

CNG

(inch)	IC	T	(inch)	IC	T	(inch)	IC	T
CNG 43	1/2	3/16	CNG 54	5/8	1/4	CNG 64	3/4	1/4
CNG 45	1/2	5/16	CNG 55	5/8	5/16	CNG 65	3/4	5/16

● : 1st Choice ● : 2nd choice

Item Number	ISO Item Number	IC	R	BIDEMICS			Ceramics														
				Coated			SiALON				Whisker	Silicon Nitride		Alumina		Alumina - TiC					
				JP2	JX1	JX3	SX7	SX3	SX9	SX5	WA1	SX6	SP9	HC1	HW2	HC6	HC2	HC5	HC7	ZC7	ZC4
CNG 431 T0425	CNGN 120404 T01025	1/2	.016																		
CNG 431 T0525	CNGN 120404 T01225	1/2	.016																		
CNG 432 T0220	CNGN 120408 T00520	1/2	.031																		
CNG 432 T0420	CNGN 120408 T01020	1/2	.031																		
CNG 432 T0425	CNGN 120408 T01025	1/2	.031																		
CNG 432 T0525	CNGN 120408 T01225	1/2	.031																		
CNG 432 T0820	CNGN 120408 T02020	1/2	.031																		
CNG 432 S0825	CNGN 120408 S02025	1/2	.031																		
CNG 432 T0825	CNGN 120408 T02025	1/2	.031																		
CNG 433 T0220	CNGN 120412 T00520	1/2	.047																		
CNG 433 T0320	CNGN 120412 T01220	1/2	.047		●																
CNG 433 T0420	CNGN 120412 T01020	1/2	.047																		
CNG 433 T0425	CNGN 120412 T01025	1/2	.047																		
CNG 433 T0525	CNGN 120412 T01225	1/2	.047																		
CNG 433 T0820	CNGN 120412 T02020	1/2	.047																		
CNG 433 S0825	CNGN 120412 S02025	1/2	.047																		
CNG 433 T0825	CNGN 120412 T02025	1/2	.047																		
CNG 434 T0220	CNGN 120416 T00520	1/2	.063																		
CNG 434 T0420	CNGN 120416 T01020	1/2	.063																		
CNG 434 T0820	CNGN 120416 T02020	1/2	.063																		
CNG 434 T0825	CNGN 120416 T02025	1/2	.063																		
CNG 435 T0825	CNGN 120420 T02025	1/2	.079																		
CNG 452 T0220	CNGN 120708 T00520	1/2	.031																		
CNG 452 T0825	CNGN 120708 T02025	1/2	.031																		
CNG 453 T0220	CNGN 120712 T00520	1/2	.047																		
CNG 453 T0825	CNGN 120712 T02025	1/2	.047																		
CNG 454 T0220	CNGN 120716 T00520	1/2	.063																		
CNG 454 T0825	CNGN 120716 T02025	1/2	.063																		
CNG 543 T0825	CNGN 160612 T02025	5/8	.047																		
CNG 552 T0825	CNGN 160708 T02025	5/8	.031																		
CNG 554 T0220	CNGN 160716 T00520	5/8	.063																		
CNG 643 T0825	CNGN 190612 T02025	3/4	.047																		
CNG 644 T0825	CNGN 190616 T02025	3/4	.063																		
CNG 646 T0220	CNGN 190624 T00520	3/4	.094																		
CNG 648 T0825	CNGN 190632 T02025	3/4	.125																		
CNG 656 T0220	CNGN 190724 T00520	3/4	.094																		

Holders → F6 · F7

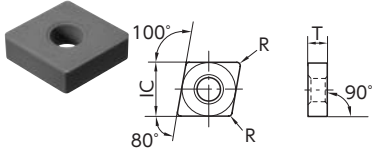
Boring bars → G5

BIDEMICS / Ceramics

CNGA

(inch)	IC	T
CNGA 43	1/2	3/16
CNGA 54	5/8	1/4
CNGA 64	3/4	1/4

● : 1st Choice ● : 2nd choice



Steel	P
Stainless Steel	M
Cast Iron	K
Non-Ferrous Material	N
Heat Resistant Alloy	S
Hardened Material	H

Item Number	ISO Item Number	IC	R	BIDEMICS			Ceramics																			
				Coated			SiAlON			Whisker	Silicon Nitride	Alumina		Alumina - TiC												
				JP2*	JX1	JX3	SX7	SX3	SX9	SX5	WA1	SX6	SP9	HC1	HW2	HC6	HC2	HC5	HC7	ZC7	ZC4					
CNGA 431 BQ T0220	CNGA 120404 BQ T00520	1/2	.016	●																						
CNGA 431 BQ E02	CNGA 120404 BQ ENB	1/2	.016	●																						
CNGA 431 T0220	CNGA 120404 T00520	1/2	.016																							
CNGA 431 T0425	CNGA 120404 T01025	1/2	.016																							
CNGA 431 T0525	CNGA 120404 T01225	1/2	.016																							
CNGA 431 S0825	CNGA 120404 S02025	1/2	.016																							
CNGA 431 Z0825	CNGA 120404 Z02025	1/2	.016																							
CNGA 432 BQ T0220	CNGA 120408 BQ T00520	1/2	.031	●																						
CNGA 432 BQ E02	CNGA 120408 BQ ENB	1/2	.031	●																						
CNGA 432 T0220	CNGA 120408 T00520	1/2	.031																							
CNGA 432 T0320	CNGA 120408 T00820	1/2	.031																							
CNGA 432 T0420	CNGA 120408 T01020	1/2	.031																							
CNGA 432 T0425	CNGA 120408 T01025	1/2	.031																							
CNGA 432 T0525	CNGA 120408 T01225	1/2	.031																							
CNGA 432 T0820	CNGA 120408 T02020	1/2	.031																							
CNGA 432 Z0820	CNGA 120408 Z02020	1/2	.031																							
CNGA 432 S0825	CNGA 120408 S02025	1/2	.031																							
CNGA 432 T0825	CNGA 120408 T02025	1/2	.031																							
CNGA 432 Z0825	CNGA 120408 Z02025	1/2	.031																							
CNGA 433 BQ T0220	CNGA 120412 BQ T00520	1/2	.047	●																						
CNGA 433 BQ E02	CNGA 120408 BQ ENB	1/2	.047	●																						
CNGA 433 T0220	CNGA 120412 T00520	1/2	.047																							
CNGA 433 T0320	CNGA 120412 T00820	1/2	.047																							
CNGA 433 T0420	CNGA 120412 T01020	1/2	.047																							
CNGA 433 T0425	CNGA 120412 T01025	1/2	.047																							
CNGA 433 T0525	CNGA 120412 T01225	1/2	.047																							
CNGA 433 T0820	CNGA 120412 T02020	1/2	.047																							
CNGA 433 Z0820	CNGA 120412 Z02020	1/2	.047																							
CNGA 433 S0825	CNGA 120412 S02025	1/2	.047																							
CNGA 433 T0825	CNGA 120412 T02025	1/2	.047																							
CNGA 433 Z0825	CNGA 120412 Z02025	1/2	.047																							
CNGA 434 T0220	CNGA 120416 T00520	1/2	.063																							
CNGA 434 T0420	CNGA 120416 T01020	1/2	.063																							
CNGA 434 T0525	CNGA 120416 T01225	1/2	.063																							
CNGA 434 T0820	CNGA 120416 T02020	1/2	.063																							
CNGA 434 T0825	CNGA 120416 T02025	1/2	.063																							
CNGA 542 T0825	CNGA 160608 T02025	5/8	.031																							
CNGA 543 T0220	CNGA 160612 T00520	5/8	.047																							
CNGA 543 T0420	CNGA 160612 T01020	5/8	.047																							
CNGA 543 T0820	CNGA 160612 T02020	5/8	.047																							
CNGA 543 T0825	CNGA 160612 T02025	5/8	.047																							
CNGA 543 Z0825	CNGA 160612 Z02025	5/8	.047																							
CNGA 544 T0220	CNGA 160616 T00520	5/8	.063																							
CNGA 544 T0825	CNGA 160616 T02025	5/8	.063																							
CNGA 544 Z0825	CNGA 160616 Z02025	5/8	.063																							
CNGA 643 T0220	CNGA 190612 T00520	3/4	.047																							
CNGA 643 T0420	CNGA 190612 T01020	3/4	.047																							
CNGA 643 T0525	CNGA 190612 T01225	3/4	.047																							
CNGA 643 Z0620	CNGA 190612 Z01520	3/4	.047																							
CNGA 643 T0820	CNGA 190612 T02020	3/4	.047																							
CNGA 643 T0825	CNGA 190612 T02025	3/4	.047																							
CNGA 644 T0220	CNGA 190616 T00520	3/4	.063																							
CNGA 644 T0825	CNGA 190616 T02025	3/4	.063																							

*Brazed insert

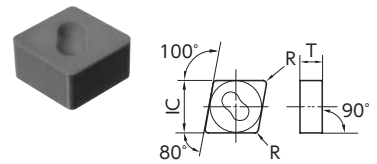
Holders → F6 • F7 • Q38

Boring bars → G5

CNGX

(inch)	IC	T
CNGX 43	1/2	3/16
CNGX 45	1/2	5/16

● : 1st Choice ● : 2nd choice



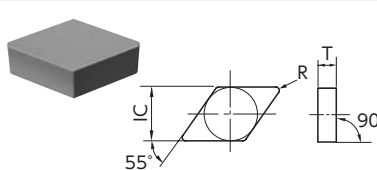
Item Number	ISO Item Number	IC	R	Ceramics																
				BIDEMICS			SiAlON				Whisker	Silicon Nitride		Alumina		Alumina - TiC				
				Coated	JP2	JX1	JX3	SX7	SX3	SX9	SX5	WA1	SX6	SP9	HC1	HW2	HC6	HC2	HC5	HC7
CNGX 432 T0320	CNGX 120408 T00820	1/2	.031																	
CNGX 432 T0420	CNGX 120408 T01020	1/2	.031																	
CNGX 432 T0820	CNGX 120408 T02020	1/2	.031																	
CNGX 433 T0220	CNGX 120412 T00520	1/2	.047																	
CNGX 433 T0320	CNGX 120412 T00820	1/2	.047																	
CNGX 433 T0420	CNGX 120412 T01020	1/2	.047																	
CNGX 433 T0820	CNGX 120412 T02020	1/2	.047																	
CNGX 434 T0420	CNGX 120416 T01020	1/2	.063																	
CNGX 434 T0820	CNGX 120416 T02020	1/2	.063																	
CNGX 452 T0220	CNGX 120708 T00520	1/2	.031																	
CNGX 452 T0320	CNGX 120708 T00820	1/2	.031																	
CNGX 452 T0420	CNGX 120708 T01020	1/2	.031																	
CNGX 452 T0820	CNGX 120708 T02020	1/2	.031																	
CNGX 452 T0825	CNGX 120708 T02025	1/2	.031																	
CNGX 453 T0220	CNGX 120712 T00520	1/2	.047																	
CNGX 453 T0320	CNGX 120712 T00820	1/2	.047																	
CNGX 453 T0420	CNGX 120712 T01020	1/2	.047																	
CNGX 453 T0820	CNGX 120712 T02020	1/2	.047																	
CNGX 453 T0825	CNGX 120712 T02025	1/2	.047																	
CNGX 453 S0830	CNGX 120712 S02030	1/2	.047																	
CNGX 454 T0420	CNGX 120716 T01020	1/2	.063																	
CNGX 454 T0425	CNGX 120716 T01025	1/2	.063																	
CNGX 454 T0820	CNGX 120716 T02020	1/2	.063																	
CNGX 454 S0825	CNGX 120716 S02025	1/2	.063																	
CNGX 454 T0825	CNGX 120716 T02025	1/2	.063																	
CNGX 454 S0830	CNGX 120716 S02030	1/2	.063																	

Holders → F6
Boring bars → G5

DNG

(inch)	IC	T
DNG 43	1/2	3/16
DNG 45	1/2	5/16

● : 1st Choice ● : 2nd choice



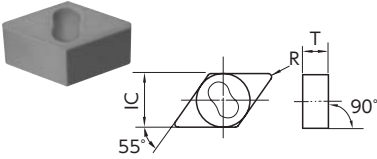
Item Number	ISO Item Number	IC	R	Ceramics																
				BIDEMICS			SiAlON				Whisker	Silicon Nitride		Alumina		Alumina - TiC				
				Coated	JP2	JX1	JX3	SX7	SX3	SX9	SX5	WA1	SX6	SP9	HC1	HW2	HC6	HC2	HC5	HC7
DNG 431 T0420	DNGN 150404 T01020	1/2	.016																	
DNG 432 T0220	DNGN 150408 T00520	1/2	.031																	
DNG 432 T0420	DNGN 150408 T01020	1/2	.031																	
DNG 432 T0425	DNGN 150408 T01025	1/2	.031																	
DNG 432 T0525	DNGN 150408 T01225	1/2	.031																	
DNG 432 S0825	DNGN 150408 S02025	1/2	.031																	
DNG 433 T0220	DNGN 150412 T00520	1/2	.047																	
DNG 433 T0420	DNGN 150412 T01020	1/2	.047																	
DNG 433 T0625	DNGN 150412 T01525	1/2	.047																	
DNG 433 T0825	DNGN 150412 T02025	1/2	.047																	
DNG 434 T0220	DNGN 150416 T00520	1/2	.063																	
DNG 434 T0420	DNGN 150416 T01020	1/2	.063																	
DNG 434 T0425	DNGN 150416 T01025	1/2	.063																	
DNG 453 T0825	DNGN 150712 T02025	1/2	.047																	
DNG 454 T0825	DNGN 150716 T02025	1/2	.063																	
DNG 543 T0825	DNGN 190612 T02025	5/8	.047																	

BIDEMICS / Ceramics

DNGX

(inch)	IC	T
DNGX 35	.394	5/16
DNGX 45	1/2	5/16

● : 1st Choice ● : 2nd choice



Item Number	ISO Item Number	IC	R	BIDEMICS			Ceramics																
				Coated			SiAlON				Whisker	Silicon Nitride		Alumina		Alumina - TiC							
				JP2	JX1	JX3	SX7	SX3	SX9	SX5	WA1	SX6	SP9	HC1	HW2	HC6	HC2	HC5	HC7	ZC7	ZC4		
DNGX 353 T0825	DNGX 120712 T02025	.394	.047																				
DNGX 452 T0220	DNGX 150708 T00520	1/2	.031							●													
DNGX 454 T0825	DNGX 150716 T02025	1/2	.063										○										

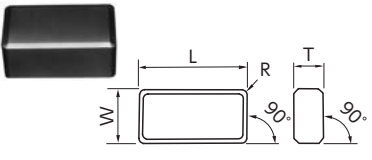
Holders → F8 • F9

Boring bars → G5

LNJ / LNM

(inch)	W	L	T
LNJ / M 6688	3/4	1-1/2	1/2

● : 1st Choice ● : 2nd choice



Item Number	ISO Item Number	IC	R	BIDEMICS			Ceramics																
				Coated			SiAlON				Whisker	Silicon Nitride		Alumina		Alumina - TiC							
				JP2	JX1	JX3	SX7	SX3	SX9	SX5	WA1	SX6	SP9	HC1	HW2	HC6	HC2	HC5	HC7	ZC7	ZC4		
LNJ 6688 P6015	LNJ 6688 P15015		.125																				
LNJ 6688 Q8015	LNJ 6688 Q20015		.125							●													
LNM 6688 S6015	LNM 6688 SN2		.125										○										
LNM 6688 SNX2	LNM 6688 SNX2		.125																				
LNM 6688 SNX6	LNM 6688 SNX6		.125																				○

Insert Item List

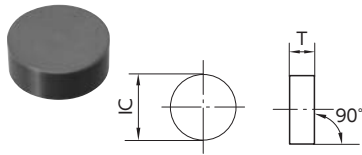
[BIDEMICS / Ceramics]

BIDEMICS / Ceramics

RNG

● : 1st Choice ● : 2nd choice

(inch)	IC	T	(inch)	IC	T	(inch)	IC	T
RNG 32	3/8	1/8	RNG 45	1/2	5/16	RNG 85	1	5/16
RNG 33	3/8	3/16	RNG 55	5/8	5/16	RNG 86	1	3/8
RNG 42	1/2	1/8	RNG 64	3/4	1/4			
RNG 43	1/2	3/16	RNG 65	3/4	5/16			



Steel	P																			
Stainless Steel	M																			
Cast Iron	K					●	●	●	●	●	●	●	●	●	●	●	●	●	●	●
Non-Ferrous Material	N																			
Heat Resistant Alloy	S		●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●
Hardened Material	H								●							●	●	●	●	●

Item Number	ISO Item Number	IC	R	BIDEMICS			Ceramics															
				Coated			SiAlON				Whisker	Silicon Nitride		Alumina		Alumina - TiC						
				JP2	JX1	JX3	SX7	SX3	SX9	SX5	WA1	SX6	SP9	HC1	HW2	HC6	HC2	HC5	HC7	ZC7	ZC4	
RNG 32 T0220	RNGN 090300 T00525	3/8								●												
RNG 32 T0425	RNGN 090300 T01025	3/8																●				
RNG 32 T0525	RNGN 090300 T01225	3/8																				●
RNG 33 T0320	RNGN 090400 T00820	3/8						●														
RNG 42 T0425	RNGN 120300 T01025	1/2																●				
RNG 43 E01	RNGN 120400 E002	1/2																				
RNG 43 E02	RNGN 120400 E004	1/2						●	●	●												
RNG 43 T0220	RNGN 120400 T00520	1/2						●	●	●	●											
RNG 43 T0225	RNGN 120400 T00525	1/2								○		○										
RNG 43 T0320	RNGN 120400 T00820	1/2						●														
RNG 43 T0420	RNGN 120400 T01020	1/2								●		●						●				
RNG 43 T0425	RNGN 120400 T01025	1/2												●		○					○	
RNG 43 T0525	RNGN 120400 T01225	1/2																●		●		●
RNG 43 T0820	RNGN 120400 T02020	1/2										●										
RNG 43 S0825	RNGN 120400 S02025	1/2																		●		
RNG 43 T0825	RNGN 120400 T02025	1/2								○												
RNG 43 Z0825	RNGN 120400 Z02025	1/2																			●	●
RNG 43 T2820	RNGN 120400 T07020	1/2																●				●
RNG 45 E01	RNGN 120700 E002	1/2										●										
RNG 45 E02	RNGN 120700 E004	1/2		●	●			●	●										○			
RNG 45 E03	RNGN 120700 E007	1/2																				
RNG 45 T0220	RNGN 120700 T00520	1/2							●	●	●	●										
RNG 45 T0225	RNGN 120700 T00525	1/2								○		○										
RNG 45 T0320	RNGN 120700 T00820	1/2		●	●			●														
RNG 45 T0420	RNGN 120700 T01020	1/2								●	●	●								●		
RNG 45 T0525	RNGN 120700 T01225	1/2																				●
RNG 45 Z0620	RNGN 120700 Z01520	1/2										●										●
RNG 45 S0825	RNGN 120700 S02025	1/2																			●	
RNG 45 T0825	RNGN 120700 T02025	1/2																●				
RNG 45 Z0825	RNGN 120700 Z02025	1/2																		○		●
RNG 45 P2810	RNGN 120700 P07010	1/2																●				●
RNG 55 T0220	RNGN 150700 T00520	5/8									●											
RNG 55 T0225	RNGN 150700 T00525	5/8									○											
RNG 55 T0320	RNGN 150700 T00820	5/8						●														
RNG 64 T0825	RNGN 190600 T02025	3/4																		●		
RNG 64 P6010	RNGN 190600 P15010	3/4																			●	
RNG 65 T0220	RNGN 190700 T00520	3/4									●		●									
RNG 65 T0225	RNGN 190700 T00525	3/4									○											
RNG 65 T0320	RNGN 190700 T00820	3/4						●														
RNG 65 T0420	RNGN 190700 T01020	3/4									●	●										
RNG 85 T0220	RNGN 250700 T00520	1									●	○	○									
RNG 85 S6015	RNGN 250700 S15015	1																				●
RNG 86 T0220	RNGN 250900 T00520	1																				●

Holders → F16
 Boring bars → G4
 Cutters → I14

Insert Item List

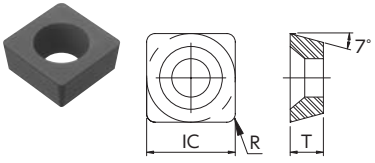
[BIDEMICS / Ceramics]

BIDEMICS / Ceramics

SCGW

(inch)	IC	T
SCGW 32	3/8	5/32
SCGW 43	1/2	3/16

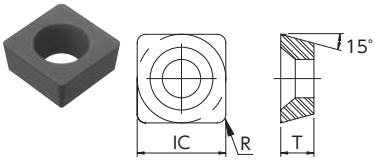
● : 1st Choice ● : 2nd choice

	Steel	P																				
	Stainless Steel	M																				
	Cast Iron	K					●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●
	Non-Ferrous Material	N																				
	Heat Resistant Alloy	S	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●
	Hardened Material	H														●						
Item Number	ISO Item Number	IC	R	BIDEMICS			Ceramics															
				Coated				SiAlON				Whisker	Silicon Nitride		Alumina		Alumina - TiC					
				JP2	JX1	JX3	SX7	SX3	SX9	SX5	WA1	SX6	SP9	HC1	HW2	HC6	HC2	HC5	HC7	ZC7	ZC4	
SCGW 32.52 T0420	SCGW 09T308 T01020	3/8	.031									●										
SCGW 431 T0420	SCGW 120404 T01020	1/2	.016									●										
SCGW 432 T0420	SCGW 120408 T01020	1/2	.031									●										

SDCW

(inch)	IC	T
SDCW 43	1/2	3/16

● : 1st Choice ● : 2nd choice

	Steel	P																				
	Stainless Steel	M																				
	Cast Iron	K					●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●
	Non-Ferrous Material	N																				
	Heat Resistant Alloy	S	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●
	Hardened Material	H											●					●	●	●	●	●
Item Number	ISO Item Number	IC	R	BIDEMICS			Ceramics															
				Coated				SiAlON				Whisker	Silicon Nitride		Alumina		Alumina - TiC					
				JP2	JX1	JX3	SX7	SX3	SX9	SX5	WA1	SX6	SP9	HC1	HW2	HC6	HC2	HC5	HC7	ZC7	ZC4	
SDCW 432 T0420	SDCW 120408 T01020	1/2	.031									●	○									
SDCW 433 T0420	SDCW 120412 T01020	1/2	.047									●										
SDCW 434 T0420	SDCW 120416 T01020	1/2	.063									●										

Cutters → I25 • I26 • I27

Insert Item List

[BIDEMICS / Ceramics]

SNGX

(inch)	IC	T
SNGX 45	1/2	5/16
SNGX 55	5/8	5/16

● : 1st Choice ● : 2nd choice

Item Number	ISO Item Number	IC	R	BIDEMICS			Ceramics														
				Coated			SiALON				Whisker	Silicon Nitride		Alumina		Alumina - TiC					
				JP2	JX1	JX3	SX7	SX3	SX9	SX5	WA1	SX6	SP9	HC1	HW2	HC6	HC2	HC5	HC7	ZC7	ZC4
SNGX 452 T0220	SNGX 120708 T00520	1/2	.031																		
SNGX 452 T0320	SNGX 120708 T00820	1/2	.031																		
SNGX 453 T0220	SNGX 120712 T00520	1/2	.047																		
SNGX 453 T0320	SNGX 120712 T00820	1/2	.047																		
SNGX 453 T0820	SNGX 120712 T02020	1/2	.047																		
SNGX 453 T0825	SNGX 120712 T02025	1/2	.047																		
SNGX 454 T0820	SNGX 120716 T02020	1/2	.063																		
SNGX 454 T0825	SNGX 120716 T02025	1/2	.063																		
SNGX 552 T0320	SNGX 150708 T00820	5/8	.031																		
SNGX 553 T0220	SNGX 150712 T00520	5/8	.047																		
SNGX 553 T0320	SNGX 150712 T00820	5/8	.047																		
SNGX 554 T0320	SNGX 150716 T00820	5/8	.063																		

Holders → F10 • F11

Boring bars → G6

SPG

(inch)	IC	T
SPG 32	3/8	1/8
SPG 42	1/2	1/8
SPG 43	1/2	3/16
SPG 63	3/4	3/16

● : 1st Choice ● : 2nd choice

Item Number	ISO Item Number	IC	R	BIDEMICS			Ceramics														
				Coated			SiALON				Whisker	Silicon Nitride		Alumina		Alumina - TiC					
				JP2	JX1	JX3	SX7	SX3	SX9	SX5	WA1	SX6	SP9	HC1	HW2	HC6	HC2	HC5	HC7	ZC7	ZC4
SPG 322 T0425	SPGN 090308 T01025	3/8	.031																		
SPG 324 S0820	SPGN 090316 S02020	3/8	.063																		
SPG 422 T0425	SPGN 120308 T01025	1/2	.031																		
SPG 422 T0525	SPGN 120308 T01225	1/2	.031																		
SPG 432 T0420	SPGN 120408 T01020	1/2	.031																		
SPG 432 T0425	SPGN 120408 T01025	1/2	.031																		
SPG 433 T0420	SPGN 120412 T01020	1/2	.047																		
SPG 433 T0425	SPGN 120412 T01025	1/2	.047																		
SPG 434 T0420	SPGN 120416 T01020	1/2	.063																		
SPG 434 T0425	SPGN 120416 T01025	1/2	.063																		
SPG 434 T0820	SPGN 120416 T02020	1/2	.063																		
SPG 634 T0420	SPGN 190416 T01020	3/4	.063																		

● : Stock
● : Stock (Newly added)
■ □ □ □ : While stocks last

R L : Stock (Right / Left-hand only)
R L : Stock (Right / Left-hand only, Newly added)
Ⓜ : Mirror finish

○ : 1-2 week delivery
○ : 1-2 week delivery (Newly added)
● : Coolant through

Ⓜ : 1-2 week delivery (Right / Left-hand only)
Ⓜ : 1-2 week delivery (Right / Left-hand only, Newly added)

TBGE

(inch)	IC	T
TBGE 52	5/32	.063

● : 1st Choice ● : 2nd choice

	Steel	P																			
	Stainless Steel	M																			
	Cast Iron	K																			
	Non-Ferrous Material	N																			
	Heat Resistant Alloy	S																			
	Hardened Material	H																			
Item Number	ISO Item Number	IC	R	BIDEMICS			Ceramics														
				Coated			SiAlON				Whisker	Silicon Nitride		Alumina		Alumina - TiC					
				JP2	JX1	JX3	SX7	SX3	SX9	SX5	WA1	SX6	SP9	HC1	HW2	HC6	HC2	HC5	HC7	ZC7	ZC4
TBGE 521 T0225	TBGE 060104 T00525	5/32	.016																		
TBGE 522 T0225	TBGE 060108 T00525	5/32	.031																		

TNG2 / TNG3

(inch)	IC	T
TNG 22	1/4	1/8
TNG 32	3/8	1/8
TNG 33	3/8	3/16
TNG 35	3/8	5/16

● : 1st Choice ● : 2nd choice

	Steel	P																		
	Stainless Steel	M																		
	Cast Iron	K																		
	Non-Ferrous Material	N																		
	Heat Resistant Alloy	S																		
	Hardened Material	H																		
Item Number	ISO Item Number	IC	R	BIDEMICS			Ceramics													
				Coated			SiAlON				Whisker	Silicon Nitride		Alumina		Alumina - TiC				
				JP2	JX1	JX3	SX7	SX3	SX9	SX5	WA1	SX6	SP9	HC1	HW2	HC6	HC2	HC5	HC7	ZC7
TNG 221 T0225	TNGN 110304 T00525	1/4	.016																	
TNG 222 T0225	TNGN 110308 T00525	1/4	.031																	
TNG 321 T0425	TNGN 160304 T01025	3/8	.016																	
TNG 322 T0425	TNGN 160308 T01025	3/8	.031																	
TNG 322 T0525	TNGN 160308 T01225	3/8	.031																	
TNG 322 T0825	TNGN 160308 T02025	3/8	.031																	
TNG 331 T0425	TNGN 160404 T01025	3/8	.016																	
TNG 332 T0420	TNGN 160408 T01020	3/8	.031																	
TNG 332 T0425	TNGN 160408 T01025	3/8	.031																	
TNG 332 T0525	TNGN 160408 T01225	3/8	.031																	
TNG 332 T0820	TNGN 160408 T02020	3/8	.031																	
TNG 332 S0825	TNGN 160408 S02025	3/8	.031																	
TNG 332 T0825	TNGN 160408 T02025	3/8	.031																	
TNG 333 T0420	TNGN 160412 T01020	3/8	.047																	
TNG 333 T0425	TNGN 160412 T01025	3/8	.047																	
TNG 333 T0525	TNGN 160412 T01225	3/8	.047																	
TNG 333 T0820	TNGN 160412 T02020	3/8	.047																	
TNG 333 S0825	TNGN 160412 S02025	3/8	.047																	
TNG 333 T0825	TNGN 160412 T02025	3/8	.047																	
TNG 334 T0420	TNGN 160416 T01020	3/8	.063																	
TNG 334 T0425	TNGN 160416 T01025	3/8	.063																	
TNG 334 T0525	TNGN 160416 T01225	3/8	.063																	
TNG 334 T0820	TNGN 160416 T02020	3/8	.063																	
TNG 334 T0825	TNGN 160416 T02025	3/8	.063																	
TNG 335 T0425	TNGN 160420 T01025	3/8	.079																	
TNG 335 T0820	TNGN 160420 T02020	3/8	.079																	
TNG 352 T0825	TNGN 160708 T02025	3/8	.031																	
TNG 353 T0825	TNGN 160712 T02025	3/8	.047																	

TNG4 / 5 → E17

Holders → F14

Insert Item List

[BIDEMICS / Ceramics]

TNGA

(inch)	IC	T	(inch)	IC	T
TNGA 32	3/8	1/8	TNGA 43	1/2	3/16
TNGA 33	3/8	3/16			

● : 1st Choice ● : 2nd choice

				Steel	P																				
				Stainless Steel	M																				
				Cast Iron	K			●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●		
				Non-Ferrous Material	N																				
				Heat Resistant Alloy	S	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●		
				Hardened Material	H								●						●	●	●	●	●		
Item Number	ISO Item Number	IC	R	BIDEMICS			Ceramics																		
				Coated			SiALON				Whisker	Silicon Nitride		Alumina		Alumina - TiC									
				JP2	JX1	JX3	SX7	SX3	SX9	SX5	WA1	SX6	SP9	HC1	HW2	HC6	HC2	HC5	HC7	ZC7	ZC4				
TNGA 321 T0425	TNGA 160304 T01025	3/8	.016																						
TNGA 322 T0525	TNGA 160308 T01225	3/8	.031																						
TNGA 331 T0425	TNGA 160404 T01025	3/8	.016																						
TNGA 331 S0825	TNGA 160404 S02025	3/8	.016																						
TNGA 331 Z0825	TNGA 160404 Z02025	3/8	.016																						
TNGA 332 T0425	TNGA 160408 T01025	3/8	.031																						
TNGA 332 T0525	TNGA 160408 T01225	3/8	.031																						
TNGA 332 T0820	TNGA 160408 T02020	3/8	.031																						
TNGA 332 S0825	TNGA 160408 S02025	3/8	.031																						
TNGA 332 T0825	TNGA 160408 T02025	3/8	.031																						
TNGA 332 Z0825	TNGA 160408 Z02025	3/8	.031																						
TNGA 333 T0425	TNGA 160412 T01025	3/8	.047																						
TNGA 333 T0525	TNGA 160412 T01225	3/8	.047																						
TNGA 333 T0820	TNGA 160412 T02020	3/8	.047																						
TNGA 333 S0825	TNGA 160412 S02025	3/8	.047																						
TNGA 333 T0825	TNGA 160412 T02025	3/8	.047																						
TNGA 333 Z0825	TNGA 160412 Z02025	3/8	.047																						
TNGA 334 T0825	TNGA 160416 T02025	3/8	.063																						
TNGA 431 T0425	TNGA 220404 T01025	1/2	.016																						
TNGA 432 T0220	TNGA 220408 T00520	1/2	.031																						
TNGA 432 T0525	TNGA 220408 T01225	1/2	.031																						
TNGA 432 S0825	TNGA 220408 S02025	1/2	.031																						
TNGA 432 T0825	TNGA 220408 T02025	1/2	.031																						
TNGA 433 T0825	TNGA 220412 T02025	1/2	.047																						
TNGA 433 Z0825	TNGA 220412 Z02025	1/2	.047																						
TNGA 434 T0525	TNGA 220416 T01225	1/2	.063																						
TNGA 434 T0825	TNGA 220416 T02025	1/2	.063																						

Holders → F14 • Q34

TNGG with chip-breaker

(inch)	IC	T
TNGG 33	3/8	3/16

● : 1st Choice ● : 2nd choice

				Steel	P																			
				Stainless Steel	M																			
				Cast Iron	K			●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●
				Non-Ferrous Material	N																			
				Heat Resistant Alloy	S	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●
				Hardened Material	H																			
Item Number	ISO Item Number	IC	R	BIDEMICS			Ceramics																	
				Coated			SiALON				Whisker	Silicon Nitride		Alumina		Alumina - TiC								
				JP2	JX1	JX3	SX7	SX3	SX9	SX5	WA1	SX6	SP9	HC1	HW2	HC6	HC2	HC5	HC7	ZC7	ZC4			
TNGG 332 Z0430 AG	TNGG 160408 Z01030 AG	3/8	.031																					
TNGG 333 Z0430 AG	TNGG 160412 Z01030 AG	3/8	.047																					

Holders → F14 • Q34

Insert Item List

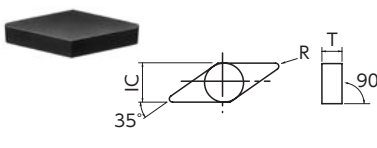
[BIDEMICS / Ceramics]

BIDEMICS / Ceramics

VNG

(inch)	IC	T
VNG 33	3/8	3/16

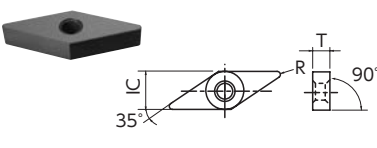
● : 1st Choice ● : 2nd choice

	Steel	P																		
	Stainless Steel	M																		
	Cast Iron	K																		
	Non-Ferrous Material	N																		
	Heat Resistant Alloy	S																		
	Hardened Material	H																		
Item Number	ISO Item Number	IC	R	BIDEMICS			Ceramics													
				Coated			SiAlON				Whisker	Silicon Nitride		Alumina		Alumina - TiC				
				JP2	JX1	JX3	SX7	SX3	SX9	SX5	WA1	SX6	SP9	HC1	HW2	HC6	HC2	HC5	HC7	ZC7
VNG 331 T0425	VNGN 160404 T01025	3/8	.016																	
VNG 332 T0425	VNGN 160408 T01025	3/8	.031																	

VNGA

(inch)	IC	T
VNGA 33	3/8	3/16
VNGA 43	1/2	3/16

● : 1st Choice ● : 2nd choice

	Steel	P																		
	Stainless Steel	M																		
	Cast Iron	K																		
	Non-Ferrous Material	N																		
	Heat Resistant Alloy	S																		
	Hardened Material	H																		
Item Number	ISO Item Number	IC	R	BIDEMICS			Ceramics													
				Coated			SiAlON				Whisker	Silicon Nitride		Alumina		Alumina - TiC				
				JP2*	JX1	JX3	SX7	SX3	SX9	SX5	WA1	SX6	SP9	HC1	HW2	HC6	HC2	HC5	HC7	ZC7
VNGA 331 BQ T0220	VNGA 160404 BQ T00520	3/8	.016	●																
VNGA 331 BQ E02	VNGA 160404 BQ ENB	3/8	.016	●																
VNGA 331 T0220	VNGA 160404 T00520	3/8	.016																	
VNGA 331 T0225	VNGA 160404 T00525	3/8	.016																	
VNGA 331 T0420	VNGA 160404 T01020	3/8	.016																	
VNGA 331 T0425	VNGA 160404 T01025	3/8	.016																	
VNGA 331 T0525	VNGA 160404 T01225	3/8	.016																	
VNGA 331 S0825	VNGA 160404 S02025	3/8	.016																	
VNGA 331 Z0825	VNGA 160404 Z02025	3/8	.016																	
VNGA 332 BQ T0220	VNGA 160408 BQ T00520	3/8	.031	●																
VNGA 332 BQ E02	VNGA 160408 BQ ENB	3/8	.031	●																
VNGA 332 T0220	VNGA 160408 T00520	3/8	.031																	
VNGA 332 T0320	VNGA 160408 T00820	3/8	.031																	
VNGA 332 T0420	VNGA 160408 T01020	3/8	.031																	
VNGA 332 T0425	VNGA 160408 T01025	3/8	.031																	
VNGA 332 T0525	VNGA 160408 T01225	3/8	.031																	
VNGA 332 S0825	VNGA 160408 S02025	3/8	.031																	
VNGA 332 Z0825	VNGA 160408 Z02025	3/8	.031																	
VNGA 333 BQ T0220	VNGA 160412 BQ T00520	3/8	.047	●																
VNGA 333 BQ E02	VNGA 160412 BQ ENB	3/8	.047	●																
VNGA 333 T0220	VNGA 160412 T00520	3/8	.047																	
VNGA 333 T0320	VNGA 160412 T00820	3/8	.047																	
VNGA 333 T0420	VNGA 160412 T01020	3/8	.047																	
VNGA 333 T0425	VNGA 160412 T01025	3/8	.047																	
VNGA 333 S0825	VNGA 160412 S02025	3/8	.047																	
VNGA 333 Z0825	VNGA 160412 Z02025	3/8	.047																	
VNGA 431 T0425	VNGA 220404 T01025	1/2	.016																	
VNGA 432 T0425	VNGA 220408 T01025	1/2	.031																	
VNGA 433 T0425	VNGA 220412 T01025	1/2	.047																	
VNGA 436 T0420	VNGA 220424 T01020	1/2	.094																	

*Brazed insert

Holders → F12 • F13

Insert Item List

[BIDEMICS / Ceramics]

WNGA

(inch)	IC	T
WNGA 33	3/8	3/16
WNGA 43	1/2	3/16

● : 1st Choice ● : 2nd choice

Item Number	ISO Item Number	IC	R	BIDEMICS			Ceramics														
				Coated			SiALON				Whisker	Silicon Nitride		Alumina		Alumina - TiC					
				JP2	JX1	JX3	SX7	SX3	SX9	SX5	WA1	SX6	SP9	HC1	HW2	HC6	HC2	HC5	HC7	ZC7	ZC4
WNGA 331 T0525	WNGA 060404 T01225	3/8	.016																		
WNGA 332 T0525	WNGA 060408 T01225	3/8	.031																		
WNGA 333 T0525	WNGA 060412 T01225	3/8	.047																		
WNGA 431 T0220	WNGA 080404 T00520	1/2	.016																		
WNGA 431 Z0825	WNGA 080404 Z02025	1/2	.016																		
WNGA 432 T0220	WNGA 080408 T00520	1/2	.031																		
WNGA 432 T0420	WNGA 080408 T01020	1/2	.031																		
WNGA 432 T0525	WNGA 080408 T01225	1/2	.031																		
WNGA 432 T0820	WNGA 080408 T02020	1/2	.031																		
WNGA 432 Z0825	WNGA 080408 Z02025	1/2	.031																		
WNGA 433 T0220	WNGA 080412 T00520	1/2	.047																		
WNGA 433 T0420	WNGA 080412 T01020	1/2	.047																		
WNGA 433 T0525	WNGA 080412 T01225	1/2	.047																		
WNGA 433 T0820	WNGA 080412 T02020	1/2	.047																		
WNGA 434 T0420	WNGA 080416 T01020	1/2	.063																		
WNGA 434 T0820	WNGA 080416 T02020	1/2	.063																		

Holders → F15

Boring bars → G6

ZT 1130

(inch)	IC	T
ZT1130	1-1/2	1/2

● : 1st Choice ● : 2nd choice

Item Number	ISO Item Number	IC	R	BIDEMICS			Ceramics														
				Coated			SiALON				Whisker	Silicon Nitride		Alumina		Alumina - TiC					
				JP2	JX1	JX3	SX7	SX3	SX9	SX5	WA1	SX6	SP9	HC1	HW2	HC6	HC2	HC5	HC7	ZC7	ZC4
ZT 1130 PNX5		1-1/2	4-1/2																		

● : Stock
● : Stock (Newly added)
■□□□ : While stocks last

R L : Stock (Right / Left-hand only)
R L : Stock (Right / Left-hand only, Newly added)
Ⓜ : Mirror finish

○ : 1-2 week delivery
○ : 1-2 week delivery (Newly added)
● : Coolant through

Ⓜ : 1-2 week delivery (Right / Left-hand only)
Ⓜ : 1-2 week delivery (Right / Left-hand only, Newly added)