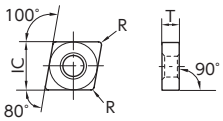
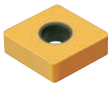
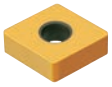
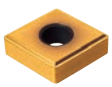
Item Number	IC	T
CN_1204_	12.7	4.76

⟨80 degree Rhombic Negative type⟩



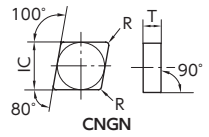
Steel	P	● : 1st Choice
Stainless Steel	M	● : 2nd choice
Cast Iron	K	
Non-Ferrous Material	N	
Heat Resistant Alloy	S	
Hardened Material	H	

Shape	ISO Item Number	Inch Item Number	R	BIDEMICS JX1	BIDEMICS JX3	Ceramics: Alumina-based HC1	HW2	HC2	HC4	HC6	ZC7	Silicon nitride-based SX6	SX7	SX3	SX9	SP9	Whisker-based WA1	WA5	For applicable holder, see pages:
	CNGA 120404 S02025	CNGA431-SNF	0.4								●								F9 F11 G40 K34
	120404 T01025	431-TN	0.4								●								
	120404 Z02025	431-ZNF	0.4						●										
	120408 S02025	432-SNF	0.8								●								
	120408 T00520	—	0.8												●		●		
	120408 T01020	—	0.8													●	●		
	120408 T01025	432-TN	0.8					●		●	●								
	120408 T02020	—	0.8									●							
	120408 T02025	432-TNF	0.8												●				
	120408 Z02025	432-ZNF	0.8						●										
	120412 S02025	433-SNF	1.2								●								
	120412 T00520	—	1.2												●		●		
	120412 T01020	—	1.2													●	●		
	120412 T01025	433-TN	1.2			●		●		●	●								
	120412 T02020	—	1.2									●							
	120412 T02025	433-TNF	1.2												●				
	120416 T00520	—	1.6												●		●		
	120416 T01020	—	1.6													●			
	120416 T02020	—	1.6									●							
	120416 T02025	434-TNF	1.6												●				
 Wiper	CNGA 120408 WL T01025	CNGA432WL-TN	0.8								●								F9 K34
	120412 WL T01025	433WL-TN	1.2								●								
 with chipbreaker	CNGG 120408 Z01030 AG	CNGG432-ZNCGAG	0.8								●								F9 F11 G40 K34
	120412 Z01030 AG	433-ZNCGAG	1.2								●								

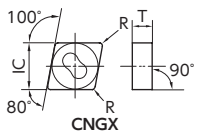
● : Standard stock ● : New standard stock ■ : Scheduled to be produced by order ★ : Standard stock (Specified)

Item Number	IC	T
CN_1204_	12.7	4.76
CN_1207_	12.7	7.94
CN_1607_	15.875	7.94

⟨80 degree Rhombic Negative type⟩



CNGN



CNGX

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

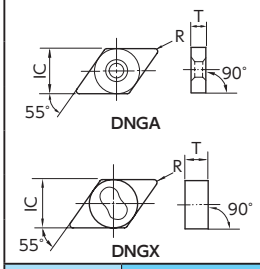
● : 1st Choice
● : 2nd choice

Shape	ISO Item Number	Inch Item Number	R	BIDEMICS		Ceramics												For applicable holder, see pages:
						Alumina-based						Silicon nitride-based					Whisker-based	
				JX1	JX3	HC1	HW2	HC2	HC4	HC6	ZC7	SX6	SX7	SX3	SX9	SP9	WA1	WA5	
	CNGN 120404 T01025	CNGN431-TN	0.4					●		●									F9 F11 K34
	120408 S02025	432-SNF	0.8								●								
	120408 T00520	—	0.8												●		●		
	120408 T00820	—	0.8															●	
	120408 T01020	—	0.8													●	●		
	120408 T01025	432-TN	0.8					●		●	●								
	120408 T02020	—	0.8									●							
	120408 T02025	432-TNF	0.8			●									●		●		
	120408 Z02025	432-ZNF	0.8						●										
	120412 S02025	433-SNF	1.2								●								
	120412 T00520	—	1.2												●		●		
	120412 T00820	—	1.2															●	
	120412 T01020	—	1.2													●	●		
	120412 T01025	433-TN	1.2			●		●		●	●						●		
	120412 T02020	—	1.2									●							
	120412 T02025	433-TNF	1.2			●									●		●		
	120412 Z02025	433-ZNF	1.2						●										
	120416 T00520	—	1.6														●		
	120416 T02020	—	1.6									●							
	120416 T01020	—	1.6													●			
	120416 T02025	434-TNF	1.6												●				
	120420 T01025	435-TN	2.0							●									
	CNGN 120708 T00520	—	0.8														●		
	120708 T02025	CNGN452-TN	0.8					●											
	120712 T02025	453-TN	1.2					●											
	CNGN 160716 T00520	—	1.6														●		
	CNGX 120712 T02025	—	1.2													●			F9 K34
	120716 T02025	—	1.6													●			

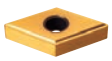
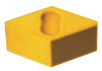
● : Standard stock ● : New standard stock ■ : Scheduled to be produced by order ★ : Standard stock (Specified)

Item Number	IC	T
DN_1504_	12.7	4.76
DN_1507_	12.7	7.94

⟨55 degree Rhombic Negative type⟩



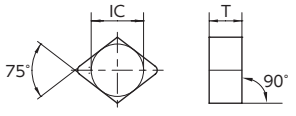
Steel	P	
Stainless Steel	M	
Cast Iron	K	● : 1st Choice
Non-Ferrous Material	N	● : 2nd choice
Heat Resistant Alloy	S	
Hardened Material	H	

Shape	ISO Item Number	Inch Item Number	R	BIDEMICS JX1	BIDEMICS JX3	Ceramics: Alumina-based HC1	HW2	HC2	HC4	HC6	ZC7	Silicon nitride-based SX6	SX7	SX3	SX9	SP9	Whisker-based WA1	WA5	For applicable holder, see pages:
	DNGA 150404 S02025	DNGA431-SNF	0.4								●								F13 F15 G41 K35
	150404 T01025	431-TN	0.4					●		●	●								
	150404 Z02025	431-ZNF	0.4						●										
	150408 S02025	432-SNF	0.8					●			●								
	150408 T00520	—	0.8												●		●		
	150408 T01020	—	0.8													●			
	150408 T01025	432-TN	0.8					●		●	●								
	150408 T02020	—	0.8									●							
	150408 T02025	432-TNF	0.8												●				
	150408 Z02025	432-ZNF	0.8						●										
	150412 S02025	433-SNF	1.2								●								
	150412 T01020	—	1.2													●	●		
	150412 T01025	433-TN	1.2				●				●								
	150412 T02020	—	1.2									●							
	150412 T02025	433-TNF	1.2												●				
	DNGN 150404 T01025	DNGN431-TN	0.4					●											F13 F15
	150408 S02025	432-SNF	0.8								●								
	150408 T01025	432-TN	0.8							●	●								
	150408 Z02025	432-ZNF	0.8						●										
	150412 T00520	—	1.2														●		
	150412 T02025	433-TNF	1.2														●		
	DNGN 150712 T02025	DNGN453-TN	1.2														●		
 with chipbreaker	DNGG 150408 Z01030 AG	DNGG432-ZNCGAG	0.8								●								F13 F15 G41 K35
	150412 Z01030 AG	433-ZNCGAG	1.2								●								
	DNGX 150716 T02025	—	1.6													●			F13 F15 K35

● : Standard stock ● : New standard stock ■ : Scheduled to be produced by order ★ : Standard stock (Specified)

⟨75 degree Rhombic Negative type⟩

Item Number	IC	T
EN_1307_	12.7	7.94



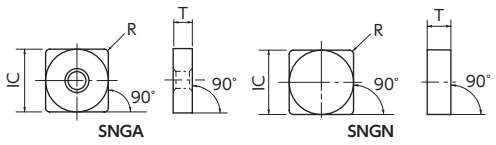
Steel	P	
Stainless Steel	M	
Cast Iron	K	● : 1st Choice
Non-Ferrous Material	N	● : 2nd choice
Heat Resistant Alloy	S	
Hardened Material	H	

Shape	ISO Item Number	Inch Item Number	R	BIDEMICS JX1	BIDEMICS JX3	Ceramics: Alumina-based HC1	HW2	HC2	HC4	HC6	ZC7	Silicon nitride-based SX6	SX7	SX3	SX9	SP9	Whisker-based WA1	WA5	For applicable holder, see pages:
	ENGN 130708 T02025	ENGN452-TN	0.8					●											—
	130712 T02025	453-TN	1.2					●											

● : Standard stock ● : New standard stock ■ : Scheduled to be produced by order ★ : Standard stock (Specified)

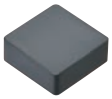
Item Number	IC	T
SN_0903_	9.525	3.18
SN_0904_	9.525	4.76
SN_1204_	12.7	4.76

⟨90 degree Square Negative type⟩



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

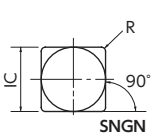
● : 1st Choice
● : 2nd choice

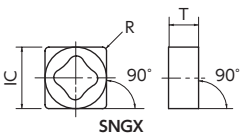
Shape	ISO Item Number	Inch Item Number	R	BIDEMICS JX1	BIDEMICS JX3	Ceramics: Alumina-based HC1	HW2	HC2	HC4	HC6	ZC7	Silicon nitride-based SX6	SX7	SX3	SX9	SP9	Whisker-based WA1	WA5	For applicable holder, see pages:
	SNGA 120408 S02025	SNGA432-SNF	0.8								●								F17 F19 K36
	120408 T01025	432-TN	0.8								●								
	120408 T02020	—	0.8									●							
	120412 S02025	433-SNF	1.2								●								
	120412 T01025	433-TN	1.2								●								
	120412 T02020	—	1.2									●							
	120416 T02020	—	1.6									●							
	SNGN 090308 T01025	SNGN322-TN	0.8					●											—
	090316 T01025	324-TN	1.6			●		●											
	SNGN 090408 T01025	SNGN332-TN	0.8					●											
	SNGN 120404 T01025	SNGN431-TN	0.4					●											F17 F19 F21 K36 N12 N14 N16
	120408 S02025	432-SNF	0.8								●								
	120408 T00520	—	0.8														●		
	120408 T00820	—	0.8															●	
	120408 T01020	—	0.8													●			
	120408 T01025	432-TN	0.8			●		●		●	●						●		
	120408 T02020	—	0.8									●							
	120408 T02025	432-TNF	0.8												●				
	120408 Z02025	432-ZNF	0.8						●										
	120412 S02025	433-SNF	1.2								●								
	120412 T00520	—	1.2														●		
	120412 T00820	—	–															●	
	120412 T01020	—	1.2													●	●		

● : Standard stock ● : New standard stock ■ : Scheduled to be produced by order ★ : Standard stock (Specified)

Item Number	IC	T
SN_1204_	12.7	4.76
SN_1207_	12.7	7.94
SN_1507_	15.875	7.94
SN_1906_	19.05	6.35
SN_1907_	19.05	7.94

⟨90 degree Square Negative type⟩





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

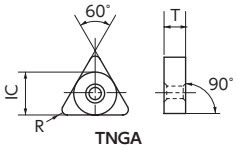
● : 1st Choice
● : 2nd choice

Shape	ISO Item Number	Inch Item Number	R	BIDEMICS		Ceramics											For applicable holder, see pages:
						Alumina-based						Silicon nitride-based					Whisker-based	
				JX1	JX3	HC1	HW2	HC2	HC4	HC6	ZC7	SX6	SX7	SX3	SX9	SP9	WA1	WA5	
	SNGN 120412 T01025	SNGN433-TN	1.2			●		●		●	●						●		
	120412 T02020	—	1.2									●				●			
	120412 T02025	433-TNF	1.2												●				
	120412 Z02025	433-ZNF	1.2						●										
	120416 S02025	434-SNF	1.6								●								
	120416 T00520	—	1.6														●		
	120416 T01020	—	1.6													●	●		
	120416 T01025	434-TN	1.6			●		●		●	●						●		
	120416 T02020	—	1.6									●							F17
	120416 T02025	434-TNF	1.6												●				F19 F21
	120416 Z02025	434-ZNF	1.6						●										K36
	120420 T01025	435-TN	2					●		●									N12 N14
	120420 T01020	—	2													●			N16
	120420 T02020	—	2									●							
	120420 T02025	435-TNF	2			●											●		
	120424 T01025	436-TN	2.4					●											
	120424 T02020	—	2.4									●							
	SNGN 120708 T02025	SNGN452-TN	0.8			●		●											
	120712 S02025	453-SNF	1.2					●											
	120712 T02025	453-TN	1.2					●											
	120716 T02025	454-TN	1.6				●												
	SNGN 150716 T02025	SNGN554-TN	1.6														●		—
	SNGN 190616 T00525	SNGN644-TNB	1.6												●				
	SNGN 190724 T00525	SNGN656-TNB	2.4												●				
	SNGX 120712 T02025	—	1.2													●			F17
	120716 T02025	—	1.6													●			K36

● : Standard stock ● : New standard stock ■ : Scheduled to be produced by order ★ : Standard stock (Specified)

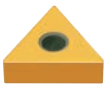
Item Number	IC	T
TN_1103_	6.35	3.18
TN_1603_	9.525	3.18
TN_1604_	9.525	4.76

⟨60 degree Triangle Negative type⟩



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

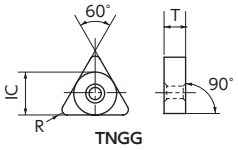
● : 1st Choice
● : 2nd choice

Shape	ISO Item Number	Inch Item Number	R	BIDEMICS JX1	BIDEMICS JX3	Ceramics: Alumina-based HC1	HW2	HC2	HC4	HC6	ZC7	Silicon nitride-based SX6	SX7	SX3	SX9	SP9	Whisker-based WA1	WA5	For applicable holder, see pages:
	TNGA 160404 S02025	TNGA331-SNF	0.4								●								F23 F25 G39
	160404 T01025	331-TN	0.4								●								
	160404 Z02025	331-ZNF	0.4						●										
	160408 S02025	332-SNF	0.8								●								
	160408 T01025	332-TN	0.8					●		●	●								
	160408 T02020	—	0.8									●							
	160408 T02025	332-TNF	0.8												●				
	160408 Z02025	332-ZNF	0.8						●										
	160412 S02025	333-SNF	1.2								●								
	160412 T01025	333-TN	1.2					●		●	●								
	160412 T02020	—	1.2									●							
	160412 T02025	333-TNF	1.2												●				
	160416 T02025	334-TNF	1.6												●				
	TNGN 110308 T00525	TNGN222-TN	0.8					●											—
	TNGN 160304 T01025	TNGN321-TN	0.4					●											
	TNGN 160404 T01025	TNGN331-TN	0.4					●											
	160404 Z02025	331-ZNF	0.4						●										
	160408 S02025	332-SNF	0.8								●								
	160408 T00820	—	0.8															●	
	160408 T01020	—	0.8													●	●		
	160408 T01025	332-TN	0.8			●		●		●	●						●		
	160408 T02020	—	0.8									●							
	160408 T02025	332-TNF	0.8												●				F23 F25
	160408 Z02025	332-ZNF	0.8						●										
	160412 S02025	333-SNF	0.8								●								
	160412 T00820	—	1.2															●	
	160412 T01020	—	1.2													●			
	160412 T01025	333-TN	1.2			●		●		●	●						●		
	160412 T02020	—	1.2									●							
	160412 T02025	333-TNF	1.2												●				
	160412 Z02025	333-ZNF	1.2						●										

● : Standard stock ● : New standard stock ■ : Scheduled to be produced by order ★ : Standard stock (Specified)

Item Number	IC	T
TN_1604_	9.525	4.76
TN_1607_	9.525	7.94
TN_2204_	12.7	4.76
TN_2207_	12.7	7.94

⟨60 degree Triangle Negative type⟩



		Ceramics														
		BIDEMICS		Alumina-based						Silicon nitride-based					Whisker-based	
		JX1	JX3	HC1	HW2	HC2	HC4	HC6	ZC7	SX6	SX7	SX3	SX9	SP9	WA1	WA5
Steel	P			●	●	●	●	●	●	●	●	●	●	●	●	●
Stainless Steel	M															
Cast Iron	K	●	●													
Non-Ferrous Material	N															
Heat Resistant Alloy	S	●	●								●	●	●		●	●
Hardened Material	H					●	●		●						●	●

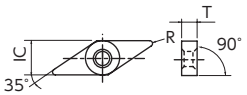
● : 1st Choice
● : 2nd choice

Shape	ISO Item Number	Inch Item Number	R	JX1	JX3	HC1	HW2	HC2	HC4	HC6	ZC7	SX6	SX7	SX3	SX9	SP9	WA1	WA5	For applicable holder, see pages:
	TNGN 160416 T01020	—	1.6													●			F23 F25
	160416 T01025	TNGN334-TN	1.6			●	●	●											
	160416 T02020	—	1.6									●							
	160416 T02025	334-TNF	1.6												●				
	160420 T01025	335-TN	1.6			●		●											
	160420 T02020	—	2									●							
	TNGN 160708 T02025	TNGN352-TN	0.8					●											
	160712 T02025	353-TN	1.2					●											
	TNGN 220416 T00520	—	1.6														●		
	TNGN 220716 T00520	—	1.6														●		
with chipbreaker	TNGG 160408 Z01030 AG	TNGG332-ZNCGAG	0.8								●								F23 F25 G39
	160412 Z01030 AG	333-ZNCGAG	1.2								●								

● : Standard stock ● : New standard stock ■ : Scheduled to be produced by order ★ : Standard stock (Specified)

Item Number	IC	T
VN_1604_	9.525	4.76
VN_2204_	12.7	4.76

⟨35 degree Rhombic Negative type⟩



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

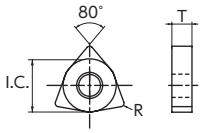
● : 1st Choice
● : 2nd choice

Shape	ISO Item Number	Inch Item Number	R	BIDEMICS JX1	BIDEMICS JX3	Ceramics: Alumina-based HC1	HW2	HC2	HC4	HC6	ZC7	Silicon nitride-based SX6	SX7	SX3	SX9	SP9	Whisker-based WA1	WA5	For applicable holder, see pages:
	VNGA 160404 S02025	VNGA331-SNF	0.4								●								F27
	160404 T01020	—	0.4									●							
	160404 T01025	331-TN	0.4					●		●	●								
	160404 Z02025	331-ZNF	0.4						●										
	160408 S02025	332-SNF	0.8								●								
	160408 T00520	—	0.8														●		
	160408 T01020	—	0.8									●				●			
	160408 T01025	332-TN	0.8					●		●	●								
	160408 Z02025	332-ZNF	0.8						●										
	160412 S02025	333-SNF	1.2								●								
	160412 T01020	—	1.2									●				●			
	160412 T01025	333-TN	1.2								●								
	160412 Z02025	333-ZNF	1.2						●										
	VNGA 220424 T01020	—	2.4														●		

● : Standard stock ● : New standard stock ■ : Scheduled to be produced by order ★ : Standard stock (Specified)

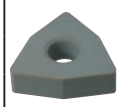
Item Number	IC	T
WN_0804_	12.7	4.76

⟨80 degree Hexagon Negative type⟩



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

● : 1st Choice
● : 2nd choice

Shape	ISO Item Number	Inch Item Number	R	BIDEMICS JX1	BIDEMICS JX3	Ceramics: Alumina-based HC1	HW2	HC2	HC4	HC6	ZC7	Silicon nitride-based SX6	SX7	SX3	SX9	SP9	Whisker-based WA1	WA5	For applicable holder, see pages:
	WNGA 080408 T00520	—	0.8														●		F29 K37
	080408 T01020	—	0.8													●			
	080408 T02020	—	0.8									●							
	080412 T00520	—	1.2														●		
	080412 T01020	—	1.2													●			
	080412 T02020	—	1.2									●							
	080416 T02020	—	1.6									●							

● : Standard stock ● : New standard stock ■ : Scheduled to be produced by order ★ : Standard stock (Specified)