	2.2
	-8NS251	●	●				-8NS251	12.7	5.16	4.76	1.2	2.2
	-8NS271		●	●			-8NS271	12.7	5.16	4.76	1.2	2.2

TN 60° PCBN Negative Inserts


S130	S251	S271
Sharp Cutting Edge	Standard Cutting Edge	Strong Cutting Edge

Shape	ISO	Grade					ANSI	Dimensions in mm				
		CB200	CB300	CB400	CB700	CB900		ic	Ød	s	r	la
	TNGA160402-6NS130	●	●	●			TNGA33(0.5)-6NS130	9.525	3.81	4.76	0.2	2.2
	-6NS251	●	●				-6NS251	9.525	3.81	4.76	0.2	2.2
	-6NS271		●	●			-6NS271	9.525	3.81	4.76	0.2	2.2
	TNGA160404-6NS130	●	●	●			TNGA331-6NS130	9.525	3.81	4.76	0.4	2.2
	-6NS251	●	●				-6NS251	9.525	3.81	4.76	0.4	2.2
	-6NS271		●	●			-6NS271	9.525	3.81	4.76	0.4	2.2
	TNGA160408-6NS130	●	●	●			TNGA332-6NS130	9.525	3.81	4.76	0.8	2.2
	-6NS251	●	●				-6NS251	9.525	3.81	4.76	0.8	2.2
	-6NS271		●	●			-6NS271	9.525	3.81	4.76	0.8	2.2
	TNGA160412-6NS130	●	●	●			TNGA333-6NS130	9.525	3.81	4.76	1.2	2.2
	-6NS251	●	●				-6NS251	9.525	3.81	4.76	1.2	2.2
	-6NS271		●	●			-6NS271	9.525	3.81	4.76	1.2	2.2

VN 35° PCBN Negative Inserts


S130	S251	S271
Sharp Cutting Edge	Standard Cutting Edge	Strong Cutting Edge

Shape	ISO	Grade					ANSI	Dimensions in mm				
		CB200	CB300	CB400	CB700	CB900		ic	Ød	s	r	la
	VNGA160402-4NS130	●	●	●			VNGA33(0.5)-4NS130	9.525	3.81	4.76	0.2	2.2
	-4NS251	●	●				-4NS251	9.525	3.81	4.76	0.2	2.2
	-4NS271		●	●			-4NS271	9.525	3.81	4.76	0.2	2.2
	VNGA160404-4NS130	●	●	●			VNGA341-4NS130	9.525	3.81	4.76	0.4	2.2
	-4NS251	●	●				-4NS251	9.525	3.81	4.76	0.4	2.2
	-4NS271		●	●			-4NS271	9.525	3.81	4.76	0.4	2.2
	VNGA160408-4NS130	●	●	●			VNGA342-4NS130	9.525	3.81	4.76	0.8	2.2
	-4NS251	●	●				-4NS251	9.525	3.81	4.76	0.8	2.2
	-4NS271		●	●			-4NS271	9.525	3.81	4.76	0.8	2.2
	VNGA160412-4NS130	●	●	●			VNGA343-4NS130	9.525	3.81	4.76	1.2	2.2
	-4NS251	●	●				-4NS251	9.525	3.81	4.76	1.2	2.2
	-4NS271		●	●			-4NS271	9.525	3.81	4.76	1.2	2.2

Example : ISO - VNGA160412-4NS251 CB300
ANSI - VNGA343-4NS251 CB300



WN 80° PCBN Negative Inserts



S130	S251	S271
Sharp Cutting Edge	Standard Cutting Edge	Strong Cutting Edge

Shape	ISO	Grade					ANSI	Dimensions in mm				
		CB200	CB300	CB400	CB700	CB900		ic	Ød	s	r	la
	WNGA080402-6NS130	●	●	●			WNGA43(0.5)-6NS130	12.7	5.16	4.76	0.2	2.2
	-6NS251	●	●				-6NS251	12.7	5.16	4.76	0.2	2.2
	-6NS271		●	●			-6NS271	12.7	5.16	4.76	0.2	2.2
	WNGA080404-6NS130	●	●	●			WNGA431-6NS130	12.7	5.16	4.76	0.4	2.2
	-6NS251	●	●				-6NS251	12.7	5.16	4.76	0.4	2.2
	-6NS271		●	●			-6NS271	12.7	5.16	4.76	0.4	2.2
	WNGA080408-6NS130	●	●	●			WNGA432-6NS130	12.7	5.16	4.76	0.8	2.2
	-6NS251	●	●				-6NS251	12.7	5.16	4.76	0.8	2.2
	-6NS271		●	●			-6NS271	12.7	5.16	4.76	0.8	2.2
	WNGA080412-6NS130	●	●	●			WNGA433-6NS1305	12.7	5.16	4.76	1.2	2.2
	-6NS251	●	●				-6NS251	12.7	5.16	4.76	1.2	2.2
	-6NS271		●	●			-6NS271	12.7	5.16	4.76	1.2	2.2

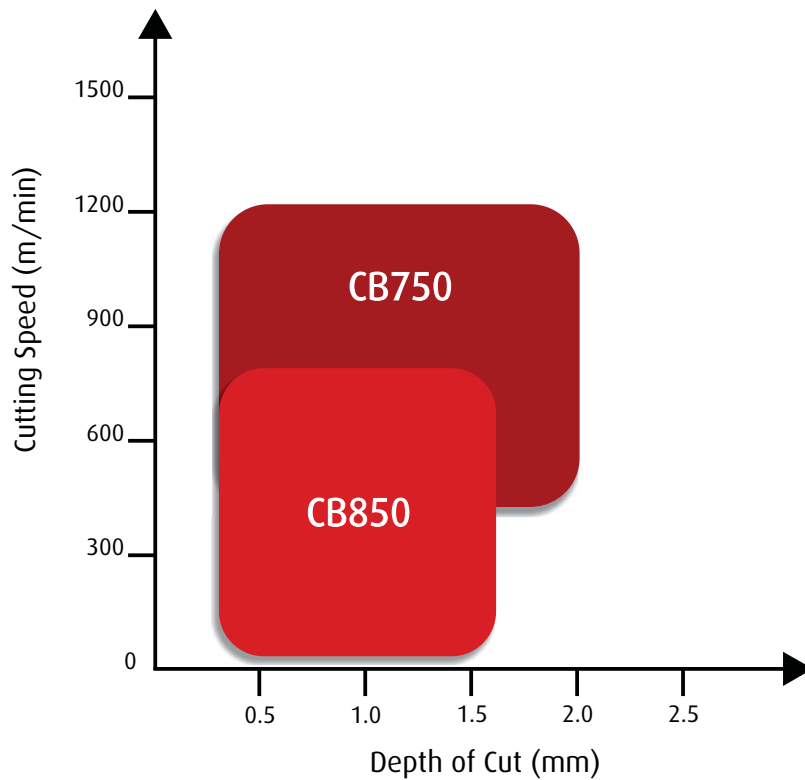
Example : ISO - WNGA080402-6NS251 CB300
ANSI - WNGA43(0.5)-6NS251 CB300



Solid PCBN Inserts

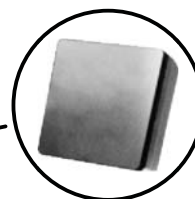
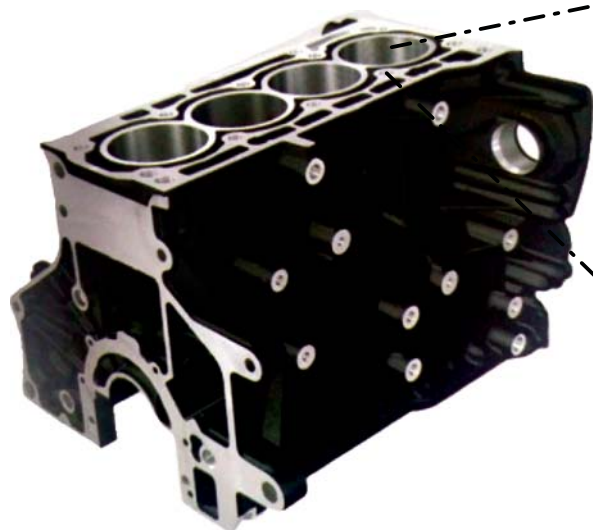


PCBN Cutting Tool Grade and Application



Form	Grade	Application	Material Range	Application Field
Solid PCBN Insert	CB750	Finishing	Cast iron	Brake disc, brake drum, compressor flange
	CB850	Heavy roughing, semi-finishing	Cast iron, hard steel	Industrial pump, valve, brake disc, brake drum, bearing, cylinder sleeve, roller, grinding roller

Cast Iron Engine Block



- PCBN overall single-sided composite boring cutter
- Cylinders hole
- Boring-semifinishing, finish machining
- More cutting edges bring higher efficiency. The machining efficiency increases more than 3 times than coated cutting tool, and improves the life 5 times, workpiece surface roughness to $Ra < 0.8$



- PCBN overall sintering milling insert
- Cylinder mounting surfaces
- Face milling - semifinishing, finish machining
- Achieve to perfect quality of workpiece surface and efficiency is re-doubled will ascend



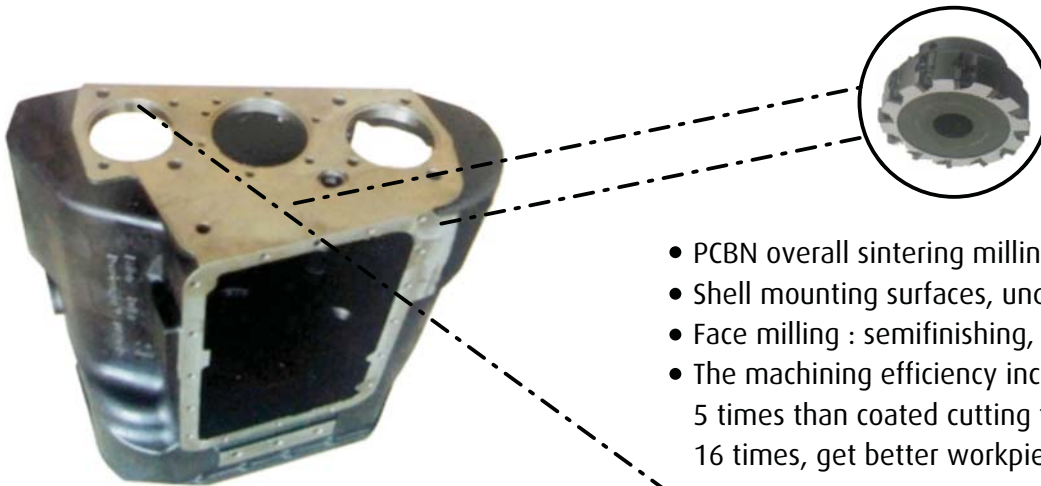
Cast Iron Cylinder Head

- PCBN overall sintering milling insert
- Cylinder underside and top surface
- The machining efficiency increases more than 5 times than coated cutting tool, and improves the life 5 times, workpiece surface quality has risen notably



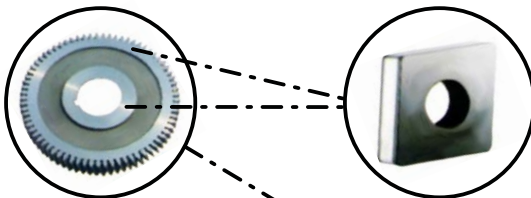
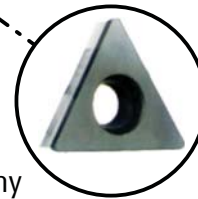


Cast Iron Shell of Gearbox



- PCBN overall sintering milling insert
- Shell mounting surfaces, underside and top surface
- Face milling : semifinishing, finish machining
- The machining efficiency increases more than 5 times than coated cutting tool, improves the life 16 times, get better workpiece surface quality

- PCBN overall single-sided composite boring cutter
- Cylinder hall, oil seal
- Boring - semifinishing, finish machining
- Higher efficient, better surface quality, more economy



- PCBN overall double-sided composite turning insert
- Gear inner bore and end face
- Hardened turning-finish machining
- Turning instead of grinding, $Ra < 0.8$



- PCBN overall sintering indexable grooving insert
- Gear shaft, synchronizer dial the fork
- Hardened turning-hard turning grooving
- Excellent impact resistance, cooperate with precision shock absorption tool rod, used in serious intermittent turning

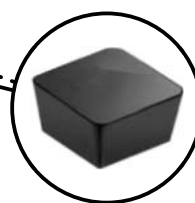


Gearbox Gear

Cast Iron Brake Disc



- PCBN overall sintering turning insert
- Brake disc end face, excircle, inner hole
- Turning-rough machining (machining allowance:3mm)
- The first of making PCBN overall sintered insert used in rough machining, extremely high wear resistance and blank removal rate, used in worse processing conditions



- PCBN overall sintering turning insert
- Brake disc end face, excircle, inner hole
- Turning - finish machining
- Compare with coated blade, workpiece surface quality significantly developed, the processing efficiency improved by 5 times



Cast Iron Brake Drum

- PCBN overall sintering turning insert
- Brake drum inner hole
- Turning-rough machining, finish machining
- One time clamping, rough machining and finish machining all done, get better workpiece surface quality



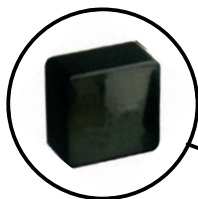
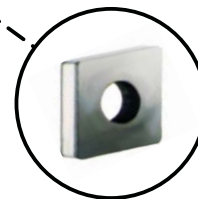


Boron Cast Iron Cylinder Liner



- PCBN overall sintering indexable grooving insert
- Excircle water seal band
- Turning - grooving processing
- Longer cutter life, higher processing efficiency

- PCBN overall double - sided composite turning
- Excircle
- Turning - finish machining
- Processing efficiency improved 3 times than coated blade, the surface roughness significantly reduced

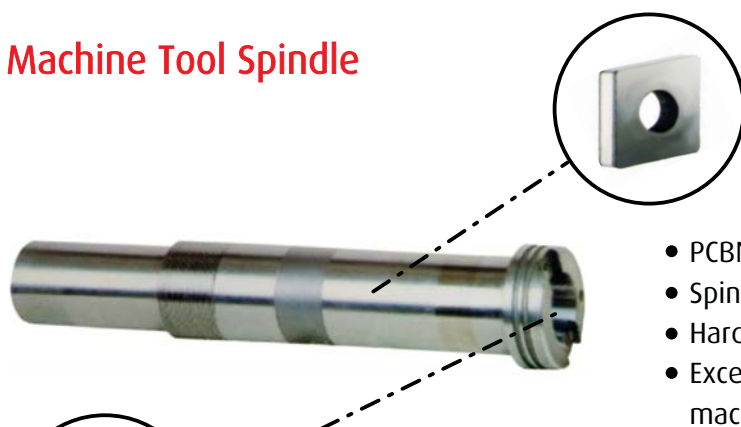


- PCBN overall sintering turning insert
- Pressure plate end face
- Turning - finish machining
- Processing efficiency jumped more than 3 fold, get good workpiece surface quality

Cast Iron Clutch Pressure Plate



Machine Tool Spindle

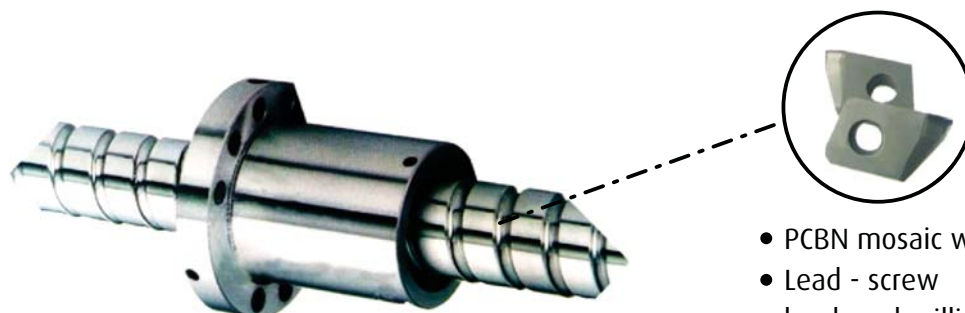


- PCBN overall double-sided composite turning insert
- Spindle excircle
- Hardened turning - finish machining
- Excellent abrasion resistance, ensure work piece machining precision



- PCBN overall single-sided composite boring blade
- Spindle inner hole
- hardened turning - finish machining
- Good processing quality of inner hole and workpiece dimensional accuracy

Screw Rod

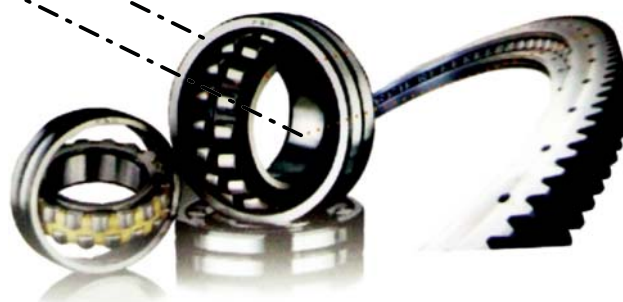


- PCBN mosaic whirlwind milling cutter
- Lead - screw
- hardened milling - finish machining
- Extremely high processing efficiency



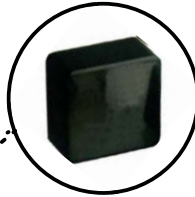
- PCBN overall sintering turning insert
- Slewing bearing raceway
- Hardened turning - finish machining
- Turning instead of grinding come true, efficiency improved over 5 times than grinding

Bearing



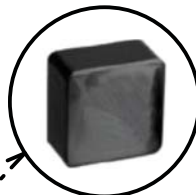
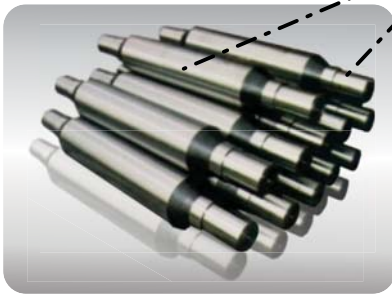


Industrial Pump



- PCBN overall sintering turning insert
- Pump cover, impeller, volute excircle, immer hole and end face
- Turning-rough machining (working allowance:3mm),finish machining
- The first using PCBN overall sintered insert in rough machining in China, the new material BTS2800, extremely high wear resistance and blank
- Removal rate, used in serious intermittent turning

Roller



- PCBN overall sintering turning insert
- roller excircle
- Turning-rough machining(working allowance:8mm),finish machining
- PCBN overall sintering insert used in rough maching originated in China.,the new material BTS2800, extremely high impact resistance, wear resistance and blank removal rate, bring processing efficiency qualitative leap

Cast Iron Clutch Pressure Plate



- PCBN overall sintering turning insert
- Grinder roll inside and outside, end face
- Turning-rough machining (working allowance:5mm), finish machining
- PCBN overall sintering insert used in rough machining is the first application in China. the new material BTS2800, extremely high impact resistance, wear resistance and blank removal rate, forging blank, directly process, no need change cutter, rough machining and finish machining all done, greatly improve the machining efficiency

Part No.	Dimensions in mm					Grade	
	L	Ø i.C	S	r	B	CB750	CB850
CNGN120404	12.9	12.7	4.76	0.4~2.0	-		
CNGN120408	12.9	12.7	4.76	0.4~2.0	-		
CNGN120412	12.9	12.7	4.76	0.4~2.0	-		
CNGN120416	12.9	12.7	4.76	0.4~2.0	-		
CNGN120704	12.9	12.7	7.94	0.4~2.0	-		
CNGN120708	12.9	12.7	7.94	0.4~2.0	-		
CNGN120712	12.9	12.7	7.94	0.4~2.0	-		
CNGN120716	12.9	12.7	7.94	0.4~2.0	-		
SCGN090404	9.525	9.525	4.76	0.4~2.0	-		
SCGN090408	9.525	9.525	4.76	0.4~2.0	-		
SCGN090412	9.525	9.525	4.76	0.4~2.0	-		
SCGN120404	12.7	12.7	4.76	0.4~2.0	-		
SCGN120408	12.7	12.7	4.76	0.4~2.0	-		
SCGN120412	12.7	12.7	4.76	0.4~2.0	-		
SCGN120416	12.7	12.7	4.76	0.4~2.0	-		
SNGN090404	9.525	9.525	4.76	0.4~3.0	-		
SNGN090408	9.525	9.525	4.76	0.4~3.0	-		
SNGN090412	9.525	9.525	4.76	0.4~3.0	-		
SNGN120404	12.7	12.7	4.76	0.4~3.0	-		
SNGN120408	12.7	12.7	4.76	0.4~3.0	-		
SNGN120412	12.7	12.7	4.76	0.4~3.0	-		
SNGN120416	12.7	12.7	4.76	0.4~3.0	-		
SNMN160808	16	16	8	0.4~3.0	-		
SNMN160812	16	16	8	0.4~3.0	-		
SNMN160816	16	16	8	0.4~3.0	-		
RNGN090400	9.53	9.53	4.76	-	-		
RNGN120400	12.7	12.7	4.76	-	-		
RNMN160800	16	16	8	-	-		
RNMN200800	20	20	8	-	-		
WNGN080404	8.7	12.7	4.76	0.4~2.0	-		
WNGN080408	8.7	12.7	4.76	0.4~2.0	-		
WNGN080412	8.7	12.7	4.76	0.4~2.0	-		
WNGN080416	8.7	12.7	4.76	0.4~2.0	-		
TNGN110304	11.1	6.35	3.18	0.4~3.0	-		
TNGN110308	11.1	6.35	3.18	0.4~3.0	-		
TNGN160404	16.5	9.525	4.76	0.4~3.0	-		
TNGN160408	16.5	9.525	4.76	0.4~3.0	-		
TNGN160412	16.5	9.525	4.76	0.4~3.0	-		
RCMV090700	9.525	9.525	7.94	-	1		
RCMV120700	12.7	12.7	7.94	-	1.5		
RCMV160700	16	16	7.94	-	1.5		
RCMV190700	19.05	19.05	7.94	-	1.5		

- For special shape and size, please contact our engineers.



Brisloy Tools India Private Limited
711, Tower - C, Business Zone
Nirvana Country, Sec - 50
Gurugram - 122018
INDIA
Phone +91 124 494 9505
tools@brisloy.com

www.brisloy-tools.com

