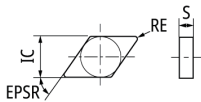


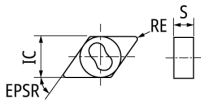
DNGN



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	mm	mm	mm	mm	mm	mm	mm	mm	mm	mm	mm	mm	mm	mm	mm	mm	mm	mm	mm	mm	mm	mm	mm	mm	mm	mm	mm	mm	mm	mm	mm	mm	mm	mm	mm	mm	mm	mm	mm	mm	mm	mm	mm	mm	mm	mm	mm	

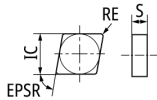
DNGX



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

Shape	Item Number	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																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																			
	DNGX150716T02025	T02025	55	12.7	7.94	-	1.6	-	-	-	-	-																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																								</

ENGN



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	120	JP2	JX1	JX3	450	HC1	HW2	HC2	HC4	HC6	HC7	ZC7	SX3	SX5	SX7	SX9	SX6	SP9	WA1	WA5	
	ENGN130708T02025	T02025	75	12.7	7.94	-	0.8	-	-	-	-	-																					
	ENGN130712T02025	T02025	75	12.7	7.94	-	1.2	-	-	-	-	-																					

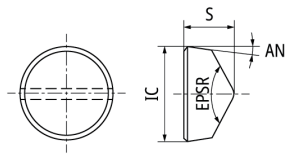
Shape	Item Number	CECC	EPSR	IC	S	AN	RE	D1	D2	INSL	S1	W1	BIDEMICS				NTK CeramiX	Alumina Ceramics				Silicon Nitride Ceramics						Whisker Ceramics							
													PVD	PVD	JX1	JX3		PVD	HC1	HW2	HC2	HC4	HC6	HC7	ZC7	SX3	SX5	SX7	SX9	SX6	SP9	CVD	WA1	WA5	
(ISO)	°	mm	mm	°	mm	mm	mm	mm	mm	mm	mm	120	JP2	PVD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

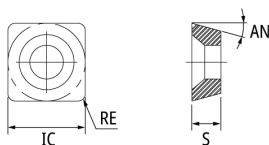
[illegible]

RPGX

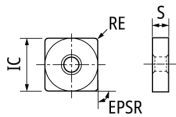
Material	Steel	Stainless Steel	Cast Iron	Non-Ferrous	Heat Resistant Alloy	Hardened Material	Others (non-metallic)

[illegible]

SDCW



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

[illegible]**SNGA**

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

[illegible]