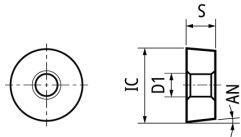


BIDEMICS / Ceramics / NTK CeramiX

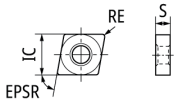
CDH



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

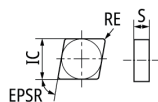
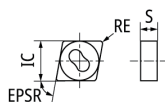
Shape	Item Number	CECC	EPSR	IC	S	AN	RE	D1	D2	INSL	S1	W1	BIDEMICS			NTK CeramiX	Alumina Ceramics			Silicon Nitride Ceramics			Whisker Ceramics										
													PVD	PVD			PVD			PVD													
													120	JP2	JX1		JX3	450	HC1	HW2	HC2	HC4	HC6	HC7	ZC7	SX3	SX5	SX7	SX9	SX6	SP9	WA1	WA5
	CDH1207P07010	P07010	-	12.7	6.35	6	-	3.18	-	-	-	-																					
	CDH1909P15015	P15015	-	19.05	9.52	6	-	6.35	-	-	-	-																					

CNGA



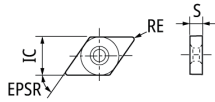
Steel																
Stainless Steel																
Cast Iron																
Non-Ferrous Material																
Heat Resistant Alloy																
Hardened Material																
Others (non-metallic)																

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	JX1	JX3		PVD	HC1	HW2	HC2	HC4	HC6	HC7	ZC7	SX3	SX5	SX7	SX9	SX6	SP9	CVD	WA1	WA5
													120	JP2	JP2	JP2		450	HC1	HW2	HC2	HC4	HC6	HC7	ZC7	SX3	SX5	SX7	SX9	SX6	SP9	CVD	WA1	WA5
	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	-	-	-	-	-																						

[illegible][illegible]**CNGX**[illegible]

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	CVD	SP9	WA1	WA5
(ISO)	°	mm	mm	°	mm	mm	mm	mm	mm	mm	120	JP2	450	HC1	HW2	HC2	HC4	HC6	HC7	ZC7	SX3	SX5	SX7	SX9	SX6	SP9	WA1	WA5							
	CNGX120712T02025	T02025	80	12.7	7.94	-	1.2	-	-	-	-	-	120	JP2	450	HC1	HW2	HC2	HC4	HC6	HC7	ZC7	SX3	SX5	SX7	SX9	SX6	SP9	WA1	WA5					
	CNGX120716T02025	T02025	80	12.7	7.94	-	1.6	-	-	-	-	-	120	JP2	450	HC1	HW2	HC2	HC4	HC6	HC7	ZC7	SX3	SX5	SX7	SX9	SX6	SP9	WA1	WA5					



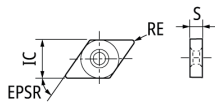


Steel
Stainless Steel
Cast Iron
Non-Ferrous Material
Heat Resistant Alloy
Hardened Material
Others (non-metallic)

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	PVD	SX3	SX5	SX7	SX9	SX6	SP9	WA1	WA5	
(ISO)			°	mm	mm	°	mm	mm	mm	mm	mm	mm	120	JP2	JX1	JX3	450																		
	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

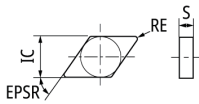
DNGG-AG with chipbreaker



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	-	-	-	-	-																								

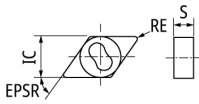
DNGN



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	mm	mm	mm	mm	mm	mm	mm

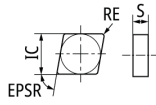
DNGX



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

Shape	Item Number		EPSR	IC	S	AN	RE	D1	D2	INSL	S1	W1	BIDEMICS				NTK CeramIX	Alumina Ceramics							Silicon Nitride Ceramics						Whisker Ceramics																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																											
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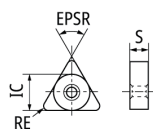
ENGX



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	-	-	-	-	-																						

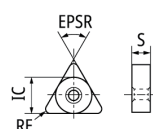
D
Turning Insert

[illegible][illegible]

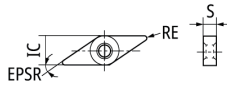
Turning Insert

D

■ TNGG-AG with chipbreaker

[illegible][illegible]

[illegible][illegible]

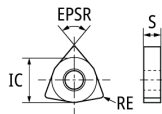


Steel	
Stainless Steel	
Cast Iron	● ● ● ● ○ ○ ○ ○ ● ● ○ ○
Non-Ferrous Material	
Heat Resistant Alloy	● ● ● ● ● ● ● ● ● ● ● ● ● ● ● ●
Hardened Material	● ○ ● ● ● ●
Others (non-metallic)	

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				HC1	HW2	HC2	HC4	HC6	HC7	ZC7	SX3	SX5	SX7	SX9	SX6	SP9	WA1	WA5
	(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	WA1	WA5
	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	CECC	EPSR	IC	S	AN	RE	D1	D2	INSL	S1	W1	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
	(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	WA1	WA5
	WNGA080408T00520	T00520	80	12.7	4.76	-	0.8	-	-	-	-	-																				●
	WNGA080408T01020	T01020	80	12.7	4.76	-	0.8	-	-	-	-	-																		●		
	WNGA080408T02020	T02020	80	12.7	4.76	-	0.8	-	-	-	-	-																	●			
	WNGA080412T00520	T00520	80	12.7	4.76	-	1.2	-	-	-	-	-																				●
	WNGA080412T01020	T01020	80	12.7	4.76	-	1.2	-	-	-	-	-																			●	
	WNGA080412T02020	T02020	80	12.7	4.76	-	1.2	-	-	-	-	-																	●			
	WNGA080416T02020	T02020	80	12.7	4.76	-	1.6	-	-	-	-	-																	●			