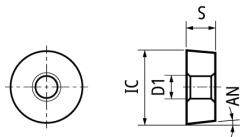


BIDEMICS / Ceramics / NTK CeramiX

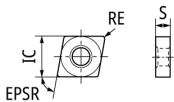
CDH



Steel																
Stainless Steel																
Cast Iron																
Non-Ferrous Material																
Heat Resistant Alloy																
Hardened Material																
Others (non-metallic)																

Shape	Item Number	CECC	EPSR	IC	S	AN	RE	D1	D2	INSL	S1	W1	BIDEMICS			NTK CeramiX	Alumina Ceramics							Silicon Nitride Ceramics					Whisker Ceramics																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																														
													PVD	PVD	JX3		PVD	HC1	HW2	HC2	HC4	HC6	HC7	ZC7	SX3	SX5	SX7	SX9	SX6	SP9	WA1	WA5																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																											
																																	120	JP2	450																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																								
																																				JX1																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																							
(ISO)	°	mm	mm	°	mm	mm	mm	mm	mm	mm	mm	mm	mm	mm	mm	mm	mm	mm	mm	mm	mm	mm	mm	mm	mm	mm	mm	mm	mm	mm	mm	mm	mm	mm	mm	mm	mm	mm	mm	mm	mm	mm	mm	mm	mm	mm	mm	mm	mm	mm	mm	mm	mm	mm	mm	mm	mm	mm	mm	mm	mm	mm	mm	mm	mm	mm	mm	mm	mm	mm	mm	mm	mm	mm	mm	mm	mm	mm	mm	mm	mm	mm	mm	mm	mm	mm	mm	mm	mm	mm	mm	mm	mm	mm	mm	mm	mm	mm	mm	mm	mm	mm	mm	mm	mm	mm	mm	mm	mm	mm	mm	mm	mm	mm	mm	mm	mm	mm	mm	mm	mm	mm	mm	mm	mm	mm	mm	mm	mm	mm	mm	mm	mm	mm	mm	mm	mm	mm	mm	mm	mm	mm	mm	mm	mm	mm	mm	mm	mm	mm	mm	mm	mm	mm	mm	mm	mm	mm	mm	mm	mm	mm	mm	mm	mm	mm	mm	mm	mm	mm	mm	mm	mm	mm	mm	mm	mm	mm	mm	mm	mm	mm	mm	mm	mm	mm	mm	mm	mm	mm	mm	mm	mm	mm	mm	mm	mm	mm	mm	mm	mm	mm	mm	mm	mm	mm	mm	mm	mm	mm	mm	mm	mm	mm	mm	mm	mm	mm	mm	mm	mm	mm	mm	mm	mm	mm	mm	mm	mm	mm	mm	mm	mm	mm	mm	mm	mm	mm	mm	mm	mm	mm	mm	mm	mm	mm	mm	mm	mm	mm	mm	mm	mm	mm	mm	mm	mm	mm	mm	mm	mm	mm	mm	mm	mm	mm	mm	mm	mm	mm	mm	mm	mm	mm	mm	mm	mm	mm	mm	mm	mm	mm	mm	mm	mm	mm	mm	mm	mm	mm	mm	mm	mm	mm	mm	mm	mm	mm	mm	mm	mm	mm	mm	mm	mm	mm	mm	mm	mm	mm	mm	mm	mm	mm	mm	mm	mm	mm	mm	mm	mm	mm	mm	mm	mm	mm	mm	mm	mm	mm	mm	mm	mm	mm	mm	mm	mm	mm	mm	mm	mm	mm	mm	mm	mm	mm	mm	mm	mm	mm	mm	mm	mm	mm	mm	mm	mm	mm	mm	mm	mm	mm	mm	mm	mm	mm	mm	mm	mm	mm	mm	mm	mm	mm	mm	mm	mm	mm	mm	mm	mm	mm	mm	mm	mm	mm	mm	mm	mm	mm	mm	mm	mm	mm	mm	mm	mm	mm	mm	mm	mm	mm	mm	mm	mm	mm	mm	mm	mm	mm	mm	mm	mm	mm	mm	mm	mm	mm	mm	mm	mm	mm	mm	mm	mm	mm	mm	mm	mm	mm	mm	mm	mm	mm	mm	mm	mm	mm	mm	mm	mm	mm	mm	mm	mm	mm	mm	mm	mm	mm	mm	mm	mm	mm	mm	mm	mm	mm	mm	mm	mm	mm	mm	mm	mm	mm	mm	mm	mm	mm	mm	mm	mm	mm	mm	mm	mm	mm	mm	mm	mm	mm	mm	mm	mm	mm	mm	mm	mm	mm	mm	mm	mm	mm	mm	mm	mm	mm	mm	mm	mm	mm	mm	mm	mm	mm	mm	mm	mm	mm	mm	mm	mm	mm	mm	mm	mm	mm	mm	mm	mm	mm	mm	mm	mm	mm	mm	mm	mm	mm	mm	mm	mm	mm	mm	mm	mm	mm	mm	mm	mm	mm	mm	mm	mm	mm	mm	mm	mm	mm	mm	mm	mm	mm	mm	mm	mm	mm	mm	mm	mm	mm	mm	mm	mm	mm	mm	mm	mm	mm	mm	mm	mm	mm	mm	mm	mm	mm	mm	mm	mm	mm	mm	mm	mm	mm	mm	mm	mm	mm	mm	mm	mm	mm	mm	mm	mm	mm	mm	mm	mm	mm	mm	mm	mm	mm	mm	mm	mm	mm	mm	mm	mm	mm	mm	mm	mm	mm	mm	mm	mm	mm	mm	mm	mm	mm	mm	mm	mm	mm	mm	mm	mm	mm	mm	mm	mm	mm	mm	mm	mm	mm	mm	mm	mm	mm	mm	mm	mm	mm	mm	mm	mm	mm	mm	mm	mm	mm	mm	mm	mm	mm	mm	mm	mm	mm	mm	mm	mm	mm	mm	mm	mm	mm	mm	mm	mm	mm	mm	mm	mm	mm	mm	mm	mm	mm	mm	mm	mm	mm	mm	mm	mm	mm	mm	mm	mm	mm	mm	mm	mm	mm	mm	mm	mm	mm	mm	mm	mm	mm	mm	mm	mm	mm	mm	mm	mm	mm	mm	mm	mm	mm	mm	mm	mm	mm	mm	mm	mm	mm	mm	mm	mm	mm	mm	mm	mm	mm	mm	mm	mm	mm	mm	mm	mm	mm	mm	mm	mm	mm	mm	mm	mm	mm	mm	mm	mm	mm	mm	mm	mm	mm	mm	mm	mm	mm	mm	mm	mm	mm	mm	mm	mm	mm	mm	mm	mm	mm	mm	mm	mm	mm	mm	mm	mm	mm	mm	mm	mm	mm	mm	mm	mm	mm	mm	mm	mm	mm	mm	mm	mm	mm	mm	mm	mm	mm	mm	mm	mm	mm	mm	mm	mm	mm	mm	mm	mm	mm	mm	mm	mm	mm	mm	mm	mm	mm	mm	mm	mm	mm	mm	mm	mm	mm	mm	mm	mm	mm	mm	mm	mm	mm	mm	mm	mm	mm	mm	mm	mm	mm	mm	mm	mm	mm	mm	mm	mm	mm	mm	mm	mm	mm	mm	mm	mm	mm	mm	mm	mm	mm	mm	mm	mm	mm	mm	mm	mm	mm	mm	mm	mm	mm	mm	mm	mm	mm	mm	mm	mm	mm	mm	mm	mm	mm	mm	mm	mm	mm	mm	mm	mm	mm	mm	mm	mm	mm	mm	mm	mm	mm	mm	mm	mm	mm	mm	mm	mm	mm	mm	mm	mm	mm	mm	mm	mm	mm	mm	mm	mm	mm	mm	mm	mm	mm	mm	mm	mm	mm	mm	mm	mm	mm	mm	mm	mm	mm	mm	mm	mm	mm	mm	mm	mm	mm	mm	mm	mm	mm	mm	mm	mm	mm	mm	mm	mm	mm	mm	mm	mm	mm	mm	mm	mm	mm	mm	mm	mm	mm	mm	mm	mm	mm	mm	mm	mm	mm	mm	mm	mm	mm	mm	mm	mm	mm	mm	mm	mm	mm	mm	mm	mm	mm	mm	mm	mm	mm	mm	mm	mm	mm	mm	mm	mm	mm	mm	mm	mm	mm	mm

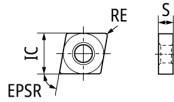
CNGA



Steel																
Stainless Steel																
Cast Iron																
Non-Ferrous Material																
Heat Resistant Alloy																
Hardened Material																
Others (non-metallic)																

Shape	Item Number	CECC	EPSR	IC	S	AN	RE	D1	D2	INSL	S1	W1	BIDEMICS				NTK CeramiX	Alumina Ceramics							Silicon Nitride Ceramics					Whisker Ceramics				
													PVD	PVD	JP1	JP3		PVD	HC1	HW2	HC2	HC4	HC6	HC7	ZC7	SX3	SX5	SX7	SX9	SX6	CVD	SP9	WA1	WA5
(ISO)			°	mm	mm	°	mm	mm	mm	mm	mm	mm																						
	CNGA120404BQE004	E004	80	12.7	4.76	-	0.4	-	-	-	-	-																						
	CNGA120404BQT00520	T00520	80	12.7	4.76	-	0.4	-	-	-	-	-																						
	CNGA120404S02025	S02025	80	12.7	4.76	-	0.4	-	-	-	-	-																						
	CNGA120404T01025	T01025	80	12.7	4.76	-	0.4	-	-	-	-	-																						
	CNGA120404X01015	X01015	80	12.7	4.76	-	0.4	-	-	-	-	-																						
	CNGA120404X01015-10	X01015	80	12.7	4.76	-	0.4	-	-	-	-	-																						
	CNGA120404Z02025	Z02025	80	12.7	4.76	-	0.4	-	-	-	-	-																						
	CNGA120408BQE004	E004	80	12.7	4.76	-	0.8	-	-	-	-	-																						
	CNGA120408BQT00520	T00520	80	12.7	4.76	-	0.8	-	-	-	-	-																						
	CNGA120408S02025	S02025	80	12.7	4.76	-	0.8	-	-	-	-	-																						
	CNGA120408T00520	T00520	80	12.7	4.76	-	0.8	-	-	-	-	-																						
	CNGA120408T01020	T01020	80	12.7	4.76	-	0.8	-	-	-	-	-																						
	CNGA120408T01025	T01025	80	12.7	4.76	-	0.8	-	-	-	-	-																						
	CNGA120408T02020	T02020	80	12.7	4.76	-	0.8	-	-	-	-	-																						
	CNGA120408T02025	T02025	80	12.7	4.76	-	0.8	-	-	-	-	-																						
	CNGA120408X01015	X01015	80	12.7	4.76	-	0.8	-	-	-	-	-																						
	CNGA120408X01015-10	X01015	80	12.7	4.76	-	0.8	-	-	-	-	-																						
	CNGA120408Z02025	Z02025	80	12.7	4.76	-	0.8	-	-	-	-	-																						
	CNGA120412BQE004	E004	80	12.7	4.76	-	1.2	-	-	-	-	-																						
	CNGA120412BQT00520	T00520	80	12.7	4.76	-	1.2	-	-	-	-	-																						
	CNGA120412S02025	S02025	80	12.7	4.76	-	1.2	-	-	-	-	-																						
	CNGA120412T00520	T00520	80	12.7	4.76	-	1.2	-	-	-	-	-																						
	CNGA120412T01020	T01020	80	12.7	4.76	-	1.2	-	-	-	-	-																						
	CNGA120412T01025	T01025	80	12.7	4.76	-	1.2	-	-	-	-	-																						
	CNGA120412T02020	T02020	80	12.7	4.76	-	1.2	-	-	-	-	-																						
	CNGA120412T02025	T02025	80	12.7	4.76	-	1.2	-	-	-	-	-																						
	CNGA120412X01015	X01015	80	12.7	4.76	-	1.2	-	-	-	-	-																						
	CNGA120412X01015-10	X01015	80	12.7	4.76	-	1.2	-	-	-	-	-																						
	CNGA120416T00520	T00520	80	12.7	4.76	-	1.6	-	-	-	-	-																						
	CNGA120416T01020	T01020	80	12.7	4.76	-	1.6	-	-	-	-	-																						
	CNGA120416T02020	T02020	80	12.7	4.76	-	1.6	-	-	-	-	-																						
	CNGA120416T02025	T02025	80	12.7	4.76	-	1.6	-	-	-	-	-																						

CNGA-WL with wiper for higher feed

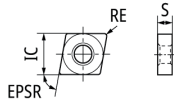


Steel	
Stainless Steel	
Cast Iron	● ● ● ● ○ ○ ○ ○ ● ● ○ ○
Non-Ferrous Material	
Heat Resistant Alloy	● ● ● ● ● ● ● ● ● ● ● ●
Hardened Material	● ○ ● ● ● ●
Others (non-metallic)	

Shape	Item Number	CECC	EPSR	IC	S	AN	RE	D1	D2	INSL	S1	W1	BIDEMICS			NTK CeramIX	Alumina Ceramics							Silicon Nitride Ceramics						Whisker Ceramics		
													PVD	PVD	PVD		HC1	HW2	HC2	HC4	HC6	HC7	PVD	SX3	SX5	SX7	SX9	SX6	CVD	WA1	WA5	
																(ISO)																°
	CNGA120408WLT01025	T01025	80	12.7	4.76	-	0.8	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	●	-	-	-	-	-	-	-	-	-
	CNGA120412WLT01025	T01025	80	12.7	4.76	-	1.2	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	●	-	-	-	-	-	-	-	-	-

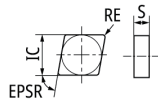
Wiper Width: R0.4: 0.35mm, R0.8: 0.65mm, R1.2: 0.85mm
Applicable holders: 95° cutting edge angle (C31, CCLN), 75° cutting edge angle (CCBN).

CNGG-AG with chipbreaker



Steel	
Stainless Steel	
Cast Iron	● ● ● ● ○ ○ ○ ○ ● ● ○ ○
Non-Ferrous Material	
Heat Resistant Alloy	● ● ● ● ● ● ● ● ● ● ● ●
Hardened Material	● ○ ● ● ● ●
Others (non-metallic)	

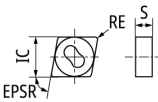
Shape	Item Number	CECC	EPSR	IC	S	AN	RE	D1	D2	INSL	S1	W1	BIDEMICS			NTK CeramIX	Alumina Ceramics							Silicon Nitride Ceramics					Whisker Ceramics			
													PVD	PVD	PVD		HC1	HW2	HC2	HC4	HC6	HC7	PVD	SX3	SX5	SX7	SX9	SX6	CVD	WA1	WA5	
																(ISO)																°
	CNGG120408Z01030AG	Z01030	80	12.7	4.76	-	0.8	-	-	-	-	-											●									
	CNGG120412Z01030AG	Z01030	80	12.7	4.76	-	1.2	-	-	-	-	-											●									



Steel															
Stainless Steel															
Cast Iron															
Non-Ferrous Material															
Heat Resistant Alloy															
Hardened Material															
Others (non-metallic)															

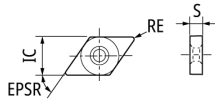
Shape	Item Number	CECC	EPSR	IC	S	AN	RE	D1	D2	INSL	S1	W1	BIDEMICS				NTK CeramiX	Alumina Ceramics					Silicon Nitride Ceramics						Whisker Ceramics				
													PVD	PVD	PVD	PVD		HC1	HW2	HC2	HC4	HC6	HC7	ZC7	SX3	SX5	SX7	SX9	SX6	CVD	SP9	WA1	WA5
(ISO)	°	mm	mm	°	mm	mm	mm	mm	mm	mm	mm	mm	120	JP2	JX1	JX3	450	HC1	HW2	HC2	HC4	HC6	HC7	ZC7	SX3	SX5	SX7	SX9	SX6	CVD	SP9	WA1	WA5
	CNGN120404T01025	T01025	80	12.7	4.76	-	0.4	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	CNGN120408S02025	S02025	80	12.7	4.76	-	0.8	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	CNGN120408T00520	T00520	80	12.7	4.76	-	0.8	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	CNGN120408T00820	T00820	80	12.7	4.76	-	0.8	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	CNGN120408T01020	T01020	80	12.7	4.76	-	0.8	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	CNGN120408T01025	T01025	80	12.7	4.76	-	0.8	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	CNGN120408T02020	T02020	80	12.7	4.76	-	0.8	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	CNGN120408T02025	T02025	80	12.7	4.76	-	0.8	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	CNGN120408Z02025	Z02025	80	12.7	4.76	-	0.8	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	CNGN120412S02025	S02025	80	12.7	4.76	-	1.2	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	CNGN120412T00520	T00520	80	12.7	4.76	-	1.2	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	CNGN120412T00820	T00820	80	12.7	4.76	-	1.2	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	CNGN120412T01020	T01020	80	12.7	4.76	-	1.2	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	CNGN120412T01025	T01025	80	12.7	4.76	-	1.2	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	CNGN120412T02020	T02020	80	12.7	4.76	-	1.2	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	CNGN120412T02025	T02025	80	12.7	4.76	-	1.2	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	CNGN120412Z02025	Z02025	80	12.7	4.76	-	1.2	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	CNGN120416T00520	T00520	80	12.7	4.76	-	1.6	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	CNGN120416T01020	T01020	80	12.7	4.76	-	1.6	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	CNGN120416T02020	T02020	80	12.7	4.76	-	1.6	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	CNGN120416T02025	T02025	80	12.7	4.76	-	1.6	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	CNGN120420T01025	T01025	80	12.7	4.76	-	2	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	CNGN120708T00520	T00520	80	12.7	7.94	-	0.8	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	CNGN120708T02025	T02025	80	12.7	7.94	-	0.8	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	CNGN120712T02025	T02025	80	12.7	7.94	-	1.2	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	CNGN160716T00520	T00520	80	15.875	7.94	-	1.6	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-

CNGX



Steel															
Stainless Steel															
Cast Iron															
Non-Ferrous Material															
Heat Resistant Alloy															
Hardened Material															
Others (non-metallic)															

Shape	Item Number	CECC	EPSR	IC	S	AN	RE	D1	D2	INSL	S1	W1	BIDEMICS				NTK	CeramiX	Alumina Ceramics							Silicon Nitride Ceramics						Whisker Ceramics			
													PVD	PVD	JX1	JX3			PVD	HC1	HW2	HC2	HC4	HC6	HC7	ZC7	SX3	SX5	SX7	SX9	SX6	SP9	CVD	WA1	WA5
(ISO)	°	mm	mm	°	mm	mm	mm	mm	mm	mm	mm	mm	120	JP2	JX1	JX3	450	HC1	HW2	HC2	HC4	HC6	HC7	ZC7	SX3	SX5	SX7	SX9	SX6	SP9	CVD	WA1	WA5		
	CNGX120712T02025	T02025	80	12.7	7.94	-	1.2	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	●	
	CNGX120716T02025	T02025	80	12.7	7.94	-	1.6	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	●		

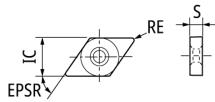


Steel
Stainless Steel
Cast Iron
Non-Ferrous Material
Heat Resistant Alloy
Hardened Material
Others (non-metallic)

Shape	Item Number	CECC	EPSR	IC	S	AN	RE	D1	D2	INSL	S1	W1	BIDEMICS				NTK	CeramiX	Alumina Ceramics							Silicon Nitride Ceramics					Whisker Ceramics					
													PVD	PVD	JP2	JP1			JP3	PVD	HC1	HW2	HC2	HC4	HC6	HC7	PVD	SX3	SX5	SX7	SX9	SX6	CVD	SP9	WA1	WA5
(ISO)			°	mm	mm	°	mm	mm	mm	mm	mm	mm	120	120	450	450	HC1	HW2	HC2	HC4	HC6	HC7	PVD	SX3	SX5	SX7	SX9	SX6	CVD	SP9	WA1	WA5				
	DNGA150404BQE004	E004	55	12.7	4.76	-	0.4	-	-	-	-	-	●																							
	DNGA150404BQT00520	T00520	55	12.7	4.76	-	0.4	-	-	-	-	-	●																							
	DNGA150404S02025	S02025	55	12.7	4.76	-	0.4	-	-	-	-	-											●													
	DNGA150404T01025	T01025	55	12.7	4.76	-	0.4	-	-	-	-	-							●		●		●													
	DNGA150404X01015	X01015	55	12.7	4.76	-	0.4	-	-	-	-	-																								
	DNGA150404X01015-10	X01015	55	12.7	4.76	-	0.4	-	-	-	-	-																								
	DNGA150404Z02025	Z02025	55	12.7	4.76	-	0.4	-	-	-	-	-								●																
	DNGA150408BQE004	E004	55	12.7	4.76	-	0.8	-	-	-	-	-	●																							
	DNGA150408BQT00520	T00520	55	12.7	4.76	-	0.8	-	-	-	-	-	●																							
	DNGA150408S02025	S02025	55	12.7	4.76	-	0.8	-	-	-	-	-							●				●													
	DNGA150408T00520	T00520	55	12.7	4.76	-	0.8	-	-	-	-	-															●									
	DNGA150408T01020	T01020	55	12.7	4.76	-	0.8	-	-	-	-	-																		●						
	DNGA150408T01025	T01025	55	12.7	4.76	-	0.8	-	-	-	-	-								●		●		●												
	DNGA150408T02020	T02020	55	12.7	4.76	-	0.8	-	-	-	-	-																●								
	DNGA150408T02025	T02025	55	12.7	4.76	-	0.8	-	-	-	-	-																								
	DNGA150408X01015	X01015	55	12.7	4.76	-	0.8	-	-	-	-	-															●									
	DNGA150408X01015-10	X01015	55	12.7	4.76	-	0.8	-	-	-	-	-																								
	DNGA150408Z02025	Z02025	55	12.7	4.76	-	0.8	-	-	-	-	-								●																
	DNGA150412BQE004	E004	55	12.7	4.76	-	1.2	-	-	-	-	-	●																							
	DNGA150412BQT00520	T00520	55	12.7	4.76	-	1.2	-	-	-	-	-	●																							
	DNGA150412S02025	S02025	55	12.7	4.76	-	1.2	-	-	-	-	-												●												
	DNGA150412T01020	T01020	55	12.7	4.76	-	1.2	-	-	-	-	-																		●		●				
	DNGA150412T01025	T01025	55	12.7	4.76	-	1.2	-	-	-	-	-							●				●													
	DNGA150412T02020	T02020	55	12.7	4.76	-	1.2	-	-	-	-	-																	●							
	DNGA150412T02025	T02025	55	12.7	4.76	-	1.2	-	-	-	-	-															●									
	DNGA150412X01015	X01015	55	12.7	4.76	-	1.2	-	-	-	-	-																								
	DNGA150412X01015-10	X01015	55	12.7	4.76	-	1.2	-	-	-	-	-																								

Turning Insert D

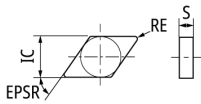
DNGG-AG with chipbreaker



Steel
Stainless Steel
Cast Iron
Non-Ferrous Material
Heat Resistant Alloy
Hardened Material
Others (non-metallic)

Shape	Item Number	CECC	EPSR	IC	S	AN	RE	D1	D2	INSL	S1	W1	BIDEMICS			NTK	CeramiX	Alumina Ceramics							Silicon Nitride Ceramics						Whisker Ceramics					
													PVD	PVD	JX1			JX3	PVD	HC1	HW2	HC2	HC4	HC6	HC7	ZC7	PVD	SX3	SX5	SX7	SX9	SX6	SP9	CVD	WA1	WA5
(ISO)	°	mm	mm	°	mm	mm	mm	mm	mm	mm	mm	120	JP2	JX1	JX3	450	HC1	HW2	HC2	HC4	HC6	HC7	ZC7	PVD	SX3	SX5	SX7	SX9	SX6	SP9	CVD	WA1	WA5			
	DNGG150408Z01030AG	Z01030	55	12.7	4.76	-	0.8	-	-	-	-	-																								
	DNGG150412Z01030AG	Z01030	55	12.7	4.76	-	1.2	-	-	-	-	-																								

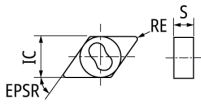
DNGN



Steel
Stainless Steel
Cast Iron
Non-Ferrous Material
Heat Resistant Alloy
Hardened Material
Others (non-metallic)

Shape	Item Number	CECC	EPSR	IC	S	AN	RE	D1	D2	INSL	S1	W1	BIDEMICS				NTK CeramIX	Alumina Ceramics							Silicon Nitride Ceramics					Whisker Ceramics																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																		
													120 PVD	JP2 PVD	JX1	JX3		450 PVD	HC1	HW2	HC2	HC4	HC6	HC7	ZC7 PVD	SX3	SX5	SX7	SX9	SX6	SP9 CVD	WA1	WA5																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																															
(ISO)	°	mm	mm	°	mm	mm	mm	mm	mm	mm	mm	mm	mm	mm	mm	mm	mm	mm	mm	mm	mm	mm	mm	mm	mm	mm	mm	mm	mm	mm	mm	mm	mm	mm	mm	mm	mm	mm	mm	mm	mm	mm	mm	mm	mm	mm	mm	mm	mm	mm	mm	mm	mm	mm	mm	mm	mm	mm	mm	mm	mm	mm	mm	mm	mm	mm	mm	mm	mm	mm	mm	mm	mm	mm	mm	mm	mm	mm	mm	mm	mm	mm	mm	mm	mm	mm	mm	mm	mm	mm	mm	mm	mm	mm	mm	mm	mm	mm	mm	mm	mm	mm	mm	mm	mm	mm	mm	mm	mm	mm	mm	mm	mm	mm	mm	mm	mm	mm	mm	mm	mm	mm	mm	mm	mm	mm	mm	mm	mm	mm	mm	mm	mm	mm	mm	mm	mm	mm	mm	mm	mm	mm	mm	mm	mm	mm	mm	mm	mm	mm	mm	mm	mm	mm	mm	mm	mm	mm	mm	mm	mm	mm	mm	mm	mm	mm	mm	mm	mm	mm	mm	mm	mm	mm	mm	mm	mm	mm	mm	mm	mm	mm	mm	mm	mm	mm	mm	mm	mm	mm	mm	mm	mm	mm	mm	mm	mm	mm	mm	mm	mm	mm	mm	mm	mm	mm	mm	mm	mm	mm	mm	mm	mm	mm	mm	mm	mm	mm	mm	mm	mm	mm	mm	mm	mm	mm	mm	mm	mm	mm	mm	mm	mm	mm	mm	mm	mm	mm	mm	mm	mm	mm	mm	mm	mm	mm	mm	mm	mm	mm	mm	mm	mm	mm	mm	mm	mm	mm	mm	mm	mm	mm	mm	mm	mm	mm	mm	mm	mm	mm	mm	mm	mm	mm	mm	mm	mm	mm	mm	mm	mm	mm	mm	mm	mm	mm	mm	mm	mm	mm	mm	mm	mm	mm	mm	mm	mm	mm	mm	mm	mm	mm	mm	mm	mm	mm	mm	mm	mm	mm	mm	mm	mm	mm	mm	mm	mm	mm	mm	mm	mm	mm	mm	mm	mm	mm	mm	mm	mm	mm	mm	mm	mm	mm	mm	mm	mm	mm	mm	mm	mm	mm	mm	mm	mm	mm	mm	mm	mm	mm	mm	mm	mm	mm	mm	mm	mm	mm	mm	mm	mm	mm	mm	mm	mm	mm	mm	mm	mm	mm	mm	mm	mm	mm	mm	mm	mm	mm	mm	mm	mm	mm	mm	mm	mm	mm	mm	mm	mm	mm	mm	mm	mm	mm	mm	mm	mm	mm	mm	mm	mm	mm	mm	mm	mm	mm	mm	mm	mm	mm	mm	mm	mm	mm	mm	mm	mm	mm	mm	mm	mm	mm	mm	mm	mm	mm	mm	mm	mm	mm	mm	mm	mm	mm	mm	mm	mm	mm	mm	mm	mm	mm	mm	mm	mm	mm	mm	mm	mm	mm	mm	mm	mm	mm	mm	mm	mm	mm	mm	mm	mm	mm	mm	mm	mm	mm	mm	mm	mm	mm	mm	mm	mm	mm	mm	mm	mm	mm	mm	mm	mm	mm	mm	mm	mm	mm	mm	mm	mm	mm	mm	mm	mm	mm	mm	mm	mm	mm	mm	mm	mm	mm	mm	mm	mm	mm	mm	mm	mm	mm	mm	mm	mm	mm	mm	mm	mm	mm	mm	mm	mm	mm	mm	mm	mm	mm	mm	mm	mm	mm	mm	mm	mm	mm	mm	mm	mm	mm	mm	mm	mm	mm	mm	mm	mm	mm	mm	mm	mm	mm	mm	mm	mm	mm	mm	mm	mm	mm	mm	mm	mm	mm	mm	mm	mm	mm	mm	mm	mm	mm	mm	mm	mm	mm	mm	mm	mm	mm	mm	mm	mm	mm	mm	mm	mm	mm	mm	mm	mm	mm	mm	mm	mm	mm	mm	mm	mm	mm	mm	mm	mm	mm	mm	mm	mm	mm	mm	mm	mm	mm	mm	mm	mm	mm	mm	mm	mm	mm	mm	mm	mm	mm	mm	mm	mm	mm	mm	mm	mm	mm	mm	mm	mm	mm	mm	mm	mm	mm	mm	mm	mm	mm	mm	mm	mm	mm	mm	mm	mm	mm	mm	mm	mm	mm	mm	mm	mm	mm	mm	mm	mm	mm	mm	mm	mm	mm	mm	mm	mm	mm	mm	mm	mm	mm	mm	mm	mm	mm	mm	mm	mm	mm	mm	mm	mm	mm	mm	mm	mm	mm	mm	mm	mm	mm	mm	mm	mm	mm	mm	mm	mm	mm	mm	mm	mm	mm	mm	mm	mm	mm	mm	mm	mm	mm	mm	mm	mm	mm	mm	mm	mm	mm	mm	mm	mm	mm	mm	mm	mm	mm	mm	mm	mm	mm	mm	mm	mm	mm	mm	mm	mm	mm	mm	mm	mm	mm	mm	mm	mm	mm	mm	mm	mm	mm	mm	mm	mm	mm	mm	mm	mm	mm	mm	mm	mm	mm	mm	mm	mm	mm	mm	mm	mm	mm	mm	mm	mm	mm	mm	mm	mm	mm	mm	mm	mm	mm	mm	mm	mm	mm	mm	mm	mm	mm	mm	mm	mm	mm	mm	mm	mm	mm	mm	mm	mm	mm	mm	mm	mm	mm	mm	mm	mm	mm	mm	mm	mm	mm	mm	mm	mm	mm	mm	mm	mm	mm	mm	mm	mm	mm	mm	mm	mm	mm	mm	mm	mm	mm	mm	mm	mm	mm	mm	mm	mm	mm	mm	mm	mm	mm	mm	mm	mm	mm	mm	mm	mm	mm	mm	mm	mm	mm	mm	mm	mm	mm	mm	mm	mm	mm	mm	mm	mm	mm	mm	mm	mm	mm	mm	mm	mm	mm	mm	mm	mm	mm	mm	mm	mm	mm	mm	mm	mm	mm	mm	mm	mm	mm	mm	mm	mm	mm	mm	mm	mm	mm	mm	mm	mm	mm	mm	mm	mm	mm	mm	mm	mm	mm	mm	mm	mm	mm	mm	mm	mm	mm	mm	mm	mm	mm	mm	mm	mm	mm	mm	mm	mm	mm	mm	mm	mm	mm	mm	mm	mm	mm	mm	mm	mm	mm	mm	mm	mm	mm	mm	mm	mm	mm	mm	mm	mm	mm	mm	mm	mm	mm	mm	mm	mm	mm	mm	mm	mm	mm	mm	mm	mm	mm	mm	mm	mm	mm	mm	mm	mm	mm	mm	mm	mm	mm	mm	mm	mm	mm	mm	mm	mm	mm	mm	mm	mm	mm	mm	mm	mm	mm	mm	mm	mm	mm	mm	mm	mm	mm	mm	mm	mm	mm	mm	mm	mm	mm	mm	mm

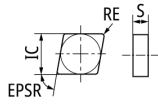
DNGX



Steel
Stainless Steel
Cast Iron
Non-Ferrous Material
Heat Resistant Alloy
Hardened Material
Others (non-metallic)

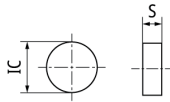
Shape	Item Number												BIDEMICS				NTK CeramIX	Alumina Ceramics							Silicon Nitride Ceramics						Whisker Ceramics			
	CECC	EPSR	IC	S	AN	RE	D1	D2	INSL	S1	W1					PVD									PVD							CVD		
													120	JP2	JX1	JX3	450	HC1	HW2	HC2	HC4	HC6	HC7	ZC7	SX3	SX5	SX7	SX9	SX6	SP9	WA1	WA5		
		(ISO)	°	mm	mm	°	mm	mm	mm	mm	mm	mm																						
	DNGX150716T02025	T02025	55	12.7	7.94	-	1.6	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	●		

ENGX



Steel
Stainless Steel
Cast Iron
Non-Ferrous Material
Heat Resistant Alloy
Hardened Material
Others (non-metallic)

Shape	Item Number	CECC	EPSR	IC	S	AN	RE	D1	D2	INSL	S1	W1	BIDEMICS				NTK CeramIX	Alumina Ceramics							Silicon Nitride Ceramics					Whisker Ceramics				
													PVD	PVD	JX1	JX3		PVD	HC1	HW2	HC2	HC4	HC6	HC7	PVD	SX3	SX5	SX7	SX9	SX6	CVD	WA1	WA5	
(ISO)	°	mm	mm	°	mm	mm	mm	mm	mm	mm	mm	mm	120	JP2	JX1	JX3	450	HC1	HW2	HC2	HC4	HC6	HC7	ZC7	SX3	SX5	SX7	SX9	SX6	SP9	CVD	WA1	WA5	
	ENGX130708T02025	T02025	75	12.7	7.94	-	0.8	-	-	-	-	-																						
	ENGX130712T02025	T02025	75	12.7	7.94	-	1.2	-	-	-	-	-																						

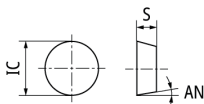


Steel
Stainless Steel
Cast Iron
Non-Ferrous Material
Heat Resistant Alloy
Hardened Material
Others (non-metallic)

Shape	Item Number	CECC	EPSR	IC	S	AN	RE	D1	D2	INSL	S1	W1	BIDEMICS				NTK Ceramix	Alumina Ceramics					Silicon Nitride Ceramics						Whisker Ceramics										
													PVD	PVD	JX1	JX3		450	PVD	HC1	HW2	HC2	HC4	HC6	HC7	ZC7	PVD	SX3	SX5	SX7	SX9	SX6	SP9	CVD	WA1	WA5			
(ISO)	°	mm	mm	°	mm	mm	mm	mm	mm	mm	mm	mm	120	JP2	JP2	JX1	JX3	450	PVD	HC1	HW2	HC2	HC4	HC6	HC7	ZC7	PVD	SX3	SX5	SX7	SX9	SX6	SP9	CVD	WA1	WA5			
	RNGN120400S02025	S02025	-	12.7	4.76	-	-	-	-	-	-	-																											
	RNGN120400T00520	T00520	-	12.7	4.76	-	-	-	-	-	-	-																											
	RNGN120400T00525	T00525	-	12.7	4.76	-	-	-	-	-	-	-																											
	RNGN120400T00820	T00820	-	12.7	4.76	-	-	-	-	-	-	-																											
	RNGN120400T01020	T01020	-	12.7	4.76	-	-	-	-	-	-	-																											
	RNGN120400T01025	T01025	-	12.7	4.76	-	-	-	-	-	-	-																											
	RNGN120400T02020	T02020	-	12.7	4.76	-	-	-	-	-	-	-																											
	RNGN120400T02025	T02025	-	12.7	4.76	-	-	-	-	-	-	-																											
	RNGN120400Z02025	Z02025	-	12.7	4.76	-	-	-	-	-	-	-																											
	RNGN120700E002	E002	-	12.7	7.94	-	-	-	-	-	-	-																											
	RNGN120700E004	E004	-	12.7	7.94	-	-	-	-	-	-	-																											
	RNGN120700E007	E007	-	12.7	7.94	-	-	-	-	-	-	-																											
	RNGN120700K20015	K20015	-	12.7	7.94	-	-	-	-	-	-	-																											
	RNGN120700S02025	S02025	-	12.7	7.94	-	-	-	-	-	-	-																											
	RNGN120700T00520	T00520	-	12.7	7.94	-	-	-	-	-	-	-																											
	RNGN120700T00525	T00525	-	12.7	7.94	-	-	-	-	-	-	-																											
	RNGN120700T00820	T00820	-	12.7	7.94	-	-	-	-	-	-	-																											
	RNGN120700T01020	T01020	-	12.7	7.94	-	-	-	-	-	-	-																											
	RNGN120700T02025	T02025	-	12.7	7.94	-	-	-	-	-	-	-																											
	RNGN120700Z01520	Z01520	-	12.7	7.94	-	-	-	-	-	-	-																											
	RNGN120700Z02025	Z02025	-	12.7	7.94	-	-	-	-	-	-	-																											
	RNGN150700T00520	T00520	-	15.875	7.94	-	-	-	-	-	-	-																											
	RNGN150700T00525	T00525	-	15.875	7.94	-	-	-	-	-	-	-																											
	RNGN150700T00820	T00820	-	15.875	7.94	-	-	-	-	-	-	-																											
	RNGN190700K20015	K20015	-	19.05	7.94	-	-	-	-	-	-	-																											
	RNGN190700T00520	T00520	-	19.05	7.94	-	-	-	-	-	-	-																											
	RNGN190700T00525	T00525	-	19.05	7.94	-	-	-	-	-	-	-																											
	RNGN190700T00820	T00820	-	19.05	7.94	-	-	-	-	-	-	-																											
	RNGN190700T01020	T01020	-	19.05	7.94	-	-	-	-	-	-	-																											
	RNGN250700T00520	T00520	-	25.4	7.94	-	-	-	-	-	-	-																											
	RNGN250700T00820	T00820	-	25.4	7.94	-	-	-	-	-	-	-																											

Turning Insert

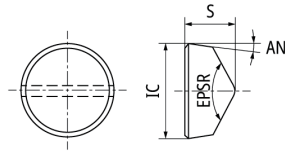
D



Steel
Stainless Steel
Cast Iron
Non-Ferrous Material
Heat Resistant Alloy
Hardened Material
Others (non-metallic)

Shape	Item Number	CECC	EPSR	IC	S	AN	RE	D1	D2	INSL	S1	W1	BIDEMICS				NTK Ceramix	Alumina Ceramics				Silicon Nitride Ceramics					Whisker Ceramics																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																	
													PVD	PVD	JX1	JX3		450	HC1	HW2	HC2	HC4	HC6	HC7	ZC7	SX3	SX5	SX7	SX9	SX6	SP9	CVD	WA1	WA5																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																										
(ISO)	°	mm	mm	°	mm	mm	mm	mm	mm	mm	mm	120	JP2	JP2	JP2	JP2	HC1	HW2	HC2	HC4	HC6	HC7	ZC7	SX3	SX5	SX7	SX9	SX6	SP9	CVD	WA1	WA5																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																												
	RPGN060200T00520	T00520	-	6.35	2.38	11	-	-	-	-	-	-																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																

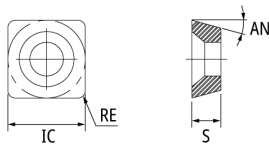
RPGX



Steel
Stainless Steel
Cast Iron
Non-Ferrous Material
Heat Resistant Alloy
Hardened Material
Others (non-metallic)

Shape	Item Number	CECC	EPSR	IC	S	AN	RE	D1	D2	INSL	S1	W1	BIDEMICS				NTK CeramiX	Alumina Ceramics							Silicon Nitride Ceramics					Whisker Ceramics																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																								
													PVD	PVD	PVD	PVD		HC1	HW2	HC2	HC4	HC6	HC7	ZC7	SX3	SX5	SX7	SX9	SX6	SP9	CVD	WA1	WA5																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																					
(ISO)	°	mm	mm	°	mm	mm	mm	mm	mm	mm	mm	mm	120	JP2	JX1	JX3	450	HC1	HW2	HC2	HC4	HC6	HC7	ZC7	SX3	SX5	SX7	SX9	SX6	SP9	CVD	WA1	WA5																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																					
	RPGX060400T00520	T00520	120	6.35	4.76	11	-	-	-	-	-	-																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																										

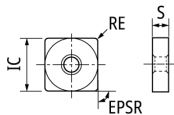
SDCW



Steel
Stainless Steel
Cast Iron
Non-Ferrous Material
Heat Resistant Alloy
Hardened Material
Others (non-metallic)

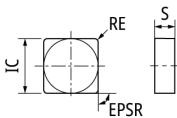
Shape	Item Number		EPSR	IC	S	AN	RE	D1	D2	INSL	S1	W1	BIDEMICS				NTK Ceramix	Alumina Ceramics				Silicon Nitride Ceramics				Whisker Ceramics								
		CECC											PVD	PVD		PVD																		
	(ISO)		°	mm	mm	°	mm	mm	mm	mm	mm	mm	120	JP2	JX1	JX3	450	HC1	HW2	HC2	HC4	HC6	HC7	ZC7	SX3	SX5	SX7	SX9	SX6	SP9	CVD	WA1	WA5	
	SDCW120408T01020	T01020	90	12.7	4.76	15	0.8	5.5	-	-	-	-																						

SNGA



Steel
Stainless Steel
Cast Iron
Non-Ferrous Material
Heat Resistant Alloy
Hardened Material
Others (non-metallic)

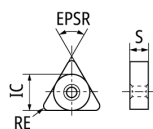
Shape	Item Number	CECC	EPSR	IC	S	AN	RE	D1	D2	INSL	S1	W1	BIDEMICS				NTK Ceramix	Alumina Ceramics				Silicon Nitride Ceramics					Whisker Ceramics						
													PVD	PVD	JX1	JX3		PVD	HC1	HW2	HC2	HC4	HC6	HC7	ZC7	SX3	SX5	SX7	SX9	SX6	SP9	WA1	WA5
(ISO)	°	mm	mm	°	mm	mm	mm	mm	mm	mm	mm	120	JP2	JP2	450	HC1	HW2	HC2	HC4	HC6	HC7	ZC7	SX3	SX5	SX7	SX9	SX6	SP9	WA1	WA5			
	SNGA120408S02025	S02025	90	12.7	4.76	-	0.8	-	-	-	-	-																					
	SNGA120408T01025	T01025	90	12.7	4.76	-	0.8	-	-	-	-	-																					
	SNGA120408T02020	T02020	90	12.7	4.76	-	0.8	-	-	-	-	-																					
	SNGA120412S02025	S02025	90	12.7	4.76	-	1.2	-	-	-	-	-																					
	SNGA120412T01025	T01025	90	12.7	4.76	-	1.2	-	-	-	-	-																					
	SNGA120412T02020	T02020	90	12.7	4.76	-	1.2	-	-	-	-	-																					
	SNGA120416T02020	T02020	90	12.7	4.76	-	1.6	-	-	-	-	-																					



	Steel
Stainless Steel	
Cast Iron	☒ ☒ ☒ ☒ ☐ ☐ ☐ ☐ ☒ ☒ ☐ ☐
Non-Ferrous Material	
Heat Resistant Alloy	☒ ☒ ☒ ☒ ☐ ☐ ☒ ☒ ☒ ☒ ☐ ☒ ☒
Hardened Material	☒ ☐ ☒ ☐ ☒ ☒
Others (non-metallic)	

[illegible]

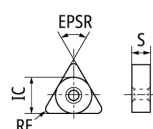
Turning Insert

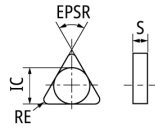
[illegible][illegible]

Turning Insert

D

■ TNGG-AG with chipbreaker

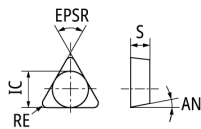
[illegible][illegible]



Steel
Stainless Steel
Cast Iron
Non-Ferrous Material
Heat Resistant Alloy
Hardened Material
Others (non-metallic)

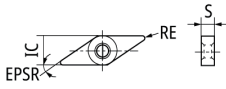
Shape	Item Number	CECC	EPSR	IC	S	AN	RE	D1	D2	INSL	S1	W1	BIDEMICS				NTK	CeramiX	Alumina Ceramics							Silicon Nitride Ceramics					Whisker Ceramics			
														PVD	PVD	JX1	JX3		PVD	HC1	HW2	HC2	HC4	HC6	HC7	PVD	SX3	SX5	SX7	SX9	SX6	SP9	WA1	WA5
	(ISO)	°	mm	mm	°	mm	mm	mm	mm	mm	mm	mm	120	JP2	JP2	JX1	JX3	450	HC1	HW2	HC2	HC4	HC6	HC7	PVD	SX3	SX5	SX7	SX9	SX6	SP9	WA1	WA5	
	TNGN110308T00525	T00525	60	6.35	3.18	-	0.8	-	-	-	-	-																						
	TNGN160304T01025	T01025	60	9.525	3.18	-	0.4	-	-	-	-	-																						
	TNGN160404T01025	T01025	60	9.525	4.76	-	0.4	-	-	-	-	-																						
	TNGN160404Z02025	Z02025	60	9.525	4.76	-	0.4	-	-	-	-	-																						
	TNGN160408S02025	S02025	60	9.525	4.76	-	0.8	-	-	-	-	-																						
	TNGN160408T00820	T00820	60	9.525	4.76	-	0.8	-	-	-	-	-																						
	TNGN160408T01020	T01020	60	9.525	4.76	-	0.8	-	-	-	-	-																						
	TNGN160408T01025	T01025	60	9.525	4.76	-	0.8	-	-	-	-	-																						
	TNGN160408T02020	T02020	60	9.525	4.76	-	0.8	-	-	-	-	-																						
	TNGN160408T02025	T02025	60	9.525	4.76	-	0.8	-	-	-	-	-																						
	TNGN160408Z02025	Z02025	60	9.525	4.76	-	0.8	-	-	-	-	-																						
	TNGN160412S02025	S02025	60	9.525	4.76	-	1.2	-	-	-	-	-																						
	TNGN160412T00820	T00820	60	9.525	4.76	-	1.2	-	-	-	-	-																						
	TNGN160412T01020	T01020	60	9.525	4.76	-	1.2	-	-	-	-	-																						
	TNGN160412T01025	T01025	60	9.525	4.76	-	1.2	-	-	-	-	-																						
	TNGN160412T02020	T02020	60	9.525	4.76	-	1.2	-	-	-	-	-																						
	TNGN160412T02025	T02025	60	9.525	4.76	-	1.2	-	-	-	-	-																						
	TNGN160412Z02025	Z02025	60	9.525	4.76	-	1.2	-	-	-	-	-																						
	TNGN160416T01020	T01020	60	9.525	4.76	-	1.6	-	-	-	-	-																						
	TNGN160416T01025	T01025	60	9.525	4.76	-	1.6	-	-	-	-	-																						
	TNGN160416T02020	T02020	60	9.525	4.76	-	1.6	-	-	-	-	-																						
	TNGN160416T02025	T02025	60	9.525	4.76	-	1.6	-	-	-	-	-																						
	TNGN160420T01025	T01025	60	9.525	4.76	-	2	-	-	-	-	-																						
	TNGN160420T02020	T02020	60	9.525	4.76	-	2	-	-	-	-	-																						
	TNGN160708T02025	T02025	60	9.525	7.94	-	0.8	-	-	-	-	-																						
	TNGN160712T02025	T02025	60	9.525	7.94	-	1.2	-	-	-	-	-																						
	TNGN220416T00520	T00520	60	12.7	4.76	-	1.6	-	-	-	-	-																						
	TNGN220716T00520	T00520	60	12.7	7.94	-	1.6	-	-	-	-	-																						

TPGN



Steel
Stainless Steel
Cast Iron
Non-Ferrous Material
Heat Resistant Alloy
Hardened Material
Others (non-metallic)

Shape	Item Number	CECC	EPSR	IC	S	AN	RE	D1	D2	INSL	S1	W1	BIDEMICS				NTK	CeramiX	Alumina Ceramics							Silicon Nitride Ceramics					Whisker Ceramics		
														PVD	PVD		PVD		HC1	HW2	HC2	HC4	HC6	HC7	PVD	SX3	SX5	SX7	SX9	SX6	SP9	WA1	WA5
	(ISO)	°	mm	mm	°	mm	mm	mm	mm	mm	mm	mm	120	JP2	JP1	JP3	450																
	TPGN090204T00525	T00525	60	5.56	2.38	11	0.4	-	-	-	-	-																					
	TPGN090208T00525	T00525	60	5.56	2.38	11	0.8	-	-	-	-	-																					
	TPGN110304T00525	T00525	60	6.35	3.18	11	0.4	-	-	-	-	-																					
	TPGN110304T01025	T01025	60	6.35	3.18	11	0.4	-	-	-	-	-																					
	TPGN110308T00525	T00525	60	6.35	3.18	11	0.8	-	-	-	-	-																					
	TPGN110308T01025	T01025	60	6.35	3.18	11	0.8	-	-	-	-	-																					
	TPGN160304T01025	T01025	60	9.525	3.18	11	0.4	-	-	-	-	-																					
	TPGN160304Z01025	Z01025	60	9.525	3.18	11	0.4	-	-	-	-	-																					
	TPGN160308T01025	T01025	60	9.525	3.18	11	0.8	-	-	-	-	-																					
	TPGN160308Z01025	Z01025	60	9.525	3.18	11	0.8	-	-	-	-	-																					
	TPGN160312T01025	T01025	60	9.525	3.18	11	1.2	-	-	-	-	-																					

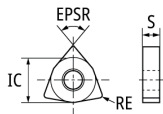


Steel
Stainless Steel
Cast Iron
Non-Ferrous Material
Heat Resistant Alloy
Hardened Material
Others (non-metallic)

Shape	Item Number (ISO)	CECC	EPSR °	IC mm	S mm	AN °	RE mm	D1 mm	D2 mm	INSL mm	S1 mm	W1 mm	BIDEMICS				NTK CeramiX	Alumina Ceramics							Silicon Nitride Ceramics					Whisker Ceramics		
													PVD	PVD				HC1	HW2	HC2	HC4	HC6	HC7	ZC7	SX3	SX5	SX7	SX9	SX6	SP9	WA1	WA5
													120	JP2	JX1	JX3	450															
	VNGA160404BQE004	E004	35	9.525	4.76	-	0.4	-	-	-	-	-	●																			
	VNGA160404BQT00520	T00520	35	9.525	4.76	-	0.4	-	-	-	-	-	●																			
	VNGA160404S02025	S02025	35	9.525	4.76	-	0.4	-	-	-	-	-											●									
	VNGA160404T01020	T01020	35	9.525	4.76	-	0.4	-	-	-	-	-																				
	VNGA160404T01025	T01025	35	9.525	4.76	-	0.4	-	-	-	-	-											●									
	VNGA160404X01015	X01015	35	9.525	4.76	-	0.4	-	-	-	-	-					●															
	VNGA160404X01015-10	X01015	35	9.525	4.76	-	0.4	-	-	-	-	-					●															
	VNGA160404Z02025	Z02025	35	9.525	4.76	-	0.4	-	-	-	-	-											●									
	VNGA160408BQE004	E004	35	9.525	4.76	-	0.8	-	-	-	-	-	-	●																		
	VNGA160408BQT00520	T00520	35	9.525	4.76	-	0.8	-	-	-	-	-	-	●																		
	VNGA160408S02025	S02025	35	9.525	4.76	-	0.8	-	-	-	-	-												●								
	VNGA160408T00520	T00520	35	9.525	4.76	-	0.8	-	-	-	-	-																				
	VNGA160408T01020	T01020	35	9.525	4.76	-	0.8	-	-	-	-	-																				
	VNGA160408T01025	T01025	35	9.525	4.76	-	0.8	-	-	-	-	-												●								
	VNGA160408X01015	X01015	35	9.525	4.76	-	0.8	-	-	-	-	-						●														
	VNGA160408X01015-10	X01015	35	9.525	4.76	-	0.8	-	-	-	-	-						●														
	VNGA160408Z02025	Z02025	35	9.525	4.76	-	0.8	-	-	-	-	-												●								
	VNGA160412BQT00520	T00520	35	9.525	4.76	-	1.2	-	-	-	-	-	-	●																		
	VNGA160412S02025	S02025	35	9.525	4.76	-	1.2	-	-	-	-	-												●								
	VNGA160412T01020	T01020	35	9.525	4.76	-	1.2	-	-	-	-	-																				
	VNGA160412T01025	T01025	35	9.525	4.76	-	1.2	-	-	-	-	-													●							
	VNGA160412X01015	X01015	35	9.525	4.76	-	1.2	-	-	-	-	-						●														
	VNGA160412X01015-10	X01015	35	9.525	4.76	-	1.2	-	-	-	-	-						●														
	VNGA160412Z02025	Z02025	35	9.525	4.76	-	1.2	-	-	-	-	-													●							
	VNGA220424T01020	T01020	35	12.7	4.76	-	2.4	-	-	-	-	-																				

Turning Insert
D

WNGA



Steel
Stainless Steel
Cast Iron
Non-Ferrous Material
Heat Resistant Alloy
Hardened Material
Others (non-metallic)

Shape	Item Number (ISO)	CECC	EPSR °	IC mm	S mm	AN °	RE mm	D1 mm	D2 mm	INSL mm	S1 mm	W1 mm	BIDEMICS				NTK CeramiX PVD	Alumina Ceramics							Silicon Nitride Ceramics					Whisker Ceramics																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																
													PVD	PVD	JX1	JX3		450	HC1	HW2	HC2	HC4	HC6	HC7	ZC7	SX3	SX5	SX7	SX9	SX6	SP9	WA1	WA5																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																													
	WNGA080408T00520	T00520	80	12.7	4.76	-	0.8	-	-	-	-	-																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																		