

Grade Selection

Grade	ISO	Features	Coating Type	Coating
NC3120	P15 ~ P30	Medium to roughing of steel. Excellent all round fracture resistance, wear resistance and heat resistance.	CVD	TiCN
NC3030	P25 ~ P35 M15 ~ M25	For general and roughing operations in steel and stainless. Toughest grade for highest chipping resistance.	CVD	TiN
NC9025	P25 ~ P35 M20 ~ M35 K15 ~ K30 S15 ~ S30	'Super universal grade for machining steel, stainless, exotics and cast iron.	CVD	TiN
NC9020	M10 ~ M20	High speed cutting of stainless steel. Excellent heat resistance for long tool life.	CVD	TiN
PC9030	M20 ~ M35	Stainless steel grade for medium, roughing and heavy interrupted cutting. Ultra-tough for stable tool life.	PVD	TiAlN
PC8110	M01 ~ M10 S01 ~ S20	Highly wear resistant PVD grade for machining of exotic materials and high speed finishing of stainless steel.	PVD	New TiAlN
NC6110	K05 ~ K15	General cutting for grey cast iron and ductile cast iron.	CVD	TiCN
PC230	P20~P30 M20~M30	For finishing operations on steel & stainless when combined with AK chipbreaker.	PVD	TiAlN
H01	K10 ~ K20	Highly polished uncoated grade for general cutting of aluminium, cast iron and unferrous materials.	Uncoated	Polished
CN2000	P10 ~ P20	Wide range from finishing to roughing of steel. High hardness cermet grade for highest wear resistance.	Cermet	-

Selection System

P						M				K				S		
P01	P10	P20	P30	P40	P50	M10	M20	M30	M40	K01	K10	K20	K30	S01	S10	S20
		NC3120					NC9020									
		NC3030					NC3030			NC6110					PC8110	
		NC9025					NC9025				NC9025				NC9025	
		PC230					PC230									
	CN2000						PC8110			H01						
							PC9030									

Recommended Cutting Speeds

Workpiece / ISO	Machining type	Recommended Grade	Recommended Cutting Speed vc (m/min)
P Steel	Continuous	NC3120	250 (150~350)
		NC9025	250 (80~300)
	Interrupted	NC9025	180 (50~220)
		NC3030	150 (100~200)
M Stainless Steel	Continuous	NC9020	200 (150~250)
		PC8110	250 (120~280)
		PC9030	130 (50~180)
		NC9025	180 (80~220)
	Interrupted	NC3030	140 (100~200)
		PC9030	130 (50~180)
S Exotics	Continuous	PC8110	60 (50~80)
		NC9025	40 (15~80)
	Interrupted	PC8110	60 (50~80)
		NC9025	40 (15~80)
K Cast Iron	Continuous	NC6110	350 (250~450)
		NC9025	240 (100~280)
	Interrupted	NC6110	300 (200~350)
		NC9025	150 (75~200)
Aluminium	General	H01	500 (300~800)












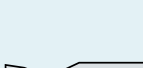


CBN & PCD Turning Inserts




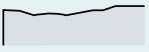


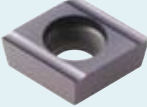
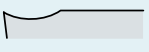


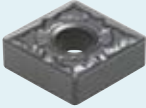



For ultra high speed turning of **Aluminium, Copper, Bronze, Wood, Stone, Graphite & Rubber** please see our PCD turning range on pages D25~D26 for ultimate tool life and performance.

For high speed turning of **Hardened Steels, Cast Iron & Heat Resistant Alloys**, please see our CBN turning range on pages D22~D24 for ultimate tool life and performance.

Turning Chip Breaker Guide

Chip breaker	Cutting Edge	Application Range											Features & application	
		Feed rate (mm/rev)												
		0.04	0.1	0.16	0.25	0.4	0.63	1	1.6	2.5	4	6.3		
Depth of cut (mm)														
		0.1	0.16	0.25	0.4	0.63	1	1.6	2.5	4	6.3	10	11.6	
AK 		0.03~0.5				0.1~5.0							Aluminium cutting High rake angle and low cutting resistance. High speed cutting with fantastic chip control. Also great for finishing steel and stainless with grade PC230.	
B25 							0.5~1.0			4.0~10.0			General cutting Suitable for wide range of general machining conditions.	
C25 				0.1~0.3			1.0~3.0							Medium cutting All round general purpose chip breaker for positive style inserts.
GH 							0.3~1.3			3.0~11.0			Heavy duty Strong cutting edge for heavy duty operations.	
GS 					0.15~0.5			1.5~5.5						Medium/roughing stainless Exclusive chip breaker for stainless steel.
HA 				0.1~0.4			0.8~3.5							Light alloy / stainless High rake chip breaker providing positive cutting action on negative style insert. Ideal for finishing steel, stainless and general cutting of aluminium.
HMP 		0.05~0.4				0.5~3.5							Medium cutting First choice all round chip breaker for steel, stainless, cast iron & exotic machining on positive style inserts.	

Turning Chip Breaker Guide

Chip breaker	Cutting Edge	Application Range											Features & application
		Feed rate (mm/rev)											
		0.04	0.063	0.1	0.16	0.25	0.4	0.63	1	1.6	2.5	4	
Depth of cut (mm)													
0.1	0.16	0.25	0.4	0.63	1	1.6	2.5	4	6.3	10	11.6		
HR 													Roughing
HS 													Medium cutting stainless
KM 													Medium to finishing
LW 													Wiper cutting
VM 													Medium cutting
VQ 													Medium to finishing