

SUMIBORON / SUMIDIA Indexable Inserts & Tools

M



M1 ~ M34



SUMIBORON / SUMIDIA Insert

C / 80° Diamond

CC_ 7° pos. Type M2

CN_ neg. Type M4

CP_ 11° pos. Type M5

D / 55° Diamond

DC_ 7° pos. Type M6

DN_ neg. Type M8

R / Round

RN_ neg. Type M9

S / Square

SC_ 7° pos. Type M9

SN_ neg. Type M10

T / Triangle

TB_ 5° pos. Type M11

TC_ 7° pos. Type M12

TN_ neg. Type M13

TP_ 11° pos. Type (Without Hole)..... M14

TP_ 11° pos. Type (With Hole)..... M15

V / 35° Diamond

VB_ 5° pos. Type M16

VC_ 7° pos. Type M16

VN_ neg. Type M17

W / Polygon

WN_ neg. Type M18

Special

ZNEX neg.-pos. Type M18

SUMIBORON / SUMIDIA Precision Tools

SUMIBORON

Guidance M19

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BNZ / BNB Type Small Hole Boring Bars..... M21

GWB Type Grooving Holder M22-23

BNGG Type Threading Holder..... M24

SUMIDIA

DABB Type Small Hole Boring Bars..... M25

RF Type Face Mill..... M26

SRF Type Face Mill..... M27

SUMIBORON "BN Finish Mill"

FMU Type Face Mill..... M28-29

"Helical Master"

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SUMIDIA

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80° Diamond Type

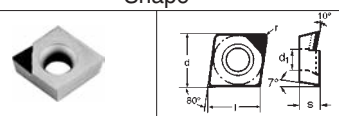
7° Relief
With Insert Hole

Dimensions (mm)				
CC--	ℓ	ød (IC)	s	d ₁
0602--	6,45	6,35	2,38	2,8
09T3--	9,7	9,525	3,97	4,4
1204--	12,9	12,7	4,76	5,5

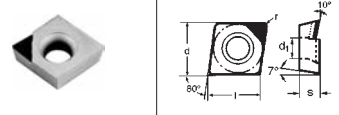
H Hardened Steel
K Cast Iron
N Non-Ferrous Metal

CCMT

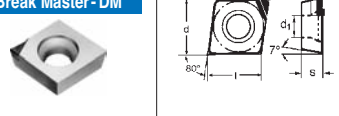
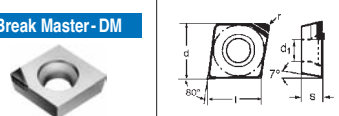
● M-Class SumiDia (PCD, Regrindable Type)

Shape	ISO Cat. No.	r	Material															
			Coated		Uncoated										PCD			
			BNC100	BNC160	BNC200	BNC300	BNX10	BNX20	BNX25	BN250	BN300	BN500	BN600	BN700	BNS800	DA150	DA2200	
	CCMT 060202 CCMT 060204	0,2 0,4															●	
	CCMT 09T302	0,2															●	

● M-Class SumiDia (PCD, NF Type)

Shape	ISO Cat. No.	r	Material															
			BNC100	BNC160	BNC200	BNC300	BNX10	BNX20	BNX25	BN250	BN300	BN500	BN600	BN700	BNS800	DA150	DA2200	
	CCMT 060201 NF CCMT 060202 NF CCMT 060204 NF	0,1 0,2 0,4															●	
	CCMT 09T301 NF CCMT 09T302 NF CCMT 09T304 NF CCMT 09T308 NF	0,1 0,2 0,4 0,8															●	

● M-Class SumiDia (PCD, One-Use "Break Master" Type)

Break Master - DM	Shape	ISO Cat. No.	r	Material														
				BNC100	BNC160	BNC200	BNC300	BNX10	BNX20	BNX25	BN250	BN300	BN500	BN600	BN700	BNS800	DA150	DA2200
	CCMT 060202 L-DM NU CCMT 060204 L-DM NU	0,2 0,4															●	
	CCMT 09T302 L-DM NU CCMT 09T304 L-DM NU	0,2 0,4															●	
	CCMT 060202 R-DM NU CCMT 060204 R-DM NU	0,2 0,4															●	
	CCMT 09T302 R-DM NU CCMT 09T304 R-DM NU	0,2 0,4															●	

● = Euro stock

Packing unit and ordering example; 1 pce CCMT 060202, DA150

SUMIBORON / SUMIDIA Indexable Inserts

CN-- Type neg. Inserts

80° Diamond Type




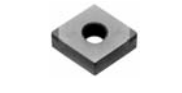
0° Relief

Dimensions (mm)				
CN--	ℓ	ød (IC)	s	d ₁
0903--	9,7	9,525	3,18	4,4
1204--	12,9	12,7	4,76	5,5

H Hardened Steel
K Cast Iron
N Non-Ferrous Metal

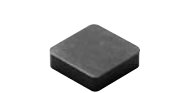
CNGA / CNGG

● G-Class SumiBoron (CBN, One-Use Multi-Corner Type)

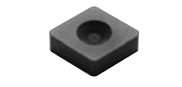
Shape	ISO Cat. No.	r	Material													
			Coated			Uncoated										
			BNC100	BNC160	BNC200	CBN								PCD		
			BNC300	BNX10	BNX20	BNX25	BN250	BN300	BN500	BN600	BN700	BNS800	DA150	DA2200		
 Standard - Normal cut geometry with 4 CBN cutting edges	CNGA 120404 NC-4 CNGA 120408 NC-4 CNGA 120412 NC-4	0,4 0,8 1,2	●	●	●	●										
	CNGA 120404 NC-W-4 CNGA 120408 NC-W-4	0,4 0,8	●	●	●											
 LS - Type Light cut geometry with 2 CBN cutting edges	CNGA 120404 LS-NC2 CNGA 120408 LS-NC2 CNGA 120412 LS-NC2	0,4 0,8 1,2	●	●	●											
	CNGA 120404 HS-NC2 CNGA 120408 HS-NC2 CNGA 120412 HS-NC2	0,4 0,8 1,2		●	●	●										
 SV - Type with chipbreaker with 4 CBN cutting edges	CNGG 120404 N-SV NC4 CNGG 120408 N-SV NC4 CNGG 120412 N-SV NC4	0,4 0,8 1,2		●												
	CNGA 120404 NS-2 CNGA 120408 NS-2 CNGA 120412 NS-2	0,4 0,8 1,2							●							
 with 2 CBN cutting edges	CNGA 120404 NU-2 CNGA 120408 NU-2 CNGA 120412 NU-2	0,4 0,8 1,2						●	●			●				

CNGN / CNGX

● G-Class SumiBoron (Solid CBN Type)

Shape	ISO Cat. No.	r	Material													
			Coated			Uncoated										
			BNC100	BNC160	BNC200	CBN								PCD		
			BNC300	BNX10	BNX20	BNX25	BN250	BN300	BN500	BN600	BN700	BNS800	DA150	DA2200		
 CNGN 090308 CNGN 090312	CNGN 090308 CNGN 090312	0,8 1,2														
	CNGN 120412 CNGN 120416	1,2 1,6											●			

● G-Class SumiBoron (Solid CBN, "Dimple" Type)

 CNGX 120412 CNGX 120416	CNGX 120412 CNGX 120416	1,2 1,6											●		
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● = Euro stock

Packing unit and ordering example; 1 pce CNGA 120404 NC-4, BNC100

80° Diamond Type 0° & 11°
With Insert Hole

Dimensions (mm)				
CN/CP--	ℓ	ød (IC)	s	d ₁
06	6,45	6,35	2,38	2,8
09T3--	9,7	9,525	3,97	4,4
12	12,9	12,7	4,76	5,5

H Hardened Steel
K Cast Iron
N Non-Ferrous Metal

CNMA

● M-Class SumiBoron (CBN, Regrindable Type)

Shape	ISO Cat. No.	r	Material													
			Coated			Uncoated										
			CBN											PCD		
BNC100	BNC160	BNC200	BNC300	BNX10	BNX20	BNX25	BN250	BN300	BN500	BN600	BN700	BNS800	DA150	DA2200		
	CNMA 120404	0,4														
	CNMA 120408	0,8														
	CNMA 120412	1,2														

● M-Class SumiBoron (CBN, One-use Type)

Shape	ISO Cat. No.	r	Material													
			Coated			Uncoated										
			CBN											PCD		
BNC100	BNC160	BNC200	BNC300	BNX10	BNX20	BNX25	BN250	BN300	BN500	BN600	BN700	BNS800	DA150	DA2200		
	CNMA 120404 NS	0,4														
	CNMA 120408 NS	0,8														
	CNMA 120412 NS	1,2														
	CNMA 120404 NU	0,4														
	CNMA 120408 NU	0,8														
	CNMA 120412 NU	1,2														
	CNMA 120404 NU-W	0,4														
	CNMA 120408 NU-W	0,8														
	CNMA 120412 NU-W	1,2														

CNMX

● M-Class SumiDIA (PCD, NF Type)

Shape	ISO Cat. No.	r	Material													
			Coated			Uncoated										
			CBN											PCD		
BNC100	BNC160	BNC200	BNC300	BNX10	BNX20	BNX25	BN250	BN300	BN500	BN600	BN700	BNS800	DA150	DA2200		
	CNMX 120402 NF	0,2														
	CNMX 120404 NF	0,4														
	CNMX 120408 NF	0,8														
	CNMX 120412 NF	1,2														

CPMW

● M-Class SumiDIA (PCD, NF Type)

Shape	ISO Cat. No.	r	Material													
			Coated			Uncoated										
			CBN											PCD		
BNC100	BNC160	BNC200	BNC300	BNX10	BNX20	BNX25	BN250	BN300	BN500	BN600	BN700	BNS800	DA150	DA2200		
	CPMW 060202 NF	0,2														
	CPMW 060204 NF	0,4														
	CPMW 060208 NF	0,8														

● = Euro stock

Packing unit and ordering example; 1 pce CNMA 120404, BNX20

55° Diamond Type 7° Relief
With Insert Hole

Dimensions (mm)				
DC--	ℓ	∅d (IC)	s	d ₁
0702--	7,75	6,35	2,38	2,8
11T3--	11,6	9,525	3,97	4,4

H Hardened Steel
K Cast Iron
N Non-Ferrous Metal

DCMT

● M-Class SumiDia (PCD, Regrindable Type)

Shape	ISO Cat. No.	r	Material																
			Coated			Uncoated											PCD		
			BNC100	BNC160	BNC200	BNC300	BNX10	BNX20	BNX25	BN250	BN300	BN500	BN600	BN700	BNS800	DA150	DA2200		
 	DCMT 070202 DCMT 070204	0,2 0,4																●	
	DCMT 11T302 DCMT 11T304 DCMT 11T308	0,2 0,4 0,8																●	

● G-Class SumiDia (PCD, NF Type)

 	DCMT 070201 NF DCMT 070202 NF DCMT 070204 NF DCMT 070208 NF	0,1 0,2 0,4 0,8																●	
	DCMT 11T301 NF DCMT 11T302 NF DCMT 11T304 NF DCMT 11T308 NF	0,1 0,2 0,4 0,8																●	

● M-Class SumiDIA (PCD, One-Use "Break Master" Type)

Break Master-DM 	DCMT 070202 L-DM NU DCMT 070204 L-DM NU	0,2 0,4																	
	DCMT 11T302 L-DM NU DCMT 11T304 L-DM NU	0,2 0,4																●	
Break Master-DM 	DCMT 070202 R-DM NU DCMT 070204 R-DM NU	0,2 0,4																●	
	DCMT 11T302 R-DM NU DCMT 11T304 R-DM NU	0,2 0,4																●	

● = Euro stock

Packing unit and ordering example; 1 pce DCMT 070202, DA150

SUMIBORON / SUMIDIA Indexable Inserts

DN-- Type neg. Inserts

55° Diamond Type

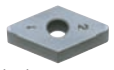



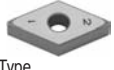
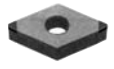
0° Relief
With Insert Hole

Dimensions (mm)				
DN--	ℓ	ød (IC)	s	d ₁
1104--	11,6	9,525	4,76	3,81
1504--	15,5	12,7	4,76	5,16
1506--	15,5	12,7	6,35	5,16

H Hardened Steel
K Cast Iron
N Non-Ferrous Metal


DNGA / DNGG

● G-Class SumiBoron (CBN, One-Use Multi-Corner Type)



Shape	ISO Cat. No.	r	Material											
			Coated			Uncoated						PCD		
			BNC100	BNC160	BNC200	CBN			PCD					
 Standard - Normal cut geometry with 2 CBN cutting edges	DNGA 110404 NC-2	0,4												
	DNGA 110408 NC-2	0,8			●									
	DNGA 110412 NC-2	1,2			●									
 Standard - Normal cut geometry with 4 CBN cutting edges	DNGA 150604 NC-4	0,4	●	●	●	●								
	DNGA 150608 NC-4	0,8	●	●	●	●								
	DNGA 150612 NC-4	1,2	●	●	●	●								
 LS - Type Light cut geometry with 2 CBN cutting edges	DNGA 150604 LS-NC2	0,4	●	●	●									
	DNGA 150608 LS-NC2	0,8	●	●	●									
	DNGA 150612 LS-NC2	1,2	●	●	●									
 HS - Type Tough cut geometry with 2 CBN cutting edges	DNGA 150604 HS-NC2	0,4		●	●	●								
	DNGA 150608 HS-NC2	0,8		●	●	●								
	DNGA 150612 HS-NC2	1,2		●	●	●								
 Break Master-SV SV - Type with chipbreaker with 4 CBN cutting edges	DNGG 150604 N-SV NC4	0,4												
	DNGG 150608 N-SV NC4	0,8			●									
	DNGG 150612 N-SV NC4	1,2			●									
 DNGA 150604 NU-2 DNGA 150608 NU-2 DNGA 150612 NU-2 with 2 CBN cutting edges	DNGA 150604 NU-2	0,4							●	●				
	DNGA 150608 NU-2	0,8							●	●				
	DNGA 150612 NU-2	1,2							●	●				

DNMA

● M-Class SumiBoron (CBN, Regrindable Type)

Shape	ISO Cat. No.	r	Material											
			Coated			Uncoated						PCD		
			BNC100	BNC160	BNC200	CBN			PCD					
 DNMA 150604 DNMA 150608 DNMA 150612	DNMA 150604	0,4												
	DNMA 150608	0,8							●	●				
	DNMA 150612	1,2							●	●				

● M-Class SumiBoron (CBN, One-Use Type)

 DNMA 150604 NS DNMA 150608 NS	DNMA 150604 NS	0,4												
	DNMA 150608 NS	0,8							●	●				
	DNMA 150612 NS	1,2							●	●				
 DNMA 150604 NU DNMA 150608 NU DNMA 150612 NU	DNMA 150604 NU	0,4							●	●	●	●		
	DNMA 150608 NU	0,8							●	●	●	●		
	DNMA 150612 NU	1,2							●	●	●	●		

● = Euro stock

Packing unit and ordering example; 1 pce

DNGA 110404 NC-2, BNC200

Round Type 0° Relief
Without Insert Hole

Dimensions (mm)

RN--	ℓ	ød (IC)	s	d ₁
0603--	6,35	6,35	3,18	-
0903--	9,525	9,525	3,18	-
1203--	12,7	12,7	3,18	-
1204--	12,7	12,7	4,76	-

H Hardened Steel
K Cast Iron
N Non-Ferrous Metal

RNGN ○○○○○○

● G-Class SumiBoron (Solid CBN Type)

Shape	ISO Cat. No.	r	Material														
			Coated			Uncoated							PCD				
			CBN														
			BNC100	BNC160	BNC200	BNC300	BNX10	BNX20	BNX25	BN250	BN300	BN500	BN600	BN700	BNS800	DA150	DA2200
	RNGN 090300 RNGN 120300 RNGN 120400	— — —													●		

● G-Class SumiBoron (CBN, Full Top Type)

Shape	ISO Cat. No.	r	Material														
			Coated			Uncoated							PCD				
			CBN														
			BNC100	BNC160	BNC200	BNC300	BNX10	BNX20	BNX25	BN250	BN300	BN500	BN600	BN700	BNS800	DA150	DA2200
	RNGN 060300 B RNGN 090300 B RNGN 120300 B RNGN 120400 B	— — — —			●	●											

Square Type 7° Relief
With Insert Hole

Dimensions (mm)

SC--	ℓ	ød (IC)	s	d ₁
09T3--	9,525	9,525	3,97	4,4
12	12,7	12,7	4,76	5,5

H Hardened Steel
K Cast Iron
N Non-Ferrous Metal

SCGW ○○○○○○

● G-Class SumiBoron (CBN, One-Use Type)

Shape	ISO Cat. No.	r	Material														
			Coated			Uncoated							PCD				
			CBN														
			BNC100	BNC160	BNC200	BNC300	BNX10	BNX20	BNX25	BN250	BN300	BN500	BN600	BN700	BNS800	DA150	DA2200
	SCGW 09T304 NU SCGW 09T308 NU	0,4 0,8						●						●			

● = Euro stock

Packing unit and ordering example; 1 pce RNGN 090300, BNS800

SUMIBORON / SUMIDIA Indexable Inserts

SN-- Type neg. Inserts

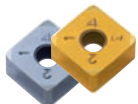
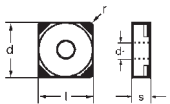

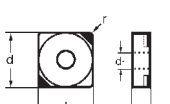
Square Type 0° Relief
With Insert Hole

Dimensions (mm)				
SN--	ℓ	ød (IC)	s	d ₁
1204--	12,7	12,7	4,76	5,16

H Hardened Steel
K Cast Iron
N Non-Ferrous Metal

SNGA

● G-Class SumiBoron (CBN, One-Use Multi-Corner Type)

Shape	ISO Cat. No.	r	Material														
			Coated		Uncoated										PCD		
			BNC100	BNC160	BNC200	BNC300	BNX10	BNX20	BNX25	BN250	BN300	BN500	BN600	BN700	BNS800	DA150	DA2200
 Standard - Normal cut geometry  with 4 CBN cutting edges	SNGA 120408 NC-4 SNGA 120412 NC-4	0,8 1,2			●	●											
 HS - Type Tough cut geometry  with 2 CBN cutting edges	SNGA 120408 HS-NC2 SNGA 120412 HS-NC2	0,8 1,2			●	●											


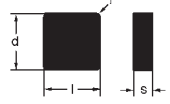
Square Type 0° Relief
Without Insert Hole

Dimensions (mm)				
SN--	ℓ	ød (IC)	s	d ₁
0903--	9,525	9,525	3,18	—
1204--	12,7	12,7	4,76	—



H Hardened Steel
K Cast Iron
N Non-Ferrous Metal

SNGN / SNGX

● G-Class SumiBoron (Solid CBN Type)

Shape	ISO Cat. No.	r	Material														
			Coated		Uncoated										PCD		
			BNC100	BNC160	BNC200	BNC300	BNX10	BNX20	BNX25	BN250	BN300	BN500	BN600	BN700	BNS800	DA150	DA2200
 	SNGN 090308 SNGN 090312	0,8 1,2															
	SNGN 120412 SNGN 120416	1,2 1,6												●	●		

● G-Class SumiBoron (Solid CBN, "Dimple" Type)

 	SNGX 120412 SNGX 120416	1,2 1,6															
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● = Euro stock

Packing unit and ordering example; 1 pce SNGA 120408 NC-4, BNC200


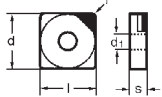
Square Type 0° Relief
With Insert Hole

Dimensions (mm)				
SN--	ℓ	ød (IC)	s	d ₁
1204--	12,7	12,7	4,76	5,16

H Hardened Steel
K Cast Iron
N Non-Ferrous Metal

SNMA

● M-Class SumiBoron (CBN, One-Use Type)

Shape	ISO Cat. No.	r	Material																
			Coated			Uncoated								PCD					
			BNC100	BNC160	BNC200	CBN			K		N								
 	SNMA 120408 NS SNMA 120412 NS	0,8 1,2																	
	SNMA 120408 NU SNMA 120412 NU	0,8 1,2							●	●									


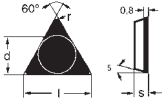
60° Triangle Type 5° Relief

Dimensions (mm)				
TBGN	ℓ	ød (IC)	s	d ₁
0601--	6,9	3,97	1,59	-
TBGW				
0601--	6,9	3,97	1,59	2,8


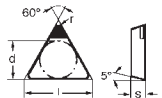
H Hardened Steel
K Cast Iron
N Non-Ferrous Metal

TBGN / TBGW


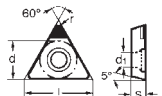
● G-Class SumiBoron (CBN, Full Top Type)

Shape	ISO Cat. No.	r	Material																
			Coated			Uncoated								PCD					
			BNC100	BNC160	BNC200	CBN			K		N								
 	TBGN 060102 B TBGN 060104 B	0,2 0,4	●	●	●				●	●									

● G-Class SumiDIA (PCD, NF Type)

 	TBGN 060102 NF TBGN 060104 NF	0,2 0,4																	●	●
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● G-Class SumiDIA (PCD, NF Type)

 	TBGW 060102 NF TBGW 060104 NF	0,2 0,4																	●	●
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● = Euro stock

Packing unit and ordering example; 1 pce SNMA 120408 NS, BNX25

SUMIBORON / SUMIDIA Indexable Inserts

TC-- Type 7° pos. Inserts

60° Triangle Type

7° Relief
With Insert Hole

Dimensions (mm)				
TC--	ℓ	ød (IC)	s	d ₁
0902--	9,62	5,56	2,38	2,5
1102--	11,0	6,35	2,38	2,8
16T3--	16,5	9,525	3,97	4,3

H Hardened Steel
K Cast Iron
N Non-Ferrous Metal

TCGW

● G-Class SumiBoron (CBN, One-Use Type)

Shape	ISO Cat. No.	r	Material														
			Coated			Uncoated											
			BNC100	BNC160	BNC200	CBN								PCD			
			BNC300	BNX10	BNX20	BNX25	BN250	BN300	BN500	BN600	BN700	BNS800	DA150	DA2200			
	TCGW 090204 NC TCGW 090208 NC	0,4 0,8			●												
	TCGW 110202 NC TCGW 110204 NC TCGW 110208 NC	0,2 0,4 0,8			●												
	TCGW 16T304 NC-3 TCGW 16T308 NC-3	0,4 0,8			●												
	TCGW 090204 NU TCGW 090208 NU	0,4 0,8											●	●			
	TCGW 110202 NU TCGW 110204 NU TCGW 110208 NU	0,2 0,4 0,8				●	●		●		●	●	●	●			
	TCGW 16T304 NU TCGW 16T308 NU	0,4 0,8				●	●				●	●					

TCMT

● M-Class SumiDia (PCD, NF Type)

Shape	ISO Cat. No.	r	Material														
			Coated			Uncoated											
			BNC100	BNC160	BNC200	CBN								PCD			
			BNC300	BNX10	BNX20	BNX25	BN250	BN300	BN500	BN600	BN700	BNS800	DA150	DA2200			
	TCMT 090201 NF TCMT 090202 NF TCMT 090204 NF	0,1 0,2 0,4															
	TCMT 110201 NF TCMT 110202 NF TCMT 110204 NF	0,1 0,2 0,4															●

● = Euro stock

Packing unit and ordering example; 1 pce TCGW 090204 NC, BNC200





60° Triangle Type 0° Relief
With Insert Hole

Dimensions (mm)				
TN...	ℓ	ød (IC)	s	d ₁
1604--	16,5	9,525	4,76	3,81

H Hardened Steel
K Cast Iron
N Non-Ferrous Metal


TNGA / TNGG

● G-Class SumiBoron (CBN, One-Use Multi-Corner Type)


Shape	ISO Cat. No.	r	Material													
			Coated			Uncoated						PCD				
			BNC100	BNC160	BNC200	CBN						DA150	DA2200			
 Standard - Normal cut geometry with 6 CBN cutting edges	TNGA 160404 NC-6 TNGA 160408 NC-6 TNGA 160412 NC-6	0,4 0,8 1,2	●	●	●											
 LS - Type Light cut geometry with 3 CBN cutting edges	TNGA 160404 LS-NC3 TNGA 160408 LS-NC3 TNGA 160412 LS-NC3	0,4 0,8 1,2	●	●	●											
 HS - Type Tough cut geometry with 3 CBN cutting edges	TNGA 160404 HS-NC3 TNGA 160408 HS-NC3 TNGA 160412 HS-NC3	0,4 0,8 1,2		●	●	●										
 SV - Type with chipbreaker with 6 CBN cutting edges	TNGG 160404 N-SV NC6 TNGG 160408 N-SV NC6 TNGG 160412 N-SV NC6	0,4 0,8 1,2			●											

TNMA

● M-Class SumiBoron (CBN, Regrindable Type)

Shape	ISO Cat. No.	r	Material													
			Coated			Uncoated						PCD				
			BNC100	BNC160	BNC200	CBN						DA150	DA2200			
 TNMA 160404 TNMA 160408		0,4 0,8														

● M-Class SumiBoron (CBN, One-Use Type)

 TNMA 160404 NU TNMA 160408 NU TNMA 160412 NU		0,4 0,8 1,2														
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● = Euro stock

Packing unit and ordering example; 1 pce TNGA 160404 NC-6, BNC160

SUMIBORON / SUMIDIA Indexable Inserts

TP__ Type 11° pos. Inserts

60° Triangle Type

11° Relief
Without Insert Hole

Dimensions (mm)				
TP__	ℓ	∅d (IC)	s	d ₁
1103--	11,0	6,35	3,18	–
1603--	16,5	9,525	3,18	–

H Hardened Steel
K Cast Iron
N Non-Ferrous Metal

TPGN

● G-Class SumiBoron (CBN, One-Use Type)

Shape	ISO Cat. No.	r	Material															
			Coated			Uncoated								PCD				
			BNC100	BNC160	BNC200	BNC300	BNX10	BNX20	BNX25	BN250	BN300	BN500	BN600	BN700	BNS800	DA150	DA2200	
	TPGN 110304 NU TPGN 110308 NU	0,4 0,8																
	TPGN 160304 NU TPGN 160308 NU TPGN 160312 NU	0,4 0,8 1,2																

● G-Class SumiDia (PCD, NF Type)

Shape	ISO Cat. No.	r	Material															
			Coated			Uncoated								PCD				
			BNC100	BNC160	BNC200	BNC300	BNX10	BNX20	BNX25	BN250	BN300	BN500	BN600	BN700	BNS800	DA150	DA2200	
	TPGN 110302 NF TPGN 110304 NF TPGN 110308 NF	0,2 0,4 0,8																
	TPGN 160302 NF TPGN 160304 NF TPGN 160308 NF TPGN 160312 NF	0,2 0,4 0,8 1,2																

● = Euro stock

Packing unit and ordering example; 1 pce TPGN 110304 NU, BNX20

60° Triangle Type 11° Relief
With Insert Hole

Dimensions (mm)

TP--	ℓ	ød (IC)	s	d ₁
0802--	8,2	4,76	2,39	2,3
0902--	9,62	5,56	2,38	2,5
1102--	11,0	6,35	2,38	2,8
1103--			3,18	3,4
1604--	16,5	9,525	4,76	4,3

H Hardened Steel
K Cast Iron
N Non-Ferrous Metal

TPGW

● G-Class SumiBoron (CBN, Regrindable Type)

Shape	ISO Cat. No.	r	Material															
			Coated			Uncoated												
			CBN											PCD				
			BNC100	BNC160	BNC200	BNC300	BNX10	BNX20	BNX25	BN250	BN300	BN500	BN600	BN700	BNS800	DA150	DA2200	
	TPGW 110304	0,4						●										
	TPGW 110308	0,8						●										
	TPGW 160404	0,4																
	TPGW 160408	0,8																

● G-Class SumiBoron (CBN, One-Use Type)

Shape	ISO Cat. No.	r	Material															
			CBN											PCD				
			BNC100	BNC160	BNC200	BNC300	BNX10	BNX20	BNX25	BN250	BN300	BN500	BN600	BN700	BNS800	DA150	DA2200	
	TPGW 080202 NC	0,2			●													
	TPGW 080204 NC	0,4			●													
Standard - Normal cut geometry	TPGW 110304 NC	0,4			●													
	TPGW 110308 NC	0,8			●													
	TPGW 080202 NU	0,2						●			●							
	TPGW 080204 NU	0,4						●			●							
	TPGW 110304 NU	0,4						●			●	●						
	TPGW 110308 NU	0,8						●			●	●						

● G-Class SumiDia (PCD, NF Type)

Shape	ISO Cat. No.	r	Material															
			CBN											PCD				
			BNC100	BNC160	BNC200	BNC300	BNX10	BNX20	BNX25	BN250	BN300	BN500	BN600	BN700	BNS800	DA150	DA2200	
	TPGW 080202 NF	0,2															●	
	TPGW 080204 NF	0,4															●	
	TPGW 110202 NF	0,2															●	
	TPGW 110204 NF	0,4															●	
TPGW 110208 NF		0,8															●	
																	●	
	TPGW 110302 NF	0,2															●	
	TPGW 110304 NF	0,4															●	
	TPGW 110308 NF	0,8															●	
																	●	
	TPGW 160402 NF	0,2															●	
	TPGW 160404 NF	0,4															●	
	TPGW 160408 NF	0,8															●	
																	●	

TPMT

● M-Class SumiDia (PCD, One-Use "Break Master" Type)

Shape	ISO Cat. No.	r	Material															
			Coated			Uncoated												
			CBN											PCD				
			BNC100	BNC160	BNC200	BNC300	BNX10	BNX20	BNX25	BN250	BN300	BN500	BN600	BN700	BNS800	DA150	DA2200	
	TPMT 080202 L-DM NU	0,2																
	TPMT 080204 L-DM NU	0,4															●	
	TPMT 090202 L-DM NU	0,2																
	TPMT 090204 L-DM NU	0,4															●	

● = Euro stock

Packing unit and ordering example; 1 pce TPGW 110304, BNX20

SUMIBORON / SUMIDIA Indexable Inserts

VB-- Type 5° and VC-- Type 7° pos. Inserts

35° Diamond Type


5° & 7° Relief
With Insert Hole

Dimensions (mm)				
VB--	ℓ	ød (IC)	s	d ₁
1102--	11,0	6,35	2,38	2,8
1103--			3,18	
1604--	16,6	9,525	4,76	4,4




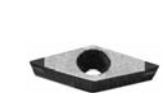
H Hardened Steel
K Cast Iron
N Non-Ferrous Metal

VBGW

● G-Class SumiBoron (CBN, One-Use Type)


Shape	ISO Cat. No.	r	Material														
			Coated		Uncoated										PCD		
			BNC100	BNC160	BNC200	BNC300	BNX10	BNX20	BNX25	BN250	BN300	BN500	BN600	BN700	BNS800	DA150	DA2200
 Standard - Normal cut geometry	VBGW 110202 NC VBGW 110204 NC VBGW 110208 NC	0,2 0,4 0,8			●												
	VBGW 110202 NU VBGW 110204 NU VBGW 110208 NU	0,2 0,4 0,8								●	●	●					
	VBGW 160402 NU VBGW 160404 NU VBGW 160408 NU	0,2 0,4 0,8					●	●		●	●			●			

● G-Class SumiBoron (CBN, One-Use Multi-Corner Type)

 Standard - Normal cut geometry with 2 CBN cutting edges	VBGW 160404 NC-2 VBGW 160408 NC-2	0,4 0,8	●	●	●	●											
 New LS - Type Light cut geometry with 2 CBN cutting edges	VBGW 160404 LS-NC2 VBGW 160408 LS-NC2	0,4 0,8	●	●	●												
 New HS - Type Tough cut geometry with 2 CBN cutting edges	VBGW 160404 HS-NC2 VBGW 160408 HS-NC2	0,4 0,8			●	●											
 Standard - Normal cut geometry with 2 CBN cutting edges	VBGW 160404 NU-2 VBGW 160408 NU-2	0,4 0,8					●	●		●							

VCMT

● M-Class SumiDia (PCD, NF Type)

Shape	ISO Cat. No.	r	Material														
			Coated		Uncoated										PCD		
			BNC100	BNC160	BNC200	BNC300	BNX10	BNX20	BNX25	BN250	BN300	BN500	BN600	BN700	BNS800	DA150	DA2200
 Standard - Normal cut geometry	VCMT 110301 NF VCMT 110302 NF VCMT 110304 NF	0,1 0,2 0,4															●
	VCMT 160404 NF VCMT 160408 NF VCMT 160412 NF	0,4 0,8 1,2															●

● = Euro stock

Packing unit and ordering example; 1 pce VBGW 110202 NC, BNC200

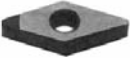
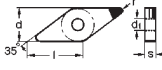
35° Diamond Type 0° Relief
With Insert Hole

Dimensions (mm)				
VN_	ℓ	ød (IC)	s	d ₁
1604--	16,6	9,925	4,76	3,81

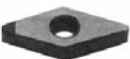
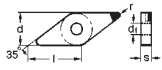
H Hardened Steel
K Cast Iron
N Non-Ferrous Metal

VNMA ○○○○○

● M-Class SumiBoron (CBN, Regrindable Type)


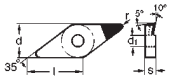
Shape	ISO Cat. No.	r	Material														
			Coated			Uncoated											
			CBN											PCD			
BNC100	BNC160	BNC200	BNC300	BNX10	BNX20	BNX25	BN250	BN300	BN500	BN600	BN700	BNS800	DA150	DA2200			
 	VNMA 160404 VNMA 160408 VNMA 160412	0,4 0,8 1,2															
							●										
								●									

● M-Class SumiBoron (CBN, One-Use Type)

Shape	ISO Cat. No.	r	Material														
			Coated			Uncoated											
			CBN											PCD			
BNC100	BNC160	BNC200	BNC300	BNX10	BNX20	BNX25	BN250	BN300	BN500	BN600	BN700	BNS800	DA150	DA2200			
 	VNMA 160404 NU VNMA 160408 NU VNMA 160412 NU	0,4 0,8 1,2															
							●	●									
								●	●								

VNMX ○○○○○

● M-Class SumiDia (PCD, Regrindable Type)

Shape	ISO Cat. No.	r	Material														
			Coated			Uncoated											
			CBN											PCD			
BNC100	BNC160	BNC200	BNC300	BNX10	BNX20	BNX25	BN250	BN300	BN500	BN600	BN700	BNS800	DA150	DA2200			
 	VNMX 160404 NF VNMX 160408 NF	0,4 0,8															
																	●



SumiBoron / SumiDia
Inserts

● = Euro stock

Packing unit and ordering example; 1 pce VNMA 160404, BNX20

