STREULI technologies

nikkoTOOLS

2023 CATALOGUE

CATALOGUE 2023

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1 TURNING 2 Indexable inserts · 3 CARBIDE

nikkoTOOLS

4 **CC**

ISO - with hole

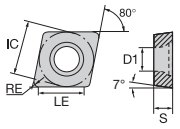
- The most popular insert shape due to high versatility
- Clearance angle 7°, less likely to have chip jamming when boring
- 80° corner can be used for both turning and facing operations

7 HC: Coated carbide
HT: Cermet
HF: Micrograin carbide
CVD: Chemical vapour deposition
PVD: Physical vapour deposition

8 ● 1st choice ○ suitable

	JC7010	JC7020	JC8005	JC8015	JC8025	JC9010	JC9025	JP4020	JP5015	JP5120	JP5125	JP6010	JU4015	JU6015
	HC CVD	HC CVD	HC CVD	HC CVD	HC CVD	HC CVD	HC CVD	HT PVD	HF PVD	HF PVD	HF PVD	HF PVD	HT	HF
Stable machining, light cut	●	○	●	●	○	●	○	●	●	●	○	●	●	●
General machining, medium cut	●	○		●	●	○	●	○	●	●	●	○		●
Unstable machining, heavy cut	●	●			○		○				●			○

Dimensions



2 edges

9 **Vc(m/min) - suggested cutting speed range** (bold: 1st choice)

ISO	JC7010	JC7020	JC8005	JC8015	JC8025	JC9010	JC9025	JP4020	JP5015	JP5120	JP5125	JP6010	JU4015	JU6015
P			200 380	180 360	140 300			200 400	80 220	60 200	60 180		200 380	
M						150 280	120 240	160 300	80 160	60 140	60 120			
K	180 380	150 300						200 400		80 170	80 150			
N												600 2000		500 1500
S									30 90	30 70	30 60	50 100		
H														

6 5 10

	Designation		RE	IC	S	D1	LE	Stock													
FINISHING	PPF P M ground chipbreaker right-hand shown	CCET060202$^{2}/_{R}$-PPF	0.2	6.35	2.38	2.8	6.2										●		○		
		CCET060204$^{4}/_{R}$-PPF	0.4	6.35	2.38	2.8	6										●		●		
		CCET09T302$^{2}/_{R}$-PPF	0.2	9.525	3.97	4.4	9.5										●		●		
		CCET09T304$^{4}/_{R}$-PPF	0.4	9.525	3.97	4.4	9.3										●		●		
FINISHING	PFU P M S sharp edge low cutting force	CCMT060202-PFU	0.2	6.35	2.38	2.8	6.2				●	●		○	○	●	●	●		●	
		CCMT060204-PFU	0.4	6.35	2.38	2.8	6			○	●	●		●	●	●	●	●		●	
		CCMT09T302-PFU	0.2	9.525	3.97	4.4	9.5				●	●		●	○	●	●	○		●	
		CCMT09T304-PFU	0.4	9.525	3.97	4.4	9.3			●	●	●		●	●	●	●	●		●	
		CCMT09T308-PFU	0.8	9.525	3.97	4.4	8.9				●	●		●	○	●	●	●		○	
MEDIUM	PPM P M ground chipbreaker right-hand shown	CCET09T304$^{4}/_{R}$-PPM	0.4	9.525	3.97	4.4	9.3										●		●		
MEDIUM	PMU P M K 1st choice universal application	CCMT060202-PMU	0.2	6.35	2.38	2.8	6.2				○	●		○	○					●	
		CCMT060204-PMU	0.4	6.35	2.38	2.8	6	●			●	●	●	●	●		●	●		●	
		CCMT060208-PMU	0.8	6.35	2.38	2.8	5.6	●			○	●		●						○	
		CCMT09T302-PMU	0.2	9.525	3.97	4.4	9.5				○	●		○	○					●	
		CCMT09T304-PMU	0.4	9.525	3.97	4.4	9.3	●			●	●	●	●	●		●	●		●	
		CCMT09T308-PMU	0.8	9.525	3.97	4.4	8.9	●	●		●	●	●	●	○		●	●		●	
		CCMT120404-PMU	0.4	12.7	4.76	5.5	12.5	●			●	●		●							
		CCMT120408-PMU	0.8	12.7	4.76	5.5	12.1	●	○		●	●		●							
		CCMT120412-PMU	1.2	12.7	4.76	5.5	11.7	●			○	○		○							

● stock standard, ○ non-standard stock, ▲ upcoming introduction, ▽ stock exhaustion

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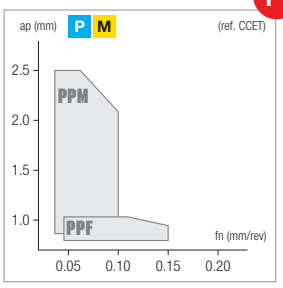

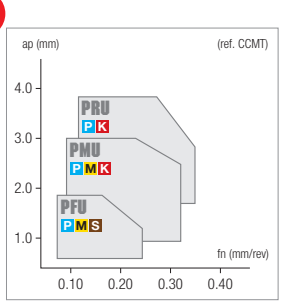

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How to read the catalogue - INSERTS

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1. Chapter
2. Section
3. Sub-chapter
4. ISO shape
5. Application and main geometry features
6. Geometry designation and main material application
7. Insert composition according to ISO 513
8. Suggested applications based on the main features of each grade
9. Suggested cutting speed for different workpiece materials.
   For ease of reading, values are shown only for the most common materials in each group.

   P ▸ P1
   M ▸ M1
   K ▸ K1
   N ▸ N1
   S ▸ S1
   H ▸ H1

   More accurate indications are listed at the end of every sub-chapter.
10. Stock status. This value may be updated without prior notice.
11. General indication about the application range of each product.
    More detailed suggestions can be found at the end of every sub-chapter.
12. Shortcut to the most import section of every chapter or to directly related products (insert ▸ holder)

1 TURNING 2 Holders · 3 INTERNAL

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4 # V SCLC

5 ISO - CC

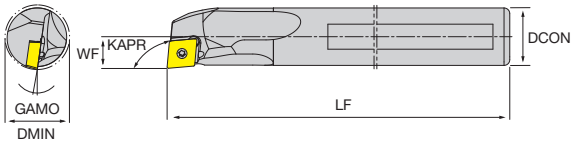
- Internal turning (KAPR 95°)
- Vortex boring bar (high quality steel)
- Special chip evacuation path
- Maximum overhang: 5xDCON

6

VORTEX 9

with internal coolant

Right-hand shown



Designation	Stock L	Stock R	DMIN	DCON	WF	LF	LH	LPR	KAPR	GAMO		MIID
NT-V08H-SCLCL/R06-10	●	●	10	8	5	100	-	-	95°	14°		CCoo0602oo
NT-V10K-SCLCL/R06-12	●	●	12	10	6	125	-	-	95°	12°		CCoo0602oo
NT-V12M-SCLCL/R06-14	●	●	14	12	7	150	-	-	95°	10°		CCoo0602oo
NT-V12M-SCLCL/R09-14	●	●	14	12	7	150	-	-	95°	12°		CCoo09T3oo
NT-V16Q-SCLCL/R09-18	●	●	18	16	9	180	-	-	95°	10°		CCoo09T3oo
NT-V20R-SCLCL/R09-22	●	●	22	20	11	200	-	-	95°	8°		CCoo09T3oo
NT-V25S-SCLCL/R09-27	●	●	27	25	13.5	250	-	-	95°	6°		CCoo09T3oo
NT-V20R-SCLCL/R12-25	●	●	25	20	13	200	-	-	95°	7°		CCoo1204oo
NT-V25S-SCLCL/R12-32	●	●	32	25	17	250	-	-	95°	5°		CCoo1204oo

● stock standard, ○ non-standard stock, ▲ upcoming introduction, ▽ stock exhaustion

Spare parts	Insert screw	Flag wrench
NT-V08H-SCLCL/R06-10	NT-ST25050T07	NT-FT07
NT-V10K-SCLCL/R06-12	NT-ST25060T07	NT-FT07
NT-V12M-SCLCL/R06-14	NT-ST25060T07	NT-FT07
NT-V12M-SCLCL/R09-14	NT-ST35073T15	NT-FT15
NT-V16Q-SCLCL/R09-18	NT-ST35073T15	NT-FT15
NT-V20R-SCLCL/R09-22	NT-ST35089T15	NT-FT15
NT-V25S-SCLCL/R09-27	NT-ST35089T15	NT-FT15
NT-V20R-SCLCL/R12-25	NT-ST40115T15	NT-FT15
NT-V25S-SCLCL/R12-32	NT-ST40115T15	NT-FT15

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A - TURNING
B - THREADING
C - GROOVING
D - MILLING
E - DRILLING
F - ACCESSORIES
G - SPARE PARTS

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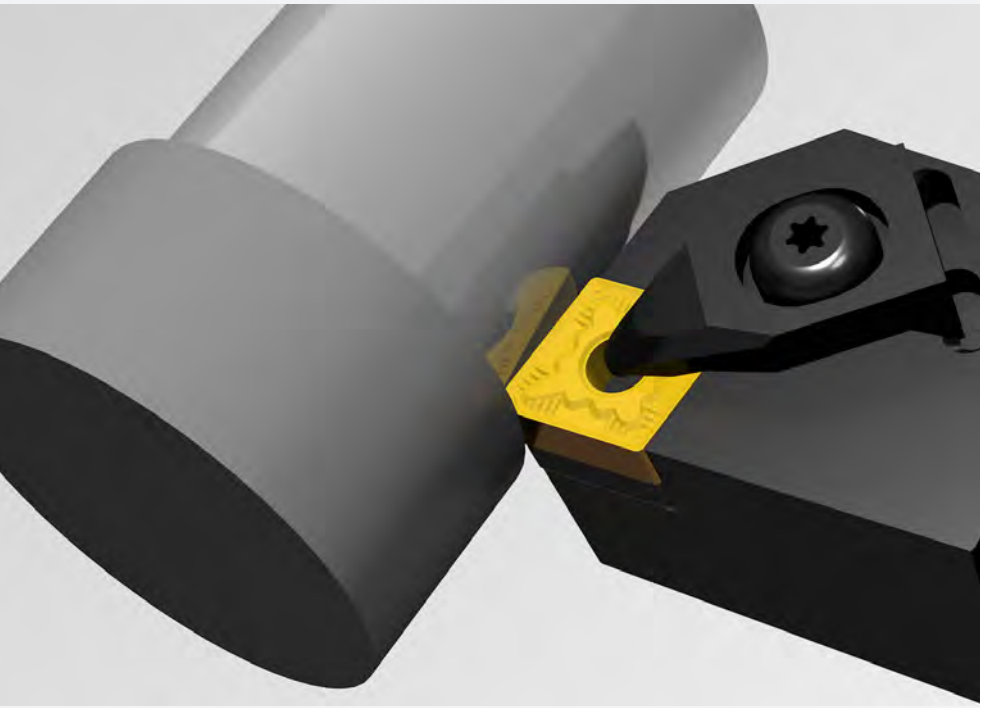
How to read the catalogue - HOLDERS

nikkoTOOLS

1. Chapter
2. Section
3. Sub-chapter
4. ISO shape
5. Insert shape
6. Tool holder main features
7. Spare parts
8. Shortcut to directly related products (holder ▸ insert)
9. Boring bar material and special features



TURNING

Carbide .A3
PCBN .A85
Diamond .A133
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TURNING Carbide

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Product selection, A35
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TURNING Grade table · CARBIDE

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ISO 513		CARBIDE			CERMET	
		CVD COATED	PVD COATED	UNCOATED	PVD COATED	UNCOATED
P Steel	P01	JC8005				JU4015
	P10	JC8015	JPS120		JP4020	
	P20	JC8025	JPS125			
	P30	JC8035				
	P40					
M Stainless steel	M01		JP9015			
	M10	JC9010			JP4020	
	M20	JC9025	JPS120			
	M30		JP9030			
	M40		JPS125			
K Cast iron	K01					
	K10	JC7010	JPS120		JP4020	
	K20	JC7115	JPS125			
	K30	JC7020				
N Non-ferrous material	N01					
	N10		JP6010	JU6015		
	N20					
	N30					
S HRSA	S01		JP3015			
	S10					
	S20					
	S30					

HRSA: Heat resistant super alloy

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GRADE	SUBSTRATE	HARDNESS HV	COATING		APPLICATION		FEATURES
			TECHNOLOGY	COMPOSITION			
JC7010	carbide	1.830	CVD	$TiCN+Al_2O_3$	K	K05 K25	High wear resistance. First choice for grey cast iron general machining.
JC7020	carbide	1.830	CVD	$TiCN+Al_2O_3$	K	K15 K30	High fracture resistance. Heavy interrupted cut on all kind of cast iron.
JC7115	carbide	1.830	CVD	$TiCN+Al_2O_3$	K	K10 K20	Well-balanced between wear and chipping resistance. First choice for nodular cast iron general machining.
JC8005	carbide	1.740	CVD	$TiCN+Al_2O_3$	P	P01 P10	High wear resistance. Excellent performance in high-speed cutting machining.
JC8015	carbide	1.740	CVD	$TiCN+Al_2O_3+TiN$	P	P10 P20	Good balance between wear and chipping resistance. High wear resistance, from medium to high speed cutting.
JC8025	carbide	1.700	CVD	$TiCN+Al_2O_3+TiN$	P	P20 P30	All around grade suitable for a wide range of applications. Excellent reliability even on medium interruptions.
JC8035	carbide	1.620	CVD	$TiCN+Al_2O_3+TiN$	P	P30 P40	Tough substrate and high chipping resistance coating. First choice for heavy machining.
JC9010	carbide	1.710	CVD	$TiCN+Al_2O_3+TiN$	M	M05 M15	High performance thin Al_2O_3 nano coating with superior adhesion. Shows great wear resistance at high-speed continuous cutting.
JC9025	carbide	1.540	CVD	$TiCN+Al_2O_3+TiN$	M	M20 M30	Good balance between wear and chipping resistance. First choice for stainless steel machining.
JP3015	micrograin carbide	1.950	PVD	TiAlN	S	S05 S25	Great stability at high temperature machining. Best choice for HRSA materials.
JP4020	cermet	1.680	PVD	TiAlN	P	P10 P20	Universal grade for finishing on multiple materials under stable conditions and high cutting speed.
					M	M10 M20	
					K	K10 K20	
JP5120	micrograin carbide	1.830	PVD	TiAlN	P	P10 P20	Special coating technology balances wear resistance and toughness. The post-coating surface treatment effectively prevent built-up edge.
					M	M10 M20	
					K	K10 K20	
JP5125	micrograin carbide	1.830	PVD	TiAlN	P	P20 P30	High Co micrograin carbide substrate with high toughness and latest coating technology. Universal use with great reliability and long tool life.
					M	M20 M30	
					K	K20 K30	
JP6010	micrograin carbide	2.020	PVD	TiBCN	N	N05 N15	Special coating technology suitable for a wide range of applications on non-ferrous materials. A smart alternative to PCD tools.
JP9015	micrograin carbide	2.020	PVD	TiAlN	M	M10 M20	Micrograin carbide with high wear resistance. First choice for stainless steel finishing.
JP9030	micrograin carbide	1.830	PVD	TiAlN	M	M25 M35	Micrograin carbide with superior oxidation resistance and high toughness. Great performance on interrupted cut machining of stainless steel.
JU4015	cermet	1.650	-	-	P	P05 P15	High wear resistance in high-speed continuous cutting. First choice for finishing when low surface roughness is the main priority.
JU6015	micrograin carbide	1.950	-	-	N	N10 N20	Uncoated carbide for univeral use, from finishing to roughing, on non-ferrous materials.

TURNING Grade cross reference · CARBIDE

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ISO 513		nikkoTOOLS		ISCAR		KENNAMETAL		KYOCERA		MITSUBISHI	
		carbide	cermet	carbide	cermet	carbide	cermet	carbide	cermet	carbide	cermet
P	P01 - P10	JC8005	JU4015	IC8150	IC20N IC520N	KCP05B	KT315 KTP10	CA510 PR1705	TN610 PV710	MC6115 MS6015 UE6105	
	P10 - P20	JC8015 JP5120 JP5125	JP4020	IC8150 IC8250 IC807	IC30N IC530N	KCP10B KCU10		CA025P CA515 PR1705	TN620 PV720 CCX	MC6115 MS6015 UE6110 VP15TF	NX2525 VP25N AP25N
	P20 - P30	JC8025 JP5125		IC8250 IC8350		KCP25B KCP30B KCU25		CA025P CA525 PR1725	TN620 PV720	MC6125 MS7025 UE6120 VP15TF	NX3035 MP3025
	P30 - P40	JC8035		IC8350 IC830		KCP30B KCP40B		CA530 PR1535	PV730	MC6035 MS7025 UH6400	
M	M01 - M10	JC9010 JP5120 JP9015	JP4020	IC6015 IC807	IC20N IC520N		KT315 KTP10	CA6515	TN610 PV710	MC7015	
	M10 - M20	JC9010 JP9015 JP5125	JP4020	IC6015 IC807	IC30N IC530N	KCM15B KCU10		CA6515 PR1425 PR1725	TN620 PV720	MC7015 US7020 VP15TF	NX2525 VP25N AP25N
	M20 - M30	JC9025 JP5125		IC6025 IC830		KCM25B KCU25		CA6525 PR1425 PR1725	PV730	MC7025 MS7025 MS9025	
	M30 - M40	JP9030		IC6025 IC830		KCM35B		PR1535		MP7035 US735	
K	K01 - K10	JC7010	JP4020	IC5005		KCK05B	KT315 KTP10	CA310		MC5005 UC5105	
	K10 - K20	JC7010 JC7115	JP4020	IC5005 IC5010		KCK15B		CA315	PV710 CCX	MC5015 UC5115	NX2525 VP25N AP25N
	K20 - K30	JC7020		IC5010 IC8150		KCK20B		CA320		MC5015 UC5115 VP15TF	
N	N01 - N10	JP6010	-		-	KC5410	-	KW10 PDL010	-	HTI10	-
	N10 - N20	JP6010 JU6015	-	IC520 IC20	-	KC5410 K313	KT325	KW10	-	HTI10	-
	N20 - N30	JU6015	-	IC20	-	K313	-	PDL025	-		-
S HRSA	S01 - S10	JP3015	-	IC804	-	KCS10B	-	PR005S	-	MP9005	-
	S10 - S20	JP3015	-	IC804 IC806	-	KCS10B	-	PR015S	-	MP9015	-
	S20 - S30		-	IC806	-		-	PR1535	-	MP9025	-
S TITANIUM	S01 - S10	JP6010	-	IC804	-	KCS10B	-	SW05	-	MT9005	-
	S10 - S20	JU6015	-	IC804 IC806 IC20	-	K313	-		-	MT9015	-
	S20 - S30		-	IC806	-		-		-		-

BLACK: CVD, UNDERLINED: PVD, RED: uncoated

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SANDVIK		SECO		SUMITOMO		TAEGUTEC		TUNGALOY		WALTER	
carbide	cermet	carbide	cermet	carbide	cermet	carbide	cermet	carbide	cermet	carbide	cermet
GC4305	CT5015 GC1525	TP0501		AC810P AC8015P	T1000A	TT4410 TT8105B	CT3000 PV3010	T9105 T9205	NS520	WPP05S	WEP10C
GC1125 GC4315 GC4415	CT5015 GC1525	TP1501	TP1020 TP1030	AC530U AC1030U AC8015P AC8020P	T1500A T1500Z	TT4410 TT8115B TT9020	CT7000 PV3030	SH725 T9115 T9215	AT9530 GT9530 NS9530	WPP10G WPP10S	WEP10C
GC1125 GC4325 GC4425		TP2501 TP25		AC530U AC1030U AC8020P AC8025P	T2500A T2500Z T3000Z	TT4430 TT5100 TT8125B TT9020		AH725 T9125 T9225	AT9530 GT9530 NS9530	WPP20G WPP20S WMP20S	
GC4335		TP3501 TP40		AC830P AC8035P		TT8135B		T9135 T9235		WKP30S WPP30G WPP30S	
GC1115		TS2000			T1000A	TT5080	CT3000 PV3010	T6215		WSM01	
GC1115 GC2015 GC2220	GC1525 CT5015	TM1501 TS2500	TP1020 TP1030	AC610M AC6020M	T1500A	TT4410 TT5080 TT9215	CT7000 PV3030	SH725 T6215	GT9530 NS9530	WMP20S WSM10S	
GC1125 GC2025 GC2220		CP500 TM2501		AC630M AC6030M		TT4430 TT9080 TT9225		AH630 AH725 GH330 T6120	GT9530 NS9530	WMP20S WSM20S	
GC2035		TM3501 TP40		AC1030U AC530U AC6040M		TT8020 TT8080 TT9235		AH645 T6130		WSM30S	
GC3210		TK0501		AC405K AC4010K	T1000A	TT7005		T505 T5105		WKK10S	
GC3210 GC3225		TK1501		AC415K AC4015K		TT7015	CT3000 PV3010	T515 T5115	GT9530 NS9530	WKK20S	
GC3225		TK1501		AC420K		TT7025		T5125		WKP30S	
H10	-		-		-	K10	-	KS05F	-	WNN10	-
H10	-	KX	-		-	K10	-	TH10	-	WNN10 WK1	-
	-	KX	-	H1	-		-		-		-
GC1105 S05F	-	TS2050	-	AC5005S AC510U	-	TT3005 TT5080	-	AH8005	-	WSM01 WSM10S	-
GC1105 S05F S205	-	TS2000	-	AC5015S AC520U	-	TT3010 TT9080	-	AH8015	-	WSM20S	-
GC1115 S205	-	TS2500	-	AC5025S	-	TT3020 TT9080	-	AH8015	-	WSM30S	-
	-	883	-	EH510	-	K10 TT4410	-	TH10	-	WS10 WSM10S	-
H13A	-	883	-	EH520	-	K10	-	KS20	-	WS10 WSM20S	-
H13A	-		-		-		-		-		-

This table is our own estimation based on information available to the public and is not authorized by the company mentioned on it.

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		NEGATIVE type with hole		C	D	S	T	V	W
				80°	55°	90°	60°	35°	80°
P	FINISHING	NSP (0.12, 15°)		A40 SIZE 09 12	A47 SIZE 11 15	A56 SIZE 12	A62 SIZE 16	A69 SIZE 16	A73 SIZE 06 08
P	MEDIUM	NUP (0.2, 19°)		A41 SIZE 09 12 16 19	A47 SIZE 11 15	A56 SIZE 12	A62 SIZE 16 22	A69 SIZE 16	A73 SIZE 06 08
P	MEDIUM	NMP (0.2, 18°)		A36 SIZE 12 16 19	A47 SIZE 11 15	A56 SIZE 12	A62 SIZE 16 22	A69 SIZE 16	A73 SIZE 06 08
P	ROUGHING	NRP (20°, 0.32, 3°)		A43 SIZE 12 16 19 25	A49 SIZE 15	A57 SIZE 12 19 25	A64 SIZE 16 22		A75 SIZE 08
P	HEAVY ROUGHING	MRP (0.45, 24°)		A44 SIZE 19 25		A58 SIZE 19 25			
M	FINISHING	NSM (15°, 0.1, 10°)		A36 SIZE 12	A47 SIZE 15		A62 SIZE 16	A69 SIZE 16	A73 SIZE 08
M	MEDIUM	NMM (23°, 0.08, 16°)		A41 SIZE 09 12 16 19	A48 SIZE 11 15	A56 SIZE 12 19	A63 SIZE 16 22	A69 SIZE 16	A73 SIZE 06 08
M	ROUGHING	NRM (21°, 0.3, 7°)		A44 SIZE 12 16 19	A49 SIZE 15	A57 SIZE 12 19	A64 SIZE 16		A75 SIZE 08
S	MEDIUM	NMS (20°, 0.3, 10°)		A42 SIZE 12	A48 SIZE 15				075 SIZE 08

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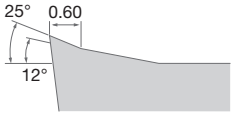
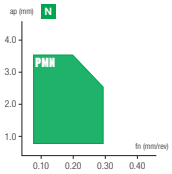
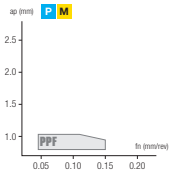
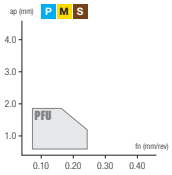
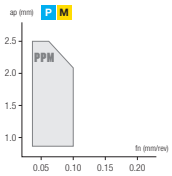
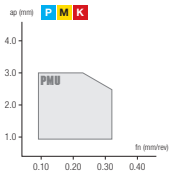
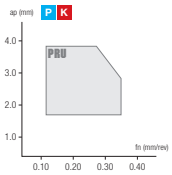
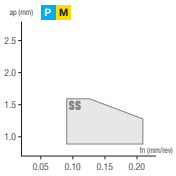
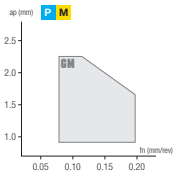
NEGATIVE type with hole				C	D	S	T	V	W
				80°	55°	90°	60°	35°	80°
K	LIGHT TO MEDIUM MACHINING	NMK (0.30, 16°)	K	A42 SIZE 12 16 19	A48 SIZE 15	A56 SIZE 12	A63 SIZE 16 22	A70 SIZE 16	A74 SIZE 08
K	LIGHT TO MEDIUM MACHINING	NUK (15°, 0.25, 3°)	K	A42 SIZE 12	A48 SIZE 15		A63 SIZE 16	A70 SIZE 16	A74 SIZE 08
K	ROUGHING	NRK (0.35, 24°)	K	A44 SIZE 12 16 19	A50 SIZE 15	A57 SIZE 12 19	A65 SIZE 16 22	A70 SIZE 16	A75 SIZE 06 08
K	ROUGHING	Flat (0°)	K	A44 SIZE 12 16 19	A50 SIZE 15	A58 SIZE 12 19	A65 SIZE 16 22		A76 SIZE 08
N	UNIVERSAL	NMN (10°)	N	A42 SIZE 12	A48 SIZE 15	A61 SIZE 12	A63 SIZE 16	A70 SIZE 16	A74 SIZE 06 08
UNI	MEDIUM	NUX (17°, 0.22, 6°)	P M K	A43 SIZE 12	A49 SIZE 15		A64 SIZE 16		A74 SIZE 08
UNI	MEDIUM	NMU (10°)	P M		A49 SIZE 15		A64 SIZE 16		KNUX 55° A51 SIZE 16
UNI	WIPER	NWU (18°, 0.25, 3°)	P K	A43 SIZE 12	A49 SIZE 15		A64 SIZE 16		A75 SIZE 08
UNI	WIPER	NWX (0.30, 16°)	P K	A43 SIZE 12					A75 SIZE 08

TURNING Chipbreaker overview · CARBIDE

nikkoTOOLS

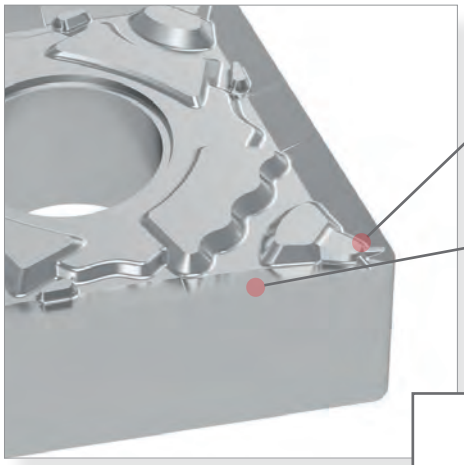
		POSITIVE type with hole		C	D	S	T	V	W
				80°	55°	90°	60°	35°	80°
N	UNIVERSAL	**PMN** 		CC A39 SIZE 06 09 12	DC A46 SIZE 07 11	SC A55 SIZE 09 12	TC A60 SIZE 09 11 16	VC A68 SIZE 11 16 22	
UNI	FINISHING	**PPF** (ground chip breaker)		CC A38 SIZE 06 09	DC A45 SIZE 07 11		TB, TP A59, A66 TC A60 SIZE 06 09 11	VB A67 SIZE 11	WB A71 SIZE 06
	FINISHING	**PFU**		CC A38 SIZE 06 09	DC A45 SIZE 07 11	SC A55 SIZE 09	TC A60 SIZE 11 16	VB A67 SIZE 11 16	
	MEDIUM	**PPM** (ground chip breaker)		CC A38 SIZE 09	DC A45 SIZE 07 11		TP A66 SIZE 11	VB A67 SIZE 11	
	MEDIUM	**PMU**		CC A38 SIZE 06 09 12	DC A45 SIZE 07 11 15	SC A55 SIZE 09 12	TC A60 SIZE 09 11 16 22	VB, VC A67, A68 SIZE 11 16	WC A72 SIZE 12
	ROUGHING	**PRU**		CC A39 SIZE 09 12	DC A46 SIZE 11	SC A55 SIZE 09 12	TC A61 SIZE 16	VB, VC A67, A68 SIZE 16	
MICRONEGA	MEDIUM	**SS**		MCN A53	MDN A54				
	MEDIUM	**GM**		MCN A53	MDN A54				

NSP

Chipbreaker

· Chipbreaker for steel finishing and light cutting
· Butterfly geometry directs chip flow
· Variable rake angle and curved edge line for excellent chip control at small depths of cut
· High quality surface finishing

Features of NSP chipbreaker

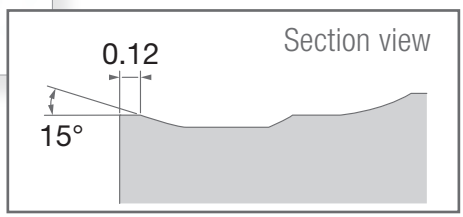


BUTTERFLY DOT

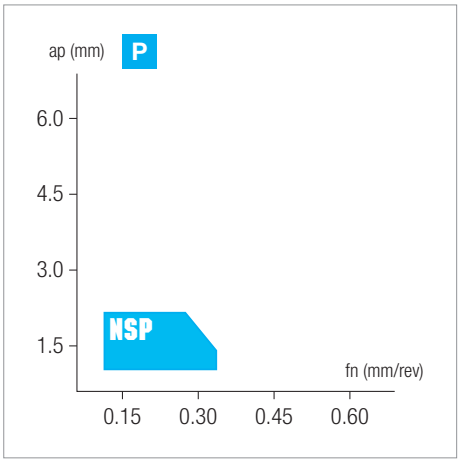
· High stability of chip flows at high feed
· Lower cutting force at low depth of cut and high feed

VARIABLE RAKE ANGLE AND CURVED EDGE LINE

· Less crater wears
· Excellent chip control at small depths of cut



Application range



Performance evaluation

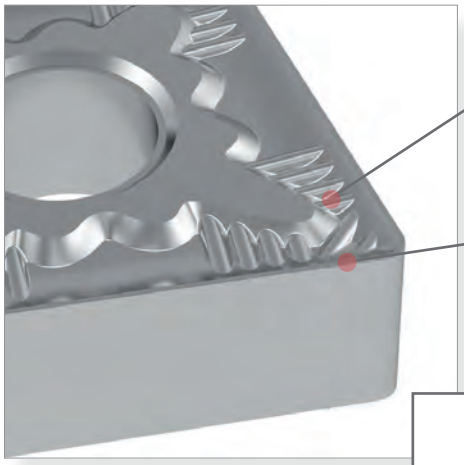
Workpiece	Steel C45 (1.1191)
Cutting condition	Vc 350 m/min, fn 0.20 mm/rev, ap 1.0 mm, emulsion
Cutting Tool	CNMG120408-NSP JC8005

NUP

Chipbreaker

· Chipbreaker for steel semi-finishing and medium cutting
· Variable rake angle and edge width for good balance of toughness and sharpness
· Special groove design improves robustness and chip flow
· Universal application

Features of NUP chipbreaker

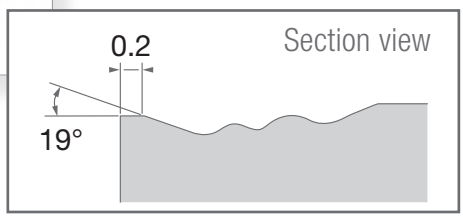


SPECIAL GROOVES

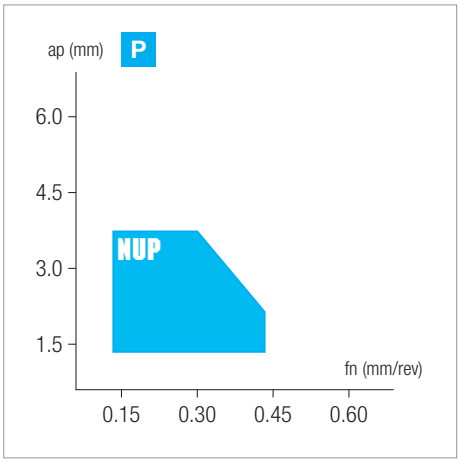
· Greater strenght
· Improves chip forming and chip control

VARIABLE RAKE ANGLE AND EDGE WIDTH

· Good balance of toughness and sharpness
· Reliable cutting process for universal application



Application range



Performance evaluation

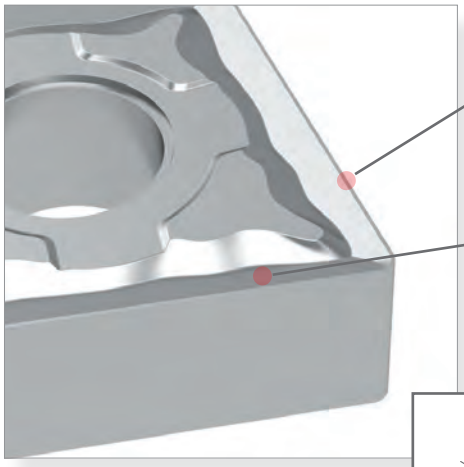
Workpiece	Steel 41CrMoAl7 (1.8709)
Cutting condition	Vc 156 m/min, fn 0.3 mm/min, ap 3.1 mm, emulsion
Cutting Tool	CNMG120412-NUP JC8025

NMP

Chipbreaker

- Chipbreaker for steel semi-finishing and medium cutting
- Strong cutting edge for reliable cutting process
- Large chip groove for smooth chip flow
- Excellent performance in carbon steel and alloy steel

Features of NMP chipbreaker

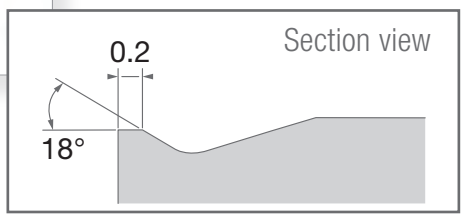


STRONG CUTTING EDGE DESIGN

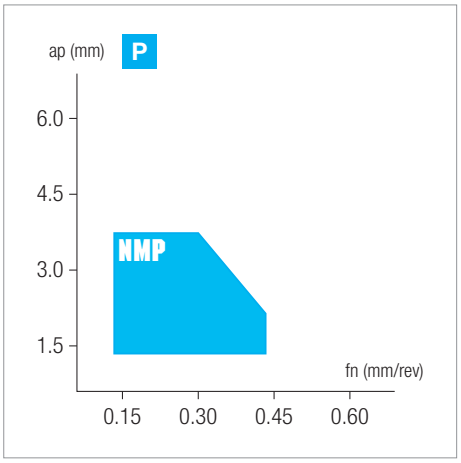
- Better robustness and reliability
- Improves chip forming and chip control

LARGE CHIP GROOVE

- For smooth chip flow

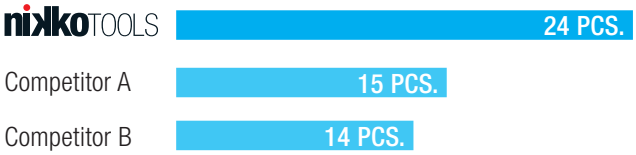


Application range



Performance evaluation

Workpiece	Steel 31CrMoV9 (1.8519)
Cutting condition	Vc 190 m/min, fn 0.3 mm/min, ap 3 mm, emulsion
Cutting Tool	CNMG160608-NMP JC8015

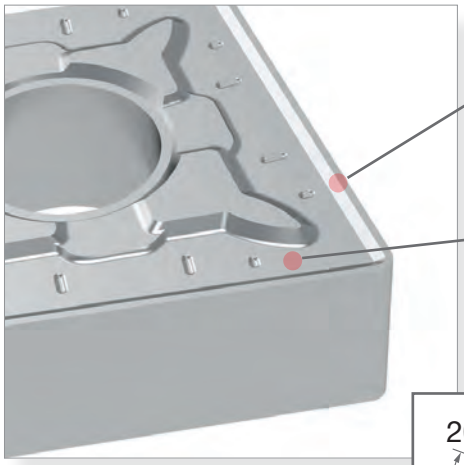


NRP

Chipbreaker

· Chipbreaker for steel roughing
· Strong cutting edge with variable rake angle
· Best choice for interrupted cut
· Excellent chip control at high feed rate

Features of NRP chipbreaker

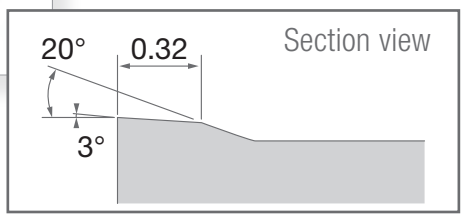


VARIABLE RAKE ANGLE AND EDGE WIDTH

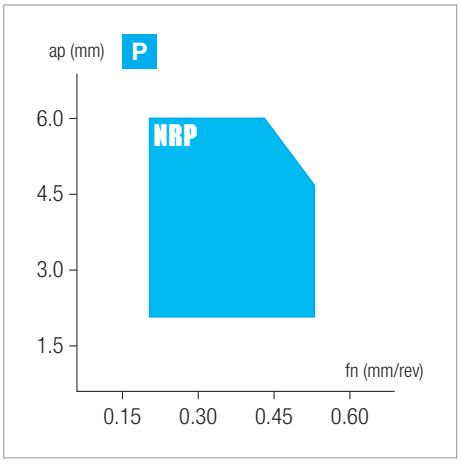
· Uniform chip control at different cutting depth
· Reduced cutting force with high toughness
· Suitable for interrupted cutting

LARGE CHIP GROOVE

· Excellent chip control at medium/high feed rate

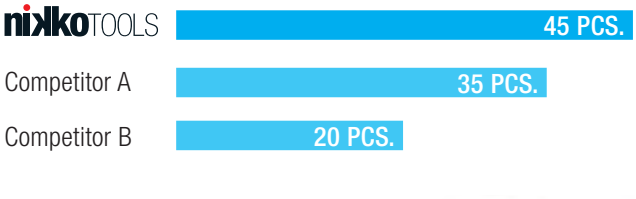


Application range



Performance evaluation

Workpiece	Steel 100Cr6 (1.3505)
Cutting condition	Vc 280 m/min, fn 0.35 mm/rev, ap 2.5 mm, emulsion, interrupted cut
Cutting Tool	WNMG080412-NRP JC8015

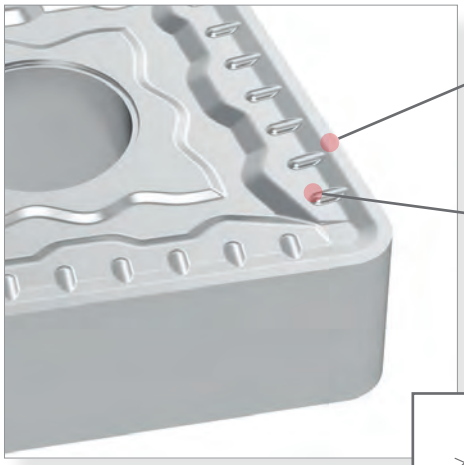


MRP

Chipbreaker

· Single side chipbreaker for steel heavy roughing
· Strong cutting edge with negative T land
· Reduced cutting force in heavy turning
· Suitable for high feed rate and high depth of cut operations

Features of MRP chipbreaker

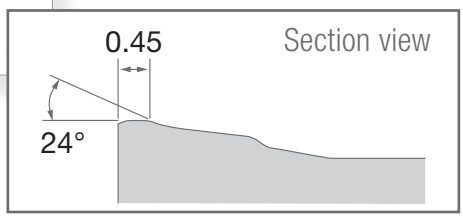


STRAIGHT EDGE WITH NEGATIVE T LAND

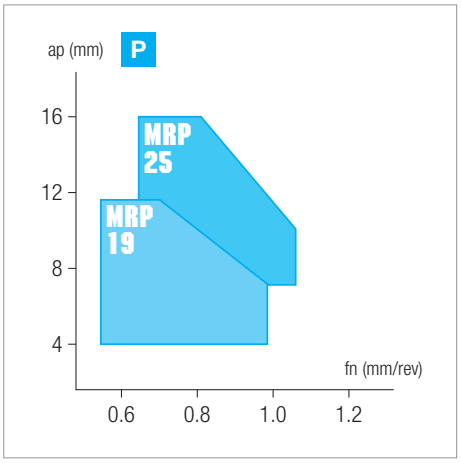
· Very tough cutting edge
· Reduced cutting force
· Suitable for high feed rate and high depth of cut

BIG GUIDING DOTS DESIGN

· Guide the chip flow to the right direction



Application range



Performance evaluation

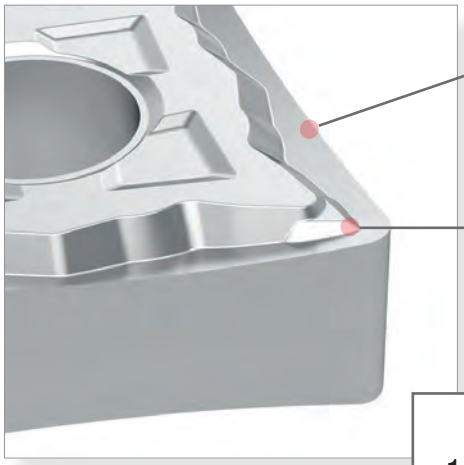
Workpiece	Steel 20MnCr5 (1.7147)
Cutting condition	Vc 80 m/min, fn 0.80 mm/rev, ap 10.0 mm, emulsion
Cutting Tool	SNMM250924-MRP JC8035

NSM

Chipbreaker

· Chipbreaker for stainless steel finishing and light cutting
· Curved edge design
· Strong but also sharp edge
· High quality of surface finishing

Features of NSM chipbreaker

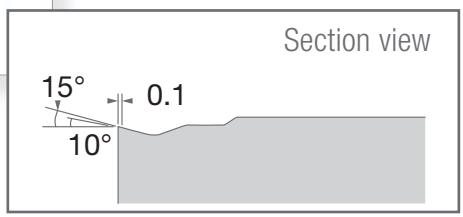


CURVED CUTTING EDGE

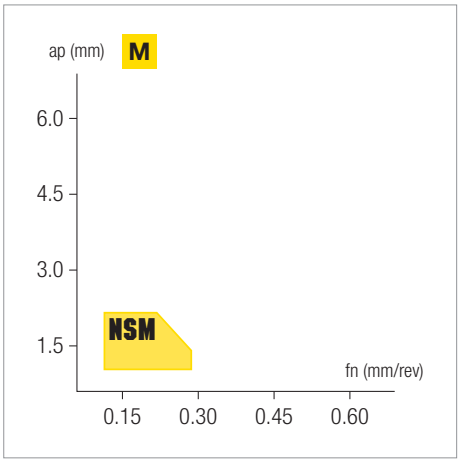
· Sharp cutting edge with high stability
· Wide chip evacuation area

SMALL NOSE DESIGN

· Excellent chip control at small depths of cut



Application range



Performance evaluation

Workpiece	Stainless steel AISI304 (1.4301)
Cutting condition	Vc 240 m/min, fn 0.13 mm/min, ap 0.6 mm, emulsion
Cutting Tool	TNMG160408-NSM JP9015

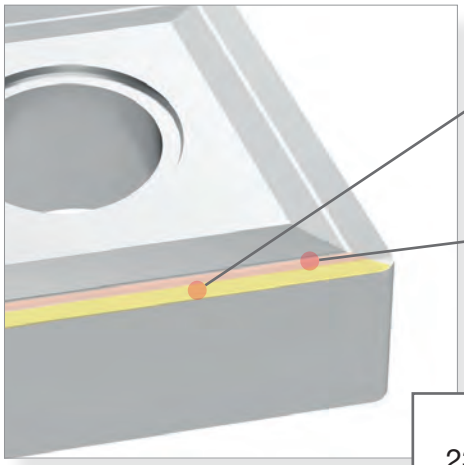
nikkoTOOLS	1200 PCS.
Competitor A	450 PCS.
Competitor B	420 PCS.

NMM

Chipbreaker

· Chipbreaker for stainless steel medium cutting
· Double rake angle design for good balance of toughness and sharpness
· Specific design for sticky material cutting
· Universal application on stainless

Features of NMM chipbreaker

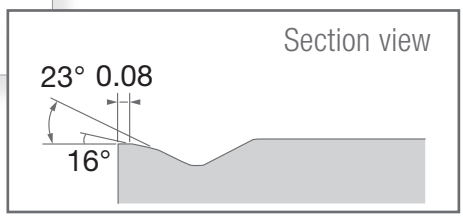


DOUBLE RAKE ANGLE DESIGN

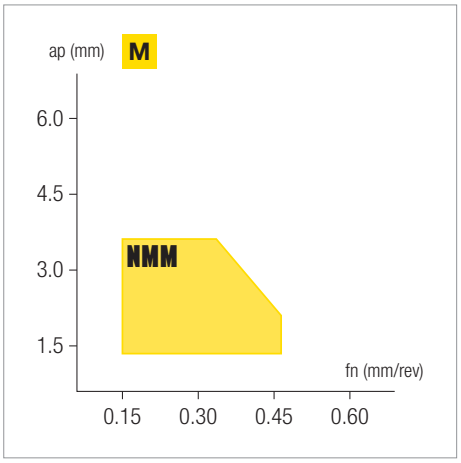
· Sharp but also tough edge
· Reliable cutting process for universal application
· Micro geometry suitable for sticky materials

DEEP CHIP GROOVE DESIGN

· Large chip evacuation area at medium depth of cut



Application range



Performance evaluation

Workpiece	Stainless steel AISI304 (1.4301)
Cutting condition	Vc 180 m/min, fn 0.27 mm/rev, ap 2.5 mm, emulsion
Cutting Tool	TNMG160408-NMM JC9025

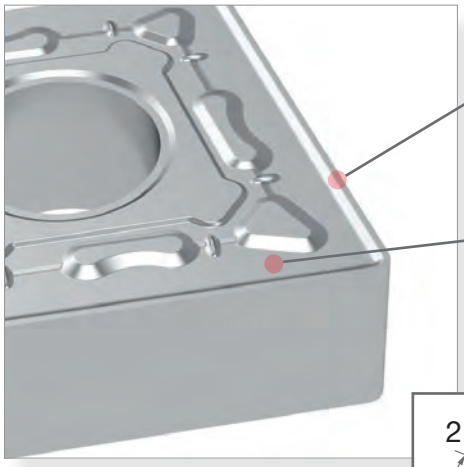
nikkoTOOLS	330 PCS.
Competitor A	300 PCS.
Competitor B	280 PCS.

NRM

Chipbreaker

· Chipbreaker for stainless steel roughing
· Strong cutting edge with double rake angle
· Excellent chip control at high feed rate
· Adapted for irregular and oxidized surfaces

Features of NRM chipbreaker

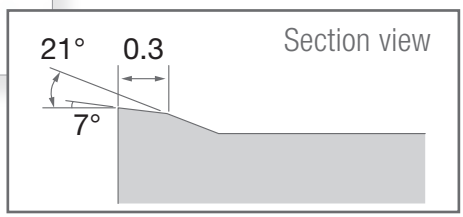


LARGE AND POSITIVE EDGE WIDTH DESIGN

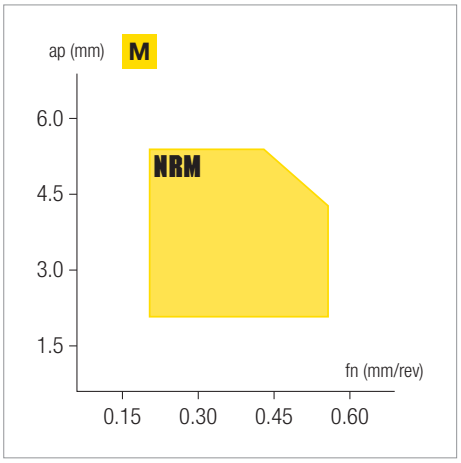
· Reduced cutting force with high toughness
· Suitable for removing irregular and oxidized surfaces

BIG SHALLOW CHIP GROOVE

· Efficiently guides and evacuates a big volume of chips



Application range



Performance evaluation

Workpiece	Stainless steel AISI303 (1.4305)
Cutting condition	Vc 120 m/min, fn 0.45 mm/rev, ap 4.0 mm, emulsion, light interrupted
Cutting Tool	CNMG160612-NRM JP9030

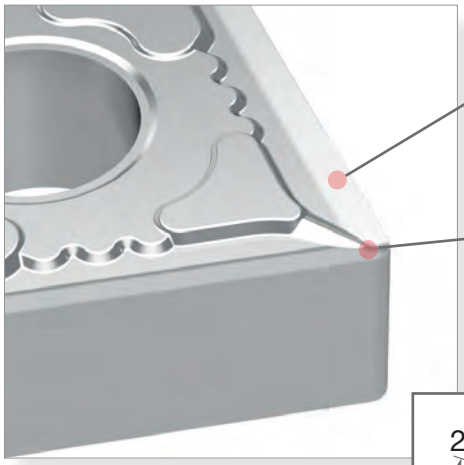
nikkoTOOLS	80 PCS.
Competitor A	70 PCS.
Competitor B	70 PCS.

NMS

Chipbreaker

· Strong edge with sharp rake for stainless steel and super alloy
· Variable edge and rake angle angle for semi-finishing or roughing
· High reliability and stability

Features of NMS chipbreaker

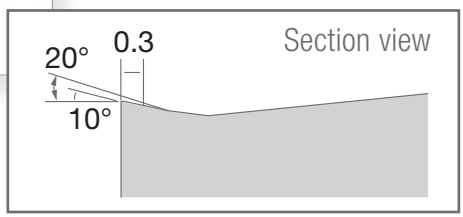


STRONG EDGE WITH SHARP RAKE DESIGN

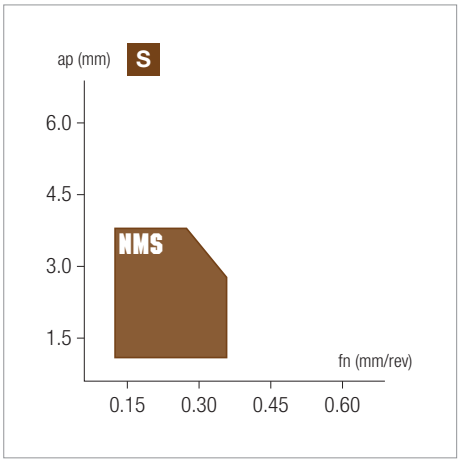
· Strengthened edge width provides good reliability
· Sharp rake reduces cutting resistance

SHARP NOSE WITH OPEN CHIP GROOVE

· Guides chip flow and improves chip control
· Excellent chip control at small depths of cut



Application range



Performance evaluation

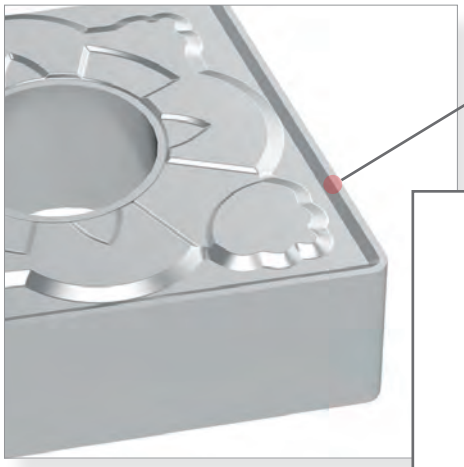
Workpiece	Inconel 718 (2.4668)
Cutting condition	Vc 50 m/min, fn 0.20 mm/rev, ap 1.5 mm, emulsion
Cutting Tool	CNMG120408-NMS JP3015

NUK

Chipbreaker

· Chipbreaker for cast iron light to medium cutting
· Effectively reduces burrs
· Specialize in nodular cast iron

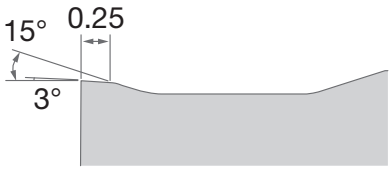
Features of NUK chipbreaker



POSITIVE EDGE DESIGN

· Slightly sharper than conventional cast iron geometries
· Effectively reduces burrs
· Suitable for nodular cast iron

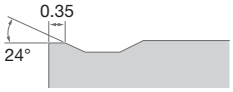
Section view



NUK

NUK is the only cast iron geometry with positive edge. Other cast iron geometries have flat edge width.

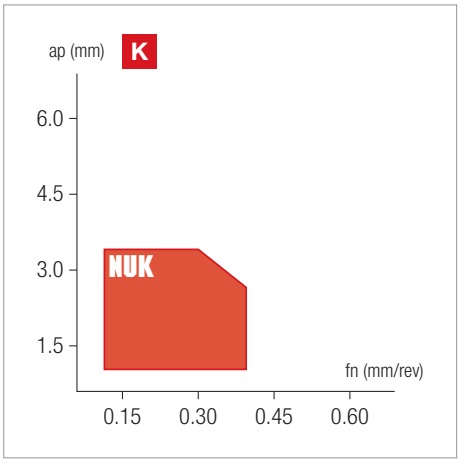
NMK



NRK

Flat

Application range



Performance evaluation

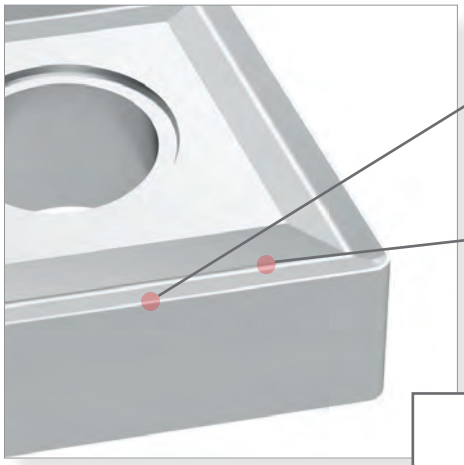
Workpiece	Grey cast iron GG25 (0.6025)
Cutting condition	Vc 170 m/min, fn 0.20 mm/rev, ap 0.5mm emulsion
Cutting Tool	DNMG150608-NUK JC7115

NMK

Chipbreaker

· Chipbreaker for cast iron general cutting
· Reinforced cutting edge
· Adapted for unstable operations
· Specialize in cast iron boring operation

Features of NMK chipbreaker

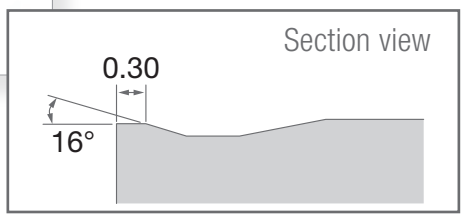


REINFORCED CUTTING EDGE

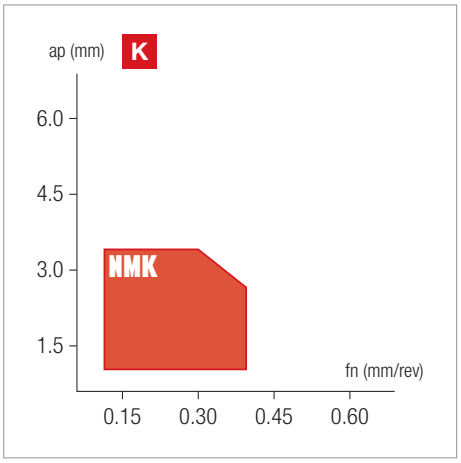
· Strong cutting edge but with reduced cutting force
· Adapted for unstable cutting conditions
· Problem solver for cast iron boring

OPEN CHIP GROOVE DESIGN

· Spacious chip evacuation area at medium depth of cut



Application range



Performance evaluation

Workpiece	Nodular cast iron GS500 (0.7050)
Cutting condition	· Roughing Vc 250 m/min, fn 0.35 mm/min, ap 3 mm, emulsion · Finishing Vc 320 m/min, fn 0.50 mm/min, ap 0.7 mm, emulsion
Cutting Tool	CNMG120408-NMK

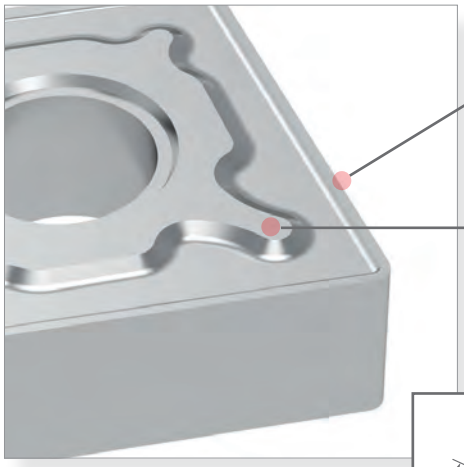
nikkoTOOLS	1200 PCS.
Competitor A	450 PCS.
Competitor B	420 PCS.

NRK

Chipbreaker

· Chipbreaker for cast iron roughing
· Replace traditional flat top inserts
· Expert in removing black casted surface
· Extremely broad cutting range

Features of NRK chipbreaker

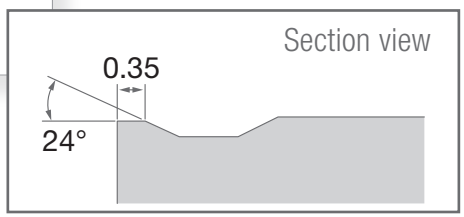


STRONG CUTTING EDGE DESIGN

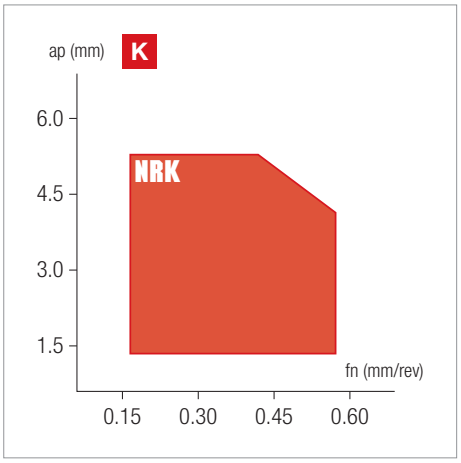
· Cutting edge robust and reliable
· Suitable for big cutting depth big feed rate operations
· Suitable for removing irregular and oxidized surfaces

PRECISION LAPPED SUPPORT SURFACE

· Improves the stability and reliability in unstable conditions

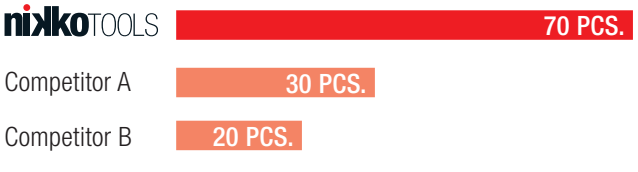


Application range



Performance evaluation

Workpiece	Nodular cast iron GS500 (0.7050)
Cutting condition	Vc 180 m/min, fn 0.35 mm/min, ap 4 mm, emulsion
Cutting Tool	CNMG160616-NRK JC7115

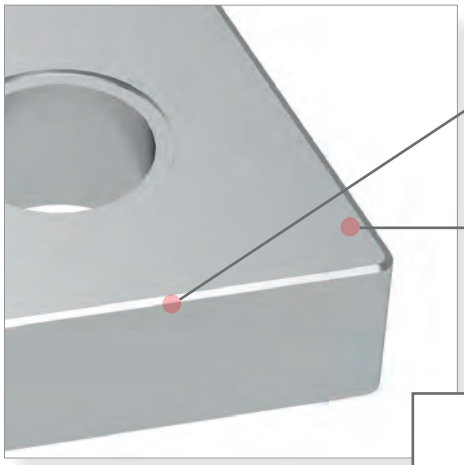


Flat

Chipbreaker

· Most classical solution for cast iron universal cutting
· Stable and reliable cutting process
· Mainly used for GG cast iron
· Extremely broad cutting range

Features of Flat chipbreaker

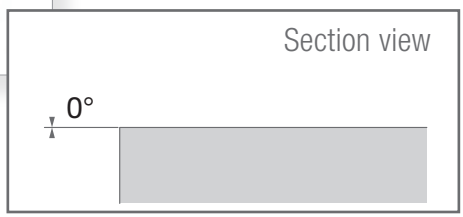


SPECIAL MICRO GEOMETRY

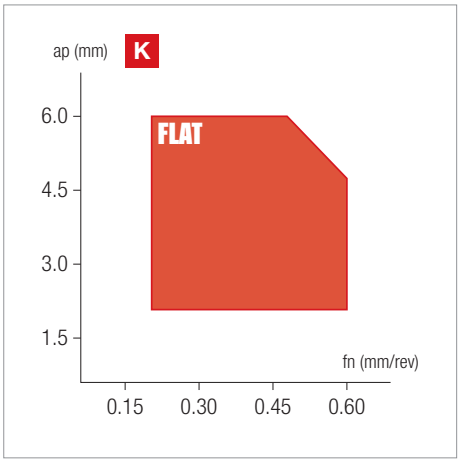
· Reduces cutting resistance
· Maintains stable and reliable cutting process

CLASSICAL FLAT CHIPBREAKER

· Available for different cutting parameters



Application range



Performance evaluation

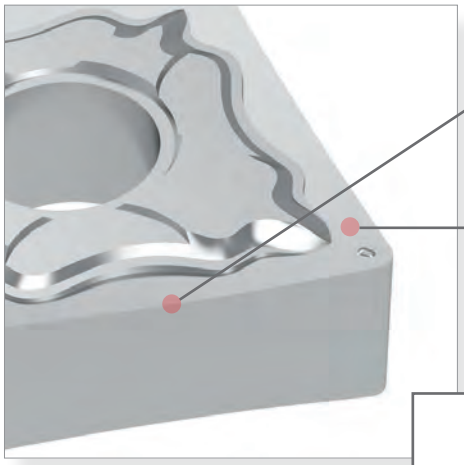
Workpiece	Grey cast iron GG25 (0.6025)
Cutting condition	Vc 280 m/min, fn 0.40 mm/rev, ap 3.0 mm, emulsion, interrupted cut
Cutting Tool	CNMA120416 JC7010

NMN

Chipbreaker

· Chipbreaker for non-ferrous materials
· High positive sharp geometry
· Ideal chip forming and chip evacuation
· Excellent surface finishing

Features of NMN chipbreaker

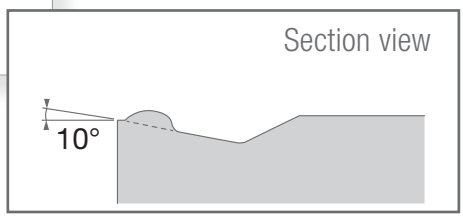


CURVED EDGE WITH SPECIAL MICRO GEOMETRY

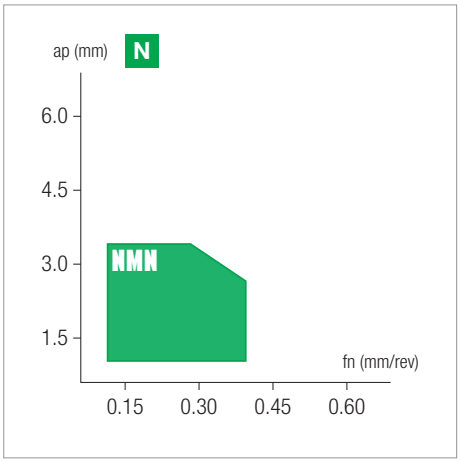
· Sharp but strong cutting edge
· Wide chip evacuation space
· Bends and guides the chips

WIDE CHIP GROOVE AND LONG EDGE

· Effective in evacuating the chips
· Suitable for a wide range of cutting operations

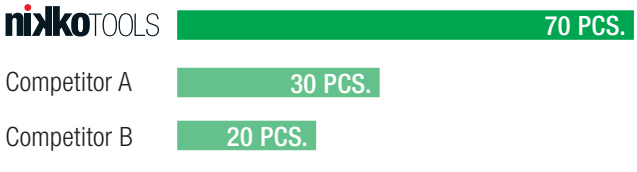


Application range



Performance evaluation

Workpiece	Copper alloy C101 (2.0060)
Cutting condition	Vc 250 m/min, fn 0.10 mm/min, ap 0.1 mm, emulsion
Cutting Tool	DNGG150604-NMN JU6015

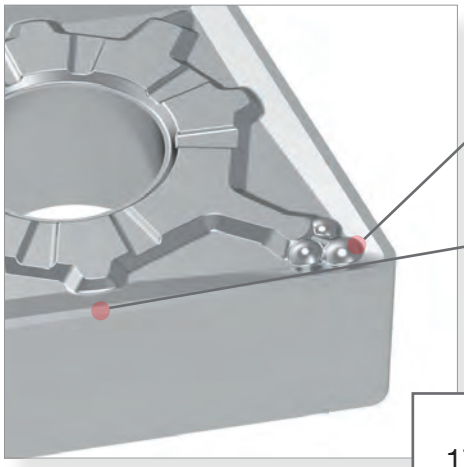


NUX

Chipbreaker

· Chipbreaker for universal application
· Double and variable rake angle and edge width for toughness and sharpness
· Good chip formation also with reduced feed rate and cutting depth
· Universal application

Features of NUX chipbreaker

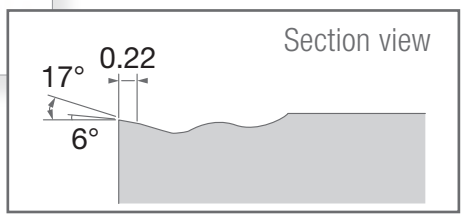


SPECIAL GROOVES

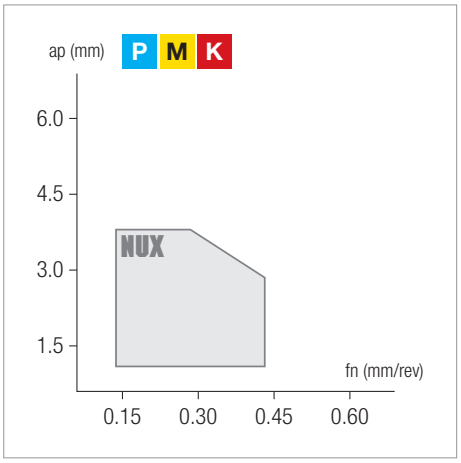
· Better robustness
· Improves chip forming and chip control

VARIABLE RAKE ANGLE AND EDGE WIDTH

· Good balance of toughness and sharpness
· Reliable cutting process for universal application



Application range



Performance evaluation

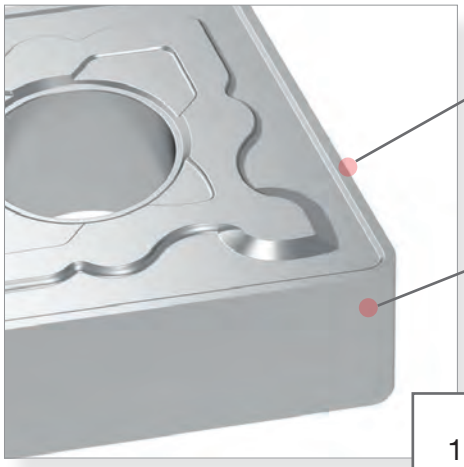
Workpiece	Sintered steel
Cutting condition	Vc 300 m/min, fn 0.12 mm/rev, ap 1.7 mm, emulsion
Cutting Tool	CNMG120404-NUX JC8015

NWU

Chipbreaker

· Wiper chipbreaker for steel and cast iron
· Anti-vibration and smooth cutting process
· Reliable cutting edge with reduced cutting force
· Universal application

Features of NWU chipbreaker

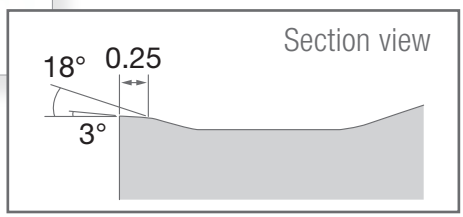


DOUBLE RAKE ANGLE EDGE

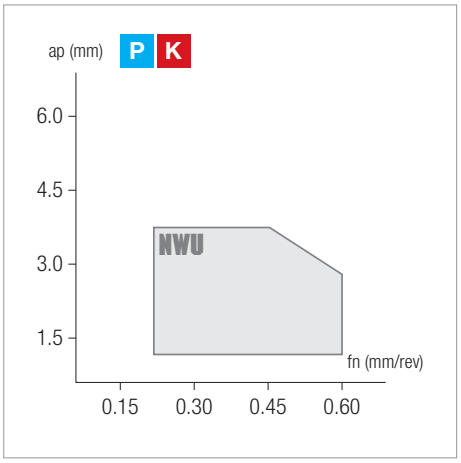
· Good balance of toughness and sharpness
· Improves chip forming and chip control
· Suitable for wider application range

MULTIPLE-CURVE WIPER LAND

· Effectively reduce vibration
· Excellent surface quality



Application range



For more application details, please check page A84.

Performance evaluation

Workpiece	Grey cast iron GG25 (0.6025)
Cutting condition	Vc 350 m/min, fn 0.45 mm/rev, ap 1.0 mm, emulsion
Cutting Tool	DNMX150608-NWU JC7010

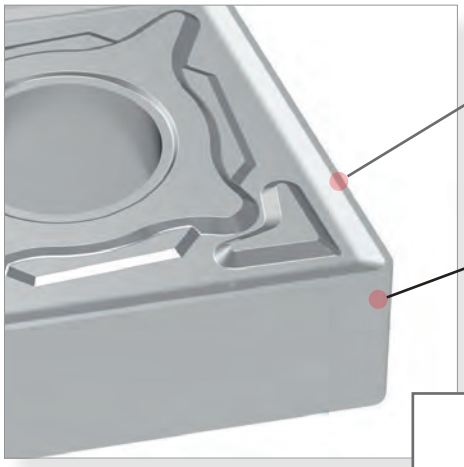
nikkoTOOLS	150 PCS.
Competitor A	140 PCS.
Competitor B	140 PCS.

NWX

Chipbreaker

· Wiper chipbreaker for steel and cast iron
· Strong and reliable cutting edge
· Suitable for high feed rate and big depth of cut application
· Wide application range

Features of NWX chipbreaker

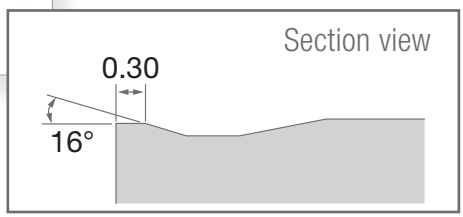


STRONG CUTTING EDGE

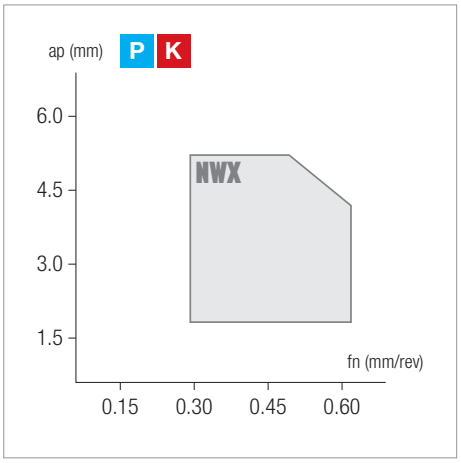
· Better robustness and reliability
· Adapted for big feed rate and big depth of cut application

MULTIPLE-CURVE WIPER LAND

· Effectively reduce vibration
· Excellent surface quality



Application range



Performance evaluation

Workpiece	Grey cast iron GG25 (0.6025)
Cutting condition	Vc 260 m/min, fn 0.40 mm/rev, ap 2.5 mm, emulsion, interrupted cut
Cutting Tool	CNMG120412-NWX JC7010

nikkoTOOLS	70 PCS.
Competitor A	55 PCS.
Competitor B	50 PCS.

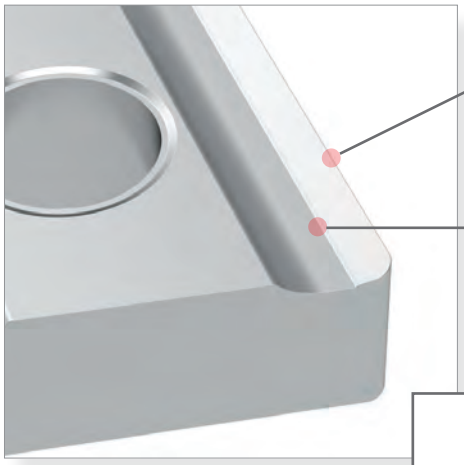
A - TURNING
B - THREADING
C - GROOVING
D - MILLING
E - DRILLING
F - ACCESSORIES
G - SPARE PARTS

NMU L/R

Chipbreaker

· Chipbreaker for universal use
· Highly positive geometry reduces workpiece deformation
· Excellent chip forming and guided chip evacuation
· Adapted for unstable cutting conditions

Features of NMU L/R chipbreaker

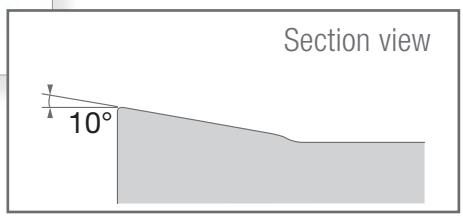


SHARP EDGE WITH SPECIAL MICRO GEOMETRY

· Excellent chip forming and guided chip evacuation direction
· Minimum bending effect on the workpiece
· Suitable for unstable set-ups

WIDE CHIP GROOVE AND LONG EDGE

· Effective in evacuating the chips
· Suitable for a wide range of cutting operations



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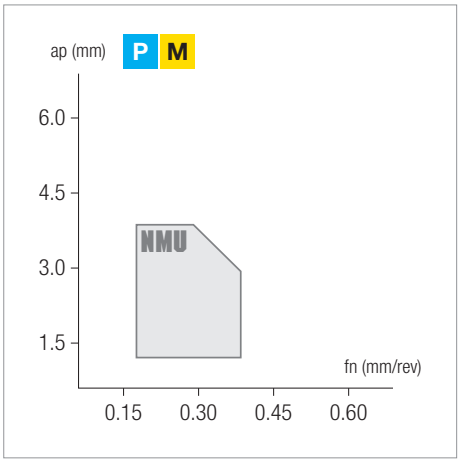


Performance evaluation

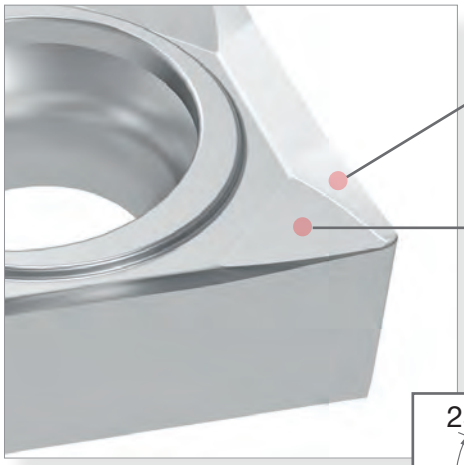
Workpiece	Steel C40 (1.0511)
Cutting condition	Vc 200 m/min, fn 0.30 mm/rev, ap 2.0 mm, emulsion
Cutting Tool	DNMG150608R-NMU JC8025

PMN

Chipbreaker

· Chipbreaker for nonferrous materials
· Highly positive fine polished geometry
· Smooth chip flow in guided direction
· Reduces vibration at higher feed rate

Features of PMN chipbreaker

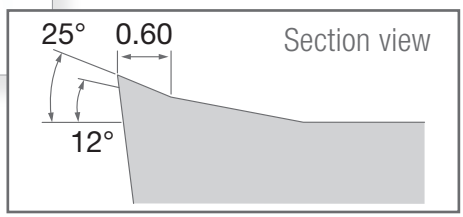


HIGHLY POSITIVE NARROW EDGE

· Delightful smooth cutting process
· Improved reliability
· Fine surface finishing at higher feed rate

MIRROR-POLISHED SUPPORTING RAKE FACE

· Gives the sharp edge stronger support
· Guided smooth efficient chip flow



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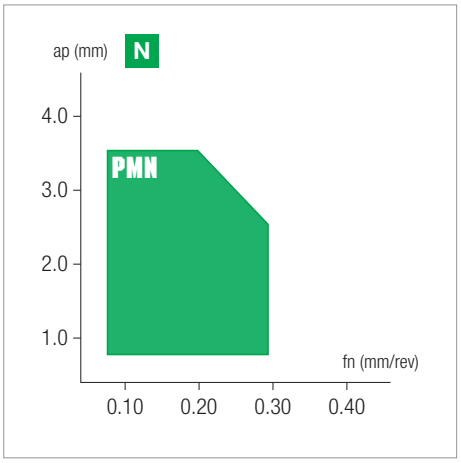


Performance evaluation

Workpiece	Alluminium alloy ERGAL (3.4365)
Cutting condition	Vc 350 m/min, fn 0.18 mm/min, ap 0.2 mm emulsion
Cutting Tool	CCGX09T304-PMN JP6010

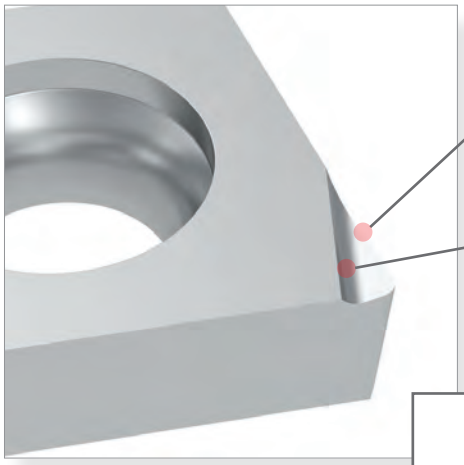
nikkoTOOLS	4000 PCS.
Competitor A	1500 PCS.
Competitor B	1200 PCS.

PPF

Chipbreaker

· Ground chipbreaker for small part finishing
· High precision and low cutting force
· Excellent chip forming and guided chip evacuation
· For steel and stainless-steel finishing

Features of PPF chipbreaker

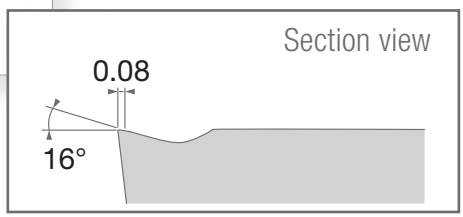


VARIABLE AND SHARP EDGE

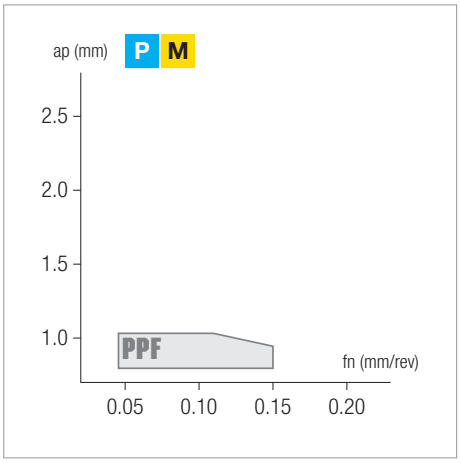
· Sharp but strong cutting edge
· Minimum bending effect on the workpiece
· Excellent surface finishing

NARROW AND SHALLOW CHIP GROOVE

· Effectively breaks the chips
· Guides chip flow and reduces cutting resistance



Application range



Performance evaluation

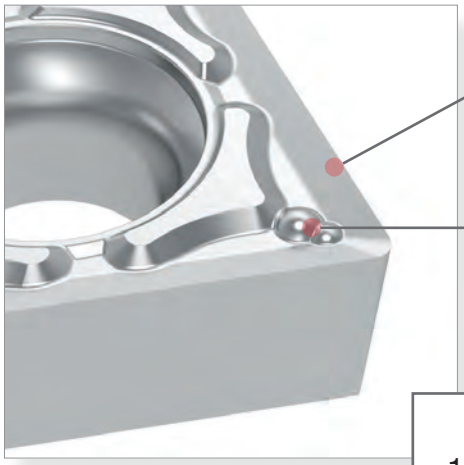
Workpiece	Steel St 37-3 (1.0116)
Cutting condition	Vc 200 m/min, fn 0.05 mm/rev, ap 0.5 mm, emulsion
Cutting Tool	TPEH110304L-PPF JU4015

PFU

Chipbreaker

· Positive chipbreaker for P, M, S materials light cutting
· Sharp edge for excellent surface quality
· Good chip formation also with reduced feed rate and cutting depth
· Specifically designed for stainless steels and super alloys

Features of PFU chipbreaker

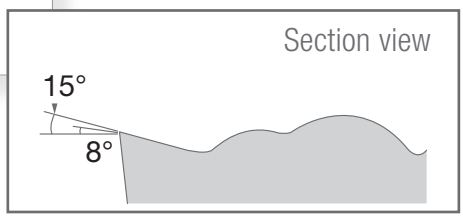


SHARP CUTTING EDGE

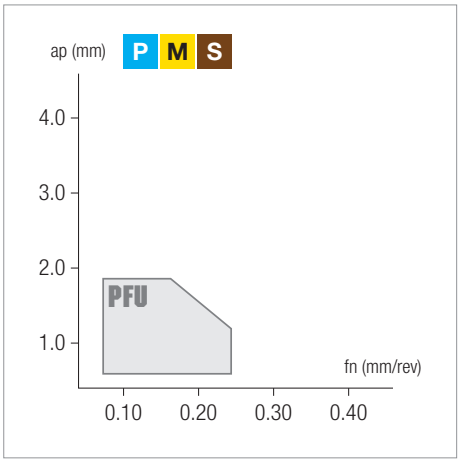
· Good surface finish
· Less vibration in boring process
· Specialize in cutting stainless and super alloys

BISPERICAL DESIGN

· Breaks and guides the chip at reduced feed rate and depth of cut



Application range



Performance evaluation

Workpiece	Stainless steel AISI316 (1.4401)
Cutting condition	Vc 80 m/min, fn 0.15 mm/rev, ap 1.0 mm, emulsion
Cutting Tool	DCMT11T304-PFU JP5120

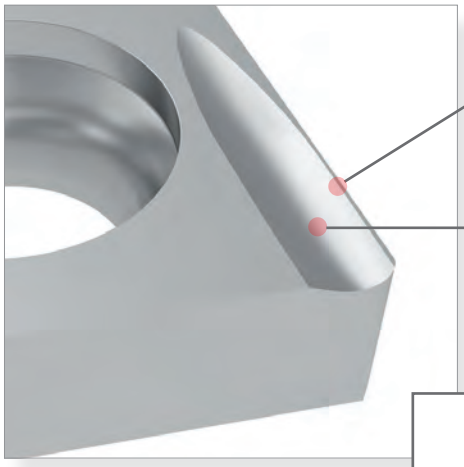
nikkoTOOLS	600 PCS.
Competitor A	500 PCS.
Competitor B	500 PCS.

PPM

Chipbreaker

· Ground chipbreaker for small part universal machining
· Wide application range
· Reduced cutting force and stable reliable cutting
· For steel and stainless-steel general machining

Features of PPM chipbreaker

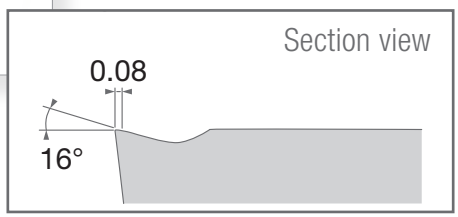


RELIABLE AND LONGER EDGE

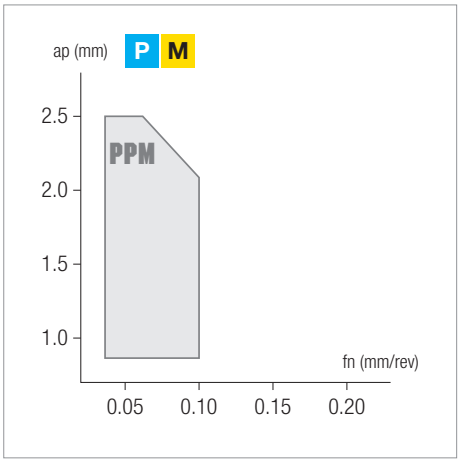
· For wide range of cutting conditions
· Minimum bending effect on the workpiece
· Reduced cutting force and stable reliable cutting

LONG AND CURVED CHIP GROOVE

· Suitable for wider range of cutting conditions
· Effectively break and evacuate chips



Application range



Performance evaluation

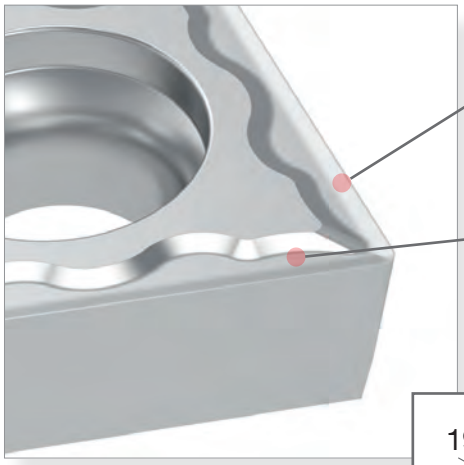
Workpiece	Stainless steel AISI303 (1.4305)
Cutting condition	Vc 100 m/min, fn 0.10 mm/rev, ap 1.5 mm, emulsion
Cutting Tool	DCET11T304R-PPM JP5125

PMU

Chipbreaker

· High versatility chipbreaker for medium cutting
· Good balance of robustness and sharpness
· Applicable on steel, stainless steel and cast iron
· Universal application

Features of PMU chipbreaker

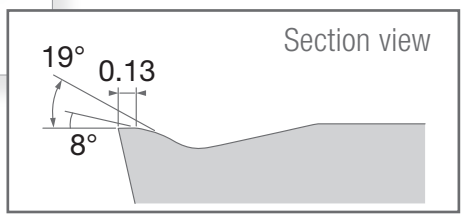


MODERATE BUT CURVED POSITIVE EDGE

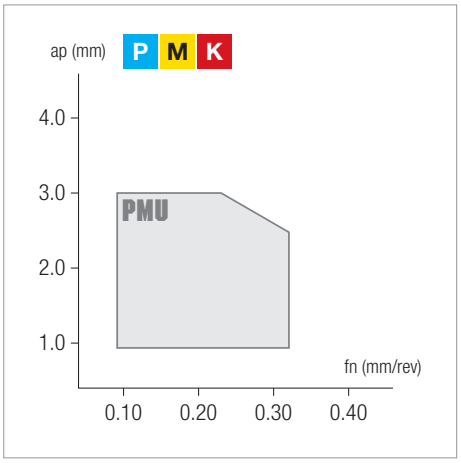
· Good balance of robustness and sharpness
· Reduced cutting force
· Improved chip forming and chip control

WIDE CHIP GROOVE

· Effective chip evacuation
· Reliable cutting process for universal application



Application range



Performance evaluation

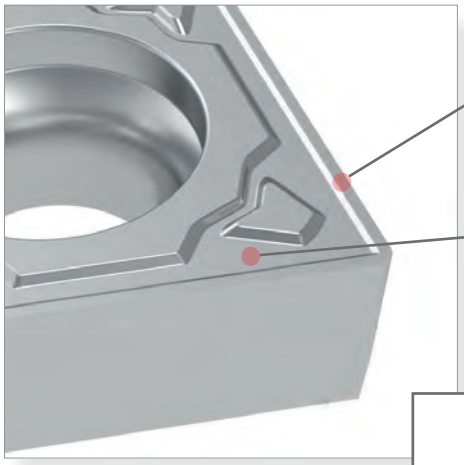
Workpiece	Steel K100 (1.2008)
Cutting condition	Vc 80 m/min, fn 0.13 mm/rev, ap 4.0 mm, emulsion, heavy interrupted
Cutting Tool	DCMT150408-PMU JP5125 (special)

PRU

Chipbreaker

· Chipbreaker for roughing and interrupted cut
· Strong and reliable cutting edge
· Reduced cutting force and less vibration
· Adapted for higher feed rate

Features of PRU chipbreaker

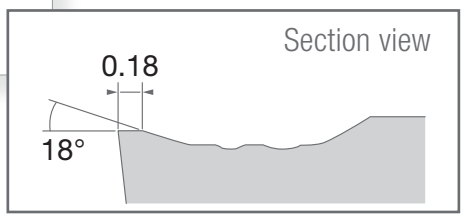


STRONG AND VARIABLE EDGE

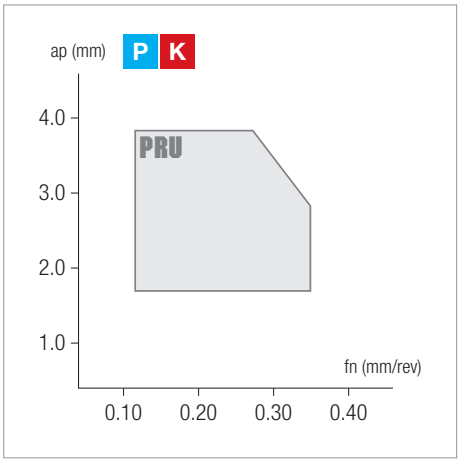
· Better robustness and reliability
· Adapted for higher feed rate
· Reduced cutting force and vibration

SHALLOW CHIP GROOVE

· Effectively breaks and guides the chips



Application range



Performance evaluation

Workpiece	Steel 41CrAlMo7 (1.8509)
Cutting condition	Vc 180 m/min, fn 0.25 mm/rev, ap 1.5 mm, emulsion, light interrupted
Cutting Tool	TCMT16T308-PRU JC8025

P		FINISHING		MEDIUM		ROUGHING	
		NEGATIVE	POSITIVE	NEGATIVE	POSITIVE	NEGATIVE	POSITIVE
	wear resistance	-	JP4020 / PFU	JC8005 / NUP	JC8005 / PMU	JC8005 / NRP	-
	1st CHOICE	**JU4015 / NSP**	**JU4015 / PFU**	**JC8015 / NUP**	**JC8015 / PMU**	**JC8015 / NRP**	**JC8025 / PRU**
	toughness	JC8005 / NSP	JC8005 / PFU	JC8025 / NUP	JC8025 / PMU	JC8025 / NRP	-
	wear resistance	JC8005 / NSP	JC8005 / PFU	JC8015 / NUP	JC8015 / PMU	JC8015 / NRP	-
	1st CHOICE	**JC8015 / NSP**	**JC8015 / PFU**	**JC8025 / NUP**	**JC8025 / PMU**	**JC8025 / NRP**	**JC8025 / PRU**
	toughness	JC8025 / NSP	JC8025 / PFU	JC8035 / NUP	JP5125 / PMU	JC8035 / NRP	-
	wear resistance	JC8015 / NSP	JC8015 / PFU	JC8025 / NUP	JC8025 / PMU	JC8025 / NRP	-
	1st CHOICE	**JC8025 / NSP**	**JC8025 / PFU**	**JC8035 / NUP**	**JP5125 / PMU**	**JC8035 / NRP**	**JC8025 / PRU**
	toughness	-	-	-	-	-	-

M		FINISHING		MEDIUM		ROUGHING	
		NEGATIVE	POSITIVE	NEGATIVE	POSITIVE	NEGATIVE	POSITIVE
	wear resistance	-	JP4020 / PFU	-	-	-	-
	1st CHOICE	**JP9015 / NSM**	**JP5120 / PFU**	**JC9010 / NMM**	**JC9010 / PMU**	**JC9010 / NRM**	**-**
	toughness	JP9030 / NSM	JP5125 / PFU	JC9025 / NNM	JP5120 / PMU	JC9025 / NRM	-
	wear resistance	-	JP5120 / PFU	JC9010 / NMM	JC9010 / PMU	JC9010 / NRM	-
	1st CHOICE	**JP9015 / NSM**	**JP5125 / PFU**	**JC9025 / NMM**	**JC9025 / PMU**	**JC9025 / NRM**	**-**
	toughness	JP9030 / NSM	-	JP9030 / NMM	JP5125 / PMU	JP9030 / NRM	-
	wear resistance	JP9015 / NSM	JP5120 / PFU	JC9025 / NMM	JP5120 / PMU	JC9025 / NRM	-
	1st CHOICE	**JP9030 / NSM**	**JP5125 / PFU**	**JP9030 / NMM**	**JP5125 / PMU**	**JP9030 / NRM**	**-**
	toughness	-	-	-	-	-	-

K		FINISHING		MEDIUM		ROUGHING	
		NEGATIVE	POSITIVE	NEGATIVE	POSITIVE	NEGATIVE	POSITIVE
	wear resistance	-	JP4020 / PMU	-	-	-	-
	1st CHOICE	**JC7115 / NUK**	**JC7010 / PMU**	**JC7010 / NMK**	**JC7010 / PMU**	**JC7010 / NRK**	**JC7010 / PRU**
	toughness	-	JC7020 / PMU	JC7020 / NMK	JC7020 / PMU	JC7020 / NRK	JC7020 / PRU
	wear resistance	-	-	-	-	-	-
	1st CHOICE	**JC7115 / NUK**	**JC7010 / PMU**	**JC7010 / NMK**	**JC7010 / PMU**	**JC7010 / NRK**	**JC7010 / PRU**
	toughness	-	JC7020 / PMU	JC7020 / NMK	JC7020 / PMU	JC7020 / NRK	JC7020 / PRU
	wear resistance	-	-	JC7010 / NMK	JC7010 / PMU	JC7010 / NRK	JC7010 / PRU
	1st CHOICE	**JC7115 / NUK**	**JC7010 / PMU**	**JC7020 / NMK**	**JC7020 / PMU**	**JC7020 / NRK**	**JC7020 / PRU**
	toughness	-	JC7020 / PMU	-	-	-	-

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N		FINISHING		MEDIUM		ROUGHING	
		NEGATIVE	POSITIVE	NEGATIVE	POSITIVE	NEGATIVE	POSITIVE
	wear resistance	-	-	-	-	-	-
	1st CHOICE	JU6015 / NMN	JP6010 / PMN	JU6015 / NMN	JP6010 / PMN	-	-
	toughness	-	JU6015 / PMN	-	JU6015 / PMN	-	-
	wear resistance	-	JP6010 / PMN	-	JP6010 / PMN	-	-
	1st CHOICE	JU6015 / NMN	JU6015 / PMN	JU6015 / NMN	JU6015 / PMN	-	-
	toughness	-	-	-	-	-	-
	wear resistance	-	-	-	-	-	-
	1st CHOICE	JU6015 / NMN	-	JU6015 / NMN	JU6015 / PMN	-	-
	toughness	-	-	-	-	-	-

S		FINISHING		MEDIUM		ROUGHING	
		NEGATIVE	POSITIVE	NEGATIVE	POSITIVE	NEGATIVE	POSITIVE
	wear resistance	-	JP5015 / PFU	-	-	-	-
	1st CHOICE	-	JP5120 / PFU	JP3015 / NMS	JP5120 / PMU	-	-
	toughness	-	JP5125 / PFU	-	JP5125 / PMU	-	-
	wear resistance	-	JP5120 / PFU	-	JP5120 / PMU	-	-
	1st CHOICE	-	JP5125 / PFU	JP3015 / NMS	JP5125 / PMU	-	-
	toughness	-	-	-	-	-	-
	wear resistance	-	-	-	-	-	-
	1st CHOICE	-	-	-	-	-	-
	toughness	-	-	-	-	-	-

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C	N	M	G	12	04	08	R/L	-	N	U	M	JC	80	25
1	2	3	4	5	6	7	8		9	10	11	12	13	14

1	SHAPE
C	80° rhombic
D	55° rhombic
K	55° parallelogram
S	90° square
T	60° triangular
V	35° rhombic
W	80° trigon

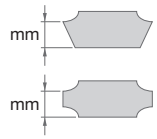
2	RELIEF ANGLE
B	5°
C	7°
D	15°
E	20°
N	0°
P	11°

3	TOLERANCES		
Symbol	I.C.	Thickness	Corner height
E	±0.025	±0.025	±0.025
G	±0.025	±0.13	±0.025
M	±0.05 ~ ±0.15	±0.13	±0.08 ~ ±0.18
U	±0.08 ~ ±0.25	±0.13	±0.13 ~ ±0.38

4	HOLE/CHIPBREAKER		
Symbol	Hole	Hole countersink	Chipbreaker
A	✓	✗	✗
G	✓	✗	double sided
M	✓	✗	single sided
N	✗	✗	✗
T	✓	40°÷60°	single sided
W	✓	40°÷60°	✗
X	NIKKO norm		

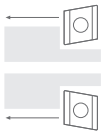
5	EDGE LENGHT						
I.C. (mm)	C shape	D shape	R shape	S shape	T shape	V shape	W shape
3.97	03	04		03	06		
4.76	04	05		04	08	08	
5.00			05				
5.56	05	06		05	09		03
6.00			06				
6.35	06	07		06	11	11	04
7.94	08	09		07	13		05
8.00			08				
9.53	09	11	09	09	16	16	06
10.00		12	10				
12.00							
12.70	12	15	12	12	22	22	08
15.88	16	19	15	15	27	24	10
16.00			16				
19.05	19	23	19	19	33	33	13
20.00			20				
22.23	22	27		22	38		
25.00			25				
25.40	25	31	25	25	44	44	17
31.75	32	38	31	31	54	54	21
32.00			32				

6	THICKNESS
Symbol	(mm)
01	1.59
T1	1.98
02	2.38
T2	2.78
03	3.18
T3	3.97
04	4.76
05	5.56
06	6.35
07	7.94
09	9.53



7	RADIUS
Symbol	(mm)
005	0.05
01	0.10
02	0.20
04	0.40
08	0.80
12	1.20
16	1.60
20	2.00
24	2.40

8	DIRECTION
Symbol	Shape
L	
R	



9	CHIPBREAKER - design
N	negative double side
M	negative single side
P	positive

10	CHIPBREAKER - application
F or S	finishnig
M or U	medium
R or T	roughing

11	CHIPBREAKER - material
P, M, K, N, S, H	According to ISO 513
U, X	Universal

12	GRADE - coating
JC	CVD coating
JP	PVD coating
JU	uncoated

13	GRADE - material/application
10÷14	ISO H
20÷24	small parts
30÷34	ISO S
40÷44	CERMET
50÷54	UNIVERSAL
60÷64	ISO N
70÷74	ISO K
80÷84	ISO P
90÷94	ISO M

14	GRADE - features
xx	Classification according to ISO 513

CC

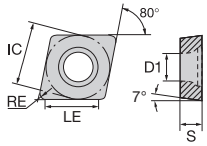
ISO - with hole

- The most popular insert shape due to high versatility
- Clearance angle 7°, less likely to have chip jamming when boring
- 80° corner can be used for both turning and facing operations

HC: Coated carbide
HT: Cermet
HF: Micrograin carbide
CVD: Chemical vapour deposition
PVD: Physical vapour deposition

	JC7010	JC7020	JC8005	JC8015	JC8025	JC9010	JC9025	JP4020	JP5015	JP5120	JP5125	JP6010	JU4015	JU6015
	HC CVD	HC CVD	HC CVD	HC CVD	HC CVD	HC CVD	HC CVD	HT PVD	HF PVD	HF PVD	HF PVD	HF PVD	HT	HF
Stable machining, light cut (● 1st choice, ○ suitable)	●	○	●	●	○	●	○	●	●	●	○	●	●	●
General machining, medium cut (● 1st choice, ○ suitable)	●	○		●	●	○	●	○	●	●	●	○		●
Unstable machining, heavy cut (● 1st choice, ○ suitable)	○	●			○		○				●			○

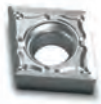
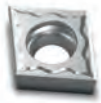
Dimensions



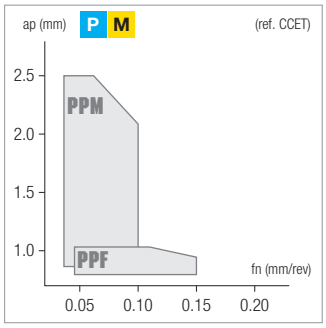
2 edges

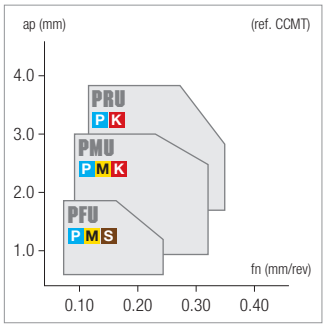
Vc(m/min) - suggested cutting speed range (bold: 1st choice)

ISO	JC7010	JC7020	JC8005	JC8015	JC8025	JC9010	JC9025	JP4020	JP5015	JP5120	JP5125	JP6010	JU4015	JU6015
P			200 380	170 360	140 330			180 400	100 220	90 200	70 180		200 380	
M						100 200	80 180	100 220	70 160	60 150	50 140			
K	130 380	110 300						150 320		90 190	60 180			
N												400 1400		200 1000
S									20 70					
H														

	Designation		RE	IC	S	D1	LE	Stock													
FINISHING	PPF P M ground chipbreaker right-hand shown	CCET060202L/R-PPF	0.2	6.35	2.38	2.8	6.2										●		○		
		CCET060204L/R-PPF	0.4	6.35	2.38	2.8	6										●		●		
		CCET09T302L/R-PPF	0.2	9.525	3.97	4.4	9.5										●		●		
		CCET09T304L/R-PPF	0.4	9.525	3.97	4.4	9.3										●		●		
FINISHING	PFU P M S  sharp edge low cutting force	CCMT060202-PFU	0.2	6.35	2.38	2.8	6.2				●	●		○	○	●	●	●		●	
		CCMT060204-PFU	0.4	6.35	2.38	2.8	6			○	●	●		●	●	●	●	●		●	
		CCMT09T302-PFU	0.2	9.525	3.97	4.4	9.5				●	●		●	○	●	●	○		●	
		CCMT09T304-PFU	0.4	9.525	3.97	4.4	9.3			●	●	●		●	●	●	●	●		●	
		CCMT09T308-PFU	0.8	9.525	3.97	4.4	8.9				●	●		●	○	●	●	●		○	
MEDIUM	PPM P M ground chipbreaker right-hand shown	CCET09T304L/R-PPM	0.4	9.525	3.97	4.4	9.3										●		●		
MEDIUM	PMU P M K  1st choice universal application	CCMT060202-PMU	0.2	6.35	2.38	2.8	6.2				○	●		○	○					●	
		CCMT060204-PMU	0.4	6.35	2.38	2.8	6	●			●	●	●	●	●		●	●		●	
		CCMT060208-PMU	0.8	6.35	2.38	2.8	5.6	●			○	●		●						○	
		CCMT09T302-PMU	0.2	9.525	3.97	4.4	9.5				○	●		○	○					●	
		CCMT09T304-PMU	0.4	9.525	3.97	4.4	9.3	●			●	●	●	●	●		●	●		●	
		CCMT09T308-PMU	0.8	9.525	3.97	4.4	8.9	●	●		●	●	●	●	○		●	●		●	
		CCMT120404-PMU	0.4	12.7	4.76	5.5	12.5	●			●	●		●							
		CCMT120408-PMU	0.8	12.7	4.76	5.5	12.1	●	○		●	●		●							
		CCMT120412-PMU	1.2	12.7	4.76	5.5	11.7	●			○	○		○							

● stock standard, ○ non-standard stock, ▲ upcoming introduction, ▽ stock exhaustion





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CC

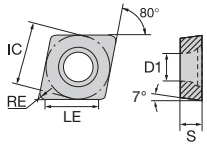
ISO - with hole

- The most popular insert shape due to high versatility
- Clearance angle 7°, less likely to have chip jamming when boring
- 80° corner can be used for both turning and facing operations

HC: Coated carbide
HT: Cermet
HF: Micrograin carbide
CVD: Chemical vapour deposition
PVD: Physical vapour deposition

	JC7010	JC7020	JC8005	JC8015	JC8025	JC9010	JC9025	JP4020	JP5015	JP5120	JP5125	JP6010	JU4015	JU6015
	HC CVD	HC CVD	HC CVD	HC CVD	HC CVD	HC CVD	HC CVD	HT PVD	HF PVD	HF PVD	HF PVD	HF PVD	HT	HF
Stable machining, light cut (● 1st choice, ○ suitable)	●	○	●	●	○	●	○	●	●	●	○	●	●	●
General machining, medium cut (● 1st choice, ○ suitable)	●	○		●	●	○	●	○	●	●	●	○		●
Unstable machining, heavy cut (✱ 1st choice, ✱ suitable)	✱	✱			✱		✱				✱			✱

Dimensions



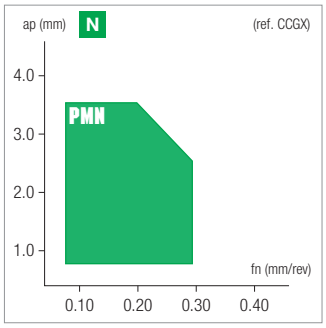
2 edges

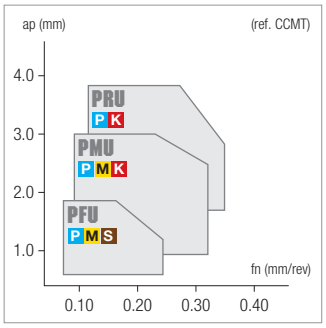
Vc(m/min) - suggested cutting speed range (bold: 1st choice)

ISO	JC7010	JC7020	JC8005	JC8015	JC8025	JC9010	JC9025	JP4020	JP5015	JP5120	JP5125	JP6010	JU4015	JU6015
P			200 380	170 360	140 330			180 400	100 220	90 200	70 180		200 380	
M						100 200	80 180	100 220	70 160	60 150	50 140			
K	130 380	110 300						150 320		90 190	60 180			
N												400 1400		200 1000
S									20 70					
H														

	Designation		RE	IC	S	D1	LE	JC7010	JC7020	JC8005	JC8015	JC8025	JC9010	JC9025	JP4020	JP5015	JP5120	JP5125	JP6010	JU4015	JU6015
MEDIUM	PMN N	CCGX060202-PMN	0.2	6.35	2.38	2.8	6.2												○		●
		CCGX060204-PMN	0.4	6.35	2.38	2.8	6												●		●
		CCGX060208-PMN	0.8	6.35	2.38	2.8	5.6												○		●
		CCGX09T302-PMN	0.2	9.525	3.97	4.4	9.5												○		●
	polished surface ground periphery	CCGX09T304-PMN	0.4	9.525	3.97	4.4	9.3												●		●
		CCGX09T308-PMN	0.8	9.525	3.97	4.4	8.9												●		●
		CCGX120402-PMN	0.2	12.7	4.76	5.5	12.7												○		○
		CCGX120404-PMN	0.4	12.7	4.76	5.5	12.5												●		●
		CCGX120408-PMN	0.8	12.7	4.76	5.5	12.1												●		●
ROUGHING	PRU P K	CCMT09T304-PRU	0.4	9.525	3.97	4.4	9.3	●				●									
		CCMT09T308-PRU	0.8	9.525	3.97	4.4	8.9	●				●									
		CCMT120408-PRU	0.8	12.7	4.76	5.5	12.1	●				●									
	strong edge interrupted cut	CCMT120412-PRU	1.2	12.7	4.76	5.5	11.7	●				●									

● stock standard, ○ non-standard stock, ▲ upcoming introduction, ▽ stock exhaustion





PRODUCT SELECTION p. A35 | CUTTING CONDITIONS p. A78 | GRADES FEATURES p. A4 | EXTERNAL HOLDERS p. A214 | INTERNAL HOLDERS p. A218

CN

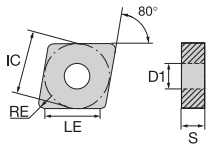
ISO - with hole

- The most popular insert shape due to high versatility
- 80° corner can be used for both turning and facing operations
- Opposite 100° corners can be used for general roughing applications (especially facing), providing maximum economy of 8 total cutting edges

HC: Coated carbide
HF: Micrograin carbide
HT: Cermet
CVD: Chemical vapour deposition
PVD: Physical vapour deposition

	JC7010	JC7020	JC7115	JC8005	JC8015	JC8025	JC8035	JC8215	JC8225	JC9010	JC9025	JP3015	JP9015	JP9030	JU4015	JU6015
	HC CVD	HC CVD	HC CVD	HC CVD	HC CVD	HC CVD	HC CVD	HC CVD	HC CVD	HC CVD	HC CVD	HF PVD	HF PVD	HF PVD	HT	HF
Stable machining, light cut (● 1st choice, ○ suitable)	●	○	●	●	●	○		●		●	○	●	●		●	●
General machining, medium cut (● 1st choice, ○ suitable)	●	○	●		●	●	○	●	●	○	●	●	●	●		●
Unstable machining, heavy cut (● 1st choice, ○ suitable)	○	●	○			○	●		○		○			●		○

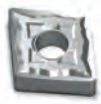
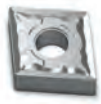
Dimensions



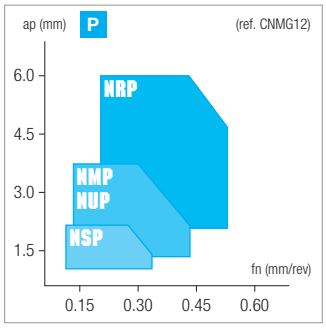
4 edges

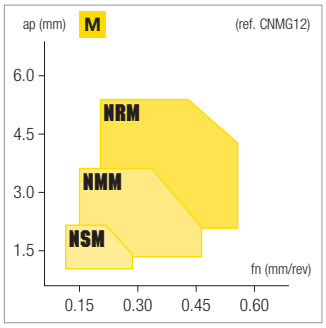
Vc(m/min) - suggested cutting speed range (bold: 1st choice)

ISO	JC7010	JC7020	JC7115	JC8005	JC8015	JC8025	JC8035	JC8215	JC8225	JC9010	JC9025	JP3015	JP9015	JP9030	JU4015	JU6015
P				200 380	170 360	140 330	100 200	170 360	140 330						200 380	
M										100 200	80 180		70 160	50 130		
K	130 380	110 300	130 380													
N																200 1000
S												20 70				
H																

	Designation		RE	IC	S	D1	LE	Stock															
FINISHING	NSP P	CNMG090304-NSP	0.4	9.525	3.18	3.81	9.3					●	●								●		
		CNMG090308-NSP	0.8	9.525	3.18	3.81	8.9					●	●								●		
		CNMG120404-NSP	0.4	12.7	4.76	5.16	12.5				●	●	●								●		
		CNMG120408-NSP	0.8	12.7	4.76	5.16	12.1				●	●	●								●		
FINISHING	NSM M 	CNMG120404-NSM	0.4	12.7	4.76	5.16	12.5												●	●			
		CNMG120408-NSM	0.8	12.7	4.76	5.16	12.1												●	●			
MEDIUM	NMP P 	CNMG120404-NMP	0.4	12.7	4.76	5.16	12.5					●	●										
		CNMG120408-NMP	0.8	12.7	4.76	5.16	12.1					●	●								▽		
		CNMG120412-NMP	1.2	12.7	4.76	5.16	11.7					●	●										
		CNMG120416-NMP	1.6	12.7	4.76	5.16	11.3					●	○										
		CNMG160608-NMP	0.8	15.87	6.35	6.35	15.3					●	●										
		CNMG160612-NMP	1.2	15.87	6.35	6.35	14.9					●	●										
		CNMG160616-NMP	1.6	15.87	6.35	6.35	14.5					●	●										
		CNMG190612-NMP	1.2	19.05	6.35	7.94	18.1					●	○										
		CNMG190616-NMP	1.6	19.05	6.35	7.94	17.7					●	○										

● stock standard, ○ non-standard stock, ▲ upcoming introduction, ▽ stock exhaustion





nikkoTOOLS

CN

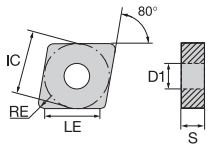
ISO - with hole

- The most popular insert shape due to high versatility
- 80° corner can be used for both turning and facing operations
- Opposite 100° corners can be used for general roughing applications (especially facing), providing maximum economy of 8 total cutting edges

HC: Coated carbide
HF: Micrograin carbide
HT: Cermet
CVD: Chemical vapour deposition
PVD: Physical vapour deposition

	JC7010	JC7020	JC7115	JC8005	JC8015	JC8025	JC8035	JC8215	JC8225	JC9010	JC9025	JP3015	JP9015	JP9030	JU4015	JU6015
	HC CVD	HC CVD	HC CVD	HC CVD	HC CVD	HC CVD	HC CVD	HC CVD	HC CVD	HC CVD	HC CVD	HF PVD	HF PVD	HF PVD	HT	HF
Stable machining, light cut (● 1st choice, ○ suitable)	●	○	●	●	●	○		●		●	○	●	●		●	●
General machining, medium cut (● 1st choice, ○ suitable)	●	○	●		●	●	○	●	●	○	●	●	●	●		●
Unstable machining, heavy cut (● 1st choice, ○ suitable)	○	●	○			○	●		○		○			●		○

Dimensions



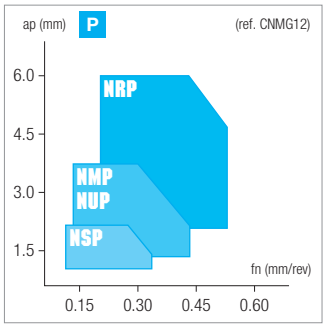
4 edges

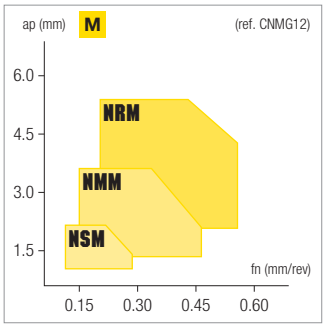
Vc(m/min) - suggested cutting speed range (bold: 1st choice)

ISO	JC7010	JC7020	JC7115	JC8005	JC8015	JC8025	JC8035	JC8215	JC8225	JC9010	JC9025	JP3015	JP9015	JP9030	JU4015	JU6015
P				200 380	170 360	140 330	100 200	170 360	140 330						200 380	
M										100 200	80 180		70 160	50 130		
K	130 380	110 300	130 380													
N																200 1000
S												20 70				
H																

	Designation		RE	IC	S	D1	LE	Stock															
MEDIUM	NUP P	CNMG090304-NUP	0.4	9.525	3.18	3.81	9.3					●	●								●		
		CNMG090308-NUP	0.8	9.525	3.18	3.81	8.9					●	○								●		
		CNMG120404-NUP	0.4	12.7	4.76	5.16	12.5				●	●	●					●			○		
		CNMG120408-NUP	0.8	12.7	4.76	5.16	12.1				●	●	●	●				●			○		
		CNMG120412-NUP	1.2	12.7	4.76	5.16	11.7				●	●	●	●				○					
		CNMG120416-NUP	1.6	12.7	4.76	5.16	11.3				●	○	○										
		CNMG160608-NUP	0.8	15.87	6.35	6.35	15.3				●	○	○										
		CNMG160612-NUP	1.2	15.87	6.35	6.35	14.9				●	○	●										
		CNMG190608-NUP	0.8	19.05	6.35	7.94	18.5					○	○										
		CNMG190612-NUP	1.2	19.05	6.35	7.94	18.1					○	○										
		CNMG190616-NUP	1.6	19.05	6.35	7.94	17.7					○	○										
MEDIUM	NMM M	CNMG090304-NMM	0.4	9.525	3.18	3.81	9.3											●		●			
		CNMG090308-NMM	0.8	9.525	3.18	3.81	8.9											●		●			
		CNMG120404-NMM	0.4	12.7	4.76	5.16	12.5									●		●		●	▽		
		CNMG120408-NMM	0.8	12.7	4.76	5.16	12.1									●		●		●	▽		
		CNMG120412-NMM	1.2	12.7	4.76	5.16	11.7									●		●	▽	●			
		CNMG120416-NMM	1.6	12.7	4.76	5.16	11.3											○		○			
		CNMG160608-NMM	0.8	15.87	6.35	6.35	15.3											○		○			
		CNMG160612-NMM	1.2	15.87	6.35	6.35	14.9											●	▽	○			
		CNMG160616-NMM	1.6	15.87	6.35	6.35	14.5											●	▽	●			
		CNMG190612-NMM	1.2	19.05	6.35	7.94	18.1											○		○			
		CNMG190616-NMM	1.6	19.05	6.35	7.94	17.7											●		○			

● stock standard, ○ non-standard stock, ▲ upcoming introduction, ▽ stock exhaustion





PRODUCT SELECTION p. A35 | CUTTING CONDITIONS p. A78 | GRADES FEATURES p. A4 | EXTERNAL HOLDERS p. A224 | INTERNAL HOLDERS p. A229

CN

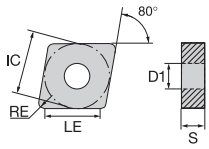
ISO - with hole

- The most popular insert shape due to high versatility
- 80° corner can be used for both turning and facing operations
- Opposite 100° corners can be used for general roughing applications (especially facing), providing maximum economy of 8 total cutting edges

HC: Coated carbide
HF: Micrograin carbide
HT: Cermet
CVD: Chemical vapour deposition
PVD: Physical vapour deposition

	JC7010	JC7020	JC7115	JC8005	JC8015	JC8025	JC8035	JC8215	JC8225	JC9010	JC9025	JP3015	JP9015	JP9030	JU4015	JU6015
	HC CVD	HC CVD	HC CVD	HC CVD	HC CVD	HC CVD	HC CVD	HC CVD	HC CVD	HC CVD	HC CVD	HF PVD	HF PVD	HF PVD	HT	HF
Stable machining, light cut (● 1st choice, ○ suitable)	●	○	●	●	●	○		●		●	○	●	●		●	●
General machining, medium cut (● 1st choice, ○ suitable)	●	○	●		●	●	○	●	●	○	●	●	●	●		●
Unstable machining, heavy cut (✱ 1st choice, ✱ suitable)	✱	✱	✱			✱	✱		✱		✱			✱		✱

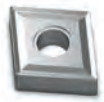
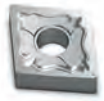
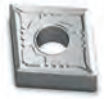
Dimensions



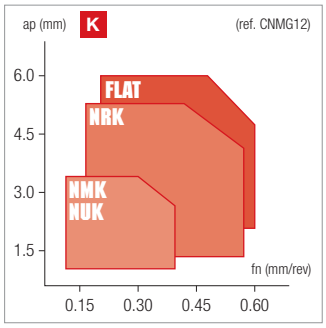
4 edges

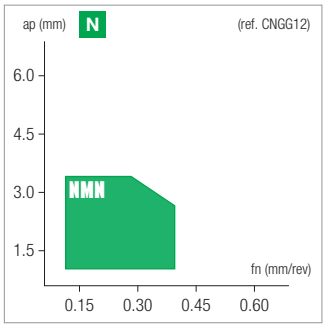
Vc(m/min) - suggested cutting speed range (bold: 1st choice)

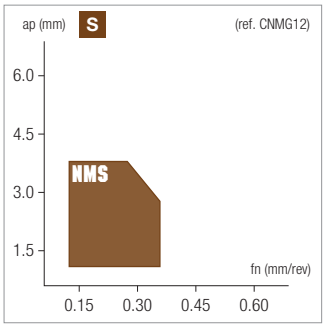
ISO	JC7010	JC7020	JC7115	JC8005	JC8015	JC8025	JC8035	JC8215	JC8225	JC9010	JC9025	JP3015	JP9015	JP9030	JU4015	JU6015
P				200 380	170 360	140 330	100 200	170 360	140 330						200 380	
M										100 200	80 180		70 160	50 130		
K	130 380	110 300	130 380													
N																200 1000
S												20 70				
H																

	Designation		RE	IC	S	D1	LE	JC7010	JC7020	JC7115	JC8005	JC8015	JC8025	JC8035	JC8215	JC8225	JC9010	JC9025	JP3015	JP9015	JP9030	JU4015	JU6015
MEDIUM	NMK K 	CNMG120404-NMK	0.4	12.7	4.76	5.16	12.5	●	○														
		CNMG120408-NMK	0.8	12.7	4.76	5.16	12.1	●	●														
		CNMG120412-NMK	1.2	12.7	4.76	5.16	11.7	●	○														
		CNMG120416-NMK	1.6	12.7	4.76	5.16	11.3	●	○														
		CNMG160608-NMK	0.8	15.87	6.35	6.35	15.3	●	○														
		CNMG160612-NMK	1.2	15.87	6.35	6.35	14.9	●	○														
		CNMG160616-NMK	1.6	15.87	6.35	6.35	14.5	○	○														
		CNMG190612-NMK	1.2	19.05	6.35	7.94	18.1	○	○														
		CNMG190616-NMK	1.6	19.05	6.35	7.94	17.7	○	○														
MEDIUM	NUK K sharp edge reduces burrs	CNMG120404-NUK	0.4	12.7	4.76	5.16	12.5			●													
		CNMG120408-NUK	0.8	12.7	4.76	5.16	12.1	▽		●													
		CNMG120412-NUK	1.2	12.7	4.76	5.16	11.7	▽		●													
MEDIUM	NMN N  polished surface ground periphery	CNGG120404-NMN	0.4	12.7	4.76	5.16	12.5																●
		CNGG120408-NMN	0.8	12.7	4.76	5.16	12.1																●
MEDIUM	NMS S 	CNMG120408-NMS	0.8	12.7	4.76	5.16	12.1												●				
		CNMG120412-NMS	1.2	12.7	4.76	5.16	11.7												●				

● stock standard, ○ non-standard stock, ▲ upcoming introduction, ▽ stock exhaustion







nikkoTOOLS

CN

ISO - with hole

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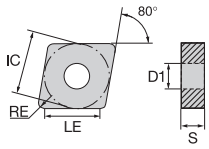
HF: Micrograin carbide
HT: Cermet
CVD: Chemical vapour deposition
PVD: Physical vapour deposition

	JC7010	JC7020	JC7115	JC8005	JC8015	JC8025	JC8035	JC8215	JC8225	JC9010	JC9025	JP3015	JP9015	JP9030	JU4015	JU6015
	HC CVD	HC CVD	HC CVD	HC CVD	HC CVD	HC CVD	HC CVD	HC CVD	HC CVD	HC CVD	HC CVD	HF PVD	HF PVD	HF PVD	HT	HF
Stable machining, light cut (● 1st choice, ○ suitable)	●	○	●	●	●	○		●		●	○	●	●		●	●
General machining, medium cut (● 1st choice, ○ suitable)	●	○	●		●	●	○	●	●	○	●	●	●	●		●
Unstable machining, heavy cut (● 1st choice, ○ suitable)	○	●	○			○	●		○		○			●		○

Dimensions



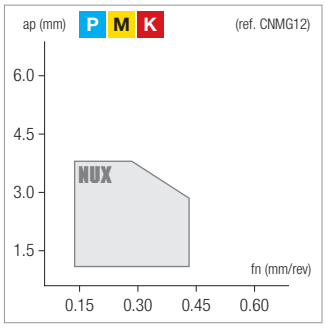
4 edges

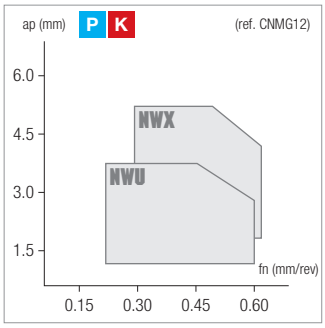
Vc(m/min) - suggested cutting speed range (bold: 1st choice)

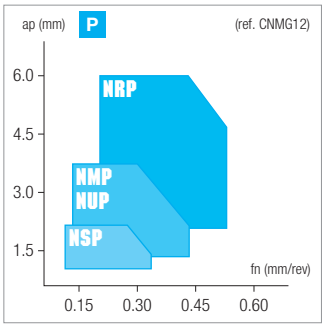
ISO	JC7010	JC7020	JC7115	JC8005	JC8015	JC8025	JC8035	JC8215	JC8225	JC9010	JC9025	JP3015	JP9015	JP9030	JU4015	JU6015
P				200 380	170 360	140 330	100 200	170 360	140 330						200 380	
M										100 200	80 180		70 160	50 130		
K	130 380	110 300	130 380													
N																200 1000
S												20 70				
H																

	Designation		RE	IC	S	D1	LE	JC7010	JC7020	JC7115	JC8005	JC8015	JC8025	JC8035	JC8215	JC8225	JC9010	JC9025	JP3015	JP9015	JP9030	JU4015	JU6015
MEDIUM	NUX P M K	CNMG120404-NUX	0.4	12.7	4.76	5.16	12.5	●			●	●	●				●	●					
MEDIUM	NUX P M K	CNMG120408-NUX	0.8	12.7	4.76	5.16	12.1	●			●	●	●		▲	▲	●	●					
MEDIUM	NUX P M K	CNMG120412-NUX	1.2	12.7	4.76	5.16	11.7	●			●	●	●		▲	▲	●	●					
MEDIUM	NWU P K	CNMG120408-NWU	0.8	12.7	4.76	5.16	12.1	●					●										
MEDIUM	NWU P K	CNMG120412-NWU	1.2	12.7	4.76	5.16	11.7	●					●										
MEDIUM	NWX P K	CNMG120408-NWX	0.8	12.7	4.76	5.16	12.1	●					●									●	
MEDIUM	NWX P K	CNMG120412-NWX	1.2	12.7	4.76	5.16	11.7	●					●									●	
ROUGHING	NRP P	CNMG120408-NRP	0.8	12.7	4.76	5.16	12.1				●	●	●	●									
ROUGHING	NRP P	CNMG120412-NRP	1.2	12.7	4.76	5.16	11.7				●	●	●	●									
ROUGHING	NRP P	CNMG120416-NRP	1.6	12.7	4.76	5.16	11.3				●	●	●	●									
ROUGHING	NRP P	CNMG160612-NRP	1.2	15.87	6.35	6.35	14.9				●	●	●	●									
ROUGHING	NRP P	CNMG160616-NRP	1.6	15.87	6.35	6.35	14.5				●	●	●	●									
ROUGHING	NRP P	CNMG190612-NRP	1.2	19.05	6.35	7.94	18.1						○	○									
ROUGHING	NRP P	CNMG190616-NRP	1.6	19.05	6.35	7.94	17.7					○	●	●									
ROUGHING	NRP P	CNMG190624-NRP	2.4	19.05	6.35	7.94	16.9						●	●									
ROUGHING	NRP P	CNMG250924-NRP	2.4	25.4	9.52	9.12	23.4						○										

● stock standard, ○ non-standard stock, ▲ upcoming introduction, ▽ stock exhaustion







PRODUCT SELECTION p. A35 | CUTTING CONDITIONS p. A78 | GRADES FEATURES p. A4 | EXTERNAL HOLDERS p. A224 | INTERNAL HOLDERS p. A229

CN

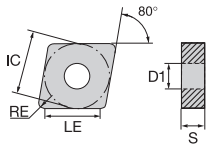
ISO - with hole

- The most popular insert shape due to high versatility
- 80° corner can be used for both turning and facing operations
- Opposite 100° corners can be used for general roughing applications (especially facing), providing maximum economy of 8 total cutting edges

HC: Coated carbide
HF: Micrograin carbide
HT: Cermet
CVD: Chemical vapour deposition
PVD: Physical vapour deposition

	JC7010	JC7020	JC7115	JC8005	JC8015	JC8025	JC8035	JC8215	JC8225	JC9010	JC9025	JP3015	JP9015	JP9030	JU4015	JU6015
	HC CVD	HC CVD	HC CVD	HC CVD	HC CVD	HC CVD	HC CVD	HC CVD	HC CVD	HC CVD	HC CVD	HF PVD	HF PVD	HF PVD	HT	HF
Stable machining, light cut (● 1st choice, ○ suitable)	●	○	●	●	●	○		●		●	○	●	●		●	●
General machining, medium cut (● 1st choice, ○ suitable)	●	○	●		●	●	○	●	●	○	●	●	●	●		●
Unstable machining, heavy cut (✱ 1st choice, ✱ suitable)	✱	✱	✱			✱	✱		✱		✱			✱		✱

Dimensions



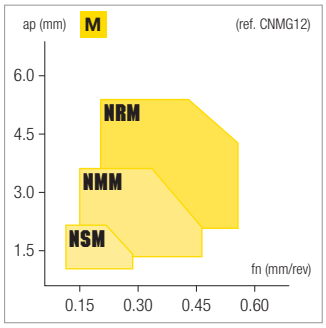
4 edges

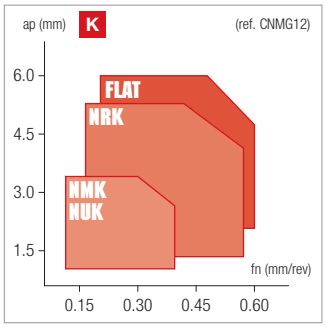
Vc(m/min) - suggested cutting speed range (bold: 1st choice)

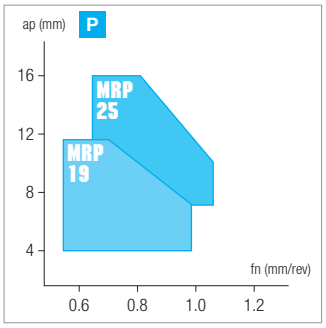
ISO	JC7010	JC7020	JC7115	JC8005	JC8015	JC8025	JC8035	JC8215	JC8225	JC9010	JC9025	JP3015	JP9015	JP9030	JU4015	JU6015
P				200 380	170 360	140 330	100 200	170 360	140 330						200 380	
M										100 200	80 180		70 160	50 130		
K	130 380	110 300	130 380													
N																200 1000
S												20 70				
H																

	Designation		RE	IC	S	D1	LE	JC7010	JC7020	JC7115	JC8005	JC8015	JC8025	JC8035	JC8215	JC8225	JC9010	JC9025	JP3015	JP9015	JP9030	JU4015	JU6015
ROUGHING	NRM M	CNMG120408-NRM	0.8	12.7	4.76	5.16	12.1										●	●			●		
		CNMG120412-NRM	1.2	12.7	4.76	5.16	11.7										●	●			●		
		CNMG160608-NRM	0.8	15.87	6.35	6.35	15.3										○						
		CNMG160612-NRM	1.2	15.87	6.35	6.35	14.9										○	●			●		
		CNMG190612-NRM	1.2	19.05	6.35	7.94	18.1										○				●		
		CNMG190616-NRM	1.6	19.05	6.35	7.94	17.7										○				●		
ROUGHING	NRK K	CNMG120408-NRK	0.8	12.7	4.76	5.16	12.1	●	●	●													
		CNMG120412-NRK	1.2	12.7	4.76	5.16	11.7	●	●	●													
		CNMG120416-NRK	1.6	12.7	4.76	5.16	11.3	○	●	○													
		CNMG160612-NRK	1.2	15.87	6.35	6.35	14.9	●	●	●													
		CNMG160616-NRK	1.6	15.87	6.35	6.35	14.5	●	●	●													
		CNMG190612-NRK	1.2	19.05	6.35	7.94	18.1	○	○														
		CNMG190616-NRK	1.6	19.05	6.35	7.94	17.7	○	●														
ROUGHING	flat K	CNMA120404	0.4	12.7	4.76	5.16	12.5	○	○														
		CNMA120408	0.8	12.7	4.76	5.16	12.1	●	○	○													
		CNMA120412	1.2	12.7	4.76	5.16	11.7	●	○	●													
		CNMA120416	1.6	12.7	4.76	5.16	11.3	○	○														
		CNMA160612	1.2	15.87	6.35	6.35	14.9	●	○	●													
		CNMA160616	1.6	15.87	6.35	6.35	14.5	●	○	●													
		CNMA190612	1.2	19.05	6.35	7.94	18.1	○	○														
		CNMA190616	1.6	19.05	6.35	7.94	17.7	●	○														
HEAVY ROUGHING	MRP P	CNMM190616-MRP	1.6	19.05	6.35	7.94	17.7						○	○									
		CNMM190624-MRP	2.4	19.05	6.35	7.94	16.9						●	●									
	single side 2 edges	CNMM250924-MRP	2.4	25.4	9.52	9.12	23.4						●	●									

● stock standard, ○ non-standard stock, ▲ upcoming introduction, ▽ stock exhaustion







nikkoTOOLS

DC

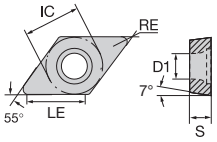
ISO - with hole

- Generally the 1st choice for profile/copy turning applications
- Able to "In-Copy" (plunge turn in small diameter) with 30° angle
- 7° clearance angle, less risk of chip jamming in boring
- Somewhat weaker edge strength than a triangle insert

HC: Coated carbide
HT: Cermet
HF: Micrograin carbide
CVD: Chemical vapour deposition
PVD: Physical vapour deposition

	JC7010	JC8005	JC8015	JC8025	JC9010	JC9025	JP4020	JP5015	JP5120	JP5125	JP6010	JU4015	JU6015
	HC CVD	HC CVD	HC CVD	HC CVD	HC CVD	HC CVD	HT PVD	HF PVD	HF PVD	HF PVD	HF PVD	HT	HF
Stable machining, light cut (● 1st choice, ○ suitable)	●	●	●	○	●	○	●	●	●	○	●	●	●
General machining, medium cut (● 1st choice, ○ suitable)	●		●	●	○	●	○	●	●	●	○		●
Unstable machining, heavy cut (● 1st choice, ○ suitable)	○			○		○				●			○

Dimensions



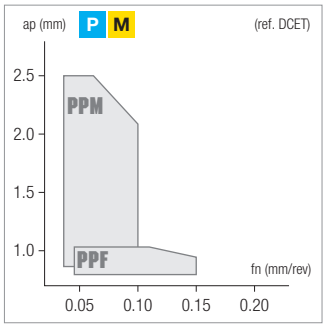
2 edges

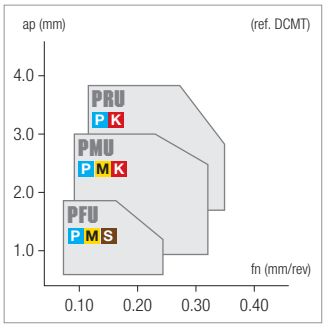
Vc(m/min) - suggested cutting speed range (bold: 1st choice)

ISO	JC7010	JC8005	JC8015	JC8025	JC9010	JC9025	JP4020	JP5015	JP5120	JP5125	JP6010	JU4015	JU6015
P		200 380	170 360	140 330			180 400	100 220	90 200	70 180		200 380	
M					100 200	80 180	100 220	70 160	60 150	50 140			
K	130 380						150 320		90 190	60 180			
N											400 1400		200 1000
S								20 70					
H													

	Designation		RE	IC	S	D1	LE	JC7010	JC8005	JC8015	JC8025	JC9010	JC9025	JP4020	JP5015	JP5120	JP5125	JP6010	JU4015	JU6015
FINISHING	PPF P M ground chipbreaker right-hand shown	DCET070202L/R-PPF	0.2	6.35	2.38	2.8	7.6										●		●	
		DCET070204L/R-PPF	0.4	6.35	2.38	2.8	7.4										●		●	
		DCET11T302L/R-PPF	0.2	9.525	3.97	4.4	11.4										●		●	
		DCET11T304L/R-PPF	0.4	9.525	3.97	4.4	11.2										●		●	
FINISHING	PFU P M S sharp edge low cutting force	DCMT070202-PFU	0.2	6.35	2.38	2.8	7.6			●	●		○	○	○	●	●		●	
		DCMT070204-PFU	0.4	6.35	2.38	2.8	7.4			●	●		●	○	●	●	●		●	
		DCMT11T302-PFU	0.2	9.525	3.97	4.4	11.4			●	●		●	○	●	●	●		○	
		DCMT11T304-PFU	0.4	9.525	3.97	4.4	11.2		●	●	●		●	●	●	●	●		●	
		DCMT11T308-PFU	0.8	9.525	3.97	4.4	10.8		●	●	●		●	○	●	●	●		●	
MEDIUM	PPM P M ground chipbreaker right-hand shown	DCET070204L/R-PPM	0.4	6.35	2.38	2.8	7.4										●		●	
		DCET11T302L/R-PPM	0.2	9.525	3.97	4.4	11.4										●		●	
		DCET11T304L/R-PPM	0.4	9.525	3.97	4.4	11.2										●		●	
MEDIUM	PMU P M K 1st choice universal application	DCMT070202-PMU	0.2	6.35	2.38	2.8	7.6			○	●		○	○					●	
		DCMT070204-PMU	0.4	6.35	2.38	2.8	7.4	●		●	●		●	●		●	●		●	
		DCMT070208-PMU	0.8	6.35	2.38	2.8	7	●		○	●		○						●	
		DCMT11T302-PMU	0.2	9.525	3.97	4.4	11.4			●	●		●	○					●	
		DCMT11T304-PMU	0.4	9.525	3.97	4.4	11.2	●		●	●	●	●	●		●	●		●	
		DCMT11T308-PMU	0.8	9.525	3.97	4.4	10.8	●		●	●	●	●	○		●	●		●	
		DCMT11T312-PMU	1.2	9.525	3.97	4.4	10.4										●			
		DCMT150404-PMU	0.4	12.7	4.76	5.5	15.1	○			●									
		DCMT150408-PMU	0.8	12.7	4.76	5.5	14.7	○		○	●		●							
		DCMT150412-PMU	1.2	12.7	4.76	5.5	14.3	○			○		○							

● stock standard, ○ non-standard stock, ▲ upcoming introduction, ▽ stock exhaustion





PRODUCT SELECTION p. A35 | CUTTING CONDITIONS p. A78 | GRADES FEATURES p. A4 | EXTERNAL HOLDERS p. A232 | INTERNAL HOLDERS p. A236

DC

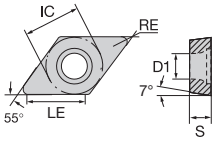
ISO - with hole

- Generally the 1st choice for profile/copy turning applications
- Able to "In-Copy" (plunge turn in small diameter) with 30° angle
- 7° clearance angle, less risk of chip jamming in boring
- Somewhat weaker edge strength than a triangle insert

HC: Coated carbide
HT: Cermet
HF: Micrograin carbide
CVD: Chemical vapour deposition
PVD: Physical vapour deposition

	JC7010	JC8005	JC8015	JC8025	JC9010	JC9025	JP4020	JP5015	JP5120	JP5125	JP6010	JU4015	JU6015
	HC CVD	HC CVD	HC CVD	HC CVD	HC CVD	HC CVD	HT PVD	HF PVD	HF PVD	HF PVD	HF PVD	HT	HF
Stable machining, light cut (● 1st choice, ○ suitable)	●	●	●	○	●	○	●	●	●	○	●	●	●
General machining, medium cut (● 1st choice, ○ suitable)	●		●	●	○	●	○	●	●	●	○		●
Unstable machining, heavy cut (● 1st choice, ○ suitable)	○			○		○				●			○

Dimensions



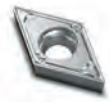
2 edges

Vc(m/min) - suggested cutting speed range (bold: 1st choice)

ISO	JC7010	JC8005	JC8015	JC8025	JC9010	JC9025	JP4020	JP5015	JP5120	JP5125	JP6010	JU4015	JU6015
P		200 380	170 360	140 330			180 400	100 220	90 200	70 180		200 380	
M					100 200	80 180	100 220	70 160	60 150	50 140			
K	130 380						150 320		90 190	60 180			
N											400 1400		200 1000
S								20 70					
H													

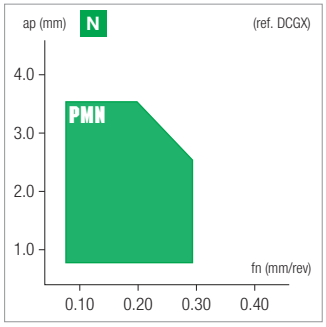
	Designation		RE	IC	S	D1	LE	JC7010	JC8005	JC8015	JC8025	JC9010	JC9025	JP4020	JP5015	JP5120	JP5125	JP6010	JU4015	JU6015
MEDIUM	PMN N	DCGX070202-PMN	0.2	6.35	2.38	2.8	7.6											○		●
		DCGX070204-PMN	0.4	6.35	2.38	2.8	7.4											●		●
		DCGX070208-PMN	0.8	6.35	2.38	2.8	7											○		●
		DCGX11T302-PMN	0.2	9.525	3.97	4.4	11.4											●		●
		DCGX11T304-PMN	0.4	9.525	3.97	4.4	11.2											●		●
		DCGX11T308-PMN	0.8	9.525	3.97	4.4	10.8											●		●
ROUGHING	PRU P K	DCMT11T304-PRU	0.4	9.525	3.97	4.4	11.2	●			●									
		DCMT11T308-PRU	0.8	9.525	3.97	4.4	10.8	●			●									

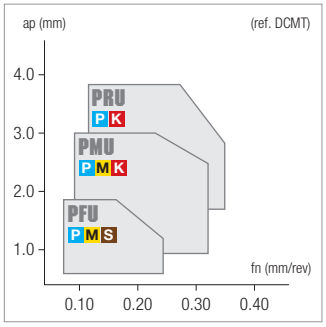
polished surface
ground periphery



strong edge
interrupted cut

● stock standard, ○ non-standard stock, ▲ upcoming introduction, ▽ stock exhaustion





nikkoTOOLS

DN

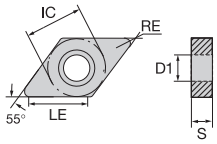
ISO - with hole

- Generally the 1st choice for profile/copy turning applications
- Able to "In-Copy" (plunge turn into a smaller diameter) at an angle of 30°
- Commonly used when machining close to the tailstock
- Somewhat weaker edge strength than a triangle insert

HC: Coated carbide
HF: Micrograin carbide
HT: Cermet
CVD: Chemical vapour deposition
PVD: Physical vapour deposition

	JC7010	JC7020	JC7115	JC8005	JC8015	JC8025	JC8035	JC8215	JC8225	JC9010	JC9025	JP3015	JP9015	JP9030	JU4015	JU6015
	HC CVD	HC CVD	HC CVD	HC CVD	HC CVD	HC CVD	HC CVD	HC CVD	HC CVD	HC CVD	HC CVD	HF PVD	HF PVD	HF PVD	HT	HF
Stable machining, light cut (● 1st choice, ○ suitable)	●	○	●	●	●	○		●		●	○	●	●		●	●
General machining, medium cut (● 1st choice, ○ suitable)	●	○	●		●	●	○	●	●	○	●	●	●	●		●
Unstable machining, heavy cut (1st choice, suitable)																

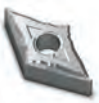
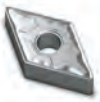
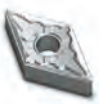
Dimensions



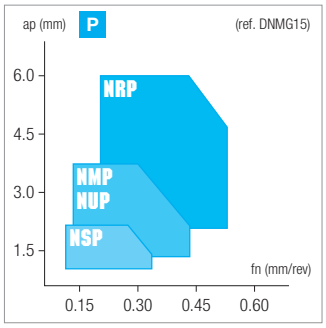
4 edges

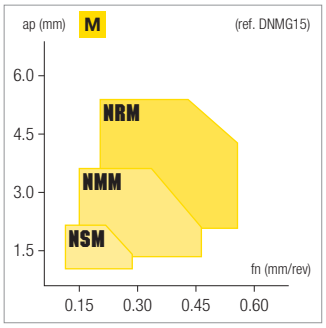
Vc(m/min) - suggested cutting speed range (bold: 1st choice)

ISO	JC7010	JC7020	JC7115	JC8005	JC8015	JC8025	JC8035	JC8215	JC8225	JC9010	JC9025	JP3015	JP9015	JP9030	JU4015	JU6015
P				200 380	170 360	140 330	100 200	170 360	140 330						200 380	
M										100 200	80 180		70 160	50 130		
K	130 380	110 300	130 380													
N																200 1000
S												20 70				
H																

	Designation		RE	IC	S	D1	LE	Stock															
FINISHING	NSP P	DNMG110404-NSP	0.4	9.525	4.76	3.81	11.2					○	●								●		
		DNMG110408-NSP	0.8	9.525	4.76	3.81	10.8					●	○								●		
		DNMG150604-NSP	0.4	12.7	6.35	5.16	15.1				●	●	●								●		
		DNMG150608-NSP	0.8	12.7	6.35	5.16	14.7				●	●	●								●		
FINISHING	NSM M 	DNMG150604-NSM	0.4	12.7	6.35	5.16	15.1												●	●			
		DNMG150608-NSM	0.8	12.7	6.35	5.16	14.7												●	●			
MEDIUM	NMP P 	DNMG110404-NMP	0.4	9.525	4.76	3.81	11.2					○	○										
		DNMG110408-NMP	0.8	9.525	4.76	3.81	10.8	●				○	●										
		DNMG150604-NMP	0.4	12.7	6.35	5.16	15.1					●	●										
		DNMG150608-NMP	0.8	12.7	6.35	5.16	14.7					●	●										
		DNMG150612-NMP	1.2	12.7	6.35	5.16	14.3					●	●										
		DNMG150616-NMP	1.6	12.7	6.35	5.16	13.9					●	●										
MEDIUM	NUP P 	DNMG110404-NUP	0.4	9.525	4.76	3.81	11.2					○	●								●		
		DNMG110408-NUP	0.8	9.525	4.76	3.81	10.8					●	○								●		
		DNMG110412-NUP	1.2	9.525	4.76	3.81	10.4					○	○										
		DNMG150604-NUP	0.4	12.7	6.35	5.16	15.1				●	●	●				●				●		
		DNMG150608-NUP	0.8	12.7	6.35	5.16	14.7				●	●	●	○			●				○		
		DNMG150612-NUP	1.2	12.7	6.35	5.16	14.3				●	●	●	○			●						

● stock standard, ○ non-standard stock, ▲ upcoming introduction, ▽ stock exhaustion





A - TURNING
B - THREADING
C - GROOVING
D - MILLING
E - DRILLING
F - ACCESSORIES
G - SPARE PARTS

DN

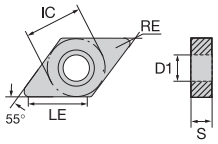
ISO - with hole

- Generally the 1st choice for profile/copy turning applications
- Able to "In-Copy" (plunge turn into a smaller diameter) at an angle of 30°
- Commonly used when machining close to the tailstock
- Somewhat weaker edge strength than a triangle insert

HC: Coated carbide
HF: Micrograin carbide
HT: Cermet
CVD: Chemical vapour deposition
PVD: Physical vapour deposition

	JC7010	JC7020	JC7115	JC8005	JC8015	JC8025	JC8035	JC8215	JC8225	JC9010	JC9025	JP3015	JP9015	JP9030	JU4015	JU6015
	HC CVD	HC CVD	HC CVD	HC CVD	HC CVD	HC CVD	HC CVD	HC CVD	HC CVD	HC CVD	HC CVD	HF PVD	HF PVD	HF PVD	HT	HF
Stable machining, light cut (● 1st choice, ○ suitable)	●	○	●	●	●	○		●		●	○	●	●		●	●
General machining, medium cut (● 1st choice, ○ suitable)	●	○	●		●	●	○	●	●	○	●	●	●	●		●
Unstable machining, heavy cut (✱ 1st choice, ✱ suitable)	✱	✱	✱			✱	✱		✱		✱			✱		✱

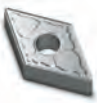
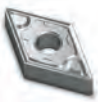
Dimensions



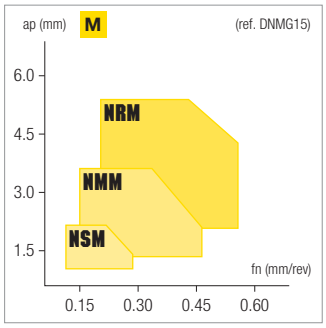
4 edges

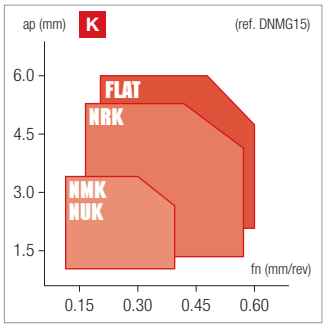
Vc(m/min) - suggested cutting speed range (bold: 1st choice)

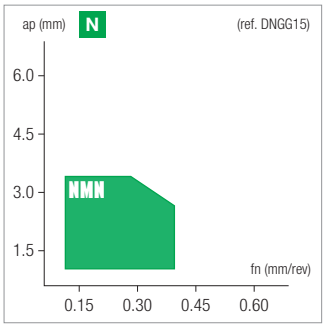
ISO	JC7010	JC7020	JC7115	JC8005	JC8015	JC8025	JC8035	JC8215	JC8225	JC9010	JC9025	JP3015	JP9015	JP9030	JU4015	JU6015
P				200 380	170 360	140 330	100 200	170 360	140 330						200 380	
M										100 200	80 180		70 160	50 130		
K	130 380	110 300	130 380													
N																200 1000
S												20 70				
H																

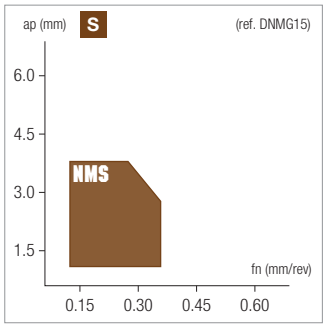
	Designation		RE	IC	S	D1	LE	JC7010	JC7020	JC7115	JC8005	JC8015	JC8025	JC8035	JC8215	JC8225	JC9010	JC9025	JP3015	JP9015	JP9030	JU4015	JU6015
MEDIUM	NMM M	DNMG110404-NMM	0.4	9.525	4.76	3.81	11.2											●			○		
		DNMG110408-NMM	0.8	9.525	4.76	3.81	10.8											●			●		
		DNMG150604-NMM	0.4	12.7	6.35	5.16	15.1											●			●		
		DNMG150608-NMM	0.8	12.7	6.35	5.16	14.7										●	●			●		
		DNMG150612-NMM	1.2	12.7	6.35	5.16	14.3											●			●		
MEDIUM	NMK K	DNMG150604-NMK	0.4	12.7	6.35	5.16	15.1	●	○														
		DNMG150608-NMK	0.8	12.7	6.35	5.16	14.7	●	○	○													
		DNMG150612-NMK	1.2	12.7	6.35	5.16	14.3	○	○	●													
		DNMG150616-NMK	1.6	12.7	6.35	5.16	13.9			○													
MEDIUM	NUK K  sharp edge reduces burrs	DNMG150604-NUK	0.4	12.7	6.35	5.16	15.1			●													
		DNMG150608-NUK	0.8	12.7	6.35	5.16	14.7			●													
		DNMG150612-NUK	1.2	12.7	6.35	5.16	14.3			●													
MEDIUM	NMN N polished surface ground periphery	DNGG150604-NMN	0.4	12.7	6.35	5.16	15.1																●
		DNGG150608-NMN	0.8	12.7	6.35	5.16	14.7																●
MEDIUM	NMS S 	DNMG150608-NMS	0.8	12.7	6.35	5.16	14.7												●				
		DNMG150612-NMS	1.2	12.7	6.35	5.16	14.3												●				

● stock standard, ○ non-standard stock, ▲ upcoming introduction, ▽ stock exhaustion









nikkoTOOLS

DN

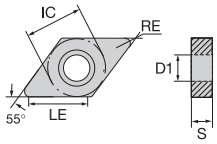
ISO - with hole

- Generally the 1st choice for profile/copy turning applications
- Able to "In-Copy" (plunge turn into a smaller diameter) at an angle of 30°
- Commonly used when machining close to the tailstock
- Somewhat weaker edge strength than a triangle insert

HC: Coated carbide
HF: Micrograin carbide
HT: Cermet
CVD: Chemical vapour deposition
PVD: Physical vapour deposition

	JC7010	JC7020	JC7115	JC8005	JC8015	JC8025	JC8035	JC8215	JC8225	JC9010	JC9025	JP3015	JP9015	JP9030	JU4015	JU6015
	HC CVD	HC CVD	HC CVD	HC CVD	HC CVD	HC CVD	HC CVD	HC CVD	HC CVD	HC CVD	HC CVD	HF PVD	HF PVD	HF PVD	HT	HF
Stable machining, light cut (● 1st choice, ○ suitable)	●	○	●	●	●	○		●		●	○	●	●		●	●
General machining, medium cut (● 1st choice, ○ suitable)	●	○	●		●	●	○	●	●	○	●	●	●	●		●
Unstable machining, heavy cut (✱ 1st choice, ✱ suitable)	✱	✱	✱			✱	✱		✱		✱			✱		✱

Dimensions



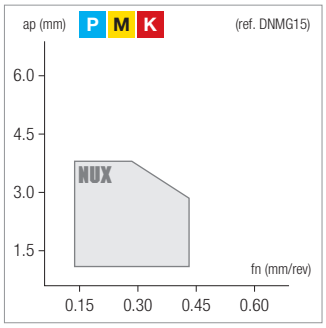
4 edges

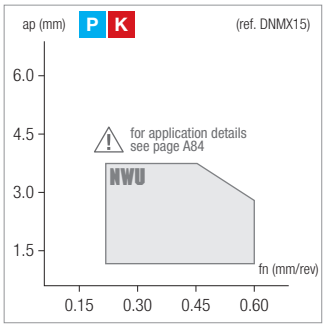
Vc(m/min) - suggested cutting speed range (bold: 1st choice)

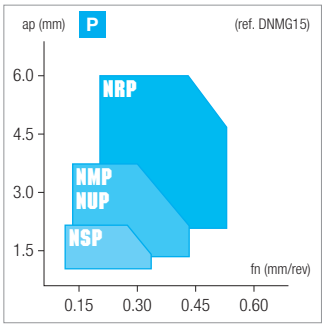
ISO	JC7010	JC7020	JC7115	JC8005	JC8015	JC8025	JC8035	JC8215	JC8225	JC9010	JC9025	JP3015	JP9015	JP9030	JU4015	JU6015
P				200 380	170 360	140 330	100 200	170 360	140 330						200 380	
M										100 200	80 180		70 160	50 130		
K	130 380	110 300	130 380													
N																200 1000
S												20 70				
H																

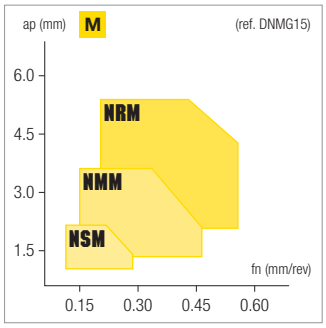
	Designation		RE	IC	S	D1	LE	JC7010	JC7020	JC7115	JC8005	JC8015	JC8025	JC8035	JC8215	JC8225	JC9010	JC9025	JP3015	JP9015	JP9030	JU4015	JU6015
MEDIUM	NUX P M K	DNMG150604-NUX	0.4	12.7	6.35	5.16	15.1	●			●	●	●				●	●					
		DNMG150608-NUX	0.8	12.7	6.35	5.16	14.7	●			●	●	●		▲	▲	●	●					
	universal use wide range of grades	DNMG150612-NUX	1.2	12.7	6.35	5.16	14.3	●			●	●	●		▲	▲	●	●					
MEDIUM	NMU P M	DNMG150604$^{L}/_{R}$-NMU	0.4	12.7	6.35	5.16	15.1						●					●					
	right-hand shown (parameters p.A81)	DNMG150608$^{L}/_{R}$-NMU	0.8	12.7	6.35	5.16	14.7						●					●					
MEDIUM	NWU P K	DNMX150608-NWU	0.8	12.7	6.35	5.16	14.7	●					○										
	wiper universal type	DNMX150612-NWU	1.2	12.7	6.35	5.16	14.3	●					○										
ROUGHING	NRP P	DNMG150608-NRP	0.8	12.7	6.35	5.16	14.7				●	●	●	●									
		DNMG150612-NRP	1.2	12.7	6.35	5.16	14.3				●	●	●	●									
		DNMG150616-NRP	1.6	12.7	6.35	5.16	13.9					●	●	●									
ROUGHING	NRM M	DNMG150608-NRM	0.8	12.7	6.35	5.16	14.7										●				●		
		DNMG150612-NRM	1.2	12.7	6.35	5.16	14.3										●				●		

● stock standard, ○ non-standard stock, ▲ upcoming introduction, ▽ stock exhaustion









PRODUCT SELECTION p. A35 | CUTTING CONDITIONS p. A78 | GRADES FEATURES p. A4 | EXTERNAL HOLDERS p. A244 | INTERNAL HOLDERS p. A247

DN

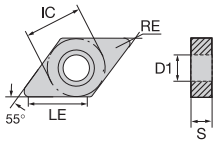
ISO - with hole

- Generally the 1st choice for profile/copy turning applications
- Able to "In-Copy" (plunge turn into a smaller diameter) at an angle of 30°
- Commonly used when machining close to the tailstock
- Somewhat weaker edge strength than a triangle insert

HC: Coated carbide
HF: Micrograin carbide
HT: Cermet
CVD: Chemical vapour deposition
PVD: Physical vapour deposition

	JC7010	JC7020	JC7115	JC8005	JC8015	JC8025	JC8035	JC8215	JC8225	JC9010	JC9025	JP3015	JP9015	JP9030	JU4015	JU6015
	HC CVD	HC CVD	HC CVD	HC CVD	HC CVD	HC CVD	HC CVD	HC CVD	HC CVD	HC CVD	HC CVD	HF PVD	HF PVD	HF PVD	HT	HF
Stable machining, light cut (● 1st choice, ○ suitable)	●	○	●	●	●	○		●		●	○	●	●		●	●
General machining, medium cut (● 1st choice, ○ suitable)	●	○	●		●	●	○	●	●	○	●	●	●	●		●
Unstable machining, heavy cut (✱ 1st choice, ✱ suitable)	✱	✱	✱			✱	✱		✱		✱			✱		✱

Dimensions



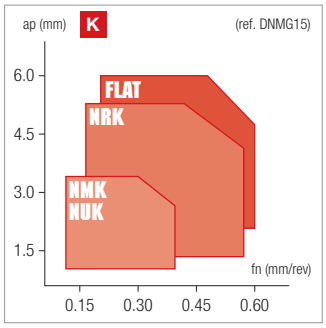
4 edges

Vc(m/min) - suggested cutting speed range (bold: 1st choice)

ISO	JC7010	JC7020	JC7115	JC8005	JC8015	JC8025	JC8035	JC8215	JC8225	JC9010	JC9025	JP3015	JP9015	JP9030	JU4015	JU6015
P				200 380	170 360	140 330	100 200	170 360	140 330						200 380	
M										100 200	80 180		70 160	50 130		
K	130 380	110 300	130 380													
N																200 1000
S												20 70				
H																

	Designation		RE	IC	S	D1	LE	JC7010	JC7020	JC7115	JC8005	JC8015	JC8025	JC8035	JC8215	JC8225	JC9010	JC9025	JP3015	JP9015	JP9030	JU4015	JU6015
ROUGHING	NRK K	DNMG150608-NRK	0.8	12.7	6.35	5.16	14.7	●	○	●													
ROUGHING		DNMG150612-NRK	1.2	12.7	6.35	5.16	14.3	●	○	●													
ROUGHING	flat K	DNMA150608	0.8	12.7	6.35	5.16	14.7	●	○	○													
ROUGHING		DNMA150612	1.2	12.7	6.35	5.16	14.3	●	○	●													

● stock standard, ○ non-standard stock, ▲ upcoming introduction, ▽ stock exhaustion



PRODUCT SELECTION p. A35 | CUTTING CONDITIONS p. A78 | GRADES FEATURES p. A4 | EXTERNAL HOLDERS p. A244 | INTERNAL HOLDERS p. A247

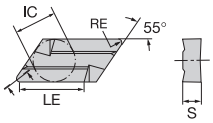
KN

ISO - without hole

HC: Coated carbide
CVD: Chemical vapour deposition

	HC CVD
	JC8025
Stable machining, light cut	● 1st choice ○ suitable
General machining, medium cut	● 1st choice ○ suitable
Unstable machining, heavy cut	● 1st choice ○ suitable

Dimensions

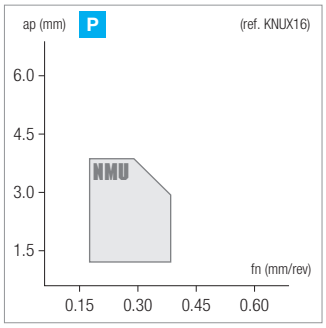


2 edges

ISO	JC8025	Vc(m/min) - suggested cutting speed range (bold: 1st choice)
P	140 330	
M		
K		
N		
S		
H		

	Designation	RE	IC	S	D1	LE	JC8025	Stock
MEDIUM NMU P right-hand shown	KNUX160405L/R-NMU	0.5	9.525	4.76	-	16.1	●	
	KNUX160410L/R-NMU	1	9.525	4.76	-	15.2	●	

● stock standard, ○ non-standard stock, ▲ upcoming introduction, ▽ stock exhaustion



PRODUCT SELECTION p. A35
CUTTING CONDITIONS p. A78
GRADES FEATURES p. A4

MCC

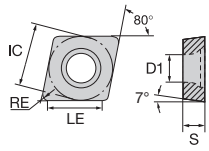
ISO - with hole

- 1st solution for micro-boring
- Precision ground insert with sharp geometry, tailored for microboring operation
- Micro boring bar with coolant both in steel (with Vortex technology) and in carbide
- Practical fun kits available (2 bars + 10 pcs inserts)

HF: Micrograin carbide
HT: Cermet
PVD: Physical vapour deposition

	HF PVD	HT
	JP5125	JU4015
Stable machining, light cut (1st choice / suitable)	○	●
General machining, medium cut (1st choice / suitable)	●	
Unstable machining, heavy cut (1st choice / suitable)	●	

Dimensions



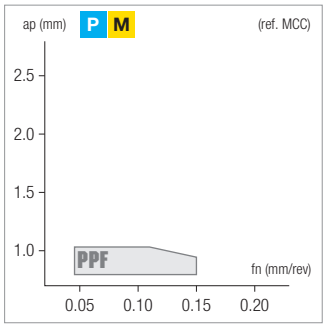
2 edges

ISO	HF PVD	HT
P	70 180	200 380
M	50 140	
K	60 180	
N		
S		
H		

Vc(m/min) - suggested cutting speed range (bold: 1st choice)

	Designation		RE	IC	S	D1	LE	HF PVD	HT	Stock
FINISHING	PPF P M ground chipbreaker left-hand shown	MCC.R02L-PPF	0.2	3.5	1.4	1.9	3.8	●	●	
		MCC.R04L-PPF	0.4	3.5	1.4	1.9	3.8	●	●	

● stock standard, ○ non-standard stock, ▲ upcoming introduction, ▽ stock exhaustion



PRODUCT SELECTION p. A35 | CUTTING CONDITIONS p. A78 | GRADES FEATURES p. A4 | INTERNAL HOLDERS p. A249

MCN

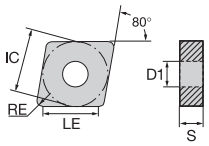
MicroNega - with hole

- MicroNega system it serves as an alternative to positive conventional solutions
- Excellent economy for external small part machining or small boring application
- Pressed chip breaker optimizes chip control and emphasizes the economic advantage
- Precision ground chip breaker with stable seating in the pocket enables better surface finishing
- Special holders tailored with big clearance angle, adapt itself for boring application, effectively reduces the risk of chip-jamming
- Practical fun kits available

HC: Coated carbide
HF: Micrograin carbide
HT: Cermet
CVD: Chemical vapour deposition
PVD: Physical vapour deposition

	HC CVD	HF PVD	HF PVD	HF PVD	HF PVD	HT
	JC8015	**JP5015**	**JP5025**	**JP5120**	**JP9030**	**JU4015**
Stable machining, light cut (● 1st choice, ○ suitable)	●	●	○	●		●
General machining, medium cut (● 1st choice, ○ suitable)	●	●	●	●	●	
Unstable machining, heavy cut (● 1st choice, ○ suitable)			●		●	

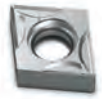
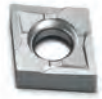
Dimensions



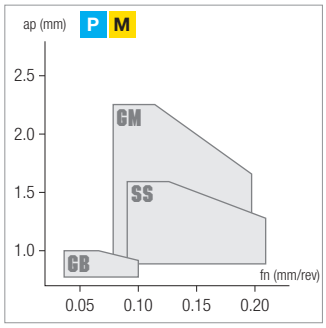
4 edges

Vc(m/min) - suggested cutting speed range (bold: 1st choice)

ISO	JC8015	JP5015	JP5025	JP5120	JP9030	JU4015
P	170 360	100 220	60 180	90 200		200 380
M		70 160	60 120	60 150	50 130	
K				90 190		
N						
S		20 70	30 60			
H						

	Designation		RE	IC	S	D1	LE	JC8015	JP5015	JP5025	JP5120	JP9030	JU4015	Stock
FINISHING	GB P M ground chipbreaker right-hand shown	MCN.R04G-GB L/R	0.4	7.5	3.18	3.6	7.2		▽					
MEDIUM	GM P M  1st choice chip control oriented	MCN.R04M-GM	0.4	7.5	3.18	3.6	7.2	▽			●		●	
		MCN.R08M-GM	0.8	7.5	3.18	3.6	6.8			▽				
MEDIUM	SS P M  ground periphery polished surface	MCN.R02G-SS	0.2	7.5	3.18	3.6	7.4					▽		
		MCN.R04G-SS	0.4	7.5	3.18	3.6	7.2				●	▽	●	

● stock standard, ○ non-standard stock, ▲ upcoming introduction, ▽ stock exhaustion



A - TURNING
B - THREADING
C - GROOVING
D - MILLING
E - DRILLING
F - ACCESSORIES
G - SPARE PARTS

MDN

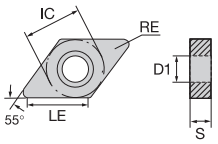
MicroNega - with hole

- MicroNega system it serves as an alternative to positive conventional solutions
- Excellent economy for external small part machining or small boring application
- Pressed chip breaker optimizes chip control and emphasizes the economic advantage
- Precision ground chip breaker with stable seating in the pocket enables better surface finishing
- Special holders tailored with big clearance angle, adapt itself for boring application, effectively reduces the risk of chip-jamming
- Practical fun kits available

HC: Coated carbide
HF: Micrograin carbide
HT: Cermet
CVD: Chemical vapour deposition
PVD: Physical vapour deposition

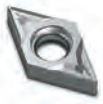
	JC8015	JP5015	JP5025	JP5120	JP9030	JU4015
	HC CVD	HF PVD	HF PVD	HF PVD	HF PVD	HT
Stable machining, light cut (● 1st choice, ○ suitable)	●	●	○	●		●
General machining, medium cut (● 1st choice, ○ suitable)	●	●	●	●	●	
Unstable machining, heavy cut (● 1st choice, ○ suitable)			●		●	

Dimensions

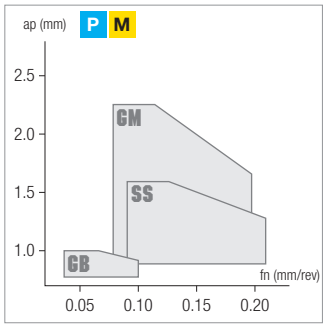


4 edges

ISO	JC8015	JP5015	JP5025	JP5120	JP9030	JU4015
	Vc(m/min) - suggested cutting speed range (bold: 1st choice)					
P	170 360	100 220	60 180	90 200		200 380
M		70 160	60 120	60 150	50 130	
K				90 190		
N						
S		20 70	30 60			
H						

	Designation		RE	IC	S	D1	LE	JC8015	JP5015	JP5025	JP5120	JP9030	JU4015	Stock
FINISHING	GB P M ground chipbreaker right-hand shown	MDN.R04G-GB L/R	0.4	7	3.18	3.6	8.1		▽					
MEDIUM	GM P M  1st choice chip control oriented	MDN.R04M-GM	0.4	7	3.18	3.6	8.1	▽		▽	●		●	
		MDN.R08M-GM	0.8	7	3.18	3.6	7.7			▽				
MEDIUM	SS P M ground periphery polished surface	MDN.R02G-SS	0.2	7	3.18	3.6	8.3					▽		
		MDN.R04G-SS	0.4	7	3.18	3.6	8.1				●	▽	●	

● stock standard, ○ non-standard stock, ▲ upcoming introduction, ▽ stock exhaustion



nikkoTOOLS

SC

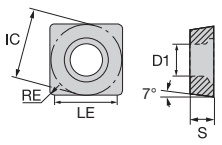
ISO - with hole

- Very strong 90° corner with excellent economy (4 edges on positive inserts)
- Mostly used for rough facing operations, especially on castings, forgings and rough-sawed blanks
- Unable to turn or face up to a shoulder (must be used in a tool holder with min. 5° lead angle)
- High radial forces push against the workpiece when used for turning
- Should always be used in a stable set-up

HC: Coated carbide
HF: Micrograin carbide
HT: Cermet
CVD: Chemical vapour deposition
PVD: Physical vapour deposition

	JC7010	JC8015	JC8025	JC9010	JC9025	JP5120	JP5125	JP6010	JU4015	JU6015
	HC CVD	HC CVD	HC CVD	HC CVD	HC CVD	HF PVD	HF PVD	HF PVD	HT	HF
Stable machining, light cut (● 1st choice, ○ suitable)	●	●	○	●	○	●	○	●	●	●
General machining, medium cut (● 1st choice, ○ suitable)	●	●	●	○	●	●	●	○		●
Unstable machining, heavy cut (● 1st choice, ○ suitable)	○		○		○		●			○

Dimensions



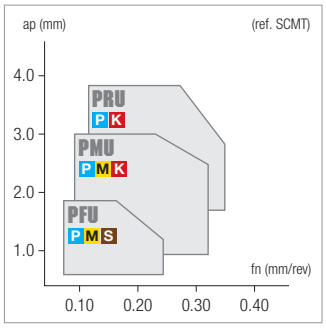
4 edges

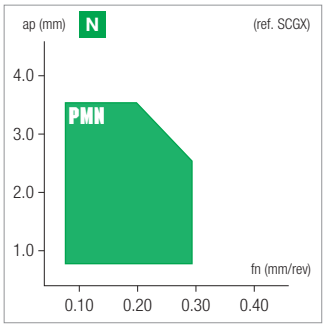
Vc(m/min) - suggested cutting speed range (bold: 1st choice)

ISO	JC7010	JC8015	JC8025	JC9010	JC9025	JP5120	JP5125	JP6010	JU4015	JU6015
P		170 360	140 330			90 200	70 180		200 380	
M				100 200	80 180	60 150	50 140			
K	130 380					90 190	60 180			
N								400 1400		200 1000
S										
H										

	Designation		RE	IC	S	D1	LE	JC7010	JC8015	JC8025	JC9010	JC9025	JP5120	JP5125	JP6010	JU4015	JU6015
FINISHING	PFU P M S sharp edge, low cutting force	SCMT09T304-PFU	0.4	9.525	3.97	4.4	9.1						●				
		SCMT09T308-PFU	0.8	9.525	3.97	4.4	8.7						●	○			
MEDIUM	PMU P M K 1st choice, universal application	SCMT09T304-PMU	0.4	9.525	3.97	4.4	9.1	○	●	●	○	●				○	
		SCMT09T308-PMU	0.8	9.525	3.97	4.4	8.7	●	○	●		●				○	
		SCMT120404-PMU	0.4	12.7	4.76	5.5	12.3		○	●							
		SCMT120408-PMU	0.8	12.7	4.76	5.5	11.9	●	●	●		●					
MEDIUM	PMN N polished surface, ground periphery	SCGX09T304-PMN	0.4	9.525	3.97	4.4	9.1								○		●
		SCGX09T308-PMN	0.8	9.525	3.97	4.4	8.7								○		●
		SCGX120404-PMN	0.4	12.7	4.76	5.5	12.3								○		●
		SCGX120408-PMN	0.8	12.7	4.76	5.5	11.9								○		●
ROUGHING	PRU P K strong edge, interrupted cut	SCMT09T308-PRU	0.8	9.525	3.97	4.4	8.7	●		●							
		SCMT120408-PRU	0.8	12.7	4.76	5.5	11.9	●		●							

● stock standard, ○ non-standard stock, ▲ upcoming introduction, ▽ stock exhaustion





A - TURNING
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F - ACCESSORIES
G - SPARE PARTS

SN

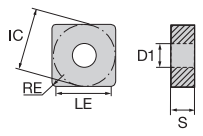
ISO - with hole

- Very strong 90° corner with excellent economy (8 edges on double-sided inserts)
- Mostly used for rough facing operations, especially on castings, forgings and rough-sawed blanks
- Unable to turn or face up to a shoulder (must be used in a tool holder with min. 5° lead angle)
- High radial forces push against the workpiece when used for turning
- Should always be used in a stable set-up

HC: Coated carbide
HF: Micrograin carbide
CVD: Chemical vapour deposition
PVD: Physical vapour deposition

	JC7010	JC7020	JC7115	JC8015	JC8025	JC8035	JC9010	JC9025	JP9030	JU6015
	HC CVD	HC CVD	HC CVD	HC CVD	HC CVD	HC CVD	HC CVD	HC CVD	HF PVD	HF
Stable machining, light cut (● 1st choice, ○ suitable)	●	○	●	●	○		●	○		●
General machining, medium cut (● 1st choice, ○ suitable)	●	○	●	●	●	○	○	●	●	●
Unstable machining, heavy cut (● 1st choice, ○ suitable)	○	●	○		○	●		○	●	○

Dimensions



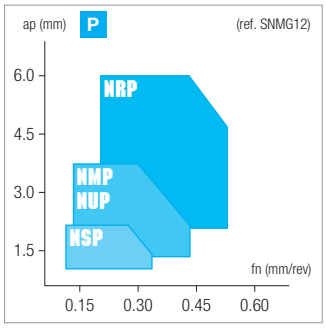
8 edges

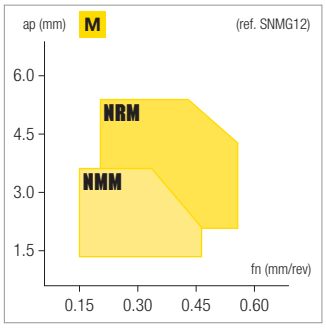
Vc(m/min) - suggested cutting speed range (bold: 1st choice)

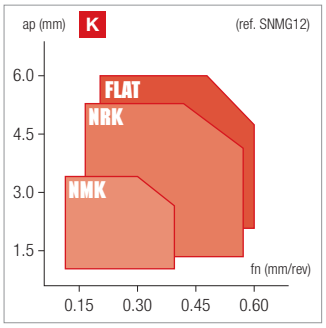
ISO	JC7010	JC7020	JC7115	JC8015	JC8025	JC8035	JC9010	JC9025	JP9030	JU6015
P				170 360	140 330	100 200				
M							100 200	80 180	50 130	
K	130 380	110 300	130 380							
N										200 1000
S										
H										

	Designation		RE	IC	S	D1	LE	JC7010	JC7020	JC7115	JC8015	JC8025	JC8035	JC9010	JC9025	JP9030	JU6015
FINISHING	NSP P	SNMG120408-NSP	0.8	12.7	4.76	5.16	11.9				●						
MEDIUM	NMP P	SNMG120404-NMP	0.4	12.7	4.76	5.16	12.3				○	●					
		SNMG120408-NMP	0.8	12.7	4.76	5.16	11.9				●	●					
		SNMG120412-NMP	1.2	12.7	4.76	5.16	11.5				●	○					
		SNMG120416-NMP	1.6	12.7	4.76	5.16	11.1				○	○					
MEDIUM	NUP P	SNMG120404-NUP	0.4	12.7	4.76	5.16	12.3				○	○					
		SNMG120408-NUP	0.8	12.7	4.76	5.16	11.9				○	●	○				
		SNMG120412-NUP	1.2	12.7	4.76	5.16	11.5				○	●	○				
		SNMG120416-NUP	1.6	12.7	4.76	5.16	11.1				○	○					
MEDIUM	NMM M	SNMG120404-NMM	0.4	12.7	4.76	5.16	12.3								●	○	
		SNMG120408-NMM	0.8	12.7	4.76	5.16	11.9								●	○	
		SNMG120412-NMM	1.2	12.7	4.76	5.16	11.5								○	○	
		SNMG120416-NMM	1.6	12.7	4.76	5.16	11.1								○	○	
		SNMG190612-NMM	1.2	19.05	6.35	7.94	17.9								○	○	
		SNMG190616-NMM	1.6	19.05	6.35	7.94	17.5								○	○	
MEDIUM	NMK K	SNMG120408-NMK	0.8	12.7	4.76	5.16	11.9	●	○								
		SNMG120412-NMK	1.2	12.7	4.76	5.16	11.5	○	○								

● stock standard, ○ non-standard stock, ▲ upcoming introduction, ▽ stock exhaustion







PRODUCT SELECTION p. A35 | CUTTING CONDITIONS p. A78 | GRADES FEATURES p. A4 | EXTERNAL HOLDERS p. A257 | INTERNAL HOLDERS p. A261

nikkoTOOLS

SN

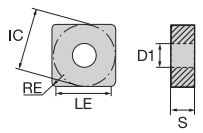
ISO - with hole

- Very strong 90° corner with excellent economy (8 edges on double-sided inserts)
- Mostly used for rough facing operations, especially on castings, forgings and rough-sawed blanks
- Unable to turn or face up to a shoulder (must be used in a tool holder with min. 5° lead angle)
- High radial forces push against the workpiece when used for turning
- Should always be used in a stable set-up

HC: Coated carbide
HF: Micrograin carbide
CVD: Chemical vapour deposition
PVD: Physical vapour deposition

	JC7010	JC7020	JC7115	JC8015	JC8025	JC8035	JC9010	JC9025	JP9030	JU6015
	HC CVD	HC CVD	HC CVD	HC CVD	HC CVD	HC CVD	HC CVD	HC CVD	HF PVD	HF
Stable machining, light cut (● 1st choice, ○ suitable)	●	○	●	●	○		●	○		●
General machining, medium cut (● 1st choice, ○ suitable)	●	○	●	●	●	○	○	●	●	●
Unstable machining, heavy cut (● 1st choice, ○ suitable)	○	●	○		○	●		○	●	○

Dimensions



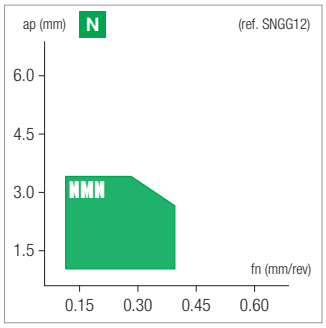
8 edges

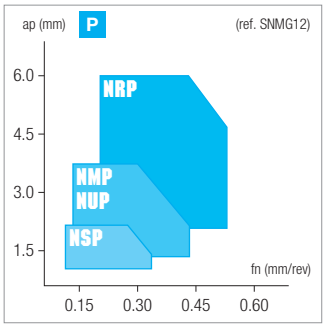
Vc(m/min) - suggested cutting speed range (bold: 1st choice)

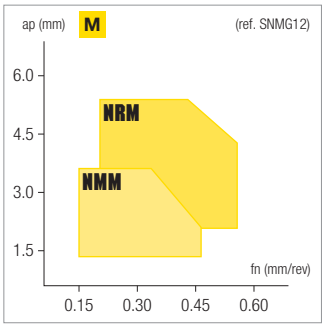
ISO	JC7010	JC7020	JC7115	JC8015	JC8025	JC8035	JC9010	JC9025	JP9030	JU6015
P				170 360	140 330	100 200				
M							100 200	80 180	50 130	
K	130 380	110 300	130 380							
N										200 1000
S										
H										

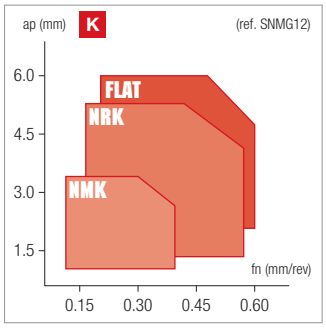
	Designation		RE	IC	S	D1	LE	JC7010	JC7020	JC7115	JC8015	JC8025	JC8035	JC9010	JC9025	JP9030	JU6015
MEDIUM	NMN N polished surface ground periphery	SNGG120404-NMN	0.4	12.7	4.76	5.16	12.3										○
		SNGG120408-NMN	0.8	12.7	4.76	5.16	11.9										●
		SNGG120412-NMN	1.2	12.7	4.76	5.16	11.5										▽
ROUGHING	NRP P	SNMG120408-NRP	0.8	12.7	4.76	5.16	11.9					●	○				
		SNMG120412-NRP	1.2	12.7	4.76	5.16	11.5					●	●				
		SNMG120416-NRP	1.6	12.7	4.76	5.16	11.1					●	●				
		SNMG190612-NRP	1.2	19.05	6.35	7.94	17.9					○	○				
		SNMG190616-NRP	1.6	19.05	6.35	7.94	17.5					○	●				
		SNMG190624-NRP	2.4	19.05	6.35	7.94	16.7					●	●				
		SNMG250924-NRP	2.4	25.4	9.52	8.8	23					○					
ROUGHING	NRM M	SNMG120408-NRM	0.8	12.7	4.76	5.16	11.9							○		●	
		SNMG120412-NRM	1.2	12.7	4.76	5.16	11.5							○		●	
		SNMG190612-NRM	1.2	19.05	6.35	7.94	17.9							○		●	
		SNMG190616-NRM	1.6	19.05	6.35	7.94	17.9							○		●	
ROUGHING	NRK K	SNMG120408-NRK	0.8	12.7	4.76	5.16	11.9	●	○	○							
		SNMG120412-NRK	1.2	12.7	4.76	5.16	11.5	○	○	○							
		SNMG120416-NRK	1.6	12.7	4.76	5.16	11.1	○	●								
		SNMG190612-NRK	1.2	19.05	6.35	7.94	17.9	○	○								
		SNMG190616-NRK	1.6	19.05	6.35	7.94	17.5	○	○								

● stock standard, ○ non-standard stock, ▲ upcoming introduction, ▽ stock exhaustion









PRODUCT SELECTION p. A35 | CUTTING CONDITIONS p. A78 | GRADES FEATURES p. A4 | EXTERNAL HOLDERS p. A257 | INTERNAL HOLDERS p. A261

SN

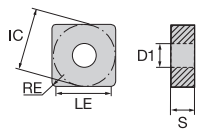
ISO - with hole

- Very strong 90° corner with excellent economy (8 edges on double-sided inserts)
- Mostly used for rough facing operations, especially on castings, forgings and rough-sawed blanks
- Unable to turn or face up to a shoulder (must be used in a tool holder with min. 5° lead angle)
- High radial forces push against the workpiece when used for turning
- Should always be used in a stable set-up

HC: Coated carbide
HF: Micrograin carbide
CVD: Chemical vapour deposition
PVD: Physical vapour deposition

	JC7010	JC7020	JC7115	JC8015	JC8025	JC8035	JC9010	JC9025	JP9030	JU6015
	HC CVD	HC CVD	HC CVD	HC CVD	HC CVD	HC CVD	HC CVD	HC CVD	HF PVD	HF
Stable machining, light cut (● 1st choice, ○ suitable)	●	○	●	●	○		●	○		●
General machining, medium cut (● 1st choice, ○ suitable)	●	○	●	●	●	○	○	●	●	●
Unstable machining, heavy cut (● 1st choice, ○ suitable)	○	●	○		○	●		○	●	○

Dimensions



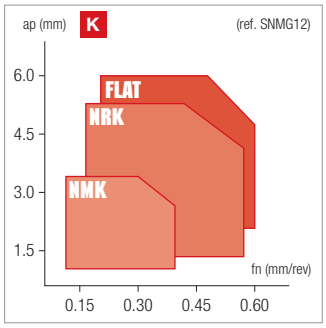
8 edges

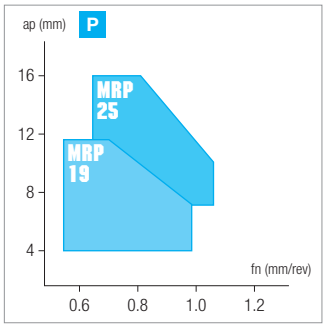
Vc(m/min) - suggested cutting speed range (bold: 1st choice)

ISO	JC7010	JC7020	JC7115	JC8015	JC8025	JC8035	JC9010	JC9025	JP9030	JU6015
P				170 360	140 330	100 200				
M							100 200	80 180	50 130	
K	130 380	110 300	130 380							
N										200 1000
S										
H										

	Designation		RE	IC	S	D1	LE	Stock									
ROUGHING	flat K	SNMA090308	0.8	9.525	3.18	3.81	8.7	○									
		SNMA120408	0.8	12.7	4.76	5.16	11.9	●	○	○							
		SNMA120412	1.2	12.7	4.76	5.16	11.5	●	○	○							
		SNMA120416	1.6	12.7	4.76	5.16	11.1	●	○								
HEAVY ROUGHING	MRP P single side 4 edges	SNMM190616-MRP	1.6	19.05	6.35	7.94	17.5					○	○				
		SNMM190624-MRP	2.4	19.05	6.35	7.94	16.7					●	●				
		SNMM250924-MRP	2.4	25.4	9.52	8.8	23					●	●				

● stock standard, ○ non-standard stock, ▲ upcoming introduction, ▽ stock exhaustion





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TB

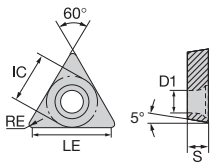
ISO - with hole

- Very versatile insert shape, can be used for turning, facing, boring, copy turning and basic profiling
- High surface quality due to very stable seating of the insert on the tool pocket
- Extra side clearance between the insert and the workpiece reduces risk of chip jamming

HF: Micrograin carbide
HT: Cermet
PVD: Physical vapour deposition

	HF PVD	HT
	JP5125	JU4015
Stable machining, light cut (● 1st choice, ○ suitable)	○	●
General machining, medium cut (● 1st choice, ○ suitable)	●	
Unstable machining, heavy cut (● 1st choice, ○ suitable)	●	

Dimensions

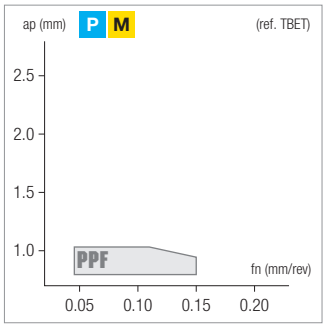


ISO	JP5125	JU4015
P	70 180	200 380
M	50 140	
K	60 180	
N		
S		
H		

Vc(m/min) - suggested cutting speed range (bold: 1st choice)

	Designation	RE	IC	S	D1	LE	JP5125	JU4015	Stock
FINISHING	PPF P M ground chipbreaker right-hand shown								
	TBET060102L/R-PPF	0.2	3.97	1.59	2.3	6.7	●	●	
	TBET060104L/R-PPF	0.4	3.97	1.59	2.3	6.5	●	●	

● stock standard, ○ non-standard stock, ▲ upcoming introduction, ▽ stock exhaustion



PRODUCT SELECTION p. A35
CUTTING CONDITIONS p. A78
GRADES FEATURES p. A4
INTERNAL HOLDERS p. A262

TC

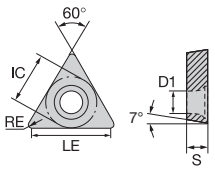
ISO - with hole

- Very versatile insert shape
- Excellent choice for general boring due to very stable seating of the insert in the boring bar pocket
- Extra clearance between the insert and the workpiece bore, greatly reduce the risk of chip jamming
- Boring bars made of steel (Vortex technology) and carbide are available
- Edge is measurably weaker than 80° diamond shape inserts

HC: Coated carbide
HT: Cermet
HF: Micrograin carbide
CVD: Chemical vapour deposition
PVD: Physical vapour deposition

	JC7010	JC7020	JC8015	JC8025	JC9010	JC9025	JP4020	JP5015	JP5120	JP5125	JP6010	JU4015	JU6015
	HC CVD	HC CVD	HC CVD	HC CVD	HC CVD	HC CVD	HT PVD	HF PVD	HF PVD	HF PVD	HF PVD	HT	HF
Stable machining, light cut (● 1st choice, ○ suitable)	●	○	●	○	●	○	●	●	●	○	●	●	●
General machining, medium cut (● 1st choice, ○ suitable)	●	○	●	●	○	●	○	●	●	●	○		●
Unstable machining, heavy cut (✱ 1st choice, ✱ suitable)	✱	✱		✱		✱				✱			✱

Dimensions



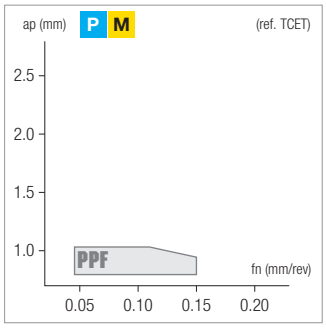
3 edges

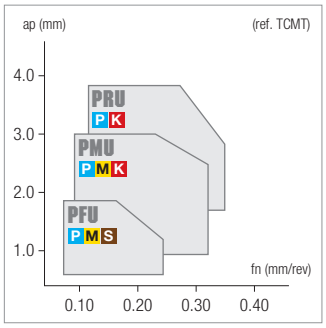
Vc(m/min) - suggested cutting speed range (bold: 1st choice)

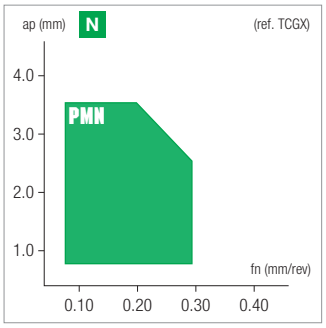
ISO	JC7010	JC7020	JC8015	JC8025	JC9010	JC9025	JP4020	JP5015	JP5120	JP5125	JP6010	JU4015	JU6015
P			170 360	140 330			180 400	100 220	90 200	70 180		200 380	
M					100 200	80 180	100 220	70 160	60 150	50 140			
K	130 380	110 300					150 320		90 190	60 180			
N											400 1400		200 1000
S								20 70					
H													

	Designation		RE	IC	S	D1	LE	JC7010	JC7020	JC8015	JC8025	JC9010	JC9025	JP4020	JP5015	JP5120	JP5125	JP6010	JU4015	JU6015
FINISHING	PPF P M ground chipbreaker right-hand shown	TCET110202L/R-PPF	0.2	6.35	2.38	2.8	10.5										●		●	
		TCET110204L/R-PPF	0.4	6.35	2.38	2.8	10.3										●		●	
FINISHING	PFU P M S sharp edge low cutting force	TCMT110202-PFU	0.2	6.35	2.38	2.8	10.5			●	●		●	○	●	●	○		●	
		TCMT110204-PFU	0.4	6.35	2.38	2.8	10.3			●	●		●	●	●	●	●		●	
		TCMT110208-PFU	0.8	6.35	2.38	2.8	9.9									●				
		TCMT16T304-PFU	0.4	9.525	3.97	4.4	16.1									●	●			
		TCMT16T308-PFU	0.8	9.525	3.97	4.4	15.7									●	●			
MEDIUM	PMU P M K 1st choice universal application	TCMT090204-PMU	0.4	5.56	2.38	2.5	9	●		●	●		●						○	
		TCMT110202-PMU	0.2	6.35	2.38	2.8	10.5			○	●		●	○					●	
		TCMT110204-PMU	0.4	6.35	2.38	2.8	10.3	●		●	●	●	●	●		●	●		●	
		TCMT110208-PMU	0.8	6.35	2.38	2.8	9.9	●		●	●		●			●			●	
		TCMT16T304-PMU	0.4	9.525	3.97	4.4	16.1	●		●	●		●			●	●		●	
		TCMT16T308-PMU	0.8	9.525	3.97	4.4	15.7	●	○	●	●		●			●	●		●	
		TCMT16T312-PMU	1.2	9.525	3.97	4.4	15.3	●	●		○									
		TCMT220408-PMU	0.8	12.7	4.76	5.5	21.2	○			●									
MEDIUM	PMN N polished surface ground periphery	TCGX090204-PMN	0.4	5.56	2.38	2.5	9											●		●
		TCGX110202-PMN	0.2	6.35	2.38	2.8	10.5											○		○
		TCGX110204-PMN	0.4	6.35	2.38	2.8	10.3											●		●
		TCGX110208-PMN	0.8	6.35	2.38	2.8	9.9											○		○
		TCGX16T302-PMN	0.2	9.525	3.97	4.4	16.3											○		○
		TCGX16T304-PMN	0.4	9.525	3.97	4.4	16.1											●		●
		TCGX16T308-PMN	0.8	9.525	3.97	4.4	15.7											●		●

● stock standard, ○ non-standard stock, ▲ upcoming introduction, ▽ stock exhaustion







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TC

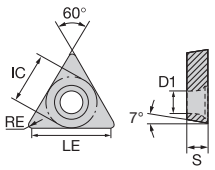
ISO - with hole

- Very versatile insert shape
- Excellent choice for general boring due to very stable seating of the insert in the boring bar pocket
- Extra clearance between the insert and the workpiece bore, greatly reduce the risk of chip jamming
- Boring bars made of steel (Vortex technology) and carbide are available
- Edge is measurably weaker than 80° diamond shape inserts

HC: Coated carbide
HT: Cermet
HF: Micrograin carbide
CVD: Chemical vapour deposition
PVD: Physical vapour deposition

	JC7010	JC7020	JC8015	JC8025	JC9010	JC9025	JP4020	JP5015	JP5120	JP5125	JP6010	JU4015	JU6015
	HC CVD	HC CVD	HC CVD	HC CVD	HC CVD	HC CVD	HT PVD	HF PVD	HF PVD	HF PVD	HF PVD	HT	HF
Stable machining, light cut (● 1st choice, ○ suitable)	●	○	●	○	●	○	●	●	●	○	●	●	●
General machining, medium cut (● 1st choice, ○ suitable)	●	○	●	●	○	●	○	●	●	●	○		●
Unstable machining, heavy cut (● 1st choice, ○ suitable)	○	●		○		○				●			○

Dimensions



3 edges

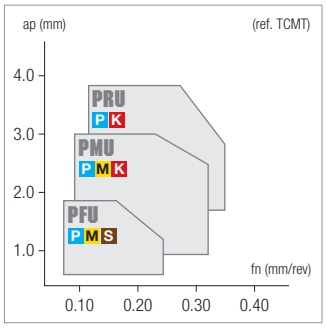
Vc(m/min) - suggested cutting speed range (bold: 1st choice)

ISO	JC7010	JC7020	JC8015	JC8025	JC9010	JC9025	JP4020	JP5015	JP5120	JP5125	JP6010	JU4015	JU6015
P			170 360	140 330			180 400	100 220	90 200	70 180		200 380	
M					100 200	80 180	100 220	70 160	60 150	50 140			
K	130 380	110 300					150 320		90 190	60 180			
N											400 1400		200 1000
S								20 70					
H													

	Designation		RE	IC	S	D1	LE	Stock													
ROUGHING	PRU P K	TCMT16T304-PRU	0.4	9.525	3.97	4.4	16.1	○			●										
		TCMT16T308-PRU	0.8	9.525	3.97	4.4	15.7	●			●										

strong edge
interrupted cut

● stock standard, ○ non-standard stock, ▲ upcoming introduction, ▽ stock exhaustion



PRODUCT SELECTION p. A35 | CUTTING CONDITIONS p. A78 | GRADES FEATURES p. A4 | EXTERNAL HOLDERS p. A264 | INTERNAL HOLDERS p. A267

nikkoTOOLS

TN

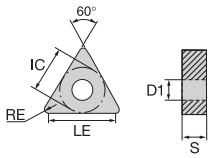
ISO - with hole

- Very versatile insert shape, can be used for turning, facing, boring, copy turning and basic profiling, sometimes even threading
- Good economy with up to 6 cutting edges

HC: Coated carbide
HF: Micrograin carbide
HT: Cermet
CVD: Chemical vapour deposition
PVD: Physical vapour deposition

	JC7010	JC7020	JC7115	JC8005	JC8015	JC8025	JC8035	JC8215	JC8225	JC9010	JC9025	JP9015	JP9030	JU4015	JU6015
	HC CVD	HC CVD	HC CVD	HC CVD	HC CVD	HC CVD	HC CVD	HC CVD	HC CVD	HC CVD	HC CVD	HF PVD	HF PVD	HT	HF
Stable machining, light cut (● 1st choice, ○ suitable)	●	○	●	●	●	○		●		●	○	●		●	●
General machining, medium cut (● 1st choice, ○ suitable)	●	○	●		●	●	○	●	●	○	●	●	●		●
Unstable machining, heavy cut (● 1st choice, ○ suitable)	○	●	○			○	●		○		○		●		○

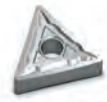
Dimensions



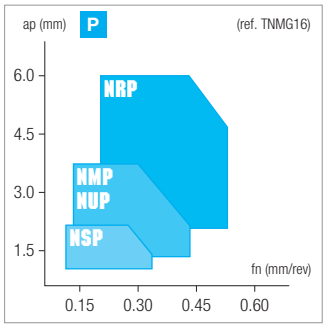
6 edges

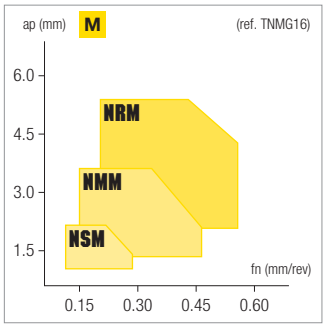
Vc(m/min) - suggested cutting speed range (bold: 1st choice)

ISO	JC7010	JC7020	JC7115	JC8005	JC8015	JC8025	JC8035	JC8215	JC8225	JC9010	JC9025	JP9015	JP9030	JU4015	JU6015
P				200 380	170 360	140 330	100 200	170 360	140 330					200 380	
M										100 200	80 180	70 160	50 130		
K	130 380	110 300	130 380												
N															200 1000
S															
H															

	Designation		RE	IC	S	D1	LE	JC7010	JC7020	JC7115	JC8005	JC8015	JC8025	JC8035	JC8215	JC8225	JC9010	JC9025	JP9015	JP9030	JU4015	JU6015
FINISHING	NSP P	TNMG160404-NSP	0.4	9.525	4.76	3.81	16.1				○	●	●								●	
		TNMG160408-NSP	0.8	9.525	4.76	3.81	15.7				●	●	●								●	
FINISHING	NSM M 	TNMG160404-NSM	0.4	9.525	4.76	3.81	16.1												●	●		
		TNMG160408-NSM	0.8	9.525	4.76	3.81	15.7												●	●		
MEDIUM	NMP P	TNMG160404-NMP	0.4	9.525	4.76	3.81	16.1					●	●									
		TNMG160408-NMP	0.8	9.525	4.76	3.81	15.7					●	●								▽	
		TNMG160412-NMP	1.2	9.525	4.76	3.81	15.3					●	○									
		TNMG220408-NMP	0.8	12.7	4.76	5.16	21.2					○	●									
		TNMG220412-NMP	1.2	12.7	4.76	5.16	20.8					○	●									
MEDIUM	NUP P	TNMG160404-NUP	0.4	9.525	4.76	3.81	16.1				●	●	●					●			●	
		TNMG160408-NUP	0.8	9.525	4.76	3.81	15.7				●	●	●	○				●			●	
		TNMG160412-NUP	1.2	9.525	4.76	3.81	15.3				●	○	○	○				●				
		TNMG220408-NUP	0.8	12.7	4.76	5.16	21.2					○	○									
		TNMG220412-NUP	1.2	12.7	4.76	5.16	20.8					○	○									
		TNMG220416-NUP	1.6	12.7	4.76	5.16	20.4					○	○									

● stock standard, ○ non-standard stock, ▲ upcoming introduction, ▽ stock exhaustion





PRODUCT SELECTION p. A35 | CUTTING CONDITIONS p. A78 | GRADES FEATURES p. A4 | EXTERNAL HOLDERS p. A271 | INTERNAL HOLDERS p. A274

nikkoTOOLS

TN

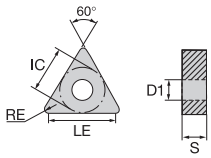
ISO - with hole

- Very versatile insert shape, can be used for turning, facing, boring, copy turning and basic profiling, sometimes even threading
- Good economy with up to 6 cutting edges

HC: Coated carbide
HF: Micrograin carbide
HT: Cermet
CVD: Chemical vapour deposition
PVD: Physical vapour deposition

	JC7010	JC7020	JC7115	JC8005	JC8015	JC8025	JC8035	JC8215	JC8225	JC9010	JC9025	JP9015	JP9030	JU4015	JU6015
	HC CVD	HC CVD	HC CVD	HC CVD	HC CVD	HC CVD	HC CVD	HC CVD	HC CVD	HC CVD	HC CVD	HF PVD	HF PVD	HT	HF
Stable machining, light cut (● 1st choice, ○ suitable)	●	○	●	●	●	○		●		●	○	●		●	●
General machining, medium cut (● 1st choice, ○ suitable)	●	○	●		●	●	○	●	●	○	●	●	●		●
Unstable machining, heavy cut (● 1st choice, ○ suitable)	○	●	○			○	●		○		○		●		○

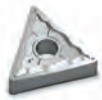
Dimensions



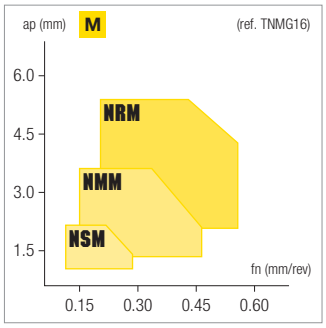
6 edges

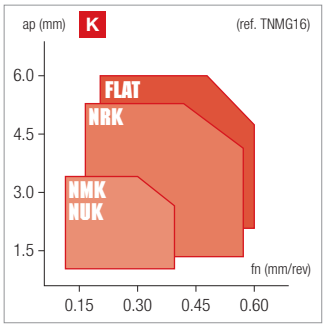
Vc(m/min) - suggested cutting speed range (bold: 1st choice)

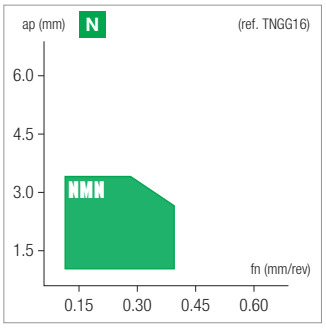
ISO	JC7010	JC7020	JC7115	JC8005	JC8015	JC8025	JC8035	JC8215	JC8225	JC9010	JC9025	JP9015	JP9030	JU4015	JU6015
P				200 380	170 360	140 330	100 200	170 360	140 330					200 380	
M										100 200	80 180	70 160	50 130		
K	130 380	110 300	130 380												
N															200 1000
S															
H															

	Designation		RE	IC	S	D1	LE	Stock														
MEDIUM	NMM M	TNMG160404-NMM	0.4	9.525	4.76	3.81	16.1										●	●		●	▽	
		TNMG160408-NMM	0.8	9.525	4.76	3.81	15.7										●	●		●	▽	
		TNMG160412-NMM	1.2	9.525	4.76	3.81	15.3										●	●		○		
		TNMG220408-NMM	0.8	12.7	4.76	5.16	21.2											○		○		
		TNMG220412-NMM	1.2	12.7	4.76	5.16	20.8											○		○		
		TNMG220416-NMM	1.6	12.7	4.76	5.16	20.4											○		○		
MEDIUM	NMK K	TNMG160404-NMK	0.4	9.525	4.76	3.81	16.1	●	○													
		TNMG160408-NMK	0.8	9.525	4.76	3.81	15.7	●	○													
		TNMG160412-NMK	1.2	9.525	4.76	3.81	15.3	●	○													
		TNMG160416-NMK	1.6	9.525	4.76	3.81	14.9	○	○	○												
		TNMG220408-NMK	0.8	12.7	4.76	5.16	21.2	○	○													
		TNMG220412-NMK	1.2	12.7	4.76	5.16	20.8	●	○													
		TNMG220416-NMK	1.6	12.7	4.76	5.16	20.4	●	○													
MEDIUM	NUK K sharp edge reduces burrs	TNMG160404-NUK	0.4	9.525	4.76	3.81	16.1			●												
		TNMG160408-NUK	0.8	9.525	4.76	3.81	15.7			●												
		TNMG160412-NUK	1.2	9.525	4.76	3.81	15.3			●												
MEDIUM	NMN N  polished surface ground periphery	TNGG160404-NMN	0.4	9.525	4.76	3.81	16.1														●	
		TNGG160408-NMN	0.8	9.525	4.76	3.81	15.7														●	
		TNGG160412-NMN	1.2	9.525	4.76	3.81	15.3														▽	

● stock standard, ○ non-standard stock, ▲ upcoming introduction, ▽ stock exhaustion







PRODUCT SELECTION p. A35 | CUTTING CONDITIONS p. A78 | GRADES FEATURES p. A4 | EXTERNAL HOLDERS p. A271 | INTERNAL HOLDERS p. A274

TN

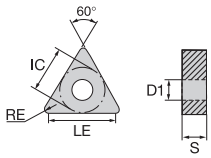
ISO - with hole

- Very versatile insert shape, can be used for turning, facing, boring, copy turning and basic profiling, sometimes even threading
- Good economy with up to 6 cutting edges

HC: Coated carbide
HF: Micrograin carbide
HT: Cermet
CVD: Chemical vapour deposition
PVD: Physical vapour deposition

	JC7010	JC7020	JC7115	JC8005	JC8015	JC8025	JC8035	JC8215	JC8225	JC9010	JC9025	JP9015	JP9030	JU4015	JU6015
	HC CVD	HC CVD	HC CVD	HC CVD	HC CVD	HC CVD	HC CVD	HC CVD	HC CVD	HC CVD	HC CVD	HF PVD	HF PVD	HT	HF
Stable machining, light cut (● 1st choice, ○ suitable)	●	○	●	●	●	○		●		●	○	●		●	●
General machining, medium cut (● 1st choice, ○ suitable)	●	○	●		●	●	○	●	●	○	●	●	●		●
Unstable machining, heavy cut (● 1st choice, ○ suitable)	○	●	○			○	●		○		○		●		○

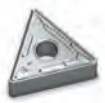
Dimensions



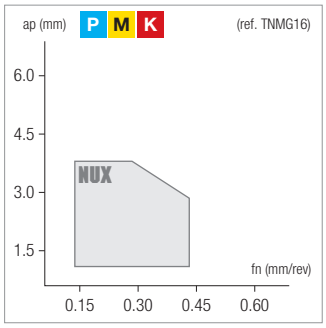
6 edges

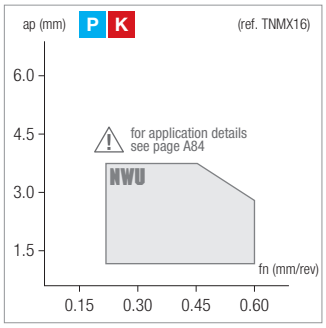
Vc(m/min) - suggested cutting speed range (bold: 1st choice)

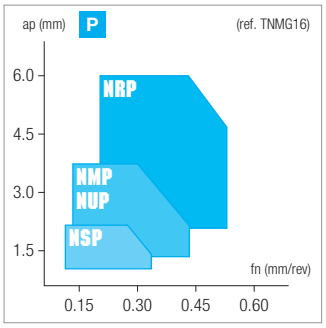
ISO	JC7010	JC7020	JC7115	JC8005	JC8015	JC8025	JC8035	JC8215	JC8225	JC9010	JC9025	JP9015	JP9030	JU4015	JU6015
P				200 380	170 360	140 330	100 200	170 360	140 330					200 380	
M										100 200	80 180	70 160	50 130		
K	130 380	110 300	130 380												
N															200 1000
S															
H															

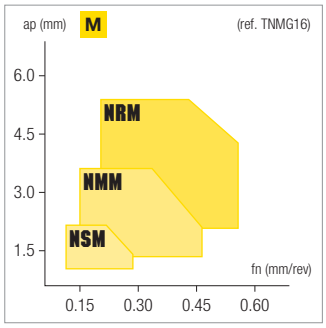
	Designation		RE	IC	S	D1	LE	Stock															
MEDIUM	NUX P M K universal use wide range of grades	TNMG160404-NUX	0.4	9.525	4.76	3.81	16.1	●			●	●	●				●	●					
		TNMG160408-NUX	0.8	9.525	4.76	3.81	15.7	●			●	●	●		▲	▲	●	●					
		TNMG160412-NUX	1.2	9.525	4.76	3.81	15.3	●			●	●	●		▲	▲	●	●					
MEDIUM	NMU P M right-hand shown (parameters p.A82)	TNMG160404R/L-NMU	0.4	9.525	4.76	3.81	16.1					○	●					●					
		TNMG160408R/L-NMU	0.8	9.525	4.76	3.81	15.7					○	●					●					
MEDIUM	NWU P K wiper universal type	TNMX160408-NWU	0.8	9.525	4.76	3.81	15.7	●					○										
		TNMX160412-NWU	1.2	9.525	4.76	3.81	15.3	●					○										
ROUGHING	NRP P	TNMG160408-NRP	0.8	9.525	4.76	3.81	15.7						●	○									
		TNMG160412-NRP	1.2	9.525	4.76	3.81	15.3						●	○									
		TNMG220412-NRP	1.2	12.7	4.76	5.16	20.8						○	○									
		TNMG220416-NRP	1.6	12.7	4.76	5.16	20.4						○	○									
ROUGHING	NRM M 	TNMG160408-NRM	0.8	9.525	4.76	3.81	15.7										○			●			
		TNMG160412-NRM	1.2	9.525	4.76	3.81	15.3										○			●			

● stock standard, ○ non-standard stock, ▲ upcoming introduction, ▽ stock exhaustion









nikkoTOOLS

TN

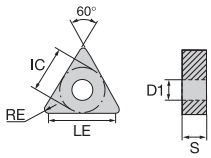
ISO - with hole

- Very versatile insert shape, can be used for turning, facing, boring, copy turning and basic profiling, sometimes even threading
- Good economy with up to 6 cutting edges

HC: Coated carbide
HF: Micrograin carbide
HT: Cermet
CVD: Chemical vapour deposition
PVD: Physical vapour deposition

	JC7010	JC7020	JC7115	JC8005	JC8015	JC8025	JC8035	JC8215	JC8225	JC9010	JC9025	JP9015	JP9030	JU4015	JU6015
	HC CVD	HC CVD	HC CVD	HC CVD	HC CVD	HC CVD	HC CVD	HC CVD	HC CVD	HC CVD	HC CVD	HF PVD	HF PVD	HT	HF
Stable machining, light cut (● 1st choice, ○ suitable)	●	○	●	●	●	○		●		●	○	●		●	●
General machining, medium cut (● 1st choice, ○ suitable)	●	○	●		●	●	○	●	●	○	●	●	●		●
Unstable machining, heavy cut (● 1st choice, ○ suitable)	○	●	○			○	●		○		○		●		○

Dimensions



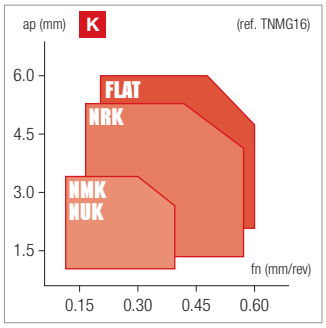
6 edges

Vc(m/min) - suggested cutting speed range (bold: 1st choice)

ISO	JC7010	JC7020	JC7115	JC8005	JC8015	JC8025	JC8035	JC8215	JC8225	JC9010	JC9025	JP9015	JP9030	JU4015	JU6015
P				200 380	170 360	140 330	100 200	170 360	140 330					200 380	
M										100 200	80 180	70 160	50 130		
K	130 380	110 300	130 380												
N															200 1000
S															
H															

	Designation		RE	IC	S	D1	LE	JC7010	JC7020	JC7115	JC8005	JC8015	JC8025	JC8035	JC8215	JC8225	JC9010	JC9025	JP9015	JP9030	JU4015	JU6015
ROUGHING	NRK K	TNMG160408-NRK	0.8	9.525	4.76	3.81	15.7	●	○	○												
		TNMG160412-NRK	1.2	9.525	4.76	3.81	15.3	●	○	○												
		TNMG220408-NRK	0.8	12.7	4.76	5.16	21.2	○	○													
		TNMG220412-NRK	1.2	12.7	4.76	5.16	20.8	○	○													
		TNMG220416-NRK	1.6	12.7	4.76	5.16	20.4	○	○													
ROUGHING	flat K	TNMA160404	0.8	9.525	4.76	3.81	15.7	○	○													
		TNMA160408	0.8	9.525	4.76	3.81	15.7	●	●	○												
		TNMA160412	1.2	9.525	4.76	3.81	15.3	●	○	○												
		TNMA160416	1.6	9.525	4.76	3.81	14.9	●	○													
		TNMA220408	0.8	12.7	4.76	5.16	21.2	●	○													
		TNMA220412	1.2	12.7	4.76	5.16	20.8	●	○													
		TNMA220416	1.6	12.7	4.76	5.16	20.4	○	○													

● stock standard, ○ non-standard stock, ▲ upcoming introduction, ▽ stock exhaustion



TP

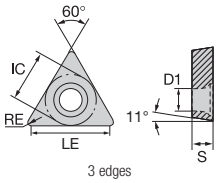
ISO - with hole

- Very versatile insert shape
- Excellent choice for general boring due to very stable seating of the insert in the boring bar pocket
- Extra clearance between the insert and the workpiece bore, greatly reduce the risk of chip jamming

HF: Micrograin carbide
HT: Cermet
PVD: Physical vapour deposition

	HF PVD	HT
	JP5125	**JU4015**
Stable machining, light cut (● 1st choice, ○ suitable)	○	●
General machining, medium cut (● 1st choice, ○ suitable)	●	
Unstable machining, heavy cut (● 1st choice, ○ suitable)	●	

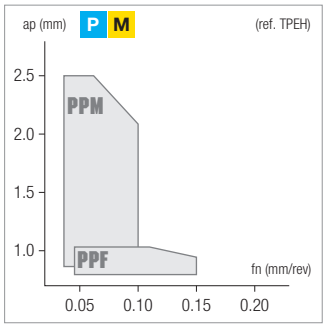
Dimensions



ISO	HF PVD	HT
	Vc(m/min) - suggested cutting speed range (bold: 1st choice)	
P	70 180	200 380
M	50 140	
K	60 180	
N		
S		
H		

	Designation		RE	IC	S	D1	LE	Stock	
FINISHING	PPF P M ground chipbreaker right-hand shown	TPEH090202L/R-PPF	0.2	5.56	2.38	3	9.7	●	●
		TPEH090204L/R-PPF	0.4	5.56	2.38	3	9.5	●	●
		TPEH110302L/R-PPF	0.2	6.35	3.18	3.3	10.8	●	●
		TPEH110304L/R-PPF	0.4	6.35	3.18	3.3	10.6	●	●
MEDIUM	PPM P M ground chipbreaker right-hand shown	TPEH110304L/R-PPM	0.4	6.35	3.18	3.3	10.6	●	●

● stock standard, ○ non-standard stock, ▲ upcoming introduction, ▽ stock exhaustion



PRODUCT SELECTION p. A35 | CUTTING CONDITIONS p. A78 | GRADES FEATURES p. A4

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VB

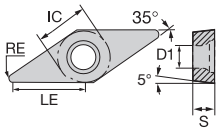
ISO - with hole

- 1st choice for intricate shape copy turning
- Can "In-Copy" (plunge turn into a smaller diameter) at an angle up to 49°
- Can work extremely close to the tailstock
- Positive style can be used for external and internal applications, in many cases improved performance outweighs the increased cost per edge (2 edges vs. 4 edges of a double sided VNMG)

HC: Coated carbide
HT: Cermet
HF: Micrograin carbide
CVD: Chemical vapour deposition
PVD: Physical vapour deposition

	JC7010	JC8005	JC8015	JC8025	JC9025	JP4020	JP5015	JP5120	JP5125	JU4015
	HC CVD	HC CVD	HC CVD	HC CVD	HC CVD	HT PVD	HF PVD	HF PVD	HF PVD	HT
Stable machining, light cut (● 1st choice, ○ suitable)	●	●	●	○	○	●	●	●	○	●
General machining, medium cut (● 1st choice, ○ suitable)	●		●	●	●	○	●	●	●	
Unstable machining, heavy cut (● 1st choice, ○ suitable)	○			○	○				●	

Dimensions

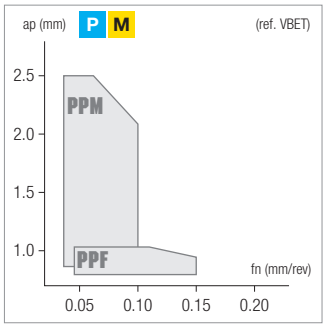


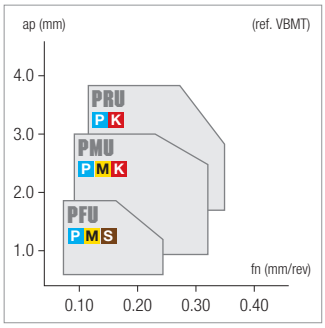
2 edges

ISO	JC7010	JC8005	JC8015	JC8025	JC9025	JP4020	JP5015	JP5120	JP5125	JU4015
	Vc(m/min) - suggested cutting speed range (bold: 1st choice)									
P		200 380	170 360	140 330		180 400	100 220	90 200	70 180	200 380
M					80 180	100 220	70 160	60 150	50 140	
K	130 380					150 320		90 190	60 180	
N										
S							20 70			
H										

	Designation		RE	IC	S	D1	LE	Stock									
FINISHING	PPF P M ground chipbreaker right-hand shown	VBET110302L/R-PPF	0.2	6.35	3.18	2.8	10.9								●	●	
		VBET110304L/R-PPF	0.4	6.35	3.18	2.8	10.7								●	●	
FINISHING	PFU P M S sharp edge low cutting force	VBMT110304-PFU	0.4	6.35	3.18	2.8	10.7						○	○	●	●	●
		VBMT160402-PFU	0.2	9.525	4.76	4.4	16.4								●	●	
		VBMT160404-PFU	0.4	9.525	4.76	4.4	16.2		●	●	●	●	●	●	●	●	●
		VBMT160408-PFU	0.8	9.525	4.76	4.4	15.8		●	●	●	●	○	●	●	●	●
MEDIUM	PPM P M ground chipbreaker right-hand shown	VBET110302L/R-PPM	0.2	6.35	3.18	2.8	10.9									●	●
		VBET110304L/R-PPM	0.4	6.35	3.18	2.8	10.7									●	●
MEDIUM	PMU P M K 1st choice universal application	VBMT160404-PMU	0.4	9.525	4.76	4.4	16.2	●		●	●	●			●	●	●
		VBMT160408-PMU	0.8	9.525	4.76	4.4	15.8	●		●	●	●			●	●	●
ROUGHING	PRU P K strong edge interrupted cut	VBMT160408-PRU	0.8	9.525	4.76	4.4	15.8	○			●						

● stock standard, ○ non-standard stock, ▲ upcoming introduction, ▽ stock exhaustion





PRODUCT SELECTION p. A35 | CUTTING CONDITIONS p. A78 | GRADES FEATURES p. A4 | EXTERNAL HOLDERS p. A278 | INTERNAL HOLDERS p. A282

VC

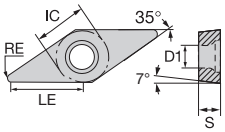
ISO - with hole

- 1st choice for intricate shape copy turning
- Can "In-Copy" (plunge turn into a smaller diameter) at an angle up to 49°
- Can work extremely close to the tailstock
- Positive style can be used for external and internal applications, in many cases improved performance outweighs the increased cost per edge (2 edges vs. 4 edges of a double sided VNMG)

HC: Coated carbide
HF: Micrograin carbide
HT: Cermet
CVD: Chemical vapour deposition
PVD: Physical vapour deposition

	JC7010	JC8015	JC8025	JC9025	JP5125	JP6010	JU4015	JU6015
	HC CVD	HC CVD	HC CVD	HC CVD	HF PVD	HF PVD	HT	HF
Stable machining, light cut (● 1st choice, ○ suitable)	●	●	○	○	○	●	●	●
General machining, medium cut (● 1st choice, ○ suitable)	●	●	●	●	●	○		●
Unstable machining, heavy cut (● 1st choice, ○ suitable)	○		○	○	●			○

Dimensions



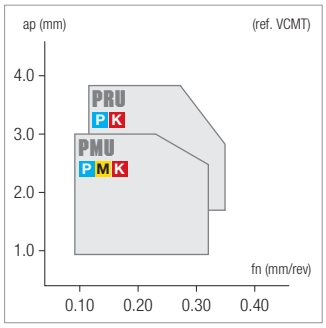
2 edges

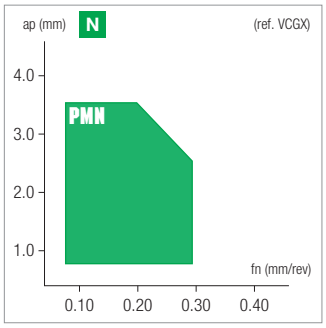
Vc(m/min) - suggested cutting speed range (bold: 1st choice)

ISO	JC7010	JC8015	JC8025	JC9025	JP5125	JP6010	JU4015	JU6015
P		170 360	140 330		70 180		200 380	
M				80 180	50 140			
K	130 380				60 180			
N						400 1400		200 1000
S								
H								

	Designation		RE	IC	S	D1	LE	JC7010	JC8015	JC8025	JC9025	JP5125	JP6010	JU4015	JU6015
MEDIUM	PMU P M K 1st choice universal application	VCMT110304-PMU	0.4	6.35	3.18	2.8	10.7	●	●	●	●			●	
		VCMT110308-PMU	0.8	6.35	3.18	2.8	10.3				○				
		VCMT160404-PMU	0.4	9.525	4.76	4.4	16.2	●	●	●	●	●		○	
		VCMT160408-PMU	0.8	9.525	4.76	4.4	15.8	●	●	●	●	●		●	
MEDIUM	PMN N polished surface ground periphery	VCGX110302-PMN	0.2	6.35	3.18	2.8	10.9						○		●
		VCGX110304-PMN	0.4	6.35	3.18	2.8	10.7						●		●
		VCGX110308-PMN	0.8	6.35	3.18	2.8	10.3						○		●
		VCGX160402-PMN	0.2	9.525	4.76	4.4	16.4						○		●
		VCGX160404-PMN	0.4	9.525	4.76	4.4	16.2						●		●
		VCGX160408-PMN	0.8	9.525	4.76	4.4	15.8						●		●
		VCGX160412-PMN	1.2	9.525	4.76	4.4	15.4						○		○
		VCGX220512-PMN	1.2	12.7	5.56	5.5	20.9						○		○
		VCGX220516-PMN	1.6	12.7	5.56	5.5	20.5						○		○
		VCGX220530-PMN	3	12.7	5.56	5.5	19.1						●		●
ROUGHING	PRU P K strong edge interrupted cut	VCMT160404-PRU	0.4	9.525	4.76	4.4	16.2	●		●					
		VCMT160408-PRU	0.8	9.525	4.76	4.4	15.8	●		●					

● stock standard, ○ non-standard stock, ▲ upcoming introduction, ▽ stock exhaustion





nikkoTOOLS

VN

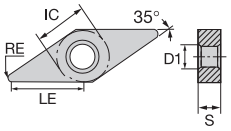
ISO - with hole

- 1st choice for intricate shape copy turning
- Can "In-Copy" (plunge turn into a smaller diameter) at an angle up to 49°
- Can work extremely close to the tailstock
- The weakest turning insert shape among all, ap and fn should be lighter
- Double sided style should mainly be used for external applications

HC: Coated carbide
HF: Micrograin carbide
HT: Cermet
CVD: Chemical vapour deposition
PVD: Physical vapour deposition

	JC7010	JC7020	JC7115	JC8005	JC8015	JC8025	JC9025	JP9015	JP9030	JU4015	JU6015
	HC CVD	HC CVD	HC CVD	HC CVD	HC CVD	HC CVD	HC CVD	HF PVD	HF PVD	HT	HF
Stable machining, light cut (● 1st choice, ○ suitable)	●	○	●	●	●	○	○	●		●	●
General machining, medium cut (● 1st choice, ○ suitable)	●	○	●		●	●	●	●	●		●
Unstable machining, heavy cut (✱ 1st choice, ✱ suitable)	✱	✱	✱			✱	✱		✱		✱

Dimensions



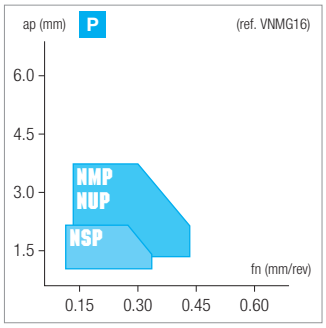
4 edges

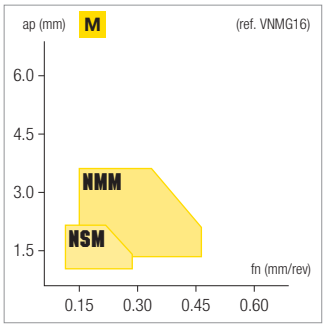
Vc(m/min) - suggested cutting speed range (bold: 1st choice)

ISO	JC7010	JC7020	JC7115	JC8005	JC8015	JC8025	JC9025	JP9015	JP9030	JU4015	JU6015
P				200 380	170 360	140 330				200 380	
M							80 180	70 160	50 130		
K	130 380	110 300	130 380								
N											200 1000
S											
H											

	Designation		RE	IC	S	D1	LE	JC7010	JC7020	JC7115	JC8005	JC8015	JC8025	JC9025	JP9015	JP9030	JU4015	JU6015
FINISHING	NSP P	VNMG160404-NSP	0.4	9.525	4.76	3.81	16.2				●	●	●				●	
		VNMG160408-NSP	0.8	9.525	4.76	3.81	15.8				●	●	○				●	
FINISHING	NSM M	VNMG160404-NSM	0.4	9.525	4.76	3.81	16.2								●	●		
		VNMG160408-NSM	0.8	9.525	4.76	3.81	15.8								●	●		
MEDIUM	NMP P	VNMG160404-NMP	0.4	9.525	4.76	3.81	16.2					●	●				▽	
		VNMG160408-NMP	0.8	9.525	4.76	3.81	15.8					●	●				▽	
		VNMG160412-NMP	1.2	9.525	4.76	3.81	15.4					○	●					
MEDIUM	NUP P	VNMG160404-NUP	0.4	9.525	4.76	3.81	16.2					○	○				●	
		VNMG160408-NUP	0.8	9.525	4.76	3.81	15.8					○	○				●	
		VNMG160412-NUP	1.2	9.525	4.76	3.81	15.4					○	○					
MEDIUM	NMM M	VNMG160404-NMM	0.4	9.525	4.76	3.81	16.2							●		○	▽	
		VNMG160408-NMM	0.8	9.525	4.76	3.81	15.8							○		○	▽	

● stock standard, ○ non-standard stock, ▲ upcoming introduction, ▽ stock exhaustion





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VN

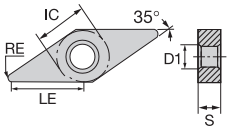
ISO - with hole

- 1st choice for intricate shape copy turning
- Can "In-Copy" (plunge turn into a smaller diameter) at an angle up to 49°
- Can work extremely close to the tailstock
- The weakest turning insert shape among all, ap and fn should be lighter
- Double sided style should mainly be used for external applications

HC: Coated carbide
HF: Micrograin carbide
HT: Cermet
CVD: Chemical vapour deposition
PVD: Physical vapour deposition

	JC7010	JC7020	JC7115	JC8005	JC8015	JC8025	JC9025	JP9015	JP9030	JU4015	JU6015
	HC CVD	HC CVD	HC CVD	HC CVD	HC CVD	HC CVD	HC CVD	HF PVD	HF PVD	HT	HF
Stable machining, light cut (● 1st choice, ○ suitable)	●	○	●	●	●	○	○	●		●	●
General machining, medium cut (● 1st choice, ○ suitable)	●	○	●		●	●	●	●	●		●
Unstable machining, heavy cut (● 1st choice, ○ suitable)	○	●	○			○	○		●		○

Dimensions



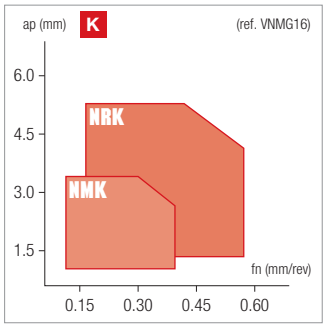
4 edges

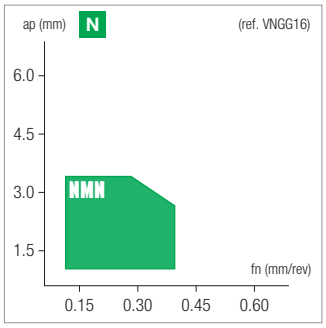
Vc(m/min) - suggested cutting speed range (bold: 1st choice)

ISO	JC7010	JC7020	JC7115	JC8005	JC8015	JC8025	JC9025	JP9015	JP9030	JU4015	JU6015
P				200 380	170 360	140 330				200 380	
M							80 180	70 160	50 130		
K	130 380	110 300	130 380								
N											200 1000
S											
H											

	Designation		RE	IC	S	D1	LE	JC7010	JC7020	JC7115	JC8005	JC8015	JC8025	JC9025	JP9015	JP9030	JU4015	JU6015
MEDIUM	NMK K	VNMG160404-NMK	0.4	9.525	4.76	3.81	16.2	○	○									
		VNMG160408-NMK	0.8	9.525	4.76	3.81	15.8	●	○									
		VNMG160412-NMK	1.2	9.525	4.76	3.81	15.4	○	○									
MEDIUM	NUK K sharp edge reduces burrs	VNMG160404-NUK	0.4	9.525	4.76	3.81	16.2			○								
		VNMG160408-NUK	0.8	9.525	4.76	3.81	15.8			○								
		VNMG160412-NUK	1.2	9.525	4.76	3.81	15.4			○								
MEDIUM	NMN N polished surface ground periphery	VNGG160404-NMN	0.4	9.525	4.76	3.81	16.2											○
		VNGG160408-NMN	0.8	9.525	4.76	3.81	15.8											○
ROUGHING	NRK K	VNMG160408-NRK	0.8	9.525	4.76	3.81	15.8	○	○									
		VNMG160412-NRK	1.2	9.525	4.76	3.81	15.4	○	○									

● stock standard, ○ non-standard stock, ▲ upcoming introduction, ▽ stock exhaustion





WB

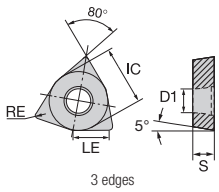
ISO - with hole

- 3-corner 80° diamond shape that can increase economy compared to C-shape inserts
- Generally used on more moderate depths of cut and feedrates than C-shape inserts
- Seating of insert in pocket is less stable as C-shape inserts
- Cannot take as deep a depth of cut as similar sized C-shape insert

HF: Micrograin carbide
HT: Cermet
PVD: Physical vapour deposition

	HF PVD	HT
	JP5125	JU4015
Stable machining, light cut (● 1st choice, ○ suitable)	○	●
General machining, medium cut (● 1st choice, ○ suitable)	●	
Unstable machining, heavy cut (● 1st choice, ○ suitable)	●	

Dimensions

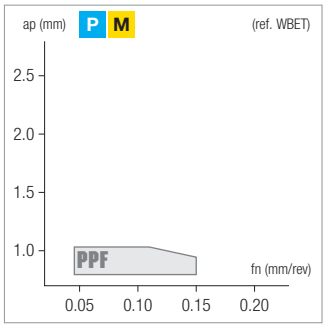


ISO	HF PVD	HT
P	70 180	200 380
M	50 140	
K	60 180	
N		
S		
H		

Vc(m/min) - suggested cutting speed range (bold: 1st choice)

	Designation		RE	IC	S	D1	LE	Stock	
FINISHING	PPF P M ground chipbreaker left-hand shown	WBET060102L/R-PPF	0.2	3.97	1.59	2.3	2.3	●	●
		WBET060104L/R-PPF	0.4	3.97	1.59	2.3	2.1	●	●

● stock standard, ○ non-standard stock, ▲ upcoming introduction, ▽ stock exhaustion



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WC

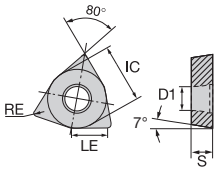
ISO - with hole

- 3-corner 80° diamond shape that can increase economy compared to C-shape inserts
- Generally used on more moderate depths of cut and feedrates than C-shape inserts
- Seating of insert in pocket is less stable as C-shape inserts
- Cannot take as deep a depth of cut as similar sized C-shape insert

HC: Coated carbide
HT: Cermet
CVD: Chemical vapour deposition

	JC7010	JC8015	JC8025	JC9025	JU4015
	HC CVD	HC CVD	HC CVD	HC CVD	HT
Stable machining, light cut (● 1st choice, ○ suitable)	●	●	○	○	●
General machining, medium cut (● 1st choice, ○ suitable)	●	●	●	●	
Unstable machining, heavy cut (● 1st choice, ○ suitable)	○		○	○	

Dimensions



3 edges

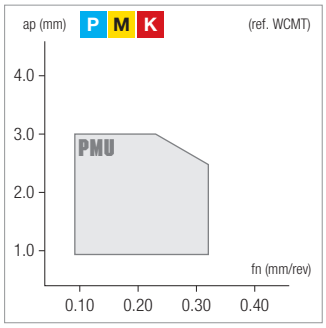
Vc(m/min) - suggested cutting speed range (bold: 1st choice)

ISO	JC7010	JC8015	JC8025	JC9025	JU4015
P		170 360	140 330		200 380
M				80 180	
K	130 380				
N					
S					
H					

	Designation	RE	IC	S	D1	LE	Stock				
MEDIUM PMU P M K	WCMT12T304-PMU	0.4	9.525	3.97	4.4	6.1	●	●	●	●	●
	WCMT12T308-PMU	0.8	9.525	3.97	4.4	5.7	●	●	●	●	●

1st choice
universal application

● stock standard, ○ non-standard stock, ▲ upcoming introduction, ▽ stock exhaustion



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INTERNAL HOLDERS p. A298

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WN

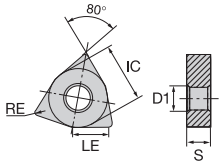
ISO - with hole

- 6-corner 80° diamond shape that can increase economy compared to CNMG-style inserts
- Generally used on more moderate depths of cut and feedrates than CNMG-style inserts
- Seating of insert in pocket is less stable as CNMG-style inserts
- Cannot take as deep a depth of cut as similar sized CNMG-style insert

HC: Coated carbide
HF: Micrograin carbide
HT: Cermet
CVD: Chemical vapour deposition
PVD: Physical vapour deposition

	JC7010	JC7020	JC7115	JC8005	JC8015	JC8025	JC8035	JC8215	JC8225	JC9010	JC9025	JP3015	JP9015	JP9030	JU4015	JU6015
	HC CVD	HC CVD	HC CVD	HC CVD	HC CVD	HC CVD	HC CVD	HC CVD	HC CVD	HC CVD	HC CVD	HF PVD	HF PVD	HF PVD	HT	HF
Stable machining, light cut (● 1st choice, ○ suitable)	●	○	●	●	●	○		●		●	○	●	●		●	●
General machining, medium cut (● 1st choice, ○ suitable)	●	○	●		●	●	○	●	●	○	●	●	●	●		●
Unstable machining, heavy cut (● 1st choice, ○ suitable)	○	●	○			○	●		○		○			●		○

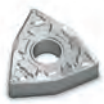
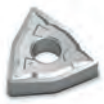
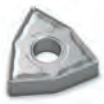
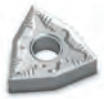
Dimensions



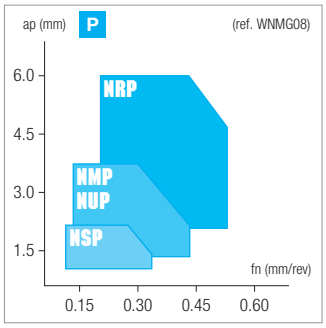
6 edges

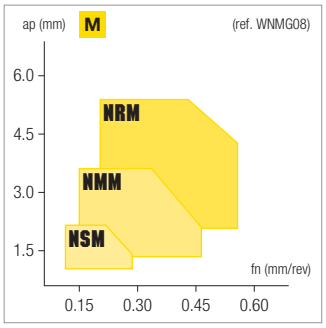
Vc(m/min) - suggested cutting speed range (bold: 1st choice)

ISO	JC7010	JC7020	JC7115	JC8005	JC8015	JC8025	JC8035	JC8215	JC8225	JC9010	JC9025	JP3015	JP9015	JP9030	JU4015	JU6015
P				200 380	170 360	140 330	100 200	170 360	140 330						200 380	
M										100 200	80 180		70 160	50 130		
K	130 380	110 300	130 380													
N																200 1000
S												20 70				
H																

	Designation		RE	IC	S	D1	LE	Stock															
FINISHING	NSP P 	WNMG060404-NSP	0.4	9.525	4.76	3.81	6.1					●	○								●		
		WNMG060408-NSP	0.8	9.525	4.76	3.81	5.7					○	○								●		
		WNMG080404-NSP	0.4	12.7	4.76	5.16	8.3				●	●	●								●		
		WNMG080408-NSP	0.8	12.7	4.76	5.16	7.9				●	●	●								●		
FINISHING	NSM M 	WNMG080404-NSM	0.4	12.7	4.76	5.16	8.3												●	●			
		WNMG080408-NSM	0.8	12.7	4.76	5.16	7.9												●	●			
MEDIUM	NMP P 	WNMG060404-NMP	0.4	9.525	4.76	3.81	6.1					○	●										
		WNMG060408-NMP	0.8	9.525	4.76	3.81	5.7					●	●										
		WNMG080404-NMP	0.4	12.7	4.76	5.16	8.3					○	●								▽		
		WNMG080408-NMP	0.8	12.7	4.76	5.16	7.9					●	●								▽		
		WNMG080412-NMP	1.2	12.7	4.76	5.16	7.5					●	●										
		WNMG080416-NMP	1.6	12.7	4.76	5.16	7.1					○	●										
MEDIUM	NUP P 	WNMG060404-NUP	0.4	9.525	4.76	3.81	6.1					○	●								●		
		WNMG060408-NUP	0.8	9.525	4.76	3.81	5.7				○	●	●								●		
		WNMG080404-NUP	0.4	12.7	4.76	5.16	8.3				●	●	●					●			●		
		WNMG080408-NUP	0.8	12.7	4.76	5.16	7.9				●	●	●	○				●			○		
		WNMG080412-NUP	1.2	12.7	4.76	5.16	7.5				●	●	●	○				●					
		WNMG080416-NUP	1.6	12.7	4.76	5.16	7.1				●	●	●										
MEDIUM	NMM M	WNMG060404-NMM	0.4	9.525	4.76	3.81	6.1										○	●		○			
		WNMG060408-NMM	0.8	9.525	4.76	3.81	5.7										○	●		●			
		WNMG060412-NMM	1.2	9.525	4.76	3.81	5.3											●		●			
		WNMG080404-NMM	0.4	12.7	4.76	5.16	8.3										●	●		●	▽		
		WNMG080408-NMM	0.8	12.7	4.76	5.16	7.9										●	●		●	▽		
		WNMG080412-NMM	1.2	12.7	4.76	5.16	7.5										●	●		●			

● stock standard, ○ non-standard stock, ▲ upcoming introduction, ▽ stock exhaustion





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nikkoTOOLS

WN

ISO - with hole

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HT: Cermet
CVD: Chemical vapour deposition
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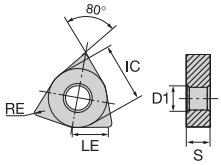
	JC7010	JC7020	JC7115	JC8005	JC8015	JC8025	JC8035	JC8215	JC8225	JC9010	JC9025	JP3015	JP9015	JP9030	JU4015	JU6015
	HC CVD	HC CVD	HC CVD	HC CVD	HC CVD	HC CVD	HC CVD	HC CVD	HC CVD	HC CVD	HC CVD	HF PVD	HF PVD	HF PVD	HT	HF
Stable machining, light cut (● 1st choice, ○ suitable)	●	○	●	●	●	○		●		●	○	●	●		●	●
General machining, medium cut (● 1st choice, ○ suitable)	●	○	●		●	●	○	●	●	○	●	●	●	●		●
Unstable machining, heavy cut (✱ 1st choice, ✱ suitable)	✱	✱	✱			✱	✱		✱		✱			✱		✱

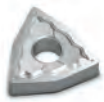
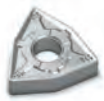
Dimensions



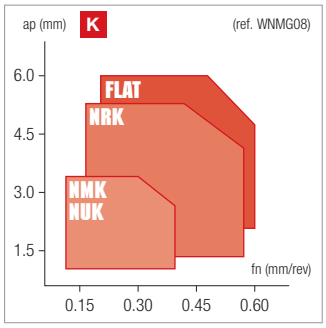
6 edges

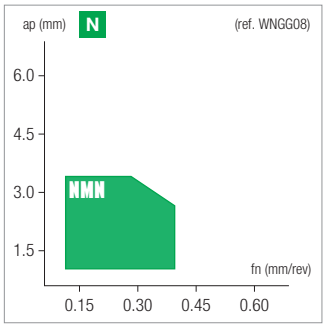
Vc(m/min) - suggested cutting speed range (bold: 1st choice)

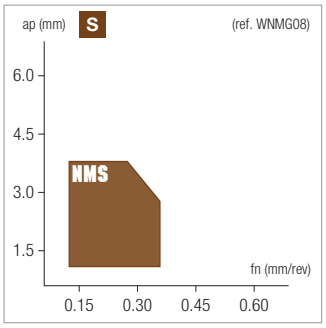
ISO	JC7010	JC7020	JC7115	JC8005	JC8015	JC8025	JC8035	JC8215	JC8225	JC9010	JC9025	JP3015	JP9015	JP9030	JU4015	JU6015
P				200 380	170 360	140 330	100 200	170 360	140 330						200 380	
M										100 200	80 180		70 160	50 130		
K	130 380	110 300	130 380													
N																200 1000
S												20 70				
H																

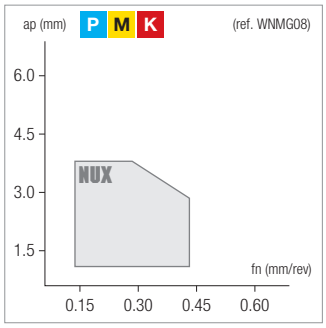
	Designation		RE	IC	S	D1	LE	JC7010	JC7020	JC7115	JC8005	JC8015	JC8025	JC8035	JC8215	JC8225	JC9010	JC9025	JP3015	JP9015	JP9030	JU4015	JU6015
MEDIUM	NMK K	WNMG080404-NMK	0.4	12.7	4.76	5.16	8.3	●	○														
		WNMG080408-NMK	0.8	12.7	4.76	5.16	7.9	●	○														
		WNMG080412-NMK	1.2	12.7	4.76	5.16	7.5	●	○														
MEDIUM	NUK K sharp edge reduces burrs	WNMG080404-NUK	0.4	12.7	4.76	5.16	8.3			●													
		WNMG080408-NUK	0.8	12.7	4.76	5.16	7.9			●													
		WNMG080412-NUK	1.2	12.7	4.76	5.16	7.5			●													
MEDIUM	NMN N  polished surface ground periphery	WNGG060404-NMN	0.4	9.525	4.76	3.81	6.1																●
		WNGG060408-NMN	0.8	9.525	4.76	3.81	5.7																○
		WNGG080404-NMN	0.4	12.7	4.76	5.16	8.3																●
		WNGG080408-NMN	0.8	12.7	4.76	5.16	7.9																●
MEDIUM	NMS S	WNMG080408-NMS	0.8	12.7	4.76	5.16	7.9												●				
		WNMG080412-NMS	1.2	12.7	4.76	5.16	7.5												●				
MEDIUM	NUX P M K  universal use wide range of grades	WNMG080404-NUX	0.4	12.7	4.76	5.16	8.3	●			●	●	●				●	●					
		WNMG080408-NUX	0.8	12.7	4.76	5.16	7.9	●			●	●	●		▲	▲	●	●					
		WNMG080412-NUX	1.2	12.7	4.76	5.16	7.5	●			●	●	●		▲	▲	●	●					

● stock standard, ○ non-standard stock, ▲ upcoming introduction, ▽ stock exhaustion









PRODUCT SELECTION p. A35 | CUTTING CONDITIONS p. A78 | GRADES FEATURES p. A4 | EXTERNAL HOLDERS p. A299 | INTERNAL HOLDERS p. A302

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WN

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CVD: Chemical vapour deposition
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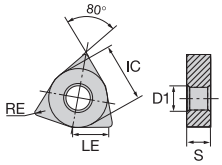
	JC7010	JC7020	JC7115	JC8005	JC8015	JC8025	JC8035	JC8215	JC8225	JC9010	JC9025	JP3015	JP9015	JP9030	JU4015	JU6015
	HC CVD	HC CVD	HC CVD	HC CVD	HC CVD	HC CVD	HC CVD	HC CVD	HC CVD	HC CVD	HC CVD	HF PVD	HF PVD	HF PVD	HT	HF
Stable machining, light cut (● 1st choice, ○ suitable)	●	○	●	●	●	○		●		●	○	●	●		●	●
General machining, medium cut (● 1st choice, ○ suitable)	●	○	●		●	●	○	●	●	○	●	●	●	●		●
Unstable machining, heavy cut (✱ 1st choice, ✱ suitable)	✱	✱	✱			✱	✱		✱		✱			✱		✱

Dimensions



6 edges

Vc(m/min) - suggested cutting speed range (bold: 1st choice)

ISO	JC7010	JC7020	JC7115	JC8005	JC8015	JC8025	JC8035	JC8215	JC8225	JC9010	JC9025	JP3015	JP9015	JP9030	JU4015	JU6015
P				200 380	170 360	140 330	100 200	170 360	140 330						200 380	
M										100 200	80 180		70 160	50 130		
K	130 380	110 300	130 380													
N																200 1000
S												20 70				
H																

	Designation		RE	IC	S	D1	LE	JC7010	JC7020	JC7115	JC8005	JC8015	JC8025	JC8035	JC8215	JC8225	JC9010	JC9025	JP3015	JP9015	JP9030	JU4015	JU6015
MEDIUM	NWU P K wiper universal type	WNMG080408-NWU	0.8	12.7	4.76	5.16	7.9	●					●										
		WNMG080412-NWU	1.2	12.7	4.76	5.16	7.5	●					●										
MEDIUM	NWX P K wiper reinforced edge	WNMG080408-NWX	0.8	12.7	4.76	5.16	7.9	○					●									●	
		WNMG080412-NWX	1.2	12.7	4.76	5.16	7.5															●	
ROUGHING	NRP P	WNMG080408-NRP	0.8	12.7	4.76	5.16	7.9				●	●	●	●									
		WNMG080412-NRP	1.2	12.7	4.76	5.16	7.5				●	●	●	●									
		WNMG080416-NRP	1.6	12.7	4.76	5.16	7.1					○	○	●									
ROUGHING	NRM M	WNMG080408-NRM	0.8	12.7	4.76	5.16	7.9										●	●			●		
		WNMG080412-NRM	1.2	12.7	4.76	5.16	7.5										●	●			●		
ROUGHING	NRK K	WNMG060408-NRK	0.8	9.525	4.76	3.81	5.7	●	●														
		WNMG080408-NRK	0.8	12.7	4.76	5.16	7.9	●	●	●													
		WNMG080412-NRK	1.2	12.7	4.76	5.16	7.5	●	●	●													

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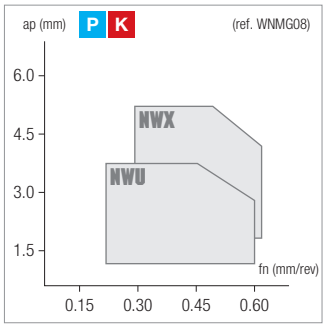

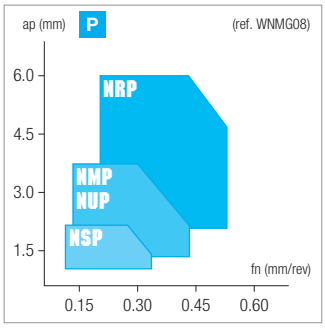

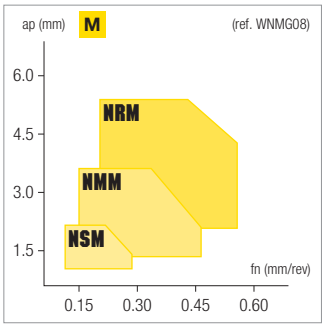

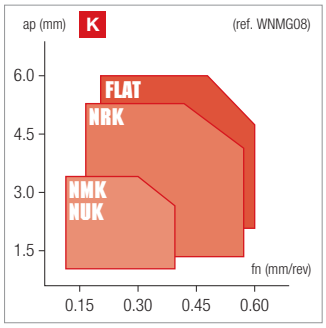

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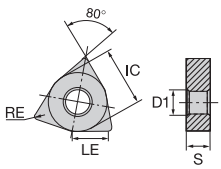
	HC CVD	HC CVD	HC CVD	HC CVD	HC CVD	HC CVD	HC CVD	HC CVD	HC CVD	HC CVD	HC CVD	HF PVD	HF PVD	HF PVD	HT	HF
Stable machining, light cut (● 1st choice, ○ suitable)	●	○	●	●	●	○		●		●	○	●	●		●	●
General machining, medium cut (● 1st choice, ○ suitable)	●	○	●		●	●	○	●	●	○	●	●	●	●		●
Unstable machining, heavy cut (✱ 1st choice, ✱ suitable)	✱	✱	✱			✱	✱		✱		✱			✱		✱

Dimensions



6 edges

ISO	JC7010	JC7020	JC7115	JC8005	JC8015	JC8025	JC8035	JC8215	JC8225	JC9010	JC9025	JP3015	JP9015	JP9030	JU4015	JU6015
	Vc(m/min) - suggested cutting speed range (bold: 1st choice)															
P				200 380	170 360	140 330	100 200	170 360	140 330						200 380	
M										100 200	80 180		70 160	50 130		
K	130 380	110 300	130 380													
N																200 1000
S												20 70				
H																

	Designation	RE	IC	S	D1	LE	JC7010	JC7020	JC7115	JC8005	JC8015	JC8025	JC8035	JC8215	JC8225	JC9010	JC9025	JP3015	JP9015	JP9030	JU4015	JU6015
ROUGHING, flat K	WNMA080408	0.8	12.7	4.76	5.16	7.9	●	○	○													
	WNMA080412	1.2	12.7	4.76	5.16	7.5	●	○	○													
	WNMA080416	1.6	12.7	4.76	5.16	7.1	○	○														

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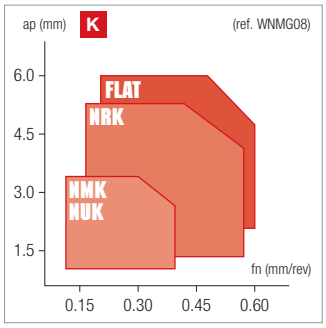

TURNING Parameters - cutting speed · CARBIDE

ISO 513	MATERIAL	HARDNESS HB	JC8005			JC8015			JC8025		
			min	start	max	min	start	max	min	start	max
P1 - P2	Free cutting steel and low carbon (ex. 1.0715/9SMn28/AVP, 1.0503/C45)	≤ 200	200	**290**	380	180	**270**	360	170	**250**	330
						170	**245**	320	160	**225**	290
									140	**195**	250
P3 - P4	Medium and high alloy steel (ex. 1.7225/42CrMo4, 1.3505/100Cr6)	200 ÷ 300	180	**260**	340	160	**240**	320	150	**220**	290
						150	**225**	300	140	**205**	270
									130	**190**	250
P5 - P6	High tensile strength and tool steel (ex. 1.2344/X40CrMoV5-1/ORVAR, Hardox400®)	300 ÷ 400	160	**240**	320	140	**220**	300	140	**205**	270
						130	**205**	280	130	**190**	250
									120	**170**	220
ISO 513	MATERIAL	HARDNESS HB	JC9010			JC9025			JP4020		
			min	start	max	min	start	max	min	start	max
P7	Ferritic and martensitic stainless steel (ex. 1.4021/X20Cr13/AISI420)	≤ 200	140	**200**	260	120	**180**	240	140	**210**	280
			120	**180**	240	110	**165**	220	120	**190**	260
						100	**150**	200			
P8	Precipitation hardening stainless steel (ex. 1.4548/X5CrNiCuNb17-4/17-4-PH)	≤ 450	100	**130**	160	80	**110**	140	100	**140**	180
			90	**120**	150	70	**100**	130	90	**125**	160
						60	**90**	120			
M1	Austenitic stainless steel (ex. 1.4305/X10CrNiS18-9/AISI303)	> 200	120	**160**	200	100	**90**	180	120	**170**	220
			100	**140**	180	90	**130**	170	100	**150**	200
						80	**120**	160			
M2 - M3	Austenitic and Duplex stainless steel (ex. 1.4401/X5CrNiMo17-12-2/AISI316)		100	**140**	180	80	**120**	160	100	**150**	200
			90	**125**	160	70	**110**	150	90	**135**	180
						60	**100**	140			
ISO 513	MATERIAL	HARDNESS HB	JC7010			JC7115			JC7020		
			min	start	max	min	start	max	min	start	max
K1	Grey cast iron (ex. 0.6025/GG25/EN-GJL-250)	150 ÷ 250	180	**280**	380	180	**280**	380	150	**225**	300
			150	**225**	300	150	**225**	300	120	**170**	220
			130	**195**	260	130	**195**	260	110	**155**	200
K2	Nodular cast iron (ex. 0.7050/GGG50/EN-GJS-500-7)	150 ÷ 350	150	**200**	250	150	**200**	250	140	**180**	220
			130	**175**	220	130	**175**	220	120	**160**	200
			120	**160**	200	120	**160**	200	100	**145**	180
K3 - K4	Austenitic and ADI cast iron (ex. 0.6660/GGL-NiCr 20 2/Ni-Resist 2, GJS-1000-5/ADI1000)	250 ÷ 500	140	**190**	240	140	**190**	240	120	**165**	210
			120	**165**	210	120	**165**	210	110	**145**	180
			110	**155**	200	110	**155**	200	100	**125**	150
ISO 513	MATERIAL	HARDNESS HB	JP6010			JU6015					
			min	start	max	min	start	max			
N1	Aluminium alloys ≤ Si 12% (ex. 3.4365/AlZn5.5MgCu/ERGAL)		600	**1000**	1400	400	**700**	1000			
			400	**600**	800	300	**500**	700			
						200	**400**	600			
N2	Aluminium alloys Si > 12% (ex. 3.2382/G-AlSi12)		200	**400**	600	200	**300**	400			
			200	**300**	400	200	**250**	300			
						100	**150**	200			
ISO 513	MATERIAL	HARDNESS HB	JP3015			JP5015					
			min	start	max	min	start	max			
S1 - S2 - S3	Fe/Ni/Co based heat resistant alloys (ex. Hastelloy, Inconel 625, Inconel 718)		30	**50**	70	30	**50**	70			
			20	**40**	60	20	**40**	60			
S4 - S5	Titanium alloys (ex. TiAl2Sn4Zr2MoSi)		40	**60**	80	40	**60**	80			
			30	**50**	70	30	**50**	70			

Complete workpiece materials p. **H**1.

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JC8035				JP4020				JP5015				JP5120				JP5125				JU4015			
	min	start	max		min	start	max		min	start	max		min	start	max		min	start	max		min	start	max
				●	200	**300**	400	●	120	**170**	220	●	100	**150**	200	○	100	**140**	180	●	200	**290**	380
⟲	120	**160**	200	⟲	180	**260**	340	●	100	**140**	180	●	90	**130**	170	●	80	**120**	160				
✱	100	**130**	160													✱	70	**100**	130				
				●	190	**275**	360	●	100	**140**	180	●	90	**130**	170	○	80	**120**	160	●	180	**260**	340
⟲	100	**140**	180	⟲	180	**260**	340	●	90	**125**	160	●	80	**110**	140	●	70	**100**	120				
✱	90	**125**	160													✱	60	**80**	100				
								●	90	**120**	150	●	80	**110**	150	○	70	**100**	130				
⟲	90	**120**	150					●	80	**110**	140	●	70	**100**	130	●	60	**90**	120				
✱	80	**110**	140													✱	60	**80**	100				

JP5015				JP5120				JP5125				JP9015				JC9030			
	min	start	max		min	start	max		min	start	max		min	start	max		min	start	max
●	120	**170**	220	●	100	**150**	200	○	100	**140**	180	●	120	**170**	220				
●	100	**140**	180	●	90	**130**	170	●	80	**120**	160	●	100	**140**	180	●	80	**120**	160
								✱	70	**100**	130					✱	70	**100**	130
●	80	**100**	120	●	70	**90**	110	○	60	**80**	100	●	80	**100**	120				
●	70	**90**	110	●	60	**80**	100	●	50	**70**	90	●	70	**90**	110	●	50	**70**	90
								✱	50	**60**	70					✱	50	**60**	70
●	80	**120**	160	●	70	**110**	150	○	60	**100**	140	●	80	**120**	160				
●	70	**110**	150	●	60	**100**	140	●	50	**90**	130	●	70	**110**	150	●	50	**90**	130
								✱	50	**80**	110					✱	50	**80**	110
●	70	**110**	150	●	70	**100**	130	○	60	**90**	120	●	70	**110**	150				
●	60	**100**	140	●	60	**90**	120	●	60	**80**	100	●	60	**100**	140	●	60	**80**	100
								✱	50	**70**	90					✱	50	**70**	90

JP4020				JP5120				JP5125			
	min	start	max		min	start	max		min	start	max
●	180	**250**	320	●	110	**150**	190	○	100	**140**	180
⟲	150	**215**	280	●	90	**130**	170	●	80	**115**	150
								✱	60	**90**	120
●	160	**210**	260	●	90	**130**	170	○	80	**120**	160
⟲	145	**180**	215	●	80	**110**	140	●	70	**95**	120
								✱	60	**80**	100
●	145	**185**	225	●	80	**110**	140	○	70	**105**	140
⟲	130	**165**	200	●	70	**100**	130	●	60	**90**	120
								✱	50	**75**	100

Complete workpiece materials p. **H**1.

TURNING Parameters - depht of cut and feed rate · **CARBIDE**

DESIGNATION	DEPTH OF CUT			FEED RATE		
	ap (mm)			fn (mm/rev)		
	min	start	max	min	start	max
CCET060202L/R-PPF	0.10	**0.40**	0.70	0.04	**0.07**	0.10
CCET060204L/R-PPF	0.10	**0.40**	0.70	0.04	**0.08**	0.12
CCET09T302L/R-PPF	0.10	**0.50**	0.90	0.04	**0.08**	0.12
CCET09T304L/R-PPF	0.10	**0.50**	0.90	0.04	**0.09**	0.14
CCET09T304L/R-PPM	0.50	**1.50**	2.50	0.04	**0.07**	0.10
CCGX060202-PMN	0.30	**1.50**	2.70	0.05	**0.10**	0.15
CCGX060204-PMN	0.30	**1.50**	2.70	0.06	**0.13**	0.20
CCGX060208-PMN	0.30	**1.50**	2.70	0.08	**0.16**	0.24
CCGX09T302-PMN	0.50	**2.00**	3.50	0.06	**0.11**	0.16
CCGX09T304-PMN	0.50	**2.00**	3.50	0.08	**0.16**	0.24
CCGX09T308-PMN	0.50	**2.00**	3.50	0.10	**0.20**	0.30
CCGX120402-PMN	0.50	**3.00**	5.50	0.08	**0.14**	0.20
CCGX120404-PMN	0.50	**3.00**	5.50	0.10	**0.20**	0.30
CCGX120408-PMN	0.50	**3.00**	5.50	0.15	**0.25**	0.35
CCMT060202-PFU	0.20	**0.80**	1.40	0.04	**0.08**	0.12
CCMT060202-PMU	0.50	**1.50**	2.50	0.05	**0.10**	0.15
CCMT060204-PFU	0.20	**0.80**	1.40	0.05	**0.11**	0.17
CCMT060204-PMU	0.50	**1.50**	2.50	0.06	**0.13**	0.20
CCMT060208-PMU	0.50	**1.50**	2.50	0.08	**0.16**	0.24
CCMT09T302-PFU	0.30	**1.00**	1.70	0.05	**0.10**	0.15
CCMT09T302-PMU	0.60	**1.80**	3.00	0.06	**0.13**	0.20
CCMT09T304-PFU	0.30	**1.00**	1.70	0.06	**0.14**	0.22
CCMT09T304-PMU	0.60	**1.80**	3.00	0.07	**0.16**	0.25
CCMT09T304-PRU	1.50	**2.50**	3.50	0.10	**0.19**	0.28
CCMT09T308-PFU	0.30	**1.00**	1.70	0.08	**0.16**	0.24
CCMT09T308-PMU	0.60	**1.80**	3.00	0.08	**0.19**	0.30
CCMT09T308-PRU	1.50	**2.50**	3.50	0.12	**0.22**	0.32
CCMT120404-PMU	0.80	**2.20**	3.60	0.08	**0.17**	0.26
CCMT120408-PMU	0.80	**2.20**	3.60	0.10	**0.22**	0.32
CCMT120408-PRU	1.50	**3.00**	4.50	0.14	**0.26**	0.38
CCMT120412-PMU	0.80	**2.20**	3.60	0.12	**0.24**	0.36
CCMT120412-PRU	1.50	**3.00**	4.50	0.16	**0.28**	0.40
CNGG120404-NMN	0.50	**2.00**	3.50	0.10	**0.20**	0.30
CNGG120408-NMN	0.50	**2.00**	3.50	0.15	**0.25**	0.35
CNMA120404	2.00	**4.00**	6.00	0.15	**0.25**	0.35
CNMA120408	2.00	**4.00**	6.00	0.25	**0.35**	0.45
CNMA120412	2.00	**4.00**	6.00	0.35	**0.45**	0.55
CNMA120416	2.00	**4.00**	6.00	0.45	**0.55**	0.65
CNMA160612	4.00	**7.00**	10.00	0.45	**0.60**	0.75
CNMA160616	4.00	**7.00**	10.00	0.50	**0.65**	0.80
CNMA190612	6.00	**9.00**	12.00	0.50	**0.65**	0.80
CNMA190616	6.00	**9.00**	12.00	0.55	**0.70**	0.85
CNMG090304-NMM	0.70	**1.50**	2.30	0.13	**0.20**	0.27
CNMG090304-NSP	0.30	**0.70**	1.10	0.06	**0.12**	0.18
CNMG090304-NUP	0.70	**1.50**	2.30	0.08	**0.15**	0.22
CNMG090308-NMM	0.70	**1.50**	2.30	0.18	**0.25**	0.32
CNMG090308-NSP	0.30	**0.70**	1.10	0.08	**0.16**	0.24
CNMG090308-NUP	0.70	**1.50**	2.30	0.12	**0.20**	0.28
CNMG120404-NMK	0.50	**2.00**	3.50	0.10	**0.20**	0.30
CNMG120404-NMM	1.00	**2.50**	4.00	0.15	**0.25**	0.35
CNMG120404-NMP	1.50	**2.50**	3.50	0.12	**0.20**	0.28
CNMG120404-NSM	0.40	**1.20**	2.00	0.08	**0.14**	0.20
CNMG120404-NSP	0.40	**1.20**	2.00	0.08	**0.15**	0.22
CNMG120404-NUK	0.50	**2.00**	3.50	0.10	**0.20**	0.30
CNMG120404-NUP	1.00	**2.50**	4.00	0.10	**0.20**	0.30
CNMG120404-NUX	1.00	**2.50**	4.00	0.10	**0.20**	0.30
CNMG120408-NMK	0.50	**2.00**	3.50	0.15	**0.25**	0.35
CNMG120408-NMM	1.00	**2.50**	4.00	0.20	**0.30**	0.40

DESIGNATION	DEPTH OF CUT			FEED RATE		
	ap (mm)			fn (mm/rev)		
	min	start	max	min	start	max
CNMG120408-NMP	1.50	**2.50**	3.50	0.16	**0.25**	0.34
CNMG120408-NRK	1.50	**4.00**	6.50	0.20	**0.30**	0.40
CNMG120408-NRM	2.00	**3.50**	5.00	0.20	**0.35**	0.50
CNMG120408-NRP	2.00	**4.00**	6.00	0.25	**0.35**	0.45
CNMG120408-NSM	0.40	**1.20**	2.00	0.10	**0.18**	0.26
CNMG120408-NSP	0.40	**1.20**	2.00	0.10	**0.22**	0.34
CNMG120408-NUK	0.50	**2.00**	3.50	0.15	**0.25**	0.35
CNMG120408-NUP	1.00	**2.50**	4.00	0.15	**0.25**	0.35
CNMG120408-NUX	1.00	**2.50**	4.00	0.15	**0.25**	0.35
CNMG120408-NWU	0.50	**1.50**	2.50	0.20	**0.40**	0.60
CNMG120408-NWX	1.00	**2.50**	4.00	0.20	**0.40**	0.60
CNMG120412-NMK	0.50	**2.00**	3.50	0.20	**0.30**	0.40
CNMG120412-NMM	1.00	**2.50**	4.00	0.25	**0.35**	0.45
CNMG120412-NMP	1.50	**2.50**	3.50	0.20	**0.30**	0.40
CNMG120412-NRK	1.50	**4.00**	6.50	0.25	**0.35**	0.45
CNMG120412-NRM	2.00	**3.50**	5.00	0.25	**0.40**	0.55
CNMG120412-NRP	2.00	**4.00**	6.00	0.30	**0.40**	0.50
CNMG120412-NUK	0.50	**2.00**	3.50	0.20	**0.30**	0.40
CNMG120412-NUP	1.00	**2.50**	4.00	0.18	**0.30**	0.42
CNMG120412-NUX	1.00	**2.50**	4.00	0.18	**0.30**	0.42
CNMG120412-NWU	0.50	**1.50**	2.50	0.25	**0.45**	0.65
CNMG120412-NWX	1.00	**2.50**	4.00	0.25	**0.45**	0.65
CNMG120416-NMK	0.50	**2.00**	3.50	0.25	**0.35**	0.45
CNMG120416-NMM	1.00	**2.50**	4.00	0.30	**0.40**	0.50
CNMG120416-NMP	1.50	**2.50**	3.50	0.25	**0.35**	0.45
CNMG120416-NRK	1.50	**4.00**	6.50	0.30	**0.40**	0.50
CNMG120416-NRP	2.00	**4.00**	6.00	0.35	**0.45**	0.55
CNMG120416-NUP	1.00	**2.50**	4.00	0.20	**0.35**	0.50
CNMG160608-NMK	2.00	**4.00**	6.00	0.25	**0.35**	0.45
CNMG160608-NMM	2.00	**4.50**	7.00	0.25	**0.35**	0.45
CNMG160608-NMP	3.00	**4.50**	6.00	0.20	**0.30**	0.40
CNMG160608-NRM	3.00	**5.50**	8.00	0.25	**0.40**	0.55
CNMG160608-NUP	2.00	**4.50**	7.00	0.18	**0.30**	0.42
CNMG160612-NMK	2.00	**4.00**	6.00	0.30	**0.40**	0.50
CNMG160612-NMM	2.00	**4.50**	7.00	0.30	**0.40**	0.50
CNMG160612-NMP	3.00	**4.50**	6.00	0.25	**0.35**	0.45
CNMG160612-NRK	3.00	**6.00**	9.00	0.40	**0.55**	0.70
CNMG160612-NRM	3.00	**5.50**	8.00	0.30	**0.45**	0.60
CNMG160612-NRP	4.00	**6.00**	8.00	0.35	**0.50**	0.65
CNMG160612-NUP	2.00	**4.50**	7.00	0.22	**0.35**	0.48
CNMG160616-NMK	2.00	**4.00**	6.00	0.35	**0.45**	0.55
CNMG160616-NMM	2.00	**4.50**	7.00	0.35	**0.45**	0.55
CNMG160616-NMP	3.00	**4.50**	6.00	0.30	**0.40**	0.50
CNMG160616-NRK	3.00	**6.00**	9.00	0.45	**0.60**	0.75
CNMG160616-NRP	4.00	**6.00**	8.00	0.40	**0.55**	0.70
CNMG190608-NUP	3.00	**6.00**	9.00	0.22	**0.35**	0.48
CNMG190612-NMK	3.00	**5.00**	7.00	0.35	**0.45**	0.55
CNMG190612-NMM	3.00	**6.00**	9.00	0.35	**0.45**	0.55
CNMG190612-NMP	4.00	**6.00**	8.00	0.30	**0.40**	0.50
CNMG190612-NRK	5.00	**8.00**	11.00	0.45	**0.60**	0.75
CNMG190612-NRM	5.00	**7.50**	10.00	0.40	**0.55**	0.70
CNMG190612-NRP	6.00	**8.00**	10.00	0.40	**0.55**	0.70
CNMG190612-NUP	3.00	**6.00**	9.00	0.25	**0.40**	0.55
CNMG190616-NMK	3.00	**5.00**	7.00	0.40	**0.50**	0.60
CNMG190616-NMM	3.00	**6.00**	9.00	0.40	**0.50**	0.60
CNMG190616-NMP	4.00	**6.00**	8.00	0.32	**0.45**	0.58
CNMG190616-NRK	5.00	**8.00**	11.00	0.50	**0.65**	0.80
CNMG190616-NRM	5.00	**7.50**	10.00	0.45	**0.60**	0.75

DESIGNATION	DEPTH OF CUT			FEED RATE		
	ap (mm)			fn (mm/rev)		
	min	start	max	min	start	max
CNMG190616-NRP	6.00	**8.00**	10.00	0.45	**0.60**	0.75
CNMG190616-NUP	3.00	**6.00**	9.00	0.30	**0.45**	0.60
CNMG190624-NRP	6.00	**8.00**	10.00	0.50	**0.65**	0.80
CNMG250924-NRP	6.00	**10.00**	14.00	0.50	**0.70**	0.90
CNMM190616-MRP	6.00	**9.00**	12.00	0.60	**0.75**	0.90
CNMM190624-MRP	6.00	**9.00**	12.00	0.65	**0.80**	0.95
CNMM250924-MRP	8.00	**12.00**	16.00	0.70	**0.90**	1.10
DCET070202L/R-PPF	0.10	**0.40**	0.70	0.04	**0.07**	0.10
DCET070204L/R-PPF	0.10	**0.40**	0.70	0.04	**0.08**	0.12
DCET070204L/R-PPM	0.40	**1.00**	1.60	0.03	**0.06**	0.09
DCET11T302L/R-PPF	0.10	**0.50**	0.90	0.04	**0.08**	0.12
DCET11T302L/R-PPM	0.50	**1.50**	2.50	0.04	**0.06**	0.08
DCET11T304L/M-PPF	0.10	**0.50**	0.90	0.04	**0.09**	0.14
DCET11T304L/M-PPM	0.50	**1.50**	2.50	0.04	**0.07**	0.10
DCGX070202-PMN	0.30	**1.50**	2.70	0.05	**0.10**	0.15
DCGX070204-PMN	0.30	**1.50**	2.70	0.06	**0.13**	0.20
DCGX070208-PMN	0.30	**1.50**	2.70	0.08	**0.16**	0.24
DCGX11T302-PMN	0.50	**2.00**	3.50	0.06	**0.11**	0.16
DCGX11T304-PMN	0.50	**2.00**	3.50	0.08	**0.16**	0.24
DCGX11T308-PMN	0.50	**2.00**	3.50	0.10	**0.20**	0.30
DCMT070202-PFU	0.20	**0.80**	1.40	0.04	**0.08**	0.12
DCMT070202-PMU	0.50	**1.50**	2.50	0.05	**0.10**	0.15
DCMT070204-PFU	0.20	**0.80**	1.40	0.05	**0.11**	0.17
DCMT070204-PMU	0.50	**1.50**	2.50	0.06	**0.13**	0.20
DCMT070208-PMU	0.50	**1.50**	2.50	0.08	**0.16**	0.24
DCMT11T302-PFU	0.30	**1.00**	1.70	0.05	**0.10**	0.15
DCMT11T302-PMU	0.60	**1.80**	3.00	0.06	**0.13**	0.20
DCMT11T304-PFU	0.30	**1.00**	1.70	0.06	**0.14**	0.22
DCMT11T304-PMU	0.60	**1.80**	3.00	0.07	**0.16**	0.25
DCMT11T304-PRU	1.50	**2.50**	3.50	0.10	**0.19**	0.28
DCMT11T308-PFU	0.30	**1.00**	1.70	0.08	**0.16**	0.24
DCMT11T308-PMU	0.60	**1.80**	3.00	0.08	**0.19**	0.30
DCMT11T308-PRU	1.50	**2.50**	3.50	0.12	**0.22**	0.32
DCMT11T312-PMU	0.60	**1.80**	3.00	0.10	**0.22**	0.34
DCMT150404-PMU	0.80	**2.20**	3.60	0.08	**0.17**	0.26
DCMT150408-PMU	0.80	**2.20**	3.60	0.10	**0.22**	0.32
DCMT150412-PMU	0.80	**2.20**	3.60	0.12	**0.24**	0.36
DNGG150604-NMN	0.50	**2.00**	3.50	0.10	**0.20**	0.30
DNGG150608-NMN	0.50	**2.00**	3.50	0.15	**0.25**	0.35
DNMA150608	2.00	**4.00**	6.00	0.15	**0.25**	0.35
DNMA150612	2.00	**4.00**	6.00	0.35	**0.45**	0.55
DNMG110404-NMM	0.70	**1.50**	2.30	0.13	**0.20**	0.27
DNMG110404-NMP	1.00	**1.50**	2.00	0.10	**0.15**	0.20
DNMG110404-NSP	0.30	**0.70**	1.10	0.06	**0.12**	0.18
DNMG110404-NUP	0.70	**1.50**	2.30	0.08	**0.15**	0.22
DNMG110408-NMM	0.70	**1.50**	2.30	0.18	**0.25**	0.32
DNMG110408-NMP	1.00	**1.50**	2.00	0.15	**0.20**	0.25
DNMG110408-NSP	0.30	**0.70**	1.10	0.08	**0.16**	0.24
DNMG110408-NUP	0.70	**1.50**	2.30	0.12	**0.20**	0.28
DNMG110412-NUP	0.70	**1.50**	2.30	0.15	**0.25**	0.35
DNMG150604L/R-NMU	1.00	**2.50**	4.00	0.15	**0.25**	0.35
DNMG150604-NMK	0.50	**2.00**	3.50	0.10	**0.20**	0.30
DNMG150604-NMM	1.00	**2.50**	4.00	0.15	**0.25**	0.35
DNMG150604-NMP	1.50	**2.50**	3.50	0.12	**0.20**	0.28
DNMG150604-NSM	0.40	**1.20**	2.00	0.08	**0.14**	0.20
DNMG150604-NSP	0.40	**1.20**	2.00	0.08	**0.15**	0.22
DNMG150604-NUK	0.50	**2.00**	3.50	0.10	**0.20**	0.30
DNMG150604-NUP	1.00	**2.50**	4.00	0.10	**0.20**	0.30

DESIGNATION	DEPTH OF CUT			FEED RATE		
	ap (mm)			fn (mm/rev)		
	min	start	max	min	start	max
DNMG150604-NUX	1.00	**2.50**	4.00	0.10	**0.20**	0.30
DNMG150608L/R-NMU	1.00	**2.50**	4.00	0.20	**0.30**	0.40
DNMG150608-NMK	0.50	**2.00**	3.50	0.15	**0.25**	0.35
DNMG150608-NMM	1.00	**2.50**	4.00	0.20	**0.30**	0.40
DNMG150608-NMP	1.50	**2.50**	3.50	0.16	**0.25**	0.34
DNMG150608-NRK	1.50	**4.00**	6.50	0.20	**0.30**	0.40
DNMG150608-NRM	2.00	**3.50**	5.00	0.20	**0.35**	0.50
DNMG150608-NRP	2.00	**4.00**	6.00	0.25	**0.35**	0.45
DNMG150608-NSM	0.40	**1.20**	2.00	0.10	**0.18**	0.26
DNMG150608-NSP	0.40	**1.20**	2.00	0.10	**0.22**	0.34
DNMG150608-NUK	0.50	**2.00**	3.50	0.15	**0.25**	0.35
DNMG150608-NUP	1.00	**2.50**	4.00	0.15	**0.25**	0.35
DNMG150608-NUX	1.00	**2.50**	4.00	0.15	**0.25**	0.35
DNMG150612-NMK	0.50	**2.00**	3.50	0.20	**0.30**	0.40
DNMG150612-NMM	1.00	**2.50**	4.00	0.25	**0.35**	0.45
DNMG150612-NMP	1.50	**2.50**	3.50	0.20	**0.30**	0.40
DNMG150612-NRK	1.50	**4.00**	6.50	0.25	**0.35**	0.45
DNMG150612-NRM	2.00	**3.50**	5.00	0.25	**0.40**	0.55
DNMG150612-NRP	2.00	**4.00**	6.00	0.30	**0.40**	0.50
DNMG150612-NUK	0.50	**2.00**	3.50	0.20	**0.30**	0.40
DNMG150612-NUP	1.00	**2.50**	4.00	0.18	**0.30**	0.42
DNMG150612-NUX	1.00	**2.50**	4.00	0.18	**0.30**	0.42
DNMG150616-NMK	0.50	**2.00**	3.50	0.25	**0.35**	0.45
DNMG150616-NMP	1.50	**2.50**	3.50	0.25	**0.35**	0.45
DNMG150616-NRP	2.00	**4.00**	6.00	0.35	**0.45**	0.55
DNMX150608-NWU	0.50	**1.50**	2.50	0.20	**0.40**	0.60
DNMX150612-NWU	0.50	**1.50**	2.50	0.25	**0.45**	0.65
KNUX160405L/R-NMU	1.00	**2.50**	4.00	0.15	**0.25**	0.35
KNUX160410L/R-NMU	1.00	**2.50**	4.00	0.20	**0.30**	0.40
MCC.R02L-PPF	0.05	**0.20**	0.35	0.03	**0.05**	0.07
MCC.R04L-PPF	0.05	**0.20**	0.35	0.04	**0.06**	0.08
MCN.R02G-SS	0.60	**1.20**	1.80	0.08	**0.14**	0.20
MCN.R04-GBL/R	0.20	**0.50**	0.80	0.05	**0.10**	0.15
MCN.R04G-SS	0.60	**1.20**	1.80	0.10	**0.17**	0.24
MCN.R04M-GM	0.80	**1.50**	2.20	0.08	**0.15**	0.22
MCN.R08M-GM	0.80	**1.50**	2.20	0.10	**0.17**	0.24
MDN.R02G-SS	0.60	**1.20**	1.80	0.08	**0.14**	0.20
MDN.R04-GBL/R	0.20	**0.50**	0.80	0.05	**0.10**	0.15
MDN.R04G-SS	0.60	**1.20**	1.80	0.10	**0.17**	0.24
MDN.R04M-GM	0.80	**1.50**	2.20	0.08	**0.15**	0.22
MDN.R08M-GM	0.80	**1.50**	2.20	0.10	**0.17**	0.24
SCGX09T304-PMN	0.50	**2.00**	3.50	0.08	**0.16**	0.24
SCGX09T308-PMN	0.50	**2.00**	3.50	0.10	**0.20**	0.30
SCGX120404-PMN	0.50	**3.00**	5.50	0.10	**0.20**	0.30
SCGX120408-PMN	0.50	**3.00**	5.50	0.15	**0.25**	0.35
SCMT09T304-PFU	0.30	**1.00**	1.70	0.06	**0.14**	0.22
SCMT09T304-PMU	0.60	**1.80**	3.00	0.07	**0.16**	0.25
SCMT09T308-PFU	0.30	**1.00**	1.70	0.08	**0.16**	0.24
SCMT09T308-PMU	0.60	**1.80**	3.00	0.08	**0.19**	0.30
SCMT09T308-PRU	1.50	**2.50**	3.50	0.12	**0.22**	0.32
SCMT120404-PMU	0.80	**2.20**	3.60	0.08	**0.17**	0.26
SCMT120408-PMU	0.80	**2.20**	3.60	0.10	**0.22**	0.32
SCMT120408-PRU	1.50	**3.00**	4.50	0.14	**0.26**	0.38
SNGG120404-NMN	0.50	**2.00**	3.50	0.10	**0.20**	0.30
SNGG120408-NMN	0.50	**2.00**	3.50	0.15	**0.25**	0.35
SNGG120412-NMN	0.50	**2.00**	3.50	0.20	**0.30**	0.40
SNMA090308	1.00	**2.00**	3.00	0.22	**0.30**	0.38
SNMA120408	2.00	**4.00**	6.00	0.25	**0.35**	0.45

TURNING Parameters - depht of cut and feed rate · **CARBIDE**

DESIGNATION	DEPTH OF CUT			FEED RATE		
	ap (mm)			fn (mm/rev)		
	min	start	max	min	start	max
SNMA120412	2.00	**4.00**	6.00	0.35	**0.45**	0.55
SNMA120416	2.00	**4.00**	6.00	0.45	**0.55**	0.65
SNMG120404-NMM	1.00	**2.50**	4.00	0.15	**0.25**	0.35
SNMG120404-NMP	1.50	**2.50**	3.50	0.12	**0.20**	0.28
SNMG120404-NSP	0.40	**1.20**	2.00	0.08	**0.15**	0.22
SNMG120404-NUP	1.00	**2.50**	4.00	0.10	**0.20**	0.30
SNMG120408-NMK	0.50	**2.00**	3.50	0.15	**0.25**	0.35
SNMG120408-NMM	1.00	**2.50**	4.00	0.20	**0.30**	0.40
SNMG120408-NMP	1.50	**2.50**	3.50	0.16	**0.25**	0.34
SNMG120408-NRK	1.50	**4.00**	6.50	0.20	**0.30**	0.40
SNMG120408-NRM	2.00	**3.50**	5.00	0.20	**0.35**	0.50
SNMG120408-NRP	2.00	**4.00**	6.00	0.25	**0.35**	0.45
SNMG120408-NSP	0.40	**1.20**	2.00	0.10	**0.22**	0.34
SNMG120408-NUP	1.00	**2.50**	4.00	0.15	**0.25**	0.35
SNMG120412-NMK	0.50	**2.00**	3.50	0.20	**0.30**	0.40
SNMG120412-NMM	1.00	**2.50**	4.00	0.25	**0.35**	0.45
SNMG120412-NMP	1.50	**2.50**	3.50	0.20	**0.30**	0.40
SNMG120412-NRK	1.50	**4.00**	6.50	0.25	**0.35**	0.45
SNMG120412-NRM	2.00	**3.50**	5.00	0.25	**0.40**	0.55
SNMG120412-NRP	2.00	**4.00**	6.00	0.30	**0.40**	0.50
SNMG120412-NUP	1.00	**2.50**	4.00	0.18	**0.30**	0.42
SNMG120416-NMM	1.00	**2.50**	4.00	0.30	**0.40**	0.50
SNMG120416-NMP	1.50	**2.50**	3.50	0.25	**0.35**	0.45
SNMG120416-NRK	1.50	**4.00**	6.50	0.30	**0.40**	0.50
SNMG120416-NRP	2.00	**4.00**	6.00	0.35	**0.45**	0.55
SNMG120416-NUP	1.00	**2.50**	4.00	0.20	**0.35**	0.50
SNMG190612-NMM	3.00	**6.00**	9.00	0.35	**0.45**	0.55
SNMG190612-NRK	5.00	**8.00**	11.00	0.45	**0.60**	0.75
SNMG190612-NRM	5.00	**7.50**	10.00	0.40	**0.55**	0.70
SNMG190612-NRP	6.00	**8.00**	10.00	0.40	**0.55**	0.70
SNMG190616-NMM	3.00	**6.00**	9.00	0.40	**0.50**	0.60
SNMG190616-NRK	5.00	**8.00**	11.00	0.50	**0.65**	0.80
SNMG190616-NRM	5.00	**7.50**	10.00	0.45	**0.60**	0.75
SNMG190616-NRP	6.00	**8.00**	10.00	0.45	**0.60**	0.75
SNMG190624-NRP	6.00	**8.00**	10.00	0.50	**0.65**	0.80
SNMG250924-NRP	6.00	**10.00**	14.00	0.50	**0.70**	0.90
SNMM190616-MRP	6.00	**9.00**	12.00	0.60	**0.75**	0.90
SNMM190624-MRP	6.00	**9.00**	12.00	0.65	**0.80**	0.95
SNMM250924-MRP	8.00	**12.00**	16.00	0.70	**0.90**	1.10
TBET060102L/R-PPF	0.10	**0.30**	0.50	0.03	**0.06**	0.09
TBET060104L/R-PPF	0.10	**0.30**	0.50	0.04	**0.07**	0.10
TCET110202L/R-PPF	0.10	**0.40**	0.70	0.04	**0.07**	0.10
TCET110204L/R-PPF	0.10	**0.40**	0.70	0.04	**0.08**	0.12
TCGX090204-PMN	0.30	**1.00**	1.70	0.05	**0.11**	0.17
TCGX110202-PMN	0.30	**1.50**	2.70	0.05	**0.10**	0.15
TCGX110204-PMN	0.30	**1.50**	2.70	0.06	**0.13**	0.20
TCGX110208-PMN	0.30	**1.50**	2.70	0.08	**0.16**	0.24
TCGX16T302-PMN	0.50	**2.00**	3.50	0.06	**0.11**	0.16
TCGX16T304-PMN	0.50	**2.00**	3.50	0.08	**0.16**	0.24
TCGX16T308-PMN	0.50	**2.00**	3.50	0.10	**0.20**	0.30
TCMT090204-PMU	0.50	**1.00**	1.50	0.05	**0.09**	0.13
TCMT110202-PFU	0.20	**0.80**	1.40	0.04	**0.08**	0.12
TCMT110202-PMU	0.50	**1.50**	2.50	0.05	**0.10**	0.15
TCMT110204-PFU	0.20	**0.80**	1.40	0.05	**0.11**	0.17
TCMT110204-PMU	0.50	**1.50**	2.50	0.06	**0.13**	0.20
TCMT110208-PFU	0.20	**0.80**	1.40	0.06	**0.13**	0.20
TCMT110208-PMU	0.50	**1.50**	2.50	0.08	**0.16**	0.24
TCMT16T304-PFU	0.30	**1.00**	1.70	0.06	**0.14**	0.22
TCMT16T304-PMU	0.60	**1.80**	3.00	0.07	**0.16**	0.25

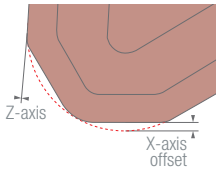
DESIGNATION	DEPTH OF CUT			FEED RATE		
	ap (mm)			fn (mm/rev)		
	min	start	max	min	start	max
TCMT16T304-PRU	1.50	**2.50**	3.50	0.10	**0.19**	0.28
TCMT16T308-PFU	0.30	**1.00**	1.70	0.08	**0.16**	0.24
TCMT16T308-PMU	0.60	**1.80**	3.00	0.08	**0.19**	0.30
TCMT16T308-PRU	1.50	**2.50**	3.50	0.12	**0.22**	0.32
TCMT16T312-PMU	0.60	**1.80**	3.00	0.10	**0.22**	0.34
TCMT220408-PMU	0.80	**2.20**	3.60	0.10	**0.22**	0.32
TNGG160404-NMN	0.50	**2.00**	3.50	0.10	**0.20**	0.30
TNGG160408-NMN	0.50	**2.00**	3.50	0.15	**0.25**	0.35
TNGG160412-NMN	0.50	**2.00**	3.50	0.20	**0.30**	0.40
TNMA160404	2.00	**4.00**	6.00	0.15	**0.25**	0.35
TNMA160408	2.00	**4.00**	6.00	0.25	**0.35**	0.45
TNMA160412	2.00	**4.00**	6.00	0.35	**0.45**	0.55
TNMA160416	2.00	**4.00**	6.00	0.45	**0.55**	0.65
TNMA220408	4.00	**7.00**	10.00	0.35	**0.50**	0.65
TNMA220412	4.00	**7.00**	10.00	0.45	**0.60**	0.75
TNMA220416	4.00	**7.00**	10.00	0.50	**0.65**	0.80
TNMG160404L/R-NMU	1.00	**2.50**	4.00	0.15	**0.25**	0.35
TNMG160404-NMK	0.50	**2.00**	3.50	0.10	**0.20**	0.30
TNMG160404-NMM	1.00	**2.50**	4.00	0.15	**0.25**	0.35
TNMG160404-NMP	1.50	**2.50**	3.50	0.12	**0.20**	0.28
TNMG160404-NSM	0.40	**1.20**	2.00	0.08	**0.14**	0.20
TNMG160404-NSP	0.40	**1.20**	2.00	0.08	**0.15**	0.22
TNMG160404-NUK	0.50	**2.00**	3.50	0.10	**0.20**	0.30
TNMG160404-NUP	1.00	**2.50**	4.00	0.10	**0.20**	0.30
TNMG160404-NUX	1.00	**2.50**	4.00	0.10	**0.20**	0.30
TNMG160408L/R-NMU	1.00	**2.50**	4.00	0.20	**0.30**	0.40
TNMG160408-NMK	0.50	**2.00**	3.50	0.15	**0.25**	0.35
TNMG160408-NMM	1.00	**2.50**	4.00	0.20	**0.30**	0.40
TNMG160408-NMP	1.50	**2.50**	3.50	0.16	**0.25**	0.34
TNMG160408-NRK	1.50	**4.00**	6.50	0.20	**0.30**	0.40
TNMG160408-NRM	2.00	**3.50**	5.00	0.20	**0.35**	0.50
TNMG160408-NRP	2.00	**4.00**	6.00	0.25	**0.35**	0.45
TNMG160408-NSM	0.40	**1.20**	2.00	0.10	**0.18**	0.26
TNMG160408-NSP	0.40	**1.20**	2.00	0.10	**0.22**	0.34
TNMG160408-NUK	0.50	**2.00**	3.50	0.15	**0.25**	0.35
TNMG160408-NUP	1.00	**2.50**	4.00	0.15	**0.25**	0.35
TNMG160408-NUX	1.00	**2.50**	4.00	0.15	**0.25**	0.35
TNMG160412-NMK	0.50	**2.00**	3.50	0.20	**0.30**	0.40
TNMG160412-NMM	1.00	**2.50**	4.00	0.25	**0.35**	0.45
TNMG160412-NMP	1.50	**2.50**	3.50	0.20	**0.30**	0.40
TNMG160412-NRK	1.50	**4.00**	6.50	0.25	**0.35**	0.45
TNMG160412-NRM	2.00	**3.50**	5.00	0.25	**0.40**	0.55
TNMG160412-NRP	2.00	**4.00**	6.00	0.30	**0.40**	0.50
TNMG160412-NUK	0.50	**2.00**	3.50	0.20	**0.30**	0.40
TNMG160412-NUP	1.00	**2.50**	4.00	0.18	**0.30**	0.42
TNMG160412-NUX	1.00	**2.50**	4.00	0.18	**0.30**	0.42
TNMG160416-NMK	0.50	**2.00**	3.50	0.25	**0.35**	0.45
TNMG220408-NMK	2.00	**4.00**	6.00	0.25	**0.35**	0.45
TNMG220408-NMM	2.00	**4.50**	7.00	0.25	**0.35**	0.45
TNMG220408-NMP	3.00	**4.50**	6.00	0.20	**0.30**	0.40
TNMG220408-NRK	3.00	**6.00**	9.00	0.35	**0.50**	0.65
TNMG220408-NUP	2.00	**4.50**	7.00	0.18	**0.30**	0.42
TNMG220412-NMK	2.00	**4.00**	6.00	0.30	**0.40**	0.50
TNMG220412-NMM	2.00	**4.50**	7.00	0.30	**0.40**	0.50
TNMG220412-NMP	3.00	**4.50**	6.00	0.25	**0.35**	0.45
TNMG220412-NRK	3.00	**6.00**	9.00	0.40	**0.55**	0.70
TNMG220412-NRP	4.00	**6.00**	8.00	0.35	**0.50**	0.65
TNMG220412-NUP	2.00	**4.50**	7.00	0.22	**0.35**	0.48
TNMG220416-NMK	2.00	**4.00**	6.00	0.35	**0.45**	0.55

DESIGNATION	DEPTH OF CUT			FEED RATE		
	ap (mm)			fn (mm/rev)		
	min	start	max	min	start	max
TNMG220416-NMM	2.00	**4.50**	7.00	0.35	**0.45**	0.55
TNMG220416-NRK	3.00	**6.00**	9.00	0.45	**0.60**	0.75
TNMG220416-NRP	4.00	**6.00**	8.00	0.40	**0.55**	0.70
TNMG220416-NUP	2.00	**4.50**	7.00	0.24	**0.40**	0.56
TNMX160408-NWU	0.50	**1.50**	2.50	0.20	**0.40**	0.60
TNMX160412-NWU	0.50	**1.50**	2.50	0.25	**0.45**	0.65
TPEH090202L/R-PPF	0.10	**0.30**	0.50	0.03	**0.06**	0.09
TPEH090204L/R-PPF	0.10	**0.30**	0.50	0.04	**0.07**	0.10
TPEH110302L/R-PPF	0.10	**0.40**	0.70	0.04	**0.07**	0.10
TPEH110304L/R-PPF	0.10	**0.40**	0.70	0.04	**0.08**	0.12
TPEH110304L/R-PPM	0.40	**1.00**	1.60	0.03	**0.06**	0.09
VBET110302L/R-PPF	0.10	**0.40**	0.70	0.04	**0.07**	0.10
VBET110302L/R-PPM	0.40	**1.00**	1.60	0.03	**0.05**	0.07
VBET110304L/R-PPF	0.10	**0.40**	0.70	0.04	**0.08**	0.12
VBET110304L/R-PPM	0.40	**1.00**	1.60	0.03	**0.06**	0.09
VBMT110304-PFU	0.20	**0.80**	1.40	0.05	**0.11**	0.17
VBMT160402-PFU	0.30	**1.00**	1.70	0.05	**0.10**	0.15
VBMT160404-PFU	0.30	**1.00**	1.70	0.06	**0.14**	0.22
VBMT160404-PMU	0.60	**1.80**	3.00	0.07	**0.16**	0.25
VBMT160408-PFU	0.30	**1.00**	1.70	0.08	**0.16**	0.24
VBMT160408-PMU	0.60	**1.80**	3.00	0.08	**0.19**	0.30
VBMT160408-PRU	1.50	**2.50**	3.50	0.12	**0.22**	0.32
VCGX110302-PMN	0.30	**1.50**	2.70	0.05	**0.10**	0.15
VCGX110304-PMN	0.30	**1.50**	2.70	0.06	**0.13**	0.20
VCGX110308-PMN	0.30	**1.50**	2.70	0.08	**0.16**	0.24
VCGX160402-PMN	0.50	**2.00**	3.50	0.06	**0.11**	0.16
VCGX160404-PMN	0.50	**2.00**	3.50	0.08	**0.16**	0.24
VCGX160408-PMN	0.50	**2.00**	3.50	0.10	**0.20**	0.30
VCGX160412-PMN	0.50	**2.00**	3.50	0.12	**0.24**	0.36
VCGX220512-PMN	1.00	**3.00**	5.00	0.14	**0.27**	0.40
VCGX220516-PMN	1.00	**3.00**	5.00	0.14	**0.30**	0.46
VCGX220530-PMN	1.00	**3.00**	5.00	0.20	**0.40**	0.60
VCMT110304-PMU	0.50	**1.50**	2.50	0.06	**0.13**	0.20
VCMT110308-PMU	0.50	**1.50**	2.50	0.08	**0.16**	0.24
VCMT160404-PMU	0.60	**1.80**	3.00	0.07	**0.16**	0.25
VCMT160404-PRU	1.50	**2.50**	3.50	0.10	**0.19**	0.28
VCMT160408-PMU	0.60	**1.80**	3.00	0.08	**0.19**	0.30
VCMT160408-PRU	1.50	**2.50**	3.50	0.12	**0.22**	0.32
VNGG160404-NMN	0.50	**2.00**	3.50	0.10	**0.20**	0.30
VNGG160408-NMN	0.50	**2.00**	3.50	0.15	**0.25**	0.35
VNMG160404-NMK	0.50	**2.00**	3.50	0.10	**0.20**	0.30
VNMG160404-NMM	1.00	**2.50**	4.00	0.15	**0.25**	0.35
VNMG160404-NMP	1.50	**2.50**	3.50	0.12	**0.20**	0.28
VNMG160404-NSM	0.40	**1.20**	2.00	0.08	**0.14**	0.20
VNMG160404-NSP	0.40	**1.20**	2.00	0.08	**0.15**	0.22
VNMG160404-NUK	0.50	**2.00**	3.50	0.10	**0.20**	0.30
VNMG160404-NUP	1.00	**2.50**	4.00	0.10	**0.20**	0.30
VNMG160408-NMK	0.50	**2.00**	3.50	0.15	**0.25**	0.35
VNMG160408-NMM	1.00	**2.50**	4.00	0.20	**0.30**	0.40
VNMG160408-NMP	1.50	**2.50**	3.50	0.16	**0.25**	0.34
VNMG160408-NRK	1.50	**4.00**	6.50	0.20	**0.30**	0.40
VNMG160408-NSM	0.40	**1.20**	2.00	0.10	**0.18**	0.26
VNMG160408-NSP	0.40	**1.20**	2.00	0.10	**0.22**	0.34
VNMG160408-NUK	0.50	**2.00**	3.50	0.15	**0.25**	0.35
VNMG160408-NUP	1.00	**2.50**	4.00	0.15	**0.25**	0.35
VNMG160412-NMK	0.50	**2.00**	3.50	0.20	**0.30**	0.40
VNMG160412-NMP	1.50	**2.50**	3.50	0.20	**0.30**	0.40
VNMG160412-NRK	1.50	**4.00**	6.50	0.25	**0.35**	0.45
VNMG160412-NUK	0.50	**2.00**	3.50	0.20	**0.30**	0.40

DESIGNATION	DEPTH OF CUT			FEED RATE		
	ap (mm)			fn (mm/rev)		
	min	start	max	min	start	max
VNMG160412-NUP	1.00	**2.50**	4.00	0.18	**0.30**	0.42
WBET060102L/R-PPF	0.10	**0.30**	0.50	0.03	**0.06**	0.09
WBET060104L/R-PPF	0.10	**0.30**	0.50	0.04	**0.07**	0.10
WCMT12T304-PMU	0.60	**1.80**	3.00	0.07	**0.16**	0.25
WCMT12T308-PMU	0.60	**1.80**	3.00	0.08	**0.19**	0.30
WNGG060404-NMN	0.30	**1.00**	1.70	0.08	**0.15**	0.22
WNGG060408-NMN	0.30	**1.00**	1.70	0.10	**0.20**	0.30
WNGG080404-NMN	0.50	**2.00**	3.50	0.10	**0.20**	0.30
WNGG080408-NMN	0.50	**2.00**	3.50	0.15	**0.25**	0.35
WNMA080408	2.00	**4.00**	6.00	0.25	**0.35**	0.45
WNMA080412	2.00	**4.00**	6.00	0.35	**0.45**	0.55
WNMA080416	2.00	**4.00**	6.00	0.45	**0.55**	0.65
WNMG060404-NMM	0.70	**1.50**	2.30	0.13	**0.20**	0.27
WNMG060404-NMP	1.00	**1.50**	2.00	0.10	**0.15**	0.20
WNMG060404-NSP	0.30	**0.70**	1.10	0.06	**0.12**	0.18
WNMG060404-NUP	0.70	**1.50**	2.30	0.08	**0.15**	0.22
WNMG060408-NMM	0.70	**1.50**	2.30	0.18	**0.25**	0.32
WNMG060408-NMP	1.00	**1.50**	2.00	0.15	**0.20**	0.25
WNMG060408-NRK	1.00	**2.00**	3.00	0.15	**0.25**	0.35
WNMG060408-NSP	0.30	**0.70**	1.10	0.08	**0.16**	0.24
WNMG060408-NUP	0.70	**1.50**	2.30	0.12	**0.20**	0.28
WNMG060412-NMM	0.70	**1.50**	2.30	0.20	**0.28**	0.36
WNMG080404-NMK	0.50	**2.00**	3.50	0.10	**0.20**	0.30
WNMG080404-NMM	1.00	**2.50**	4.00	0.15	**0.25**	0.35
WNMG080404-NMP	1.50	**2.50**	3.50	0.12	**0.20**	0.28
WNMG080404-NSM	0.40	**1.20**	2.00	0.08	**0.14**	0.20
WNMG080404-NSP	0.40	**1.20**	2.00	0.08	**0.15**	0.22
WNMG080404-NUK	0.50	**2.00**	3.50	0.10	**0.20**	0.30
WNMG080404-NUP	1.00	**2.50**	4.00	0.10	**0.20**	0.30
WNMG080404-NUX	1.00	**2.50**	4.00	0.10	**0.20**	0.30
WNMG080408-NMK	0.50	**2.00**	3.50	0.15	**0.25**	0.35
WNMG080408-NMM	1.00	**2.50**	4.00	0.20	**0.30**	0.40
WNMG080408-NMP	1.50	**2.50**	3.50	0.16	**0.25**	0.34
WNMG080408-NRK	1.50	**4.00**	6.50	0.20	**0.30**	0.40
WNMG080408-NRM	2.00	**3.50**	5.00	0.20	**0.35**	0.50
WNMG080408-NRP	2.00	**4.00**	6.00	0.25	**0.35**	0.45
WNMG080408-NSM	0.40	**1.20**	2.00	0.10	**0.18**	0.26
WNMG080408-NSP	0.40	**1.20**	2.00	0.10	**0.22**	0.34
WNMG080408-NUK	0.50	**2.00**	3.50	0.15	**0.25**	0.35
WNMG080408-NUP	1.00	**2.50**	4.00	0.15	**0.25**	0.35
WNMG080408-NUX	1.00	**2.50**	4.00	0.15	**0.25**	0.35
WNMG080408-NWU	0.50	**1.50**	2.50	0.20	**0.40**	0.60
WNMG080408-NWX	1.00	**2.50**	4.00	0.20	**0.40**	0.60
WNMG080412-NMK	0.50	**2.00**	3.50	0.20	**0.30**	0.40
WNMG080412-NMM	1.00	**2.50**	4.00	0.25	**0.35**	0.45
WNMG080412-NMP	1.50	**2.50**	3.50	0.20	**0.30**	0.40
WNMG080412-NRK	1.50	**4.00**	6.50	0.25	**0.35**	0.45
WNMG080412-NRM	2.00	**3.50**	5.00	0.25	**0.40**	0.55
WNMG080412-NRP	2.00	**4.00**	6.00	0.30	**0.40**	0.50
WNMG080412-NUK	0.50	**2.00**	3.50	0.20	**0.30**	0.40
WNMG080412-NUP	1.00	**2.50**	4.00	0.18	**0.30**	0.42
WNMG080412-NUX	1.00	**2.50**	4.00	0.18	**0.30**	0.42
WNMG080412-NWU	0.50	**1.50**	2.50	0.25	**0.45**	0.65
WNMG080416-NMP	1.50	**2.50**	3.50	0.25	**0.35**	0.45
WNMG080416-NRP	2.00	**4.00**	6.00	0.35	**0.45**	0.55
WNMG080416-NUP	1.00	**2.50**	4.00	0.20	**0.35**	0.50

TURNING Parameters - wiper application details· **CARBIDE**

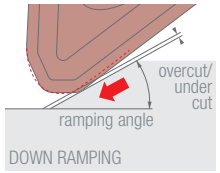
I. X-axis, Z-axis offset



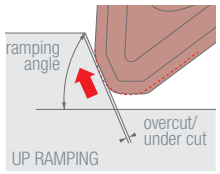
INSERT RADIUS	DNMX1506oo	
	X-AXIS	Z-AXIS
0,8	0,065	0
1,2	0,058	0

INSERT RADIUS	TNMX1604oo	
	X-AXIS	Z-AXIS
0,8	0,063	0
1,2	0,066	0

II. Ramping offset



INSERT RADIUS	DNMX1506oo (KAPR 93°)						TNMX1604oo - NO NEED TO ADJUST
	0°	5°	10°	15°	20°	25°	
0,8	0	0,021	0,037	0,049	0,056	0,058	
1,2	0	0,022	0,039	0,049	0,053	0,052	



INSERT RADIUS	DNMX1506oo (KAPR 93°)									
	0°	5°	10°	15°	20°	25°	30°	35°	40°	45°
0,8	0	0,019	0,034	0,046	0,054	0,057	0,057	0,052	0,044	0,031
1,2	0	0,017	0,03	0,041	0,047	0,05	0,05	0,046	0,038	0,028
INSERT RADIUS	50°	55°	60°	65°	70°	75°	80°	85°	90°	
0,8	0,015	-0,005	-0,029	-0,021	-0,008	0	0,004	0,004	0	
1,2	0,013	-0,004	-0,025	-0,015	-0,001	0,006	0,008	0,005	0	

INSERT RADIUS	DNMX1506oo (KAPR 93°)									
	0°	5°	10°	15°	20°	25°	30°	35°	40°	45°
0,8	0	0,017	0,03	0,041	0,048	0,053	0,053	0,051	0,045	0,035
1,2	0	0,018	0,033	0,044	0,052	0,056	0,057	0,054	0,048	0,038
INSERT RADIUS	50°	55°	60°	65°	70°	75°	80°	85°	90°	
0,8	0,023	0,007	-0,011	-0,032	-0,023	-0,009	-0,001	0,003	0	
1,2	0,025	0,008	-0,011	-0,034	-0,026	-0,012	-0,004	0	0	

III. For radius with relatively high precision request, it's not suggested to use wiper inserts, please use conventional radius turning inserts.

TURNING PCBN

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TURNING Grade table · PCBN

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ISO 513		PCBN	
		PVD COATED	UNCOATED
K Cast iron	K01	NBH450C	NBH450U
	K10	NBH500C	NBH500U
	K20		NBH600U
	K30		NBH900U, NBH950U
S HRSA	S01	NBH450C	
	S10		
	S20		
	S30		
H Hardened steel	H01	NBL050C	
	H10	NBL150C, NBL200C, NBL250C, NBL300C	
	H20	NBL350C	NBH900U, NBH950U
	H30		

HRSA: Heat resistant super alloy

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GRADE	COMPOSITION	HARDNESS HV	COATING		APPLICATION		FEATURES
			TECHNOLOGY	COMPOSITION			
NBL050C	Low volume CBN 40%	2.700	PVD	AlTiN	H	H01 H10	Great performance on high speed machining under continuous cutting conditions.
NBL050CX	Low volume CBN 40%	2.700	PVD	AlTiN	H	H01 H10	Same substrate of NBL050C with a different coating that enhances the sharpness of cutting edge preparation.
NBL150C	Low volume CBN 50%	2.900	PVD	AlTiN	H	H05 H15	First choice for continuous cut machining. High reliability under various cutting conditions, from low to high cutting speed.
NBL200C	Low volume CBN 55%	3.000	PVD	$AlTiNSi_3N_4$	H	H10 H20	New universal grade mainly combined with full solid style and solid brazing. Coating layer with extreme hardness allows great wear resistance.
NBL250C	Low volume CBN 60%	3.200	PVD	AlTiN	H	H10 H25	First choice for general purpose machining even with light to medium interruptions.
NBL300C	Low volume CBN 70%	3.300	PVD	AlTiN	H	H10 H30	All-around grade with a perfect balance between toughness and wear resistance. Can be applied both on interrupted and continuous cut.
NBL350C	Low volume CBN 75%	3.400	PVD	AlTiN	H	H20 H35	Extreme toughness for heavy interrupted cut.
NBH450C	High volume CBN 95%	4.400	PVD	TiCN+TiN	K	K01 K20	First choice for gray cast iron finishing at very high cutting condition and with great wear resistance.
NBH450U	High volume CBN 95%	4.400	-	-	K	K01 K20	Same as NBH450C but uncoated. Generally suggested under interrupted conditions.
NBH500C	High volume CBN 90%	4.200	PVD	AlTiN	K	K10 K25	Main choice for gray cast iron machining with negative inserts, both for finishing and roughing. Mostly available for full solid geometries.
NBH500U	High volume CBN 90%	4.200	-	-	K	K10 K25	Same as NBH500C but uncoated. Generally suggested under most severe cutting conditions.
NBH600U	High volume CBN 90%	3.800	-	-	K	K20 K30	Tough grade for severe application on cast iron. Coarse CBN powder combined with a metallic binder for maximum reliability even on interrupted cut.
NBH900U	High volume CBN 80%	3.500	-	-	H K	H25 H35 K25 K35	Universal grade for severe applications both on ISO K and ISO H materials. High reliability on roughing operations.
NBH950U	High volume CBN 90%	4.000	-	-	H K	H30 H35 K30 K35	Extreme toughness mainly for cast iron machining but appliable, as alternative grade, even on hardened steel.

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ISO 513		nikkoTOOLS	ISCAR	KENNAMETAL	KYOCERA	MITSUBISHI	SANDVIK	SECO	SUMITOMO	TAEGUTEC	TUNGALOY	WALTER
K	K01 - K10	NBH450C	IB05S IB10K IB10S	KB1345 KB5630	KBN475	BC5110 MB710	CB7525	CBN200 CK2065	BNC500	TB7015	BX930	
	K10 - K20	NBH500C NBH600U	IB90 IB90A	KB1340 KB1345 KBK45	KBN60M	MB4120 MB730	CB7525	CBN200 CBN300 CBN300P CBN400C	BN500 BN7000 BNC8115	TB7015 TB7020	BX480	WBK20
	K20 - K30	NBH600U NBH900U NBH950U	IB20KD IB90A	KB1340 KBK45	KBN900	MBS140	CB7925	CBN500	BNS800 BNS8125	TB7020	BXC90	WBK30
H	H01 - H10	NBL050C NBL150C	IB05H IB10H IB10HC IB50	KBH10B	KBN05M KBN10M KBN510	BC8105 BC8110 MB8110	CB7015 CB7105 CB7115	CBN010 CBN150 CBN060K CH0550	BN1000 BNC100 BNC2010 BNC2115 BNX10	TB610	BX310 BXM10	WBH10 WBH10C
	H10 - H20	NBL200C NBL250C NBL300C	IB20H IB20HC IB25HA IB55	KBH20B	KBN25M KBN525	BC8120 BC8220 MB8120	CB7025 CB7125	CBN060K CH2540	BN2000 BNC160 BNC200 BNC2020 BNC2125 BNC8115 BNX20	TB650	BX330 BX360 BXA20 BXM20 BXC50	WBH20
	H20 - H30	NBL300C NBL350C NBH900U NBH950U	IB25HC IB90	KB5630	KBN35M	BC8130 MB8130	CB7135 CB7925	CH3515	BNC300 BNC8115 BNX25	TB670	BX380	

BLACK: CVD, UNDERLINED: PVD, RED: uncoated

This table is our own estimation based on information available to the public and is not authorized by the company mentioned on it.

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NEGATIVE type with hole				C	D	S	T	V	W
				80°	55°	90°	60°	35°	80°
K	UNIVERSAL	UE R honing	S01520 carbide backed	A101 SIZE 12	A107 SIZE 15		A118 SIZE 16	A123 SIZE 16	
K	UNIVERSAL	UE R honing	S02020 full solid	A103 SIZE 09 12	A109 SIZE 15	A116 SIZE 12	A120 SIZE 16		A127 SIZE 08
K	SHARP	SE	T01020 carbide backed	A103 SIZE 12					
H	UNIVERSAL	UE R honing	S01225 vertical brazing	A103 SIZE MCN 12	A109 SIZE MDN 15	A116 SIZE 12	A120 SIZE 16	A126 SIZE 16	A127 SIZE 08
H	UNIVERSAL	UE R honing	S01225 solid brazing		A109 SIZE 15				
H	UNIVERSAL	UE R honing	S02020 full solid	A103 SIZE 09 12					
H	SHARP	SE R honing	S01015 vertical brazing	A103 SIZE MCN 12	A109 SIZE MDN 15		A120 SIZE 16	A126 SIZE 16	A127 SIZE 08
H	SHARP	SE R honing	S01015 solid brazing		A110 SIZE 15				

carbide backed: the PCBN material is produced with a carbide layer that improves mechanical properties and simplify brazing process.
solid brazing: a thick PCBN tip extremely pure (not contaminated by carbide) guarantees much better performances. High reliable vacuum brazing is used.
vertical brazing: the PCBN layer is as thick as the carbide body for the best heat dissipation and brazing strenght. Vacuum brazing is necessary.
full solid: Full PCBN structure, maximizes performences and reduce the cost per edge. High cutting speed and depth of cut can be applied.

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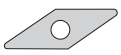
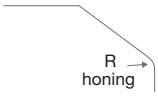
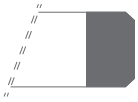
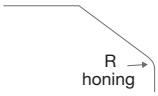
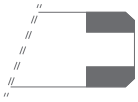
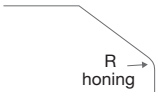
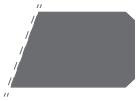
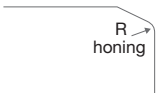
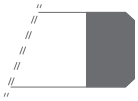
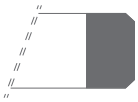
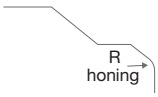
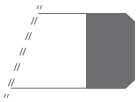
NEGATIVE type with hole				C	D	S	T	V	W
									
				80°	55°	90°	60°	35°	80°
H	REINFORCED	RE  R honing S01535	 vertical brazing	A104 SIZE 12			A120 SIZE 16		A127 SIZE 08
	REINFORCED	RE  R honing S01535	 solid brazing		A110 SIZE 15				
	REINFORCED	RE  R honing S01535	 full solid	A104 SIZE 09					
	WIPER	WE  R honing S01015	 vertical brazing	A104 SIZE 12					
	CHIPBREAKER	CF R honing S01035	 vertical brazing	A105 SIZE 12					
	CHIPBREAKER	CM  R honing S01235	 vertical brazing	A105 SIZE 12					

carbide backed: the PCBN material is produced with a carbide layer that improves mechanical properties and simplify brazing process.
solid brazing: a thick PCBN tip extremely pure (not contaminated by carbide) guarantees much better performances. High reliable vacuum brazing is used.
vertical brazing: the PCBN layer is as thick as the carbide body for the best heat dissipation and brazing strenght. Vacuum brazing is necessary.
full solid: Full PCBN structure, maximizes performences and reduce the cost per edge. High cutting speed and depth of cut can be applied.

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NEGATIVE type without hole				C	R	S	T		
				80°	-	90°	60°		
K	UNIVERSAL	UE R honing S02020	full solid	A106 SIZE 09 12	A115 SIZE 06 09 12	A117 SIZE 09 12	A121 SIZE 11 16		
K	UNIVERSAL	UE R honing S02020	full solid with dimple	A106 SIZE 12		A117 SIZE 12			
K	SHARP	SE T01020	full solid		A115 SIZE 09				
K	REINFORCED	RE R honing S02525 (size 09) - S10020 (size 12)	full solid		A115 SIZE 09 12				
K	REINFORCED	RH R honing S04025	full solid		A115 SIZE 09				
H	UNIVERSAL	UE R honing S02020	full solid	A106 SIZE 09 12	A115 SIZE 09 12	A117 SIZE 09 12	A121 SIZE 11 16		
H	SHARP	SE T01020	full solid		A115 SIZE 09				
H	REINFORCED	RE R honing S02525 (size 09) - S10020 (size 12)	full solid		A115 SIZE 09 12				

carbide backed: the PCBN material is produced with a carbide layer that improves mechanical properties and simplify brazing process.
solid brazing: a thick PCBN tip extremely pure (not contaminated by carbide) guarantees much better performances. High reliable vacuum brazing is used.
vertical brazing: the PCBN layer is as thick as the carbide body for the best heat dissipation and brazing strenght. Vacuum brazing is necessary.
full solid: Full PCBN structure, maximizes performences and reduce the cost per edge. High cutting speed and depth of cut can be applied.

TURNING Edge preparation overview · PCBN

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		POSITIVE type with hole		C	D	R	T	V	
				80°	55°	-	60°	35°	
K	UNIVERSAL	UE R honing S01520	carbide backed	CC A101 SIZE 06 09	DC A107 SIZE 11		TC A118 SIZE 09 11 16	VB A123 SIZE 16	
K	UNIVERSAL	UE R honing S02020	full solid			RC A114 SIZE 09 12			
K	SHARP	SE T01020	carbide backed				TC A118 SIZE 11		
K	REINFORCED	RE R honing S01530	carbide backed				TC A119 SIZE 11 16	VB A124 SIZE 16	
H	UNIVERSAL	UE R honing S01225	solid brazing	CC A101 SIZE 06 09 11	DC A107 SIZE 07 11		TC, TP A118, A122 SIZE 09 11 16	VB, VC A123, A125 SIZE 11 16	
H	SHARP	SE R honing S01015	solid brazing	CC A101 SIZE 06 09	DC A107 SIZE 07 11		TC, TP A118, A122 SIZE 11 16	VB, VC A123, A125 SIZE 11 16	
H	SHARP	SF T01015	solid brazing	CC A101 SIZE 06 09	DC A107 SIZE 07 11			VB A123 SIZE 11 16	
H	REINFORCED	RE R honing S01535	solid brazing	CC A102 SIZE 06 09	DC A108 SIZE 07 11		TC, TP A118, A122 SIZE 11 16	VB A124 SIZE 16	
H	WIPER	WE R honing S01015	solid brazing	CC A102 SIZE 06 09					

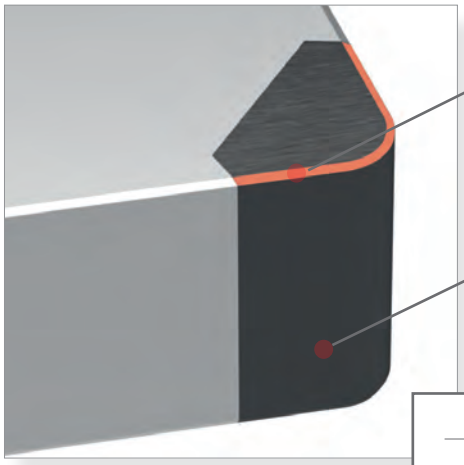
carbide backed: the PCBN material is produced with a carbide layer that improves mechanical properties and simplify brazing process.
solid brazing: a thick PCBN tip extremely pure (not contaminated by carbide) guarantees much better performances. High reliable vacuum brazing is used.
vertical brazing: the PCBN layer is as thick as the carbide body for the best heat dissipation and brazing strenght. Vacuum brazing is necessary.
full solid: Full PCBN structure, maximizes performences and reduce the cost per edge. High cutting speed and depth of cut can be applied.

UE

Edge preparation

· First choice for general machining application under variable cutting conditions from continuous to interrupted cut
· Available in a broad range of grades both for cast iron and hardened steel machining
· UE universal edge can be supplied in different PCBN formats, carbide backed, solid brazing, vertical brazing and full solid
· Best compromise between sharpness and robustness of cutting edge

Features of UE edge preparation

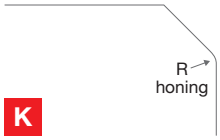


UNIVERSAL EDGE

· The edge preparation has been optimized according to insert style and workpiece material
· Chamfer width from 0.12 mm to 0.20 mm with an angle of 20°- 25°

MULTIPLE SOLUTIONS

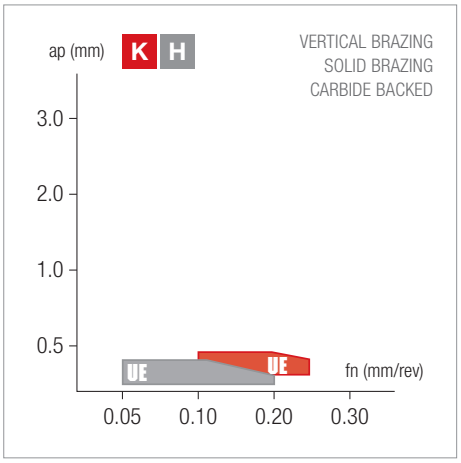
· All NIKKO PCBN format available: full solid, vertical brazing, solid brazing and carbide backed

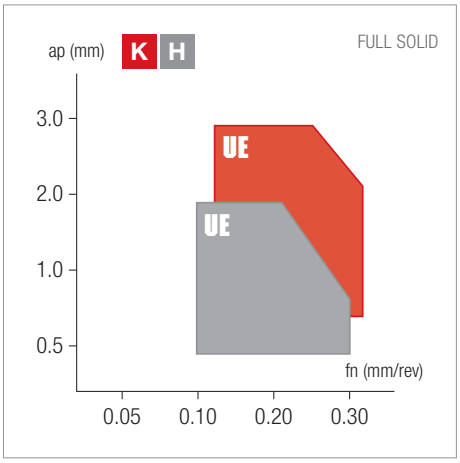


S01520
S01525
S02020

S01225
S02020

Application range





DIMPLED INSERTS AVAILABLE

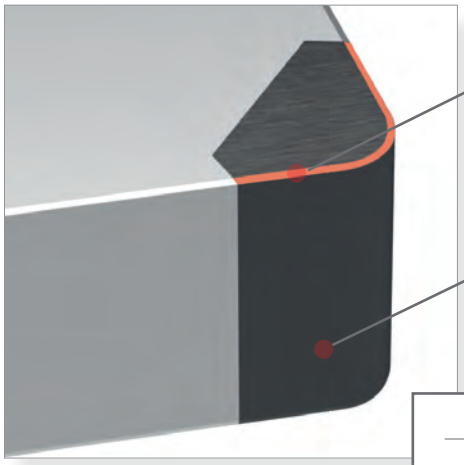
High performance alternative to conventional Si_3N_4 ceramic for cast iron roughing.

SE

Edge preparation

· Recommended for continuous cut application under stable conditions
· Cutting forces reduced by 10% in comparison with most common general purpose design
· Sharpe edge preparation with high wear-resistant CBN grade drastically reduces burr formation

Features of SE edge preparation

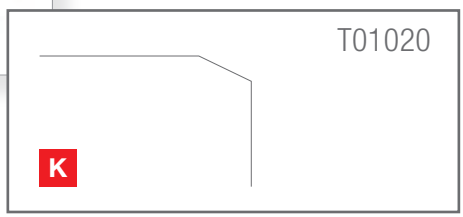


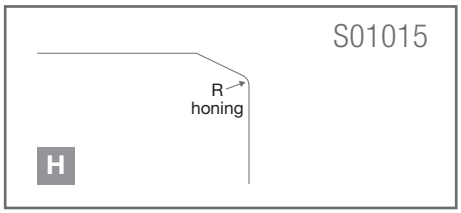
SHARP EDGE

· The edge preparation has been optimized according to insert style and workpiece material
· The chamfer width is 0.10 mm with angle from 15° to 20°

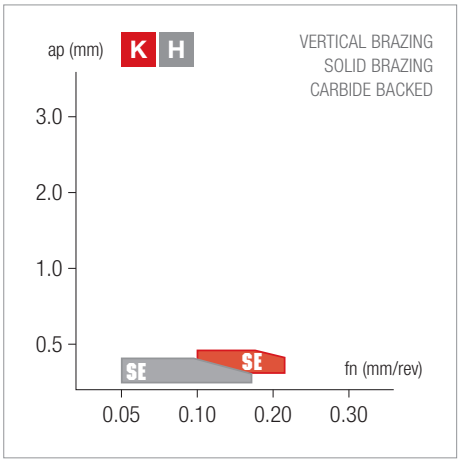
MULTIPLE SOLUTIONS

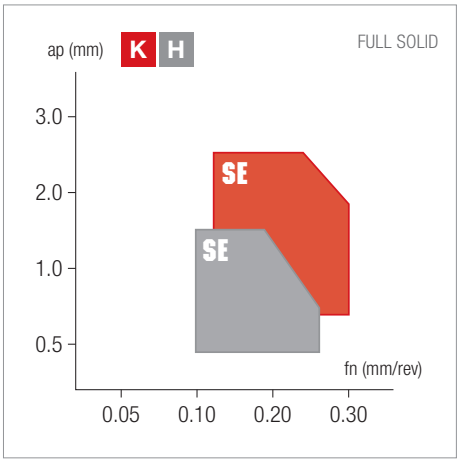
· All NIKKO PCBN format available: full solid, vertical brazing, solid brazing and carbide backed





Application range





T TYPE AVAILABLE FOR ISO K

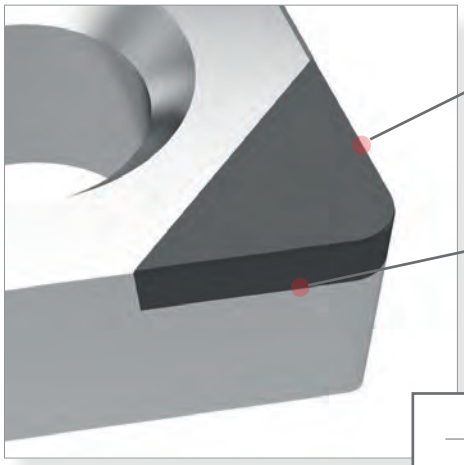
T land without honing prevent burrs formation on cast iron machining.

SF

Edge preparation

· Recommended for high precision machining of very small parts under continuous cutting conditions
· Low cutting forces allows machining of thin workpieces avoiding vibrations, obtaining strict dimensional tolerances
· SF for super fine finishing is combined with a special version of NBL050C named NBL050CX with a coating specifically studied to enhance the sharp action of this geometry·

Features of SF edge preparation

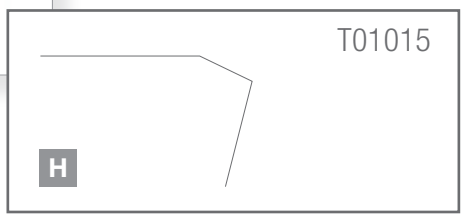


SUPER FINE

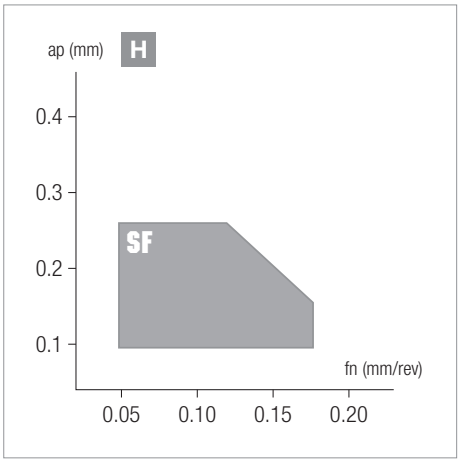
· The edge preparation has been optimized for small part machining and best dimensional tolerances
· The chamfer width is 0.10 mm with an angle of 15°, without honing

SOLID BRAZING

· Direct brazing between PCBN and carbide, with special vacuum technology, produce a pure and reliable cutting material



Application range



SHARP AND PRECISE

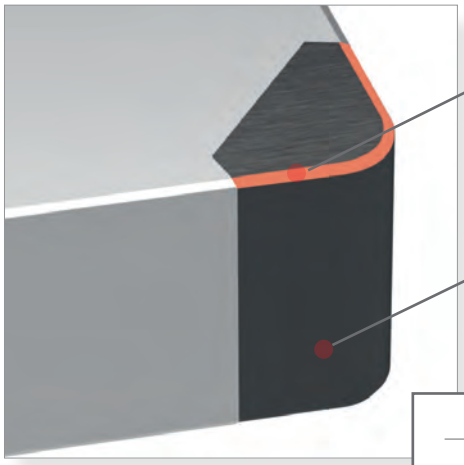
Only for positive inserts.
Perfect solution for very small radii.
0.1 radius can be produced as semi-standard product.

RE

Edge preparation

· Specifically designed to grant high reliability on heavy-interrupted cut
· In case of hardened steel machining a larger chamfer angle improves the cutting edge strength
· RE reinforced edge is always combined with high toughness grades
· RE geometry on solid type CBN round inserts is a great solution for roll machining in steel industry

Features of RE edge preparation

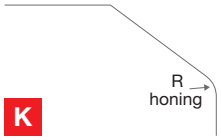


REINFORCED EDGE

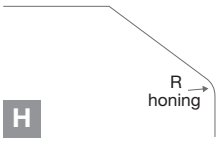
· Big chamfer and angle to keep the cutting edge strong
· The chamfer width starts from 0.15 mm for brazed type and reached 1 mm for solid

MULTIPLE SOLUTIONS

· All NIKKO PCBN format available: full solid, vertical brazing, solid brazing and carbide backed

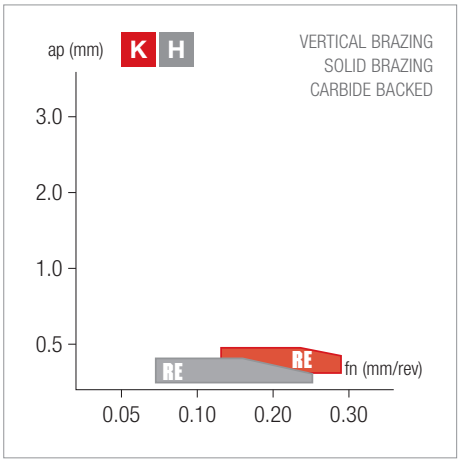


S02525
S04025
S10020



S01530
S01535
S10020

Application range



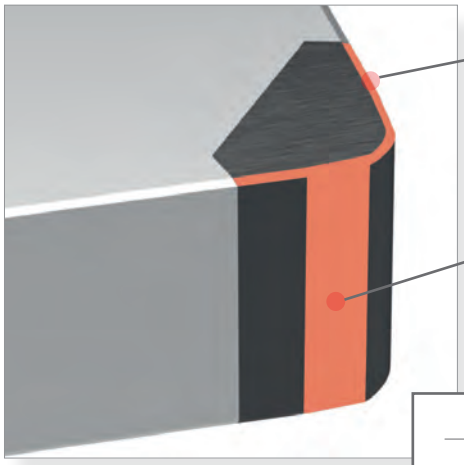
Cutting forces could be slightly higher compared to general purpouse type, stable clamping and equipments are strongly recommended.

WE

Edge preparation

- Wiper geometry with special arc design for maximum performance and low cutting forces
- Improves productivity when used as high feed machining; reaches ground surface quality at conventional cutting conditions
- WE wiper edge is available in a broad range of grades for hardened steel

Features of WE edge preparation

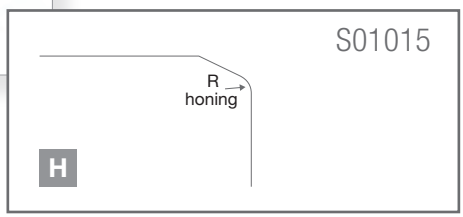


WIPER EDGE

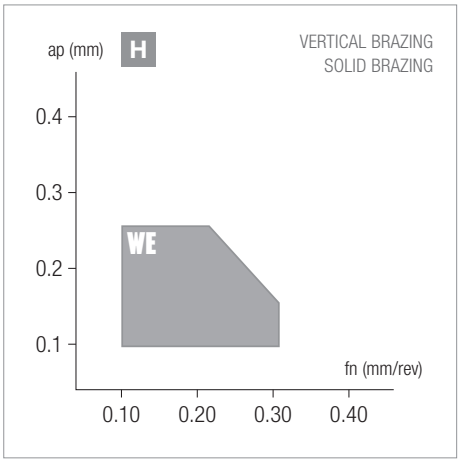
- Small chamfer and reduced angle for a very smooth cutting action
- The chamfer width is 0.1 mm with an inclination of 15°

ARC GEOMETRY

- Multiple arc wiper instead of conventional straight wiper land effectively reduces vibrations, creates better surface and adapts to wider feed range



Application range



SPECIAL DESIGN UPON REQUEST

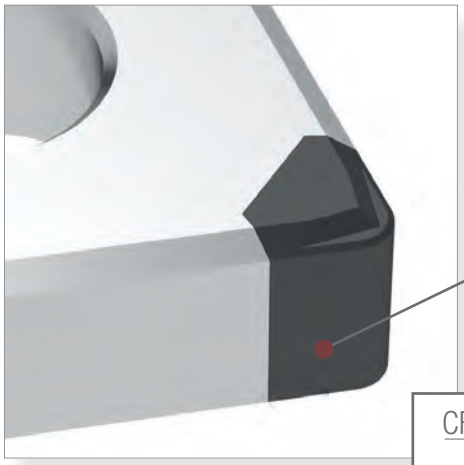
Wiper "concept" can be applied to any shape even if the most common are the one with 80° angle can be provided even in combination of full solid grades.

CF/CM

Edge preparation

- 3D chipbreaker offers optimized chip flow and chip control for the more demanding applications
- CM is focused on carburized layer removal while CF is mainly for hardened steel where chip evacuation is challenging (internal turning is a typical application)
- Tailor-made solutions can be realized both for negative and positive inserts

Features of CF/CM edge preparation

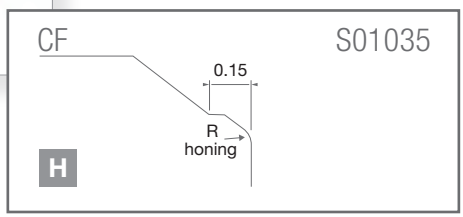


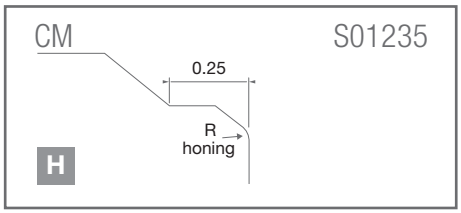
SMART DESIGN

- Excellent performance thanks to the separation of chipbreaker and cutting edge
- Small chamfer to reduce cutting forces and 35° angle for a better robustness

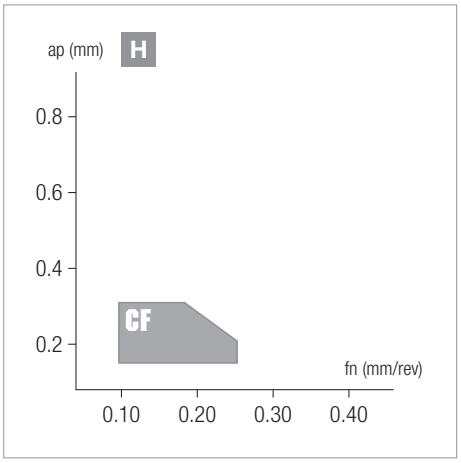
GREAT RELIABILITY

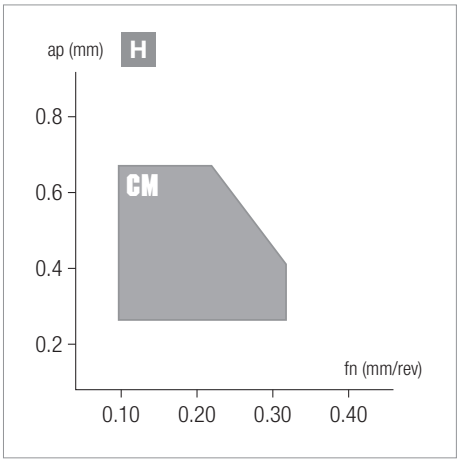
- Available with stable and reliable vertical brazing technology



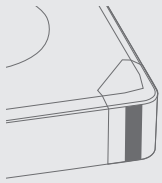


Application range





CHIPBREAKER+WIPER AVAILABLE



The combined types CFW and CMW are also available. Perfect chip control and great surface finishing in one step.

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K		BRAZED TIP		FULL SOLID			
		NEGATIVE	POSITIVE	NEGATIVE	POSITIVE		
	wear resistance	-	-	-	-		
	1st CHOICE	**NBH450C / UE**	**NBH450C / UE**	**NBH500C / UE**	**-**		
	toughness	NBH500C / UE	-	NBH600U / UE	-		
	wear resistance	NBH450C / UE	-		-		
	1st CHOICE	**NBH500C / UE**	**NBH450C / UE**	**NBH500C / UE**	**-**		
	toughness	NBH900U / UE	NBH450U / RE	NBH600U / UE	-		
	wear resistance	NBH500C / UE	-	NBH500C / UE	-		
	1st CHOICE	**NBH900U / RE**	**-**	**NBH600U / UE**	**-**		
	toughness	-	-	NBH900U / UE	-		

H		BRAZED TIP		BRAZED TIP (WIPER)		FULL SOLID	
		NEGATIVE	POSITIVE	NEGATIVE	POSITIVE	NEGATIVE	POSITIVE
	wear resistance	NBL050C / UE	NBL050C / SE	-	-	-	-
	1st CHOICE	**NBL150C / UE**	**NBL150C / SE**	**NBL050C / WE**	**NBL050C / WE**	**NBL200C / UE**	**-**
	toughness	NBL250C / UE	NBL250C / UE	NBL150C / WE	NBL150C / WE	NBL250C / UE	-
	wear resistance	NBL150C / UE	NBL150C / UE	NBL050C / WE	NBL050C / WE	NBL200C / UE	-
	1st CHOICE	**NBL250C / UE**	**NBL250C / UE**	**NCL150C / WE**	**NCL150C / WE**	**NBL250C / UE**	**-**
	toughness	NBL300C / UE	NBL300C / UE	NBL250C / WE	-	NBH900U / UE	-
	wear resistance	NBL300C / UE	NBL300C / UE	-	-	-	-
	1st CHOICE	**NBL350C / RE**	**NBL350C / RE**	**-**	**-**	**NBH900U / RE**	**-**
	toughness	NBH900U / RE	-	-	-	NBH950U / RE	-

TURNING Designation system · PCBN

nikkoTOOLS

C	N	M	G	12	04	08	S	-	4	V	-	UE	NBL	250	C
1	2	3	4	5	6	7	8		9	10		11	12	13	14

1	SHAPE
C	80° rhombic
D	55° rhombic
K	55° parallelogram
S	90° square
T	60° triangular
V	35° rhombic
W	80° trigon

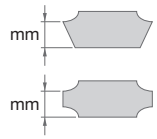
2	RELIEF ANGLE
B	5°
C	7°
D	15°
E	20°
N	0°
P	11°

3	TOLERANCES		
Symbol	I.C.	Thickness	Corner height
E	±0.025	±0.025	±0.025
G	±0.025	±0.13	±0.025
M	±0.05 ~ ±0.15	±0.13	±0.08 ~ ±0.18
U	±0.08 ~ ±0.25	±0.13	±0.13 ~ ±0.38

4	HOLE/CHIPBREAKER		
Symbol	Hole	Hole countersink	Chipbreaker
A	✓	✗	✗
G	✓	✗	double sided
M	✓	✗	single sided
N	✗	✗	✗
T	✓	40°÷60°	single sided
W	✓	40°÷60°	✗
X	NIKKO norm		

5	EDGE LENGHT						
I.C. (mm)	C shape	D shape	R shape	S shape	T shape	V shape	W shape
3.97	03	04		03	06		
4.76	04	05		04	08	08	
5.00			05				
5.56	05	06		05	09		03
6.00			06				
6.35	06	07		06	11	11	04
7.94	08	09		07	13		05
8.00			08				
9.53	09	11	09	09	16	16	06
10.00		12	10				
12.00							
12.70	12	15	12	12	22	22	08
15.88	16	19	15	15	27	24	10
16.00			16				
19.05	19	23	19	19	33	33	13
20.00			20				
22.23	22	27		22	38		
25.00			25				
25.40	25	31	25	25	44	44	17
31.75	32	38	31	31	54	54	21
32.00			32				

6	THICKNESS
Symbol	(mm)
01	1.59
T1	1.98
02	2.38
T2	2.78
03	3.18
T3	3.97
04	4.76
05	5.56
06	6.35
07	7.94
09	9.53



7	RADIUS
Symbol	(mm)
005	0.05
01	0.10
02	0.20
04	0.40
08	0.80
12	1.20
16	1.60
20	2.00
24	2.40

8	EDGE PREPARATION	
Symbol	Shape	
E	honing	R
F	sharp edge	sharp
S	honing + chamfering	R
T	chamfering	

9	NUMBER OF EDGES
...	number of cutting edges (only for brazed type)

10	BRAZING TYPE
C	carbide backed
S	solid brazing
V	vertical brazing

11	EDGE PREPARATION
SE	sharp edge
UE	universal edge
RE	reinforced edge
WE	wiper edge
CBx	chipbreaker (CBF finishing, CBM medium)

12	GRADE - features
NBL	low content CBN
NBH	high content CBN

13	GRADE - material
000÷390	ISO H
400÷690	ISO K
700÷790	ISO S
800÷890	sintered materials
900÷990	universal

14	GRADE - coating
C	coated
U	uncoated
X	special

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CC

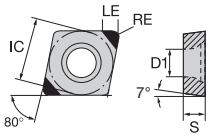
ISO - with hole

- The most popular insert shape due to high versatility
- Clearance angle 7°, effectively reduces the risk of chip jamming when boring
- 80° corner can be used for both turning and facing operations
- Solid brazing type provides better stability and reliability than conventional carbide backed brazing type

BH: High volume CBN
BL: Low volume CBN
PVD: Physical vapour deposition

	BH PVD	BL PVD	BL PVD	BL PVD	BL PVD	BL PVD	BL PVD
	NBH450C	**NBL050C**	**NBL050CX**	**NBL150C**	**NBL250C**	**NBL300C**	**NBL350C**
Stable machining, light cut (● 1st choice, ○ suitable)	●	●	●	●	○	○	
General machining, medium cut (● 1st choice, ○ suitable)	●			○	●	●	○
Unstable machining, heavy cut (● 1st choice, ○ suitable)	○					○	●

Dimensions



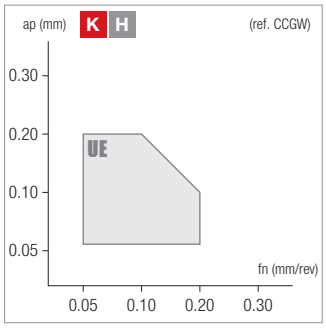
2 edges

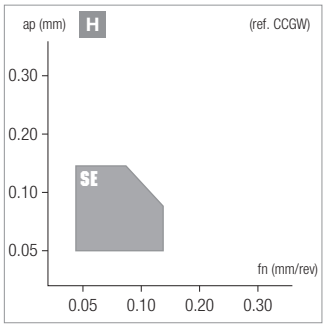
Vc(m/min) - suggested cutting speed range (bold: 1st choice)

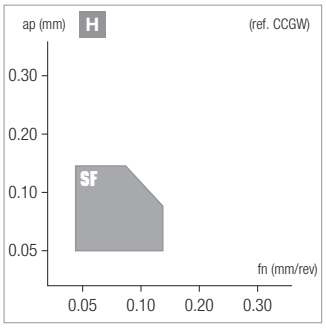
ISO	BH PVD	BL PVD	BL PVD	BL PVD	BL PVD	BL PVD	BL PVD
P							
M							
K	340 1000						
N							
S							
H		120 280	120 280	90 220	90 180	60 180	60 150

	Designation		RE	IC	S	D1	LE	Stock						
UNIVERSAL	UE H solid brazing	CCGW060202S-UE-2S	0.2	6.35	2.38	2.8	2.8		○		○			
		CCGW060204S-UE-2S	0.4	6.35	2.38	2.8	2.8		●		●	●	●	○
		CCGW060208S-UE-2S	0.8	6.35	2.38	2.8	2.7				○	○	○	
		CCGW09T302S-UE-2S	0.2	9.525	3.97	4.4	2.8		○		○			
		CCGW09T304S-UE-2S	0.4	9.525	3.97	4.4	2.8		●		●	●	●	○
		CCGW09T308S-UE-2S	0.8	9.525	3.97	4.4	2.7				●	●	●	○
		CCGW120404S-UE-2S	0.4	12.7	4.76	5.5	2.8					○		
		CCGW120408S-UE-2S	0.8	12.7	4.76	5.5	2.7					○		
UNIVERSAL	UE K carbide backed	CCGW060204S-UE-2C	0.4	6.35	2.38	2.8	2.8	●						
		CCGW060208S-UE-2C	0.8	6.35	2.38	2.8	2.7	○						
		CCGW09T304S-UE-2C	0.4	9.525	3.97	4.4	2.8	●						
		CCGW09T308S-UE-2C	0.8	9.525	3.97	4.4	2.7	●						
		CCGW120408S-UE-2C	0.8	12.7	4.76	5.5	2.7	○						
SHARP	SE H solid brazing	CCGW060202S-SE-2S	0.2	6.35	2.38	2.8	2.8		○		●			
		CCGW060204S-SE-2S	0.4	6.35	2.38	2.8	2.8		●		●			
		CCGW060208S-SE-2S	0.8	6.35	2.38	2.8	2.7				○			
		CCGW09T302S-SE-2S	0.2	9.525	3.97	4.4	2.8		○		●			
		CCGW09T304S-SE-2S	0.4	9.525	3.97	4.4	2.8		●		●			
		CCGW09T308S-SE-2S	0.8	9.525	3.97	4.4	2.7				●			
SHARP	SF H solid brazing **without honing**	CCGW060202T-SF-2S	0.2	6.35	2.38	2.8	2.8			●				
		CCGW060204T-SF-2S	0.4	6.35	2.38	2.8	2.8			●				
		CCGW09T304T-SF-2S	0.4	9.525	3.97	4.4	2.8			●				
		CCGW09T308T-SF-2S	0.8	9.525	3.97	4.4	2.7			○				

● stock standard, ○ non-standard stock, ▲ upcoming introduction, ▽ stock exhaustion







PRODUCT SELECTION p. A99 | CUTTING CONDITIONS p. A128 | GRADES FEATURES p. A86 | EXTERNAL HOLDERS p. A214 | INTERNAL HOLDERS p. A218

CC

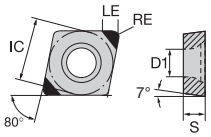
ISO - with hole

- The most popular insert shape due to high versatility
- Clearance angle 7°, effectively reduces the risk of chip jamming when boring
- 80° corner can be used for both turning and facing operations
- Solid brazing type provides better stability and reliability than conventional carbide backed brazing type

BH: High volume CBN
BL: Low volume CBN
PVD: Physical vapour deposition

	BH PVD	BL PVD	BL PVD	BL PVD	BL PVD	BL PVD	BL PVD
	NBH450C	**NBL050C**	**NBL050CX**	**NBL150C**	**NBL250C**	**NBL300C**	**NBL350C**
Stable machining, light cut (● 1st choice, ○ suitable)	●	●	●	●	○	○	
General machining, medium cut (● 1st choice, ○ suitable)	●			○	●	●	○
Unstable machining, heavy cut (● 1st choice, ○ suitable)	○					○	●

Dimensions



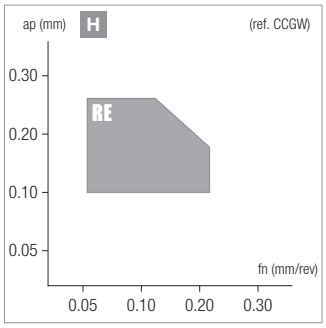
2 edges

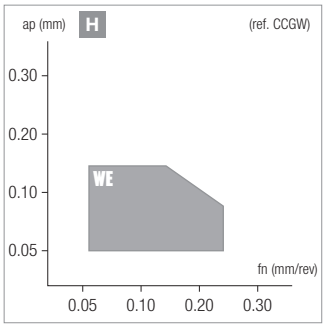
ISO	BH PVD	BL PVD	BL PVD	BL PVD	BL PVD	BL PVD	BL PVD
P							
M							
K	340 1000						
N							
S							
H		120 280	120 280	90 220	90 180	60 180	60 150

Vc(m/min) - suggested cutting speed range (bold: 1st choice)

	Designation		RE	IC	S	D1	LE	Stock						
REINFORCED	RE H solid brazing **interrupted cut**	CCGW060204S-RE-2S	0.4	6.35	2.38	2.8	2.8							●
		CCGW060208S-RE-2S	0.8	6.35	2.38	2.8	2.7							○
		CCGW09T304S-RE-2S	0.4	9.525	3.97	4.4	2.8							●
		CCGW09T308S-RE-2S	0.8	9.525	3.97	4.4	2.7							○
WIPER	WE H solid brazing **roughness oriented**	CCGW060204S-WE-2S	0.4	6.35	2.38	2.8	2.8		●		●			
		CCGW09T304S-WE-2S	0.4	9.525	3.97	4.4	2.8		●		●			
		CCGW09T308S-WE-2S	0.8	9.525	3.97	4.4	2.7		○		●			

● stock standard, ○ non-standard stock, ▲ upcoming introduction, ▽ stock exhaustion





nikkoTOOLS

CN

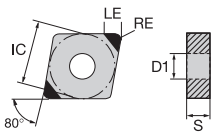
ISO - with hole

- The most popular insert shape due to high versatility
- 80° corner can be used for both turning and facing operations
- Strong cutting edge with secure seating in the insert pocket creates good surface finishing
- Vertical brazing type and solid type CBN show better performance in interrupted machining
- The use of chip breaker on CBN brazed tips effectively improves chip flow control
- Advanced wiper edge design improves surface quality in high efficiency machining

BH: High volume CBN
BL: Low volume CBN
PVD: Physical vapour deposition

	NBH450C	NBH450U	NBH500C	NBH600U	NBH900U	NBL050C	NBL150C	NBL200C	NBL250C	NBL300C	NBL350C
	BH PVD	BH	BH PVD	BH	BH	BL PVD	BL PVD	BL PVD	BL PVD	BL PVD	BL PVD
Stable machining, light cut (● 1st choice, ○ suitable)	●	●	○		○	●	●	●	○	○	
General machining, medium cut (● 1st choice, ○ suitable)	●	●	●	○	●		○	●	●	●	○
Unstable machining, heavy cut (● 1st choice, ○ suitable)	○	○	●	●	●					○	●

Dimensions



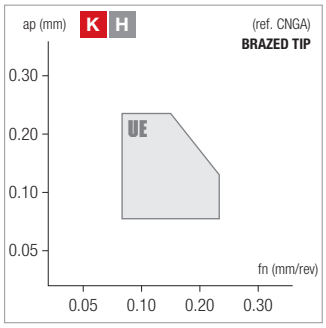
4 edges

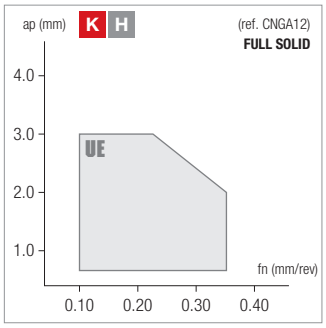
Vc(m/min) - suggested cutting speed range (bold: 1st choice)

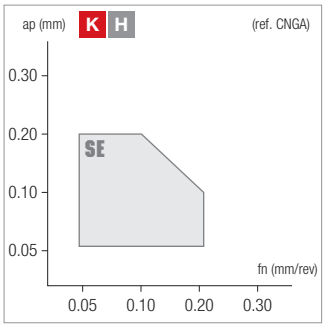
ISO	NBH450C	NBH450U	NBH500C	NBH600U	NBH900U	NBL050C	NBL150C	NBL200C	NBL250C	NBL300C	NBL350C
P											
M											
K	340 1000	340 1000	300 1500	300 1200	300 1100						
N											
S											
H					40 160	120 280	90 220	90 200	90 180	60 180	60 150

	Designation		RE	IC	S	D1	LE	NBH450C	NBH450U	NBH500C	NBH600U	NBH900U	NBL050C	NBL150C	NBL200C	NBL250C	NBL300C	NBL350C
UNIVERSAL	UE K H vertical brazing	CNGA120404S-UE-4V	0.4	12.7	4.76	5.16	2.6					▽	●	●		●	●	○
		CNGA120408S-UE-4V	0.8	12.7	4.76	5.16	2.5			●			●	●		●	●	○
		CNGA120412S-UE-4V	1.2	12.7	4.76	5.16	2.5			●		▽	●	●		●	●	○
UNIVERSAL	UE K carbide backed	CNGA120408S-UE-4C	0.8	12.7	4.76	5.16	2.5	●										
		CNGA120412S-UE-4C	1.2	12.7	4.76	5.16	2.5	●										
UNIVERSAL	UE K H full solid **high depth of cut**	CNGA090308S-UE	0.8	9.525	3.18	3.81	8.9			○								
		CNGA120408S-UE	0.8	12.7	4.76	5.16	12.1			●	●				●	●		
		CNGA120412S-UE	1.2	12.7	4.76	5.16	11.7			●	●				●	●		
SHARP	SE H vertical brazing	CNGA120404S-SE-4V	0.4	12.7	4.76	5.16	2.6						○	○				
		CNGA120408S-SE-4V	0.8	12.7	4.76	5.16	2.5						●	●				
		CNGA120412S-SE-4V	1.2	12.7	4.76	5.16	2.5						○	○				
SHARP	SE K vertical brazing **without honing**	CNGA120408T-SE-4V	0.8	12.7	4.76	5.16	2.5			●								

● stock standard, ○ non-standard stock, ▲ upcoming introduction, ▽ stock exhaustion







A - TURNING
B - THREADING
C - GROOVING
D - MILLING
E - DRILLING
F - ACCESSORIES
G - SPARE PARTS

CN

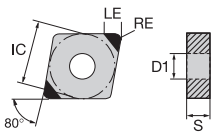
ISO - with hole

- The most popular insert shape due to high versatility
- 80° corner can be used for both turning and facing operations
- Strong cutting edge with secure seating in the insert pocket creates good surface finishing
- Vertical brazing type and solid type CBN show better performance in interrupted machining
- The use of chip breaker on CBN brazed tips effectively improves chip flow control
- Advanced wiper edge design improves surface quality in high efficiency machining

BH: High volume CBN
BL: Low volume CBN
PVD: Physical vapour deposition

	NBH450C	NBH450U	NBH500C	NBH600U	NBH900U	NBL050C	NBL150C	NBL200C	NBL250C	NBL300C	NBL350C
	BH PVD	BH	BH PVD	BH	BH	BL PVD	BL PVD	BL PVD	BL PVD	BL PVD	BL PVD
Stable machining, light cut (● 1st choice, ○ suitable)	●	●	○		○	●	●	●	○	○	
General machining, medium cut (● 1st choice, ○ suitable)	●	●	●	○	●		○	●	●	●	○
Unstable machining, heavy cut (● 1st choice, ○ suitable)	○	○	●	●	●					○	●

Dimensions



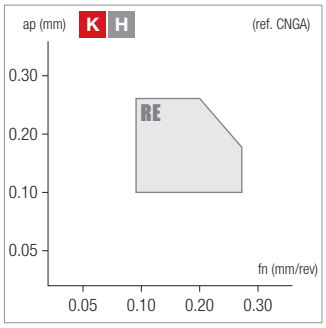
4 edges

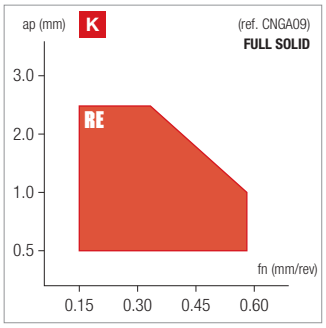
Vc(m/min) - suggested cutting speed range (bold: 1st choice)

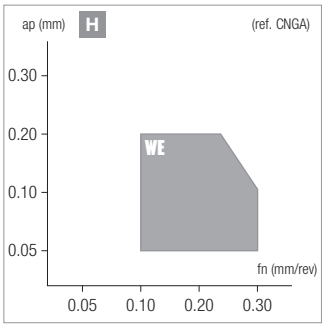
ISO	NBH450C	NBH450U	NBH500C	NBH600U	NBH900U	NBL050C	NBL150C	NBL200C	NBL250C	NBL300C	NBL350C
P											
M											
K	340 1000	340 1000	300 1500	300 1200	300 1100						
N											
S											
H					40 160	120 280	90 220	90 200	90 180	60 180	60 150

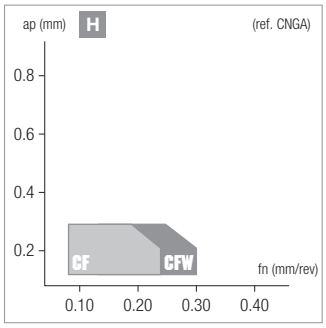
	Designation		RE	IC	S	D1	LE	NBH450C	NBH450U	NBH500C	NBH600U	NBH900U	NBL050C	NBL150C	NBL200C	NBL250C	NBL300C	NBL350C
SHARP	SE K carbide backed **without honing**	CNGA120408T-SE-4C	0.8	12.7	4.76	5.16	2.5		○									
REINFORCED	RE K H vertical brazing **interrupted cut**	CNGA120404S-RE-4V	0.4	12.7	4.76	5.16	2.6					●						○
		CNGA120408S-RE-4V	0.8	12.7	4.76	5.16	2.5					○						●
		CNGA120412S-RE-4V	1.2	12.7	4.76	5.16	2.5					●						●
REINFORCED	RE K full solid **interrupted cut**	CNGA090308S-RE	0.8	9.525	3.18	3.81	8.9			○								
WIPER	WE H vertical brazing **roughness oriented**	CNGA120404S-WE-4V	0.4	12.7	4.76	5.16	2.6						○	○		○		
		CNGA120408S-WE-4V	0.8	12.7	4.76	5.16	2.5						●	●		○	○	
		CNGA120412S-WE-4V	1.2	12.7	4.76	5.16	2.5						●	●		○	○	
CHIPBREAKER	CF H vertical brazing **finishing**	CNGA120404S-CF-4V	0.4	12.7	4.76	5.16	2.6										●	
		CNGA120408S-CF-4V	0.8	12.7	4.76	5.16	2.5										●	
		CNGA120412S-CF-4V	1.2	12.7	4.76	5.16	2.5										●	

● stock standard, ○ non-standard stock, ▲ upcoming introduction, ▽ stock exhaustion









nikkoTOOLS

CN

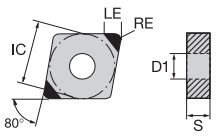
ISO - with hole

- The most popular insert shape due to high versatility
- 80° corner can be used for both turning and facing operations
- Strong cutting edge with secure seating in the insert pocket creates good surface finishing
- Vertical brazing type and solid type CBN show better performance in interrupted machining
- The use of chip breaker on CBN brazed tips effectively improves chip flow control
- Advanced wiper edge design improves surface quality in high efficiency machining

BH: High volume CBN
BL: Low volume CBN
PVD: Physical vapour deposition

	NBH450C	NBH450U	NBH500C	NBH600U	NBH900U	NBL050C	NBL150C	NBL200C	NBL250C	NBL300C	NBL350C
	BH PVD	BH	BH PVD	BH	BH	BL PVD	BL PVD	BL PVD	BL PVD	BL PVD	BL PVD
Stable machining, light cut (● 1st choice, ○ suitable)	●	●	○		○	●	●	●	○	○	
General machining, medium cut (● 1st choice, ○ suitable)	●	●	●	○	●		○	●	●	●	○
Unstable machining, heavy cut (● 1st choice, ○ suitable)	○	○	●	●	●					○	●

Dimensions



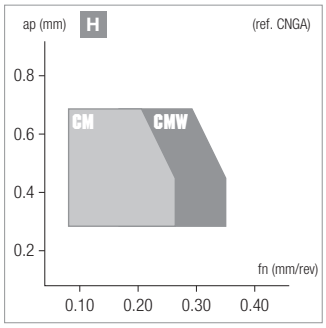
4 edges

Vc(m/min) - suggested cutting speed range (bold: 1st choice)

ISO	NBH450C	NBH450U	NBH500C	NBH600U	NBH900U	NBL050C	NBL150C	NBL200C	NBL250C	NBL300C	NBL350C
P											
M											
K	340 1000	340 1000	300 1500	300 1200	300 1100						
N											
S											
H					40 160	120 280	90 220	90 200	90 180	60 180	60 150

	Designation		RE	IC	S	D1	LE	Stock										
CHIPBREAKER	CFW H vertical brazing **finishing** with **WIPER**	CNGA120408S-CFW-4V	0.8	12.7	4.76	5.16	2.5									●		
		CNGA120412S-CFW-4V	1.2	12.7	4.76	5.16	2.5									●		
CHIPBREAKER	CM H vertical brazing **medium**	CNGA120408S-CM-4V	0.8	12.7	4.76	5.16	2.5									●		
		CNGA120412S-CM-4V	1.2	12.7	4.76	5.16	2.5									●		
CHIPBREAKER	CMW H vertical brazing **medium** with **WIPER**	CNGA120408S-CMW-4V	0.8	12.7	4.76	5.16	2.5									●		
		CNGA120412S-CMW-4V	1.2	12.7	4.76	5.16	2.5									●		

● stock standard, ○ non-standard stock, ▲ upcoming introduction, ▽ stock exhaustion



CN

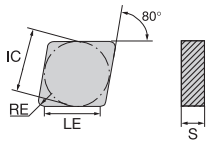
ISO - without hole

- The most popular insert shape due to high versatility
- 80° corner can be used for both turning and facing operations
- Strong cutting edge with secure seating in the insert pocket creates good surface finishing
- Solid style CBN has stronger performance in interrupted applications

BH: High volume CBN
PVD: Physical vapour deposition

	NBH500C	NBH900U	NBH950U
	BH PVD	BH	BH
Stable machining, light cut (● 1st choice, ○ suitable)	○	○	
General machining, medium cut (● 1st choice, ○ suitable)	●	●	○
Unstable machining, heavy cut (● 1st choice, ○ suitable)	●	●	●

Dimensions



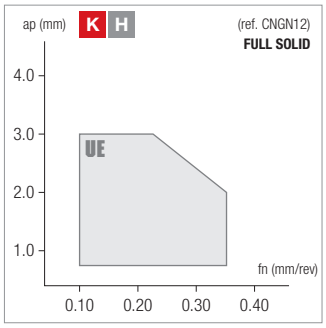
4 edges

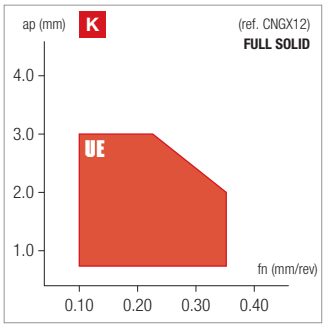
Vc(m/min) - suggested cutting speed range (bold: 1st choice)

ISO	NBH500C	NBH900U	NBH950U
P			
M			
K	300 1500	300 1100	300 800
N			
S			
H		40 160	40 160

	Designation	RE	IC	S	D1	LE				Stock
UNIVERSAL	UE K H full solid **high depth of cut**									
	CNGN090308S-UE	0.8	9.525	3.18	-	8.9		○		
	CNGN090312S-UE	1.2	9.525	3.18	-	8.5		●	▽	
	CNGN090316S-UE	1.6	9.525	3.18	-	8.1		○		
	CNGN120408S-UE	0.8	12.7	4.76	-	12.1		●		
	CNGN120412S-UE	1.2	12.7	4.76	-	11.7		○	▽	
	CNGN120416S-UE	1.6	12.7	4.76	-	11.3		○		
UNIVERSAL	UE K full solid **dimpled type**									
	CNGX120712S-UE	1.2	12.7	4.76	-	11.7	●			
	CNGX120716S-UE	1.6	12.7	4.76	-	11.3	●			

● stock standard, ○ non-standard stock, ▲ upcoming introduction, ▽ stock exhaustion





nikkoTOOLS

DC

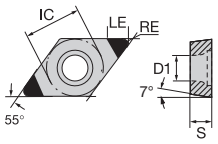
ISO - with hole

- Generally the 1st choice for profile/copy turning applications
- Able to "In-Copy" (plunge turn in small diameter) with 30° angle
- 7° clearance angle, less risk of chip-jamming in boring
- Somewhat weaker edge strength than a triangle insert
- Solid brazing generally shows better stability and reliability comparing to conventional carbide backed brazing

BH: High volume CBN
BL: Low volume CBN
PVD: Physical vapour deposition

	BH PVD	BL PVD	BL PVD	BL PVD	BL PVD	BL PVD	BL PVD
	NBH450C	**NBL050C**	**NBL050CX**	**NBL150C**	**NBL250C**	**NBL300C**	**NBL350C**
Stable machining, light cut (● 1st choice, ○ suitable)	●	●	●	●	○	○	
General machining, medium cut (● 1st choice, ○ suitable)	●			○	●	●	○
Unstable machining, heavy cut (● 1st choice, ○ suitable)	○					○	●

Dimensions

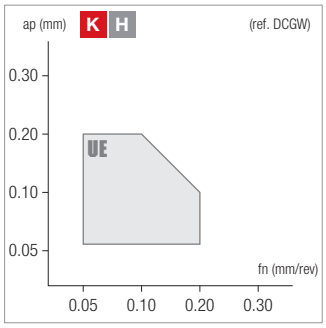


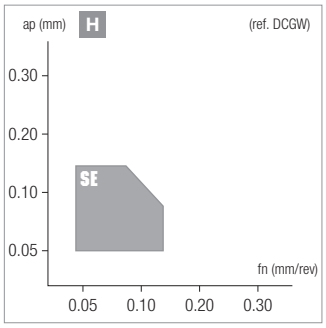
2 edges

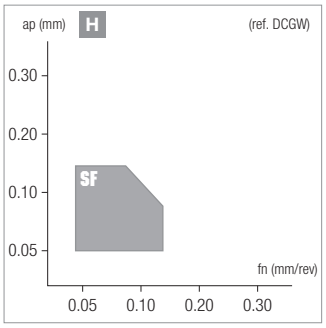
ISO	BH PVD	BL PVD	BL PVD	BL PVD	BL PVD	BL PVD	BL PVD
	Vc(m/min) - suggested cutting speed range (bold: 1st choice)						
P							
M							
K	340 1000						
N							
S							
H		120 280	120 280	90 220	90 180	60 180	60 150

	Designation		RE	IC	S	D1	LE	Stock						
UNIVERSAL	UE H solid brazing	DCGW070202S-UE-2S	0.2	6.35	2.38	2.8	2.5		○		●			
		DCGW070204S-UE-2S	0.4	6.35	2.38	2.8	2.4		●		●	●	○	○
		DCGW070208S-UE-2S	0.8	6.35	2.38	2.8	2				○	○	○	
		DCGW11T302S-UE-2S	0.2	9.525	3.97	4.4	2.5		○		●		●	
		DCGW11T304S-UE-2S	0.4	9.525	3.97	4.4	2.4		●		●	●	●	○
		DCGW11T308S-UE-2S	0.8	9.525	3.97	4.4	2				●	●	●	○
UNIVERSAL	UE K carbide backed	DCGW11T304S-UE-2C	0.4	9.525	3.97	4.4	2.4	●						
		DCGW11T308S-UE-2C	0.8	9.525	3.97	4.4	2	○						
SHARP	SE H solid brazing	DCGW070202S-SE-2S	0.2	6.35	2.38	2.8	2.5		●		●			
		DCGW070204S-SE-2S	0.4	6.35	2.38	2.8	2.4		▲		●			
		DCGW070208S-SE-2S	0.8	6.35	2.38	2.8	2				○			
		DCGW11T302S-SE-2S	0.2	9.525	3.97	4.4	2.5		●		●			
		DCGW11T304S-SE-2S	0.4	9.525	3.97	4.4	2.4		●		●			
		DCGW11T308S-SE-2S	0.8	9.525	3.97	4.4	2			●	●			
SHARP	SF H solid brazing **without honing**	DCGW070202T-SF-2S	0.2	6.35	2.38	2.8	2.5			●				
		DCGW070204T-SF-2S	0.4	6.35	2.38	2.8	2.4			●				
		DCGW11T302T-SF-2S	0.2	9.525	3.97	4.4	2.5			●				
		DCGW11T304T-SF-2S	0.4	9.525	3.97	4.4	2.4			●				
		DCGW11T308T-SF-2S	0.8	9.525	3.97	4.4	2			●				

● stock standard, ○ non-standard stock, ▲ upcoming introduction, ▽ stock exhaustion







PRODUCT SELECTION p. A99 | CUTTING CONDITIONS p. A128 | GRADES FEATURES p. A86 | EXTERNAL HOLDERS p. A232 | INTERNAL HOLDERS p. A236

DC

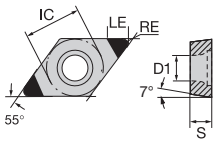
ISO - with hole

- Generally the 1st choice for profile/copy turning applications
- Able to "In-Copy" (plunge turn in small diameter) with 30° angle
- 7° clearance angle, less risk of chip-jamming in boring
- Somewhat weaker edge strength than a triangle insert
- Solid brazing generally shows better stability and reliability comparing to conventional carbide backed brazing

BH: High volume CBN
BL: Low volume CBN
PVD: Physical vapour deposition

	BH PVD	BL PVD	BL PVD	BL PVD	BL PVD	BL PVD	BL PVD
	NBH450C	**NBL050C**	**NBL050CX**	**NBL150C**	**NBL250C**	**NBL300C**	**NBL350C**
Stable machining, light cut (● 1st choice, ○ suitable)	●	●	●	●	○	○	
General machining, medium cut (● 1st choice, ○ suitable)	●			○	●	●	○
Unstable machining, heavy cut (● 1st choice, ○ suitable)	○					○	●

Dimensions



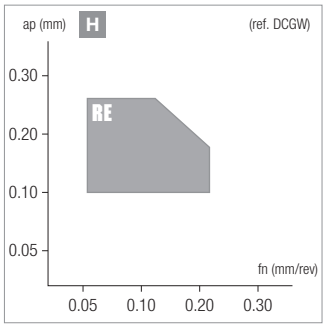
2 edges

Vc(m/min) - suggested cutting speed range (bold: 1st choice)

ISO	BH PVD	BL PVD	BL PVD	BL PVD	BL PVD	BL PVD	BL PVD
P							
M							
K	340 1000						
N							
S							
H		120 280	120 280	90 220	90 180	60 180	60 150

	Designation	RE	IC	S	D1	LE	Stock						
REINFORCED RE H	DCGW070204S-RE-2S	0.4	6.35	2.38	2.8	2.4							○
	DCGW070208S-RE-2S	0.8	6.35	2.38	2.8	2							○
solid brazing interrupted cut	DCGW11T304S-RE-2S	0.4	9.525	3.97	4.4	2.4							●
	DCGW11T308S-RE-2S	0.8	9.525	3.97	4.4	2							●

● stock standard, ○ non-standard stock, ▲ upcoming introduction, ▽ stock exhaustion



nikkoTOOLS

DN

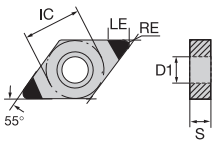
ISO - with hole

- Generally the 1st choice for profile/copy turning applications
- Able to "In-Copy" (plunge turn into a smaller diameter) at an angle of 30°
- Somewhat weaker edge strength than a triangle insert
- Vertical brazing and solid type has impressive performance on interrupted applications
- Solid brazing generally shows better stability and reliability comparing to conventional carbide backed brazing

BH: High volume CBN
BL: Low volume CBN
PVD: Physical vapour deposition

	NBH450C	NBH500C	NBH600U	NBH900U	NBL050C	NBL150C	NBL250C	NBL300C	NBL350C
	BH PVD	BH PVD	BH	BH	BL PVD	BL PVD	BL PVD	BL PVD	BL PVD
Stable machining, light cut (● 1st choice, ○ suitable)	●	○		○	●	●	○	○	
General machining, medium cut (● 1st choice, ○ suitable)	●	●	○	●		○	●	●	○
Unstable machining, heavy cut (● 1st choice, ○ suitable)	○	●	●	●				○	●

Dimensions



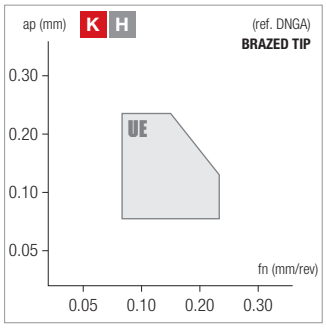
4 edges

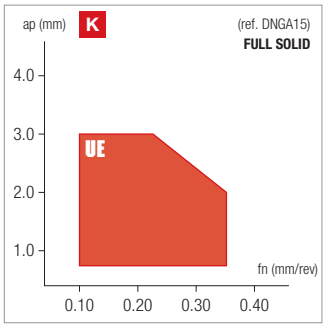
Vc(m/min) - suggested cutting speed range (bold: 1st choice)

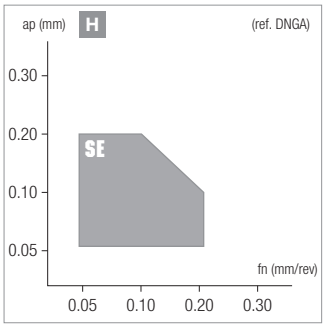
ISO	NBH450C	NBH500C	NBH600U	NBH900U	NBL050C	NBL150C	NBL250C	NBL300C	NBL350C
P									
M									
K	340 1000	300 1500	300 1200	300 1100					
N									
S									
H				40 160	120 280	90 220	90 180	60 180	60 150

	Designation	RE	IC	S	D1	LE	NBH450C	NBH500C	NBH600U	NBH900U	NBL050C	NBL150C	NBL250C	NBL300C	NBL350C
UNIVERSAL, UE K H, vertical brazing	DNGA150404S-UE-4V	0.4	12.7	4.76	5.16	2.7						○	●		
	DNGA150408S-UE-4V	0.8	12.7	4.76	5.16	2.3						○	○		
	DNGA150604S-UE-4V	0.4	12.7	6.35	5.16	2.7				●					
	DNGA150608S-UE-4V	0.8	12.7	6.35	5.16	2.3		●		○					
	DNGA150612S-UE-4V	1.2	12.7	6.35	5.16	2				●					
UNIVERSAL, UE H, solid brazing	DNGA150604S-UE-4S	0.4	12.7	6.35	5.16	2.4					○	●	●	●	○
	DNGA150608S-UE-4S	0.8	12.7	6.35	5.16	2					○	●	●	●	○
	DNGA150612S-UE-4S	1.2	12.7	6.35	5.16	2.1					○	○	○	○	○
UNIVERSAL, UE K, carbide backed	DNGA150608S-UE-4C	0.8	12.7	6.35	5.16	2	○								
UNIVERSAL, UE K, full solid high depth of cut	DNGA150608S-UE	0.8	12.7	6.35	5.16	14.7		●	○						
	DNGA150612S-UE	0.8	12.7	6.35	5.16	14.3		●	○						
SHARP, SE H, vertical brazing	DNGA150404S-SE-4V	0.4	12.7	4.76	5.16	2.7					○	○			
	DNGA150408S-SE-4V	0.8	12.7	4.76	5.16	2.3					○	○			

● stock standard, ○ non-standard stock, ▲ upcoming introduction, ▽ stock exhaustion







PRODUCT SELECTION p. A99 | CUTTING CONDITIONS p. A128 | GRADES FEATURES p. A86 | EXTERNAL HOLDERS p. A244 | INTERNAL HOLDERS p. A247

DN

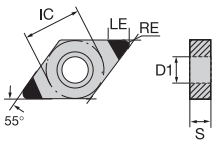
ISO - with hole

- Generally the 1st choice for profile/copy turning applications
- Able to "In-Copy" (plunge turn into a smaller diameter) at an angle of 30°
- Somewhat weaker edge strength than a triangle insert
- Vertical brazing and solid type has impressive performance on interrupted applications
- Solid brazing generally shows better stability and reliability comparing to conventional carbide backed brazing

BH: High volume CBN
BL: Low volume CBN
PVD: Physical vapour deposition

	NBH450C	NBH500C	NBH600U	NBH900U	NBL050C	NBL150C	NBL250C	NBL300C	NBL350C
	BH PVD	BH PVD	BH	BH	BL PVD	BL PVD	BL PVD	BL PVD	BL PVD
Stable machining, light cut (● 1st choice, ○ suitable)	●	○		○	●	●	○	○	
General machining, medium cut (● 1st choice, ○ suitable)	●	●	○	●		○	●	●	○
Unstable machining, heavy cut (● 1st choice, ○ suitable)	○	●	●	●				○	●

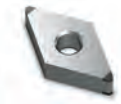
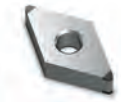
Dimensions



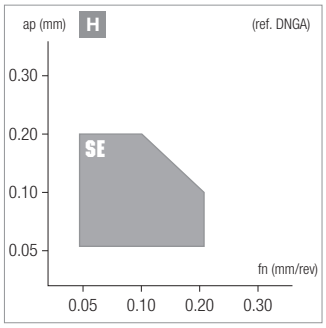
4 edges

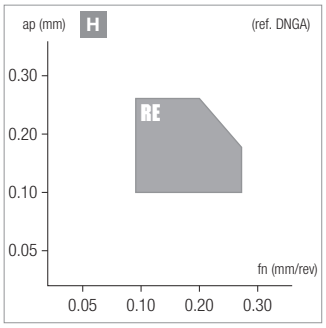
Vc(m/min) - suggested cutting speed range (bold: 1st choice)

ISO	NBH450C	NBH500C	NBH600U	NBH900U	NBL050C	NBL150C	NBL250C	NBL300C	NBL350C
P									
M									
K	340 1000	300 1500	300 1200	300 1100					
N									
S									
H				40 160	120 280	90 220	90 180	60 180	60 150

	Designation		RE	IC	S	D1	LE	Stock								
SHARP	SE H  solid brazing	DNGA150604S-SE-4S	0.4	12.7	6.35	5.16	2.4					○	○			
		DNGA150608S-SE-4S	0.8	12.7	6.35	5.16	2					○	○			
REINFORCED	RE H  solid brazing **interrupted cut**	DNGA150604S-RE-4S	0.4	12.7	6.35	5.16	2.4									○
		DNGA150608S-RE-4S	0.8	12.7	6.35	5.16	2									○
		DNGA150612S-RE-4S	1.2	12.7	6.35	5.16	2.1									○

● stock standard, ○ non-standard stock, ▲ upcoming introduction, ▽ stock exhaustion





PRODUCT SELECTION p. A99 | CUTTING CONDITIONS p. A128 | GRADES FEATURES p. A86 | EXTERNAL HOLDERS p. A244

nikkoTOOLS

MCC

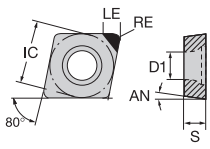
ISO - with hole

- 1st solution for micro-boring
- Precision brazed and ground insert tailored for micro boring operation, completing the MCC family with advanced materials
- Micro boring bar with coolant both in steel (with Vortex technology) and in carbide

BL: Low volume CBN
BH: High volume CBN
PVD: Physical vapour deposition

	NB200	NB250	NB350	NB450U
	BL	BL PVD	BL	BH
Stable machining, light cut (● 1st choice, ○ suitable)	●	○		●
General machining, medium cut (● 1st choice, ○ suitable)	○	●	○	●
Unstable machining, heavy cut (● 1st choice, ○ suitable)			●	○

Dimensions



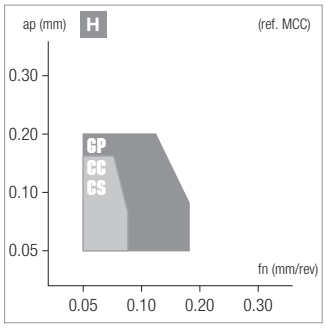
1 edge

ISO	NB200	NB250	NB350	NB450U
P				
M				
K				400 1200
N				
S				
H	100 220	80 200	60 160	

Vc(m/min) - suggested cutting speed range (bold: 1st choice)

	Designation		RE	IC	S	D1	LE	NB200	NB250	NB350	NB450U	Stock
UNIVERSAL	GP K H carbide backed	MCC.R02T-GP-1C	0.2	3.5	1.4	1.9	1.5			▽	▽	
		MCC.R04T-GP-1C	0.4	3.5	1.4	1.9	1.5				▽	
SHARP	CC H carbide backed	MCC.R02T-CC-1C	0.2	3.5	1.4	1.9	1.5		▽			
SHARP	CS H carbide backed	MCC.R02S-CS-1C	0.2	3.5	1.4	1.9	1.5	▽				

● stock standard, ○ non-standard stock, ▲ upcoming introduction, ▽ stock exhaustion



A - TURNING
B - THREADING
C - GROOVING
D - MILLING
E - DRILLING
F - ACCESSORIES
G - SPARE PARTS

MCN

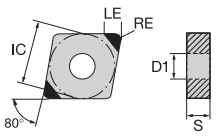
MicroNega - with hole

- MicroNega system it serves as an alternative to positive conventional solutions
- Excellent economy for external small part machining or small boring application
- Special holders tailored with big clearance angle, adapt itself for boring application, effectively reduces the risk of chip-jamming
- Vertical brazed type CBN provides the Micro-Nega family with advanced opportunity

BL: Low volume CBN
BH: High volume CBN
PVD: Physical vapour deposition

	BL PVD	BL PVD	BL PVD	BL PVD	BH PVD
	NBL150C	NBL250C	NBS150	NBS250	NBS450
Stable machining, light cut (● 1st choice, ○ suitable)	●	○	●	○	●
General machining, medium cut (● 1st choice, ○ suitable)	○	●	○	●	●
Unstable machining, heavy cut (● 1st choice, ○ suitable)					○

Dimensions



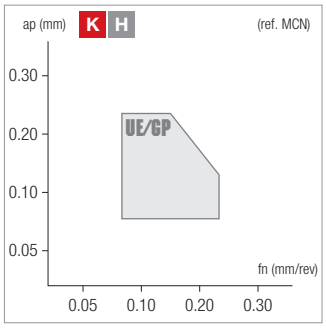
4 edges

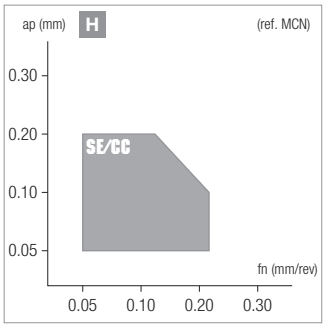
ISO	NBL150C	NBL250C	NBS150	NBS250	NBS450
P					
M					
K					400 1200
N					
S					
H	90 220	90 180	90 220	80 200	

Vc(m/min) - suggested cutting speed range (bold: 1st choice)

	Designation		RE	IC	S	D1	LE	NBL150C	NBL250C	NBS150	NBS250	NBS450	Stock
UNIVERSAL	UE H vertical brazing	MCN.R02S-UE-4V	0.2	7.5	3.18	3.6	2.2		▲				
		MCN.R04S-UE-4V	0.4	7.5	3.18	3.6	2.2		▲				
		MCN.R08S-UE-4V	0.8	7.5	3.18	3.6	2.1		▲				
UNIVERSAL	GP K H vertical brazing	MCN.R02S-GP-4V	0.2	7.5	3.18	3.6	2.2				●	▽	
		MCN.R04S-GP-4V	0.4	7.5	3.18	3.6	2.2				●	▽	
		MCN.R08S-GP-4V	0.8	7.5	3.18	3.6	2.1				●	▽	
SHARP	SE H vertical brazing	MCN.R02S-SE-4V	0.2	7.5	3.18	3.6	2.2	○					
		MCN.R04S-SE-4V	0.4	7.5	3.18	3.6	2.2	▲					
		MCN.R08S-SE-4V	0.8	7.5	3.18	3.6	2.1	▲					
SHARP	CC H vertical brazing	MCN.R04S-CC-4V	0.4	7.5	3.18	3.6	2.2			●			
		MCN.R08S-CC-4V	0.8	7.5	3.18	3.6	2.1			●			

● stock standard, ○ non-standard stock, ▲ upcoming introduction, ▽ stock exhaustion





PRODUCT SELECTION p. A99 | CUTTING CONDITIONS p. A128 | GRADES FEATURES p. A86 | EXTERNAL HOLDERS p. A251 | INTERNAL HOLDERS p. A252

nikkoTOOLS

MDN

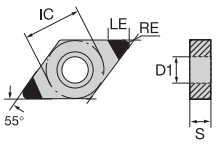
MicroNega - with hole

- MicroNega system it serves as an alternative to positive conventional solutions
- Excellent economy for external small part machining or small boring application
- Special holders tailored with big clearance angle, adapt itself for boring application, effectively reduces the risk of chip-jamming
- Vertical brazed type CBN provides the Micro-Nega family with advanced opportunity

BL: Low volume CBN
BH: High volume CBN
PVD: Physical vapour deposition

	BL PVD	BL PVD	BL PVD	BL PVD	BH PVD
	NBL150C	NBL250C	NBS150	NBS250	NBS450
Stable machining, light cut (● 1st choice, ○ suitable)	●	○	●	○	●
General machining, medium cut (● 1st choice, ○ suitable)	○	●	○	●	●
Unstable machining, heavy cut (● 1st choice, ○ suitable)					○

Dimensions



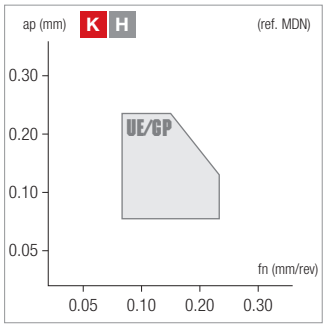
4 edges

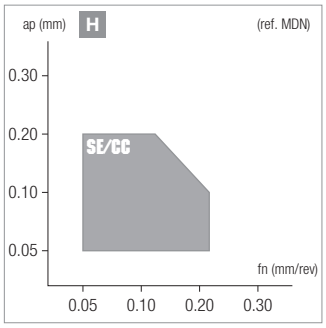
ISO	NBL150C	NBL250C	NBS150	NBS250	NBS450
P					
M					
K					400 1200
N					
S					
H	90 220	90 180	90 220	80 200	

Vc(m/min) - suggested cutting speed range (bold: 1st choice)

	Designation		RE	IC	S	D1	LE	NBL150C	NBL250C	NBS150	NBS250	NBS450	Stock
UNIVERSAL	UE H vertical brazing	MDN.R02S-UE-4V	0.2	7	3.18	3.6	2.4		▲				
		MDN.R04S-UE-4V	0.4	7	3.18	3.6	2.2		▲				
		MDN.R08S-UE-4V	0.8	7	3.18	3.6	1.8		▲				
UNIVERSAL	GP K H vertical brazing	MDN.R02S-GP-4V	0.2	7	3.18	3.6	2.4				●	▽	
		MDN.R04S-GP-4V	0.4	7	3.18	3.6	2.2				●	▽	
		MDN.R08S-GP-4V	0.8	7	3.18	3.6	1.8				●	▽	
SHARP	SE H vertical brazing	MDN.R02S-SE-4V	0.2	7	3.18	3.6	2.4	▲					
		MDN.R04S-SE-4V	0.4	7	3.18	3.6	2.2	▲					
		MDN.R08S-SE-4V	0.8	7	3.18	3.6	1.8	▲					
SHARP	CC H vertical brazing	MDN.R02S-CC-4V	0.2	7	3.18	3.6	2.4			●			
		MDN.R04S-CC-4V	0.4	7	3.18	3.6	2.2			●			
		MDN.R08S-CC-4V	0.8	7	3.18	3.6	1.8			●			

● stock standard, ○ non-standard stock, ▲ upcoming introduction, ▽ stock exhaustion





PRODUCT SELECTION p. A99 | CUTTING CONDITIONS p. A128 | GRADES FEATURES p. A86 | EXTERNAL HOLDERS p. A253 | INTERNAL HOLDERS p. A254

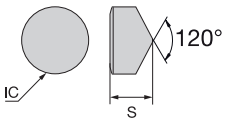
RC

ISO - without hole

- Very strong and universal use insert shape
- With a high volume tough grade, able to cope with the challenges in heavy load applications
- Stable sitting on the holder pocket

BH: High volume CBN

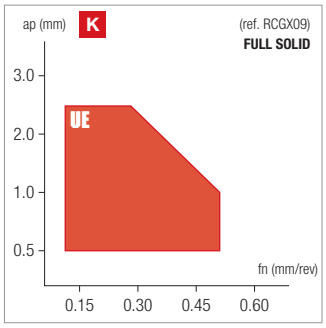
BH		
NBH600U		
Stable machining, light cut	● 1st choice ○ suitable	
General machining, medium cut	● 1st choice ○ suitable	○
Unstable machining, heavy cut	● 1st choice ○ suitable	●



Dimensions	ISO	Vc(m/min) - suggested cutting speed range (bold: 1st choice)
	P	
	M	
	K	300 **1200**
	N	
	S	
	H	

	Designation	RE	IC	S	D1	LE		Stock
UNIVERSAL UE K full solid	RCGX090700S-UE	4.76	9.525	7.94	-	-	●	
	RCGX120700S-UE	6.35	12.7	7.94	-	-	●	

● stock standard, ○ non-standard stock, ▲ upcoming introduction, ▽ stock exhaustion



PRODUCT SELECTION p. A99 | CUTTING CONDITIONS p. A128 | GRADES FEATURES p. A86

nikkoTOOLS

RN

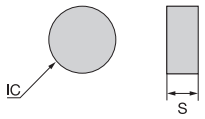
ISO - without hole

- Very strong and universal use insert shape
- Could be used both in turning and profile milling
- With a nice range of grade choices, able to cope with challenges in diverse applications

BH: High volume CBN
BL: Low volume CBN
PVD: Physical vapour deposition

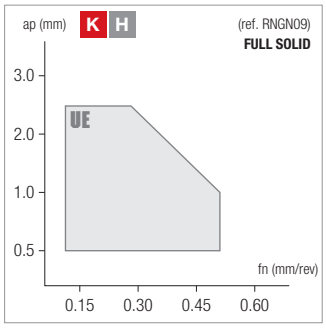
	NBH500C	NBH500U	NBH900U	NBH950U	NBL200C	NBL250C
	BH PVD	BH	BH	BH	BL PVD	BL PVD
Stable machining, light cut (● 1st choice, ○ suitable)	○	○	○		●	○
General machining, medium cut (● 1st choice, ○ suitable)	●	●	●	○	●	●
Unstable machining, heavy cut (● 1st choice, ○ suitable)	●	●	●	●		
ISO — **Vc(m/min) - suggested cutting speed range** (bold: 1st choice)						
P						
M						
K	300 1500	300 1500	300 1100	300 800		
N						
S						
H			40 160	40 160	90 200	90 180

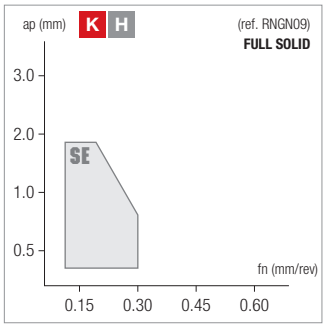
Dimensions

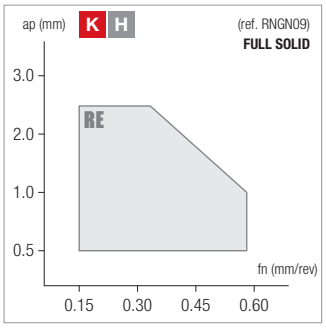


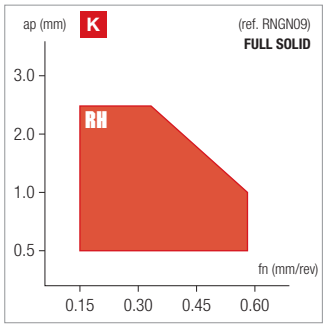
	Designation	RE	IC	S	D1	LE	NBH500C	NBH500U	NBH900U	NBH950U	NBL200C	NBL250C	Stock
UNIVERSAL	UE K H — full solid — RNGN060300S-UE	3.18	6.35	3.18	-	-	●						
	RNGN090300S-UE	4.76	9.525	3.18	-	-	●		●	●	●	●	
	RNGN120300S-UE	6.35	12.7	3.18	-	-			○	●			
	RNGN120400S-UE	6.35	12.7	4.76	-	-	●		●	●	●	●	
SHARP	SE K H — full solid, without honing — RNGN090300T-SE	4.76	9.525	3.18	-	-	●				●		
REINFORCED	RE K H — full solid, interrupted cut — RNGN090300S-RE	4.76	9.525	3.18	-	-	●	●					
	RNGN120400S-RE	6.35	12.7	4.76	-	-			●	○			
REINFORCED	RH K — full solid — RNGN090300S-RH	4.76	9.525	3.18	-	-		●					

● stock standard, ○ non-standard stock, ▲ upcoming introduction, ▽ stock exhaustion









PRODUCT SELECTION p. A99
CUTTING CONDITIONS p. A128
GRADES FEATURES p. A86

SN

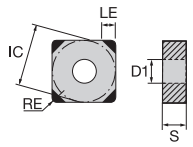
ISO - with hole

- Very strong 90° corner with excellent economy (8 edges on double-sided inserts), especially with vertical brazing or solid type CBNs
- Mostly used for rough facing operations
- Unable to turn or face up to a shoulder (must be used in a tool holder with min. 5° lead angle)
- High radial forces push against the workpiece when used for turning
- Should always be used in a stable set-up

BH: High volume CBN
BL: Low volume CBN
PVD: Physical vapour deposition

	BH PVD	BH	BH	BL PVD	BL PVD
	NBH500C	NBH600U	NBH900U	NBL150C	NBL250C
Stable machining, light cut (● 1st choice, ○ suitable)	○		○	●	○
General machining, medium cut (● 1st choice, ○ suitable)	●	○	●	○	●
Unstable machining, heavy cut (● 1st choice, ○ suitable)	●	●	●		

Dimensions



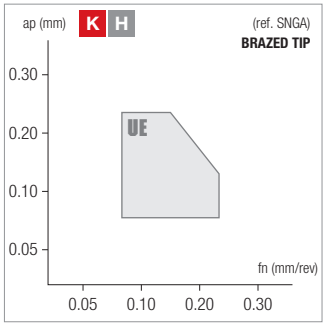
8 edges

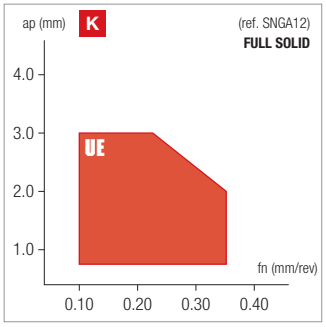
ISO	NBH500C	NBH600U	NBH900U	NBL150C	NBL250C
P					
M					
K	300 1500	300 1200	300 1100		
N					
S					
H			40 160	90 220	90 180

Vc(m/min) - suggested cutting speed range (bold: 1st choice)

	Designation		RE	IC	S	D1	LE	NBH500C	NBH600U	NBH900U	NBL150C	NBL250C	Stock
UNIVERSAL	UE K H vertical brazing	SNGA120404S-UE-8V	0.4	12.7	4.76	5.16	2.2			●			
		SNGA120408S-UE-8V	0.8	12.7	4.76	5.16	2.2			●	○	○	
		SNGA120412S-UE-8V	1.2	12.7	4.76	5.16	2.2			●			
UNIVERSAL	UE K full solid **high depth of cut**	SNGA120408S-UE	0.8	12.7	4.76	5.16	11.9	○	○				
		SNGA120412S-UE	1.2	12.7	4.76	5.16	11.5	●	○				

● stock standard, ○ non-standard stock, ▲ upcoming introduction, ▽ stock exhaustion





nikkoTOOLS

SN

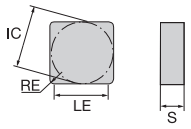
ISO - without hole

- Very strong 90° corner with excellent economy (8 edges on double-sided inserts), especially with solid type CBNs
- Mostly used for rough facing operations
- Unable to turn or face up to a shoulder (must be used in a tool holder with min. 5° lead angle)
- High radial forces push against the workpiece when used for turning
- Should always be used in a stable set-up

BH: High volume CBN
PVD: Physical vapour deposition

	BH PVD	BH	BH	BH
	NBH500C	NBH600U	NBH900U	NBH950U
Stable machining, light cut (● 1st choice, ○ suitable)	○		○	
General machining, medium cut (● 1st choice, ○ suitable)	●	○	●	○
Unstable machining, heavy cut (● 1st choice, ○ suitable)	●	●	●	●

Dimensions



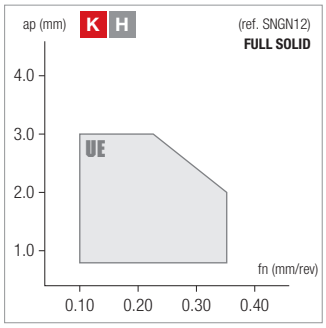
8 edges

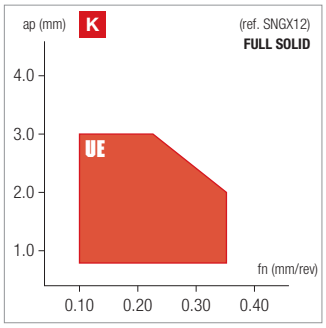
ISO	NBH500C	NBH600U	NBH900U	NBH950U
P				
M				
K	300 1500	300 1200	300 1100	300 800
N				
S				
H			40 160	40 160

Vc(m/min) - suggested cutting speed range (bold: 1st choice)

	Designation	RE	IC	S	D1	LE					Stock
UNIVERSAL	UE K H full solid **high depth of cut**										
	SNGN090308S-UE	0.8	9.525	3.18	-	8.7			○		
	SNGN090312S-UE	1.2	9.525	3.18	-	8.3			●	▽	
	SNGN090316S-UE	1.6	9.525	3.18	-	7.9			○		
	SNGN090412S-UE	1.2	9.525	4.76	-	8.3			▽		
	SNGN120408S-UE	0.8	12.7	4.76	-	11.9			●		
	SNGN120412S-UE	1.2	12.7	4.76	-	11.5			●	○	
	SNGN120416S-UE	1.6	12.7	4.76	-	11.1			○		
UNIVERSAL	UE K full solid **dimpled type**										
	SNGX120412S-UE	1.2	12.7	4.76	-	11.5		●			
	SNGX120712S-UE	1.2	12.7	7.94	-	11.5	●				
	SNGX120716S-UE	1.6	12.7	7.94	-	11.1	●				

● stock standard, ○ non-standard stock, ▲ upcoming introduction, ▽ stock exhaustion





PRODUCT SELECTION p. A99 | CUTTING CONDITIONS p. A128 | GRADES FEATURES p. A86

TC

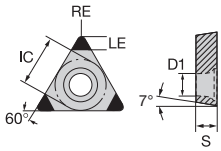
ISO - with hole

- Very versatile insert shape
- Excellent choice for general boring due to very stable seating of the insert in the boring bar pocket
- Extra clearance between the insert and the workpiece bore, greatly reduce the risk of chip jamming
- Boring bars made of steel (Vortex technology) and carbide are available
- Edge is measurably weaker than 80° diamond shape inserts

BH: High volume CBN
BL: Low volume CBN
PVD: Physical vapour deposition

	NBH450C	NBH450U	NBL050C	NBL150C	NBL250C	NBL350C
	BH PVD	BH	BL PVD	BL PVD	BL PVD	BL PVD
Stable machining, light cut (● 1st choice, ○ suitable)	●	●	●	●	○	
General machining, medium cut (● 1st choice, ○ suitable)	●	●		○	●	○
Unstable machining, heavy cut (● 1st choice, ○ suitable)	○	○				●

Dimensions



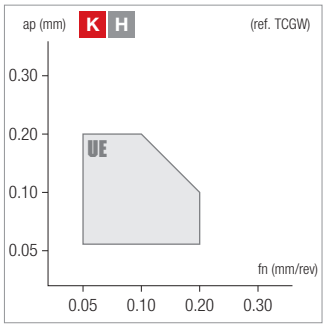
3 edges

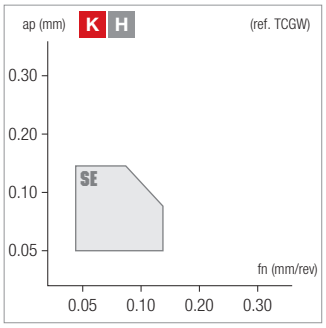
Vc(m/min) - suggested cutting speed range (bold: 1st choice)

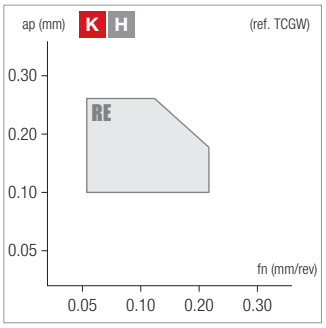
ISO	NBH450C	NBH450U	NBL050C	NBL150C	NBL250C	NBL350C
P						
M						
K	340 1000	340 1000				
N						
S						
H			120 280	90 220	90 180	60 150

	Designation		RE	IC	S	D1	LE	NBH450C	NBH450U	NBL050C	NBL150C	NBL250C	NBL350C	Stock
UNIVERSAL	UE H solid brazing	TCGW110204S-UE-3S	0.4	6.35	2.38	2.8	2.5			○	●	●		
		TCGW110208S-UE-3S	0.8	6.35	2.38	2.8	2.2				●	●		
		TCGW16T304S-UE-3S	0.4	9.525	3.97	4.4	2.5			○	○	●		
		TCGW16T308S-UE-3S	0.8	9.525	3.97	4.4	2.2				○	●		
UNIVERSAL	UE K carbide backed	TCGW090204S-UE-3C	0.4	5.56	2.38	2.5	2.5	○						
		TCGW110204S-UE-3C	0.4	6.35	2.38	2.8	2.5	●						
		TCGW110208S-UE-3C	0.8	6.35	2.38	2.8	2.2	●						
		TCGW16T304S-UE-3C	0.4	9.525	3.97	4.4	2.5	●						
		TCGW16T308S-UE-3C	0.8	9.525	3.97	4.4	2.2	●						
SHARP	SE H solid brazing	TCGW110204S-SE-3S	0.4	6.35	2.38	2.8	2.5			○	●			
		TCGW110208S-SE-3S	0.8	6.35	2.38	2.8	2.2				○			
		TCGW16T304S-SE-3S	0.4	9.525	3.97	4.4	2.5			○	○			
		TCGW16T308S-SE-3S	0.8	9.525	3.97	4.4	2.2				○			
SHARP	SE K carbide backed **without honing**	TCGW110204T-SE-3C	0.4	6.35	2.38	2.8	2.5	○						
REINFORCED	RE H solid brazing **interrupted cut**	TCGW110204S-RE-3S	0.4	6.35	2.38	2.8	2.5						○	
		TCGW110208S-RE-3S	0.8	6.35	2.38	2.8	2.2						○	
		TCGW16T304S-RE-3S	0.4	9.525	3.97	4.4	2.5						○	
		TCGW16T308S-RE-3S	0.8	9.525	3.97	4.4	2.2						○	

● stock standard, ○ non-standard stock, ▲ upcoming introduction, ▽ stock exhaustion







PRODUCT SELECTION p. A99 | CUTTING CONDITIONS p. A128 | GRADES FEATURES p. A86 | EXTERNAL HOLDERS p. A264 | INTERNAL HOLDERS p. A267

nikkoTOOLS

TC

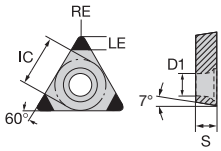
ISO - with hole

- Very versatile insert shape
- Excellent choice for general boring due to very stable seating of the insert in the boring bar pocket
- Extra clearance between the insert and the workpiece bore, greatly reduce the risk of chip jamming
- Boring bars made of steel (Vortex technology) and carbide are available
- Edge is measurably weaker than 80° diamond shape inserts

BH: High volume CBN
BL: Low volume CBN
PVD: Physical vapour deposition

	NBH450C	NBH450U	NBL050C	NBL150C	NBL250C	NBL350C
	BH PVD	BH	BL PVD	BL PVD	BL PVD	BL PVD
Stable machining, light cut (● 1st choice, ○ suitable)	●	●	●	●	○	
General machining, medium cut (● 1st choice, ○ suitable)	●	●		○	●	○
Unstable machining, heavy cut (● 1st choice, ○ suitable)	○	○				●

Dimensions



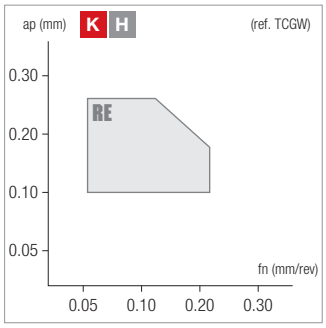
3 edges

ISO	NBH450C	NBH450U	NBL050C	NBL150C	NBL250C	NBL350C
P						
M						
K	340 1000	340 1000				
N						
S						
H			120 280	90 220	90 180	60 150

Vc(m/min) - suggested cutting speed range (bold: 1st choice)

	Designation	RE	IC	S	D1	LE	NBH450C	NBH450U	NBL050C	NBL150C	NBL250C	NBL350C	Stock
REINFORCED	RE K carbide backed **interrupted cut**												
	TCGW110208S-RE-3C	0.8	6.35	2.38	2.8	2.2		●					
	TCGW16T308S-RE-3C	0.8	9.525	3.97	4.4	2.2		○					

● stock standard, ○ non-standard stock, ▲ upcoming introduction, ▽ stock exhaustion



A - TURNING
B - THREADING
C - GROOVING
D - MILLING
E - DRILLING
F - ACCESSORIES
G - SPARE PARTS

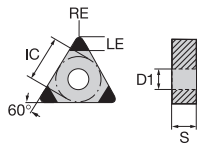
TN

ISO - with hole

- Very versatile insert shape, can be used for turning, facing, boring, copy turning and basic profiling, sometimes even threading
- Good economy with up to 6 cutting edges
- Be sure not to use "too large" a triangle insert. A T11 insert can manage the same depth of cut as C09 in most situations with nearly the same insert strength, but cost much lower than T16

BH: High volume CBN
BL: Low volume CBN
PVD: Physical vapour deposition

	NBH450C	NBH500C	NBH600U	NBH900U	NBL050C	NBL150C	NBL250C	NBL300C	NBL350C
	BH PVD	BH PVD	BH	BH	BL PVD	BL PVD	BL PVD	BL PVD	BL PVD
Stable machining, light cut (● 1st choice, ○ suitable)	●	○		○	●	●	○	○	
General machining, medium cut (● 1st choice, ○ suitable)	●	●	○	●		○	●	●	○
Unstable machining, heavy cut (● 1st choice, ○ suitable)	○	●	●	●				○	●



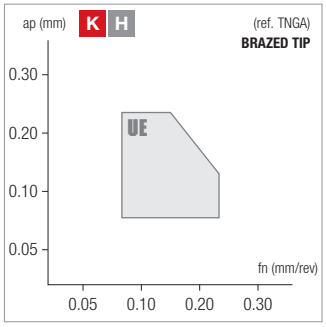
6 edges

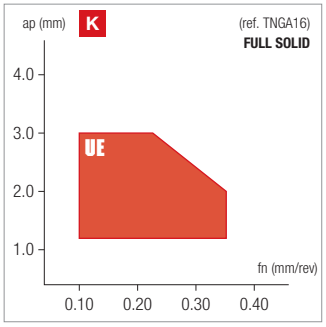
Vc(m/min) - suggested cutting speed range (bold: 1st choice)

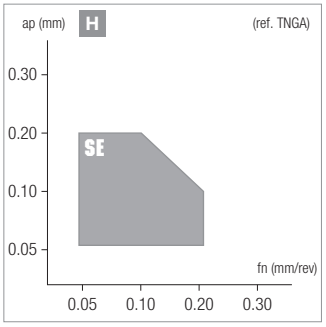
ISO	NBH450C	NBH500C	NBH600U	NBH900U	NBL050C	NBL150C	NBL250C	NBL300C	NBL350C
P									
M									
K	340 1000	300 1500	300 1200	300 1100					
N									
S									
H				40 160	120 280	90 220	90 180	60 180	60 150

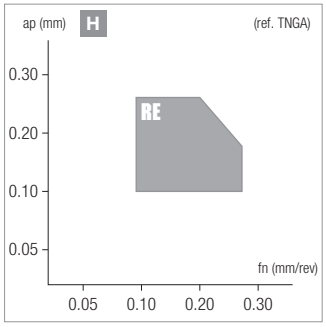
	Designation		RE	IC	S	D1	LE	Stock								
UNIVERSAL	UE K H vertical brazing	TNGA160404S-UE-6V	0.4	9.525	4.76	3.81	2.9		●		●	●	●	●	●	○
		TNGA160408S-UE-6V	0.8	9.525	4.76	3.81	2.6		●		●	●	●	●	●	○
		TNGA160412S-UE-6V	1.2	9.525	4.76	3.81	2.4		○		●	○	○	○	○	○
UNIVERSAL	UE K carbide backed	TNGA160404S-UE-6C	0.4	9.525	4.76	3.81	2.5	○								
		TNGA160408S-UE-6C	0.8	9.525	4.76	3.81	2.2	○								
		TNGA160412S-UE-6C	1.2	9.525	4.76	3.81	2.4	○								
UNIVERSAL	UE K full solid **high depth of cut**	TNGA160408S-UE	0.8	9.525	4.76	3.81	15.7		●	○						
		TNGA160412S-UE	1.2	9.525	4.76	3.81	15.3		○	○						
SHARP	SE H vertical brazing	TNGA160404S-SE-6V	0.4	9.525	4.76	3.81	2.9					○	○			
		TNGA160408S-SE-6V	0.8	9.525	4.76	3.81	2.6					○	○			
		TNGA160412S-SE-6V	1.2	9.525	4.76	3.81	2.4					○	○			
REINFORCED	RE H vertical brazing **interrupted cut**	TNGA160404S-RE-6V	0.4	9.525	4.76	3.81	2.9									○
		TNGA160408S-RE-6V	0.8	9.525	4.76	3.81	2.6									○
		TNGA160412S-RE-6V	1.2	9.525	4.76	3.81	2.4									○

● stock standard, ○ non-standard stock, ▲ upcoming introduction, ▽ stock exhaustion









PRODUCT SELECTION p. A99 | CUTTING CONDITIONS p. A128 | GRADES FEATURES p. A86 | EXTERNAL HOLDERS p. A271

nikkoTOOLS

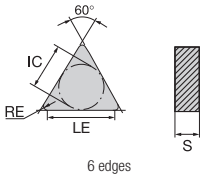
TN

ISO - without hole

- Very versatile insert shape, can be used for turning, facing, boring, copy turning and basic profiling, sometimes even threading
- Good economy with up to 6 cutting edges
- Be sure not to use "too large" a triangle insert. A T11 insert can manage the same depth of cut as C09 in most situations with nearly the same insert strength, but cost much lower than T16

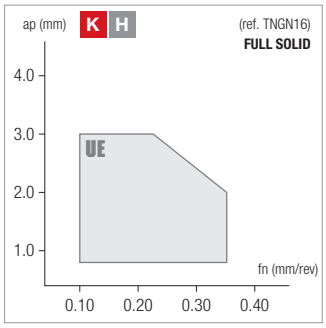
	BH: High volume CBN BL: Low volume CBN PVD: Physical vapour deposition	BH	BL PVD
		NBH900U	NBL200C
	Stable machining, light cut	○	●
	General machining, medium cut	●	●
	Unstable machining, heavy cut	●	

● 1st choice ○ suitable

Dimensions	ISO		Vc(m/min) - suggested cutting speed range (bold: 1st choice)
	P		
	M		
	K	300 1100	
	N		
	S		
	H	40 160	90 200

	Designation	RE	IC	S	D1	LE	Stock		
UNIVERSAL	UE K H full solid **high depth of cut**								
	TNGN160408S-UE	0.8	9.525	4.76	-	15.7	●	●	

● stock standard, ○ non-standard stock, ▲ upcoming introduction, ▽ stock exhaustion



PRODUCT SELECTION p. A99
CUTTING CONDITIONS p. A128
GRADES FEATURES p. A86

TP

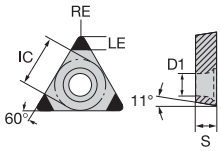
ISO - with hole

- Very versatile insert shape
- Excellent choice for general boring due to very stable seating of the insert in the boring bar pocket
- Extra clearance between the insert and the workpiece bore, greatly reduce the risk of chip jamming
- Boring bars made of steel (Vortex technology) and carbide are available
- Edge is measurably weaker than 80° diamond shape inserts

BL: Low volume CBN
PVD: Physical vapour deposition

		BL PVD	BL PVD	BL PVD
		NBL150C	NBL250C	NBL350C
Stable machining, light cut	● 1st choice ○ suitable	●	○	
General machining, medium cut	● 1st choice ○ suitable	○	●	○
Unstable machining, heavy cut	● 1st choice ○ suitable			●

Dimensions

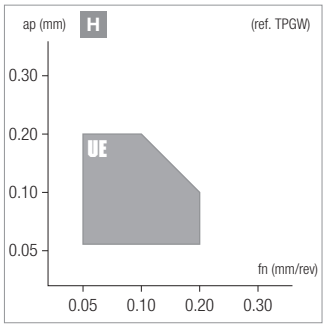


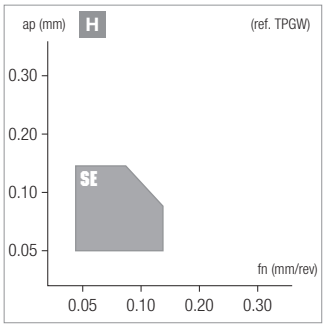
3 edges

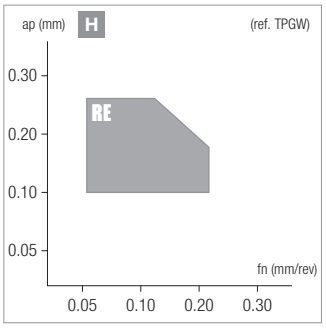
ISO	NBL150C	NBL250C	NBL350C	Vc(m/min) - suggested cutting speed range (bold: 1st choice)
P				
M				
K				
N				
S				
H	90 220	90 180	60 150	

	Designation		RE	IC	S	D1	LE	NBL150C	NBL250C	NBL350C	Stock
UNIVERSAL	UE H solid brazing	TPGW090204S-UE-3S	0.4	5.56	2.38	3	2.5		●		
		TPGW110302S-UE-3S	0.2	6.35	3.18	3.3	2.6		○		
		TPGW110304S-UE-3S	0.4	6.35	3.18	3.3	2.5		●	○	
		TPGW110308S-UE-3S	0.8	6.35	3.18	3.3	2.2		●		
SHARP	SE H solid brazing	TPGW110304S-SE-3S	0.4	6.35	3.18	3.3	2.5	○			
		TPGW110308S-SE-3S	0.8	6.35	3.18	3.3	2.2	○			
REINFORCED	RE H solid brazing **interrupted cut**	TPGW110304S-RE-3S	0.4	6.35	3.18	3.3	2.5			○	

● stock standard, ○ non-standard stock, ▲ upcoming introduction, ▽ stock exhaustion







PRODUCT SELECTION p. A99 | CUTTING CONDITIONS p. A128 | GRADES FEATURES p. A86

nikkoTOOLS

VB

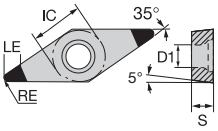
ISO - with hole

- 1st choice for intricate shape copy turning
- Can "In-Copy" (plunge turn into a smaller diameter) at an angle up to 49°
- Can work extremely close to the tailstock/ live center
- Positive style can be used for external and internal applications, in many cases improved performance outweighs the increased cost per edge (2 edges vs. 4 edges of a double sided VNGA)

BH: High volume CBN
BL: Low volume CBN
PVD: Physical vapour deposition

	BH PVD	BH	BL PVD	BL PVD	BL PVD	BL PVD	BL PVD	BL PVD
	NBH450C	NBH450U	NBL050C	NBL050CX	NBL150C	NBL250C	NBL300C	NBL350C
Stable machining, light cut (● 1st choice, ○ suitable)	●	●	●	●	●	○	○	
General machining, medium cut (● 1st choice, ○ suitable)	●	●			○	●	●	○
Unstable machining, heavy cut (● 1st choice, ○ suitable)	○	○					○	●

Dimensions

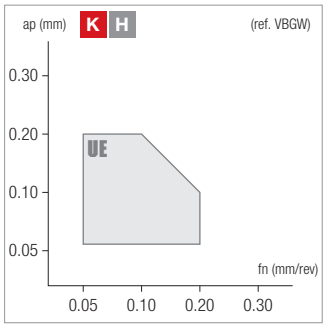


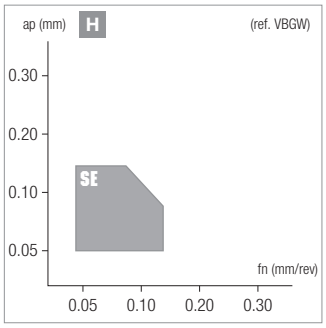
2 edges

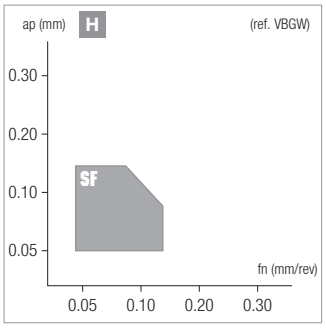
ISO	BH PVD	BH	BL PVD	BL PVD	BL PVD	BL PVD	BL PVD	BL PVD
	Vc(m/min) - suggested cutting speed range (bold: 1st choice)							
P								
M								
K	340 1000	340 1000						
N								
S								
H			120 280	120 280	90 220	90 180	60 180	60 150

	Designation		RE	IC	S	D1	LE	Stock							
UNIVERSAL	UE H solid brazing	VBGW110302S-UE-2S	0.2	6.35	3.18	2.8	3					○			
		VBGW110304S-UE-2S	0.4	6.35	3.18	2.8	2.5			●		●	●		
		VBGW160402S-UE-2S	0.2	9.525	4.76	4.4	3					●			
		VBGW160404S-UE-2S	0.4	9.525	4.76	4.4	2.5			●		●	●	●	○
		VBGW160408S-UE-2S	0.8	9.525	4.76	4.4	2.2			●		●	●	●	○
UNIVERSAL	UE K carbide backed	VBGW160404S-UE-2C	0.4	9.525	4.76	4.4	2.5	○							
		VBGW160408S-UE-2C	0.8	9.525	4.76	4.4	2.2	○							
SHARP	SE H solid brazing	VBGW110302S-SE-2S	0.2	6.35	3.18	2.8	3					●			
		VBGW110304S-SE-2S	0.4	6.35	3.18	2.8	2.5			●		●			
		VBGW160402S-SE-2S	0.2	9.525	4.76	4.4	3					●			
		VBGW160404S-SE-2S	0.4	9.525	4.76	4.4	2.5			●		●			
		VBGW160408S-SE-2S	0.8	9.525	4.76	4.4	2.2			●		●			
SHARP	SF H solid brazing **without honing**	VBGW110302T-SF-2S	0.2	6.35	3.18	2.8	3				●				
		VBGW110304T-SF-2S	0.4	6.35	3.18	2.8	2.5				●				
		VBGW160402T-SF-2S	0.2	9.525	4.76	4.4	3				○				
		VBGW160404T-SF-2S	0.4	9.525	4.76	4.4	2.5				●				
		VBGW160408T-SF-2S	0.8	9.525	4.76	4.4	2.2				●				

● stock standard, ○ non-standard stock, ▲ upcoming introduction, ▽ stock exhaustion







PRODUCT SELECTION p. A99 | CUTTING CONDITIONS p. A128 | GRADES FEATURES p. A86 | EXTERNAL HOLDERS p. A278 | INTERNAL HOLDERS p. A282

VB

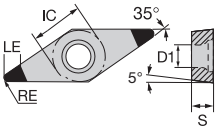
ISO - with hole

- 1st choice for intricate shape copy turning
- Can "In-Copy" (plunge turn into a smaller diameter) at an angle up to 49°
- Can work extremely close to the tailstock/ live center
- Positive style can be used for external and internal applications, in many cases improved performance outweighs the increased cost per edge (2 edges vs. 4 edges of a double sided VNGA)

BH: High volume CBN
BL: Low volume CBN
PVD: Physical vapour deposition

	NBH450C	NBH450U	NBL050C	NBL050CX	NBL150C	NBL250C	NBL300C	NBL350C
	BH PVD	BH	BL PVD	BL PVD	BL PVD	BL PVD	BL PVD	BL PVD
Stable machining, light cut (● 1st choice, ○ suitable)	●	●	●	●	●	○	○	
General machining, medium cut (● 1st choice, ○ suitable)	●	●			○	●	●	○
Unstable machining, heavy cut (● 1st choice, ○ suitable)	○	○					○	●

Dimensions



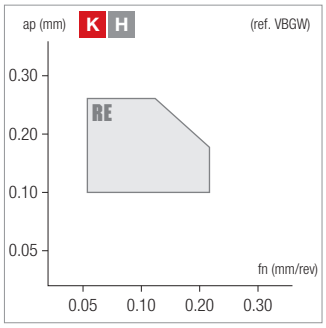
2 edges

Vc(m/min) - suggested cutting speed range (bold: 1st choice)

ISO	NBH450C	NBH450U	NBL050C	NBL050CX	NBL150C	NBL250C	NBL300C	NBL350C
P								
M								
K	340 1000	340 1000						
N								
S								
H			120 280	120 280	90 220	90 180	60 180	60 150

	Designation	RE	IC	S	D1	LE	NBH450C	NBH450U	NBL050C	NBL050CX	NBL150C	NBL250C	NBL300C	NBL350C
REINFORCED RE H solid brazing **interrupted cut**	VBGW160404S-RE-2S	0.4	9.525	4.76	4.4	2.5								○
	VBGW160408S-RE-2S	0.8	9.525	4.76	4.4	2.2								○
REINFORCED RE K carbide backed **interrupted cut**	VBGW160404S-RE-2C	0.4	9.525	4.76	4.4	2.5		○						
	VBGW160408S-RE-2C	0.8	9.525	4.76	4.4	2.2		○						

● stock standard, ○ non-standard stock, ▲ upcoming introduction, ▽ stock exhaustion



VC

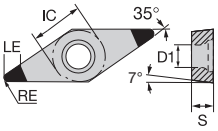
ISO - with hole

- 1st choice for intricate shape copy turning
- Can "In-Copy" (plunge turn into a smaller diameter) at an angle up to 49°
- Can work extremely close to the tailstock/ live center
- Positive style can be used for external and internal applications, in many cases improved performance outweighs the increased cost per edge (2 edges vs. 4 edges of a double sided VNGA)

BL: Low volume CBN
PVD: Physical vapour deposition

		BL PVD	BL PVD
		NBL150C	NBL250C
Stable machining, light cut	● 1st choice ○ suitable	●	○
General machining, medium cut	● 1st choice ○ suitable	○	●
Unstable machining, heavy cut	● 1st choice ○ suitable		

Dimensions

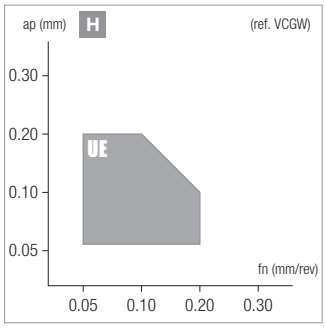


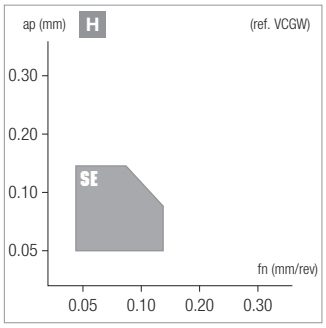
2 edges

ISO			Vc(m/min) - suggested cutting speed range (bold: 1st choice)
P			
M			
K			
N			
S			
H	90 220	90 180	

	Designation		RE	IC	S	D1	LE			Stock
UNIVERSAL	UE H solid brazing	VCGW110304S-UE-2S	0.4	6.35	3.18	2.8	2.5		●	
		VCGW160404S-UE-2S	0.4	9.525	4.76	4.4	2.5		●	
		VCGW160408S-UE-2S	0.8	9.525	4.76	4.4	2.2		●	
SHARP	SE H solid brazing	VCGW110304S-SE-2S	0.4	6.35	3.18	2.8	2.5	●		
		VCGW160404S-SE-2S	0.4	9.525	4.76	4.4	2.5	●		
		VCGW160408S-SE-2S	0.8	9.525	4.76	4.4	2.2	○		

● stock standard, ○ non-standard stock, ▲ upcoming introduction, ▽ stock exhaustion





PRODUCT SELECTION p. A99 | CUTTING CONDITIONS p. A128 | GRADES FEATURES p. A86 | EXTERNAL HOLDERS p. A283 | INTERNAL HOLDERS p. A287

VN

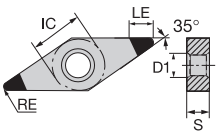
ISO - with hole

- 1st choice for intricate shape copy turning
- Can "In-Copy" (plunge turn into a smaller diameter) at an angle up to 49°
- Can work extremely close to the tailstock/ live center
- The weakest turning insert shape among all, ap and fn should be lighter
- Double sided style should mainly be used for external applications

BH: High volume CBN
BL: Low volume CBN
PVD: Physical vapour deposition

		BH PVD	BH PVD	BH	BL PVD	BL PVD
		NBH450C	NBH500C	NBH900U	NBL150C	NBL250C
Stable machining, light cut	● 1st choice ○ suitable	●	○	○	●	○
General machining, medium cut	● 1st choice ○ suitable	●	●	●	○	●
Unstable machining, heavy cut	● 1st choice ○ suitable	○	●	●		

Dimensions



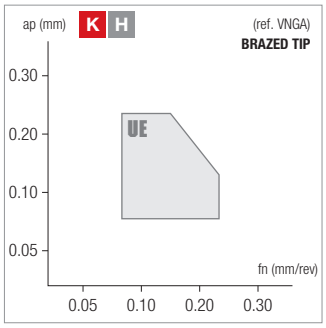
4 edges

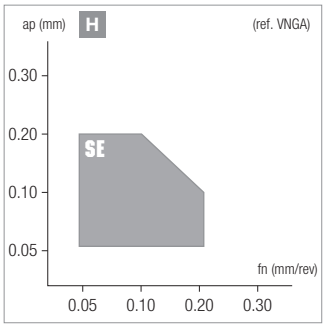
ISO	NBH450C	NBH500C	NBH900U	NBL150C	NBL250C
P					
M					
K	340 1000	300 1500	300 1100		
N					
S					
H			40 160	90 220	90 180

Vc(m/min) - suggested cutting speed range (bold: 1st choice)

	Designation		RE	IC	S	D1	LE	NBH450C	NBH500C	NBH900U	NBL150C	NBL250C	Stock
UNIVERSAL	UE K H vertical brazing	VNGA160404S-UE-4V	0.4	9.525	4.76	3.81	2.2		●	▽		○	
UNIVERSAL		VNGA160408S-UE-4V	0.8	9.525	4.76	3.81	2.3		●			○	
UNIVERSAL	UE K carbide backed	VNGA160404S-UE-4C	0.4	9.525	4.76	3.81	2.5	○					
UNIVERSAL		VNGA160408S-UE-4C	0.8	9.525	4.76	3.81	2.2	○					
SHARP	SE H vertical brazing	VNGA160404S-SE-4V	0.4	9.525	4.76	3.81	2.2				○		
SHARP		VNGA160408S-SE-4V	0.8	9.525	4.76	3.81	2.3				○		

● stock standard, ○ non-standard stock, ▲ upcoming introduction, ▽ stock exhaustion





PRODUCT SELECTION p. A99 | CUTTING CONDITIONS p. A128 | GRADES FEATURES p. A86 | EXTERNAL HOLDERS p. A291 | INTERNAL HOLDERS p. A295

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WN

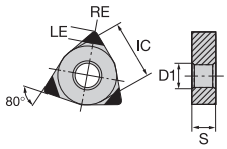
ISO - with hole

- 6-corner 80° diamond shape that can increase economy compared to CNGA-style inserts
- Generally used on more moderate depths of cut and feedrates than CNGA-style inserts
- Seating of insert in pocket is less stable as CNGA-style inserts
- Cannot take as deep a depth of cut as similar sized CNGA-style insert

BH: High volume CBN
BL: Low volume CBN
PVD: Physical vapour deposition

	NBH500C	NBH600U	NBH900U	NBL150C	NBL250C	NBL300C	NBL350C
	BH PVD	BH	BH	BL PVD	BL PVD	BL PVD	BL PVD
Stable machining, light cut (● 1st choice, ○ suitable)	○		○	●	○	○	
General machining, medium cut (● 1st choice, ○ suitable)	●	○	●	○	●	●	○
Unstable machining, heavy cut (● 1st choice, ○ suitable)	●	●	●			○	●

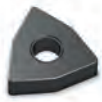
Dimensions



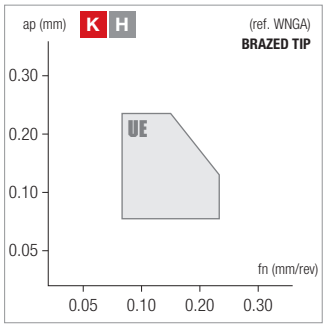
6 edges

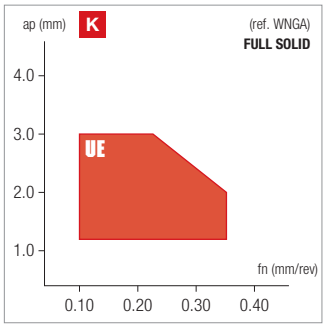
ISO	NBH500C	NBH600U	NBH900U	NBL150C	NBL250C	NBL300C	NBL350C
P							
M							
K	300 1500	300 1200	300 1100				
N							
S							
H			40 160	90 220	90 180	60 180	60 150

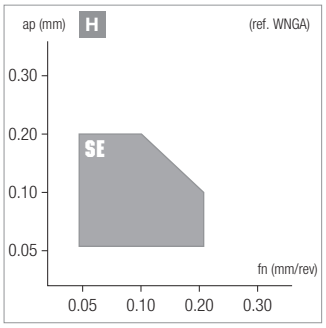
Vc(m/min) - suggested cutting speed range (bold: 1st choice)

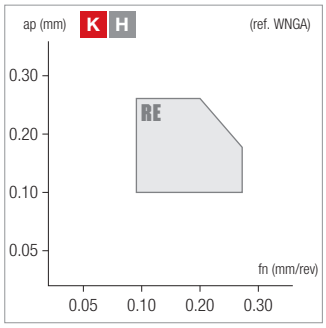
	Designation		RE	IC	S	D1	LE	Stock						
UNIVERSAL	UE K H vertical brazing	WNGA080404S-UE-6V	0.4	12.7	4.76	5.16	2.6			●		○	○	○
		WNGA080408S-UE-6V	0.8	12.7	4.76	5.16	2.6			○		●	●	○
		WNGA080412S-UE-6V	1.2	12.7	4.76	5.16	2.5			●		○	○	○
UNIVERSAL	UE K  full solid **high depth of cut**	WNGA080408S-UE	0.8	12.7	4.76	5.16	7.9	○	○					
		WNGA080412S-UE	1.2	12.7	4.76	5.16	7.5	○	○					
SHARP	SE H vertical brazing	WNGA080404S-SE-6V	0.4	12.7	4.76	5.16	2.6				○			
		WNGA080408S-SE-6V	0.8	12.7	4.76	5.16	2.6				○			
REINFORCED	RE K H vertical brazing **interrupted cut**	WNGA080404S-RE-6V	0.4	12.7	4.76	5.16	2.6			●				○
		WNGA080408S-RE-6V	0.8	12.7	4.76	5.16	2.6			●				●
		WNGA080412S-RE-6V	1.2	12.7	4.76	5.16	2.5			●				○

● stock standard, ○ non-standard stock, ▲ upcoming introduction, ▽ stock exhaustion









PRODUCT SELECTION p. A99 | CUTTING CONDITIONS p. A128 | GRADES FEATURES p. A86 | EXTERNAL HOLDERS p. A299 | INTERNAL HOLDERS p. A302

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ISO 513	MATERIAL	HARDNESS HB	NBH450C			NBH450U			NBH500C		
			min	start	max	min	start	max	min	start	max
K1	Grey cast iron (ex. 0.6025/GG25/EN-GJL-250)	150 ÷ 250	400	**700**	1000	400	**700**	1000	500	**1000**	1500
			380	**650**	920	380	**650**	920	400	**900**	1400
			340	**600**	860	340	**600**	860	300	**800**	1300

ISO 513	MATERIAL	HARDNESS HRC	NBL050C / CX			NBL150C			NBL200C		
			min	start	max	min	start	max	min	start	max
H1	Case-hardened steel (ex. 1.7131/16MnCr5)	50 ÷ 56	120	**200**	280	100	**160**	220	100	**150**	200
						90	**150**	210	90	**135**	180
H2	Bearing steel, quenched and tempered steel (ex.1.3505/100Cr6)	54 ÷ 62	100	**170**	240	100	**150**	200	100	**140**	180
						90	**140**	190	90	**130**	170
H3	Hardened tool steel (ex 1.2436/X210CrW12)	60 ÷ 65	100	**140**	180	80	**130**	180	80	**120**	160
						70	**120**	170	70	**110**	150
H4	White cast iron (ex 0.9625/G-X260NiCr42)	54 ÷ 62									

Complete workpiece materials p. **H**1.

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NBH500U				NBH600U				NBH900U				NBH950U							
	min	start	max		min	start	max		min	start	max		min	start	max				
○	500	**1000**	1500					○	500	**800**	1100								
●	400	**900**	1400	◯	400	**800**	1200	●	400	**700**	1000	◯	400	**600**	800				
✱	300	**800**	1300	✱	300	**600**	900	✱	300	**600**	900	✱	300	**500**	700				
NBL250C				**NBL300C**				**NBL350C**				**NBH500C**				**NBH900U**				**NBH950U**			
	min	start	max		min	start	max		min	start	max		min	start	max		min	start	max		min	start	max
○	100	**140**	180	○	80	**130**	180																
●	90	**130**	170	●	70	**120**	170	◯	70	**110**	150												
				⊕	60	**110**	160	✱	60	**100**	140												
○	80	**130**	180	○	80	**120**	160									○	80	**130**	180				
●	70	**120**	170	●	70	**110**	150	◯	70	**100**	130					●	70	**120**	170				
				⊕	60	**100**	140	✱	60	**90**	120					✱	65	**110**	155				
○	70	**110**	150	○	70	**100**	130									○	70	**110**	150				
●	60	**100**	140	●	60	**90**	120	◯	60	**80**	100					●	60	**100**	140				
				⊕	50	**80**	110	✱	50	**70**	90					✱	60	**90**	120				
												○	100	**140**	180	○	80	**130**	180				
												●	90	**130**	170	●	70	**120**	170	◯	80	**130**	180
												✱	80	**120**	160	✱	50	**100**	150	✱	70	**110**	150

Complete workpiece materials p. **H**1.

TURNING Parameters - depht of cut and feed rate · **PCBN**

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DESIGNATION	DEPTH OF CUT			FEED RATE		
	ap (mm)			fn (mm/rev)		
	min	start	max	min	start	max
CCGW060202S-SE-2S	0.05	**0.10**	0.15	0.04	**0.06**	0.08
CCGW060202S-UE-2S	0.06	**0.13**	0.20	0.05	**0.10**	0.15
CCGW060202T-SF-2S	0.05	**0.10**	0.15	0.04	**0.06**	0.08
CCGW060204S-RE-2S	0.08	**0.16**	0.25	0.06	**0.13**	0.20
CCGW060204S-SE-2S	0.05	**0.10**	0.15	0.04	**0.08**	0.12
CCGW060204S-UE-2C	0.06	**0.13**	0.20	0.06	**0.12**	0.18
CCGW060204S-UE-2S	0.06	**0.13**	0.20	0.06	**0.12**	0.18
CCGW060204S-WE-2S	0.05	**0.10**	0.15	0.07	**0.14**	0.21
CCGW060204T-SF-2S	0.05	**0.10**	0.15	0.04	**0.08**	0.12
CCGW060208S-RE-2S	0.08	**0.16**	0.25	0.06	**0.14**	0.22
CCGW060208S-SE-2S	0.05	**0.10**	0.15	0.05	**0.10**	0.15
CCGW060208S-UE-2C	0.06	**0.13**	0.20	0.06	**0.13**	0.20
CCGW060208S-UE-2S	0.06	**0.13**	0.20	0.06	**0.13**	0.20
CCGW09T302S-SE-2S	0.05	**0.10**	0.15	0.04	**0.06**	0.08
CCGW09T302S-UE-2S	0.06	**0.13**	0.20	0.05	**0.10**	0.15
CCGW09T304S-RE-2S	0.08	**0.16**	0.25	0.06	**0.13**	0.20
CCGW09T304S-SE-2S	0.05	**0.10**	0.15	0.04	**0.08**	0.12
CCGW09T304S-UE-2C	0.06	**0.13**	0.20	0.06	**0.12**	0.18
CCGW09T304S-UE-2S	0.06	**0.13**	0.20	0.06	**0.12**	0.18
CCGW09T304S-WE-2S	0.05	**0.10**	0.15	0.07	**0.14**	0.21
CCGW09T304T-SF-2S	0.05	**0.10**	0.15	0.04	**0.08**	0.12
CCGW09T308S-RE-2S	0.08	**0.16**	0.25	0.06	**0.14**	0.22
CCGW09T308S-SE-2S	0.05	**0.10**	0.15	0.05	**0.10**	0.15
CCGW09T308S-UE-2C	0.06	**0.13**	0.20	0.06	**0.13**	0.20
CCGW09T308S-UE-2S	0.06	**0.13**	0.20	0.06	**0.13**	0.20
CCGW09T308S-WE-2S	0.05	**0.10**	0.15	0.07	**0.15**	0.23
CCGW09T308T-SF-2S	0.05	**0.10**	0.15	0.05	**0.10**	0.15
CCGW120404S-UE-2S	0.06	**0.13**	0.20	0.06	**0.12**	0.18
CCGW120408S-UE-2C	0.06	**0.13**	0.20	0.06	**0.13**	0.20
CCGW120408S-UE-2S	0.06	**0.13**	0.20	0.06	**0.13**	0.20
CNGA090308S-RE	0.50	**1.50**	2.50	0.08	**0.16**	0.24
CNGA090308S-UE	0.50	**1.50**	2.50	0.10	**0.20**	0.30
CNGA120404S-CF-4V	0.08	**0.17**	0.26	0.08	**0.14**	0.20
CNGA120404S-RE-4V	0.08	**0.17**	0.26	0.08	**0.14**	0.20
CNGA120404S-SE-4V	0.06	**0.13**	0.20	0.06	**0.12**	0.18
CNGA120404S-UE-4V	0.07	**0.16**	0.25	0.08	**0.14**	0.20
CNGA120404S-WE-4V	0.06	**0.13**	0.20	0.10	**0.17**	0.24
CNGA120408S-CF-4V	0.08	**0.17**	0.26	0.08	**0.15**	0.22
CNGA120408S-CFW-4V	0.08	**0.17**	0.26	0.10	**0.19**	0.28
CNGA120408S-CM-4V	0.30	**0.50**	0.70	0.08	**0.16**	0.24
CNGA120408S-CMW-4V	0.30	**0.50**	0.70	0.10	**0.20**	0.30
CNGA120408S-RE-4V	0.08	**0.17**	0.26	0.08	**0.16**	0.24
CNGA120408S-SE-4V	0.06	**0.13**	0.20	0.06	**0.13**	0.20
CNGA120408S-UE	1.00	**2.00**	3.00	0.10	**0.20**	0.30
CNGA120408S-UE-4C	0.07	**0.16**	0.25	0.08	**0.15**	0.22
CNGA120408S-UE-4V	0.07	**0.16**	0.25	0.08	**0.15**	0.22
CNGA120408S-WE-4V	0.06	**0.13**	0.20	0.10	**0.19**	0.28
CNGA120408T-SE-4C	0.06	**0.13**	0.20	0.06	**0.13**	0.20
CNGA120408T-SE-4V	0.06	**0.13**	0.20	0.06	**0.13**	0.20
CNGA120412S-CF-4V	0.08	**0.17**	0.26	0.08	**0.16**	0.24
CNGA120412S-CFW-4V	0.08	**0.17**	0.26	0.10	**0.20**	0.30
CNGA120412S-CM-4V	0.30	**0.50**	0.70	0.08	**0.17**	0.26
CNGA120412S-CMW-4V	0.30	**0.50**	0.70	0.10	**0.22**	0.34
CNGA120412S-RE-4V	0.08	**0.17**	0.26	0.08	**0.17**	0.26
CNGA120412S-SE-4V	0.06	**0.13**	0.20	0.06	**0.14**	0.22
CNGA120412S-UE	1.00	**2.00**	3.00	0.10	**0.23**	0.36

DESIGNATION	DEPTH OF CUT			FEED RATE		
	ap (mm)			fn (mm/rev)		
	min	start	max	min	start	max
CNGA120412S-UE-4C	0.07	**0.16**	0.25	0.08	**0.16**	0.24
CNGA120412S-UE-4V	0.07	**0.16**	0.25	0.08	**0.16**	0.24
CNGA120412S-WE-4V	0.06	**0.13**	0.20	0.10	**0.20**	0.30
CNGN090308S-UE	0.50	**1.50**	2.50	0.10	**0.20**	0.30
CNGN090312S-UE	0.50	**1.50**	2.50	0.10	**0.23**	0.36
CNGN090316S-UE	0.50	**1.50**	2.50	0.10	**0.25**	0.40
CNGN120408S-UE	1.00	**2.00**	3.00	0.10	**0.20**	0.30
CNGN120412S-UE	1.00	**2.00**	3.00	0.10	**0.23**	0.36
CNGN120416S-UE	1.00	**2.00**	3.00	0.10	**0.25**	0.40
CNGX120712S-UE	1.00	**2.00**	3.00	0.10	**0.23**	0.36
CNGX120716S-UE	1.00	**2.00**	3.00	0.10	**0.25**	0.40
DCGW070202S-SE-2S	0.05	**0.10**	0.15	0.04	**0.06**	0.08
DCGW070202S-UE-2S	0.06	**0.13**	0.20	0.05	**0.10**	0.15
DCGW070202T-SF-2S	0.05	**0.10**	0.15	0.04	**0.06**	0.08
DCGW070204S-RE-2S	0.08	**0.16**	0.25	0.06	**0.13**	0.20
DCGW070204S-SE-2S	0.05	**0.10**	0.15	0.04	**0.08**	0.12
DCGW070204S-UE-2S	0.06	**0.13**	0.20	0.06	**0.12**	0.18
DCGW070204T-SF-2S	0.05	**0.10**	0.15	0.04	**0.08**	0.12
DCGW070208S-RE-2S	0.08	**0.16**	0.25	0.06	**0.14**	0.22
DCGW070208S-SE-2S	0.05	**0.10**	0.15	0.05	**0.10**	0.15
DCGW070208S-UE-2S	0.06	**0.13**	0.20	0.06	**0.12**	0.18
DCGW11T302S-SE-2S	0.05	**0.10**	0.15	0.04	**0.06**	0.08
DCGW11T302S-UE-2S	0.06	**0.13**	0.20	0.05	**0.10**	0.15
DCGW11T302T-SF-2S	0.05	**0.10**	0.15	0.04	**0.06**	0.08
DCGW11T304S-RE-2S	0.08	**0.16**	0.25	0.06	**0.13**	0.20
DCGW11T304S-SE-2S	0.05	**0.10**	0.15	0.04	**0.08**	0.12
DCGW11T304S-UE-2C	0.06	**0.13**	0.20	0.06	**0.12**	0.18
DCGW11T304S-UE-2S	0.06	**0.13**	0.20	0.06	**0.12**	0.18
DCGW11T304T-SF-2S	0.05	**0.10**	0.15	0.04	**0.08**	0.12
DCGW11T308S-RE-2S	0.08	**0.16**	0.25	0.06	**0.14**	0.22
DCGW11T308S-SE-2S	0.05	**0.10**	0.15	0.05	**0.10**	0.15
DCGW11T308S-UE-2C	0.06	**0.13**	0.20	0.06	**0.13**	0.20
DCGW11T308S-UE-2S	0.06	**0.13**	0.20	0.06	**0.13**	0.20
DCGW11T308T-SF-2S	0.05	**0.10**	0.15	0.05	**0.10**	0.15
DNGA150404S-SE-4V	0.06	**0.13**	0.20	0.06	**0.12**	0.18
DNGA150404S-UE-4V	0.07	**0.16**	0.25	0.08	**0.14**	0.20
DNGA150408S-SE-4V	0.06	**0.13**	0.20	0.06	**0.13**	0.20
DNGA150408S-UE-4V	0.07	**0.16**	0.25	0.08	**0.15**	0.22
DNGA150604S-RE-4S	0.08	**0.17**	0.26	0.08	**0.14**	0.20
DNGA150604S-SE-4S	0.06	**0.13**	0.20	0.06	**0.12**	0.18
DNGA150604S-UE-4S	0.07	**0.16**	0.25	0.08	**0.14**	0.20
DNGA150604S-UE-4V	0.07	**0.16**	0.25	0.08	**0.14**	0.20
DNGA150608S-RE-4S	0.08	**0.17**	0.26	0.08	**0.16**	0.24
DNGA150608S-SE-4S	0.06	**0.13**	0.20	0.06	**0.13**	0.20
DNGA150608S-UE	1.00	**2.00**	3.00	0.10	**0.20**	0.30
DNGA150608S-UE-4C	0.07	**0.16**	0.25	0.08	**0.15**	0.22
DNGA150608S-UE-4S	0.07	**0.16**	0.25	0.08	**0.15**	0.22
DNGA150608S-UE-4V	0.07	**0.16**	0.25	0.08	**0.15**	0.22
DNGA150612S-RE-4S	0.08	**0.17**	0.26	0.08	**0.17**	0.26
DNGA150612S-UE	1.00	**2.00**	3.00	0.10	**0.23**	0.36
DNGA150612S-UE-4S	0.07	**0.16**	0.25	0.08	**0.16**	0.24
DNGA150612S-UE-4V	0.07	**0.16**	0.25	0.08	**0.16**	0.24
MCC.R02S-CS-1C	0.05	**0.10**	0.15	0.04	**0.06**	0.08
MCC.R02T-CC-1C	0.05	**0.10**	0.15	0.04	**0.06**	0.08
MCC.R02T-GP-1C	0.06	**0.13**	0.20	0.05	**0.10**	0.15
MCC.R04T-GP-1C	0.06	**0.13**	0.20	0.06	**0.12**	0.18

DESIGNATION	DEPTH OF CUT			FEED RATE		
	ap (mm)			fn (mm/rev)		
	min	start	max	min	start	max
MCN.R02S-GP-4V	0.07	**0.16**	0.25	0.06	**0.12**	0.18
MCN.R02S-SE-4V	0.06	**0.13**	0.20	0.05	**0.10**	0.15
MCN.R02S-UE-4V	0.07	**0.16**	0.25	0.06	**0.12**	0.18
MCN.R04S-CC-4V	0.06	**0.13**	0.20	0.06	**0.12**	0.18
MCN.R04S-GP-4V	0.07	**0.16**	0.25	0.08	**0.14**	0.20
MCN.R04S-SE-4V	0.06	**0.13**	0.20	0.06	**0.12**	0.18
MCN.R04S-UE-4V	0.07	**0.16**	0.25	0.08	**0.14**	0.20
MCN.R08S-CC-4V	0.06	**0.13**	0.20	0.06	**0.13**	0.20
MCN.R08S-GP-4V	0.07	**0.16**	0.25	0.08	**0.15**	0.22
MCN.R08S-SE-4V	0.06	**0.13**	0.20	0.06	**0.13**	0.20
MCN.R08S-UE-4V	0.07	**0.16**	0.25	0.08	**0.15**	0.22
MDN.R02S-CC-4V	0.06	**0.13**	0.20	0.05	**0.10**	0.15
MDN.R02S-GP-4V	0.07	**0.16**	0.25	0.06	**0.12**	0.18
MDN.R02S-SE-4V	0.06	**0.13**	0.20	0.05	**0.10**	0.15
MDN.R02S-UE-4V	0.07	**0.16**	0.25	0.06	**0.12**	0.18
MDN.R04S-CC-4V	0.06	**0.13**	0.20	0.06	**0.12**	0.18
MDN.R04S-GP-4V	0.07	**0.16**	0.25	0.08	**0.14**	0.20
MDN.R04S-SE-4V	0.06	**0.13**	0.20	0.06	**0.12**	0.18
MDN.R04S-UE-4V	0.07	**0.16**	0.25	0.08	**0.14**	0.20
MDN.R08S-CC-4V	0.06	**0.13**	0.20	0.06	**0.13**	0.20
MDN.R08S-GP-4V	0.07	**0.16**	0.25	0.08	**0.15**	0.22
MDN.R08S-SE-4V	0.06	**0.13**	0.20	0.06	**0.13**	0.20
MDN.R08S-UE-4V	0.07	**0.16**	0.25	0.08	**0.15**	0.22
RCGX090700S-UE	0.50	**1.50**	2.50	0.10	**0.30**	0.50
RCGX120700S-UE	0.50	**2.00**	3.50	0.10	**0.35**	0.60
RNGN060300S-UE	0.50	**1.00**	1.50	0.10	**0.20**	0.30
RNGN090300S-RE	0.50	**1.50**	2.50	0.15	**0.35**	0.55
RNGN090300S-RH	0.50	**1.50**	2.50	0.15	**0.35**	0.55
RNGN090300S-UE	0.50	**1.50**	2.50	0.10	**0.30**	0.50
RNGN090300T-SE	0.20	**1.00**	1.80	0.10	**0.20**	0.30
RNGN120300S-UE	0.50	**2.00**	3.50	0.10	**0.35**	0.60
RNGN120400S-RE	0.50	**2.00**	3.50	0.10	**0.45**	0.80
RNGN120400S-UE	0.50	**2.00**	3.50	0.10	**0.35**	0.60
SNGA120404S-UE-8V	0.07	**0.16**	0.25	0.08	**0.14**	0.20
SNGA120408S-UE	1.00	**2.00**	3.00	0.10	**0.20**	0.30
SNGA120408S-UE-8V	0.07	**0.16**	0.25	0.08	**0.15**	0.22
SNGA120412S-UE	1.00	**2.00**	3.00	0.10	**0.23**	0.36
SNGA120412S-UE-8V	0.07	**0.16**	0.25	0.08	**0.16**	0.24
SNGN090308S-UE	0.50	**1.50**	2.50	0.10	**0.20**	0.30
SNGN090312S-UE	0.50	**1.50**	2.50	0.10	**0.23**	0.36
SNGN090316S-UE	0.50	**1.50**	2.50	0.10	**0.25**	0.40
SNGN090412S-UE	0.50	**1.50**	2.50	0.10	**0.23**	0.36
SNGN120408S-UE	1.00	**2.00**	3.00	0.10	**0.20**	0.30
SNGN120412S-UE	1.00	**2.00**	3.00	0.10	**0.23**	0.36
SNGN120416S-UE	1.00	**2.00**	3.00	0.10	**0.25**	0.40
SNGX120412S-UE	1.00	**2.00**	3.00	0.10	**0.23**	0.36
SNGX120712S-UE	1.00	**2.00**	3.00	0.10	**0.23**	0.36
SNGX120716S-UE	1.00	**2.00**	3.00	0.10	**0.25**	0.40
TCGW090204S-UE-3C	0.06	**0.13**	0.20	0.06	**0.12**	0.18
TCGW110204S-RE-3S	0.08	**0.16**	0.25	0.06	**0.13**	0.20
TCGW110204S-SE-3S	0.05	**0.10**	0.15	0.04	**0.08**	0.12
TCGW110204S-UE-3C	0.06	**0.13**	0.20	0.06	**0.12**	0.18
TCGW110204S-UE-3S	0.06	**0.13**	0.20	0.06	**0.12**	0.18
TCGW110204T-SE-3C	0.05	**0.10**	0.15	0.04	**0.08**	0.12
TCGW110208S-RE-3C	0.08	**0.16**	0.25	0.06	**0.14**	0.22
TCGW110208S-RE-3S	0.08	**0.16**	0.25	0.06	**0.14**	0.22

DESIGNATION	DEPTH OF CUT			FEED RATE		
	ap (mm)			fn (mm/rev)		
	min	start	max	min	start	max
TCGW110208S-SE-3S	0.05	**0.10**	0.15	0.05	**0.10**	0.15
TCGW110208S-UE-3C	0.06	**0.13**	0.20	0.06	**0.13**	0.20
TCGW110208S-UE-3S	0.06	**0.13**	0.20	0.06	**0.13**	0.20
TCGW16T304S-RE-3S	0.08	**0.16**	0.25	0.06	**0.13**	0.20
TCGW16T304S-SE-3S	0.05	**0.10**	0.15	0.04	**0.08**	0.12
TCGW16T304S-UE-3C	0.06	**0.13**	0.20	0.06	**0.12**	0.18
TCGW16T304S-UE-3S	0.06	**0.13**	0.20	0.06	**0.12**	0.18
TCGW16T308S-RE-3C	0.08	**0.16**	0.25	0.06	**0.14**	0.22
TCGW16T308S-RE-3S	0.08	**0.16**	0.25	0.06	**0.14**	0.22
TCGW16T308S-SE-3S	0.05	**0.10**	0.15	0.05	**0.10**	0.15
TCGW16T308S-UE-3C	0.06	**0.13**	0.20	0.06	**0.13**	0.20
TCGW16T308S-UE-3S	0.06	**0.13**	0.20	0.06	**0.13**	0.20
TNGA160404S-RE-6V	0.08	**0.17**	0.26	0.08	**0.14**	0.20
TNGA160404S-SE-6V	0.06	**0.13**	0.20	0.06	**0.12**	0.18
TNGA160404S-UE-6C	0.07	**0.16**	0.25	0.08	**0.14**	0.20
TNGA160404S-UE-6V	0.07	**0.16**	0.25	0.08	**0.14**	0.20
TNGA160408S-RE-6V	0.08	**0.17**	0.26	0.08	**0.16**	0.24
TNGA160408S-SE-6V	0.06	**0.13**	0.20	0.06	**0.13**	0.20
TNGA160408S-UE	1.00	**2.00**	3.00	0.10	**0.20**	0.30
TNGA160408S-UE-6C	0.07	**0.16**	0.25	0.08	**0.15**	0.22
TNGA160408S-UE-6V	0.07	**0.16**	0.25	0.08	**0.15**	0.22
TNGA160412S-RE-6V	0.08	**0.17**	0.26	0.08	**0.17**	0.26
TNGA160412S-SE-6V	0.06	**0.13**	0.20	0.06	**0.14**	0.22
TNGA160412S-UE	1.00	**2.00**	3.00	0.10	**0.23**	0.36
TNGA160412S-UE-6C	0.07	**0.16**	0.25	0.08	**0.16**	0.24
TNGA160412S-UE-6V	0.07	**0.16**	0.25	0.08	**0.16**	0.24
TNGN110308S-UE	0.50	**1.50**	2.50	0.10	**0.20**	0.30
TNGN160408S-UE	1.00	**2.00**	3.00	0.10	**0.20**	0.30
TPGW090204S-UE-3S	0.06	**0.13**	0.20	0.06	**0.12**	0.18
TPGW110302S-UE-3S	0.06	**0.13**	0.20	0.05	**0.10**	0.15
TPGW110304S-RE-3S	0.08	**0.16**	0.25	0.06	**0.13**	0.20
TPGW110304S-SE-3S	0.05	**0.10**	0.15	0.04	**0.08**	0.12
TPGW110304S-UE-3S	0.06	**0.13**	0.20	0.06	**0.12**	0.18
TPGW110308S-SE-3S	0.05	**0.10**	0.15	0.05	**0.10**	0.15
TPGW110308S-UE-3S	0.06	**0.13**	0.20	0.06	**0.13**	0.20
VBGW110302S-SE-2S	0.05	**0.10**	0.15	0.04	**0.06**	0.08
VBGW110302S-UE-2S	0.06	**0.13**	0.20	0.05	**0.10**	0.15
VBGW110302T-SF-2S	0.05	**0.10**	0.15	0.04	**0.06**	0.08
VBGW110304S-SE-2S	0.05	**0.10**	0.15	0.04	**0.08**	0.12
VBGW110304S-UE-2S	0.06	**0.13**	0.20	0.06	**0.12**	0.18
VBGW110304T-SF-2S	0.05	**0.10**	0.15	0.04	**0.08**	0.12
VBGW160402S-SE-2S	0.05	**0.10**	0.15	0.04	**0.06**	0.08
VBGW160402S-UE-2S	0.06	**0.13**	0.20	0.05	**0.10**	0.15
VBGW160402T-SF-2S	0.05	**0.10**	0.15	0.04	**0.06**	0.08
VBGW160404S-RE-2C	0.08	**0.16**	0.25	0.06	**0.13**	0.20
VBGW160404S-RE-2S	0.08	**0.16**	0.25	0.06	**0.13**	0.20
VBGW160404S-SE-2S	0.05	**0.10**	0.15	0.04	**0.08**	0.12
VBGW160404S-UE-2C	0.06	**0.13**	0.20	0.06	**0.12**	0.18
VBGW160404S-UE-2S	0.06	**0.13**	0.20	0.06	**0.12**	0.18
VBGW160404T-SF-2S	0.05	**0.10**	0.15	0.04	**0.08**	0.12
VBGW160408S-RE-2C	0.08	**0.16**	0.25	0.06	**0.14**	0.22
VBGW160408S-RE-2S	0.08	**0.16**	0.25	0.06	**0.14**	0.22
VBGW160408S-SE-2S	0.05	**0.10**	0.15	0.05	**0.10**	0.15
VBGW160408S-UE-2C	0.06	**0.13**	0.20	0.06	**0.13**	0.20
VBGW160408S-UE-2S	0.06	**0.13**	0.20	0.06	**0.13**	0.20
VBGW160408T-SF-2S	0.05	**0.10**	0.15	0.05	**0.10**	0.15

DESIGNATION	DEPTH OF CUT			FEED RATE		
	ap (mm)			fn (mm/rev)		
	min	start	max	min	start	max
VCGW110304S-SE-2S	0.05	**0.10**	0.15	0.04	**0.08**	0.12
VCGW110304S-UE-2S	0.06	**0.13**	0.20	0.06	**0.12**	0.18
VCGW160404S-SE-2S	0.05	**0.10**	0.15	0.04	**0.08**	0.12
VCGW160404S-UE-2S	0.06	**0.13**	0.20	0.06	**0.12**	0.18
VCGW160408S-SE-2S	0.05	**0.10**	0.15	0.05	**0.10**	0.15
VCGW160408S-UE-2S	0.06	**0.13**	0.20	0.06	**0.13**	0.20
VNGA160404S-SE-4V	0.06	**0.13**	0.20	0.06	**0.12**	0.18
VNGA160404S-UE-4C	0.07	**0.16**	0.25	0.08	**0.14**	0.20
VNGA160404S-UE-4V	0.07	**0.16**	0.25	0.08	**0.14**	0.20
VNGA160408S-SE-4V	0.06	**0.13**	0.20	0.06	**0.13**	0.20
VNGA160408S-UE-4C	0.07	**0.16**	0.25	0.08	**0.15**	0.22
VNGA160408S-UE-4V	0.07	**0.16**	0.25	0.08	**0.15**	0.22
WNGA080404S-RE-6V	0.08	**0.17**	0.26	0.08	**0.14**	0.20
WNGA080404S-SE-6V	0.06	**0.13**	0.20	0.06	**0.12**	0.18
WNGA080404S-UE-6V	0.07	**0.16**	0.25	0.08	**0.14**	0.20
WNGA080408S-RE-6V	0.08	**0.17**	0.26	0.08	**0.16**	0.24
WNGA080408S-SE-6V	0.06	**0.13**	0.20	0.06	**0.13**	0.20
WNGA080408S-UE	1.00	**2.00**	3.00	0.10	**0.20**	0.30
WNGA080408S-UE-6V	0.07	**0.16**	0.25	0.08	**0.15**	0.22
WNGA080412S-RE-6V	0.08	**0.17**	0.26	0.08	**0.17**	0.26
WNGA080412S-UE	1.00	**2.00**	3.00	0.10	**0.23**	0.36
WNGA080412S-UE-6V	0.07	**0.16**	0.25	0.08	**0.16**	0.24

TURNING Diamond

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TURNING Grade table · DIAMOND

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ISO 513		DIAMOND		
		PCD	CVD	MONO
N Non-ferrous materials	N01	ND190, ND150, ND100, ND050	NDD*	NDM*
	N10			
	N20			
	N30			
S HRSA	S01			
	S10	ND050		
	S20			
	S30			
H Hardened steel	H01	ND190		
	H10			
	H20			
	H30			

HRSA: Heat resistant super alloyw

*NDD-CVD diamond and NDM-monocrystalline diamond are available upon request

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GRADE	COMPOSITION	HARDNESS HV	GRAIN SIZE	BINDER	APPLICATION		FEATURES
ND050 new name: **NDP001**	diamond 85%	5.000	~ 1 µm	Wc + Co	N	N20 N35	Excellent surface finishing and very good toughness. First choice for titanium alloys machining.
ND100 new name: **NDP010**	diamond 95%	6.000	10 µm	Wc + Co	N	N10 N30	First choice for all-around application on non-ferrous materials.
ND150 new name: **NDP302**	diamond 95%	7.000	multi-modal 30 + 2 µm	Wc + Co	N	N05 N25	Multi-modal grade for a perfect combination between toughness and wear resistance. Good solution for high silicon aluminium and bi-metal applications.
ND190 new name: **NDP025**	diamond 90%	7.000	25 µm	Wc + Co	N	N01 N15	Excellent wear resistance. First choiche for high silicon alluminium alloys (Si > 13%), tungsten carbide and ceramic.
NDD CVD diamond	-	8.000	-	binder free	N	N01 N10	Better tool life compared to PCD grades. Best performance on abrasive materials like, AlSi, graphite, CFRP carbon fiber-reinforced plastic.
NDM Monocrystalline diamond	-	10.000	-	binder free	N	N01 N05	Best surface finishing (roughness values are in the order of nanometres) unattainable with conventional polycrystalline tool materials.

NDD-CVD diamond and NDM-monocrystalline diamond are available upon request
ND120: same features of ND100

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ISO 513		nikkoTOOLS	ISCAR	KENNAMETAL	KYOCERA	MITSUBISHI	SANDVIK	SECO	SUMITOMO	TAEGUTEC	TUNGALOY	WALTER
N	N01 - N10	ND150 ND190		KD1405		MD205 MD220		PCD30	DA90	TD810	DX140 DX160	
	N10 - N20	ND100 ND150	ID5	KD1425	KPD010	MD220 MD230	CD10	PCD20	DA150	KP300	DX120 DX140	WDN10
	N20 - N30	ND050 ND100	ID5	KD1400	KPD001 KPD010	MD230 MD2030	CD05 CD10	PCD20	DA1000 DA2200	TD830	DX110 DX120	WDN10

This table is our own estimation based on information available to the public and is not authorized by the company mentioned on it.

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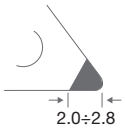
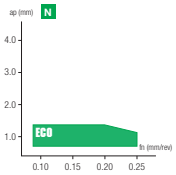
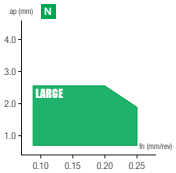
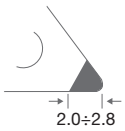
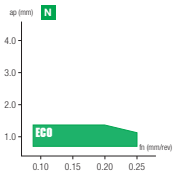
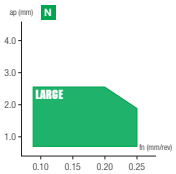
NEGATIVE type with hole				C	D	T	W		
				80°	55°	60°	80°		
N	SLANT TIP	ECO  2.0÷2.8		A147 SIZE 12	A150 SIZE 15	A156 SIZE 16	A162 SIZE 08		
	SLANT TIP	LARGE 3.5÷4.3		A147 SIZE 12	A150 SIZE 15	A156 SIZE 16	A162 SIZE 08		
	FLAT TIP	ECO  2.0÷2.8		A147 SIZE 12	A150 SIZE 15	A156 SIZE 16	A162 SIZE 08		
	FLAT TIP	LARGE 3.5÷4.3		A147 SIZE 12	A150 SIZE 15	A156 SIZE 16	A162 SIZE 08		

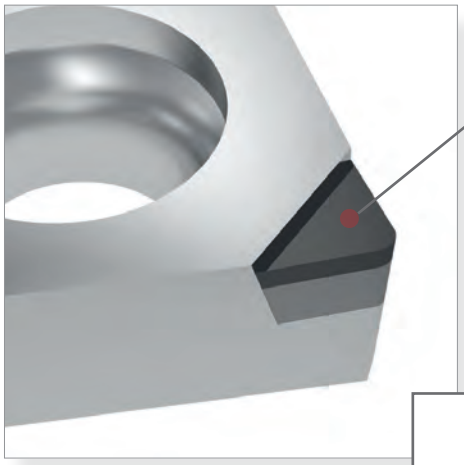
		POSITIVE type with hole		C	D	T	V		
				80°	55°	60°	35°		
N	SLANT TIP	ECO (1.5÷3.0)	ECO	CC A145 SIZE 06 09 12	DC A148 SIZE 07 11	TC, TP A154, A157 SIZE 08 09 11 16	VB, VC A158, A160 SIZE 11 16		
	SLANT TIP	LARGE (2.9÷4.5)	LARGE	CC A145 SIZE 06 09 12	DC A148 SIZE 07 11	TC A154 SIZE 11 16	VB, VC A158, A160 SIZE 16		
	FLAT TIP	ECO (1.5÷3.0)	ECO	CC A145 SIZE MCC 06 09 12	DC A148 SIZE 07 11	TC, TP A154, A157 SIZE 08 09 11 16	VB, VC A158, A160 SIZE 11 16		
	FLAT TIP	LARGE (2.9÷4.5)	LARGE	CC A145 SIZE 06 09 12	DC A148 SIZE 07 11	TC A154 SIZE 11 16	VB, VC A158, A160 SIZE 16		
	3D CHIPBREAKER	CBU (0.04, 30°)	CBU	CC A146 SIZE 06 09	DC A149 SIZE 07 11	TC A155 SIZE 11 16	VC A161 SIZE 11 16		
	3D CHIPBREAKER	CBF (0.05, 30°)	CBF	CC A146 SIZE 06	DC A149 SIZE 07 11	TC, TP A155, A157 SIZE 09 11 16	VB, VC A158, A160 SIZE 11 16		
	3D CHIPBREAKER	CBG (0.1, 20°)	CBG	CC A146 SIZE 09	DC A149 SIZE 11	TC, TP A155, A157 SIZE 09 11 16	VB, VC A158, A160 SIZE 11 16		
	FULL EDGE	1S	1S	CC A146 SIZE 06 09	DC A149 SIZE 07 11	TC A155 SIZE 09 11 16	VC A161 SIZE 11 16		
	FULL FACE	FF	FF	CC A146 SIZE 09	DC A149 SIZE 07 11	TC A155 SIZE 11 16			

Slant tip

Cutting edge

· The diamond tip is brazed with an inclination of 7°÷10°. This solution is available both for eco and large tip dimensions
· Positive rake angle effectively reduces vibration and burr formation
· Creating smaller cutting force, the slant tip is especially helpful on long shaft and thin wall work piece machining
· Tailored combination of small radii with clearanced flank face

Features of Slant tip cutting edge

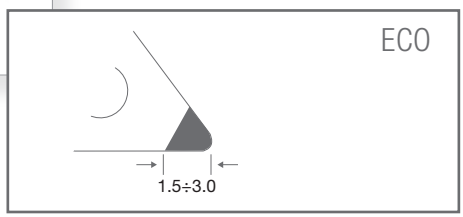


SOFT CUTTING ACTION

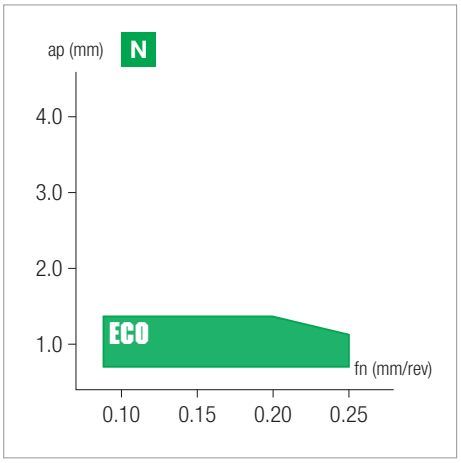
· The cutting edge is completely sharp (F type) as for all NIKKO diamond solutions
· The rake angle of all slant type is from 7° to 10°

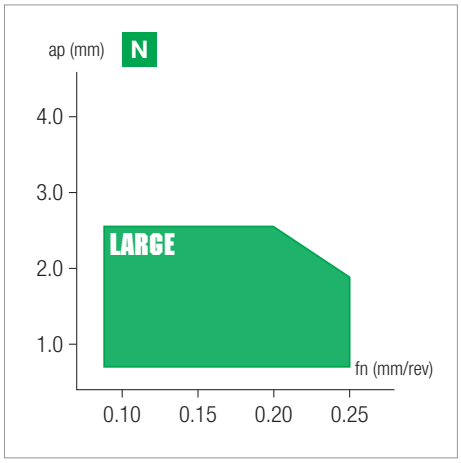
BROAD RANGE

· The availability of different tip sizes allow to face both finishing and roughing applications

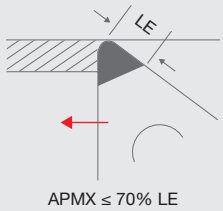


Application range





MAXIMUM ap



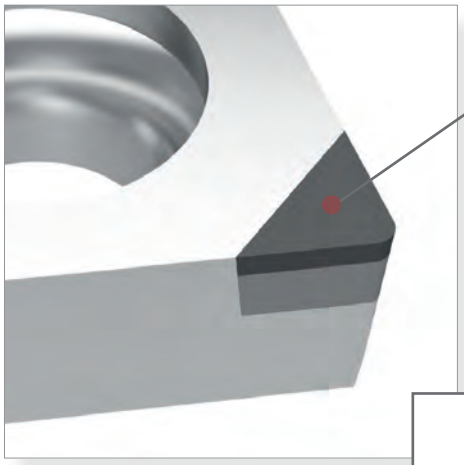
The maximun depht of cut (APMX) can be calculated as 70% of diamond tip lenght.

Flat tip

Cutting edge

· All-around solution for every kind of operation on non-ferrous materials. The diamond tip is completely flat and is available both with eco and large tip dimensions
· Reliable and strong cutting edge able to produce excellent surface finishing
· The flat cutting edge can be used on both continuous and interrupted cutting

Features of Flat tip cutting edge

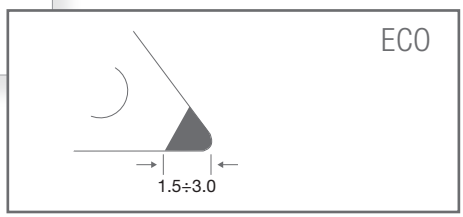


RELIABLE CUTTING EDGE

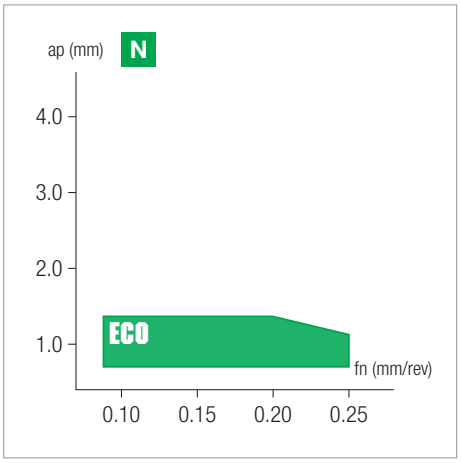
· Sharp edge combined with robust rake face well balances the edge strength
· Firts choice for universal use

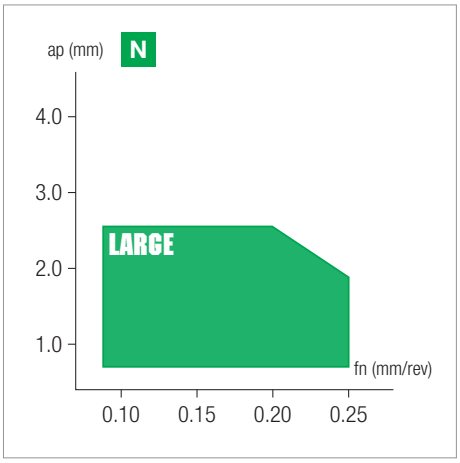
BROAD RANGE

· Different tip sizes available covering various applications from finishing to roughing

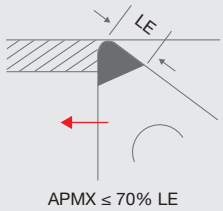


Application range





MAXIMUM ap



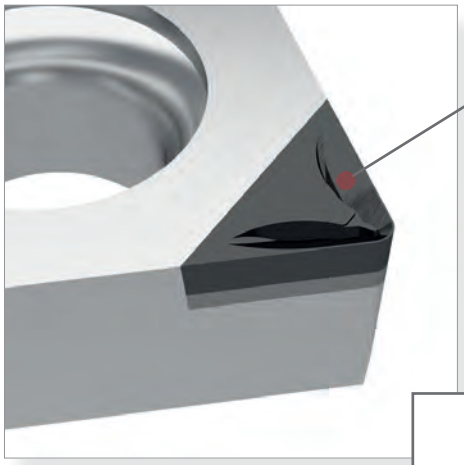
The maximun depht of cut (APMX) can be calculated as 70% of diamond tip lenght.

CBU - 3D chipbreaker

Cutting edge

- Programed geometry implemented by latest laser technology, offers excellent chip control
- Variable edge adapted the geometry from finishing to roughing
- Recommended for mass production especially automated manipulations of workpieces thanks to the better chip control
- Effectively avoids twisted chips scratching the already machined surface

Features of CBU chipbreaker

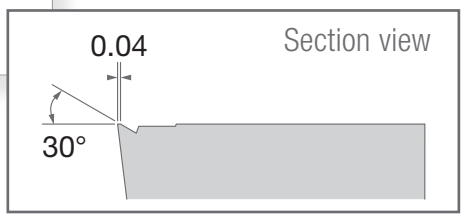


STATE OF THE ART GEOMETRY

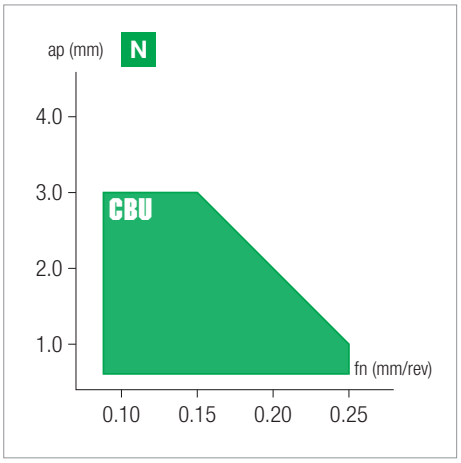
- Optimized rake face and tailored chip groove effectively improves the chip control performances
- Variable land to support broad range of application from finishing to roughing

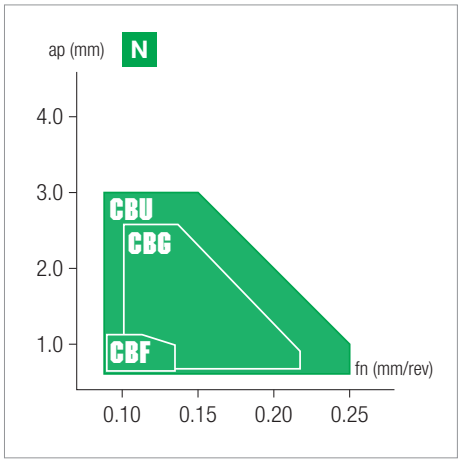
BROAD RANGE

- Most common shapes and radii available as standard
- Tailor-made also possible upon request

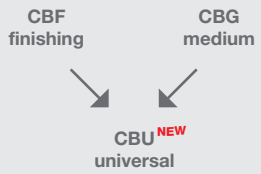


Application range





CBU VS. CONVENTIONAL STYLE



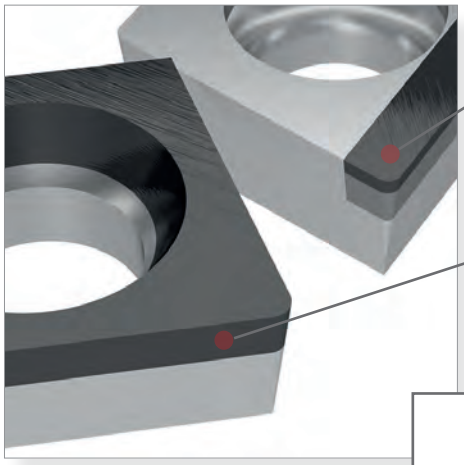
CBU cover the application range of our previous series (CBF, CBG) with improved performances.

Full Face/Full Edge

Cutting edge

· Extra large diamond in full edge or full face for the severe or special cutting conditions
· Big size cutting edge for most severe cutting conditions with full face or with full cutting edge
· Best solutions for high depth of cut of high feed rate, chamfering application and whenever a long diamond tip is necessary due to a specific workpiece shape
· For full edge type (1S) generally is necessary to define the cutting direction (R or L)

Features of long cutting edge types

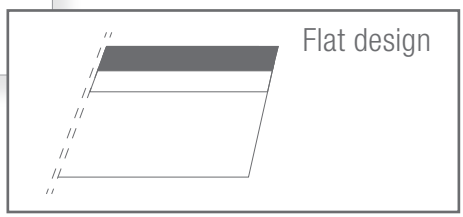


1S - FULL EDGE

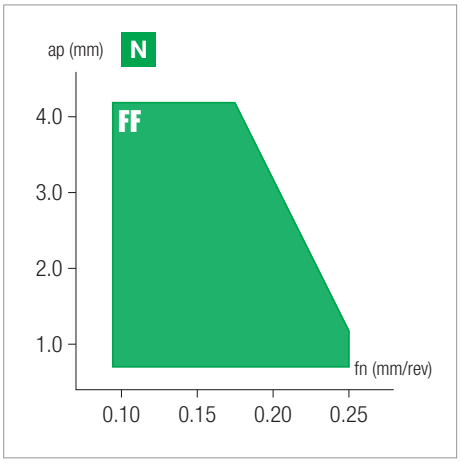
· Increased tip length allows higher depth of cut in comparison with conventional type
· Very common for long chamfering application

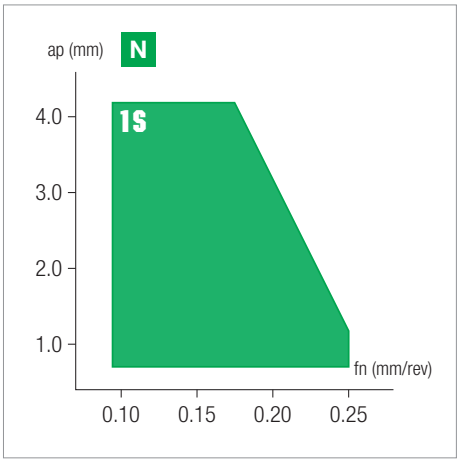
FF - FULL FACE

· Great cost effective solution due to multiple cutting edges available
· Maximum connection strength between PCD layer and carbide support

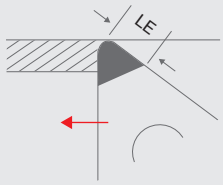


Application range





MAXIMUM ap



APMX ≤ 70% LE

The maximun depht of cut (APMX) can be calculated as 70% of diamond tip lenght.

nikkoTOOLS

N		STANDARD TIP		CHIPBREAKER			
		NEGATIVE	POSITIVE	NEGATIVE	POSITIVE		
	wear resistance	ND150	ND150	-	-		
	▲ 1st CHOICE ▼	**ND100**	**ND100**	**-**	**NDP010 / CBU**		
	toughness	ND050	ND050	-	-		
	wear resistance	ND150	ND150	-	-		
	▲ 1st CHOICE ▼	**ND100**	**ND100**	**-**	**NDP010 / CBU**		
	toughness	ND050	ND050	-	-		
	wear resistance	ND100	ND100	-	-		
	▲ 1st CHOICE ▼	**ND050**	**ND050**	**-**	**-**		
	toughness	-	-	-	-		

TURNING Designation system · DIAMOND

nikkoTOOLS

D	C	G	X	11	T3	04	-	CBU	-	NDP	010
1	2	3	4	5	6	7		8		9	10

1	SHAPE
C	80° rhombic
D	55° rhombic
K	55° parallelogram
S	90° square
T	60° triangular
V	35° rhombic
W	80° trigon

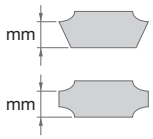
2	RELIEF ANGLE
B	5°
C	7°
D	15°
E	20°
N	0°
P	11°

3	TOLERANCES		
Symbol	I.C.	Thickness	Corner height
E	±0.025	±0.025	±0.025
G	±0.025	±0.13	±0.025
M	±0.05 ~ ±0.15	±0.13	±0.08 ~ ±0.18
U	±0.08 ~ ±0.25	±0.13	±0.13 ~ ±0.38

4	HOLE/CHIPBREAKER		
Symbol	Hole	Hole countersink	Chipbreaker
A	✓	✗	✗
G	✓	✗	double sided
M	✓	✗	single sided
N	✗	✗	✗
T	✓	40°÷60°	single sided
W	✓	40°÷60°	✗
X	NIKKO norm		

5	EDGE LENGHT						
I.C. (mm)	C shape	D shape	R shape	S shape	T shape	V shape	W shape
3.97	03	04		03	06		
4.76	04	05		04	08	08	
5.00			05				
5.56	05	06		05	09		03
6.00			06				
6.35	06	07		06	11	11	04
7.94	08	09		07	13		05
8.00			08				
9.53	09	11	09	09	16	16	06
10.00		12	10				
12.00							
12.70	12	15	12	12	22	22	08
15.88	16	19	15	15	27	24	10
16.00			16				
19.05	19	23	19	19	33	33	13
20.00			20				
22.23	22	27		22	38		
25.00			25				
25.40	25	31	25	25	44	44	17
31.75	32	38	31	31	54	54	21
32.00			32				

6	THICKNESS
Symbol	(mm)
01	1.59
T1	1.98
02	2.38
T2	2.78
03	3.18
T3	3.97
04	4.76
05	5.56
06	6.35
07	7.94
09	9.53



7	RADIUS
Symbol	(mm)
005	0.05
01	0.10
02	0.20
04	0.40
08	0.80
12	1.20
16	1.60
20	2.00
24	2.40

8	EDGES GEOMETRY
1S	full edge
CBU	3D chipbreaker
FF	full face
LRG	large tip size
-	eco tip size

9	GRADE - features
NDD	CVD diamond
NDM	monocrystalline diamond
NDP	PCD polycristalline diamond

10	GRADE - grit size
xxx	diamond grit (µm)

CC

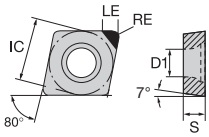
ISO - with hole

- The most popular insert shape due to high versatility
- Clearance angle 7°, effectively reduces the risk of chip jamming when boring
- 80° corner can be used for both turning and facing operations
- 3D Chip breaker type enables excellent chip flow and chip control
- Full edge and full face types allow maximum ap and special applications

DP: Polycristalline diamond

	DP	DP	DP	DP	DP	DP
	ND050	ND100	ND120	ND150	ND190	NDP010
Stable machining, light cut (● 1st choice, ○ suitable)	○	●	●	●	●	●
General machining, medium cut (● 1st choice, ○ suitable)	●	●	●	○		●
Unstable machining, heavy cut (● 1st choice, ○ suitable)	○					

Dimensions

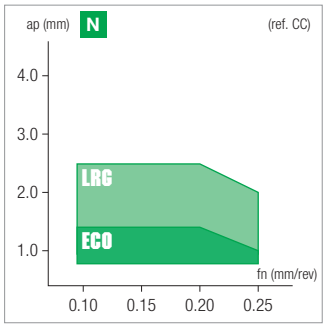


1 edge

ISO	DP ND050	DP ND100	DP ND120	DP ND150	DP ND190	DP NDP010
	Vc(m/min) - suggested cutting speed range (bold: 1st choice)					
P						
M						
K						
N	400 2000	450 2400	450 2400	350 800	400 1000	450 2400
S	40 100					
H						

	Designation		RE	IC	S	D1	LE	Stock					
SLANT TIP	eco N tip angle 7°	CCGT060202	0.2	6.35	2.38	2.8	2.8		●				
		CCGT060204	0.4	6.35	2.38	2.8	2.8	○	●		○		
		CCGT060208	0.8	6.35	2.38	2.8	2.7		○				
		CCGT09T302	0.2	9.525	3.97	4.4	2.8		●				
		CCGT09T304	0.4	9.525	3.97	4.4	2.8	●	●		●	○	
		CCGT09T308	0.8	9.525	3.97	4.4	2.7	○	●		●	○	
		CCGT120404	0.4	12.7	4.76	5.5	2.8		●				
		CCGT120408	0.8	12.7	4.76	5.5	2.7		○				
SLANT TIP	LRG N large tip tip angle 7°	CCGT060204-LRG	0.4	6.35	2.38	2.8	3.2		○				
		CCGT09T304-LRG	0.4	9.525	3.97	4.4	4.3		●				
		CCGT09T308-LRG	0.8	9.525	3.97	4.4	4.2		●				
		CCGT120404-LRG	0.4	12.7	4.76	5.5	4.3		○				
		CCGT120408-LRG	0.8	12.7	4.76	5.5	4.2		○				
FLAT TIP	eco N	CCGW060202	0.2	6.35	2.38	2.8	2.8	○	●		○		
		CCGW060204	0.4	6.35	2.38	2.8	2.8	●	●		●		
		CCGW060208	0.8	6.35	2.38	2.8	2.7	○	○		○		
		CCGW09T302	0.2	9.525	3.97	4.4	2.8		●				
		CCGW09T304	0.4	9.525	3.97	4.4	2.8	●	●		●	●	
		CCGW09T308	0.8	9.525	3.97	4.4	2.7	●	●		○	●	
		CCGW120404	0.4	12.7	4.76	5.5	2.8	○	○		○		
		CCGW120408	0.8	12.7	4.76	5.5	2.7	○	○		○		
FLAT TIP	LRG N large tip	CCGW060204-LRG	0.4	6.35	2.38	2.8	3.2		○				
		CCGW09T304-LRG	0.4	9.525	3.97	4.4	4.3		●				
		CCGW09T308-LRG	0.8	9.525	3.97	4.4	4.2		○				
		CCGW120404-LRG	0.4	12.7	4.76	5.5	4.3		●				
		CCGW120408-LRG	0.8	12.7	4.76	5.5	4.2		○				

● stock standard, ○ non-standard stock, ▲ upcoming introduction, ▽ stock exhaustion



A - TURNING
B - THREADING
C - GROOVING
D - MILLING
E - DRILLING
F - ACCESSORIES
G - SPARE PARTS

CC

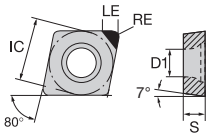
ISO - with hole

- The most popular insert shape due to high versatility
- Clearance angle 7°, effectively reduces the risk of chip jamming when boring
- 80° corner can be used for both turning and facing operations
- 3D Chip breaker type enables excellent chip flow and chip control
- Full edge and full face types allow maximum ap and special applications

DP: Polycristalline diamond

	DP	DP	DP	DP	DP	DP
	ND050	ND100	ND120	ND150	ND190	NDP010
Stable machining, light cut (● 1st choice, ○ suitable)	○	●	●	●	●	●
General machining, medium cut (● 1st choice, ○ suitable)	●	●	●	○		●
Unstable machining, heavy cut (● 1st choice, ○ suitable)	○					

Dimensions

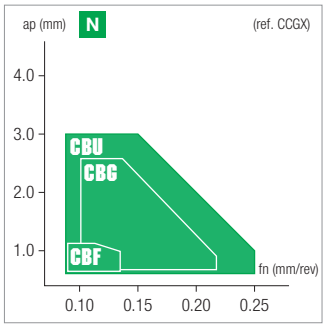


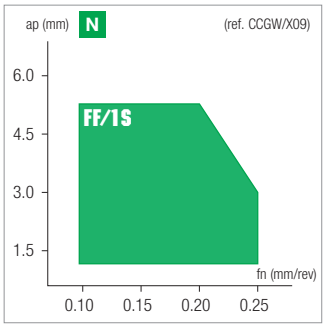
1 edge

ISO	ND050	ND100	ND120	ND150	ND190	NDP010
	Vc(m/min) - suggested cutting speed range (bold: 1st choice)					
P						
M						
K						
N	400 2000	450 2400	450 2400	350 800	400 1000	450 2400
S	40 100					
H						

	Designation		RE	IC	S	D1	LE	ND050	ND100	ND120	ND150	ND190	NDP010	Stock
3D CHIPBREAKER	CBU N universal use	CCGX060202-CBU	0.2	6.35	2.38	2.8	3.3						●	
		CCGX060204-CBU	0.4	6.35	2.38	2.8	3.1						●	
		CCGX060208-CBU	0.8	6.35	2.38	2.8	2.6						●	
		CCGX09T304-CBU	0.4	9.525	3.97	4.4	3.5						●	
		CCGX09T308-CBU	0.8	9.525	3.97	4.4	3.3						●	
3D CHIPBREAKER	CBF N finishing	CCGX060202-CBF	0.2	6.35	2.38	2.8	3.3			▽				
		CCGX060204-CBF	0.4	6.35	2.38	2.8	3.3			▽				
3D CHIPBREAKER	CBG N medium	CCGX09T308-CBG	0.8	9.525	3.97	4.4	4.2			▽				
FULL EDGE	1S N high depth of cut right-hand shown	CCGX060204L/R-1S	0.4	6.35	2.38	2.8	6		○					
		CCGX09T304L/R-1S	0.4	9.525	3.97	4.4	9.3		○					
FULL FACE	FF N high depth of cut	CCGW09T304-FF	0.4	9.525	3.97	4.4	9.3						●	

● stock standard, ○ non-standard stock, ▲ upcoming introduction, ▽ stock exhaustion





CN

ISO - with hole

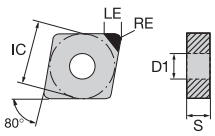
DP: Polycristalline diamond

	DP
	ND100

- The most popular insert shape due to high versatility
- 80° corner can be used for both turning and facing operations
- Strong cutting edge with secure seating in the insert pocket creates good surface finishing
- Strong cutting edge with secure seating in the insert pocket creates good surface finishing
- Flat tip offers economical solution
- Large tip allows much bigger ap, available with both slant and flat style

		ND100
Stable machining, light cut	● 1st choice ○ suitable	●
General machining, medium cut	● 1st choice ○ suitable	●
Unstable machining, heavy cut	● 1st choice ○ suitable	

Dimensions

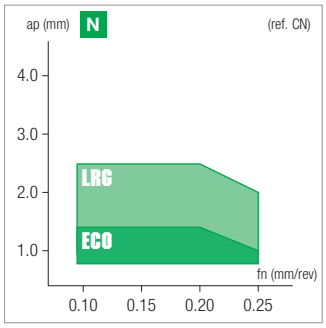


1 edge

ISO	ND100	Vc(m/min) - suggested cutting speed range (bold: 1st choice)
P		
M		
K		
N	450 2400	
S		
H		

	Designation		RE	IC	S	D1	LE	ND100	Stock
SLANT TIP	eco N tip angle 7°	CNGM120404	0.4	12.7	4.76	5.16	2.8	●	
		CNGM120408	0.8	12.7	4.76	5.16	2.7	●	
SLANT TIP	LRG N large tip tip angle 7°	CNGM120404-LRG	0.4	12.7	4.76	5.16	4.3	○	
		CNGM120408-LRG	0.8	12.7	4.76	5.16	4.2	○	
FLAT TIP	eco N	CNGA120404	0.4	12.7	4.76	5.16	2.8	○	
		CNGA120408	0.8	12.7	4.76	5.16	2.7	●	
FLAT TIP	LRG N large tip	CNGA120404-LRG	0.4	12.7	4.76	5.16	4.3	○	
		CNGA120408-LRG	0.8	12.7	4.76	5.16	4.2	○	

● stock standard, ○ non-standard stock, ▲ upcoming introduction, ▽ stock exhaustion



A - TURNING
B - THREADING
C - GROOVING
D - MILLING
E - DRILLING
F - ACCESSORIES
G - SPARE PARTS

DC

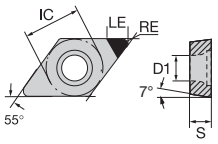
ISO - with hole

- Generally the 1st choice for profile/copy turning applications
- Able to "In-Copy" (plunge turn in small diameter) with 30° angle
- 7° clearance angle, less risk of chip-jamming in boring
- Chip breaker type enables excellent chip flow and chip control
- Full edge and full face types allows maximum ap and special applications

DP: Polycristalline diamond

	ND050	ND100	ND120	ND150	ND190	NDP010
	DP	DP	DP	DP	DP	DP
Stable machining, light cut (● 1st choice, ○ suitable)	○	●	●	●	●	●
General machining, medium cut (● 1st choice, ○ suitable)	●	●	●	○		●
Unstable machining, heavy cut (● 1st choice, ○ suitable)	○					

Dimensions



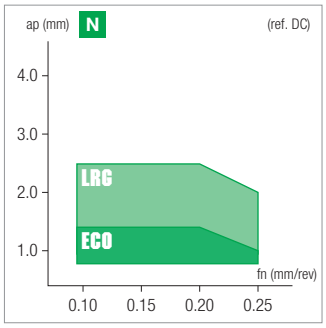
1 edge

Vc(m/min) - suggested cutting speed range (bold: 1st choice)

ISO	ND050	ND100	ND120	ND150	ND190	NDP010
P						
M						
K						
N	400 2000	450 2400	450 2400	350 800	400 1000	450 2400
S	40 100					
H						

	Designation		RE	IC	S	D1	LE	ND050	ND100	ND120	ND150	ND190	NDP010	Stock
SLANT TIP	eco N tip angle 7°	DCGT070202	0.2	6.35	2.38	2.8	2.5		●					
		DCGT070204	0.4	6.35	2.38	2.8	2.4		●					
		DCGT070208	0.8	6.35	2.38	2.8	2		●					
		DCGT11T302	0.2	9.525	3.97	4.4	2.5		●					
		DCGT11T304	0.4	9.525	3.97	4.4	2.4	●	●		●	○		
		DCGT11T308	0.8	9.525	3.97	4.4	2	●	●		○	○		
SLANT TIP	LRG N large tip tip angle 7°	DCGT070204-LRG	0.4	6.35	2.38	2.8	2.9		○					
		DCGT11T304-LRG	0.4	9.525	3.97	4.4	3.9		●					
		DCGT11T308-LRG	0.8	9.525	3.97	4.4	3.5		●					
FLAT TIP	eco N	DCGW070202	0.2	6.35	2.38	2.8	2.5	●	●		○			
		DCGW070204	0.4	6.35	2.38	2.8	2.4	○	●		○			
		DCGW070208	0.8	6.35	2.38	2.8	2	○	○		○			
		DCGW11T302	0.2	9.525	3.97	4.4	2.5	○	●		○			
		DCGW11T304	0.4	9.525	3.97	4.4	2.4	●	●		●	○		
		DCGW11T308	0.8	9.525	3.97	4.4	2	●	●		●	●		
FLAT TIP	LRG N large tip	DCGW070204-LRG	0.4	6.35	2.38	2.8	2.9		●					
		DCGW11T304-LRG	0.4	9.525	3.97	4.4	3.9		●					
		DCGW11T308-LRG	0.8	9.525	3.97	4.4	3.5		○					

● stock standard, ○ non-standard stock, ▲ upcoming introduction, ▽ stock exhaustion



PRODUCT SELECTION p. A143 | CUTTING CONDITIONS p. A163 | GRADES FEATURES p. A134 | EXTERNAL HOLDERS p. A232 | INTERNAL HOLDERS p. A236

nikkoTOOLS

DC

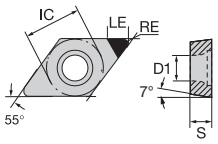
ISO - with hole

- Generally the 1st choice for profile/copy turning applications
- Able to "In-Copy" (plunge turn in small diameter) with 30° angle
- 7° clearance angle, less risk of chip-jamming in boring
- Chip breaker type enables excellent chip flow and chip control
- Full edge and full face types allow maximum ap and special applications

DP: Polycristalline diamond

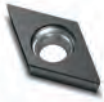
	DP	DP	DP	DP	DP	DP
	ND050	ND100	ND120	ND150	ND190	NDP010
Stable machining, light cut (● 1st choice, ○ suitable)	○	●	●	●	●	●
General machining, medium cut (● 1st choice, ○ suitable)	●	●	●	○		●
Unstable machining, heavy cut (● 1st choice, ○ suitable)	○					

Dimensions

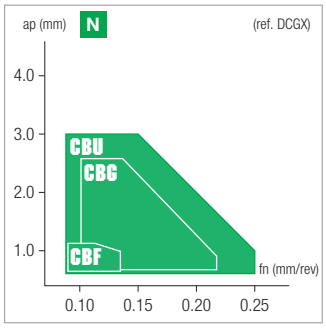


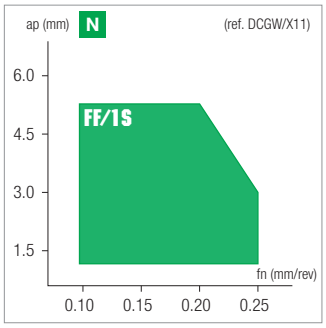
1 edge

ISO	ND050	ND100	ND120	ND150	ND190	NDP010
	Vc(m/min) - suggested cutting speed range (bold: 1st choice)					
P						
M						
K						
N	400 2000	450 2400	450 2400	350 800	400 1000	450 2400
S	40 100					
H						

	Designation		RE	IC	S	D1	LE	ND050	ND100	ND120	ND150	ND190	NDP010	Stock
3D CHIPBREAKER	CBU N universal use	DCGX070202-CBU	0.2	6.35	2.38	2.8	3.4						●	
		DCGX070204-CBU	0.4	6.35	2.38	2.8	3.2						●	
		DCGX11T302-CBU	0.2	9.525	3.97	4.4	4.2						●	
		DCGX11T304-CBU	0.4	9.525	3.97	4.4	3.8						●	
		DCGX11T308-CBU	0.8	9.525	3.97	4.4	3.6						●	
3D CHIPBREAKER	CBF N finishing	DCGX070202-CBF	0.2	6.35	2.38	2.8	3			▽				
		DCGX11T302-CBF	0.2	9.525	3.97	4.4	4			▽				
3D CHIPBREAKER	CBG N medium	DCGX11T308-CBG	0.8	9.525	3.97	4.4	3.5			▽				
FULL EDGE	1S N high depth of cut right-hand shown	DCGX070204L/R-1S	0.4	6.35	2.38	2.8	7.4		●					
		DCGX11T304L/R-1S	0.4	9.525	3.97	4.4	11.2		○					
		DCGX11T308L/R-1S	0.8	9.525	3.97	4.4	10.8		○					
FULL FACE	FF N  high depth of cut	DCGW070204-FF	0.4	6.35	2.38	2.8	7.4						●	
		DCGW11T304-FF	0.4	9.525	3.97	4.4	11.2						●	
		DCGW11T308-FF	0.8	9.525	3.97	4.4	10.8						●	

● stock standard, ○ non-standard stock, ▲ upcoming introduction, ▽ stock exhaustion





PRODUCT SELECTION p. A143 | CUTTING CONDITIONS p. A163 | GRADES FEATURES p. A134 | EXTERNAL HOLDERS p. A232 | INTERNAL HOLDERS p. A236

DN

ISO - with hole

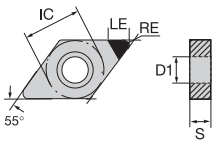
DP: Polycristalline diamond

	DP
	ND100

- Generally the 1st choice for profile/copy turning applications
- Able to "In-Copy" (plunge turn into a smaller diameter) at an angle of 30°
- 7° clearance angle, less risk of chip-jamming in boring
- Slant tip enables better chip flow and chip control
- Large tip allows much bigger ap, available with both slant and flat style

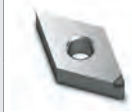
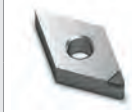
	1st choice	suitable	DP	ND100
Stable machining, light cut	●	○	●	
General machining, medium cut	●	○	●	
Unstable machining, heavy cut	●	○		

Dimensions

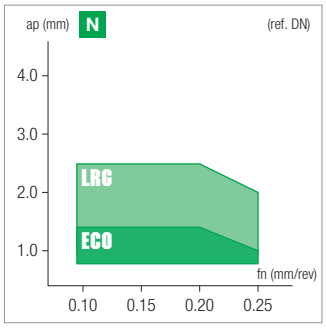


1 edge

ISO	Vc(m/min) - suggested cutting speed range (bold: 1st choice)	
P		
M		
K		
N	450 2400	
S		
H		

	Designation		RE	IC	S	D1	LE		Stock
SLANT TIP	eco N  tip angle 7°	DNGM150604	0.4	12.7	6.35	5.16	2.4	○	
		DNGM150608	0.8	12.7	6.35	5.16	2	○	
SLANT TIP	LRG N  large tip tip angle 7°	DNGM150604-LRG	0.4	12.7	6.35	5.16	3.9	○	
		DNGM150608-LRG	0.8	12.7	6.35	5.16	3.5	○	
FLAT TIP	eco N	DNGA150604	0.4	12.7	6.35	5.16	2.4	○	
		DNGA150608	0.8	12.7	6.35	5.16	2	●	
FLAT TIP	LRG N large tip	DNGA150604-LRG	0.4	12.7	6.35	5.16	3.9	○	
		DNGA150608-LRG	0.8	12.7	6.35	5.16	3.5	○	

● stock standard, ○ non-standard stock, ▲ upcoming introduction, ▽ stock exhaustion



PRODUCT SELECTION p. A143 | CUTTING CONDITIONS p. A163 | GRADES FEATURES p. A134 | EXTERNAL HOLDERS p. A244

nikkoTOOLS

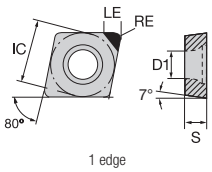
MCC

ISO - with hole

- 1st solution for micro-boring
- Precision brazed and ground insert for microboring operation, completing the micro CC family
- Micro boring bar with coolant both in steel (with Vortex technology) and in carbide

DP: Polycristalline diamond

	DP	DP	DP
	ND050	ND120	ND190
Stable machining, light cut (● 1st choice, ○ suitable)	○	●	●
General machining, medium cut (● 1st choice, ○ suitable)	●	●	
Unstable machining, heavy cut (● 1st choice, ○ suitable)	○		

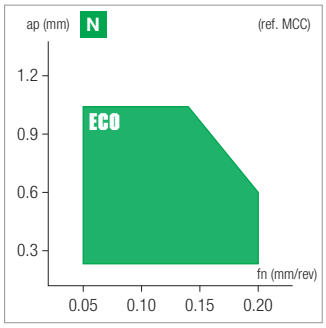


Dimensions	ISO	ND050	ND120	ND190
	P			
	M			
	K			
	N	400 2000	450 2400	400 1000
	S	40 100		
	H			

Vc(m/min) - suggested cutting speed range (bold: 1st choice)

	Designation	RE	IC	S	D1	LE	ND050	ND120	ND190	Stock
FLAT TIP, eco N	MCC.R02	0.2	3.5	1.4	1.9	1.5	●	○	○	
	MCC.R04	0.4	3.5	1.4	1.9	1.5	○	○	●	

● stock standard, ○ non-standard stock, ▲ upcoming introduction, ▽ stock exhaustion



PRODUCT SELECTION p. A143
CUTTING CONDITIONS p. A163
GRADES FEATURES p. A134
INTERNAL HOLDERS p. A249

MCN

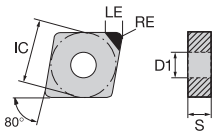
MicroNega - with hole

- MicroNega system it serves as an alternative to positive conventional solutions
- Excellent economy for external small part machining or small boring application
- MicroNega family's PCD Solution, compatible with the entire holder range of MicroNega system
- Chip breaker type enables excellent chip flow and chip control, greatly improves the boring application
- Flat large tip offers economical solution allowing much bigger ap

DP: Polycristalline diamond

		DP
		ND120
Stable machining, light cut	● 1st choice ○ suitable	●
General machining, medium cut	● 1st choice ○ suitable	●
Unstable machining, heavy cut	● 1st choice ○ suitable	

Dimensions

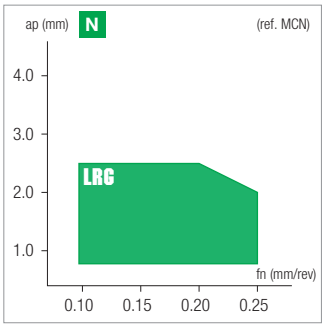


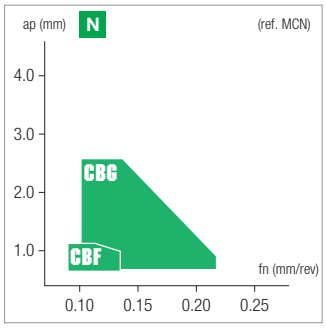
1 edge

ISO	Vc(m/min) - suggested cutting speed range (bold: 1st choice)
P	
M	
K	
N	450 2400
S	
H	

	Designation		RE	IC	S	D1	LE		Stock
FLAT TIP	LRG N large tip	MCN.R02G-LRG	0.2	7.5	3.18	3.6	3.3	●	
		MCN.R04G-LRG	0.4	7.5	3.18	3.6	3.3	●	
		MCN.R08G-LRG	0.8	7.5	3.18	3.6	3.2	●	
3D CHIPBREAKER	CBF N finishing	MCN.R02G-CBF	0.2	7.5	3.18	3.6	3.3	●	
		MCN.R04G-CBF	0.4	7.5	3.18	3.6	3.3	●	
3D CHIPBREAKER	CBG N medium	MCN.R04G-CBG	0.4	7.5	3.18	3.6	3.3	●	
		MCN.R08G-CBG	0.8	7.5	3.18	3.6	3.2	●	

● stock standard, ○ non-standard stock, ▲ upcoming introduction, ▽ stock exhaustion





PRODUCT SELECTION p. A143 | CUTTING CONDITIONS p. A163 | GRADES FEATURES p. A134 | EXTERNAL HOLDERS p. A251 | INTERNAL HOLDERS p. A252

nikkoTOOLS

MDN

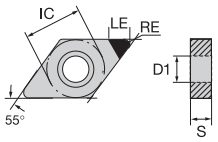
MicroNega - with hole

- MicroNega system it serves as an alternative to positive conventional solutions
- Excellent economy for external small part machining or small boring application
- MicroNega family's PCD Solution, compatible with the entire holder range of MicroNega system
- Chip breaker type enables excellent chip flow and chip control, greatly improves the boring application
- Flat large tip offers economical solution allowing much bigger ap

DP: Polycristalline diamond

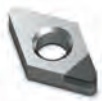
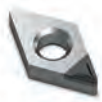
		DP	ND120
Stable machining, light cut	● 1st choice ○ suitable	●	
General machining, medium cut	● 1st choice ○ suitable	●	
Unstable machining, heavy cut	● 1st choice ○ suitable		

Dimensions

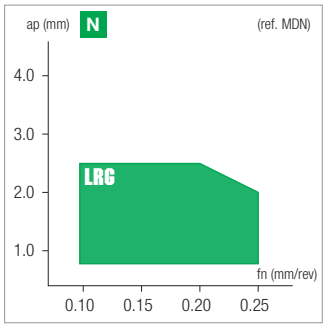


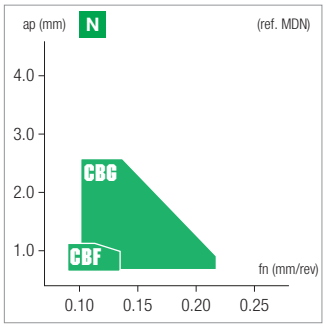
1 edge

ISO	Vc(m/min) - suggested cutting speed range (bold: 1st choice)
P	
M	
K	
N	450 2400
S	
H	

	Designation		RE	IC	S	D1	LE	Stock	
FLAT TIP	LRG N  large tip	MDN.R02G-LRG	0.2	7	3.18	3.6	3.1	●	
		MDN.R04G-LRG	0.4	7	3.18	3.6	2.9	●	
		MDN.R08G-LRG	0.8	7	3.18	3.6	2.5	●	
3D CHIPBREAKER	CBF N  finishing	MDN.R02G-CBF	0.2	7	3.18	3.6	3.1	●	
		MDN.R04G-CBF	0.4	7	3.18	3.6	2.9	●	
3D CHIPBREAKER	CBG N medium	MDN.R04G-CBG	0.4	7	3.18	3.6	2.9	●	
		MDN.R08G-CBG	0.8	7	3.18	3.6	2.5	●	

● stock standard, ○ non-standard stock, ▲ upcoming introduction, ▽ stock exhaustion





PRODUCT SELECTION p. A143 | CUTTING CONDITIONS p. A163 | GRADES FEATURES p. A134 | EXTERNAL HOLDERS p. A253 | INTERNAL HOLDERS p. A254

nikkoTOOLS

TC

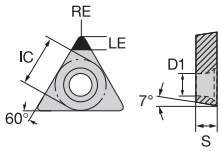
ISO - with hole

- Very versatile insert shape
- Excellent choice for general boring due to very stable seating of the insert in the boring bar pocket
- 3D Chip breaker type enables excellent chip flow and chip control
- Full edge and full face types allow maximum ap and special applications

DP: Polycristalline diamond

		ND050	ND100	ND120	ND150	NDP010
		DP	DP	DP	DP	DP
Stable machining, light cut	● 1st choice ○ suitable	○	●	●	●	●
General machining, medium cut	● 1st choice ○ suitable	●	●	●	○	●
Unstable machining, heavy cut	● 1st choice ○ suitable	○				

Dimensions



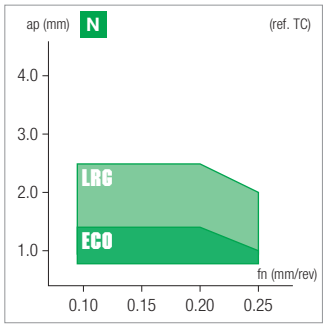
1 edge

ISO	ND050	ND100	ND120	ND150	NDP010
P					
M					
K					
N	400 2000	450 2400	450 2400	350 800	450 2400
S	40 100				
H					

Vc(m/min) - suggested cutting speed range (bold: 1st choice)

	Designation		RE	IC	S	D1	LE	ND050	ND100	ND120	ND150	NDP010	Stock
SLANT TIP	eco N tip angle 7°	TCGT090202	0.2	5.56	2.38	2.5	2.6		○				
		TCGT090204	0.4	5.56	2.38	2.5	2.5		○				
		TCGT110202	0.2	6.35	2.38	2.8	2.6		○				
		TCGT110204	0.4	6.35	2.38	2.8	2.5		●				
		TCGT110208	0.8	6.35	2.38	2.8	2.2		○				
		TCGT16T304	0.4	9.525	3.97	4.4	2.5		○				
		TCGT16T308	0.8	9.525	3.97	4.4	2.2		○				
SLANT TIP	LRG N large tip tip angle 7°	TCGT110204-LRG	0.4	6.35	2.38	2.8	4		○				
		TCGT110208-LRG	0.8	6.35	2.38	2.8	3.7		○				
		TCGT16T304-LRG	0.4	9.525	3.97	4.4	4		○				
		TCGT16T308-LRG	0.8	9.525	3.97	4.4	3.7		○				
FLAT TIP	eco N	TCGW090202	0.2	5.56	2.38	2.5	2.6		○				
		TCGW090204	0.4	5.56	2.38	2.5	2.5		●				
		TCGW110202	0.2	6.35	2.38	2.8	2.6		○				
		TCGW110204	0.4	6.35	2.38	2.8	2.5	●	●		○		
		TCGW110208	0.8	6.35	2.38	2.8	2.2	○	○		○		
		TCGW16T304	0.4	9.525	3.97	4.4	2.5		●				
		TCGW16T308	0.8	9.525	3.97	4.4	2.2	●	●		○		
FLAT TIP	LRG N large tip	TCGW110204-LRG	0.4	6.35	2.38	2.8	4		○				
		TCGW110208-LRG	0.8	6.35	2.38	2.8	3.7		●				
		TCGW16T304-LRG	0.4	9.525	3.97	4.4	4		●				
		TCGW16T308-LRG	0.8	9.525	3.97	4.4	3.7		●				

● stock standard, ○ non-standard stock, ▲ upcoming introduction, ▽ stock exhaustion



PRODUCT SELECTION p. A143 | CUTTING CONDITIONS p. A163 | GRADES FEATURES p. A134 | EXTERNAL HOLDERS p. A264 | INTERNAL HOLDERS p. A267

nikkoTOOLS

TC

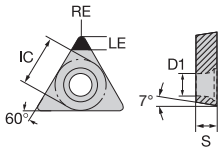
ISO - with hole

- Very versatile insert shape
- Excellent choice for general boring due to very stable seating of the insert in the boring bar pocket
- 3D Chip breaker type enables excellent chip flow and chip control
- Full edge and full face types allow maximum ap and special applications

DP: Polycristalline diamond

	ND050	ND100	ND120	ND150	NDP010
	DP	DP	DP	DP	DP
Stable machining, light cut (● 1st choice, ○ suitable)	○	●	●	●	●
General machining, medium cut (● 1st choice, ○ suitable)	●	●	●	○	●
Unstable machining, heavy cut (● 1st choice, ○ suitable)	○				

Dimensions

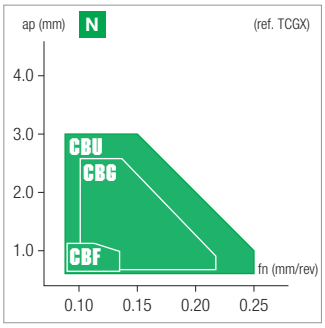


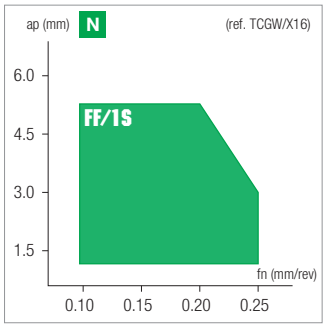
1 edge

ISO	ND050	ND100	ND120	ND150	NDP010
	Vc(m/min) - suggested cutting speed range (bold: 1st choice)				
P					
M					
K					
N	400 2000	450 2400	450 2400	350 800	450 2400
S	40 100				
H					

	Designation		RE	IC	S	D1	LE	ND050	ND100	ND120	ND150	NDP010	Stock
3D CHIPBREAKER	CBU N universal use	TCGX110204-CBU	0.4	6.35	2.38	2.8	3.4					●	
		TCGX16T304-CBU	0.4	9.525	3.97	4.4	4.5					●	
		TCGX16T308-CBU	0.8	9.525	3.97	4.4	4.1					●	
3D CHIPBREAKER	CBF N finishing	TCGX090202-CBF	0.2	5.56	2.38	2.5	3.6			▽			
		TCGX110202-CBF	0.2	6.35	2.38	2.8	4.1			▽			
		TCGX110204-CBF	0.4	6.35	2.38	2.8	4			▽			
		TCGX16T304-CBF	0.4	9.525	3.97	4.4	4			▽			
3D CHIPBREAKER	CBG N medium	TCGX090204-CBG	0.4	5.56	2.38	2.5	3.5			▽			
		TCGX110204-CBG	0.4	6.35	2.38	2.8	4			▽			
		TCGX110208-CBG	0.8	6.35	2.38	2.8	3.7			▽			
		TCGX16T304-CBG	0.4	9.525	3.97	4.4	4			▽			
		TCGX16T308-CBG	0.8	9.525	3.97	4.4	3.7			▽			
FULL EDGE	1S N high depth of cut	TCGX090204-1S	0.4	5.56	2.38	2.5	9		●				
		TCGX110204-1S	0.4	6.35	2.38	2.8	10.3		●				
		TCGX16T304-1S	0.4	9.525	3.97	4.4	16.1		●				
FULL FACE	FF N high depth of cut	TCGW110204-FF	0.4	6.35	2.38	2.8	10.3					●	
		TCGW16T304-FF	0.4	9.525	3.97	4.4	16.1					●	

● stock standard, ○ non-standard stock, ▲ upcoming introduction, ▽ stock exhaustion





PRODUCT SELECTION p. A143 | CUTTING CONDITIONS p. A163 | GRADES FEATURES p. A134 | EXTERNAL HOLDERS p. A264 | INTERNAL HOLDERS p. A267

TN

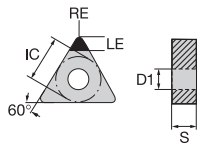
ISO - with hole

- Very versatile insert shape
- Excellent choice for general boring due to very stable seating of the insert in the boring bar pocket
- Slant tip enables better chip flow and chip control
- Large tip allows much bigger ap, available with both slant and flat style

DP: Polycristalline diamond

		DP	ND100
Stable machining, light cut	● 1st choice ○ suitable	●	
General machining, medium cut	● 1st choice ○ suitable	●	
Unstable machining, heavy cut	● 1st choice ○ suitable		

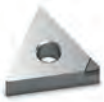
Dimensions



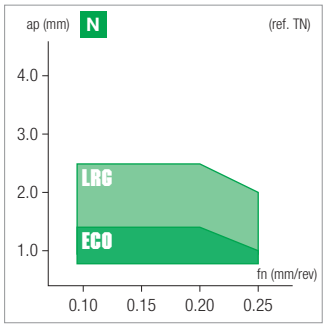
1 edge

ISO	DP	ND100
P		
M		
K		
N	450 2400	
S		
H		

Vc(m/min) - suggested cutting speed range (bold: 1st choice)

	Designation		RE	IC	S	D1	LE	Stock	
SLANT TIP	eco N  tip angle 7°	TNGM160404	0.4	9.525	4.76	3.81	2.5	●	
		TNGM160408	0.8	9.525	4.76	3.81	2	○	
SLANT TIP	LRG N large tip tip angle 7°	TNGM160404-LRG	0.4	9.525	4.76	3.81	4	○	
		TNGM160408-LRG	0.8	9.525	4.76	3.81	3.7	○	
FLAT TIP	eco N	TNGA160404	0.4	9.525	4.76	3.81	2.5	○	
		TNGA160408	0.8	9.525	4.76	3.81	2	○	
FLAT TIP	LRG N large tip	TNGA160404-LRG	0.4	9.525	4.76	3.81	4	○	
		TNGA160408-LRG	0.8	9.525	4.76	3.81	3.7	○	

● stock standard, ○ non-standard stock, ▲ upcoming introduction, ▽ stock exhaustion



PRODUCT SELECTION p. A143 | CUTTING CONDITIONS p. A163 | GRADES FEATURES p. A134 | EXTERNAL HOLDERS p. A271

nikkoTOOLS

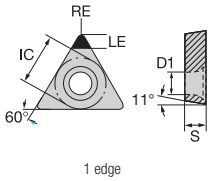
TP

ISO - with hole

- Very versatile insert shape
- Excellent choice for general boring due to very stable seating of the insert in the boring bar pocket
- Slant tip enables better chip flow and chip control
- Large tip allows much bigger ap, available with both slant and flat style

DP: Polycristalline diamond

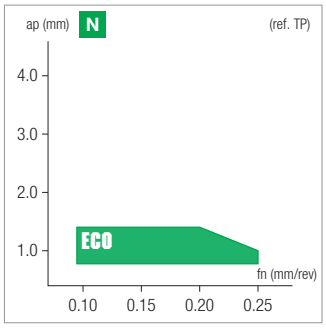
	ND050	ND100	ND120
	DP	DP	DP
Stable machining, light cut (● 1st choice, ○ suitable)	○	●	●
General machining, medium cut (● 1st choice, ○ suitable)	●	●	●
Unstable machining, heavy cut (● 1st choice, ○ suitable)	○		

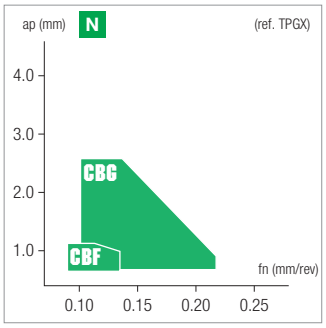


Dimensions	ISO	ND050	ND100	ND120
		Vc(m/min) - suggested cutting speed range (bold: 1st choice)		
	P			
	M			
	K			
	N	400 2000	450 2400	450 2400
	S	40 100		
	H			

	Designation		RE	IC	S	D1	LE				Stock
SLANT TIP	eco N tip angle 7°	TPGT080202	0.2	4.76	2.38	2.3	2.6	○	○		
		TPGT080204	0.4	4.76	2.38	2.3	2.5		●		
		TPGT090202	0.2	4.76	2.38	2.3	2.6		○		
		TPGT090204	0.4	4.76	2.38	2.3	2.5		○		
		TPGT110302	0.2	4.76	2.38	2.3	2.6		●		
		TPGT110304	0.4	4.76	2.38	2.3	2.2		●		
FLAT TIP	eco N	TPGW080202	0.2	4.76	2.38	2.3	2.6		○		
		TPGW080204	0.4	4.76	2.38	2.3	2.5		○		
		TPGW090202	0.2	5.56	2.38	3	2.6		○		
		TPGW090204	0.4	5.56	2.38	3	2.5		●		
		TPGW110302	0.2	6.35	3.18	3.3	2.6		○		
		TPGW110304	0.4	6.35	3.18	3.3	2.2		○		
3D CHIPBREAKER	CBF N finishing	TPGX090204-CBF	0.4	5.56	2.38	3	3.1			▽	
		TPGX110302-CBF	0.2	6.35	3.18	3.3	4.1			▽	
		TPGX110304-CBF	0.4	6.35	3.18	3.3	4			▽	
3D CHIPBREAKER	CBG N medium	TPGX090204-CBG	0.4	5.56	2.38	3	3.1			▽	
		TPGX110304-CBG	0.4	6.35	3.18	3.3	4			▽	

● stock standard, ○ non-standard stock, ▲ upcoming introduction, ▽ stock exhaustion





PRODUCT SELECTION p. A143 | CUTTING CONDITIONS p. A163 | GRADES FEATURES p. A134

VB

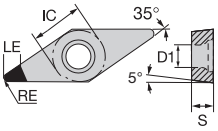
ISO - with hole

- 1st choice for intricate shape copy turning
- Can "In-Copy" (plunge turn into a smaller diameter) at an angle up to 49°
- Can work extremely close to the tailstock/ live center
- 3D Chip breaker type enables excellent chip flow and chip control
- Large tip allows much bigger ap, available with both slant and flat style

DP: Polycristalline diamond

	DP	DP	DP	DP	DP
	ND050	ND100	ND120	ND150	ND190
Stable machining, light cut (● 1st choice, ○ suitable)	○	●	●	●	●
General machining, medium cut (● 1st choice, ○ suitable)	●	●	●	○	
Unstable machining, heavy cut (● 1st choice, ○ suitable)	○				

Dimensions



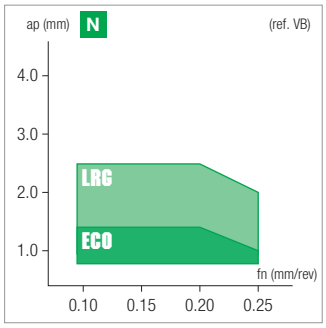
1 edge

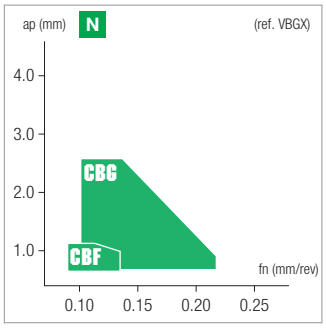
ISO	ND050	ND100	ND120	ND150	ND190
P					
M					
K					
N	400 2000	450 2400	450 2400	350 800	400 1000
S	40 100				
H					

Vc(m/min) - suggested cutting speed range (bold: 1st choice)

	Designation		RE	IC	S	D1	LE	ND050	ND100	ND120	ND150	ND190	Stock
SLANT TIP	eco N tip angle 7°	VBGT110302	0.2	6.35	3.18	2.8	3		●		●		
		VBGT110304	0.4	6.35	3.18	2.8	2.5		●				
		VBGT160404	0.4	9.525	4.76	4.4	2.5	●	●		○	○	
		VBGT160408	0.8	9.525	4.76	4.4	2.2	●	●		●	○	
SLANT TIP	LRG N large tip tip angle 7°	VBGT160404-LRG	0.4	9.525	4.76	4.4	4.5		●				
		VBGT160408-LRG	0.8	9.525	4.76	4.4	3.7		●				
FLAT TIP	eco N	VBGW110302	0.2	6.35	3.18	2.8	3	●	●		○		
		VBGW110304	0.4	6.35	3.18	2.8	2.5	○	●		○		
		VBGW160404	0.4	9.525	4.76	4.4	2.5	○	●		○	○	
		VBGW160408	0.8	9.525	4.76	4.4	2.2	○	○		○	○	
FLAT TIP	LRG N large tip	VBGW160404-LRG	0.4	9.525	4.76	4.4	4.5		●				
		VBGW160408-LRG	0.8	9.525	4.76	4.4	3.7		●				
3D CHIPBREAKER	CBF N finishing	VBGX110302-CBF	0.2	6.35	3.18	2.8	5			▽			
		VBGX110304-CBF	0.4	6.35	3.18	2.8	4.5			▽			
		VBGX160404-CBF	0.4	9.525	4.76	4.4	4.5			▽			

● stock standard, ○ non-standard stock, ▲ upcoming introduction, ▽ stock exhaustion





PRODUCT SELECTION p. A143 | CUTTING CONDITIONS p. A163 | GRADES FEATURES p. A134 | EXTERNAL HOLDERS p. A278 | INTERNAL HOLDERS p. A282

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VB

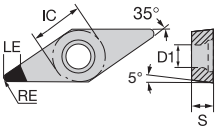
ISO - with hole

- 1st choice for intricate shape copy turning
- Can "In-Copy" (plunge turn into a smaller diameter) at an angle up to 49°
- Can work extremely close to the tailstock/ live center
- 3D Chip breaker type enables excellent chip flow and chip control
- Large tip allows much bigger ap, available with both slant and flat style

DP: Polycristalline diamond

	ND050	ND100	ND120	ND150	ND190
	DP	DP	DP	DP	DP
Stable machining, light cut (● 1st choice, ○ suitable)	○	●	●	●	●
General machining, medium cut (● 1st choice, ○ suitable)	●	●	●	○	
Unstable machining, heavy cut (● 1st choice, ○ suitable)	○				

Dimensions



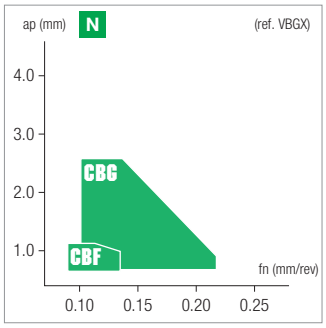
1 edge

ISO	ND050	ND100	ND120	ND150	ND190
P					
M					
K					
N	400 2000	450 2400	450 2400	350 800	400 1000
S	40 100				
H					

Vc(m/min) - suggested cutting speed range (bold: 1st choice)

Designation		RE	IC	S	D1	LE	ND050	ND100	ND120	ND150	ND190	Stock
3D CHIPBREAKER CBG N medium	VBGX110304-CBG	0.4	6.35	3.18	2.8	4.5			▽			
	VBGX160404-CBG	0.4	9.525	4.76	4.4	4.5			▽			
	VBGX160408-CBG	0.8	9.525	4.76	4.4	3.7			▽			

● stock standard, ○ non-standard stock, ▲ upcoming introduction, ▽ stock exhaustion



A - TURNING
B - THREADING
C - GROOVING
D - MILLING
E - DRILLING
F - ACCESSORIES
G - SPARE PARTS

VC

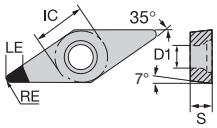
ISO - with hole

- 1st choice for intricate shape copy turning
- Can "In-Copy" (plunge turn into a smaller diameter) at an angle up to 49°
- Can work extremely close to the tailstock/ live center
- 3D Chip breaker type enables excellent chip flow and chip control
- Full edge type allows max. ap and special applications

DP: Polycristalline diamond

	ND050	ND100	ND120	ND150	ND190	NDP010
	DP	DP	DP	DP	DP	DP
Stable machining, light cut (● 1st choice, ○ suitable)	○	●	●	●	●	●
General machining, medium cut (● 1st choice, ○ suitable)	●	●	●	○		●
Unstable machining, heavy cut (● 1st choice, ○ suitable)	○					

Dimensions



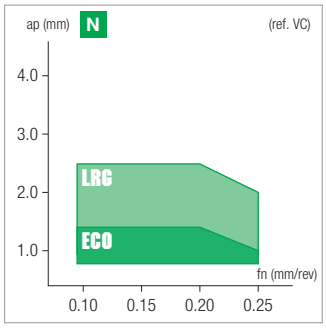
1 edge

Vc(m/min) - suggested cutting speed range (bold: 1st choice)

ISO	ND050	ND100	ND120	ND150	ND190	NDP010
P						
M						
K						
N	400 2000	450 2400	450 2400	350 800	400 1000	450 2400
S	40 100					
H						

	Designation		RE	IC	S	D1	LE	ND050	ND100	ND120	ND150	ND190	NDP010	Stock
SLANT TIP	eco N tip angle 7°	VCGT110302	0.2	6.35	3.18	2.8	3	○	●					
		VCGT110304	0.4	6.35	3.18	2.8	2.5		○					
		VCGT160402	0.2	9.525	4.76	4.4	3		●					
		VCGT160404	0.4	9.525	4.76	4.4	2.5	○	●		●	○		
		VCGT160408	0.8	9.525	4.76	4.4	2.2	●	●		●	○		
SLANT TIP	LRG N large tip tip angle 7°	VCGT160404-LRG	0.4	9.525	4.76	4.4	4.5		●					
		VCGT160408-LRG	0.8	9.525	4.76	4.4	3.7		●					
FLAT TIP	eco N	VCGW110302	0.2	6.35	3.18	2.8	3	●	●					
		VCGW110304	0.4	6.35	3.18	2.8	2.5		●					
		VCGW160404	0.4	9.525	4.76	4.4	2.5	○	●		○	○		
		VCGW160408	0.8	9.525	4.76	4.4	2.2	●	●		○	○		
FLAT TIP	LRG N large tip	VCGW110304-LRG	0.4	6.35	3.18	2.8	4.5		●					
		VCGW160404-LRG	0.4	9.525	4.76	4.4	4.5		●					
		VCGW160408-LRG	0.8	9.525	4.76	4.4	3.7		●					
		VCGW160412-LRG	1.2	9.525	4.76	4.4	3.3		○					

● stock standard, ○ non-standard stock, ▲ upcoming introduction, ▽ stock exhaustion



PRODUCT SELECTION p. A143 | CUTTING CONDITIONS p. A163 | GRADES FEATURES p. A134 | EXTERNAL HOLDERS p. A283 | INTERNAL HOLDERS p. A287

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VC

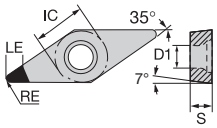
ISO - with hole

- 1st choice for intricate shape copy turning
- Can "In-Copy" (plunge turn into a smaller diameter) at an angle up to 49°
- Can work extremely close to the tailstock/ live center
- 3D Chip breaker type enables excellent chip flow and chip control
- Full edge type allows max. ap and special applications

DP: Polycristalline diamond

		DP	DP	DP	DP	DP	DP
		ND050	ND100	ND120	ND150	ND190	NDP010
Stable machining, light cut	● 1st choice ○ suitable	○	●	●	●	●	●
General machining, medium cut	● 1st choice ○ suitable	●	●	●	○		●
Unstable machining, heavy cut	● 1st choice ○ suitable	○					

Dimensions

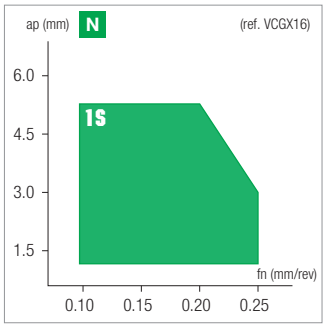


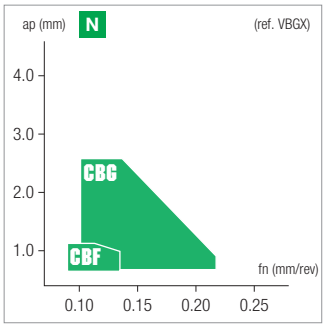
1 edge

ISO	ND050	ND100	ND120	ND150	ND190	NDP010
	Vc(m/min) - suggested cutting speed range (bold: 1st choice)					
P						
M						
K						
N	400 2000	450 2400	450 2400	350 800	400 1000	450 2400
S	40 100					
H						

	Designation		RE	IC	S	D1	LE	ND050	ND100	ND120	ND150	ND190	NDP010	Stock
3D CHIPBREAKER	CBU N universal use	VCGX110302-CBU	0.2	6.35	3.18	2.8	4.5						●	
		VCGX110304-CBU	0.4	6.35	3.18	2.8	4						●	
		VCGX160404-CBU	0.4	9.525	4.76	4.4	5						●	
		VCGX160408-CBU	0.8	9.525	4.76	4.4	4.4						●	
3D CHIPBREAKER	CBF N finishing	VCGX110302-CBF	0.2	6.35	3.18	2.8	5			▽				
		VCGX110304-CBF	0.4	6.35	3.18	2.8	4.5			▽				
3D CHIPBREAKER	CBG N medium	VCGX110304-CBG	0.4	6.35	3.18	2.8	4.5			▽				
FULL EDGE	1S N high depth of cut right-hand shown	VCGX110304L/R-1S	0.4	6.35	3.18	2.8	10.7		●					
		VCGX160404L/R-1S	0.4	9.525	4.76	4.4	16.2		●					

● stock standard, ○ non-standard stock, ▲ upcoming introduction, ▽ stock exhaustion





PRODUCT SELECTION p. A143 | CUTTING CONDITIONS p. A163 | GRADES FEATURES p. A134 | EXTERNAL HOLDERS p. A283 | INTERNAL HOLDERS p. A287

WN

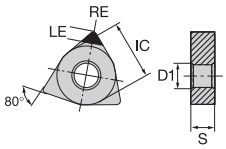
ISO - with hole

- Generally used on more moderate depths of cut and feedrates than 80° C shape inserts
- Slant tip enables better chip flow and chip control
- Large tip allows much bigger ap, available with both slant and flat style

DP: Polycristalline diamond

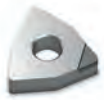
		DP	ND100
Stable machining, light cut	● 1st choice ○ suitable	●	
General machining, medium cut	● 1st choice ○ suitable	●	
Unstable machining, heavy cut	● 1st choice ○ suitable		

Dimensions

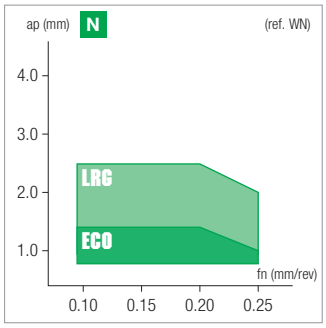


1 edge

ISO	Vc(m/min) - suggested cutting speed range (bold: 1st choice)	
P		
M		
K		
N	450 2400	
S		
H		

	Designation		RE	IC	S	D1	LE		Stock
SLANT TIP	eco N tip angle 7°	WNGM080404	0.4	12.7	4.76	5.16	2.8	●	
		WNGM080408	0.8	12.7	4.76	5.16	2.7	●	
SLANT TIP	LRG N  large tip tip angle 7°	WNGM080404-LRG	0.4	12.7	4.76	5.16	4.3	○	
		WNGM080408-LRG	0.8	12.7	4.76	5.16	4.2	○	
FLAT TIP	eco N	WNGA080404	0.4	12.7	4.76	5.16	2.8	●	
		WNGA080408	0.8	12.7	4.76	5.16	2.7	○	
FLAT TIP	LRG N large tip	WNGA080404-LRG	0.4	12.7	4.76	5.16	4.3	○	
		WNGA080408-LRG	0.8	12.7	4.76	5.16	4.2	○	

● stock standard, ○ non-standard stock, ▲ upcoming introduction, ▽ stock exhaustion



PRODUCT SELECTION p. A143 | CUTTING CONDITIONS p. A163 | GRADES FEATURES p. A134 | EXTERNAL HOLDERS p. A299 | INTERNAL HOLDERS p. A302

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ISO 513	MATERIAL	ND050 (NDP001)			ND100 / ND120 (NDP010)			ND150 (NDP302)			ND190 (NDP025)		
		min	start	max	min	start	max	min	start	max	min	start	max
N1	Aluminium alloys Si ≤ 12% (ex. 3.4365/AlZn5.5MgCu/ERGAL)	600	**1300**	2000	600	**1500**	2400						
		450	**1100**	1750	450	**1300**	2150						
		400	**1000**	1600									
N2	Aluminium alloys Si > 12% (ex. 3.2382/G-AlSi12)				300	**500**	700	400	**600**	800	400	**700**	1000
					250	**400**	550	350	**500**	650			
N3	Copper alloy (ex. 2.0060/E-Cu57)	400	**800**	1200	400	**900**	1400						
		350	**700**	1050	350	**800**	1250						
		300	**600**	900									
S4 - S5	Titanium alloys (ex. TiAl2Sn4Zr2MoSi)	50	**75**	100									
		45	**60**	75									
		40	**50**	60									

Complete workpiece materials p. **H**1.

TURNING Parameters - depht of cut and feed rate · DIAMOND

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DESIGNATION	DEPTH OF CUT			FEED RATE		
	ap (mm)			fn (mm/rev)		
	min	start	max	min	start	max
CCGT060202	0.40	**1.00**	1.60	0.05	**0.10**	0.15
CCGT060204	0.40	**1.00**	1.60	0.10	**0.15**	0.20
CCGT060204-LRG	0.40	**1.20**	2.00	0.10	**0.15**	0.20
CCGT060208	0.40	**1.00**	1.60	0.15	**0.20**	0.25
CCGT09T302	0.40	**1.00**	1.60	0.05	**0.10**	0.15
CCGT09T304	0.40	**1.00**	1.60	0.10	**0.15**	0.20
CCGT09T304-LRG	0.40	**1.20**	2.00	0.10	**0.15**	0.20
CCGT09T308	0.40	**1.00**	1.60	0.15	**0.20**	0.25
CCGT09T308-LRG	0.40	**1.50**	2.60	0.10	**0.15**	0.20
CCGT120404	0.40	**1.00**	1.60	0.10	**0.15**	0.20
CCGT120404-LRG	0.40	**1.20**	2.00	0.10	**0.15**	0.20
CCGT120408	0.40	**1.00**	1.60	0.15	**0.20**	0.25
CCGT120408-LRG	0.40	**1.50**	2.60	0.10	**0.15**	0.20
CCGW060202	0.40	**1.00**	1.60	0.05	**0.10**	0.15
CCGW060204	0.40	**1.00**	1.60	0.10	**0.15**	0.20
CCGW060204-LRG	0.40	**1.20**	2.00	0.10	**0.15**	0.20
CCGW060208	0.40	**1.00**	1.60	0.15	**0.20**	0.25
CCGW09T302	0.40	**1.00**	1.60	0.05	**0.10**	0.15
CCGW09T304	0.40	**1.00**	1.60	0.10	**0.15**	0.20
CCGW09T304-FF	0.50	**3.00**	5.50	0.10	**0.15**	0.20
CCGW09T304-LRG	0.40	**1.20**	2.00	0.10	**0.15**	0.20
CCGW09T308	0.40	**1.00**	1.60	0.15	**0.20**	0.25
CCGW09T308-FF	0.50	**3.00**	5.50	0.15	**0.20**	0.25
CCGW09T308-LRG	0.40	**1.50**	2.60	0.10	**0.15**	0.20
CCGW120404	0.40	**1.00**	1.60	0.10	**0.15**	0.20
CCGW120404-LRG	0.40	**1.20**	2.00	0.10	**0.15**	0.20
CCGW120408	0.40	**1.00**	1.60	0.15	**0.20**	0.25
CCGW120408-LRG	0.40	**1.50**	2.60	0.10	**0.15**	0.20
CCGX060202-CBF	0.20	**0.60**	1.00	0.04	**0.08**	0.12
CCGX060202-CBU	0.20	**1.50**	2.80	0.04	**0.08**	0.12
CCGX060204-CBF	0.20	**0.60**	1.00	0.05	**0.10**	0.15
CCGX060204-CBG	0.40	**1.20**	2.00	0.10	**0.15**	0.20
CCGX060204-CBU	0.20	**1.50**	2.80	0.04	**0.12**	0.20
CCGX060204L/R-1S	0.50	**2.00**	3.50	0.10	**0.15**	0.20
CCGX060208-CBU	0.20	**1.50**	2.80	0.08	**0.18**	0.26
CCGX09T304-CBG	0.50	**1.50**	2.50	0.10	**0.15**	0.20
CCGX09T304-CBU	0.20	**1.50**	2.80	0.04	**0.12**	0.20
CCGX09T304L/R-1S	0.50	**3.00**	5.50	0.10	**0.15**	0.20
CCGX09T308-CBG	0.50	**1.50**	2.50	0.15	**0.20**	0.25
CCGX09T308-CBU	0.20	**1.50**	2.80	0.08	**0.18**	0.26
CNGA120404	0.40	**1.00**	1.60	0.10	**0.15**	0.20
CNGA120404-LRG	0.40	**1.20**	2.00	0.10	**0.15**	0.20
CNGA120408	0.40	**1.00**	1.60	0.15	**0.20**	0.25
CNGA120408-LRG	0.40	**1.50**	2.60	0.10	**0.15**	0.20
CNGM120404	0.40	**1.00**	1.60	0.10	**0.15**	0.20
CNGM120404-LRG	0.40	**1.20**	2.00	0.10	**0.15**	0.20
CNGM120408	0.40	**1.00**	1.60	0.15	**0.20**	0.25
CNGM120408-LRG	0.40	**1.50**	2.60	0.10	**0.15**	0.20
DCGT070202	0.40	**1.00**	1.60	0.05	**0.10**	0.15
DCGT070204	0.40	**1.00**	1.60	0.10	**0.15**	0.20
DCGT070204-LRG	0.40	**1.20**	2.00	0.10	**0.15**	0.20
DCGT070208	0.40	**1.00**	1.60	0.15	**0.20**	0.25
DCGT11T302	0.40	**1.00**	1.60	0.05	**0.10**	0.15
DCGT11T304	0.40	**1.00**	1.60	0.10	**0.15**	0.20
DCGT11T304-LRG	0.40	**1.20**	2.00	0.10	**0.15**	0.20
DCGT11T308	0.40	**1.00**	1.60	0.15	**0.20**	0.25

DESIGNATION	DEPTH OF CUT			FEED RATE		
	ap (mm)			fn (mm/rev)		
	min	start	max	min	start	max
DCGT11T308-LRG	0.40	**1.50**	2.60	0.10	**0.15**	0.20
DCGW070202	0.40	**1.00**	1.60	0.05	**0.10**	0.15
DCGW070204	0.40	**1.00**	1.60	0.10	**0.15**	0.20
DCGW070204-FF	0.50	**2.00**	3.50	0.10	**0.15**	0.20
DCGW070204-LRG	0.40	**1.20**	2.00	0.10	**0.15**	0.20
DCGW070208	0.40	**1.00**	1.60	0.15	**0.20**	0.25
DCGW11T302	0.40	**1.00**	1.60	0.05	**0.10**	0.15
DCGW11T304	0.40	**1.00**	1.60	0.10	**0.15**	0.20
DCGW11T304-FF	0.50	**3.00**	5.50	0.10	**0.15**	0.20
DCGW11T304-LRG	0.40	**1.20**	2.00	0.10	**0.15**	0.20
DCGW11T308	0.40	**1.00**	1.60	0.15	**0.20**	0.25
DCGW11T308-FF	0.50	**3.00**	5.50	0.15	**0.20**	0.25
DCGW11T308-LRG	0.40	**1.50**	2.60	0.10	**0.15**	0.20
DCGX070202-CBF	0.20	**0.60**	1.00	0.04	**0.08**	0.12
DCGX070202-CBU	0.20	**1.50**	2.80	0.04	**0.08**	0.12
DCGX070204-CBU	0.20	**1.50**	2.80	0.04	**0.12**	0.20
DCGX070204L/R-1S	0.50	**2.00**	3.50	0.10	**0.15**	0.20
DCGX11T302-CBF	0.20	**0.60**	1.00	0.04	**0.08**	0.12
DCGX11T302-CBU	0.20	**1.50**	2.80	0.04	**0.08**	0.12
DCGX11T304-CBG	0.50	**1.50**	2.50	0.10	**0.15**	0.20
DCGX11T304-CBU	0.20	**1.50**	2.80	0.04	**0.12**	0.20
DCGX11T304L/R-1S	0.50	**3.00**	5.50	0.10	**0.15**	0.20
DCGX11T308-CBG	0.50	**1.50**	2.50	0.15	**0.20**	0.25
DCGX11T308-CBU	0.20	**1.50**	2.80	0.08	**0.18**	0.26
DCGX11T308L/R-1S	0.50	**3.00**	5.50	0.15	**0.20**	0.25
DNGA150604	0.40	**1.00**	1.60	0.10	**0.15**	0.20
DNGA150604-LRG	0.40	**1.20**	2.00	0.10	**0.15**	0.20
DNGA150608	0.40	**1.00**	1.60	0.15	**0.20**	0.25
DNGA150608-LRG	0.40	**1.50**	2.60	0.10	**0.15**	0.20
DNGM150604	0.40	**1.00**	1.60	0.10	**0.15**	0.20
DNGM150604-LRG	0.40	**1.20**	2.00	0.10	**0.15**	0.20
DNGM150608	0.40	**1.00**	1.60	0.15	**0.20**	0.25
DNGM150608-LRG	0.40	**1.50**	2.60	0.10	**0.15**	0.20
MCC.R02	0.20	**0.60**	1.00	0.05	**0.10**	0.15
MCC.R04	0.20	**0.60**	1.00	0.10	**0.15**	0.20
MCN.R02G-CBF	0.20	**0.60**	1.00	0.04	**0.08**	0.12
MCN.R02G-LRG	0.40	**1.20**	2.00	0.05	**0.10**	0.15
MCN.R04G-CBF	0.20	**0.60**	1.00	0.05	**0.10**	0.15
MCN.R04G-CBG	0.40	**1.20**	2.00	0.10	**0.15**	0.20
MCN.R04G-LRG	0.40	**1.20**	2.00	0.10	**0.15**	0.20
MCN.R08G-CBG	0.40	**1.20**	2.00	0.15	**0.20**	0.25
MCN.R08G-LRG	0.40	**1.20**	2.00	0.15	**0.20**	0.25
MDN.R02G-CBF	0.20	**0.60**	1.00	0.04	**0.08**	0.12
MDN.R02G-LRG	0.40	**1.20**	2.00	0.05	**0.10**	0.15
MDN.R04G-CBF	0.20	**0.60**	1.00	0.05	**0.10**	0.15
MDN.R04G-CBG	0.40	**1.20**	2.00	0.10	**0.15**	0.20
MDN.R04G-LRG	0.40	**1.20**	2.00	0.10	**0.15**	0.20
MDN.R08G-CBG	0.40	**1.20**	2.00	0.15	**0.20**	0.25
MDN.R08G-LRG	0.40	**1.20**	2.00	0.15	**0.20**	0.25
TCGT090202	0.40	**1.00**	1.60	0.05	**0.10**	0.15
TCGT090204	0.40	**1.00**	1.60	0.10	**0.15**	0.20
TCGT110202	0.40	**1.00**	1.60	0.05	**0.10**	0.15
TCGT110204	0.40	**1.00**	1.60	0.10	**0.15**	0.20
TCGT110204-LRG	0.40	**1.20**	2.00	0.10	**0.15**	0.20
TCGT110208	0.40	**1.00**	1.60	0.15	**0.20**	0.25
TCGT110208-LRG	0.40	**1.50**	2.60	0.10	**0.15**	0.20

DESIGNATION	DEPTH OF CUT			FEED RATE		
	ap (mm)			fn (mm/rev)		
	min	start	max	min	start	max
TCGT16T304	0.40	**1.00**	1.60	0.10	**0.15**	0.20
TCGT16T304-LRG	0.40	**1.20**	2.00	0.10	**0.15**	0.20
TCGT16T308	0.40	**1.00**	1.60	0.15	**0.20**	0.25
TCGT16T308-LRG	0.40	**1.50**	2.60	0.10	**0.15**	0.20
TCGW090202	0.40	**1.00**	1.60	0.05	**0.10**	0.15
TCGW090204	0.40	**1.00**	1.60	0.10	**0.15**	0.20
TCGW110202	0.40	**1.00**	1.60	0.05	**0.10**	0.15
TCGW110204	0.40	**1.00**	1.60	0.10	**0.15**	0.20
TCGW110204-FF	0.50	**2.00**	3.50	0.10	**0.15**	0.20
TCGW110204-LRG	0.40	**1.20**	2.00	0.10	**0.15**	0.20
TCGW110208	0.40	**1.00**	1.60	0.15	**0.20**	0.25
TCGW110208-LRG	0.40	**1.50**	2.60	0.10	**0.15**	0.20
TCGW16T304	0.40	**1.00**	1.60	0.10	**0.15**	0.20
TCGW16T304-FF	0.50	**3.00**	5.50	0.10	**0.15**	0.20
TCGW16T304-LRG	0.40	**1.20**	2.00	0.10	**0.15**	0.20
TCGW16T308	0.40	**1.00**	1.60	0.15	**0.20**	0.25
TCGW16T308-LRG	0.40	**1.50**	2.60	0.10	**0.15**	0.20
TCGX090202-CBF	0.20	**0.60**	1.00	0.04	**0.08**	0.12
TCGX090204-1S	0.50	**1.50**	2.50	0.10	**0.15**	0.20
TCGX090204-CBG	0.40	**1.20**	2.00	0.10	**0.15**	0.20
TCGX110202-CBF	0.20	**0.60**	1.00	0.04	**0.08**	0.12
TCGX110204-1S	0.50	**2.00**	3.50	0.10	**0.15**	0.20
TCGX110204-CBF	0.20	**0.60**	1.00	0.05	**0.10**	0.15
TCGX110204-CBG	0.50	**1.50**	2.50	0.10	**0.15**	0.20
TCGX110204-CBU	0.20	**1.50**	2.80	0.04	**0.12**	0.20
TCGX110208-CBG	0.50	**1.50**	2.50	0.15	**0.20**	0.25
TCGX16T304-1S	0.50	**3.00**	5.50	0.10	**0.15**	0.20
TCGX16T304-CBF	0.20	**0.60**	1.00	0.05	**0.10**	0.15
TCGX16T304-CBG	0.50	**1.50**	2.50	0.10	**0.15**	0.20
TCGX16T304-CBU	0.20	**1.50**	2.80	0.04	**0.12**	0.20
TCGX16T308-CBG	0.50	**1.50**	2.50	0.15	**0.20**	0.25
TCGX16T308-CBU	0.20	**1.50**	2.80	0.08	**0.18**	0.26
TNGA160404	0.40	**1.00**	1.60	0.10	**0.15**	0.20
TNGA160404-LRG	0.40	**1.20**	2.00	0.10	**0.15**	0.20
TNGA160408	0.40	**1.00**	1.60	0.15	**0.20**	0.25
TNGA160408-LRG	0.40	**1.50**	2.60	0.10	**0.15**	0.20
TNGM160404	0.40	**1.00**	1.60	0.10	**0.15**	0.20
TNGM160404-LRG	0.40	**1.20**	2.00	0.10	**0.15**	0.20
TNGM160408	0.40	**1.00**	1.60	0.15	**0.20**	0.25
TNGM160408-LRG	0.40	**1.50**	2.60	0.10	**0.15**	0.20
TPGT080202	0.40	**1.00**	1.60	0.05	**0.10**	0.15
TPGT080204	0.40	**1.00**	1.60	0.10	**0.15**	0.20
TPGT090202	0.40	**1.00**	1.60	0.05	**0.10**	0.15
TPGT090204	0.40	**1.00**	1.60	0.10	**0.15**	0.20
TPGT110302	0.40	**1.00**	1.60	0.05	**0.10**	0.15
TPGT110304	0.40	**1.00**	1.60	0.10	**0.15**	0.20
TPGW080202	0.40	**1.00**	1.60	0.05	**0.10**	0.15
TPGW080204	0.40	**1.00**	1.60	0.10	**0.15**	0.20
TPGW090202	0.40	**1.00**	1.60	0.05	**0.10**	0.15
TPGW090204	0.40	**1.00**	1.60	0.10	**0.15**	0.20
TPGW110302	0.40	**1.00**	1.60	0.05	**0.10**	0.15
TPGW110304	0.40	**1.00**	1.60	0.10	**0.15**	0.20
TPGX090202-CBF	0.20	**0.60**	1.00	0.04	**0.08**	0.12
TPGX090204-CBF	0.20	**0.60**	1.00	0.05	**0.10**	0.15
TPGX090204-CBG	0.50	**1.50**	2.50	0.10	**0.15**	0.20
TPGX110302-CBF	0.20	**0.60**	1.00	0.04	**0.08**	0.12

DESIGNATION	DEPTH OF CUT			FEED RATE		
	ap (mm)			fn (mm/rev)		
	min	start	max	min	start	max
TPGX110304-CBF	0.20	**0.60**	1.00	0.05	**0.10**	0.15
TPGX110304-CBG	0.50	**1.50**	2.50	0.10	**0.15**	0.20
TPGX110308-CBF	0.20	**0.60**	1.00	0.10	**0.15**	0.20
VBGT110302	0.40	**1.00**	1.60	0.05	**0.10**	0.15
VBGT110304	0.40	**1.00**	1.60	0.10	**0.15**	0.20
VBGT160404	0.40	**1.00**	1.60	0.10	**0.15**	0.20
VBGT160404-LRG	0.40	**1.20**	2.00	0.10	**0.15**	0.20
VBGT160408	0.40	**1.00**	1.60	0.15	**0.20**	0.25
VBGT160408-LRG	0.40	**1.50**	2.60	0.10	**0.15**	0.20
VBGW110302	0.40	**1.00**	1.60	0.05	**0.10**	0.15
VBGW110304	0.40	**1.00**	1.60	0.10	**0.15**	0.20
VBGW160404	0.40	**1.00**	1.60	0.10	**0.15**	0.20
VBGW160404-LRG	0.40	**1.20**	2.00	0.10	**0.15**	0.20
VBGW160408	0.40	**1.00**	1.60	0.15	**0.20**	0.25
VBGW160408-LRG	0.40	**1.50**	2.60	0.10	**0.15**	0.20
VBGX110302-CBF	0.20	**0.60**	1.00	0.04	**0.08**	0.12
VBGX110304-CBF	0.20	**0.60**	1.00	0.05	**0.10**	0.15
VBGX110304-CBG	0.50	**1.50**	2.50	0.10	**0.15**	0.20
VBGX160404-CBF	0.20	**0.60**	1.00	0.05	**0.10**	0.15
VBGX160404-CBG	0.50	**1.50**	2.50	0.10	**0.15**	0.20
VBGX160408-CBG	0.50	**1.50**	2.50	0.15	**0.20**	0.25
VCGT110302	0.40	**1.00**	1.60	0.05	**0.10**	0.15
VCGT110304	0.40	**1.00**	1.60	0.10	**0.15**	0.20
VCGT160402	0.40	**1.00**	1.60	0.05	**0.10**	0.15
VCGT160404	0.40	**1.00**	1.60	0.10	**0.15**	0.20
VCGT160404-LRG	0.40	**1.20**	2.00	0.10	**0.15**	0.20
VCGT160408	0.40	**1.00**	1.60	0.15	**0.20**	0.25
VCGT160408-LRG	0.40	**1.50**	2.60	0.10	**0.15**	0.20
VCGW110302	0.40	**1.00**	1.60	0.05	**0.10**	0.15
VCGW110304	0.40	**1.00**	1.60	0.10	**0.15**	0.20
VCGW110304-LRG	0.40	**1.20**	2.00	0.10	**0.15**	0.20
VCGW160404	0.40	**1.00**	1.60	0.10	**0.15**	0.20
VCGW160404-LRG	0.40	**1.20**	2.00	0.10	**0.15**	0.20
VCGW160408	0.40	**1.00**	1.60	0.15	**0.20**	0.25
VCGW160408-LRG	0.40	**1.50**	2.60	0.10	**0.15**	0.20
VCGW160412-LRG	0.40	**1.50**	2.60	0.20	**0.25**	0.30
VCGX110302-CBF	0.20	**0.60**	1.00	0.04	**0.08**	0.12
VCGX110302-CBU	0.20	**1.50**	2.80	0.04	**0.08**	0.12
VCGX110304-CBF	0.20	**0.60**	1.00	0.05	**0.10**	0.15
VCGX110304-CBG	0.50	**1.50**	2.50	0.10	**0.15**	0.20
VCGX110304-CBU	0.20	**1.50**	2.80	0.04	**0.12**	0.20
VCGX110304L/R-1S	0.50	**2.00**	3.50	0.10	**0.15**	0.20
VCGX160404-CBF	0.20	**0.60**	1.00	0.05	**0.10**	0.15
VCGX160404-CBG	0.50	**1.50**	2.50	0.10	**0.15**	0.20
VCGX160404-CBU	0.20	**1.50**	2.80	0.04	**0.12**	0.20
VCGX160404L/R-1S	0.50	**3.00**	5.50	0.10	**0.15**	0.20
VCGX160408-CBG	0.50	**1.50**	2.50	0.15	**0.20**	0.25
VCGX160408-CBU	0.20	**1.50**	2.80	0.08	**0.18**	0.26
WNGA080404	0.40	**1.00**	1.60	0.10	**0.15**	0.20
WNGA080404-LRG	0.40	**1.20**	2.00	0.10	**0.15**	0.20
WNGA080408	0.40	**1.00**	1.60	0.15	**0.20**	0.25
WNGA080408-LRG	0.40	**1.50**	2.60	0.10	**0.15**	0.20
WNGM080404	0.40	**1.00**	1.60	0.10	**0.15**	0.20
WNGM080404-LRG	0.40	**1.20**	2.00	0.10	**0.15**	0.20
WNGM080408	0.40	**1.00**	1.60	0.15	**0.20**	0.25
WNGM080408-LRG	0.40	**1.50**	2.60	0.10	**0.15**	0.20

TURNING Ceramic

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ISO 513		CERAMIC				
		Si_3N_4	Al_2O_3 MIXED	PVD COATED A_2O_3 MIXED	SiAlON	WHISKER
K Cast iron	K01	NSN350	NAC200			
	K10	NSN400				
	K20	NSN450				
	K30					
S HRSA	S01					NWR700
	S10				NSA6000	NWR750
	S20				NSA650	
	S30					
H Hardened steel	H01		NAC200	NAC150		
	H10		NAC250			
	H20					
	H30					

HRSA: Heat resistant super alloy

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GRADE	COMPOSITION	HARDNESS HV	COATING		APPLICATION		FEATURES
			TECHNOLOGY	COMPOSITION			
NAC150	Al_2O_3+TiCN	2.200	PVD	TiN	H	H01 H15	Coated ceramic improves tool life yellow surface helps to identify wear development.
NAC200	Al_2O_3+TiCN	2.300	-	-	K H	K01 K20 H01 H20	First choice for finishing of hardened steel and cast iron in stable conditions.
NAC250	Al_2O_3+TiC	2.100	-	-	H	H10 H25	Tough ceramic for general purpose applications with hight reliability.
NSN350	Si_3N_4	1.700	-	-	K	K05 K20	High wear resistance for continuous cut applications at very high cutting speed.
NSN400	Si_3N_4	1.700	-	-	K	K05 K30	First choice for roughing of gray cast iron even with interrupted cut.
NSN450	Si_3N_4	1.600	-	-	K	K20 K30	Toughest silicon nitride grade for very difficult applications.
NWR700	Al_2O_3+SiC	2.100	-	-	S	S01 S15	Reinforced alumina ceramic with excellent flank and notch wear, first choice for high speed stable machining of heat resistant super alloys.
NWR750	Al_2O_3+SiC	2.100	-	-	S	S05 S20	Reinforced alumina ceramic with improved toughness, appliable even on heavy interrupted cut.
NSA6000	SiAlON	1.800	-	-	S	S10 S30	First choice for heat resistance super alloys (HRSA) machining with variable cutting conditions. Toughness and wear resistant is well-balanced.
NSA650	SiAlON	1.700	-	-	S	S15 S35	Excellent thermal and shock resistance for severe applications on HRSA.

TURNING Grade cross reference · CERAMIC

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ISO 513			nikkoTOOLS	CERAMTEC	ISCAR	KENNAMETAL	KYOCERA	NTK	SANDVIK	TAEGUTEC	TUNGALOY	UNION	WALTER
K		K01 - K10	NSN350 NSN400	SL654C SL658C	IS6 IS8	KYK10	KS6015	SX6	CC6190 GC1690	AS500	FX105	SN500 SN600	WCK10
K		K10 - K20	NSN400 NSN450	SL500 SL550C SL506 SL606	IS8 IS80	KY3500 KYK25	CS7050 KS6050	SX6	CC6190	AS500	CX710 FX105	NC400 SN300 SN400	WCK10
K		K20 - K30	NSN450	SL508 SL608		KY3500	KS6050	SP9 SX9		AS10	CX710	SN300	
S		S01 - S10	NWR700 NWR750		IW7		CF1	WA1 WA5	CC670	TC430		SW400 SW800	WWS20
S	HRSA	S10 - S20	NSA6000	LST320	IS25 IS9	KY4300 KYS25	KS6030 KS6040	SX7 SX3	CC6060 CC6160	TC3020	TS200	SN800	WIS10
S	HRSA	S20 - S30	NSA6000 NSA650	LST320	IS35	KY1540 KYS30	KS6040	SX3 SX9	CC6065 CC6160	TC3030	TS200 TS300	SN1000	
H		H01 - H10	NAC150 NAC200	SH2	IN22 IN420	KY1615 KY4400	A66N PT600M	HC7 ZC7	CC6050	AB20 AB2010	LX11	ST500 ST900 TC300 TM300	
H		H10 - H20	NAC200 NAC250	SH2 SH4	IN23	KY1615	A65	HC2	CC650	AB30	LX11 LX21	ST100 ST300 TC100	
H		H20 - H30											

BLACK: CVD, UNDERLINED: PVD, RED: uncoated

This table is our own estimation based on information available to the public and is not authorized by the company mentioned on it.

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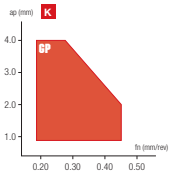
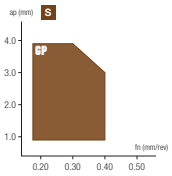
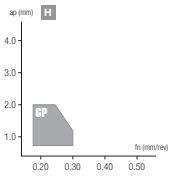
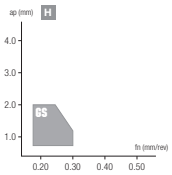
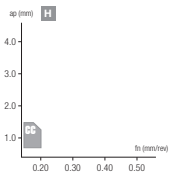
NEGATIVE type with hole				C	D	S	T	V	W
				80°	55°	90°	60°	35°	80°
K	UNIVERSAL	GP	T02020	A181 SIZE 12 16	A183 SIZE 15	A188 SIZE 12	A190 SIZE 16	A193 SIZE 16	A194 SIZE 08
K	WIPER	WU	T02020	A181 SIZE 12					
S	UNIVERSAL	GP	T02020	A181 SIZE 12					
H	UNIVERSAL	GP	T02020	A181 SIZE 12 16	A183 SIZE 15	A188 SIZE 12	A190 SIZE 16	A193 SIZE 16	A194 SIZE 08
H	UNIVERSAL	GS	R honing S01525 (NAC150) - S02020 (NAC200)	A181 SIZE 12	A183 SIZE 15		A190 SIZE 16	A193 SIZE 16	
H	SHARP	CC	T01020	A181 SIZE 12	A183 SIZE 15	A188 SIZE 12	A190 SIZE 16	A193 SIZE 16	A194 SIZE 08
H	WIPER	WU	T02020	A181 SIZE 12					

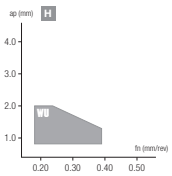












TURNING Edge preparation overview · CERAMIC

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NEGATIVE type without hole				C	D	R	S	T	
				80°	55°	-	90°	60°	
K	UNIVERSAL	GP T02020		A178 SIZE 12		A182 SIZE 12	A189 SIZE 12	A191 SIZE 16	
K	UNIVERSAL	GP T02020 WITH DIMPLE		A182 SIZE 12			A189 SIZE 12		
S	UNIVERSAL	GP T02020		A182 SIZE 12		A186 SIZE 12 19	A189 SIZE 12		
S	UNIVERSAL	GP T02020 WITH DIMPLE		A182 SIZE 12			A189 SIZE 12		
S	SHARP	CC T01020				A186 SIZE 12	A189 SIZE 12		
H	UNIVERSAL	GP T02020		A182 SIZE 12	A184 SIZE 15	A186 SIZE 12	A189 SIZE 12	A191 SIZE 16	
H	UNIVERSAL	GP T02020 WITH DIMPLE		A182 SIZE 12			A189 SIZE 12		
H	REINFORCED	HI R honing P15015		A182 SIZE 12		A185 SIZE 12	A189 SIZE 12 19		
H	REINFORCED	HT K15015				A185 SIZE 12			

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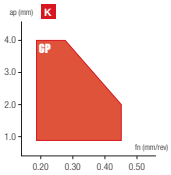
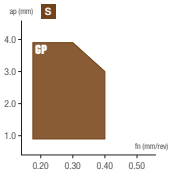
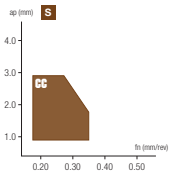
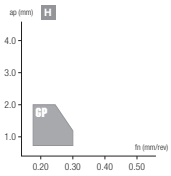
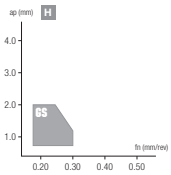
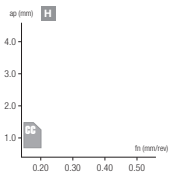
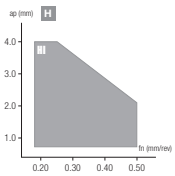
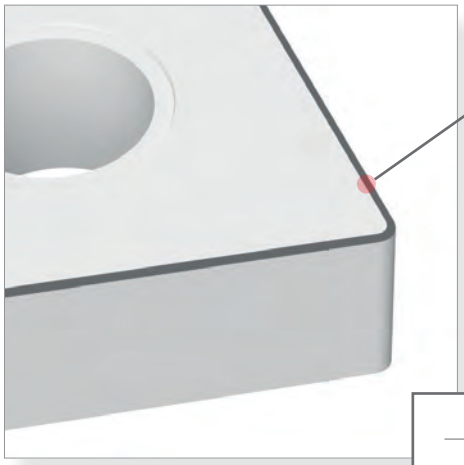
POSITIVE type				C	R	S	T		
				80°	-	90°	60°		
K	UNIVERSAL	GP T02020		CC A180 SIZE 09 12		SC A187 SIZE 09 12	TP A192 SIZE 11 16		
S	UNIVERSAL	GP T02020			RC A185 SIZE 09 12				
	SHARP	CC T01020			RC A185 SIZE 06 09 12				
H	UNIVERSAL	GP T02020			RC A185 SIZE 06 09 12		TP A192 SIZE 11 16		
		GS R honing S01525					TP A192 SIZE 11 16		
	SHARP	CC T01020					TP A192 SIZE 11 16		
	REINFORCED	HI R honing RCGX09/12: P15015 RCGX15/19: P20015			RC A185 SIZE 09 12 15 19				

CC

Edge preparation

· Recommended for stable continuous cutting conditions
· Sharp edge reduces cutting forces and burrs formation
· CC Continuous Cut edge preparation is generally combined with mixed ceramics for hardened steel and SiAlON (only round inserts) for HRSA machining

Features of CC edge preparation

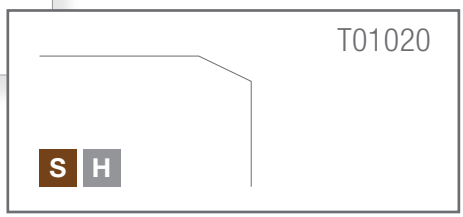


LOW CUTTING FORCE

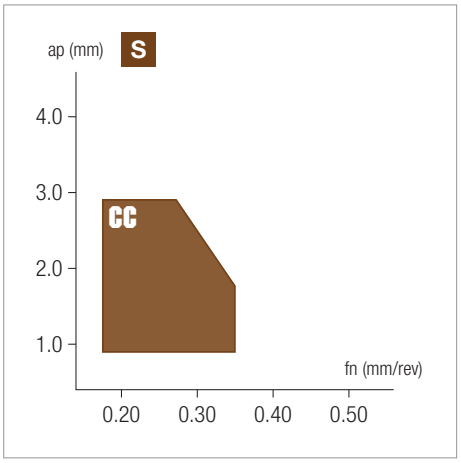
· The edge preparation has been optimized for low cutting forces action
· The chamfer width is 0.10 mm with an angle of 20° without round honing

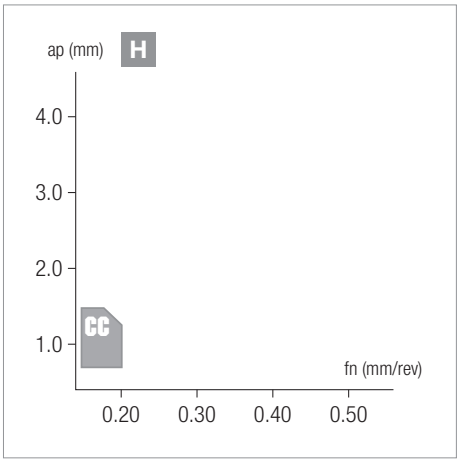
BROAD RANGE

· Available in most common shapes and radii both positive and negative



Application range





CC SiAlON

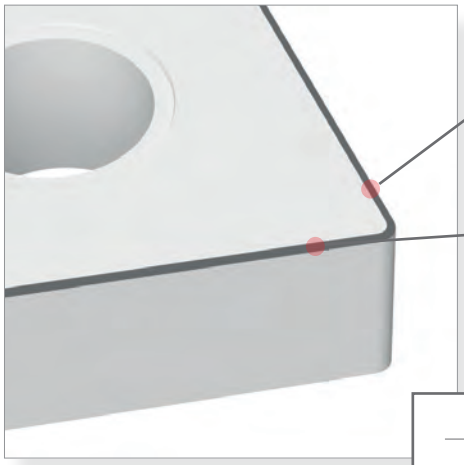
In combination with NSA grades must be considered as first choice for general purpose machining.

GP/GS

Edge preparation

· First choice for almost every kind of application on cast iron (NSN series) and hardened steel (NAC series)
· Well balanced between sharpnesses and robustness
· GP General Purpose is available in combination of 3 ceramic families: Silicon nitride, whisker reinforced and alumina mixed ceramic. GS (general purpose with honing) is only combined with NAC series

Features of "G" edge preparation

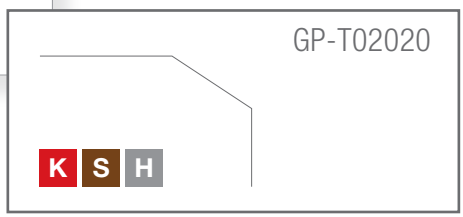


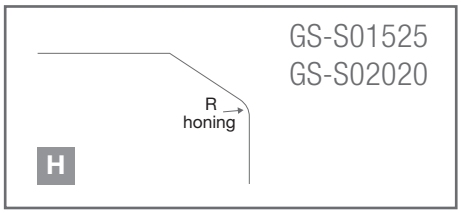
GP - FIRST CHOICE

· Applicable from continuous to light interrupted cut. Guarantee reliable performances
· The chamfer width, in most of the cases, is 0.20 mm with an angle of 20°

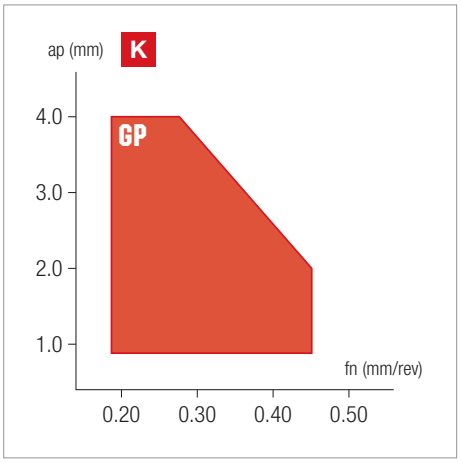
GS - STRENGTHEN THE EDGE

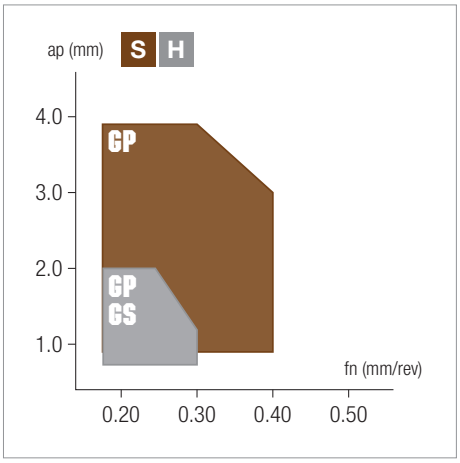
· Same features of GP but with an additional reinforced honing





Application range





ISO H FIRST CHOICE

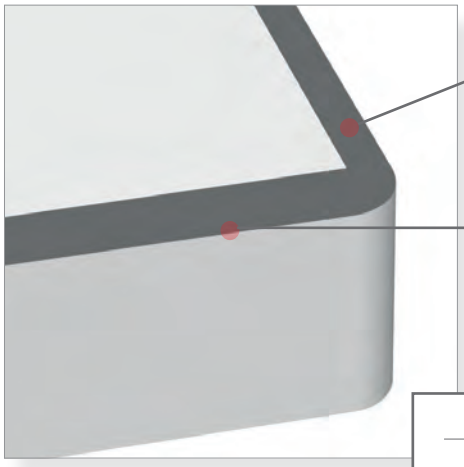
For best performance we suggest to combine the coated grade NAC150 to GS edge preparation and uncoated fine grain NAC200 to GP edge preparation.

HI

Edge preparation

· A standard chamfer edge connected to a wide chamfer rake, designed to endure heavy cutting conditions
· HI edge preparation is focused on hard material machining and is available mainly in combination with NAC series
· Commonly utilized in machining of steel rolls

Features of HI edge preparation

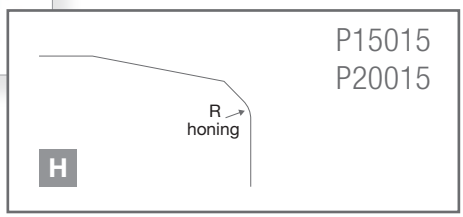


DOUBLE CHAMFER

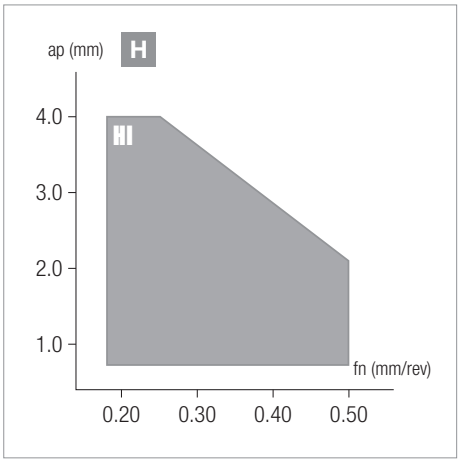
· Main chamfer size starts from 1,5 mm and can reach 2 mm for biggest inserts, with an angle of 15°
· Secondary chamfer width is 0.20 mm with an angle from 25° to 30°

REINFORCING HONING

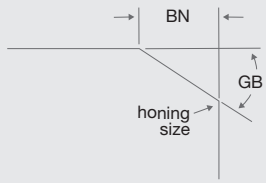
· As further reinforcement, the cutting edge honing has been increased compared to general purpose edge preparation



Application range



SPECIAL CHAMFER UPON REQUEST



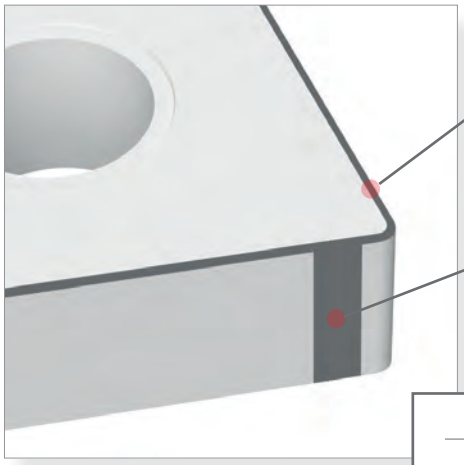
Big chamfer type is generally combined with round inserts for which we can provide even tailor-made solutions.
HT type, for exsample is a round insert with a double chamfered geometry without round honing.

WU

Edge preparation

· Could be used at higher feed rate to improve productivity or at standard feed rate to reach excellent surface quality
· WU wiper edge is available in combination with silicon nitride grade (NSN400) for gray cast iron and mixed alumina ceramic (NAC200) for hardened steel
· Combined with standard 80° shapes (CNGA)

Features of WU edge preparation

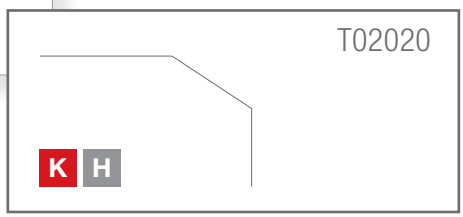


GENERAL PURPOSE

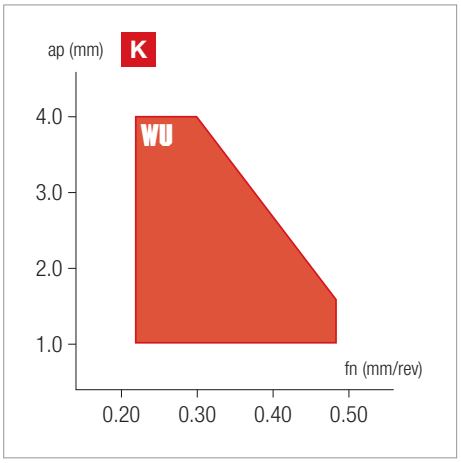
· Small T land chamfer without honing produces for low cutting forces and good accuracy
· The chamfer width is 0.2 mm with an inclination of 20°

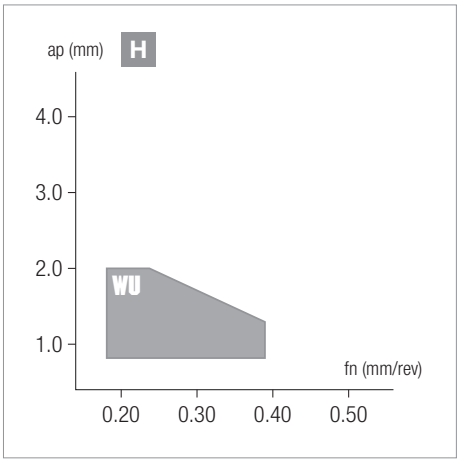
ARC WIPER

· A big arc at optimized position as wiper geometry in stead of conventional straight wiper land, effectively reduces vibration and ensures better surface quality



Application range





NOT ONLY FOR FINISHING

The wiper edge design when being used at medium or higher feed cutting conditions, can create better surface quality.

K		SILICON NITRIDE AND MIXED CERAMICS					
		NEGATIVE	POSITIVE				
	wear resistance	NAC200 / CC	NAC200 / CC				
	▲ 1st CHOICE ▼	**NSN400 / GP**	**NSN400 / GP**				
	toughness	NSN450 / GP	-				
	wear resistance	NAC200 / GP	NAC200 / GP				
	▲ 1st CHOICE ▼	**NSN400 / GP**	**NSN400 / GP**				
	toughness	NSN450 / GP	-				
	wear resistance	-	-				
	▲ 1st CHOICE ▼	**NSN400 / GP**	**NSN400 / GP**				
	toughness	NSN450 / GP	-				

S		WHISKER CERAMICS AND SiAlON					
		NEGATIVE	POSITIVE				
	wear resistance	-	-				
	▲ 1st CHOICE ▼	**NWR700 / GP**	**NWR700 / GP**				
	toughness	NWR750 / GP	NWR750 / GP				
	wear resistance	NWR750 / GP	NWR750 / GP				
	▲ 1st CHOICE ▼	**NSA6000 / CC**	**NSA6000 / CC**				
	toughness	NSA650 / GP	NSA650 / GP				
	wear resistance	NWR750 / GP	NWR750 / GP				
	▲ 1st CHOICE ▼	**NSA6000 / GP**	**NSA6000 / GP**				
	toughness	NSA650 / GP	NSA650 / GP				

H		Al_2O_3 MIXED CERAMICS					
		NEGATIVE	POSITIVE				
	wear resistance	NAC150 / CC	NAC150 / CC				
	▲ 1st CHOICE ▼	**NAC200 / CC**	**NAC200 / CC**				
	toughness	-	-				
	wear resistance	NAC150 / GS	NAC150 / GS				
	▲ 1st CHOICE ▼	**NAC200 / GP**	**NAC200 / GP**				
	toughness	NAC250 / GP	NAC250 / GP				
	wear resistance	NAC200 / HI	NAC200 / HI				
	▲ 1st CHOICE ▼	**NAC250 / HI**	**NAC250 / HI**				
	toughness	-	-				

C	N	G	A	12	04	08	-	GP	-	NAC	200
1	2	3	4	5	6	7		8		9	10

1	SHAPE
C	80° rhombic
D	55° rhombic
K	55° parallelogram
S	90° square
T	60° triangular
V	35° rhombic
W	80° trigon

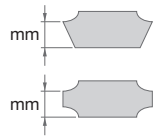
2	RELIEF ANGLE
B	5°
C	7°
D	15°
E	20°
N	0°
P	11°

3	TOLERANCES		
Symbol	I.C.	Thickness	Corner height
E	±0.025	±0.025	±0.025
G	±0.025	±0.13	±0.025
M	±0.05 ~ ±0.15	±0.13	±0.08 ~ ±0.18
U	±0.08 ~ ±0.25	±0.13	±0.13 ~ ±0.38

4	HOLE/CHIPBREAKER		
Symbol	Hole	Hole countersink	Chipbreaker
A	✓	✗	✗
G	✓	✗	double sided
M	✓	✗	single sided
N	✗	✗	✗
T	✓	40°÷60°	single sided
W	✓	40°÷60°	✗
X	NIKKO norm		

5	EDGE LENGHT						
I.C. (mm)	C shape	D shape	R shape	S shape	T shape	V shape	W shape
3.97	03	04		03	06		
4.76	04	05		04	08	08	
5.00			05				
5.56	05	06		05	09		03
6.00			06				
6.35	06	07		06	11	11	04
7.94	08	09		07	13		05
8.00			08				
9.53	09	11	09	09	16	16	06
10.00		12	10				
12.00							
12.70	12	15	12	12	22	22	08
15.88	16	19	15	15	27	24	10
16.00			16				
19.05	19	23	19	19	33	33	13
20.00			20				
22.23	22	27		22	38		
25.00			25				
25.40	25	31	25	25	44	44	17
31.75	32	38	31	31	54	54	21
32.00			32				

6	THICKNESS
Symbol	(mm)
01	1.59
T1	1.98
02	2.38
T2	2.78
03	3.18
T3	3.97
04	4.76
05	5.56
06	6.35
07	7.94
09	9.53



7	RADIUS
Symbol	(mm)
005	0.05
01	0.10
02	0.20
04	0.40
08	0.80
12	1.20
16	1.60
20	2.00
24	2.40

8	EDGE PREPARATION
CC	sharp edge
GP, GS	universal edge
HI	reinforced edge
WU	wiper edge

9	GRADE - features
NAC	Mixed Al_2O_3 ceramic
NSA	SiAlON
NSN	Silicon nitride
NWR	Whisker reinforced

10	GRADE - material
000÷290	ISO H
300÷590	ISO K
600÷790	ISO S

CC

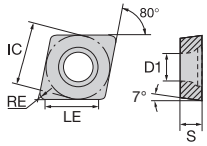
ISO - with hole

CN: Silicon nitride ceramic Si3N4

	CN	NSN400
Stable machining, light cut (1st choice / suitable)	●	
General machining, medium cut (1st choice / suitable)	●	
Unstable machining, heavy cut (1st choice / suitable)		

- The most popular insert shape due to high versatility
- Clearance angle 7°, bigger than 5°, less likely to have chip jamming when boring
- 80° corner can be used for both turning and facing operations

Dimensions

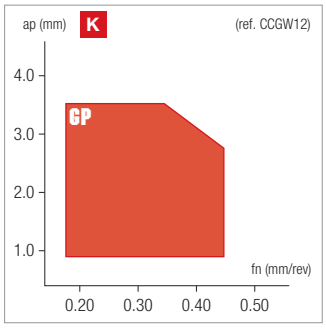


2 edges

ISO		**Vc(m/min) - suggested cutting speed range** (bold: 1st choice)
P		
M		
K	400 1000	
N		
S		
H		

	Designation	RE	IC	S	D1	LE		Stock
UNIVERSAL GP K	CCGW09T308-GP	0.8	9.525	3.97	4.4	8.9	○	
	CCGW09T312-GP	1.2	9.525	3.97	4.4	8.5	●	
	CCGW120408-GP	0.8	12.7	4.76	5.5	12.1	○	
	CCGW120412-GP	1.2	12.7	4.76	5.5	11.7	●	

● stock standard, ○ non-standard stock, ▲ upcoming introduction, ▽ stock exhaustion



PRODUCT SELECTION p. A178 | CUTTING CONDITIONS p. A196 | GRADES FEATURES p. A168 | EXTERNAL HOLDERS p. A214 | INTERNAL HOLDERS p. A218

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CN

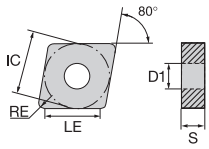
ISO - with hole

- The most popular insert shape due to high versatility
- 80° corner can be used for both turning and facing operations
- Opposite 100° corners can be used for general roughing applications (especially facing), providing maximum economy of 8 total cutting edges

CM: Mixed ceramic Al2O3
CN: Silicon nitride ceramic Si3N4
PVD: Physical vapour deposition

	NAC150	NAC200	NAC250	NSA6000	NSH350	NSH400	NSH450
	CM PVD	CM	CM	CN	CN	CN	CN
Stable machining, light cut (● 1st choice, ○ suitable)	●	●	○	○	●	●	○
General machining, medium cut (● 1st choice, ○ suitable)	○	●	●	●	○	●	●
Unstable machining, heavy cut (● 1st choice, ○ suitable)				○			

Dimensions



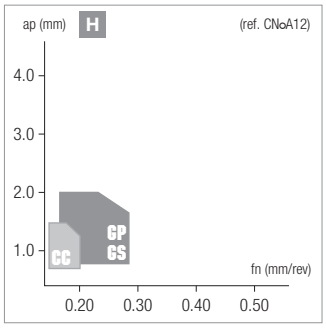
4 edges

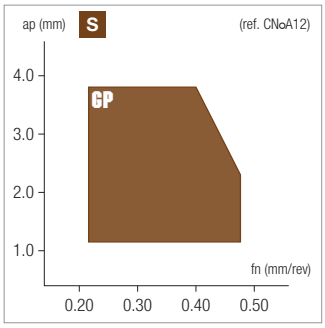
Vc(m/min) - suggested cutting speed range (bold: 1st choice)

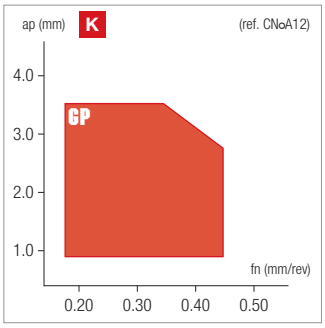
ISO	NAC150	NAC200	NAC250	NSA6000	NSH350	NSH400	NSH450
P							
M							
K		400 600			500 1000	400 1000	400 800
N							
S				150 400			
H	100 200	70 180	60 150				

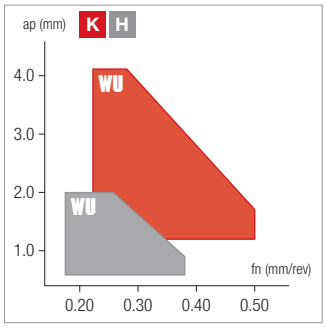
	Designation		RE	IC	S	D1	LE	NAC150	NAC200	NAC250	NSA6000	NSH350	NSH400	NSH450
UNIVERSAL	GP K S H	CNGA120404-GP	0.4	12.7	4.76	5.16	12.5		●					
		CNGA120408-GP	0.8	12.7	4.76	5.16	12.1		●	●	●			
		CNGA120412-GP	1.2	12.7	4.76	5.16	11.7		●	●	○			
		CNMA120408-GP	0.8	12.7	4.76	5.16	12.1					○	●	○
		CNMA120412-GP	1.2	12.7	4.76	5.16	11.7					○	●	○
		CNMA120416-GP	1.6	12.7	4.76	5.16	11.3					○	●	○
		CNGA160612-GP	1.2	15.87	6.35	6.35	14.9		●					
		CNGA160616-GP	1.6	15.87	6.35	6.35	14.5		○					
		CNMA160612-GP	1.2	15.87	6.35	6.35	14.9						●	
		CNMA160616-GP	1.6	15.87	6.35	6.35	14.5						●	
UNIVERSAL	GS H	CNGA120404-GS	0.4	12.7	4.76	5.16	12.5	●						
		CNGA120408-GS	0.8	12.7	4.76	5.16	12.1	●	●					
		CNGA120412-GS	1.2	12.7	4.76	5.16	11.7	●	○					
SHARP	CC H	CNGA120404-CC	0.4	12.7	4.76	5.16	12.5	○	●					
		CNGA120408-CC	0.8	12.7	4.76	5.16	12.1	●	●					
		CNGA120412-CC	1.2	12.7	4.76	5.16	11.7	○	○					
WIPER	WU K H	CNGA120410-WU	1	12.7	4.76	5.16	11.9		○				●	

● stock standard, ○ non-standard stock, ▲ upcoming introduction, ▽ stock exhaustion









PRODUCT SELECTION p. A178 | CUTTING CONDITIONS p. A196 | GRADES FEATURES p. A168 | EXTERNAL HOLDERS p. A224 | INTERNAL HOLDERS p. A229

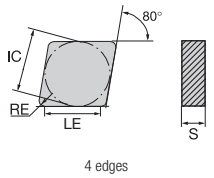
CN

ISO - without hole

- The most popular insert shape due to high versatility
- 80° corner can be used for both turning and facing operations
- Opposite 100° corners can be used for general roughing applications (especially facing), providing maximum economy of 8 total cutting edges

CM: Mixed ceramic Al2O3
CN: Silicon nitride ceramic Si3N4
CR: Whisker reinforced ceramic

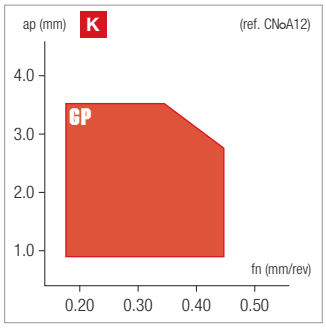
	NAC200	NAC250	NSA600	NSA6000	NSA650	NSH350	NSH400	NSH450	NWR700	NWR750
	CM	CM	CN	CN	CN	CN	CN	CN	CR	CR
Stable machining, light cut (● 1st choice, ○ suitable)	●	○	○	○		●	●	○	●	○
General machining, medium cut (● 1st choice, ○ suitable)	●	●	○	●	○	○	●	●	○	●
Unstable machining, heavy cut (● 1st choice, ○ suitable)				○						

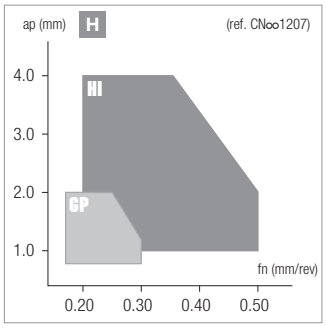


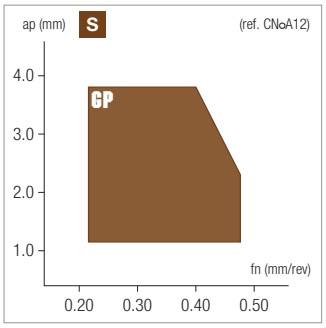
ISO	Vc(m/min) - suggested cutting speed range (bold: 1st choice)									
P										
M										
K	400 600					500 1000	400 1000	400 800		
N										
S			150 350	150 400	150 250				250 500	200 450
H	70 180	60 150								

	Designation	RE	IC	S	D1	LE	NAC200	NAC250	NSA600	NSA6000	NSA650	NSH350	NSH400	NSH450	NWR700	NWR750
UNIVERSAL	GP K S H CNMN120412-GP	1.2	12.7	4.76	-	11.7							○			
	CNMN120416-GP	1.6	12.7	4.76	-	11.3							○			
	CNGN120708-GP	0.8	12.7	7.94	-	12.1	○		▽				○			
	CNGN120712-GP	1.2	12.7	7.94	-	11.7	○		▽		▽		○		○	○
	CNGN120716-GP	1.6	12.7	7.94	-	11.3	○						○		○	○
UNIVERSAL	GP K S H dimpled type CNGX120708-GP	0.8	12.7	7.94	-	12.1	●									
	CNGX120712-GP	1.2	12.7	7.94	-	11.7	●									
	CNMX120712-GP	1.2	12.7	7.94	-	11.7			▽	▲			●			
	CNMX120716-GP	1.6	12.7	7.94	-	11.3				▲		●	●	●		
REINFORCED	HI H CNGN120712-HI	1.2	12.7	7.94	-	11.7		○								
	CNGN120716-HI	1.6	12.7	7.94	-	11.3		○								

● stock standard, ○ non-standard stock, ▲ upcoming introduction, ▽ stock exhaustion







PRODUCT SELECTION p. A178 | CUTTING CONDITIONS p. A196 | GRADES FEATURES p. A168 | EXTERNAL HOLDERS p. A224 | INTERNAL HOLDERS p. A229

nikkoTOOLS

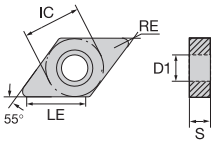
DN

ISO - with hole

- Generally the 1st choice for profile/copy turning applications
- Able to "In-Copy" (plunge turn into a smaller diameter) at an angle of 30°
- 7° clearance angle, less risk of chip jamming in boring
- Somewhat weaker edge strength than a triangle insert

CM: Mixed ceramic Al2O3
PVD: Physical vapour deposition

		CM PVD	CM	CM
		NAC150	NAC200	NAC250
Stable machining, light cut	● 1st choice ○ suitable	●	●	○
General machining, medium cut	● 1st choice ○ suitable	○	●	●
Unstable machining, heavy cut	● 1st choice ○ suitable			



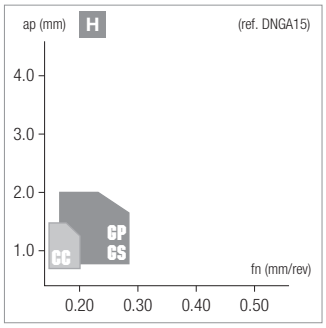
4 edges

Dimensions	ISO	NAC150	NAC200	NAC250
	P			
	M			
	K		400 600	
	N			
	S			
	H	100 200	70 180	60 150

Vc(m/min) - suggested cutting speed range (bold: 1st choice)

	Designation		RE	IC	S	D1	LE				Stock
UNIVERSAL	GP K H	DNGA150604-GP	0.4	12.7	6.35	5.16	15.1		●		
		DNGA150608-GP	0.8	12.7	6.35	5.16	14.7		●	●	
		DNGA150612-GP	1.2	12.7	6.35	5.16	14.3		●	○	
		DNGA150616-GP	1.6	12.7	6.35	5.16	13.9		○		
UNIVERSAL	GS H	DNGA150604-GS	0.4	12.7	6.35	5.16	15.1	○	●		
		DNGA150608-GS	0.8	12.7	6.35	5.16	14.7	●	●		
		DNGA150612-GS	1.2	12.7	6.35	5.16	14.3		○		
SHARP	CC H	DNGA150604-CC	0.4	12.7	6.35	5.16	15.1	○	●		
		DNGA150608-CC	0.8	12.7	6.35	5.16	14.7	○			
		DNGA150612-CC	1.2	12.7	6.35	5.16	14.3	○	●		

● stock standard, ○ non-standard stock, ▲ upcoming introduction, ▽ stock exhaustion



A - TURNING
B - THREADING
C - GROOVING
D - MILLING
E - DRILLING
F - ACCESSORIES
G - SPARE PARTS

DN

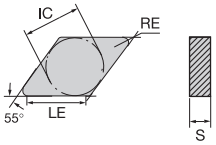
ISO - without hole

CM: Mixed ceramic Al2O3

	CM	NAC200
Stable machining, light cut (1st choice / suitable)	●	
General machining, medium cut (1st choice / suitable)	◐	
Unstable machining, heavy cut (1st choice / suitable)		

- Generally the 1st choice for profile/copy turning applications
- Able to "In-Copy" (plunge turn into a smaller diameter) at an angle of 30°
- 7° clearance angle, less risk of chip jamming in boring
- Somewhat weaker edge strength than a triangle insert

Dimensions

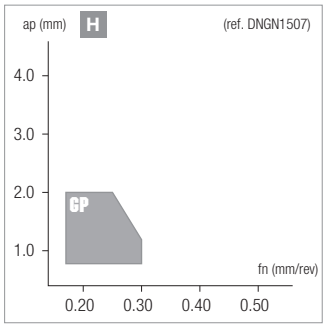


4 edges

ISO	Vc(m/min) - suggested cutting speed range (bold: 1st choice)
P	
M	
K	400 600
N	
S	
H	70 180

	Designation	RE	IC	S	D1	LE	Stock
UNIVERSAL GP H	DNGN150708-GP	0.8	12.7	7.94	-	14.7	○
	DNGN150712-GP	1.2	12.7	7.94	-	14.3	○
	DNGN150716-GP	1.6	12.7	7.94	-	13.9	○

● stock standard, ○ non-standard stock, ▲ upcoming introduction, ▽ stock exhaustion



PRODUCT SELECTION p. A178 | CUTTING CONDITIONS p. A196 | GRADES FEATURES p. A168

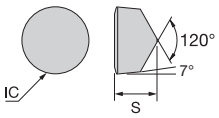
RC

ISO - without hole

- Very strong and robust shape and style, able to confront diverse challenges during the machining process
- Cornical tail secures the seating in the insert pocket of the holder
- Different edge preparation with wide range of grades covering the majority of application area

CM: Mixed ceramic Al2O3
CN: Silicon nitride ceramic Si3N4
CR: Whisker reinforced ceramic
PVD: Physical vapour deposition

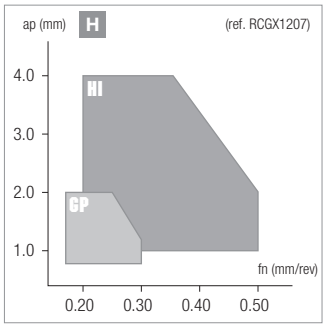
		CM PVD	CM	CM	CN	CN	CN	CR	CR
		NAC150	NAC200	NAC250	NSA600	NSA6000	NSA650	NWR700	NWR750
Stable machining, light cut	● 1st choice ○ suitable	●	●	○	○	○		●	○
General machining, medium cut	● 1st choice ○ suitable	○	●	●	○	●	○	○	●
Unstable machining, heavy cut	● 1st choice ○ suitable					○			

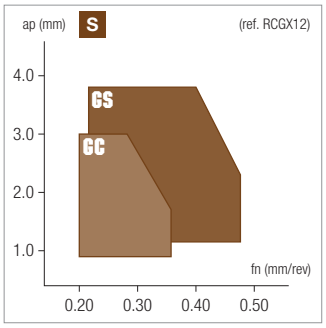


Dimensions	ISO									
		Vc(m/min) - suggested cutting speed range (bold: 1st choice)								
	P									
	M									
	K		400 600							
	N									
	S				150 350	150 400	150 250	250 500	200 450	
	H	100 200	70 180	60 150						

	Designation		RE	IC	S	D1	LE	Stock							
UNIVERSAL	GP S H	RCGX060700-GP	3.175	6.35	7.94	-	-		●						
		RCGX090700-GP	4.76	9.525	7.94	-	-	●	●	○				○	○
		RCGX120700-GP	6.35	12.7	7.94	-	-	○	○	○	▽		▽	○	○
UNIVERSAL	GS H	RCGX060600-GS	3.175	6.35	6.35	-	-		○						
SHARP	CC S	RCGX060600-CC	3.175	6.35	6.35	-	-					○			
		RCGX090700-CC	4.76	9.525	7.94	-	-					○			
		RCGX120700-CC	6.35	12.7	7.94	-	-					●			
REINFORCED	HI H	RCGX090700-HI	4.76	9.525	7.94	-	-	●	●	○					
		RCGX120700-HI	6.35	12.7	7.94	-	-	●	●	●					
		RCGX151000-HI	7.935	15.87	10	-	-		○	●					
		RCGX191000-HI	9.525	19.05	10	-	-		○	○					

● stock standard, ○ non-standard stock, ▲ upcoming introduction, ▽ stock exhaustion





PRODUCT SELECTION p. A178
CUTTING CONDITIONS p. A196
GRADES FEATURES p. A168

RN

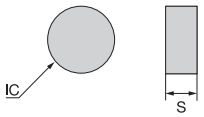
ISO - without hole

- Very strong and robust shape and style, able to confront diverse challenges during the machining process
- Different edge preparation with wide range of grades covering the majority of application area
- Other thicknesses available upon request

CM: Mixed ceramic Al2O3
CN: Silicon nitride ceramic Si3N4
CR: Whisker reinforced ceramic
PVD: Physical vapour deposition

		CM PVD	CM	CM	CN	CN	CN	CN	CR	CR
		NAC150	NAC200	NAC250	NSA600	NSA6000	NSA650	NSH400	NWR700	NWR750
Stable machining, light cut	● 1st choice ○ suitable	●	●	○	○	○		●	●	○
General machining, medium cut	● 1st choice ○ suitable	○	●	●	○	●	○	●	○	●
Unstable machining, heavy cut	● 1st choice ○ suitable					○				

Dimensions

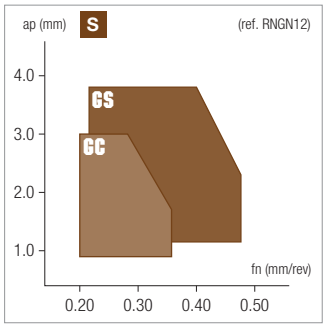


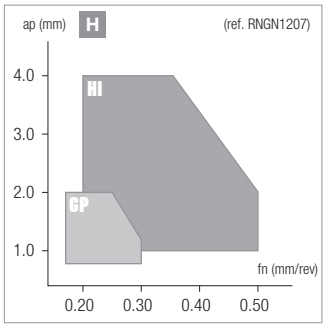
Vc(m/min) - suggested cutting speed range (bold: 1st choice)

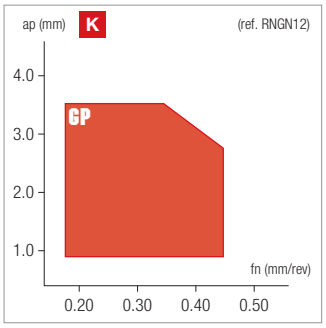
ISO	NAC150	NAC200	NAC250	NSA600	NSA6000	NSA650	NSH400	NWR700	NWR750
P									
M									
K		400 600					400 1000		
N									
S				150 350	150 400	150 250		250 500	200 450
H	100 200	70 180	60 150						

	Designation		RE	IC	S	D1	LE	NAC150	NAC200	NAC250	NSA600	NSA6000	NSA650	NSH400	NWR700	NWR750
UNIVERSAL	GP K S H	RNGN120400-GP	6.35	12.7	4.76	-	-		●						○	○
		RNGN120700-GP	6.35	12.7	7.94	-	-	○	○	○	▽		▽	○	○	○
		RNGN190700-GP	9.525	19.05	7.94	-	-								▽	
SHARP	CC S	RNGN120400-CC	6.35	12.7	4.76	-	-					●				
		RNGN120700-CC	6.35	12.7	7.94	-	-					●				
REINFORCED	HI H	RNGN120700-HI	6.35	12.7	7.94	-	-	●	●	●						
REINFORCED	HT H	RNGN120700-HT	6.35	12.7	7.94	-	-	●		●						

● stock standard, ○ non-standard stock, ▲ upcoming introduction, ▽ stock exhaustion







PRODUCT SELECTION p. A178 | CUTTING CONDITIONS p. A196 | GRADES FEATURES p. A168

SC

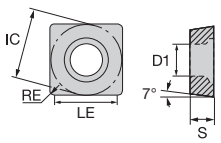
ISO - with hole

- Very strong 90° corner with excellent economy (4 edges on positive inserts)
- More used on roughing
- Unable to turn or face up to a shoulder (must be used in a tool holder with min. 5° lead angle)
- High radial forces push against the workpiece when used for turning
- Should always be used in a stable set-up

CN: Silicon nitride ceramic Si3N4

		CN	NSN400
Stable machining, light cut	● 1st choice ○ suitable	●	
General machining, medium cut	● 1st choice ○ suitable	●	
Unstable machining, heavy cut	● 1st choice ○ suitable		

Dimensions



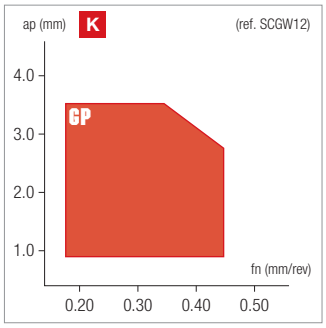
4 edges

ISO	CN	NSN400
P		
M		
K	400 1000	
N		
S		
H		

Vc(m/min) - suggested cutting speed range (bold: 1st choice)

	Designation	RE	IC	S	D1	LE	Stock
UNIVERSAL GP K	SCGW09T308-GP	0.8	9.525	3.97	4.4	8.7	●
	SCGW120408-GP	0.8	12.7	4.76	5.5	11.9	●

● stock standard, ○ non-standard stock, ▲ upcoming introduction, ▽ stock exhaustion



SN

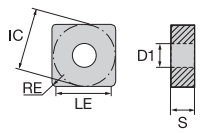
ISO - with hole

- Very strong 90° corner with excellent economy (4 edges on positive inserts)
- More used on roughing
- Unable to turn or face up to a shoulder (must be used in a tool holder with min. 5° lead angle)
- High radial forces push against the workpiece when used for turning
- Should always be used in a stable set-up

CM: Mixed ceramic Al2O3
CN: Silicon nitride ceramic Si3N4

	CM	CN
	NAC200	NSN400
Stable machining, light cut (● 1st choice, ○ suitable)	●	●
General machining, medium cut (● 1st choice, ○ suitable)	●	●
Unstable machining, heavy cut (● 1st choice, ○ suitable)		

Dimensions

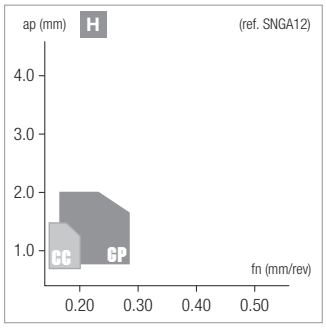


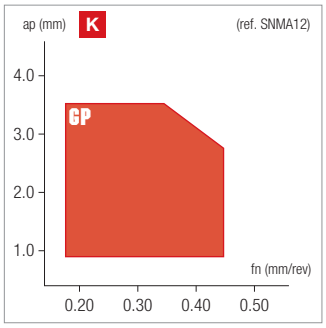
8 edges

ISO	CM	CN	Vc(m/min) - suggested cutting speed range (bold: 1st choice)
P			
M			
K	400 600	**400** **1000**	
N			
S			
H	70 180		

	Designation	RE	IC	S	D1	LE			Stock
UNIVERSAL	GP K H SNGA120404-GP	0.4	12.7	4.76	5.16	12.3	●		
	SNGA120408-GP	0.8	12.7	4.76	5.16	11.9	●		
	SNGA120412-GP	1.2	12.7	4.76	5.16	11.5	●		
	SNMA120408-GP	0.8	12.7	4.76	5.16	11.9		●	
	SNMA120412-GP	1.2	12.7	4.76	5.16	11.5		●	
	SNMA120416-GP	1.6	12.7	4.76	5.16	11.1		○	
SHARP	CC H SNGA120404-CC	0.4	12.7	4.76	5.16	12.3	●		
	SNGA120408-CC	0.8	12.7	4.76	5.16	11.9	○		
	SNGA120412-CC	1.2	12.7	4.76	5.16	11.5	●		

● stock standard, ○ non-standard stock, ▲ upcoming introduction, ▽ stock exhaustion





PRODUCT SELECTION p. A178 | CUTTING CONDITIONS p. A196 | GRADES FEATURES p. A168 | EXTERNAL HOLDERS p. A257 | INTERNAL HOLDERS p. A261

nikkoTOOLS

SN

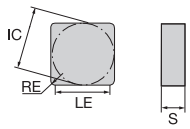
ISO - without hole

- Very strong 90° corner with excellent economy (4 edges on positive inserts)
- More used on roughing
- Unable to turn or face up to a shoulder (must be used in a tool holder with min. 5° lead angle)
- High radial forces push against the workpiece when used for turning
- Should always be used in a stable set-up

CM: Mixed ceramic Al2O3
CN: Silicon nitride ceramic Si3N4
CR: Whisker reinforced ceramic
PVD: Physical vapour deposition

	NAC150	NAC200	NAC250	NSA600	NSA6000	NSN400	NSN450	NWR750
	CM PVD	CM	CM	CN	CN	CN	CN	CR
Stable machining, light cut (● 1st choice, ○ suitable)	●	●	○	○	○	●	○	○
General machining, medium cut (● 1st choice, ○ suitable)	○	●	●	○	●	●	●	●
Unstable machining, heavy cut (● 1st choice, ○ suitable)					○			

Dimensions



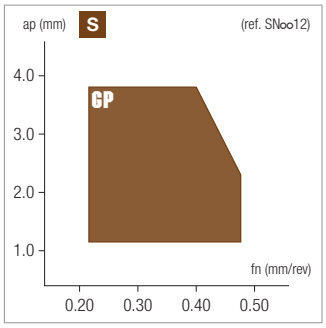
8 edges

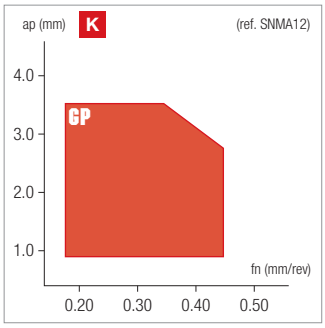
Vc(m/min) - suggested cutting speed range (bold: 1st choice)

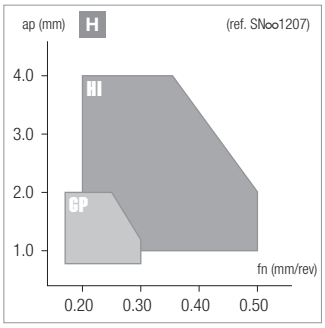
ISO	NAC150	NAC200	NAC250	NSA600	NSA6000	NSN400	NSN450	NWR750
P								
M								
K		400 600				400 1000	400 800	
N								
S				150 350	150 400			200 450
H	100 200	70 180	60 150					

	Designation		RE	IC	S	D1	LE	NAC150	NAC200	NAC250	NSA600	NSA6000	NSN400	NSN450	NWR750
UNIVERSAL	GP K S H	SNGN120408-GP	0.8	12.7	4.76	-	11.9						●		
		SNGN120412-GP	1.2	12.7	4.76	-	11.5					○	●	●	▽
		SNMN120416-GP	1.6	12.7	4.76	-	11.1						●		
		SNGN120708-GP	0.8	12.7	7.94	-	11.9	●	●						
		SNGN120712-GP	1.2	12.7	7.94	-	11.5		●						
		SNGN120716-GP	1.6	12.7	7.94	-	11.1		○						
UNIVERSAL	GP K S H dimpled type	SNGX120708-GP	0.8	12.7	7.94	-	11.9		●						
		SNGX120712-GP	1.2	12.7	7.94	-	11.5		●						
		SNMX120712-GP	1.2	12.7	7.94	-	11.5					▲	●		
		SNMX120716-GP	1.6	12.7	7.94	-	11.1				▽	▲	●		
REINFORCED	HI H	SNGN120716-HI	1.6	12.7	7.94	-	11.1			○					
		SNGN120720-HI	2	12.7	7.94	-	10.7		○						
		SNGN120724-HI	2.4	12.7	7.94	-	10.3		○						

● stock standard, ○ non-standard stock, ▲ upcoming introduction, ▽ stock exhaustion







PRODUCT SELECTION p. A178
CUTTING CONDITIONS p. A196
GRADES FEATURES p. A168

TN

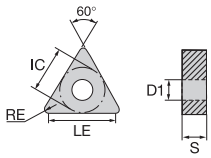
ISO - with hole

- Very versatile insert shape, can be used for turning, facing, boring, copy turning and basic profiling, sometimes even threading
- Good economy with up to 6 cutting edges
- Very stable seating of the insert in pocket of a holder, especially advantaged in boring operation
- Edge is measurably weaker than 80° diamond shape inserts

CM: Mixed ceramic Al2O3
CN: Silicon nitride ceramic Si3N4
PVD: Physical vapour deposition

		CM PVD	CM	CM	CN
		NAC150	NAC200	NAC250	NSN400
Stable machining, light cut	● 1st choice ○ suitable	●	●	○	●
General machining, medium cut	● 1st choice ○ suitable	○	●	●	●
Unstable machining, heavy cut	● 1st choice ○ suitable				

Dimensions



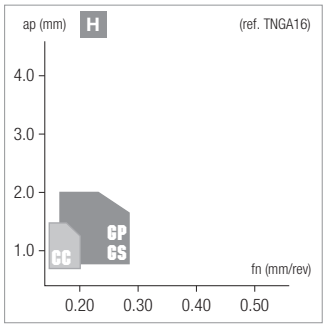
6 edges

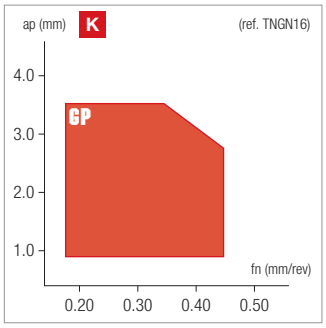
ISO	NAC150	NAC200	NAC250	NSN400
P				
M				
K		400 600		400 1000
N				
S				
H	100 200	70 180	60 150	

Vc(m/min) - suggested cutting speed range (bold: 1st choice)

	Designation		RE	IC	S	D1	LE	NAC150	NAC200	NAC250	NSN400	Stock
UNIVERSAL	GP K H	TNGA160404-GP	0.4	9.525	4.76	3.81	16.1		●			
		TNGA160408-GP	0.8	9.525	4.76	3.81	15.7		●	●	○	
		TNGA160412-GP	1.2	9.525	4.76	3.81	15.3		●	●	●	
UNIVERSAL	GS H	TNGA160404-GS	0.4	9.525	4.76	3.81	16.1	●	●			
		TNGA160408-GS	0.8	9.525	4.76	3.81	15.7	●	●			
		TNGA160412-GS	1.2	9.525	4.76	3.81	15.3	●	○			
SHARP	CC H	TNGA160404-CC	0.4	9.525	4.76	3.81	16.1	●	●			
		TNGA160408-CC	0.8	9.525	4.76	3.81	15.7	●	●			
		TNGA160412-CC	1.2	9.525	4.76	3.81	15.3		●			

● stock standard, ○ non-standard stock, ▲ upcoming introduction, ▽ stock exhaustion





PRODUCT SELECTION p. A178 | CUTTING CONDITIONS p. A196 | GRADES FEATURES p. A168 | EXTERNAL HOLDERS p. A271

nikkoTOOLS

TN

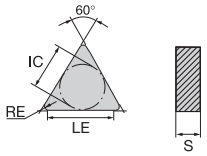
ISO - without hole

- Very versatile insert shape, can be used for turning, facing, boring, copy turning and basic profiling, sometimes even threading
- Good economy with up to 6 cutting edges
- Very stable seating of the insert in pocket of a holder, especially advantaged in boring operation
- Edge is measurably weaker than 80° diamond shape inserts

CM: Mixed ceramic Al2O3
CN: Silicon nitride ceramic Si3N4

	CM	CN
	NAC200	NSN400
Stable machining, light cut (● 1st choice, ○ suitable)	●	●
General machining, medium cut (● 1st choice, ○ suitable)	●	●
Unstable machining, heavy cut (● 1st choice, ○ suitable)		

Dimensions



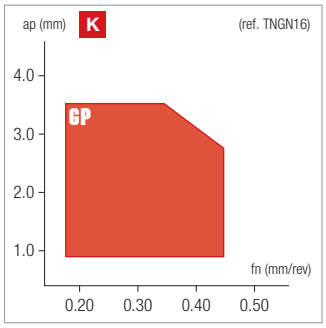
6 edges

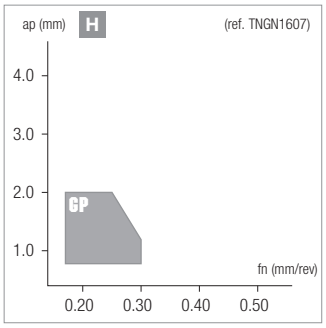
ISO	CM	CN
P		
M		
K	400 600	400 1000
N		
S		
H	70 180	

Vc(m/min) - suggested cutting speed range (bold: 1st choice)

	Designation	RE	IC	S	D1	LE	CM	CN	Stock
UNIVERSAL GP K H	TNGN160408-GP	0.8	9.525	4.76	-	15.7		●	
	TNGN160708-GP	0.8	9.525	7.94	-	15.7	○	○	
	TNGN160712-GP	1.2	9.525	7.94	-	15.3	○	○	

● stock standard, ○ non-standard stock, ▲ upcoming introduction, ▽ stock exhaustion





PRODUCT SELECTION p. A178
CUTTING CONDITIONS p. A196
GRADES FEATURES p. A168

TP

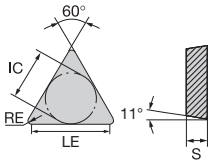
ISO - without hole

- Very versatile insert shape, can be used for turning, facing, boring, copy turning and basic profiling, sometimes even threading
- Good economy with up to 3 cutting edges
- Very stable seating of the insert in pocket of a holder, especially advantaged in boring operation
- Edge is measurably weaker than 80° diamond shape inserts

CM: Mixed ceramic Al2O3
CN: Silicon nitride ceramic Si3N4
PVD: Physical vapour deposition

		CM PVD	CM	CN
		NAC150	NAC200	NSN400
Stable machining, light cut	● 1st choice ○ suitable	●	●	●
General machining, medium cut	● 1st choice ○ suitable	○	●	●
Unstable machining, heavy cut	● 1st choice ○ suitable			

Dimensions



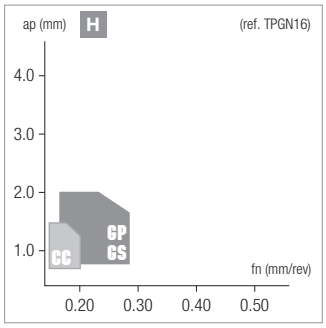
3 edges

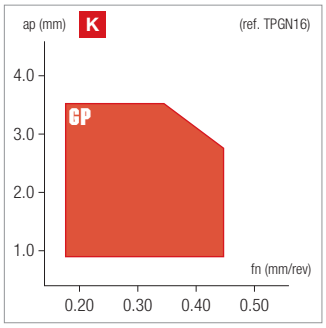
ISO	NAC150	NAC200	NSN400
P			
M			
K		400 600	400 1000
N			
S			
H	100 200	70 180	

Vc(m/min) - suggested cutting speed range (bold: 1st choice)

	Designation	RE	IC	S	D1	LE	NAC150	NAC200	NSN400	Stock
UNIVERSAL	GP K H									
	TPGN110302-GP	0.2	6.35	3.18	-	10.8		●		
	TPGN110304-GP	0.4	6.35	3.18	-	10.6		●	○	
	TPGN110308-GP	0.8	6.35	3.18	-	10.2		●	●	
	TPGN160304-GP	0.4	9.525	3.18	-	16.1		●	○	
	TPGN160308-GP	0.8	9.525	3.18	-	15.7		●	●	
	TPGN160312-GP	1.2	9.525	3.18	-	15.3			●	
UNIVERSAL	GS H									
	TPGN110302-GS	0.2	6.35	3.18	-	10.8	○			
	TPGN110304-GS	0.4	6.35	3.18	-	10.6	●			
	TPGN110308-GS	0.8	6.35	3.18	-	10.2	○			
	TPGN160304-GS	0.4	9.525	3.18	-	16.1	●			
	TPGN160308-GS	0.8	9.525	3.18	-	15.7	●			
SHARP	CC H									
	TPGN110302-CC	0.2	6.35	3.18	-	10.8	○	●		
	TPGN110304-CC	0.4	6.35	3.18	-	10.6	○	●		
	TPGN110308-CC	0.8	6.35	3.18	-	10.2	●	○		
	TPGN160304-CC	0.4	9.525	3.18	-	16.1	●	●		
	TPGN160308-CC	0.8	9.525	3.18	-	15.7	●	●		
	TPGN160312-CC	1.2	9.525	3.18	-	15.3		●		

● stock standard, ○ non-standard stock, ▲ upcoming introduction, ▽ stock exhaustion





PRODUCT SELECTION p. A178 | CUTTING CONDITIONS p. A196 | GRADES FEATURES p. A168 | EXTERNAL HOLDERS p. A276

nikkoTOOLS

VN

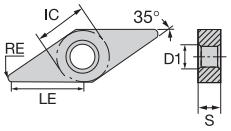
ISO - with hole

- 1st choice for intricate shape copy turning
- Can "In-Copy" (plunge turn into a smaller diameter) at an angle up to 49°
- Can work extremely close to the tailstock/ live center
- The weakest turning insert shape among all, ap and fn should be lighter
- Double sided style should mainly be used for external applications

CM: Mixed ceramic Al2O3
CN: Silicon nitride ceramic Si3N4
PVD: Physical vapour deposition

		CM PVD	CM	CM	CN
		NAC150	NAC200	NAC250	NSN400
Stable machining, light cut	● 1st choice ○ suitable	●	●	○	●
General machining, medium cut	● 1st choice ○ suitable	○	●	●	●
Unstable machining, heavy cut	● 1st choice ○ suitable				

Dimensions



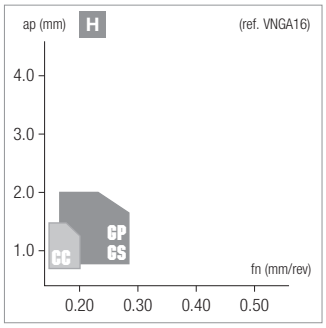
4 edges

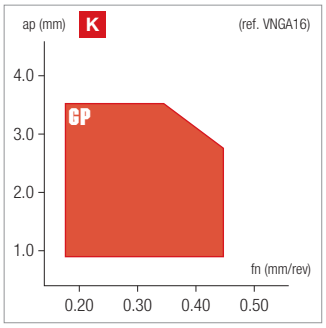
ISO	NAC150	NAC200	NAC250	NSN400
P				
M				
K		400 600		400 1000
N				
S				
H	100 200	70 180	60 150	

Vc(m/min) - suggested cutting speed range (bold: 1st choice)

	Designation		RE	IC	S	D1	LE	NAC150	NAC200	NAC250	NSN400	Stock
UNIVERSAL	GP K H	VNGA160404-GP	0.4	9.525	4.76	3.81	16.2		●		○	
		VNGA160408-GP	0.8	9.525	4.76	3.81	15.8		●	○	●	
		VNGA160412-GP	1.2	9.525	4.76	3.81	15.4		○	○	○	
UNIVERSAL	GS H	VNGA160404-GS	0.4	9.525	4.76	3.81	16.2	●	●			
		VNGA160408-GS	0.8	9.525	4.76	3.81	15.8	●	●			
		VNGA160412-GS	1.2	9.525	4.76	3.81	15.4	○	○			
SHARP	CC H	VNGA160404-CC	0.4	9.525	4.76	3.81	16.2	●				
		VNGA160408-CC	0.8	9.525	4.76	3.81	15.8	●	●			
		VNGA160412-CC	1.2	9.525	4.76	3.81	15.4	○	○			

● stock standard, ○ non-standard stock, ▲ upcoming introduction, ▽ stock exhaustion





A - TURNING
B - THREADING
C - GROOVING
D - MILLING
E - DRILLING
F - ACCESSORIES
G - SPARE PARTS

WN

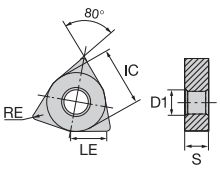
ISO - with hole

- 6-corner 80° diamond shape that can increase economy compared to CNMG-style inserts
- Generally used on more moderate depths of cut and feedrates than CNMG-style inserts
- Seating of insert in pocket is less stable as CNMG-style inserts
- Cannot take as deep a depth of cut as similar sized CNMG-style insert

CM: Mixed ceramic Al2O3
CN: Silicon nitride ceramic Si3N4

	CM	CN
	NAC200	NSN400
Stable machining, light cut (● 1st choice, ○ suitable)	●	●
General machining, medium cut (● 1st choice, ○ suitable)	●	●
Unstable machining, heavy cut (● 1st choice, ○ suitable)		

Dimensions

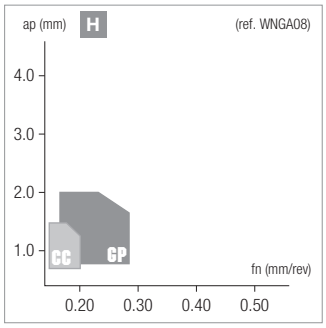


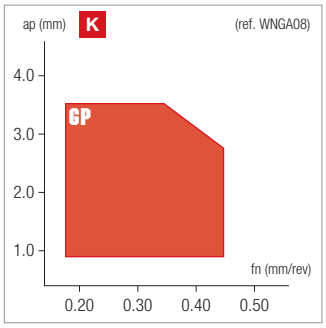
6 edges

ISO	CM	CN	Vc(m/min) - suggested cutting speed range (bold: 1st choice)
P			
M			
K	400 600	**400** **1000**	
N			
S			
H	**70** **180**		

	Designation	RE	IC	S	D1	LE	CM	CN	Stock
UNIVERSAL	GP K H WNGA080404-GP	0.4	12.7	4.76	5.16	8.3	●		
	WNGA080408-GP	0.8	12.7	4.76	5.16	7.9	●	○	
	WNGA080412-GP	1.2	12.7	4.76	5.16	7.5	●	●	
SHARP	CC H WNGA080404-CC	0.4	12.7	4.76	5.16	8.3	●		
	WNGA080408-CC	0.8	12.7	4.76	5.16	7.9	●		
	WNGA080412-CC	1.2	12.7	4.76	5.16	7.5	○		

● stock standard, ○ non-standard stock, ▲ upcoming introduction, ▽ stock exhaustion





PRODUCT SELECTION p. A178 | CUTTING CONDITIONS p. A196 | GRADES FEATURES p. A168 | EXTERNAL HOLDERS p. A299 | INTERNAL HOLDERS p. A302

ISO 513	MATERIAL	HARDNESS HB	NAC200			NSN350			NSN400		
			min	start	max	min	start	max	min	start	max
K1	Grey cast iron (ex. 0.6025/GG25/EN-GJL-250)	150 ÷ 250	400	**500**	600	600	**800**	1000	500	**750**	1000
						500	**700**	900	400	**650**	900
K2	Nodular cast iron (ex. 0.7050/GGG50/EN-GJS-500-7)	150 ÷ 350	300	**400**	500				450	**600**	750
									400	**500**	600
ISO 513	MATERIAL	HARDNESS HRC	NAC150			NAC200			NAC250		
			min	start	max	min	start	max	min	start	max
H1	Case-hardened steel (ex. 1.7131/16MnCr5)	50 ÷ 56	100	**150**	200	80	**130**	180	70	**110**	150
						70	**110**	150	60	**100**	140
H2	Bearing steel, quenched and tempered steel (ex.1.3505/100Cr6)	54 ÷ 62	80	**130**	180	70	**100**	130	60	**90**	120
						60	**80**	100	50	**60**	70
ISO 513	MATERIAL	HARDNESS HRC	NSA6000			NSA650			NWR700		
			min	start	max	min	start	max	min	start	max
S1 - S2 - S3	Fe/Ni/Co based heat resistant alloys (ex. Hastelloy, Inconel 625, Inconel 718)	50 ÷ 56	200	**300**	400				300	**400**	500
			180	**250**	320	150	**200**	250	250	**300**	350
			150	**200**	250						

Complete workpiece materials p. **H**1.

NSN450	min	start	max					
●	400	**600**	800					
⚙	400	**500**	600					
NWR750	min	start	max					
○	250	**350**	450					
●	200	**250**	300					

Complete workpiece materials p. **H**1.

TURNING Parameters - depht of cut and feed rate · CERAMIC

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DESIGNATION	DEPTH OF CUT			FEED RATE		
	ap (mm)			fn (mm/rev)		
	min	start	max	min	start	max
CCGW09T308-GP K	1.00	**2.00**	3.00	0.12	**0.23**	0.34
CCGW09T312-GP K	1.00	**2.00**	3.00	0.13	**0.26**	0.36
CCGW120408-GP K	1.00	**2.50**	4.00	0.14	**0.27**	0.40
CCGW120412-GP K	1.00	**2.50**	4.00	0.16	**0.31**	0.46
CNGA120404-CC H	0.20	**0.70**	1.20	0.04	**0.08**	0.12
CNGA120404-GP H	0.40	**1.20**	2.00	0.06	**0.14**	0.22
CNGA120404-GS H	0.40	**1.20**	2.00	0.06	**0.14**	0.22
CNGA120408-CC H	0.20	**0.70**	1.20	0.05	**0.10**	0.15
CNGA120408-GP H	0.40	**1.20**	2.00	0.10	**0.20**	0.30
CNGA120408-GP S	1.00	**2.50**	4.00	0.14	**0.27**	0.40
CNGA120408-GS H	0.40	**1.20**	2.00	0.10	**0.20**	0.30
CNGA120410-WU H	0.40	**1.20**	2.00	0.12	**0.26**	0.40
CNGA120410-WU K	1.00	**2.50**	4.00	0.20	**0.35**	0.50
CNGA120412-CC H	0.20	**0.70**	1.20	0.06	**0.13**	0.20
CNGA120412-GP H	0.40	**1.20**	2.00	0.12	**0.23**	0.34
CNGA120412-GP S	1.00	**2.50**	4.00	0.16	**0.31**	0.46
CNGA120412-GS H	0.40	**1.20**	2.00	0.12	**0.23**	0.34
CNGA160612-GP H	1.00	**2.50**	4.00	0.14	**0.27**	0.40
CNGA160616-GP H	1.00	**2.50**	4.00	0.15	**0.30**	0.45
CNGN120708-GP H	0.40	**1.20**	2.00	0.10	**0.20**	0.30
CNGN120708-GP K	1.00	**2.50**	4.00	0.14	**0.27**	0.40
CNGN120708-GP S	1.00	**2.50**	4.00	0.14	**0.27**	0.40
CNGN120712-GP H	0.40	**1.20**	2.00	0.12	**0.23**	0.34
CNGN120712-GP K	1.00	**2.50**	4.00	0.16	**0.31**	0.46
CNGN120712-GP S	1.00	**2.50**	4.00	0.16	**0.31**	0.46
CNGN120712-HI H	1.00	**2.50**	4.00	0.16	**0.28**	0.40
CNGN120716-GP H	0.40	**1.20**	2.00	0.14	**0.26**	0.38
CNGN120716-GP K	1.00	**2.50**	4.00	0.18	**0.33**	0.48
CNGN120716-GP S	1.00	**2.50**	4.00	0.18	**0.33**	0.48
CNGN120716-HI H	1.00	**2.50**	4.00	0.20	**0.32**	0.44
CNGX120708-GP H	0.40	**1.20**	2.00	0.10	**0.20**	0.30
CNGX120712-GP H	0.40	**1.20**	2.00	0.12	**0.23**	0.34
CNMA120408-GP K	1.00	**2.50**	4.00	0.14	**0.27**	0.40
CNMA120412-GP K	1.00	**2.50**	4.00	0.16	**0.31**	0.46
CNMA120416-GP K	1.00	**2.50**	4.00	0.18	**0.33**	0.48
CNMA160612-GP K	2.00	**4.00**	6.00	0.20	**0.35**	0.50
CNMA160616-GP K	2.00	**4.00**	6.00	0.22	**0.38**	0.54
CNMN120412-GP K	1.00	**2.50**	4.00	0.16	**0.31**	0.46
CNMN120416-GP K	1.00	**2.50**	4.00	0.18	**0.33**	0.48
CNMX120712-GP K	1.00	**2.50**	4.00	0.16	**0.31**	0.46
CNMX120716-GP K	1.00	**2.50**	4.00	0.18	**0.33**	0.48
DNGA150604-CC H	0.20	**0.70**	1.20	0.04	**0.08**	0.12
DNGA150604-GP H	0.40	**1.20**	2.00	0.06	**0.14**	0.22
DNGA150604-GS H	0.40	**1.20**	2.00	0.06	**0.14**	0.22
DNGA150608-CC H	0.20	**0.70**	1.20	0.05	**0.10**	0.15
DNGA150608-GP H	0.40	**1.20**	2.00	0.10	**0.20**	0.30
DNGA150608-GS H	0.40	**1.20**	2.00	0.10	**0.20**	0.30
DNGA150612-CC H	0.20	**0.70**	1.20	0.06	**0.13**	0.20
DNGA150612-GP H	0.40	**1.20**	2.00	0.12	**0.23**	0.34
DNGA150612-GS H	0.40	**1.20**	2.00	0.12	**0.23**	0.34
DNGA150616-GP H	0.40	**1.20**	2.00	0.14	**0.26**	0.38
DNGN150708-GP H	0.40	**1.20**	2.00	0.10	**0.20**	0.30
DNGN150712-GP H	0.40	**1.20**	2.00	0.12	**0.23**	0.34
DNGN150716-GP H	0.40	**1.20**	2.00	0.14	**0.26**	0.38
RCGX060600-CC S	1.00	**1.50**	2.00	0.18	**0.28**	0.38
RCGX060600-GS H	0.40	**1.20**	2.00	0.10	**0.24**	0.38

DESIGNATION	DEPTH OF CUT			FEED RATE		
	ap (mm)			fn (mm/rev)		
	min	start	max	min	start	max
RCGX060700-GP H	0.40	**1.20**	2.00	0.10	**0.24**	0.38
RCGX060700-GP S	1.00	**2.00**	3.00	0.18	**0.32**	0.46
RCGX090700-CC S	1.00	**2.00**	3.00	0.22	**0.32**	0.42
RCGX090700-GP H	0.60	**1.80**	3.00	0.12	**0.26**	0.40
RCGX090700-GP S	1.00	**2.50**	4.00	0.22	**0.38**	0.54
RCGX090700-HI H	0.60	**1.80**	3.00	0.15	**0.30**	0.45
RCGX120700-CC S	1.00	**2.00**	3.00	0.22	**0.32**	0.42
RCGX120700-GP H	0.60	**1.80**	3.00	0.12	**0.26**	0.40
RCGX120700-GP S	1.00	**2.50**	4.00	0.22	**0.38**	0.54
RCGX120700-HI H	0.60	**1.80**	3.00	0.15	**0.30**	0.45
RCGX151000-HI H	1.00	**2.50**	4.00	0.20	**0.40**	0.60
RCGX191000-HI H	1.00	**2.50**	4.00	0.25	**0.45**	0.65
RNGN120400-CC S	1.00	**2.00**	3.00	0.22	**0.32**	0.42
RNGN120400-GP H	0.60	**1.80**	3.00	0.12	**0.26**	0.40
RNGN120400-GP S	1.00	**2.50**	4.00	0.22	**0.38**	0.54
RNGN120700-CC S	1.00	**2.00**	3.00	0.22	**0.36**	0.50
RNGN120700-GP H	0.60	**1.80**	3.00	0.12	**0.26**	0.40
RNGN120700-GP S	1.00	**2.50**	4.00	0.22	**0.32**	0.42
RNGN120700-HI H	0.60	**1.80**	3.00	0.15	**0.30**	0.45
RNGN120700-HT H	0.60	**1.80**	3.00	0.15	**0.30**	0.45
SCGW09T308-GP K	1.00	**2.00**	3.00	0.12	**0.23**	0.34
SCGW120408-GP K	1.00	**2.50**	4.00	0.14	**0.27**	0.40
SNGA120404-CC H	0.20	**0.70**	1.20	0.04	**0.08**	0.12
SNGA120404-GP H	0.40	**1.20**	2.00	0.06	**0.14**	0.22
SNGA120408-CC H	0.20	**0.70**	1.20	0.05	**0.10**	0.15
SNGA120408-GP H	0.40	**1.20**	2.00	0.10	**0.20**	0.30
SNGA120412-CC H	0.20	**0.70**	1.20	0.06	**0.13**	0.20
SNGA120412-GP H	0.40	**1.20**	2.00	0.12	**0.23**	0.34
SNGN120408-GP H	0.40	**1.20**	2.00	0.10	**0.20**	0.30
SNGN120412-GP H	0.40	**1.20**	2.00	0.12	**0.23**	0.34
SNGN120708-GP H	0.40	**1.20**	2.00	0.10	**0.20**	0.30
SNGN120712-GP H	0.40	**1.20**	2.00	0.12	**0.23**	0.34
SNGN120716-GP H	0.40	**1.20**	2.00	0.14	**0.26**	0.38
SNGN120716-HI H	1.00	**2.50**	4.00	0.20	**0.32**	0.44
SNGN120720-HI H	1.00	**2.50**	4.00	0.22	**0.35**	0.48
SNGN120724-HI H	1.00	**2.50**	4.00	0.24	**0.37**	0.50
SNGX120708-GP H	0.40	**1.20**	2.00	0.10	**0.20**	0.30
SNGX120712-GP H	0.40	**1.20**	2.00	0.12	**0.23**	0.34
SNMA120408-GP K	1.00	**2.50**	4.00	0.14	**0.27**	0.40
SNMA120412-GP K	1.00	**2.50**	4.00	0.16	**0.31**	0.46
SNMA120416-GP K	1.00	**2.50**	4.00	0.18	**0.33**	0.48
SNMN120416-GP K	1.00	**2.50**	4.00	0.18	**0.33**	0.48
SNMX120712-GP K	1.00	**2.50**	4.00	0.16	**0.31**	0.46
SNMX120716-GP K	1.00	**2.50**	4.00	0.18	**0.33**	0.48
TNGA160404-CC H	0.20	**0.70**	1.20	0.04	**0.08**	0.12
TNGA160404-GP H	0.40	**1.20**	2.00	0.06	**0.14**	0.22
TNGA160404-GS H	0.40	**1.20**	2.00	0.06	**0.14**	0.22
TNGA160408-CC H	0.20	**0.70**	1.20	0.05	**0.10**	0.15
TNGA160408-GP H	0.40	**1.20**	2.00	0.10	**0.20**	0.30
TNGA160408-GP K	1.00	**2.50**	4.00	0.14	**0.27**	0.40
TNGA160408-GS H	0.40	**1.20**	2.00	0.10	**0.20**	0.30
TNGA160412-CC H	0.20	**0.70**	1.20	0.06	**0.13**	0.20
TNGA160412-GP H	0.40	**1.20**	2.00	0.12	**0.23**	0.34
TNGA160412-GP K	1.00	**2.50**	4.00	0.16	**0.31**	0.46
TNGA160412-GS H	0.40	**1.20**	2.00	0.12	**0.23**	0.34
TNGN160408-GP K	1.00	**2.50**	4.00	0.14	**0.27**	0.40

DESIGNATION	DEPTH OF CUT			FEED RATE		
	ap (mm)			fn (mm/rev)		
	min	start	max	min	start	max
TNGN160708-GP H	0.40	**1.20**	2.00	0.10	**0.20**	0.30
TNGN160708-GP K	1.00	**2.50**	4.00	0.14	**0.27**	0.40
TNGN160712-GP H	0.40	**1.20**	2.00	0.12	**0.23**	0.34
TNGN160712-GP K	1.00	**2.50**	4.00	0.16	**0.31**	0.46
TPGN110302-CC H	0.20	**0.60**	1.00	0.04	**0.06**	0.08
TPGN110302-GP H	0.40	**0.80**	1.20	0.05	**0.10**	0.15
TPGN110302-GS H	0.40	**0.80**	1.20	0.05	**0.10**	0.15
TPGN110304-CC H	0.20	**0.60**	1.00	0.04	**0.07**	0.10
TPGN110304-GP H	0.40	**0.80**	1.20	0.04	**0.11**	0.18
TPGN110304-GP K	1.00	**2.00**	3.00	0.10	**0.20**	0.30
TPGN110304-GS H	0.40	**0.80**	1.20	0.04	**0.11**	0.18
TPGN110308-CC H	0.20	**0.60**	1.00	0.05	**0.09**	0.13
TPGN110308-GP H	0.40	**0.80**	1.20	0.06	**0.15**	0.24
TPGN110308-GP K	1.00	**2.00**	3.00	0.12	**0.23**	0.34
TPGN110308-GS H	0.40	**0.80**	1.20	0.06	**0.15**	0.24
TPGN160304-CC H	0.20	**0.70**	1.20	0.04	**0.08**	0.12
TPGN160304-GP H	0.40	**1.20**	2.00	0.06	**0.14**	0.22
TPGN160304-GP K	1.00	**2.50**	4.00	0.12	**0.23**	0.34
TPGN160304-GS H	0.40	**1.20**	2.00	0.06	**0.14**	0.22
TPGN160308-CC H	0.20	**0.70**	1.20	0.05	**0.10**	0.15
TPGN160308-GP H	0.40	**1.20**	2.00	0.10	**0.20**	0.30
TPGN160308-GP K	1.00	**2.50**	4.00	0.14	**0.27**	0.40
TPGN160308-GS H	0.40	**1.20**	2.00	0.10	**0.20**	0.30
TPGN160312-CC H	0.20	**0.70**	1.20	0.06	**0.13**	0.20
TPGN160312-GP K	1.00	**2.50**	4.00	0.16	**0.31**	0.46
VNGA160404-CC H	0.20	**0.70**	1.20	0.04	**0.08**	0.12
VNGA160404-GP H	0.40	**1.20**	2.00	0.06	**0.14**	0.22
VNGA160404-GP K	1.00	**2.50**	4.00	0.12	**0.23**	0.34
VNGA160404-GS H	0.40	**1.20**	2.00	0.06	**0.14**	0.22
VNGA160408-CC H	0.20	**0.70**	1.20	0.05	**0.10**	0.15
VNGA160408-GP H	0.40	**1.20**	2.00	0.10	**0.20**	0.30
VNGA160408-GP K	1.00	**2.50**	4.00	0.14	**0.27**	0.40
VNGA160408-GS H	0.40	**1.20**	2.00	0.10	**0.20**	0.30
VNGA160412-CC H	0.20	**0.70**	1.20	0.06	**0.13**	0.20
VNGA160412-GP H	0.40	**1.20**	2.00	0.12	**0.23**	0.34
VNGA160412-GP K	1.00	**2.50**	4.00	0.16	**0.31**	0.46
VNGA160412-GS H	0.40	**1.20**	2.00	0.12	**0.23**	0.34
WNGA080404-CC H	0.20	**0.70**	1.20	0.04	**0.08**	0.12
WNGA080404-GP H	0.40	**1.20**	2.00	0.06	**0.14**	0.22
WNGA080408-CC H	0.20	**0.70**	1.20	0.05	**0.10**	0.15
WNGA080408-GP H	0.40	**1.20**	2.00	0.10	**0.20**	0.30
WNGA080408-GP K	1.00	**2.50**	4.00	0.14	**0.27**	0.40
WNGA080412-CC H	0.20	**0.70**	1.20	0.06	**0.13**	0.20
WNGA080412-GP H	0.40	**1.20**	2.00	0.12	**0.23**	0.34
WNGA080412-GP K	1.00	**2.50**	4.00	0.16	**0.31**	0.46

TURNING Holders

Designation system, A202
Range overview, A204
Clamping system details, A207
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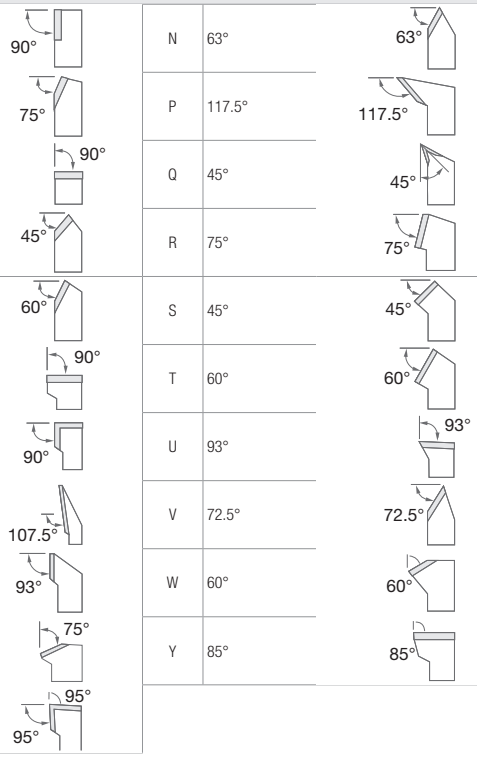
Range, 213

NT	-	D	C	L	N	R	20	20	K	-	12	X
		1	2	3	4	5	6	7	8		9	10

1	CLAMPING SYSTEM
C	top clamp
D	double clamp
M	multi-lock
P	lever-lock
S	screw clamp

2	INSERT SHAPE
C	80° rhombic
D	55° rhombic
R	round
S	90° square
T	60° triangular
V	35° rhombic
W	80° trigon

3	CUTTING ANGLE (KAPR)			
A	90° without offset	N	63°	
B	75°	P	117.5°	
C	90°	Q	45°	
D	45° neutral	R	75°	
E	60°	S	45°	
F	90°	T	60°	
G	90° without offset	U	93°	
H	107.5°	V	72.5°	
J	93°	W	60°	
K	75°	Y	85°	
L	95°			

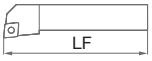


4	INSERT RELIEF ANGLE
B	5°
C	7°
D	15°
E	20°
N	0°
P	11°

5	DIRECTION
Symbol	Shape
L	
N	
R	

6	SHANK HEIGHT (H)
∞	

7	SHANK WIDTH (B)
∞	

8	HOLDER LENGTH (LF)
Symbol	
F	80 mm
G	90 mm
H	100 mm
J	110 mm
K	125 mm
L	140 mm
M	150 mm
N	160 mm
P	170 mm
Q	180 mm
R	200 mm
X	NIKKO norm

9	INSERT SIZE

10	ACCORDING TO NIKKO NORM (OPTIONAL)

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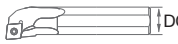
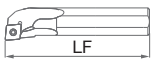
NT	-	V	12	M	-	S	C	L	C	R/L	06	-	14
		1	2	3		4	5	6	7	8	9		10

1	HOLDER STYLE
A	steel boring bar with coolant hole
C	carbide boring bar without coolant hole
E	carbide boring bar with coolant hole
S	steel boring bar without coolant hole
V	High quality steel boring bar with Vortex design and coolant hole

2	BORING BAR DIAMETER (DCON)



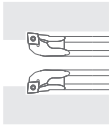
3	HOLDER LENGHT (LF)
Symbol	
F	80 mm
G	90 mm
H	100 mm
J	110 mm
K	125 mm
L	140 mm
M	150 mm
N	160 mm
P	170 mm
Q	180 mm
R	200 mm
S	250 mm
T	300 mm
U	350 mm
V	400 mm
W	450 mm
Y	500 mm
X	NIKKO norm

4	CLAMPING SYSTEM
C	top clamp
D	double clamp
M	multi-lock
P	lever-lock
S	screw clamp

5	INSERT SHAPE
C	80° rhombic
D	55° rhombic
R	round
S	90° square
T	60° triangular
V	35° rhombic
W	80° trigon

6	CUTTING ANGLE (KAPR)				
A	90° without offset	90°	N	63°	63°
B	75°	75°	P	117.5°	117.5°
C	90°	90°	Q	45°	45°
D	45° neutral	45°	R	75°	75°
E	60°	60°	S	45°	45°
F	90°	90°	T	60°	60°
G	90° without offset	90°	U	93°	93°
H	107.5°	107.5°	V	72.5°	72.5°
J	93°	93°	W	60°	60°
K	75°	75°	Y	85°	85°
L	95°	95°			

7	INSERT RELIEF ANGLE
B	5°
C	7°
D	15°
E	20°
N	0°
P	11°

8	DIRECTION
Symbol	Shape
L	
R	

9	INSERT SIZE

10	MINIMUM BORE DIAMETER (DMIN)

CCoo	SCAC A214	SCLC A215	SCLC N A216	SCMC A217	
CNoo	DCLN A224	MCKN A225	MCLN A226	MCRN A227	PCLN A228
DCoo	SDAC A232	SDJC A233	SDJC N A234	SDNC A235	
DNoo	DDJN A244	MDJN A245	PDJN A246		
SCoo	SSDC A255				
SNoo	MSBN A257	MSDN A258	MSKN A259	MSSN A260	
TCoo	STAC A264	STFC A265	STGC A266		
TNoo	DTGN A271	DTJN A272	MTJN A273		
VBoo	SVHB A278	SVJB A279	SVJB N A280	SVVB A281	
VCoo	SVJC A283	SVJC N A284	SVPC A285	SVVC A286	
VNoo	DVJN A291	DVVN A292	MVJN A293	MVVN A294	
WNoo	DWLN A299	MWLN A300	PWLN A301		
MicroNega	MCN A251	MDN A253			

nikkoTOOLS

CCoo	SCLC DMIN: 8 mm	A A218 E A220 S A221 V A222	SCZC DMIN: 12 mm	S A223				
CNoo	DCLN DMIN: 32 mm	A A229	MCLN DMIN: 25 mm	S A230	PCLN DMIN: 32 mm	A A231		
DCoo	SDQC DMIN: 13 mm	S A236 V A237	SDUC DMIN: 13 mm	A A238 E A239 S A240 V A241	SDZC DMIN: 14 mm	S A242 V A243		
DNoo	DDUN DMIN: 32 mm	A A247	MDUN DMIN: 40 mm	S A248				
MCC	MICRO-CC DMIN: 5 mm	E A249 V A250						
SCoo	SSKC DMIN: 16 mm	S A256						
SNoo	MSKN DMIN: 25 mm	S A261						
TBoo	STLB DMIN: 7 mm	V A262	STUB DMIN: 10 mm	S A263				
TCoo	STFC DMIN: 12 mm	A A267 E A268 S A269	STLC DMIN: 14 mm	V A270				
TNoo	DTFN DMIN: 32 mm	A A274	MTUN DMIN: 25 mm	S A275				
TPoo	CTUP DMIN: 16 mm	S A276	STUP DMIN: 12 mm	S A277				
VBoo	SVJB DMIN: 25 mm	V A282						
VCoo	SVJC DMIN: 14 mm	S A287	SVQC DMIN: 22 mm	S A288	SVUC DMIN: 22 mm	S A289	SVZC DMIN: 30 mm	S A290

A Steel with coolant
E Carbide with coolant
S Steel without coolant
V Vortex with coolant

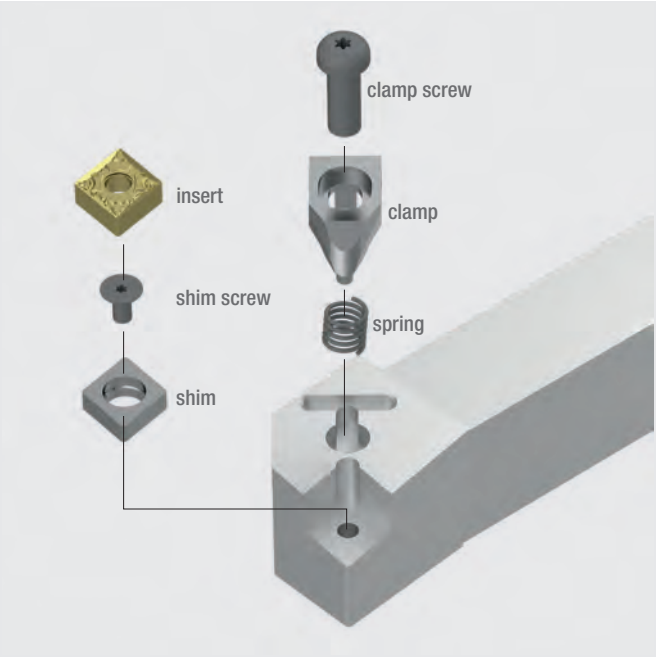
nikkoTOOLS

VNoo	MVQN DMIN: 33 mm S A295	MVUN DMIN: 37 mm S A296		
WBoo	SWUB DMIN: 6 mm V A297			
WCoo	SWUC DMIN: 14 mm V A298			
WNoo	DWLN DMIN: 32 mm A A302	MWLN DMIN: 22 mm S A303	PWLN DMIN: 30 mm A A304	
MicroNega	MCN DMIN: 10 mm V A252	MDN DMIN: 15 mm V A254		

- **A** Steel with coolant
- **E** Carbide with coolant
- **S** Steel without coolant
- **V** Vortex with coolant

D CLAMPING

- Fast and reliable double clamping system
- With a single action, the insert is pushed down and against the holder's seat.
- Excellent repeatability and accuracy thanks to the strong clamping forces that assures a perfect contact between shim and insert.
- Optimized design to avoid chip interferences.



EXTERNAL

DCLN (CNoo)

DDJN (DNoo)

DTGN (TNoo)

DTJN (TNoo)

DVJN (VNoo)

DWLN (WNoo)

INTERNAL

A DCLN (CNoo)

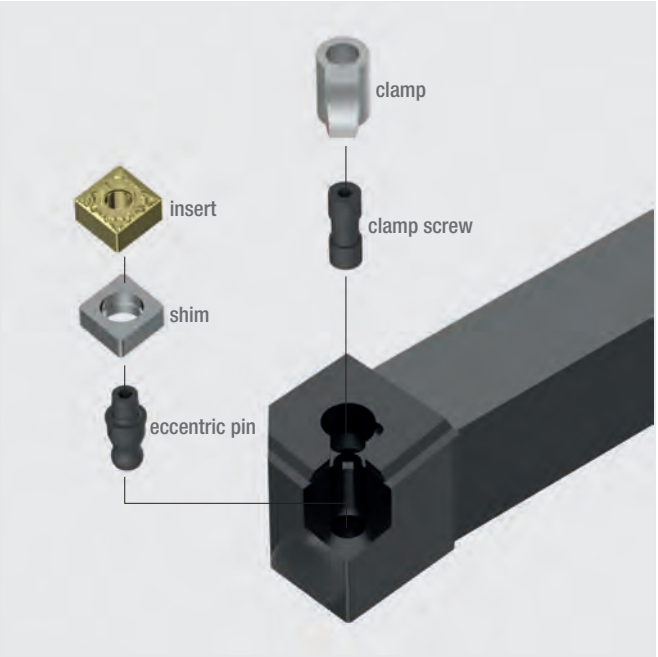
A DDUN (DNoo)

A DTFN (TNoo)

A DWLN (WNoo)

M CLAMPING

- Combination of top clamping and eccentric pin-lock.
- Rigid clamping, perfect for ceramic and solid PCBN inserts.
- Good solution for heavy machining, double clamping ensure the strenght to support strong stress.
- If necessary, only for light-cut, can be used without top clamp.



EXTERNAL

MCKN (CNoo)

MCLN (CNoo)

MCRN (CNoo)

MDJN (DNoo)

MSBN (SNoo)

MSDNN (SNoo)

MSKN (SNoo)

MSSN (SNoo)

MTJN (TNoo)

MVJN (VNoo)

MVVVNN (VNoo)

MWLN (WNoo)

INTERNAL

S MCLN (CNoo)

S MDUN (DNoo)

S MSKN (SNoo)

S MTUN (TNoo)

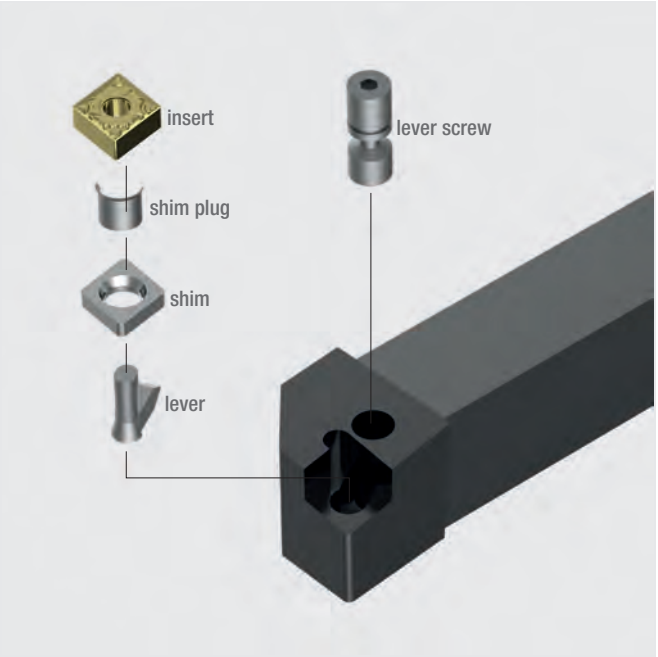
S MVQN (VNoo)

S MVUN (VNoo)

S MWLN (WNoo)

P CLAMPING

· Economical and easy to use solution.
· Reccomended for light and medium cut applications.
· No clamp on the top guarantees a smooth chip flow.
· Quick insert replacement.



EXTERNAL

PCLN (CN∞)

PDJN (DN∞)

PWLN (WN∞)

INTERNAL

A PCLN (CN∞)

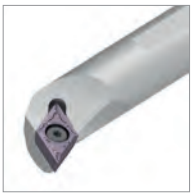
A PWLN (WN∞)

VORTEXBAR

Technology for internal machining

- Special edge design for excellent chip evacuation, preventing clogging even with long chips.
- High quality tool steel reduces vibrations even with significant overhang (max 5xD)
- Broad range of dimensions and geometries, for turning, back turning, profiling and threading.
- Internal coolant channels on the full line-up.

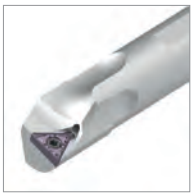
V SCLC (CC○○)



V SDQC (DC○○)

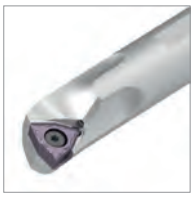
V SDUC (DC○○)

V SDZC (DC○○)



V STLC (TC○○)

V SVJB (VB○○)



V SWUC (WC○○)

V SIR
Threading

NDB I
Grooving

CARBIDE BAR

Technology for internal machining

- High quality carbide boring bar for precision machining, prevents vibrations even with long overhang (max 7xD).
- Excellent strength thanks to a very stable “V” shape brazing.
- Suggested for precision machining when the highest standards of quality are required (improve roughness, tolerances and tool life).
- Internal coolant channels on the full line-up.

E SCLC (CC∞)

E SDUC (DC∞)

E STFC (TC∞)

MICROBORING

- Complete line-up of small tools for internal machining, starting from 5 mm hole diameter, with precise indexable inserts (carbide and advanced materials).
- MicroVortex types combine high quality tool steel and advanced head design, reducing vibrations and reaching perfect chip evacuation.
- Micro CC holder is available also in high quality carbide for most demanding applications (higher overhang, hard materials machining).
- Internal coolant channels on the full line-up.

VORTEX

V MCC

V STLB (TB○○)

V SWUB (WB○○)

V SIR
Threading

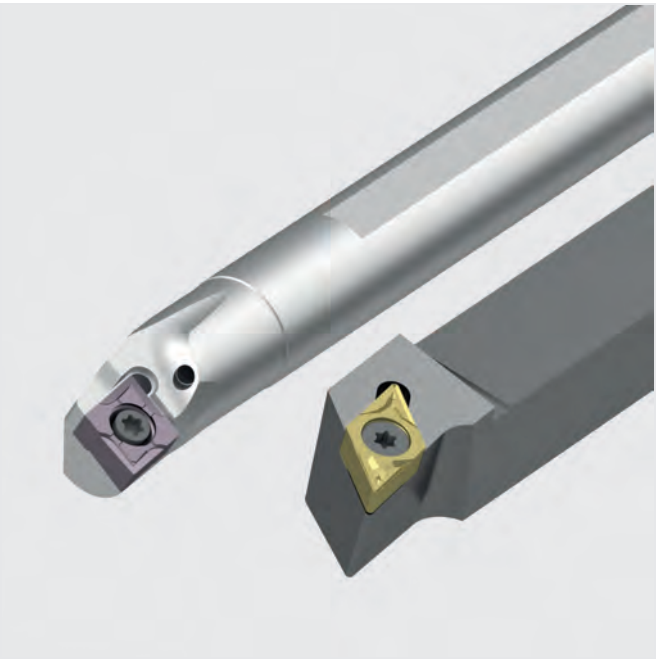
CARBIDE

E MCC

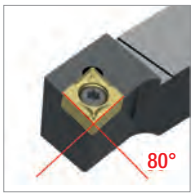
nikkoTOOLS

MICRONEGA

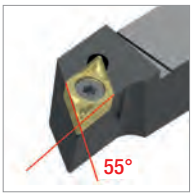
- Small negative inserts providing an alternative to positive inserts for external and internal turning operations.
- From semi-finishing to medium machining, available both with economical sintered chipbreaker (GM) and precision ground type (SS) for higher accuracy and lower cutting force.
- External small dimension tool holders, for small parts machining, without head offset.
- Internal boring bar with VORTEX technology that improves chip ejection thanks to the innovative head design.



EXTERNAL



MCN

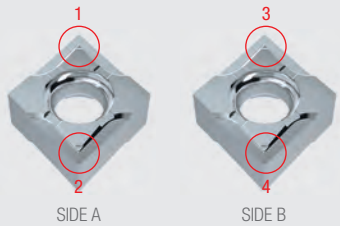


MDN

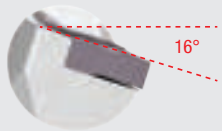
INTERNAL

MCN

MDN



4 cutting edges available



Super-positive rake angle

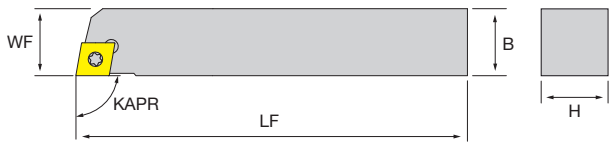
Stable positioning is granted by wide support surfaces

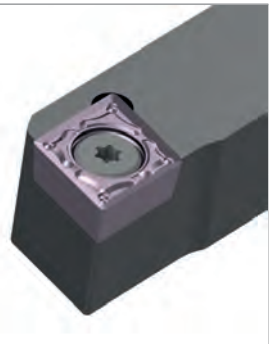
SCAC

ISO - CC

- External turning (KAPR 90°)
- Holds CC-style inserts, tightened by screw
- Available on lathes without offset
- Convenient to change inserts

Right-hand shown





Designation	Stock L	Stock R	H	B	WF	LF	LH	LPR	KAPR			MIID
NT-SCAC^{L}/$_{R}$0808K06	○	○	8	8	8	125	-	-	90°			CC∞0602∞
NT-SCAC^{L}/$_{R}$1010K06	●	●	10	10	10	125	-	-	90°			CC∞0602∞
NT-SCAC^{L}/$_{R}$1212K06	●	●	12	12	12	125	-	-	90°			CC∞0602∞
NT-SCAC^{L}/$_{R}$1212K09	●	●	12	12	12	125	-	-	90°			CC∞09T3∞
NT-SCAC^{L}/$_{R}$1616K09	●	●	16	16	16	125	-	-	90°			CC∞09T3∞

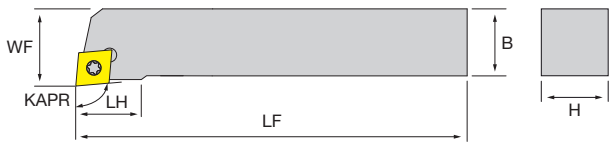
● stock standard, ○ non-standard stock, ▲ upcoming introduction, ▽ stock exhaustion

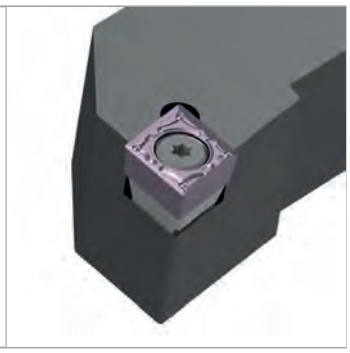
Spare parts	Insert screws	Flag wrenches
NT-SCAC^{L}/$_{R}$∞∞∞∞∞06	NT-ST25060T07	NT-FT07
NT-SCAC^{L}/$_{R}$∞∞∞∞∞09	NT-ST35089T15	NT-FT15

SCLC

ISO - CC

- External turning (KAPR 95°)
- Holds CC-style inserts, tightened by screw
- Convenient to change inserts





Designation	Stock L	Stock R	H	B	WF	LF	LH	LPR	KAPR			MIID
NT-SCLC^{L}/$_{R}$2020K09S	●	●	20	20	25	125	22	-	95°			CC○○09T3○○
NT-SCLC^{L}/$_{R}$2525M09S	●	●	25	25	32	150	25	-	95°			CC○○09T3○○
NT-SCLC^{L}/$_{R}$2020K12S	●	●	20	20	25	125	22	-	95°			CC○○1204○○
NT-SCLC^{L}/$_{R}$2525M12S	●	●	25	25	32	150	25	-	95°			CC○○1204○○

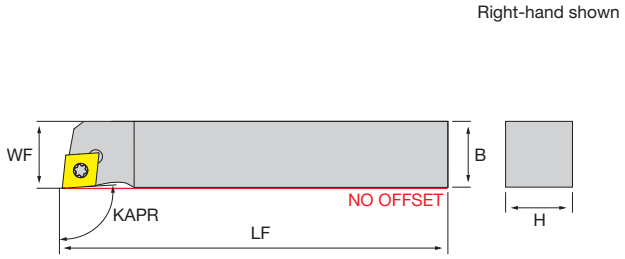
● stock standard, ○ non-standard stock, ▲ upcoming introduction, ▽ stock exhaustion

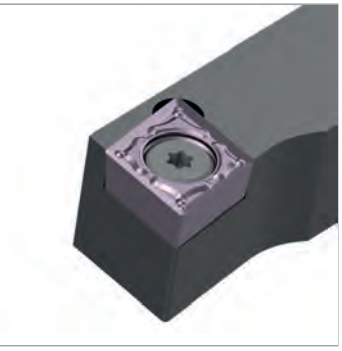
Spare parts	Shim	Shim screws	L wrench	Insert screws	Flag wrenches
NT-SCLC^{L}/$_{R}$○○○○○09S	NT-SH011	NT-SR010	NT-WR035	NT-ST35115T15	NT-FT15
NT-SCLC^{L}/$_{R}$○○○○○12S	NT-SH001	NT-SR001	NT-WR040	NT-ST40140T15	NT-FT15

SCLC N

ISO - CC

- External turning (KAPR 95°)
- Holds CC-style inserts, tightened by screw
- Available on lathes without offset
- Convenient to change inserts





Designation	Stock L	Stock R	H	B	WF	LF	LH	LPR	KAPR			MIID
NT-SCLC$^{L}/_{R}$0808K06N	○	○	8	8	8	100	-	-	95°			CC∞0602∞
NT-SCLC$^{L}/_{R}$1010K06N	●	●	10	10	10	125	-	-	95°			CC∞0602∞
NT-SCLC$^{L}/_{R}$1212K09N	●	●	12	12	12	125	-	-	95°			CC∞09T3∞
NT-SCLC$^{L}/_{R}$1616K09N	●	●	16	16	16	125	-	-	95°			CC∞09T3∞

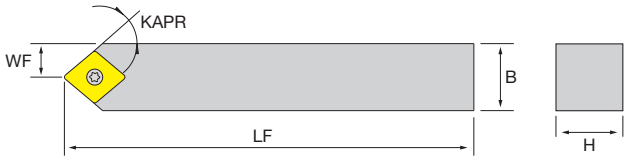
● stock standard, ○ non-standard stock, ▲ upcoming introduction, ▽ stock exhaustion

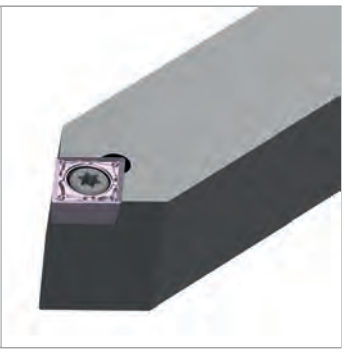
Spare parts	Insert screws	Flag wrenches
NT-SCLC$^{L}/_{R}$∞∞∞∞∞06N	NT-ST25060T07	NT-FT07
NT-SCLC$^{L}/_{R}$∞∞∞∞∞09N	NT-ST35089T15	NT-FT15

SCMC

ISO - CC

- External turning (KAPR 80°), Neutral position
- Holds CC-style inserts, tightened by screw
- Convenient to change inserts





Designation	Stock	H	B	WF	LF	LH	LPR	KAPR			MIID
NT-SCMCN2020K09	○	20	20	10	125	-	-	40°			CC∞09T3∞
NT-SCMCN2525M09	○	25	25	12.5	150	-	-	40°			CC∞09T3∞

● stock standard, ○ non-standard stock, ▲ upcoming introduction, ▽ stock exhaustion

Spare parts	Insert screws	Flag wrenches
SCMCN∞∞∞09	NT-ST35089T15	NT-FT15

A - TURNING
B - THREADING
C - GROOVING
D - MILLING
E - DRILLING
F - ACCESSORIES
G - SPARE PARTS

A SCLC

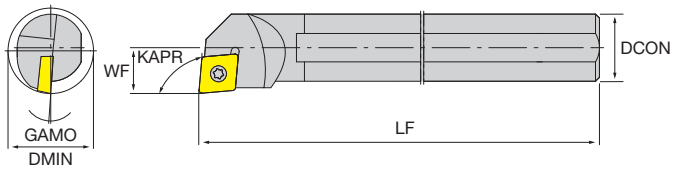
ISO - CC

- Internal turning (KAPR 95°)
- Steel boring bar with internal coolant through
- Holds CC-style inserts, tightened by screws

STEEL

with internal coolant

Right-hand shown



Designation	Stock L	Stock R	DMIN	DCON	WF	LF	LH	LPR	KAPR	GAMO		MIID
NT-A08H-SCLC$^{L}/_{R}$06	●	●	10	8	5	100	-	-	95°	13°		CCoo0602oo
NT-A10K-SCLC$^{L}/_{R}$06	●	●	12	10	6	125	-	-	95°	12°		CCoo0602oo
NT-A12M-SCLC$^{L}/_{R}$06	●	●	14	12	7	150	-	-	95°	9°		CCoo0602oo
NT-A16Q-SCLC$^{L}/_{R}$06	●	●	18	16	9	180	-	-	95°	7°		CCoo0602oo
NT-A12M-SCLC$^{L}/_{R}$09	●	●	14	12	7	150	-	-	95°	13°		CCoo09T3oo
NT-A16Q-SCLC$^{L}/_{R}$09	●	●	18	16	9	180	-	-	95°	9°		CCoo09T3oo
NT-A20R-SCLC$^{L}/_{R}$09	●	●	22	20	11	200	-	-	95°	5°		CCoo09T3oo

● stock standard, ○ non-standard stock, ▲ upcoming introduction, ▽ stock exhaustion

Spare parts	Insert screws	Flag wrenches
NT-A08H-SCLC$^{L}/_{R}$06	NT-ST25050T07	NT-FT07
NT-A10K-SCLC$^{L}/_{R}$06	NT-ST25060T07	NT-FT07
NT-A12M-SCLC$^{L}/_{R}$06	NT-ST25060T07	NT-FT07
NT-A16Q-SCLC$^{L}/_{R}$06	NT-ST25060T07	NT-FT07
NT-A12M-SCLC$^{L}/_{R}$09	NT-ST35073T15	NT-FT15
NT-A16Q-SCLC$^{L}/_{R}$09	NT-ST35073T15	NT-FT15
NT-A20R-SCLC$^{L}/_{R}$09	NT-ST35089T15	NT-FT15

CARBIDE INSERTS p. A38 | PCBN INSERTS p. A101 | DIAMOND INSERTS p. A145 | CERAMIC INSERTS p. A180 | SPARE PARTS DETAILS p. G1

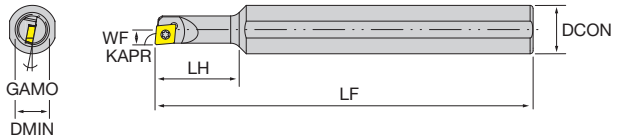
A16K SCLC

ISO - CC

- Internal turning (KAPR 95°)
- Small diameter steel boring bar with internal coolant and reduced neck
- Holds CC-style inserts, tightened by screws

STEEL

with internal coolant



Designation	Stock L	Stock R	DMIN	DCON	WF	LF	LH	LPR	KAPR	GAMO		MIID
NT-A16K-07-SCLC$^{L}/_{R}$06-L20	●	●	8	16	4	125	20	-	95°	15°		CC∞0602∞
NT-A16K-08-SCLC$^{L}/_{R}$06-L20	●	●	9	16	4.5	125	20	-	95°	12°		CC∞0602∞
NT-A16K-09-SCLC$^{L}/_{R}$06-L25	●	●	10	16	5	125	25	-	95°	11°		CC∞0602∞

● stock standard, ○ non-standard stock, ▲ upcoming introduction, ▽ stock exhaustion

Spare parts	Insert screws	Flag wrenches
NT-A16K-∞-SCLC$^{L}/_{R}$06-L∞	NT-ST25060T07	NT-FT07

A - TURNING
B - THREADING
C - GROOVING
D - MILLING
E - DRILLING
F - ACCESSORIES
G - SPARE PARTS

E SCLC

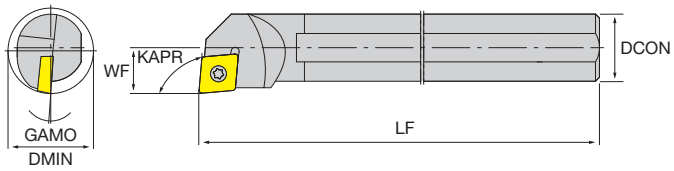
ISO - CC

- Internal turning (KAPR 95°)
- Carbide boring bar with internal coolant through. Maximum overhang: 7xDCON
- Holds CC-style inserts, tightened by screws

CARBIDE

with internal coolant

Right-hand shown



Designation	Stock L	Stock R	DMIN	DCON	WF	LF	LH	LPR	KAPR	GAMO		MIID
NT-E08K-SCLC$^{L}/_{R}$06	●	●	10	8	5	125	-	-	95°	9°		CC∞0602∞
NT-E10K-SCLC$^{L}/_{R}$06	●	●	12	10	6	125	-	-	95°	7°		CC∞0602∞
NT-E12M-SCLC$^{L}/_{R}$06	●	●	14	12	7	150	-	-	95°	6°		CC∞0602∞
NT-E12M-SCLC$^{L}/_{R}$09	●	●	14	12	7	150	-	-	95°	6°		CC∞09T3∞
NT-E16R-SCLC$^{L}/_{R}$09	●	●	18	16	9	200	-	-	95°	7°		CC∞09T3∞
NT-E20R-SCLC$^{L}/_{R}$09	●	●	22	20	11	200	-	-	95°	5°		CC∞09T3∞

● stock standard, ○ non-standard stock, ▲ upcoming introduction, ▽ stock exhaustion

Spare parts	Insert screws	Flag wrenches
NT-E08K-SCLC$^{L}/_{R}$06	NT-ST25050T07	NT-FT07
NT-E10K-SCLC$^{L}/_{R}$06	NT-ST25060T07	NT-FT07
NT-E12M-SCLC$^{L}/_{R}$06	NT-ST25060T07	NT-FT07
NT-E12M-SCLC$^{L}/_{R}$09	NT-ST35073T15	NT-FT15
NT-E16R-SCLC$^{L}/_{R}$09	NT-ST35073T15	NT-FT15
NT-E20R-SCLC$^{L}/_{R}$09	NT-ST35089T15	NT-FT15

nikkoTOOLS

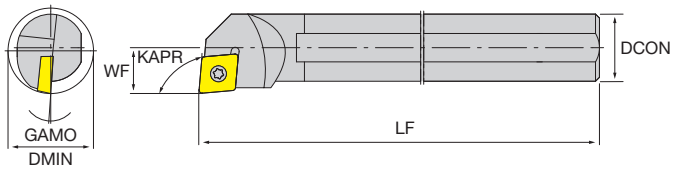
S SCLC

ISO - CC

- Internal turning (KAPR 95°)
- Steel boring bar without internal coolant
- Holds CC-style inserts, tightened by screws

STEEL

Right-hand shown



Designation	Stock L	Stock R	DMIN	DCON	WF	LF	LH	LPR	KAPR	GAMO		MIID
NT-S08H-SCLC L/R 06	●	●	10	8	5	100	-	-	95°	13°		CC∞0602∞
NT-S10K-SCLC L/R 06	●	●	12	10	6	125	-	-	95°	12°		CC∞0602∞
NT-S12M-SCLC L/R 06	●	●	14	12	7	150	-	-	95°	9°		CC∞0602∞
NT-S16Q-SCLC L/R 06	●	●	18	16	9	180	-	-	95°	7°		CC∞0602∞
NT-S12M-SCLC L/R 09	●	●	14	12	7	150	-	-	95°	13°		CC∞09T3∞
NT-S16Q-SCLC L/R 09	●	●	18	16	9	180	-	-	95°	9°		CC∞09T3∞
NT-S20R-SCLC L/R 09	●	●	22	20	11	200	-	-	95°	5°		CC∞09T3∞
NT-S20R-SCLC L/R 12	●	●	25	20	13	200	-	-	95°	8°		CC∞1204∞
NT-S25R-SCLC L/R 12	●	●	32	25	17	200	-	-	95°	8°		CC∞1204∞
WITH SHIM												
NT-S32S-SCLC L/R 12S	●	●	40	32	22	250	-	-	95°	6°		CC∞1204∞
NT-S40T-SCLC L/R 12S	●	●	50	40	27	300	-	-	95°	4°		CC∞1204∞

● stock standard, ○ non-standard stock, ▲ upcoming introduction, ▽ stock exhaustion

Spare parts	Shim	Shim screws	L wrench	Insert screws	Flag wrenches
NT-S08H-SCLC L/R 06	-	-	-	NT-ST25050T07	NT-FT07
NT-S10K-SCLC L/R 06	-	-	-	NT-ST25060T07	NT-FT07
NT-S12M-SCLC L/R 06	-	-	-	NT-ST25060T07	NT-FT07
NT-S16Q-SCLC L/R 06	-	-	-	NT-ST25060T07	NT-FT07
NT-S12M-SCLC L/R 09	-	-	-	NT-ST35073T15	NT-FT15
NT-S16Q-SCLC L/R 09	-	-	-	NT-ST35073T15	NT-FT15
NT-S20R-SCLC L/R 09	-	-	-	NT-ST35089T15	NT-FT15
NT-S20R-SCLC L/R 12	-	-	-	NT-ST40115T15	NT-FT15
NT-S25R-SCLC L/R 12	-	-	-	NT-ST40115T15	NT-FT15
NT-S32S-SCLC L/R 12S	NT-SH001	NT-SR001	NT-WR040	NT-ST40140T15	NT-FT15
NT-S40T-SCLC L/R 12S	NT-SH001	NT-SR001	NT-WR040	NT-ST40140T15	NT-FT15

V SCLC

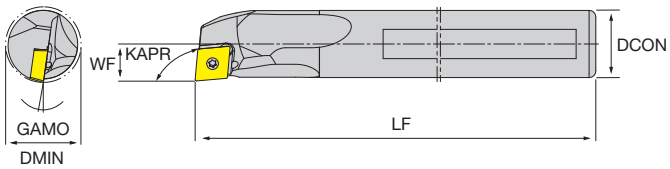
ISO - CC

- Internal turning (KAPR 95°)
- Vortex boring bar (high quality steel) with internal coolant through. Maximum overhang: 5xDCON
- Holds CC-style inserts, tightened by screws
- Special chip evacuation path

VORTEX

with internal coolant

Right-hand shown



Designation	Stock L	Stock R	DMIN	DCON	WF	LF	LH	LPR	KAPR	GAMO		MIID
NT-V08H-SCLC$^{L}/_{R}$06-10	●	●	10	8	5	100	-	-	95°	14°		CCoo0602oo
NT-V10K-SCLC$^{L}/_{R}$06-12	●	●	12	10	6	125	-	-	95°	12°		CCoo0602oo
NT-V12M-SCLC$^{L}/_{R}$06-14	●	●	14	12	7	150	-	-	95°	10°		CCoo0602oo
NT-V12M-SCLC$^{L}/_{R}$09-14	●	●	14	12	7	150	-	-	95°	12°		CCoo09T3oo
NT-V16Q-SCLC$^{L}/_{R}$09-18	●	●	18	16	9	180	-	-	95°	10°		CCoo09T3oo
NT-V20R-SCLC$^{L}/_{R}$09-22	●	●	22	20	11	200	-	-	95°	8°		CCoo09T3oo
NT-V25S-SCLC$^{L}/_{R}$09-27	●	●	27	25	13.5	250	-	-	95°	6°		CCoo09T3oo
NT-V20R-SCLC$^{L}/_{R}$12-25	●	●	25	20	13	200	-	-	95°	7°		CCoo1204oo
NT-V25S-SCLC$^{L}/_{R}$12-32	●	●	32	25	17	250	-	-	95°	5°		CCoo1204oo

● stock standard, ○ non-standard stock, ▲ upcoming introduction, ▽ stock exhaustion

Spare parts	Insert screws	Flag wrenches
NT-V08H-SCLC$^{L}/_{R}$06-10	NT-ST25050T07	NT-FT07
NT-V10K-SCLC$^{L}/_{R}$06-12	NT-ST25060T07	NT-FT07
NT-V12M-SCLC$^{L}/_{R}$06-14	NT-ST25060T07	NT-FT07
NT-V12M-SCLC$^{L}/_{R}$09-14	NT-ST35073T15	NT-FT15
NT-V16Q-SCLC$^{L}/_{R}$09-18	NT-ST35073T15	NT-FT15
NT-V20R-SCLC$^{L}/_{R}$09-22	NT-ST35089T15	NT-FT15
NT-V25S-SCLC$^{L}/_{R}$09-27	NT-ST35089T15	NT-FT15
NT-V20R-SCLC$^{L}/_{R}$12-25	NT-ST40115T15	NT-FT15
NT-V25S-SCLC$^{L}/_{R}$12-32	NT-ST40115T15	NT-FT15

nikkoTOOLS

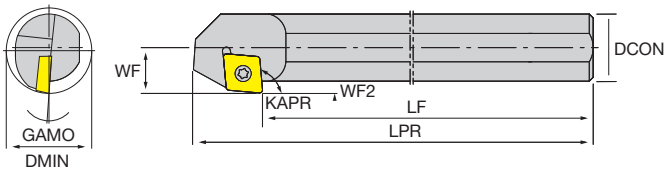
S SCZC

ISO - CC

- Internal back turning (KAPR 93°)
- Steel boring bar without internal coolant
- Holds CC-style inserts, tightened by screws

STEEL

Right-hand shown



Designation	Stock L	Stock R	DMIN	DCON	WF	WF2	LF	LH	LPR	KAPR	GAMO	MIID
NT-S08H-SCZC$^{L}/_{R}$06	●	●	12	8	6.5	2.5	100	-	110	93°	13°	CC∞0602∞
NT-S10K-SCZC$^{L}/_{R}$06	●	●	14	10	7.5	2.5	125	-	135	93°	12°	CC∞0602∞
NT-S12M-SCZC$^{L}/_{R}$06	●	●	16	12	8.5	2.5	150	-	160	93°	10°	CC∞0602∞
NT-S16Q-SCZC$^{L}/_{R}$09	●	●	21	16	11.5	3.5	180	-	196	93°	10°	CC∞09T3∞
NT-S20R-SCZC$^{L}/_{R}$09	●	●	25	20	13.5	3.5	200	-	218	93°	8°	CC∞09T3∞
NT-S25R-SCZC$^{L}/_{R}$09	●	●	32	25	16	3.5	200	-	218	93°	8°	CC∞09T3∞

● stock standard, ○ non-standard stock, ▲ upcoming introduction, ▽ stock exhaustion

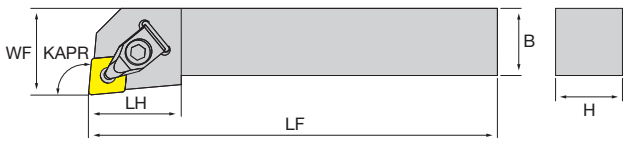
Spare parts	Insert screws	Flag wrenches
NT-S08H-SCZC$^{L}/_{R}$06	NT-ST25050T07	NT-FT07
NT-S10K-SCZC$^{L}/_{R}$06	NT-ST25060T07	NT-FT07
NT-S12M-SCZC$^{L}/_{R}$06	NT-ST25060T07	NT-FT07
NT-S16Q-SCZC$^{L}/_{R}$09	NT-ST35089T15	NT-FT15
NT-S20R-SCZC$^{L}/_{R}$09	NT-ST35089T15	NT-FT15
NT-S25R-SCZC$^{L}/_{R}$09	NT-ST35089T15	NT-FT15

DCLN

ISO - CN

- External turning (KAPR 95°)
- Holds CN-style inserts
- Double pushing and pulling action with a single movement
- Quick and safe tightening

Right-hand shown



Designation	Stock L	Stock R	H	B	WF	LF	LH	LPR	KAPR			MIID
NT-DCLN^{L}/$_{R}$1616H09X	●	●	16	16	20	100	33	-	95°			CNoo0903oo
NT-DCLN^{L}/$_{R}$2020K09X	●	●	20	20	25	125	30	-	95°			CNoo0903oo
NT-DCLN^{L}/$_{R}$2525M09X	●	●	25	25	32	150	30	-	95°			CNoo0903oo
NT-DCLN^{L}/$_{R}$2020K12X	●	●	20	20	25	125	40	-	95°			CNoo1204oo
NT-DCLN^{L}/$_{R}$2525M12X	●	●	25	25	32	150	36	-	95°			CNoo1204oo
NT-DCLN^{L}/$_{R}$3225P12X	●	●	32	25	32	170	36	-	95°			CNoo1204oo

● stock standard, ○ non-standard stock, ▲ upcoming introduction, ▽ stock exhaustion

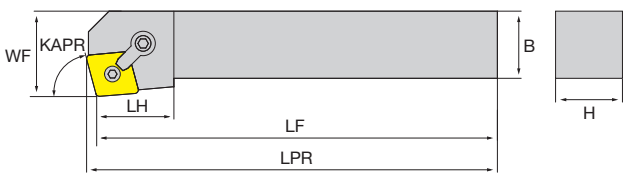
Spare parts	Shim	Shim screws	L wrench	Clamp	Springs	Clamp screws	L wrench
NT-DCLN^{L}/$_{R}$oooooo09X	NT-SH012	NT-ST031	NT-WR020	NT-CS250	NT-SG250	NT-SC250	NT-TX15
NT-DCLN^{L}/$_{R}$oooooo12X	NT-SH030	NT-ST200	NT-WR025	NT-CS200	NT-SG200	NT-SC200	NT-TX20

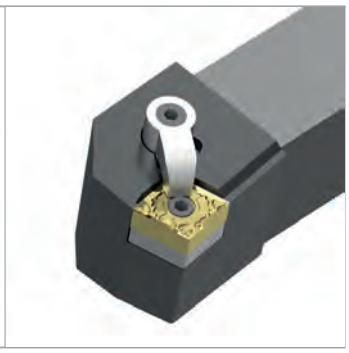
MCKN

ISO - CN

- External turning (KAPR 75°)
- Holds CN-style inserts
- Double locking with Eccentric pins and bracket. Excellent clamping force
- Mostly used for roughing

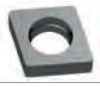
Right-hand shown

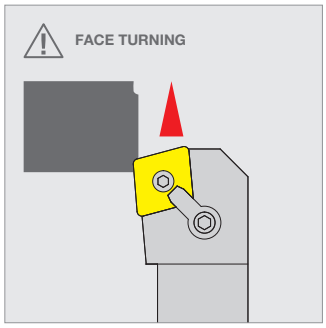




Designation	Stock L	Stock R	H	B	WF	LF	LH	LPR	KAPR			MIID
NT-MCKN^{L}/$_{R}$2020K12	●	●	20	20	25	122	37	125	75°			CNoo1204oo
NT-MCKN^{L}/$_{R}$2525M12	●	●	25	25	32	147	34	150	75°			CNoo1204oo
NT-MCKN^{L}/$_{R}$3232P12	●	●	32	32	40	167	40	170	75°			CNoo1204oo
NT-MCKN^{L}/$_{R}$3232P16	○	○	32	32	40	167	40	170	75°			CNoo1606oo

● stock standard, ○ non-standard stock, ▲ upcoming introduction, ▽ stock exhaustion

Spare parts	Shim	Eccentric pins	Clamp	Clamp screws	L wrench
					
NT-MCKN^{L}/$_{R}$ooooo12	NT-SH030	NT-SP010	NT-CS010	NT-SC010	NT-WR030
NT-MCKN^{L}/$_{R}$ooooo16	NT-SH055	NT-SP040	NT-CS010	NT-SC010	NT-WR030



A - TURNING
B - THREADING
C - GROOVING
D - MILLING
E - DRILLING
F - ACCESSORIES
G - SPARE PARTS

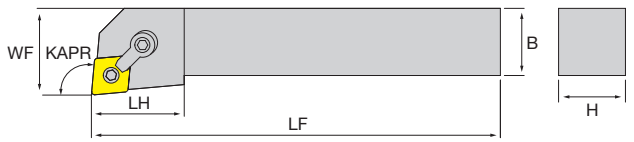
A - TURNING
B - THREADING
C - GROOVING
D - MILLING
E - DRILLING
F - ACCESSORIES
G - SPARE PARTS

MCLN

ISO - CN

- External turning (KAPR 95°)
- Holds CN-style inserts
- Double locking with Eccentric pins and bracket. Excellent clamping force
- Mostly used for roughing

Right-hand shown



Designation	Stock L	Stock R	H	B	WF	LF	LH	LPR	KAPR			MIID
NT-MCLN^{L}/$_{R}$2020K12	●	●	20	20	25	125	33	-	95°			CNoo1204oo
NT-MCLN^{L}/$_{R}$2525M12	●	●	25	25	32	150	33	-	95°			CNoo1204oo
NT-MCLN^{L}/$_{R}$3232P12	●	●	32	32	40	170	33	-	95°			CNoo1204oo
NT-MCLN^{L}/$_{R}$2525M16	●	●	25	25	32	150	33	-	95°			CNoo1606oo
NT-MCLN^{L}/$_{R}$3232P16	●	●	32	32	40	170	33	-	95°			CNoo1606oo
NT-MCLN^{L}/$_{R}$3232P19	○	○	32	32	40	170	38	-	95°			CNoo1906oo
NT-MCLN^{L}/$_{R}$4040S19	○	○	40	40	50	250	38	-	95°			CNoo1906oo

● stock standard, ○ non-standard stock, ▲ upcoming introduction, ▽ stock exhaustion

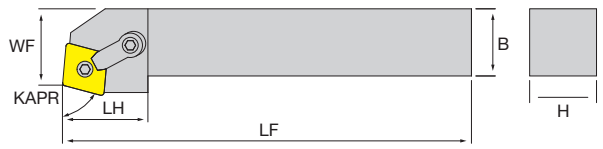
Spare parts	Shim	Eccentric pins	Clamp	Clamp screws	L wrench
NT-MCLN^{L}/$_{R}$ooooo12	NT-SH030	NT-SP010	NT-CS010	NT-SC010	NT-WR030
NT-MCLN^{L}/$_{R}$ooooo16	NT-SH055	NT-SP040	NT-CS010	NT-SC010	NT-WR030
NT-MCLN^{L}/$_{R}$ooooo19	NT-SH080	NT-SP050	NT-CS015	NT-SC070	NT-WR040

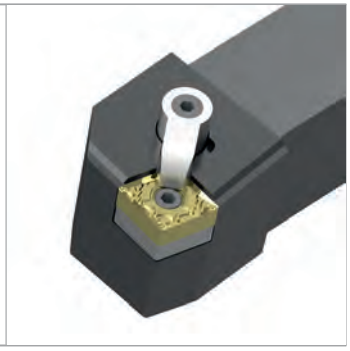
MCRN

ISO - CN

- External turning (KAPR 75°)
- Holds CN-style inserts
- Double locking with Eccentric pins and bracket. Excellent clamping force
- Mostly used for roughing, especially facing

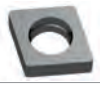
Right-hand shown

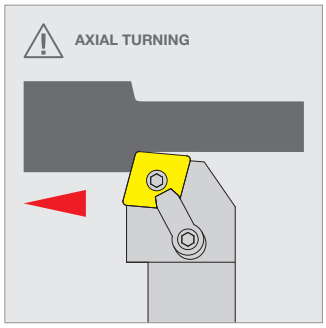




Designation	Stock L	Stock R	H	B	WF	LF	LH	LPR	KAPR			MIID
NT-MCRN^{L}/$_{R}$2020K12	●	●	20	20	22	125	37	-	75°			CNoo1204oo
NT-MCRN^{L}/$_{R}$2525M12	●	●	25	25	27	150	34	-	75°			CNoo1204oo
NT-MCRN^{L}/$_{R}$3232P12	●	●	32	32	35	170	40	-	75°			CNoo1204oo
NT-MCRN^{L}/$_{R}$3232P16	○	○	32	32	35	170	40	-	75°			CNoo1606oo

● stock standard, ○ non-standard stock, ▲ upcoming introduction, ▽ stock exhaustion

Spare parts	Shim	Eccentric pins	Clamp	Clamp screws	L wrench
					
NT-MCRN^{L}/$_{R}$ooooo12	NT-SH030	NT-SP010	NT-CS010	NT-SC010	NT-WR030
NT-MCRN^{L}/$_{R}$ooooo16	NT-SH055	NT-SP040	NT-CS010	NT-SC010	NT-WR030



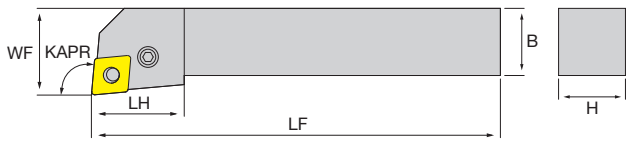
A - TURNING
B - THREADING
C - GROOVING
D - MILLING
E - DRILLING
F - ACCESSORIES
G - SPARE PARTS

PCLN

ISO - CN

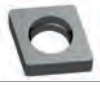
- External turning (KAPR 95°)
- Holds CN-style inserts
- Easy to use Levers-lock clamping
- Suitable for long-chip materials

Right-hand shown



Designation	Stock L	Stock R	H	B	WF	LF	LH	LPR	KAPR			MIID
NT-PCLN$^{L}/_{R}$1616H09	●	●	16	16	20	100	20	-	95°			CNoo0903oo
NT-PCLN$^{L}/_{R}$2020K09	●	●	20	20	25	125	20	-	95°			CNoo0903oo
NT-PCLN$^{L}/_{R}$2525M09	●	●	25	25	32	150	23	-	95°			CNoo0903oo
NT-PCLN$^{L}/_{R}$2020K12	●	●	20	20	25	125	26	-	95°			CNoo1204oo
NT-PCLN$^{L}/_{R}$2525M12	●	●	25	25	32	150	26	-	95°			CNoo1204oo

● stock standard, ○ non-standard stock, ▲ upcoming introduction, ▽ stock exhaustion

Spare parts	Shim	Shim plugs	Levers	Levers screws	L wrench
					
NT-PCLN$^{L}/_{R}$ooooo09	NT-SH012	NT-SR012	NT-LL012	NT-SC015	NT-WR025
NT-PCLN$^{L}/_{R}$ooooo12	NT-SH035	NT-SR020	NT-LL020	NT-SC025	NT-WR030

A DCLN

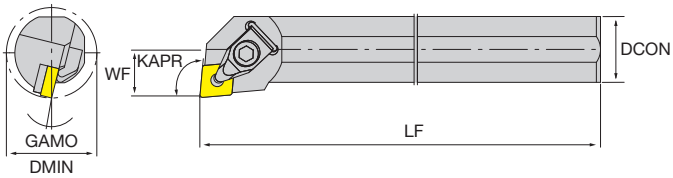
ISO - CN

- Internal turning (KAPR 95°)
- Steel boring bar with internal coolant through
- Holds CN-style inserts
- Double pushing and pulling action with a single movement. Quick and safe tightening

STEEL

with internal coolant

Right-hand shown



Designation	Stock L	Stock R	DMIN	DCON	WF	LF	LH	LPR	KAPR	GAMO		MIID
NT-A25R-DCLN$^{L}/_{R}$12	●	●	32	25	17	200	-	-	95°	14°		CNoo1204oo
NT-A32S-DCLN$^{L}/_{R}$12	●	●	40	32	22	250	-	-	95°	14°		CNoo1204oo
NT-A40T-DCLN$^{L}/_{R}$12	●	●	50	40	27	300	-	-	95°	12°		CNoo1204oo

● stock standard, ○ non-standard stock, ▲ upcoming introduction, ▽ stock exhaustion

Spare parts	Shim	Shim screws	L wrench	Clamp	Springs	L wrench
NT-Aooo-DCLN$^{L}/_{R}$12	NT-SH035	NT-ST200	NT-WR025	NT-CS200	NT-SG200	NT-TX20

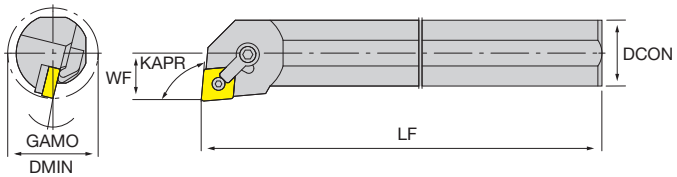
S MCLN

ISO - CN

- Internal turning (KAPR 95°)
- Steel boring bar without internal coolant
- Holds CN-style inserts
- Double locking with Eccentric pins and bracket. Excellent clamping force

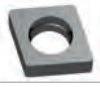
STEEL

Right-hand shown



Designation	Stock L	Stock R	DMIN	DCON	WF	LF	LH	LPR	KAPR	GAMO		MIID
NT-S20R-MCLN$^{L}/_{R}$12	●	●	25	20	13	200	-	-	95°	17°		CN∞1204∞
NT-S25R-MCLN$^{L}/_{R}$12	●	●	32	25	17	200	-	-	95°	14°		CN∞1204∞
NT-S32S-MCLN$^{L}/_{R}$12	●	●	40	32	22	250	-	-	95°	14°		CN∞1204∞
NT-S40T-MCLN$^{L}/_{R}$12	●	●	50	40	27	300	-	-	95°	12°		CN∞1204∞
NT-S50U-MCLN$^{L}/_{R}$12	●	●	63	50	35	350	-	-	95°	12°		CN∞1204∞
NT-S40T-MCLN$^{L}/_{R}$16	●	●	50	40	27	300	-	-	95°	11°		CN∞1606∞
NT-S50U-MCLN$^{L}/_{R}$16	●	●	63	50	35	350	-	-	95°	12°		CN∞1606∞
NT-S50U-MCLN$^{L}/_{R}$19	●	●	63	50	35	350	-	-	95°	12°		CN∞1906∞

● stock standard, ○ non-standard stock, ▲ upcoming introduction, ▽ stock exhaustion

Spare parts	Shim 	Eccentric pins	L wrench	Clamp	Clamp screws	L wrench
NT-S20R-MCLN$^{L}/_{R}$12	-	NT-SP035	NT-WR025	NT-CS030	NT-SC030	NT-WR025
NT-S25R-MCLN$^{L}/_{R}$12	-	NT-SP035	NT-WR025	NT-CS010	NT-SC008	NT-WR030
NT-S32S-MCLN$^{L}/_{R}$12	NT-SH030	NT-SP010	NT-WR030	NT-CS010	NT-SC010	NT-WR030
NT-S40T-MCLN$^{L}/_{R}$12	NT-SH030	NT-SP010	NT-WR030	NT-CS010	NT-SC010	NT-WR030
NT-S50U-MCLN$^{L}/_{R}$12	NT-SH030	NT-SP010	NT-WR030	NT-CS010	NT-SC010	NT-WR030
NT-S40T-MCLN$^{L}/_{R}$16	NT-SH055	NT-SP040	NT-WR030	NT-CS010	NT-SC010	NT-WR030
NT-S50U-MCLN$^{L}/_{R}$16	NT-SH055	NT-SP040	NT-WR030	NT-CS010	NT-SC010	NT-WR030
NT-S50U-MCLN$^{L}/_{R}$19	NT-SH080	NT-SP050	NT-WR030	NT-CS015	NT-SC070	NT-WR040

A PCLN

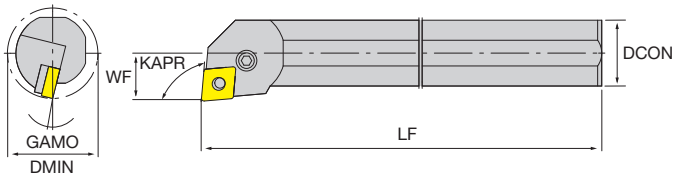
ISO - CN

- Internal turning (KAPR 95°)
- Steel boring bar with internal coolant through
- Holds CN-style inserts
- Easy to use Levers-lock clamping. Suitable for long-chip materials

STEEL

with internal coolant

Right-hand shown



Designation	Stock L	Stock R	DMIN	DCON	WF	LF	LH	LPR	KAPR	GAMO		MIID
NT-A25R-PCLN$^{L}/_{R}$12	●	●	32	25	17	200	-	-	95°	11°		CN∞1204∞
NT-A32S-PCLN$^{L}/_{R}$12	●	●	40	32	22	250	-	-	95°	11°		CN∞1204∞
NT-A40T-PCLN$^{L}/_{R}$12	●	●	50	40	27	300	-	-	95°	10°		CN∞1204∞

● stock standard, ○ non-standard stock, ▲ upcoming introduction, ▽ stock exhaustion

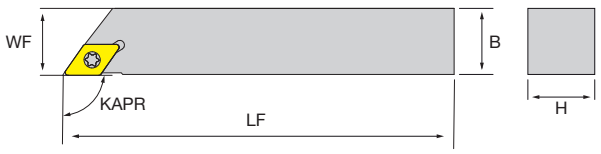
Spare parts	Shim	Shim plugs	Levers	Levers screws	L wrench
NT-A25R-PCLN$^{L}/_{R}$12	-	NT-SR015	NT-LL015	NT-SC015	NT-WR025
NT-A32S-PCLN$^{L}/_{R}$12	NT-SH035	NT-SR020	NT-LL020	NT-SC025	NT-WR030
NT-A40T-PCLN$^{L}/_{R}$12	NT-SH035	NT-SR020	NT-LL020	NT-SC025	NT-WR030

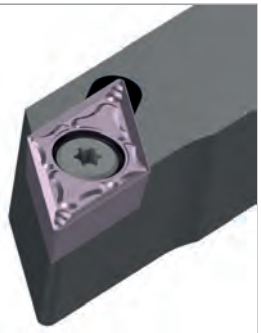
SDAC

ISO - DC

- External turning (KAPR 90°)
- Holds DC-style inserts, tightened by screw
- Convenient to change inserts
- Available on lathes without offset

Right-hand shown





Designation	Stock L	Stock R	H	B	WF	LF	LH	LPR	KAPR			MIID
NT-SDAC$^{L}/_{R}$0808K07	○	○	8	8	8	125	-	-	90°			DCoo0702oo
NT-SDAC$^{L}/_{R}$1010K07	●	●	10	10	10	125	-	-	90°			DCoo0702oo
NT-SDAC$^{L}/_{R}$1212K07	●	●	12	12	12	125	-	-	90°			DCoo0702oo
NT-SDAC$^{L}/_{R}$1212K11	●	●	12	12	12	125	-	-	90°			DCoo11T3oo
NT-SDAC$^{L}/_{R}$1616K11	●	●	16	16	16	125	-	-	90°			DCoo11T3oo

● stock standard, ○ non-standard stock, ▲ upcoming introduction, ▽ stock exhaustion

Spare parts	Insert screws	Flag wrenches
NT-SDAC$^{L}/_{R}$ooooo07	NT-ST25060T07	NT-FT07
NT-SDAC$^{L}/_{R}$ooooo11	NT-ST35089T15B	NT-FT15

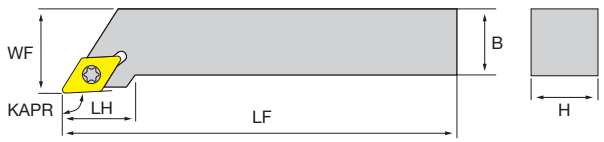
CARBIDE INSERTS p. A45 | PCBN INSERTS p. A107 | DIAMOND INSERTS p. A148 | SPARE PARTS DETAILS p. G1

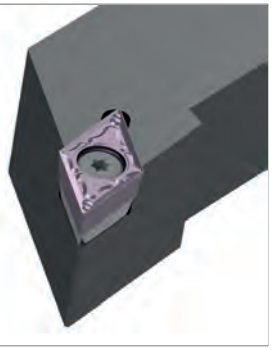
SDJC

ISO - DC

- External turning (KAPR 93°)
- Holds DC-style inserts, tightened by screw
- Convenient to change inserts
- Available with and without shim

Right-hand shown





Designation	Stock L	Stock R	H	B	WF	LF	LH	LPR	KAPR			MIID
WITHOUT SHIM												
NT-SDJC$^{L}/_{R}$1616H11	●	●	16	16	20	100	18	-	93°			DCoo11T3oo
NT-SDJC$^{L}/_{R}$2020K11	●	●	20	20	25	125	23	-	93°			DCoo11T3oo
NT-SDJC$^{L}/_{R}$2525M11	●	●	25	25	32	150	27	-	93°			DCoo11T3oo
WITH SHIM												
NT-SDJC$^{L}/_{R}$2020K11S	●	●	20	20	25	125	22	-	93°			DCoo11T3oo
NT-SDJC$^{L}/_{R}$2525M11S	●	●	25	25	32	150	25	-	93°			DCoo11T3oo

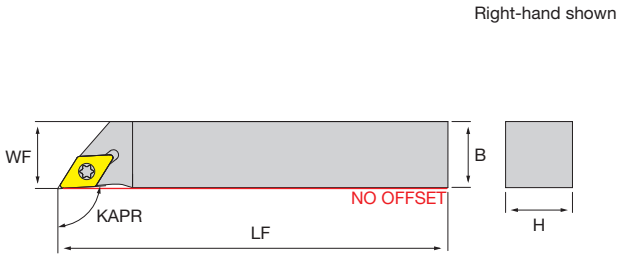
● stock standard, ○ non-standard stock, ▲ upcoming introduction, ▽ stock exhaustion

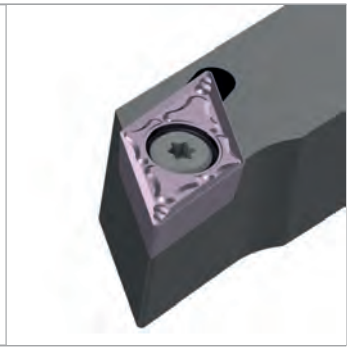
Spare parts	Shim	Shim screws	L wrench	Insert screws	Flag wrenches
NT-SDJC$^{L}/_{R}$ooooo11	-	-	-	NT-ST35089T15B	NT-FT15
NT-SDJC$^{L}/_{R}$ooooo11S	NT-SH007	NT-SR010	NT-WR035	NT-ST35115T15	NT-FT15

SDJC N

ISO - DC

- External turning (KAPR 93°)
- Holds DC-style inserts, tightened by screw
- Convenient to change inserts
- Available on lathes without offset





Designation	Stock L	Stock R	H	B	WF	LF	LH	LPR	KAPR			MIID
NT-SDJC$^{L}/_{R}$0808K07N	○	○	8	8	8	125	-	-	93°			DCoo0702oo
NT-SDJC$^{L}/_{R}$1010K07N	●	●	10	10	10	125	-	-	93°			DCoo0702oo
NT-SDJC$^{L}/_{R}$1212K07N	○	○	12	12	12	125	-	-	93°			DCoo0702oo
NT-SDJC$^{L}/_{R}$1212K11N	●	●	12	12	12	125	-	-	93°			DCoo11T3oo
NT-SDJC$^{L}/_{R}$1616K11N	●	●	16	16	16	125	-	-	93°			DCoo11T3oo

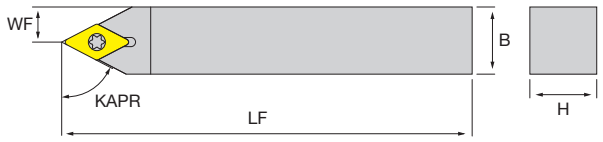
● stock standard, ○ non-standard stock, ▲ upcoming introduction, ▽ stock exhaustion

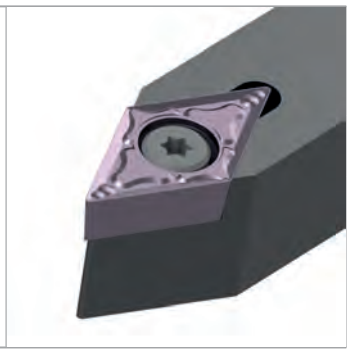
Spare parts	Insert screws	Flag wrenches
NT-SDJC$^{L}/_{R}$ooooo07N	NT-ST25060T07	NT-FT07
NT-SDJC$^{L}/_{R}$ooooo11N	NT-ST35089T15B	NT-FT15

SDNC

ISO - DC

- External turning (KAPR 62.5°), Neutral position
- Holds DC-style inserts, tightened by screw
- Convenient to change inserts
- Available with and without shim





Designation	Stock	H	B	WF	LF	LH	LPR	KAPR			MIID
WITHOUT SHIM											
NT-SDNCN0808H07	○	8	8	4	100	-	-	62.5°			DCoo0702oo
NT-SDNCN1010H07	○	10	10	5	100	-	-	62.5°			DCoo0702oo
NT-SDNCN1212H11	●	12	12	6	100	-	-	62.5°			DCoo11T3oo
NT-SDNCN1616H11	●	16	16	8	100	-	-	62.5°			DCoo11T3oo
NT-SDNCN2020K11	●	20	20	10	125	-	-	62.5°			DCoo11T3oo
NT-SDNCN2525M11	●	25	25	12.5	150	-	-	62.5°			DCoo11T3oo
WITH SHIM											
NT-SDNCN2020K11S	○	20	20	10	125	-	-	62.5°			DCoo11T3oo
NT-SDNCN2525M11S	○	25	25	12.5	150	-	-	62.5°			DCoo11T3oo

● stock standard, ○ non-standard stock, ▲ upcoming introduction, ▽ stock exhaustion

Spare parts	Shim	Shim screws	L wrench	Insert screws	Flag wrenches
NT-SDNCNoooooo07	-	-	-	NT-ST25060T07	NT-FT07
NT-SDNCNoooooo11	-	-	-	NT-ST35089T15B	NT-FT15
NT-SDNCNoooooo11S	NT-SH007	NT-SR010	NT-WR035	NT-ST35115T15	NT-FT15

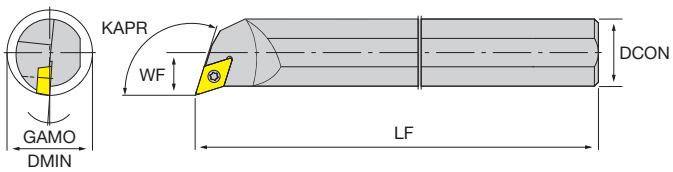
S SDQC

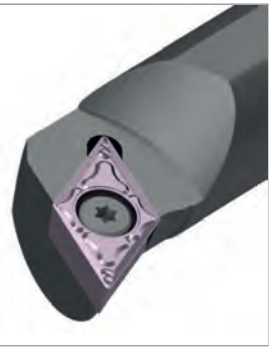
ISO - DC

- Internal turning (KAPR 107.5°)
- Steel boring bar without internal coolant
- Holds DC-style inserts, tightened by screws

STEEL

Right-hand shown





Designation	Stock L	Stock R	DMIN	DCON	WF	LF	LH	LPR	KAPR	GAMO		MIID
NT-S10M-SDQC$^{L}/_{R}$07	●	●	13	10	7	150	-	-	107.5°	10°		DCoo0702oo
NT-S12M-SDQC$^{L}/_{R}$07	●	●	16	12	9	150	-	-	107.5°	8°		DCoo0702oo
NT-S16Q-SDQC$^{L}/_{R}$07	●	●	20	16	11	180	-	-	107.5°	6°		DCoo0702oo
NT-S20R-SDQC$^{L}/_{R}$07	●	●	25	20	13	200	-	-	107.5°	6°		DCoo0702oo
NT-S16Q-SDQC$^{L}/_{R}$11	●	●	20	16	11	180	-	-	107.5°	6°		DCoo11T3oo
NT-S20R-SDQC$^{L}/_{R}$11	●	●	25	20	13	200	-	-	107.5°	8°		DCoo11T3oo
NT-S25R-SDQC$^{L}/_{R}$11	●	●	32	25	17	200	-	-	107.5°	4°		DCoo11T3oo
NT-S32S-SDQC$^{L}/_{R}$11	●	●	40	32	22	250	-	-	107.5°	4°		DCoo11T3oo

● stock standard, ○ non-standard stock, ▲ upcoming introduction, ▽ stock exhaustion

Spare parts	Insert screws	Flag wrenches
NT-Soоо-SDQC$^{L}/_{R}$07	NT-ST25060T07	NT-FT07
NT-Soоо-SDQC$^{L}/_{R}$11	NT-ST35089T15B	NT-FT15

V SDQC

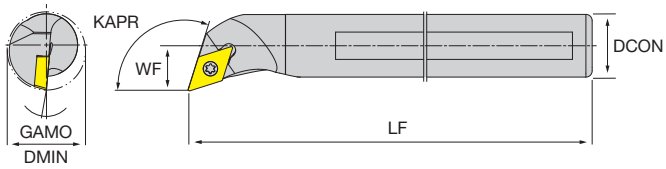
ISO - DC

- Internal turning (KAPR 107.5°)
- Vortex boring bar (high quality steel) with internal coolant through. Maximum overhang: 5xDCON
- Holds DC-style inserts, tightened by screws
- Special chip evacuation path

VORTEX

with internal coolant

Right-hand shown



Designation	Stock L	Stock R	DMIN	DCON	WF	LF	LH	LPR	KAPR	GAMO		MIID
NT-V10K-SDQC^{L}/$_{R}$07-13	●	●	13	10	7.7	125	-	-	107.5°	10°		DC∞0702∞
NT-V12M-SDQC^{L}/$_{R}$07-16	●	●	16	12	9.7	150	-	-	107.5°	8°		DC∞0702∞
NT-V16Q-SDQC^{L}/$_{R}$07-20	●	●	20	16	11.7	180	-	-	107.5°	6°		DC∞0702∞
NT-V20R-SDQC^{L}/$_{R}$07-25	●	●	25	20	13.7	200	-	-	107.5°	5°		DC∞0702∞
NT-V16Q-SDQC^{L}/$_{R}$11-20	●	●	20	16	11.5	180	-	-	107.5°	6°		DC∞11T3∞
NT-V20R-SDQC^{L}/$_{R}$11-25	●	●	25	20	14.4	200	-	-	107.5°	5°		DC∞11T3∞
NT-V25S-SDQC^{L}/$_{R}$11-30	●	●	30	25	16.9	250	-	-	107.5°	4°		DC∞11T3∞

● stock standard, ○ non-standard stock, ▲ upcoming introduction, ▽ stock exhaustion

Spare parts	Insert screws	Flag wrenches
NT-V∞∞-SDQC^{L}/$_{R}$07-∞	NT-ST25060T07	NT-FT07
NT-V∞∞-SDQC^{L}/$_{R}$11-∞	NT-ST35089T15B	NT-FT15

CARBIDE INSERTS p. A45 | PCBN INSERTS p. A107 | DIAMOND INSERTS p. A148 | SPARE PARTS DETAILS p. G1

A SDUC

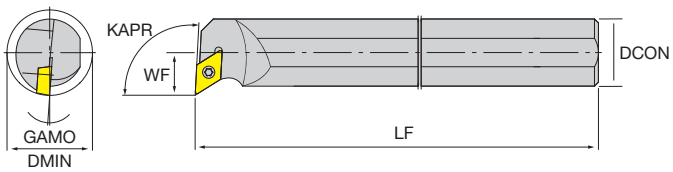
ISO - DC

- Internal turning (KAPR 93°)
- Steel boring bar with internal coolant through
- Holds DC-style inserts, tightened by screws

STEEL

with internal coolant

Right-hand shown



Designation	Stock L	Stock R	DMIN	DCON	WF	LF	LH	LPR	KAPR	GAMO		MIID
NT-A10M-SDUC$^{L}/_{R}$07	●	●	13	10	7	150	-	-	93°	10°		DCoo0702oo
NT-A12M-SDUC$^{L}/_{R}$07	●	●	16	12	9	150	-	-	93°	8°		DCoo0702oo
NT-A16Q-SDUC$^{L}/_{R}$07	●	●	20	16	1	180	-	-	93°	6°		DCoo0702oo
NT-A20R-SDUC$^{L}/_{R}$07	●	●	25	20	13	200	-	-	93°	5°		DCoo0702oo
NT-A16Q-SDUC$^{L}/_{R}$11	●	●	20	16	1	180	-	-	93°	7°		DCoo11T3oo
NT-A20R-SDUC$^{L}/_{R}$11	●	●	25	20	13	200	-	-	93°	8°		DCoo11T3oo

● stock standard, ○ non-standard stock, ▲ upcoming introduction, ▽ stock exhaustion

Spare parts	Insert screws	Flag wrenches
NT-Aooo-SDUC$^{L}/_{R}$07	NT-ST25060T07	NT-FT07
NT-Aooo-SDUC$^{L}/_{R}$11	NT-ST35089T15B	NT-FT15

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E SDUC

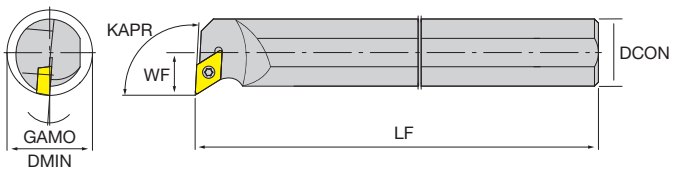
ISO - DC

- Internal turning (KAPR 93°)
- Carbide boring bar with internal coolant through. Maximum overhang: 7xDCON
- Holds DC-style inserts, tightened by screws

CARBIDE

with internal coolant

Right-hand shown



Designation	Stock L	Stock R	DMIN	DCON	WF	LF	LH	LPR	KAPR	GAMO		MIID
NT-E10K-SDUC$^{L}/_{R}$07	●	●	13	10	7	125	-	-	93°	10°		DCoo0702oo
NT-E12M-SDUC$^{L}/_{R}$07	●	●	16	12	9	150	-	-	93°	8°		DCoo0702oo
NT-E16R-SDUC$^{L}/_{R}$11	●	●	20	16	11	200	-	-	93°	7°		DCoo11T3oo
NT-E20R-SDUC$^{L}/_{R}$11	●	●	25	20	13	200	-	-	93°	8°		DCoo11T3oo

● stock standard, ○ non-standard stock, ▲ upcoming introduction, ▽ stock exhaustion

Spare parts	Insert screws	Flag wrenches
NT-Eooo-SDUC$^{L}/_{R}$07	NT-ST25060T07	NT-FT07
NT-Eooo-SDUC$^{L}/_{R}$11	NT-ST35089T15B	NT-FT15

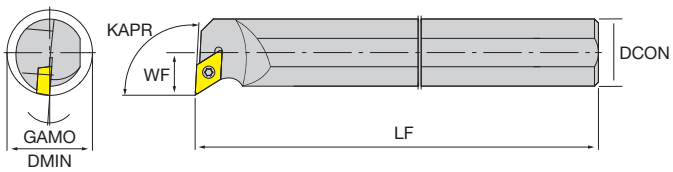
S SDUC

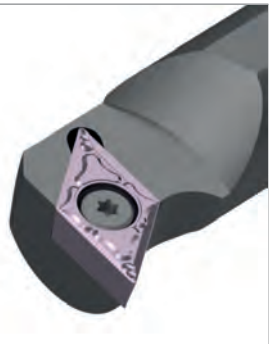
ISO - DC

- Internal turning (KAPR 93°)
- Steel boring bar without internal coolant
- Holds DC-style inserts, tightened by screws

STEEL

Right-hand shown





Designation	Stock L	Stock R	DMIN	DCON	WF	LF	LH	LPR	KAPR	GAMO		MIID
NT-S10M-SDUC$^{L}/_{R}$07	●	●	13	10	7	150	-	-	93°	10°		DCoo0702oo
NT-S12M-SDUC$^{L}/_{R}$07	●	●	16	12	9	150	-	-	93°	8°		DCoo0702oo
NT-S16Q-SDUC$^{L}/_{R}$07	●	●	20	16	11	180	-	-	93°	6°		DCoo0702oo
NT-S20R-SDUC$^{L}/_{R}$07	●	●	25	20	13	200	-	-	93°	5°		DCoo0702oo
NT-S16Q-SDUC$^{L}/_{R}$11	●	●	20	16	11	180	-	-	93°	7°		DCoo11T3oo
NT-S20R-SDUC$^{L}/_{R}$11	●	●	25	20	13	200	-	-	93°	8°		DCoo11T3oo
NT-S25R-SDUC$^{L}/_{R}$11	●	●	32	25	17	200	-	-	93°	4°		DCoo11T3oo
NT-S32S-SDUC$^{L}/_{R}$11	●	●	40	32	22	250	-	-	93°	4°		DCoo11T3oo
NT-S40T-SDUC$^{L}/_{R}$11	○	○	50	40	24	300	-	-	93°	2°		DCoo11T3oo

● stock standard, ○ non-standard stock, ▲ upcoming introduction, ▽ stock exhaustion

Spare parts	Insert screws	Flag wrenches
NT-Soooo-SDUC$^{L}/_{R}$07	NT-ST25060T07	NT-FT07
NT-Soooo-SDUC$^{L}/_{R}$11	NT-ST35089T15B	NT-FT15

V SDUC

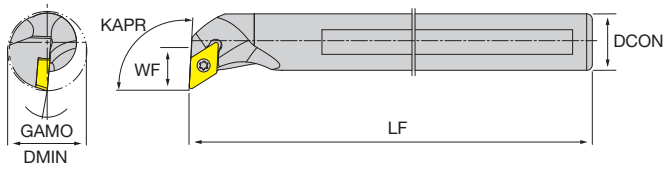
ISO - DC

- Internal turning (KAPR 93°)
- Vortex boring bar (high quality steel) with internal coolant through. Maximum overhang: 5xDCON
- Holds DC-style inserts, tightened by screws
- Special chip evacuation path

VORTEX

with internal coolant

Right-hand shown



Designation	Stock L	Stock R	DMIN	DCON	WF	LF	LH	LPR	KAPR	GAMO		MIID
NT-V10K-SDUC$^{L}/_{R}$07-14	●	●	14	10	8.7	125	-	-	93°	5°		DC∞0702∞
NT-V12M-SDUC$^{L}/_{R}$07-16	●	●	16	12	9.7	150	-	-	93°	5°		DC∞0702∞
NT-V16Q-SDUC$^{L}/_{R}$07-20	●	●	20	16	11.7	180	-	-	93°	5°		DC∞0702∞
NT-V20R-SDUC$^{L}/_{R}$07-25	●	●	25	20	13.7	200	-	-	93°	5°		DC∞0702∞
NT-V16Q-SDUC$^{L}/_{R}$11-23	●	●	23	16	14.5	180	-	-	93°	5°		DC∞11T3∞
NT-V20R-SDUC$^{L}/_{R}$11-27	●	●	27	20	16.5	200	-	-	93°	5°		DC∞11T3∞
NT-V25S-SDUC$^{L}/_{R}$11-32	●	●	32	25	19	250	-	-	93°	5°		DC∞11T3∞

● stock standard, ○ non-standard stock, ▲ upcoming introduction, ▽ stock exhaustion

Spare parts	Insert screws	Flag wrenches
NT-V∞∞-SDUC$^{L}/_{R}$07-∞	NT-ST25060T07	NT-FT07
NT-V∞∞-SDUC$^{L}/_{R}$11-∞	NT-ST35089T15B	NT-FT15

CARBIDE INSERTS p. A45 | PCBN INSERTS p. A107 | DIAMOND INSERTS p. A148 | SPARE PARTS DETAILS p. G1

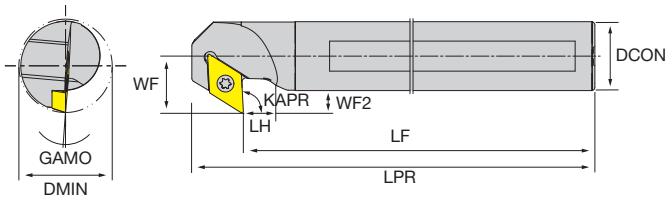
S SDZC

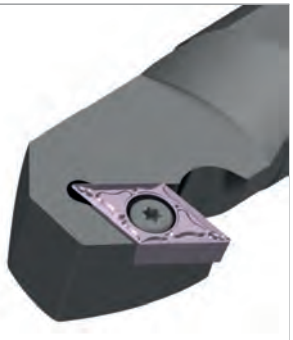
ISO - DC

- Internal back turning (KAPR 93°)
- Steel boring bar without internal coolant
- Holds DC-style inserts, tightened by screws

STEEL

Right-hand shown





Designation	Stock L	Stock R	DMIN	DCON	WF	WF2	LF	LH	LPR	KAPR	GAMO	MIID
NT-S10M-SDZC$^{L}/_{R}$07	○	○	14	10	8.5	3.5	139	11	150	93°	10°	DC○○0702○○
NT-S12M-SDZC$^{L}/_{R}$07	●	●	17	12	10.5	4.5	139	11	150	93°	9°	DC○○0702○○
NT-S16Q-SDZC$^{L}/_{R}$07	●	●	21	16	12.5	4.5	169	11	180	93°	8°	DC○○0702○○
NT-S20R-SDZC$^{L}/_{R}$11	●	●	26	20	15.5	5.5	184	16	200	93°	8°	DC○○11T3○○
NT-S25R-SDZC$^{L}/_{R}$11	○	○	33	25	18	5.5	180	20	200	93°	6°	DC○○11T3○○
NT-S32S-SDZC$^{L}/_{R}$11	○	○	38	32	21.5	5.5	230	20	250	93°	4°	DC○○11T3○○

● stock standard, ○ non-standard stock, ▲ upcoming introduction, ▽ stock exhaustion

Spare parts	Insert screws	Flag wrenches
NT-S○○○-SDZC$^{L}/_{R}$07	NT-ST25060T07	NT-FT07
NT-S○○○-SDZC$^{L}/_{R}$11	NT-ST35089T15B	NT-FT15

CARBIDE INSERTS p. A45 | PCBN INSERTS p. A107 | DIAMOND INSERTS p. A148 | SPARE PARTS DETAILS p. G1

V SDZC

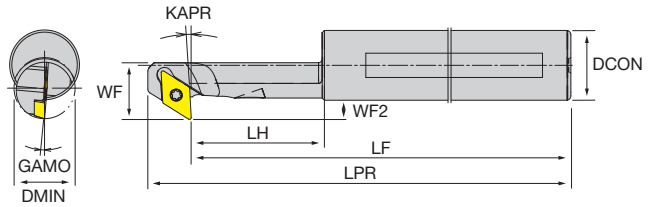
ISO - DC

- Internal back turning (KAPR 93°)
- Vortex boring bar (high quality steel) with internal coolant through. Maximum overhang: 5xDCON
- Holds DC-style inserts, tightened by screws
- Special chip evacuation path

Reduced neck — Right-hand shown

VORTEX

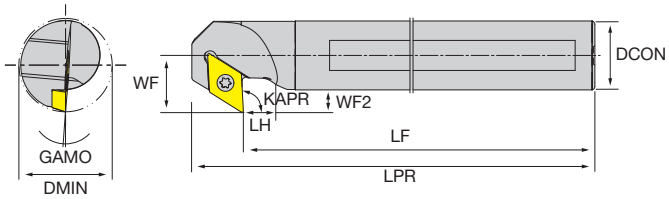
with internal coolant



Standard design — Right-hand shown

VORTEX

with internal coolant



Designation	Stock L	Stock R	DMIN	DCON	WF	WF2	LF	LH	LPR	KAPR	GAMO	MIID
REDUCED NECK												
NT-V16Q-SDZC$^{L}/_{R}$07-14	●	●	14	16	12.4	4.4	170	30	180	93°	5°	DC∞0702∞
NT-V20R-SDZC$^{L}/_{R}$11-20	●	●	20	20	16.1	6.1	185	40	200	93°	5°	DC∞11T3∞
STANDARD DESIGN												
NT-V10L-SDZC$^{L}/_{R}$07-14	●	●	14	10	8.7	3.7	130.5	14	140	93°	5°	DC∞0702∞
NT-V12M-SDZC$^{L}/_{R}$07-16	●	●	16	12	9.7	3.7	139.5	10.5	150	93°	5°	DC∞0702∞
NT-V16Q-SDZC$^{L}/_{R}$07-20	●	●	20	16	11.7	3.7	169.5	17.5	180	93°	5°	DC∞0702∞
NT-V16Q-SDZC$^{L}/_{R}$11-23	●	●	23	16	14.5	6.5	165	15	180	93°	5°	DC∞11T3∞
NT-V20R-SDZC$^{L}/_{R}$11-27	●	●	27	20	16.5	6.5	185	15	200	93°	5°	DC∞11T3∞
NT-V25S-SDZC$^{L}/_{R}$11-32	●	●	32	25	19	6.5	235	15	250	93°	5°	DC∞11T3∞

● stock standard, ○ non-standard stock, ▲ upcoming introduction, ▽ stock exhaustion

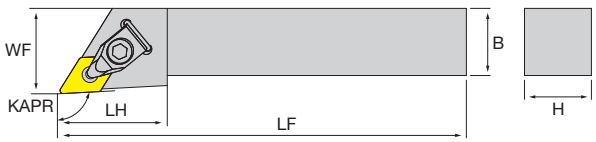
Spare parts	Insert screws	Flag wrenches
NT-V∞∞-SDZC$^{L}/_{R}$07-∞	NT-ST25060T07	NT-FT07
NT-V∞∞-SDZC$^{L}/_{R}$11-∞	NT-ST35089T15B	NT-FT15

DDJN

ISO - DN

- External turning (KAPR 93°)
- Holds DN-style inserts
- Double pushing and pulling action with a single movement
- Quick and safe tightening

Right-hand shown



Designation	Stock L	Stock R	H	B	WF	LF	LH	LPR	KAPR			MIID
NT-DDJN^{L}/$_{R}$1616H11X	●	●	16	16	20	100	36	-	93°			DNoo1104oo
NT-DDJN^{L}/$_{R}$2020K11X	●	●	20	20	25	125	36	-	93°			DNoo1104oo
NT-DDJN^{L}/$_{R}$2525M11X	●	●	25	25	32	150	36	-	93°			DNoo1104oo
NT-DDJN^{L}/$_{R}$2020K1506X	●	●	20	20	25	125	43	-	93°			DNoo1506oo
NT-DDJN^{L}/$_{R}$2525M1506X	●	●	25	25	32	150	43	-	93°			DNoo1506oo
NT-DDJN^{L}/$_{R}$3225P1506X	●	●	32	25	32	170	43	-	93°			DNoo1506oo

● stock standard, ○ non-standard stock, ▲ upcoming introduction, ▽ stock exhaustion

Spare parts	Shim	Shim screws	L wrench	Clamp	Springs	Clamp screws	L wrench
NT-DDJN^{L}/$_{R}$ooooo11X	NT-SH007	NT-ST250	NT-WR020	NT-CS250	NT-SG250	NT-SC250	NT-TX15
NT-DDJN^{L}/$_{R}$ooooo1506X	NT-SH045	NT-ST200	NT-WR025	NT-CS200	NT-SG200	NT-SC200	NT-TX20

DNOO1504OO

NT-SH025

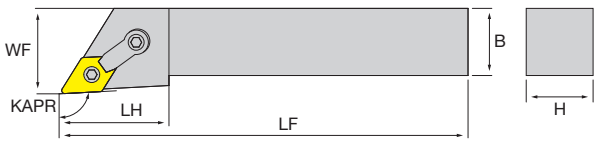
For 04 thickness, please order separately the correct shim

MDJN

ISO - DN

- External turning (KAPR 93°)
- Holds DN-style inserts
- Double locking with Eccentric pins and bracket. Excellent clamping force

Right-hand shown



Designation	Stock L	Stock R	H	B	WF	LF	LH	LPR	KAPR			MIID
NT-MDJN^{L}/$_{R}$2020K1506	●	●	20	20	25	125	36	-	93°			DNoo1506oo
NT-MDJN^{L}/$_{R}$2525M1506	●	●	25	25	32	150	36	-	93°			DNoo1506oo
NT-MDJN^{L}/$_{R}$3232P1506	●	●	32	32	40	170	43	-	93°			DNoo1506oo

● stock standard, ○ non-standard stock, ▲ upcoming introduction, ▽ stock exhaustion

Spare parts	Shim	Eccentric pins	Clamp	Clamp screws	L wrench
NT-MDJN^{L}/$_{R}$ooooo1506	NT-SH045	NT-SP025	NT-CS025	NT-SC010	NT-WR030

DNOO1504OO

NT-SH025

For 04 thickness, please order separately the correct shim

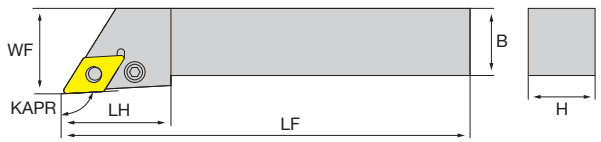
CARBIDE INSERTS p. **A**47 | PCBN INSERTS p. **A**109 | DIAMOND INSERTS p. **A**150 | CERAMIC INSERTS p. **A**183 | SPARE PARTS DETAILS p. **G**1

PDJN

ISO - DN

- External turning (KAPR 93°)
- Holds DN-style inserts
- Easy to use Levers-lock clamping
- Suitable for long-chip materials

Right-hand shown



Designation	Stock L	Stock R	H	B	WF	LF	LH	LPR	KAPR			MIID
NT-PDJN$^{L}/_{R}$2525M1506	●	●	25	25	32	150	36	-	93°			DNoo1506oo

● stock standard, ○ non-standard stock, ▲ upcoming introduction, ▽ stock exhaustion

Spare parts	Shim	Shim plugs	Levers	Levers screws	L wrench
NT-PDJN$^{L}/_{R}$ooooo1506	NT-SH020	NT-SR020	NT-LL020	NT-SC020	NT-WR020

nikkoTOOLS

A DDUN

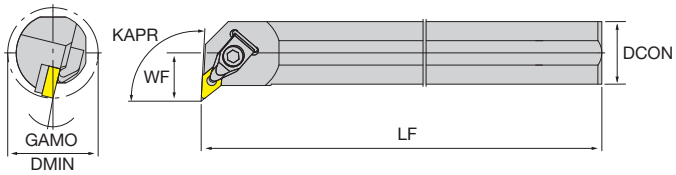
ISO - DN

- Internal turning (KAPR 93°)
- Steel boring bar with internal coolant through
- Holds DN-style inserts
- Double pushing and pulling action with a single movement. Quick and safe tightening

STEEL

with internal coolant

Right-hand shown



Designation	Stock L	Stock R	DMIN	DCON	WF	LF	LH	LPR	KAPR	GAMO		MIID
NT-A25R-DDUN$^{L}/_{R}$1506	●	●	32	25	17	200	-	-	93°	16°		DNoo1506oo
NT-A32S-DDUN$^{L}/_{R}$1506	●	●	40	32	22	250	-	-	93°	12°		DNoo1506oo
NT-A40T-DDUN$^{L}/_{R}$1506	●	●	50	40	27	300	-	-	93°	10°		DNoo1506oo

● stock standard, ○ non-standard stock, ▲ upcoming introduction, ▽ stock exhaustion

Spare parts	Shim	Shim screws	L wrench	Clamp	Springs	Clamp screws	L wrench
NT-Aooo-DDUN$^{L}/_{R}$1506	NT-SH020	NT-ST200	NT-WR025	NT-CS200	NT-SG200	NT-SC200	NT-TX20

DNOO1504OO

NT-SH045

For 04 thickness, please order separately the correct shim

CARBIDE INSERTS p. **A**47 | PCBN INSERTS p. **A**109 | DIAMOND INSERTS p. **A**150 | CERAMIC INSERTS p. **A**183 | SPARE PARTS DETAILS p. **G**1

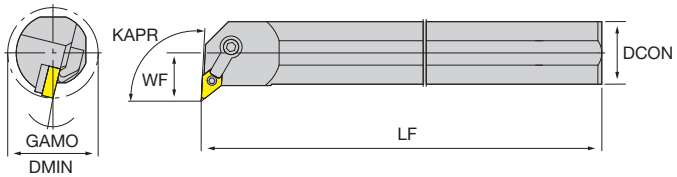
S MDUN

ISO - DN

- Internal turning (KAPR 93°)
- Steel boring bar without internal coolant
- Holds DN-style inserts
- Double locking with Eccentric pins and bracket. Excellent clamping force

STEEL

Right-hand shown



Designation	Stock L	Stock R	DMIN	DCON	WF	LF	LH	LPR	KAPR	GAMO		MIID
NT-S32S-MDUN$^{L}/_{R}$1506	●	●	40	32	22	250	-	-	93°	17°		DN∞1506∞
NT-S40T-MDUN$^{L}/_{R}$1506	●	●	50	40	27	300	-	-	93°	15°		DN∞1506∞
NT-S50U-MDUN$^{L}/_{R}$1506	●	●	63	50	35	350	-	-	93°	12°		DN∞1506∞

● stock standard, ○ non-standard stock, ▲ upcoming introduction, ▽ stock exhaustion

Spare parts	Shim	Eccentric pins	Clamp	Clamp screws	L wrench
NT-S32S-MDUN$^{L}/_{R}$1506	NT-SH045	NT-SP025	NT-CS025	NT-SC008	NT-WR030
NT-S40T-MDUN$^{L}/_{R}$1506	NT-SH045	NT-SP025	NT-CS025	NT-SC010	NT-WR030
NT-S50U-MDUN$^{L}/_{R}$1506	NT-SH045	NT-SP025	NT-CS025	NT-SC010	NT-WR030

DN∞1504∞

NT-SH025

For 04 thickness, please order separately the correct shim

E MICRO-CC

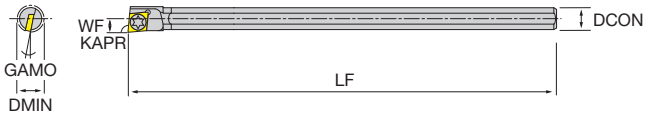
ISO - MCC

- Internal turning (KAPR 95°)
- Carbide boring bar with internal coolant through. Maximum overhang: 7xDCON
- Holds MCC-style inserts, tightened by screws

CARBIDE

with internal coolant

Right-hand shown



Designation	Stock L	Stock R	DMIN	DCON	WF	LF	LH	LPR	KAPR	GAMO		MIID
WITHOUT INTERNAL COOLANT												
NT-C05H-MICRO-CC-L/RH		●	6	5	3	100	-	-	95°	13°		MCC.Roo
WITH INTERNAL COOLANT												
NT-E04G-MICRO-CC-L/RH		●	5	4	2.5	90	-	-	95°	15°		MCC.Roo
NT-E05H-MICRO-CC-L/RH		▲	6	5	3	100	-	-	95°	13°		MCC.Roo

● stock standard, ○ non-standard stock, ▲ upcoming introduction, ▽ stock exhaustion

Spare parts	Insert screws	Flag wrenches
NT-Cooo-MICRO-CC-RH	NT-ST16031T06	NT-FT06
NT-Eooo-MICRO-CC-RH	NT-ST16031T06	NT-FT06

SLEEVE AVAILABLE

Please find all the available sleeves at chapter F-ACCESSORIES

CARBIDE INSERTS p. A52

PCBN INSERTS p. A111

DIAMOND INSERTS p. A151

SPARE PARTS DETAILS p. G1

A - TURNING
B - THREADING
C - GROOVING
D - MILLING
E - DRILLING
F - ACCESSORIES
G - SPARE PARTS

V MICRO-CC

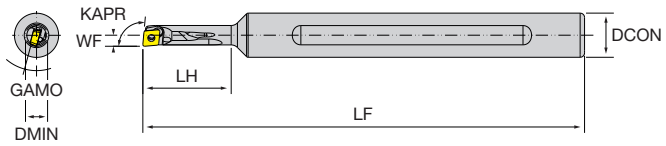
ISO - MCC

- Internal turning (KAPR 95°)
- Vortex boring bar (high quality steel) with internal coolant through. Maximum overhang: 5xDCON
- Holds MCC-style inserts, tightened by screws
- Special chip evacuation path

VORTEX

with internal coolant

Right-hand shown



Designation	Stock L	Stock R	DMIN	DCON	WF	LF	LH	LPR	KAPR	GAMO		MIID
NT-V10H-MICRO-CC-L/RH-05		●	5	10	2.5	100	20	-	95°	15°		MCC.R∞
NT-V10H-MICRO-CC-L/RH-06		●	6	10	3	100	25	-	95°	13°		MCC.R∞

● stock standard, ○ non-standard stock, ▲ upcoming introduction, ▽ stock exhaustion

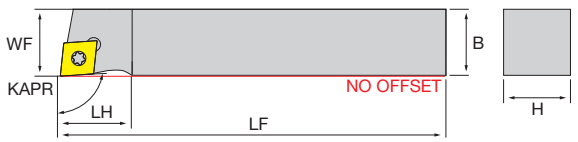
Spare parts	Insert screws	Flag wrenches
NT-V10H-MICRO-CC-RH-∞	NT-ST16031T06	NT-FT06

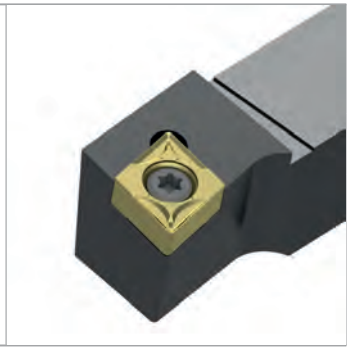
EX MICRO-CN

MicroNega - MCN

- External turning (KAPR 95°)
- Holds MCN-style inserts, tightened by screw
- Available on lathes without offset
- Convenient to change inserts

Right-hand shown



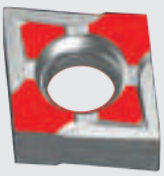


Designation	Stock L	Stock R	H	B	WF	LF	LH	LPR	KAPR			MIID
NT-EX10H-MICRO-CN-L/RH	●	●	10	10	10	100	15	-	95°			MCN-Roo
NT-EX12H-MICRO-CN-L/RH	●	●	12	12	12	100	15	-	95°			MCN-Roo
NT-EX16K-MICRO-CN-L/RH	●	●	16	16	16	125	15	-	95°			MCN-Roo
NT-EX20K-MICRO-CN-L/RH	▽	▽	20	20	20	120	15	-	95°			MCN-Roo
NT-EX25M-MICRO-CN-L/RH	▽	▽	25	25	25	150	15	-	95°			MCN-Roo

● stock standard, ○ non-standard stock, ▲ upcoming introduction, ▽ stock exhaustion

Spare parts	Insert screws	Flag wrenches
NT-EXooo-MICRO-CN-L/RH	NT-ST30070T10	NT-FT10

EXCELLENT STABILITY



The design of MCN inserts was done with great attention to the connection surfaces, to achieve a great stability and reliability

CARBIDE INSERTS p. A53 | PCBN INSERTS p. A112 | DIAMOND INSERTS p. A152 | SPARE PARTS DETAILS p. G1

V MICRO-CN

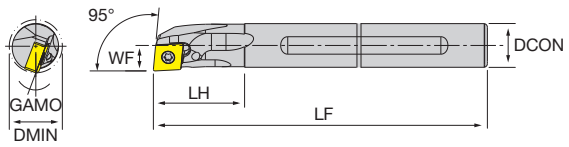
MicroNega - MCN

- Internal turning (KAPR 95°)
- Vortex boring bar (high quality steel) with internal coolant through
- Holds MCN-style inserts, tightened by screws
- Special chip evacuation path

VORTEX

with internal coolant

Right-hand shown

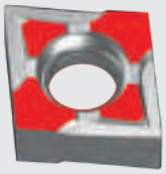


Designation	Stock L	Stock R	DMIN	DCON	WF	LF	LH	LPR	KAPR	GAMO		MIID
NT-V08H-MICRO-CN-L/RH-10	●	●	10	8	5.5	100	20	-	95°	24°		MCN-R00
NT-V10K-MICRO-CN-L/RH-12	●	●	12	10	6	125	21	-	95°	21°		MCN-R00
NT-V12M-MICRO-CN-L/RH-14	●	●	14	12	7	150	25	-	95°	20°		MCN-R00
NT-V16Q-MICRO-CN-L/RH-18	●	●	18	16	9	180	31	-	95°	17°		MCN-R00
NT-V20R-MICRO-CN-L/RH-22	●	●	22	20	11	200	37	-	95°	17°		MCN-R00

● stock standard, ○ non-standard stock, ▲ upcoming introduction, ▽ stock exhaustion

Spare parts	Insert screws	Flag wrenches
NT-V000-MICRO-CN-L/RH-00	NT-ST30070T10	NT-FT10

EXCELLENT STABILITY



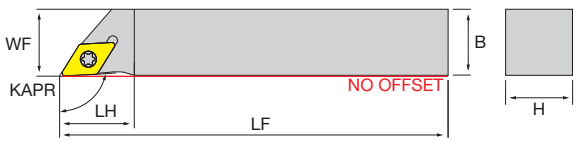
The design of MCN inserts was done with great attention to the connection surfaces, to achieve a great stability and reliability

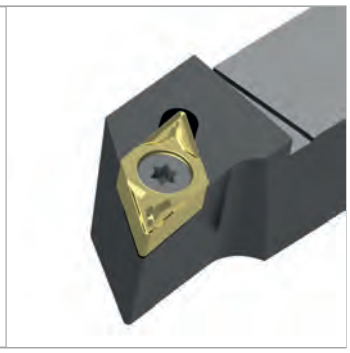
EX MICRO-DN

MicroNega - MDN

- External turning (KAPR 95°)
- Holds MDN-style inserts, tightened by screw
- Available on lathes without offset
- Convenient to change inserts

Right-hand shown





Designation	Stock L	Stock R	H	B	WF	LF	LH	LPR	KAPR			MIID
NT-EX10H-MICRO-DN-L/RH	●	●	10	10	10	100	18	-	95°			MDN-Roo
NT-EX12H-MICRO-DN-L/RH	●	●	12	12	12	100	18	-	95°			MDN-Roo
NT-EX16K-MICRO-DN-L/RH	●	●	16	16	16	125	18	-	95°			MDN-Roo
NT-EX20K-MICRO-DN-L/RH	▽	▽	20	20	20	120	15	-	95°			MDN-Roo
NT-EX25M-MICRO-DN-L/RH	▽	▽	25	25	25	150	15	-	95°			MDN-Roo

● stock standard, ○ non-standard stock, ▲ upcoming introduction, ▽ stock exhaustion

Spare parts	Insert screws	Flag wrenches
NT-EXooo-MICRO-DN-L/RH	NT-ST30070T10	NT-FT10

EXCELLENT STABILITY

The design of MDN inserts was done with great attention to the connection surfaces, to achieve a great stability and reliability

CARBIDE INSERTS p. A54 | PCBN INSERTS p. A113 | DIAMOND INSERTS p. A153 | SPARE PARTS DETAILS p. G1

V MICRO-DN

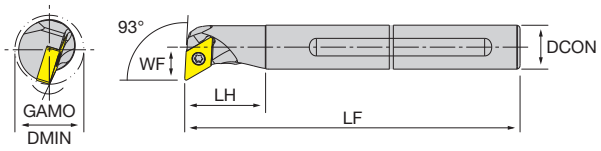
MicroNega - MDN

- Internal turning (KAPR 93°)
- Vortex boring bar (high quality steel) with internal coolant through
- Holds MDN-style inserts, tightened by screws
- Special chip evacuation path

VORTEX

with internal coolant

Right-hand shown



Designation	Stock L	Stock R	DMIN	DCON	WF	LF	LH	LPR	KAPR	GAMO		MIID
NT-V10K-MICRO-DN-L/RH-15	●	●	15	10	9.8	125	19	-	93°	19°		MDN-R00
NT-V12M-MICRO-DN-L/RH-16	●	●	16	12	9	150	22	-	93°	17°		MDN-R00
NT-V16Q-MICRO-DN-L/RH-20	●	●	20	16	11	180	22	-	93°	15°		MDN-R00
NT-V20R-MICRO-DN-L/RH-25	●	●	25	20	13	200	23	-	93°	13°		MDN-R00

● stock standard, ○ non-standard stock, ▲ upcoming introduction, ▽ stock exhaustion

Spare parts	Insert screws	Flag wrenches
NT-V000-MICRO-DN-L/RH-00	NT-ST30070T10	NT-FT10

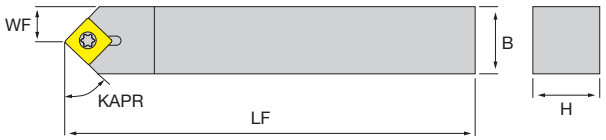
EXCELLENT STABILITY

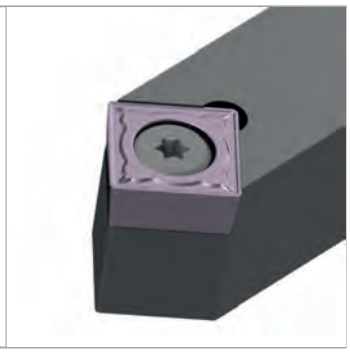
The design of MDN inserts was done with great attention to the connection surfaces, to achieve a great stability and reliability

SSDC

ISO - SC

- External turning (KAPR 45°), Neutral position
- Holds SC-style inserts, tightened by screw
- Convenient to change inserts





Designation	Stock	H	B	WF	LF	LH	LPR	KAPR			MIID
NT-SSDCN2020K09	●	20	20	10	125	-	-	45°			SCoo09T3oo
NT-SSDCN2525M09	●	25	25	12.5	150	-	-	45°			SCoo09T3oo
NT-SSDCN2020K12	●	20	20	10	125	-	-	45°			SCoo1204oo
NT-SSDCN2525M12	●	25	25	12.5	150	-	-	45°			SCoo1204oo

● stock standard, ○ non-standard stock, ▲ upcoming introduction, ▽ stock exhaustion

Spare parts	Insert screws	Flag wrenches
NT-SSDCNooooo09	NT-ST40090T15	NT-FT15
NT-SSDCNooooo12	NT-ST40115T15	NT-FT15

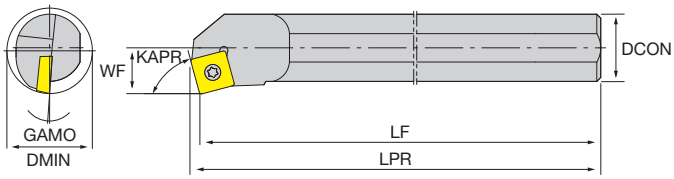
S SSKC

ISO - SC

- Internal turning (KAPR 75°)
- Steel boring bar without internal coolant
- Holds SC-style inserts, tightened by screws

STEEL

Right-hand shown



Designation	Stock L	Stock R	DMIN	DCON	WF	LF	LH	LPR	KAPR	GAMO		MIID
NT-S12M-SSKC$^{L}/_{R}$09	●	●	16	12	8.5	147	-	150	75°	12°		SCoo09T3oo
NT-S16Q-SSKC$^{L}/_{R}$09	●	●	20	16	11	177	-	180	75°	11°		SCoo09T3oo
NT-S20R-SSKC$^{L}/_{R}$09	●	●	25	20	13	196	-	200	75°	6°		SCoo09T3oo
NT-S25R-SSKC$^{L}/_{R}$09	●	●	31	25	15	198	-	200	75°	6°		SCoo09T3oo
NT-S25R-SSKC$^{L}/_{R}$12	●	●	32	25	17	196	-	200	75°	7°		SCoo1204oo
NT-S32S-SSKC$^{L}/_{R}$12	●	●	40	32	22	246	-	250	75°	7°		SCoo1204oo

● stock standard, ○ non-standard stock, ▲ upcoming introduction, ▽ stock exhaustion

Spare parts	Insert screws	Flag wrenches
NT-Sooo-SSKC$^{L}/_{R}$09	NT-ST40090T15	NT-FT15
NT-Sooo-SSKC$^{L}/_{R}$12	NT-ST40115T15	NT-FT15

CARBIDE INSERTS p. A55

CERAMIC INSERTS p. A187

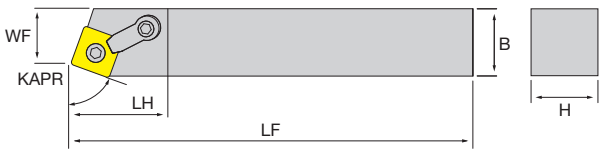
SPARE PARTS DETAILS p. G1

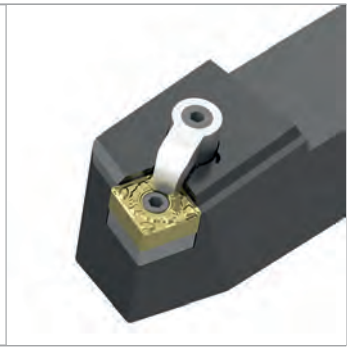
MSBN

ISO - SN

- External turning (KAPR 75°)
- Holds SN-style inserts
- Double locking with Eccentric pins and bracket. Excellent clamping force

Right-hand shown

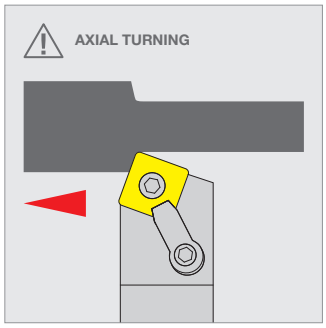




Designation	Stock L	Stock R	H	B	WF	LF	LH	LPR	KAPR			MIID
NT-MSBN$^{L}/_{R}$2020K12	●	●	20	20	17	125	37	-	75°			SNoo1204oo
NT-MSBN$^{L}/_{R}$2525M12	●	●	25	25	22	150	37	-	75°			SNoo1204oo
NT-MSBN$^{L}/_{R}$3232P12	○	○	32	32	27	170	42	-	75°			SNoo1204oo
NT-MSBN$^{L}/_{R}$3232P19	○	○	32	32	27	170	42	-	75°			SNoo1906oo
NT-MSBN$^{L}/_{R}$4040S19	○	○	40	40	35	250	42	-	75°			SNoo1906oo

● stock standard, ○ non-standard stock, ▲ upcoming introduction, ▽ stock exhaustion

Spare parts	Shim	Eccentric pins	Clamp	Clamp screws	L wrench
NT-MSBN$^{L}/_{R}$ooooo12	NT-SH070	NT-SP010	NT-CS010	NT-SC010	NT-WR030
NT-MSBN$^{L}/_{R}$ooooo19	NT-SH090	NT-SP050	NT-CS015	NT-SC070	NT-WR040

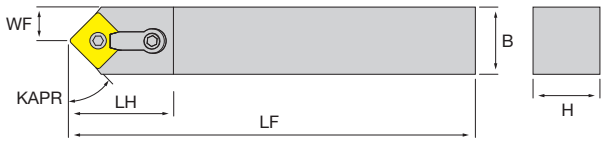


CARBIDE INSERTS p. A56
PCBN INSERTS p. A116
CERAMIC INSERTS p. A188
SPARE PARTS DETAILS p. G1

MSDN

ISO - SN

- External turning (KAPR 45°), Neutral position
- Holds SN-style inserts
- Double locking with Eccentric pins and bracket. Excellent clamping force



Designation	Stock	H	B	WF	LF	LH	LPR	KAPR			MIID
NT-MSDNN2020K12	●	20	20	10	125	35	-	45°			SN∞1204∞
NT-MSDNN2525M12	●	25	25	12.5	150	37	-	45°			SN∞1204∞
NT-MSDNN3232P12	○	32	32	16	170	43	-	45°			SN∞1204∞

● stock standard, ○ non-standard stock, ▲ upcoming introduction, ▽ stock exhaustion

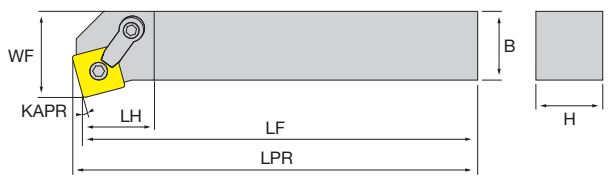
Spare parts	Shim	Eccentric pins	Clamp	Clamp screws	L wrench
NT-MSDNN∞∞∞∞12	NT-SH070	NT-SP010	NT-CS010	NT-SC010	NT-WR030

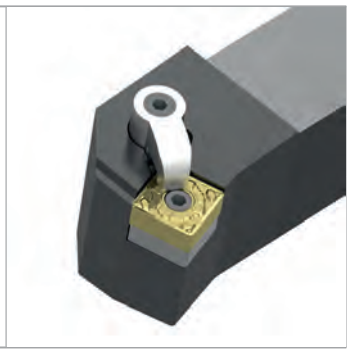
MSKN

ISO - SN

- External turning (KAPR 75°)
- Holds SN-style inserts
- Double locking with Eccentric pins and bracket. Excellent clamping force

Right-hand shown

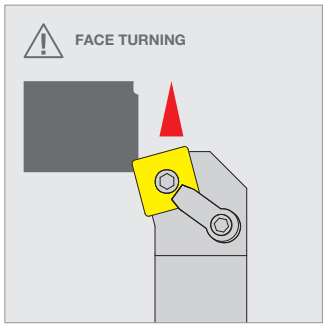




Designation	Stock L	Stock R	H	B	WF	LF	LH	LPR	KAPR			MIID
NT-MSKN^{L}/$_{R}$2020K12	●	●	20	20	25	122	37	125	75°			SN∞1204∞
NT-MSKN^{L}/$_{R}$2525M12	●	●	25	25	32	147	37	150	75°			SN∞1204∞
NT-MSKN^{L}/$_{R}$3232P12	○	○	32	32	40	167	42	170	75°			SN∞1204∞
NT-MSKN^{L}/$_{R}$4040S19	○	○	40	40	50	247	42	250	75°			SN∞1906∞

● stock standard, ○ non-standard stock, ▲ upcoming introduction, ▽ stock exhaustion

Spare parts	Shim	Eccentric pins	Clamp	Clamp screws	L wrench
NT-MSKN^{L}/$_{R}$∞∞∞∞12	NT-SH070	NT-SP010	NT-CS010	NT-SC010	NT-WR030
NT-MSKN^{L}/$_{R}$∞∞∞∞19	NT-SH090	NT-SP050	NT-CS015	NT-SC070	NT-WR040



CARBIDE INSERTS p. A56

PCBN INSERTS p. A116

CERAMIC INSERTS p. A188

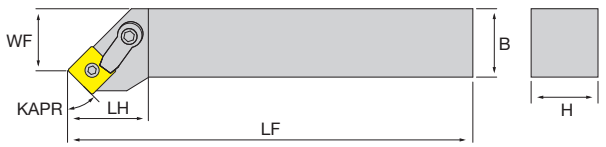
SPARE PARTS DETAILS p. G1

MSSN

ISO - SN

- External turning (KAPR 45°)
- Holds SN-style inserts
- Double locking with Eccentric pins and bracket. Excellent clamping force

Right-hand shown



Designation	Stock L	Stock R	H	B	WF	LF	LH	LPR	KAPR			MIID
NT-MSSN$^{L}/_{R}$2020K12	●	●	20	20	25	125	35	-	45°			SN∞1204∞
NT-MSSN$^{L}/_{R}$2525M12	●	●	25	25	32	150	35	-	45°			SN∞1204∞
NT-MSSN$^{L}/_{R}$3232P12	○	○	32	32	40	170	42	-	45°			SN∞1204∞
NT-MSSN$^{L}/_{R}$3232P19	○	○	32	32	40	170	42	-	45°			SN∞1906∞
NT-MSSN$^{L}/_{R}$4040S19	○	○	40	40	40	250	42	-	45°			SN∞1906∞

● stock standard, ○ non-standard stock, ▲ upcoming introduction, ▽ stock exhaustion

Spare parts	Shim	Eccentric pins	Clamp	Clamp screws	L wrench
NT-MSSN$^{L}/_{R}$∞∞∞∞12	NT-SH070	NT-SP010	NT-CS010	NT-SC010	NT-WR030
NT-MSSN$^{L}/_{R}$∞∞∞∞19	NT-SH090	NT-SP050	NT-CS015	NT-SC070	NT-WR040

nikkoTOOLS

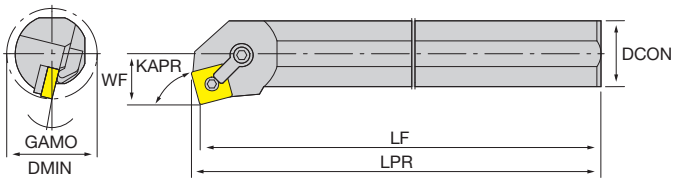
S MSKN

ISO - SN

- Internal turning (KAPR 75°)
- Steel boring bar without internal coolant
- Holds SN-style inserts
- Double locking with Eccentric pins and bracket. Excellent clamping force

STEEL

Right-hand shown



Designation	Stock L	Stock R	DMIN	DCON	WF	LF	LH	LPR	KAPR	GAMO		MIID
NT-S20R-MSKN$^{L}/_{R}$12	●	●	25	20	13	200	-		75°	17°		SN∞1204∞
NT-S25R-MSKN$^{L}/_{R}$12	●	●	32	25	17	200	-		75°	14°		SN∞1204∞
NT-S32S-MSKN$^{L}/_{R}$12	●	●	40	32	22	250	-		75°	14°		SN∞1204∞
NT-S40T-MSKN$^{L}/_{R}$12	●	●	50	40	27	300	-		75°	15°		SN∞1204∞
NT-S50U-MSKN$^{L}/_{R}$12	●	●	63	50	35	350	-		75°	12°		SN∞1204∞
NT-S50U-MSKN$^{L}/_{R}$19	○	○	63	50	35	350	-		75°	8°		SN∞1906∞

● stock standard, ○ non-standard stock, ▲ upcoming introduction, ▽ stock exhaustion

Spare parts	Shim	Eccentric pins	L wrench	Clamp	Clamp screws	L wrench
NT-S20R-MSKN$^{L}/_{R}$12	-	NT-SP035	NT-WR025	NT-CS030	NT-SC030	NT-WR025
NT-S25R-MSKN$^{L}/_{R}$12	-	NT-SP035	NT-WR025	NT-CS010	NT-SC008	NT-WR030
NT-S32S-MSKN$^{L}/_{R}$12	NT-SH070	NT-SP010	NT-WR030	NT-CS010	NT-SC010	NT-WR030
NT-S40T-MSKN$^{L}/_{R}$12	NT-SH070	NT-SP010	NT-WR030	NT-CS010	NT-SC010	NT-WR030
NT-S50U-MSKN$^{L}/_{R}$12	NT-SH070	NT-SP010	NT-WR030	NT-CS010	NT-SC010	NT-WR030
NT-S50U-MSKN$^{L}/_{R}$19	NT-SH090	NT-SP050	NT-WR030	NT-CS015	NT-SC070	NT-WR040

V STLB

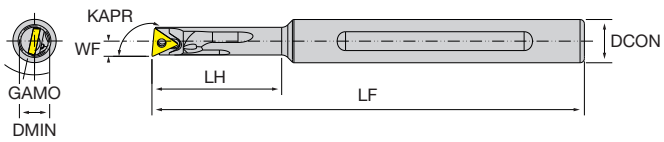
ISO - TB

- Internal turning (KAPR 95°)
- Vortex boring bar (high quality steel) with internal coolant through. Maximum overhang: 5xDCON
- Holds TB style inserts, tightened by screws
- Special chip evacuation path

VORTEX

Right-hand shown

with internal coolant



Designation	Stock L	Stock R	DMIN	DCON	WF	LF	LH	LPR	KAPR	GAMO		MIID
NT-V10H-STLB$^{L}/_{R}$06-07		●	7	10	3.5	100	30	-	95°	12°		TB∞0601∞
NT-V10H-STLB$^{L}/_{R}$06-08		●	8	10	4	100	35	-	95°	12°		TB∞0601∞

● stock standard, ○ non-standard stock, ▲ upcoming introduction, ▽ stock exhaustion

Spare parts	Insert screws	Flag wrenches
NT-V10H-STLB$^{L}/_{R}$06-∞	NT-ST20038T06	NT-FT06

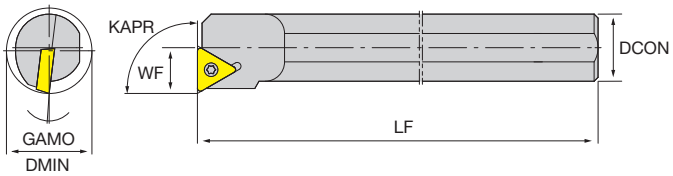
S STUB

ISO - TB

- Internal turning (KAPR 93°)
- Steel boring bar without internal coolant
- Holds TB style inserts, tightened by screws

STEEL

Right-hand shown



Designation	Stock L	Stock R	DMIN	DCON	WF	LF	LH	LPR	KAPR	GAMO		MIID
NT-S08H-STUB$^{L}/_{R}$06	●	●	10	8	4	100	-	-	93°	12°		TB∞0601∞

● stock standard, ○ non-standard stock, ▲ upcoming introduction, ▽ stock exhaustion

Spare parts	Insert screws	Flag wrenches
NT-S08H-STUB$^{L}/_{R}$06	NT-ST20038T06	NT-FT06

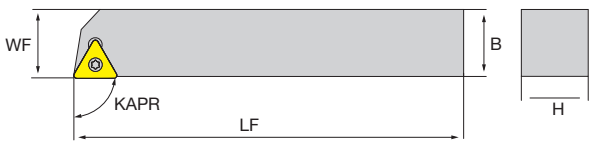
A - TURNING
B - THREADING
C - GROOVING
D - MILLING
E - DRILLING
F - ACCESSORIES
G - SPARE PARTS

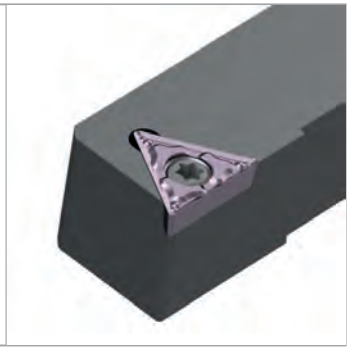
STAC

ISO - TC

- External turning (KAPR 90°)
- Holds TC-style inserts, tightened by screw
- Convenient to change inserts

Right-hand shown





Designation	Stock L	Stock R	H	B	WF	LF	LH	LPR	KAPR			MIID
NT-STAC$^{L}/_{R}$0808H09	○	○	8	8	8.5	100	-	-	90°			TC∞0902∞
NT-STAC$^{L}/_{R}$1010H09	○	○	10	10	10.5	100	-	-	90°			TC∞0902∞
NT-STAC$^{L}/_{R}$1212H11	●	●	12	12	12.5	100	-	-	90°			TC∞1102∞
NT-STAC$^{L}/_{R}$1616H11	●	●	16	16	16.5	100	-	-	90°			TC∞1102∞

● stock standard, ○ non-standard stock, ▲ upcoming introduction, ▽ stock exhaustion

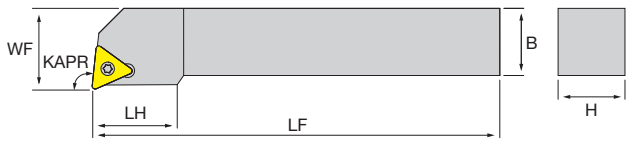
Spare parts	Insert screws	Flag wrenches
NT-STAC$^{L}/_{R}$∞∞∞∞∞09	NT-ST22049T07	NT-FT07
NT-STAC$^{L}/_{R}$∞∞∞∞∞11	NT-ST25060T07	NT-FT07

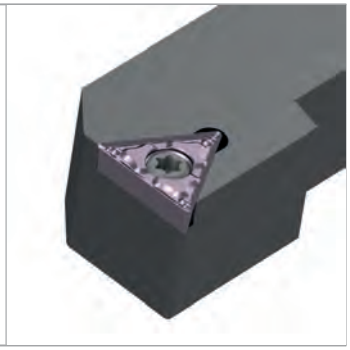
STFC

ISO - TC

- External turning (KAPR 91°)
- Holds TC-style inserts, tightened by screw
- Convenient to change inserts

Right-hand shown





Designation	Stock L	Stock R	H	B	WF	LF	LH	LPR	KAPR			MIID
NT-STFC$^{L}/_{R}$0808H09	○	○	8	8	10	100	12	-	91°			TC○○0902○○
NT-STFC$^{L}/_{R}$1010H09	○	○	10	10	12	100	12	-	91°			TC○○0902○○
NT-STFC$^{L}/_{R}$1212H11	●	●	12	12	16	100	17	-	91°			TC○○1102○○
NT-STFC$^{L}/_{R}$1616H11	○	○	16	16	20	100	18	-	91°			TC○○1102○○
NT-STFC$^{L}/_{R}$2020K16	●	●	20	20	25	125	22	-	91°			TC○○16T3○○
NT-STFC$^{L}/_{R}$2525M16	●	●	25	25	32	150	25	-	91°			TC○○16T3○○

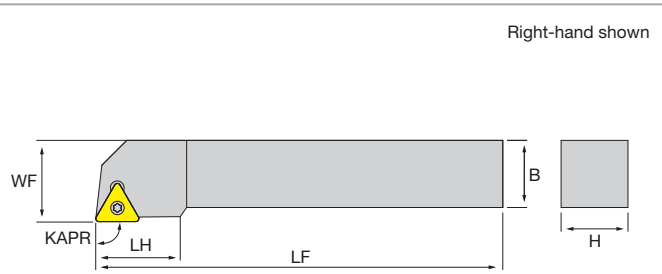
● stock standard, ○ non-standard stock, ▲ upcoming introduction, ▽ stock exhaustion

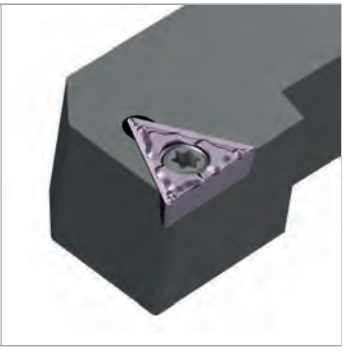
Spare parts	Insert screws	Flag wrenches
NT-STFC$^{L}/_{R}$○○○○○09	NT-ST22049T07	NT-FT07
NT-STFC$^{L}/_{R}$○○○○○11	NT-ST25060T07	NT-FT07
NT-STFC$^{L}/_{R}$○○○○○16	NT-ST40090T15	NT-FT15

STGC

ISO - TC

- External turning (KAPR 91°)
- Holds TC-style inserts, tightened by screw
- Convenient to change inserts





Designation	Stock L	Stock R	H	B	WF	LF	LH	LPR	KAPR			MIID
NT-STGC$^{L}/_{R}$1212H11	○	○	12	12	16	100	17	-	91°			TC∞1102∞
NT-STGC$^{L}/_{R}$1616H11	○	○	16	16	20	100	18	-	91°			TC∞1102∞
NT-STGC$^{L}/_{R}$2020K16	●	●	20	20	25	125	22	-	91°			TC∞16T3∞
NT-STGC$^{L}/_{R}$2525M16	●	●	25	25	32	150	25	-	91°			TC∞16T3∞

● stock standard, ○ non-standard stock, ▲ upcoming introduction, ▽ stock exhaustion

Spare parts	Insert screws	Flag wrenches
NT-STGC$^{L}/_{R}$∞∞∞∞∞11	NT-ST25060T07	NT-FT07
NT-STGC$^{L}/_{R}$∞∞∞∞∞16	NT-ST40090T15	NT-FT15

nikkoTOOLS

A STFC

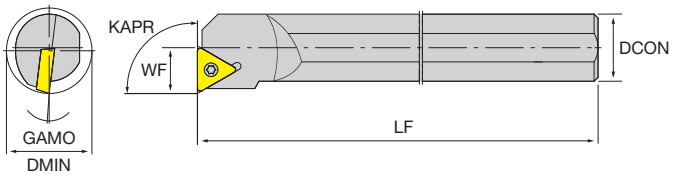
ISO - TC

- Internal turning (KAPR 91°)
- Steel boring bar with internal coolant through
- Holds TC-style inserts, tightened by screws

STEEL

with internal coolant

Right-hand shown



Designation	Stock L	Stock R	DMIN	DCON	WF	LF	LH	LPR	KAPR	GAMO		MIID
NT-A10K-STFC$^{L}/_{R}$11	●	●	14	10	7	125	-	-	91°	12°		TC○○1102○○
NT-A12M-STFC$^{L}/_{R}$11	●	●	14	12	7	150	-	-	91°	10°		TC○○1102○○
NT-A16Q-STFC$^{L}/_{R}$11	●	●	18	16	9	180	-	-	91°	8°		TC○○1102○○
NT-A20R-STFC$^{L}/_{R}$11	●	●	25	20	13	200	-	-	91°	3°		TC○○1102○○

● stock standard, ○ non-standard stock, ▲ upcoming introduction, ▽ stock exhaustion

Spare parts	Insert screws	Flag wrenches
NT-A○○○-STFC$^{L}/_{R}$11	NT-ST25060T07	NT-FT07

E STFC

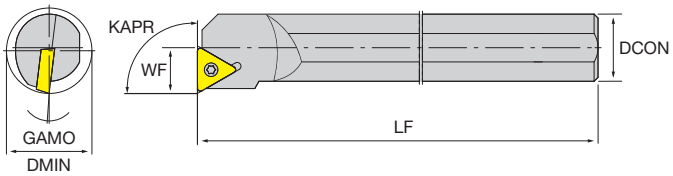
ISO - TC

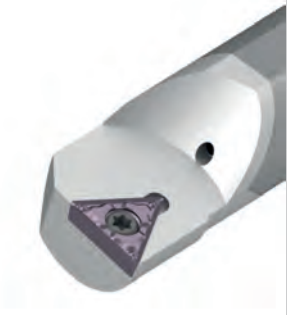
- Internal turning (KAPR 91°)
- Carbide boring bar with internal coolant through. Maximum overhang: 7xDCON
- Holds TC-style inserts, tightened by screws

CARBIDE

with internal coolant

Right-hand shown





Designation	Stock L	Stock R	DMIN	DCON	WF	LF	LH	LPR	KAPR	GAMO		MIID
NT-E10K-STFC$^{L}/_{R}$11	●	●	12	10	6	125	-	-	91°	12°		TC○○1102○○
NT-E12M-STFC$^{L}/_{R}$11	●	●	14	12	7	150	-	-	91°	10°		TC○○1102○○
NT-E16R-STFC$^{L}/_{R}$11	●	●	18	16	9	200	-	-	91°	8°		TC○○1102○○
NT-E20R-STFC$^{L}/_{R}$11	●	●	25	20	11	200	-	-	91°	6°		TC○○1102○○

● stock standard, ○ non-standard stock, ▲ upcoming introduction, ▽ stock exhaustion

Spare parts	Insert screws	Flag wrenches
NT-E○○○-STFC$^{L}/_{R}$11	NT-ST25060T07	NT-FT07

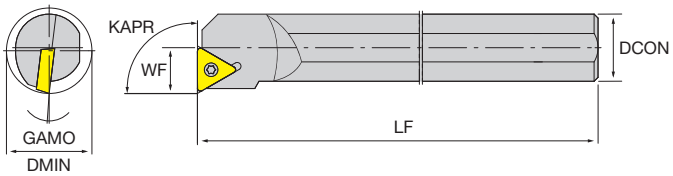
S STFC

ISO - TC

- Internal turning (KAPR 91°)
- Steel boring bar without internal coolant
- Holds TC-style inserts, tightened by screws

STEEL

Right-hand shown



Designation	Stock L	Stock R	DMIN	DCON	WF	LF	LH	LPR	KAPR	GAMO		MIID
NT-S08H-STFC$^{L}/_{R}$09	○	○	12	8	6	100	-	-	91°	15°		TC○○0902○○
NT-S10K-STFC$^{L}/_{R}$09	○	○	14	10	7	125	-	-	91°	15°		TC○○0902○○
NT-S12M-STFC$^{L}/_{R}$09	○	○	16	12	9	150	-	-	91°	10°		TC○○0902○○
NT-S10K-STFC$^{L}/_{R}$11	●	●	14	10	7	125	-	-	91°	12°		TC○○1102○○
NT-S12M-STFC$^{L}/_{R}$11	●	●	14	12	7	150	-	-	91°	10°		TC○○1102○○
NT-S16Q-STFC$^{L}/_{R}$11	●	●	18	16	9	180	-	-	91°	8°		TC○○1102○○
NT-S20R-STFC$^{L}/_{R}$11	○	○	25	20	13	200	-	-	91°	3°		TC○○1102○○
NT-S20R-STFC$^{L}/_{R}$16	●	●	25	20	13	200	-	-	91°	8°		TC○○16T3○○
NT-S25R-STFC$^{L}/_{R}$16	●	●	32	25	17	200	-	-	91°	6°		TC○○16T3○○
NT-S32S-STFC$^{L}/_{R}$16	○	○	39	32	22	250	-	-	91°	4°		TC○○16T3○○

● stock standard, ○ non-standard stock, ▲ upcoming introduction, ▽ stock exhaustion

Spare parts	Insert screws	Flag wrenches
NT-S○○○-STFC$^{L}/_{R}$09	NT-ST22049T07	NT-FT07
NT-S○○○-STFC$^{L}/_{R}$11	NT-ST25060T07	NT-FT07
NT-S○○○-STFC$^{L}/_{R}$16	NT-ST35089T15	NT-FT15

V STLC

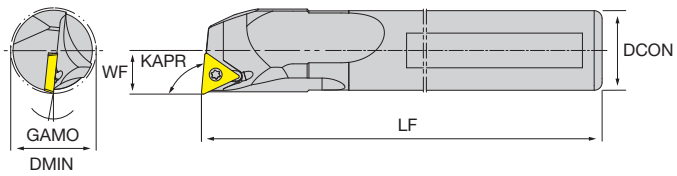
ISO - TC

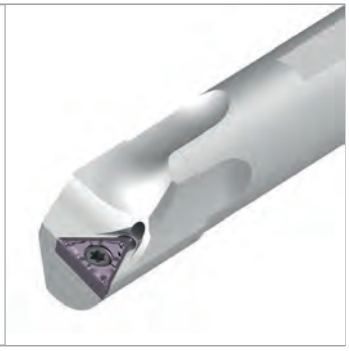
- Internal turning (KAPR 95°)
- Vortex boring bar (high quality steel) with internal coolant through. Maximum overhang: 5xDCON
- Holds TC-style inserts, tightened by screws
- Special chip evacuation path

VORTEX

with internal coolant

Right-hand shown





Designation	Stock L	Stock R	DMIN	DCON	WF	LF	LH	LPR	KAPR	GAMO		MIID
NT-V08H-STLC$^{L}/_{R}$09-10	○	○	10	8	5	100	-	-	95°	14°		TC○○0902○○
NT-V10K-STLC$^{L}/_{R}$09-12	●	●	12	10	6	125	-	-	95°	12°		TC○○0902○○
NT-V12M-STLC$^{L}/_{R}$09-14	●	●	14	12	7	150	-	-	95°	10°		TC○○0902○○
NT-V10K-STLC$^{L}/_{R}$11-12	●	●	12	10	6	125	-	-	95°	12°		TC○○1102○○
NT-V12M-STLC$^{L}/_{R}$11-14	●	●	14	12	7	150	-	-	95°	10°		TC○○1102○○
NT-V16Q-STLC$^{L}/_{R}$11-18	●	●	18	16	9	180	-	-	95°	8°		TC○○1102○○
NT-V20R-STLC$^{L}/_{R}$11-22	●	●	22	20	11	200	-	-	95°	6°		TC○○1102○○
NT-V20R-STLC$^{L}/_{R}$16-25	●	●	25	20	12.5	200	-	-	95°	8°		TC○○16T3○○
NT-V25S-STLC$^{L}/_{R}$16-32	●	●	32	25	16	250	-	-	95°	6°		TC○○16T3○○

● stock standard, ○ non-standard stock, ▲ upcoming introduction, ▽ stock exhaustion

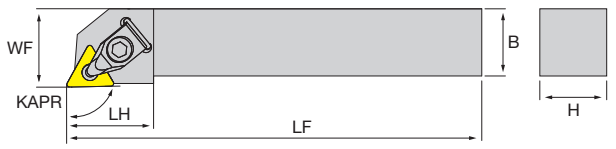
Spare parts	Insert screws	Flag wrenches
NT-V○○○-STLC$^{L}/_{R}$09-○○	NT-ST22049T07	NT-FT07
NT-V○○○-STLC$^{L}/_{R}$11-○○	NT-ST25060T07	NT-FT07
NT-V○○○-STLC$^{L}/_{R}$16-○○	NT-ST35089T15	NT-FT15

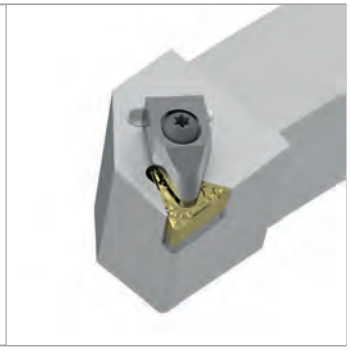
DTGN

ISO - TN

- External turning (KAPR 91°)
- Holds TN-style inserts
- Double pushing and pulling action with a single movement
- Quick and safe tightening

Right-hand shown





Designation	Stock L	Stock R	H	B	WF	LF	LH	LPR	KAPR			MIID
NT-DTGN^{L}/$_{R}$2020K16X	●	●	20	20	25	125	33	-	91°			TN∞1604∞
NT-DTGN^{L}/$_{R}$2525M16X	●	●	25	25	32	150	33	-	91°			TN∞1604∞

● stock standard, ○ non-standard stock, ▲ upcoming introduction, ▽ stock exhaustion

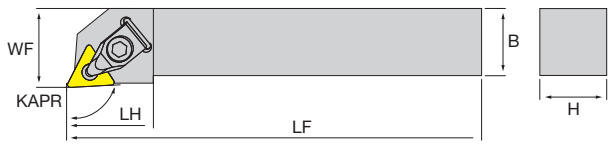
Spare parts	Shim	Shim screws	Clamp	Springs	Clamp screws	L wrench
NT-DTGN^{L}/$_{R}$∞∞∞∞16X	NT-SH006	NT-ST250	NT-CS250	NT-SG250	NT-SC250	NT-TX15

DTJN

ISO - TN

- External turning (KAPR 93°)
- Holds TN-style inserts
- Double pushing and pulling action with a single movement
- Quick and safe tightening

Right-hand shown



Designation	Stock L	Stock R	H	B	WF	LF	LH	LPR	KAPR			MIID
NT-DTJN$^{L}/_{R}$2020K16X	●	●	20	20	25	125	33	-	93°			TNoo1604oo
NT-DTJN$^{L}/_{R}$2525M16X	●	●	25	25	32	150	33	-	93°			TNoo1604oo

● stock standard, ○ non-standard stock, ▲ upcoming introduction, ▽ stock exhaustion

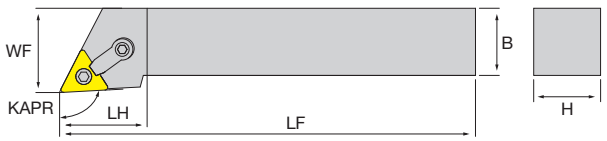
Spare parts	Shim	Shim screws	Clamp	Springs	Clamp screws	L wrench
NT-DTJN$^{L}/_{R}$ooooo16X	NT-SH006	NT-ST250	NT-CS250	NT-SG250	NT-SC250	NT-TX15

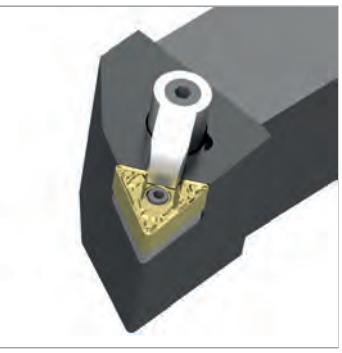
MTJN

ISO - TN

- External turning (KAPR 93°)
- Holds TN-style inserts
- Double locking with Eccentric pins and bracket. Excellent clamping force

Right-hand shown





Designation	Stock L	Stock R	H	B	WF	LF	LH	LPR	KAPR			MIID
NT-MTJN^{L}/$_{R}$2020K16	●	●	20	20	25	125	33	-	93°			TN∞1604∞
NT-MTJN^{L}/$_{R}$2525M16	●	●	25	25	32	150	35	-	93°			TN∞1604∞
NT-MTJN^{L}/$_{R}$3232P16	●	●	32	32	40	170	43	-	93°			TN∞1604∞
NT-MTJN^{L}/$_{R}$2525M22	●	●	25	25	32	150	43	-	93°			TN∞2204∞
NT-MTJN^{L}/$_{R}$3225P22	●	●	32	25	32	170	43	-	93°			TN∞2204∞

● stock standard, ○ non-standard stock, ▲ upcoming introduction, ▽ stock exhaustion

Spare parts	Shim	Eccentric pins	L wrench	Clamp	Clamp screws	L wrench
NT-MTJN^{L}/$_{R}$2020K16	NT-SH005	NT-SP020	NT-WR020	NT-CS010	NT-SC008	NT-WR030
NT-MTJN^{L}/$_{R}$2525M16	NT-SH005	NT-SP020	NT-WR020	NT-CS010	NT-SC010	NT-WR030
NT-MTJN^{L}/$_{R}$3232P16	NT-SH005	NT-SP020	NT-WR020	NT-CS010	NT-SC010	NT-WR030
NT-MTJN^{L}/$_{R}$2525M22	NT-SH008	NT-SP010	NT-WR030	NT-CS070	NT-SC070	NT-WR040
NT-MTJN^{L}/$_{R}$3225P22	NT-SH008	NT-SP010	NT-WR030	NT-CS070	NT-SC070	NT-WR040

A DTFN

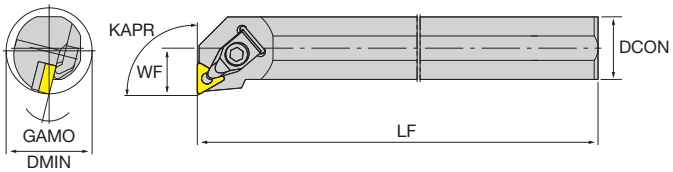
ISO - TN

- Internal turning (KAPR 91°)
- Steel boring bar with internal coolant through
- Holds TN-style inserts
- Double pushing and pulling action with a single movement. Quick and safe tightening

STEEL

with internal coolant

Right-hand shown



Designation	Stock L	Stock R	DMIN	DCON	WF	LF	LH	LPR	KAPR	GAMO		MIID
NT-A25R-DTFN$^{L}/_{R}$16	●	●	32	25	17	200	-	-	91°	13°		TN∞1604∞
NT-A32S-DTFN$^{L}/_{R}$16	●	●	40	32	22	250	-	-	91°	13°		TN∞1604∞

● stock standard, ○ non-standard stock, ▲ upcoming introduction, ▽ stock exhaustion

Spare parts	Shim	Shim screws	Clamp	Springs	Clamp screws	L wrench
NT-A∞∞-DTFN$^{L}/_{R}$16	NT-SH006	NT-ST250	NT-CS250	NT-SG250	NT-SC250	NT-TX15

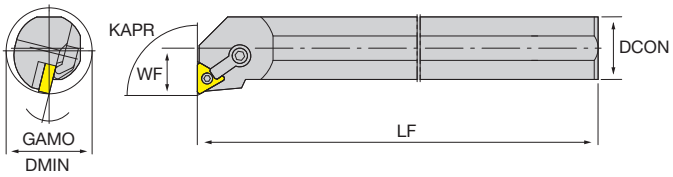
S MTUN

ISO - TN

- Internal turning (KAPR 93°)
- Steel boring bar without internal coolant
- Holds TN-style inserts
- Double locking with Eccentric pins and bracket. Excellent clamping force

STEEL

Right-hand shown



Designation	Stock L	Stock R	DMIN	DCON	WF	LF	LH	LPR	KAPR	GAMO		MIID
NT-S20R-MTUN$^{L}/_{R}$16	●	●	25	20	13	200	-	-	93°	17°		TN∞1604∞
NT-S25R-MTUN$^{L}/_{R}$16	●	●	32	25	17	200	-	-	93°	12°		TN∞1604∞
NT-S32S-MTUN$^{L}/_{R}$16	●	●	40	32	22	250	-	-	93°	10°		TN∞1604∞
NT-S40T-MTUN$^{L}/_{R}$16	●	●	50	40	27	300	-	-	93°	10°		TN∞1604∞
NT-S50U-MTUN$^{L}/_{R}$16	●	●	63	50	35	350	-	-	93°	8°		TN∞1604∞
NT-S40T-MTUN$^{L}/_{R}$22	○	○	50	40	27	300	-	-	93°	15°		TN∞2204∞
NT-S50U-MTUN$^{L}/_{R}$22	○	○	63	50	35	350	-	-	93°	12°		TN∞2204∞

● stock standard, ○ non-standard stock, ▲ upcoming introduction, ▽ stock exhaustion

Spare parts	Shim	Eccentric pins	L wrench	Clamp	Clamp screws	L wrench
NT-S20R-MTUN$^{L}/_{R}$16	-	NT-SP030	NT-WR020	NT-CS030	NT-SC030	NT-WR025
NT-S25R-MTUN$^{L}/_{R}$16	-	NT-SP030	NT-WR020	NT-CS010	NT-SC008	NT-WR030
NT-S32S-MTUN$^{L}/_{R}$16	NT-SH005	NT-SP020	NT-WR020	NT-CS010	NT-SC010	NT-WR030
NT-S40T-MTUN$^{L}/_{R}$16	NT-SH005	NT-SP020	NT-WR020	NT-CS010	NT-SC010	NT-WR030
NT-S50U-MTUN$^{L}/_{R}$16	NT-SH005	NT-SP020	NT-WR020	NT-CS010	NT-SC010	NT-WR030
NT-S40T-MTUN$^{L}/_{R}$22	NT-SH008	NT-SP010	NT-WR030	NT-CS070	NT-SC070	NT-WR040
NT-S50U-MTUN$^{L}/_{R}$22	NT-SH008	NT-SP010	NT-WR030	NT-CS070	NT-SC070	NT-WR040

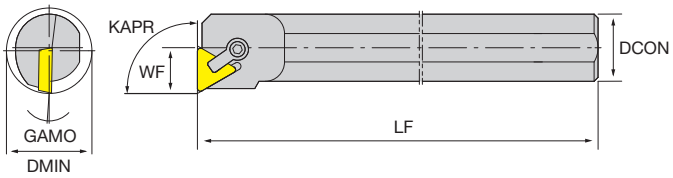
S CTUP

ISO - TP

- Internal turning (KAPR 93°)
- Steel boring bar without internal coolant
- Holds TP style inserts, tightened by screws

STEEL

Right-hand shown



Designation	Stock L	Stock R	DMIN	DCON	WF	LF	LH	LPR	KAPR	GAMO		MIID
NT-S12M-CTUP$^{L}/_{R}$11	●	●	16	12	9	150	-	-	93°	6°		TP∞1103∞
NT-S16Q-CTUP$^{L}/_{R}$11	●	●	20	16	11	180	-	-	93°	3°		TP∞1103∞
NT-S20R-CTUP$^{L}/_{R}$11	●	●	25	20	13	200	-	-	93°	3°		TP∞1103∞
NT-S25R-CTUP$^{L}/_{R}$16	●	●	32	25	17	200	-	-	93°	3°		TP∞1603∞
NT-S32S-CTUP$^{L}/_{R}$16	●	●	40	32	22	250	-	-	93°	3°		TP∞1603∞

● stock standard, ○ non-standard stock, ▲ upcoming introduction, ▽ stock exhaustion

Spare parts	Shim	Shim screws	Flag wrenches	Clamping set	Clamp	Clamp screws	L wrench
NT-S12M-CTUP$^{L}/_{R}$11	-	-	-	NT-CS003	-	-	NT-WR025
NT-S16Q-CTUP$^{L}/_{R}$11	-	-	-	-	NT-CS005	NT-SC005	NT-WR025
NT-S20R-CTUP$^{L}/_{R}$11	-	-	-	-	NT-CS005	NT-SC005	NT-WR025
NT-S25R-CTUP$^{L}/_{R}$16	NT-SH002	NT-ST022	NT-FT06	-	NT-CS010	NT-SC008	NT-WR030
NT-S32S-CTUP$^{L}/_{R}$16	NT-SH002	NT-ST022	NT-FT06	-	NT-CS010	NT-SC008	NT-WR030

CERAMIC INSERTS p. A192

SPARE PARTS DETAILS p. G1

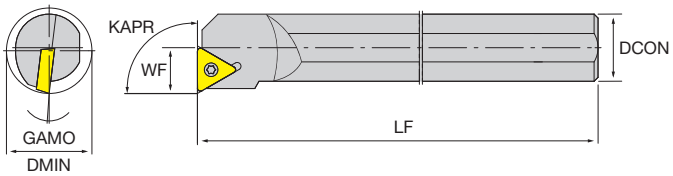
S STUP

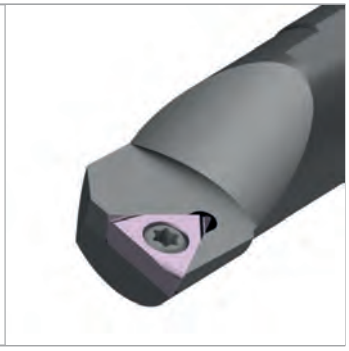
ISO - TP

- Internal turning (KAPR 93°)
- Steel boring bar without internal coolant
- Holds TP style inserts, tightened by screws

STEEL

Right-hand shown





Designation	Stock L	Stock R	DMIN	DCON	WF	LF	LH	LPR	KAPR	GAMO		MIID
NT-S10K-STUP$^{L}/_{R}$09	●	●	12	10	6	125	-	-	93°	8°		TP∞0902∞
NT-S12M-STUP$^{L}/_{R}$09	●	●	14	12	7	150	-	-	93°	5°		TP∞0902∞
NT-S10K-STUP$^{L}/_{R}$11	●	●	12	10	6	125	-	-	93°	8°		TP∞1103∞
NT-S12M-STUP$^{L}/_{R}$11	●	●	14	12	7	150	-	-	93°	7°		TP∞1103∞
NT-S16Q-STUP$^{L}/_{R}$11	●	●	18	16	9	180	-	-	93°	4°		TP∞1103∞
NT-S20R-STUP$^{L}/_{R}$11		○	22	20	11	200	-	-	93°	2°		TP∞1103∞

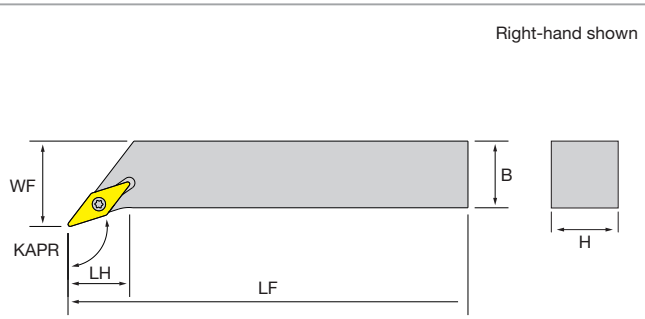
● stock standard, ○ non-standard stock, ▲ upcoming introduction, ▽ stock exhaustion

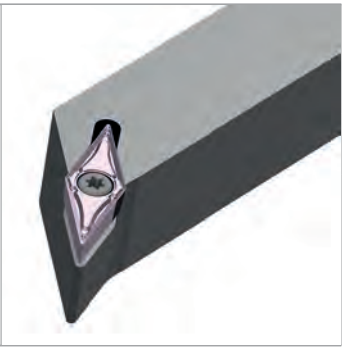
Spare parts	Insert screws	Flag wrenches
NT-S10K-STUP$^{L}/_{R}$09	NT-ST25065T08	NT-FT08
NT-S12M-STUP$^{L}/_{R}$09	NT-ST25065T08	NT-FT08
NT-S10K-STUP$^{L}/_{R}$11	NT-ST30058T10	NT-FT10
NT-S12M-STUP$^{L}/_{R}$11	NT-ST30058T10	NT-FT10
NT-S16Q-STUP$^{L}/_{R}$11	NT-ST30068T10	NT-FT10
NT-S20R-STUP$^{L}/_{R}$11	NT-ST30068T10	NT-FT10

SVHB

ISO - VB

- External turning (KAPR 107.5°)
- Holds VB-style inserts, tightened by screw
- Convenient to change inserts, with shim





Designation	Stock L	Stock R	H	B	WF	LF	LH	LPR	KAPR			MIID
NT-SVHL/R2525M16	○	○	25	25	32	150	23	-	107.5°			VBoo1604oo

● stock standard, ○ non-standard stock, ▲ upcoming introduction, ▽ stock exhaustion

Spare parts	Shim	Shim screws	L wrench	Insert screws	Flag wrenches
NT-SVHL/R2525M16	NT-SH050	NT-SR010	NT-WR035	NT-ST35115T15	NT-FT15

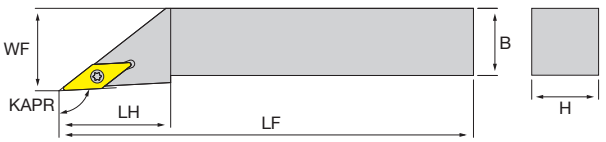
nikkoTOOLS

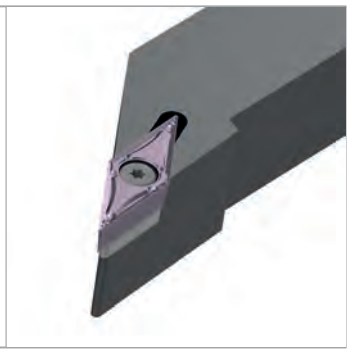
SVJB

ISO - VB

- External turning (KAPR 93°)
- Holds VB-style inserts, tightened by screw
- Convenient to change inserts, with shim

Right-hand shown





Designation	Stock L	Stock R	H	B	WF	LF	LH	LPR	KAPR			MIID
NT-SVJB$^{L}/_{R}$2020K11	●	●	20	20	25	125	22	-	93°			VBoo1103oo
NT-SVJB$^{L}/_{R}$2020K16	●	●	20	20	25	125	33	-	93°			VBoo1604oo
NT-SVJB$^{L}/_{R}$2525M16	●	●	25	25	32	150	38	-	93°			VBoo1604oo

● stock standard, ○ non-standard stock, ▲ upcoming introduction, ▽ stock exhaustion

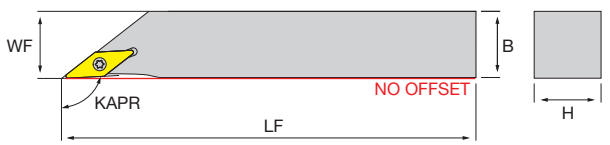
Spare parts	Shim	Shim screws	L wrench	Insert screws	Flag wrenches
NT-SVJB$^{L}/_{R}$ooooo11	-	-	-	NT-ST25060T07	NT-FT07
NT-SVJB$^{L}/_{R}$ooooo16	NT-SH050	NT-SR010	NT-WR035	NT-ST35115T15	NT-FT15

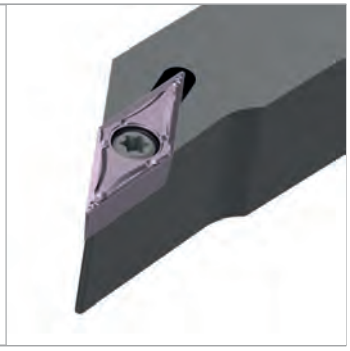
SVJB N

ISO - VB

- External turning (KAPR 93°)
- Holds VB-style inserts, tightened by screw
- Available on lathes without offset
- Convenient to change inserts, with shim

Right-hand shown





Designation	Stock L	Stock R	H	B	WF	LF	LH	LPR	KAPR			MIID
NT-SVJB$^{L}/_{R}$1212K11N	●	●	12	12	12	125	-	-	93°			VBoo1103oo
NT-SVJB$^{L}/_{R}$1616K11N	●	●	16	16	16	125	-	-	93°			VBoo1103oo
NT-SVJB$^{L}/_{R}$1616H16N	●	●	16	16	16	100	-	-	93°			VBoo1604oo

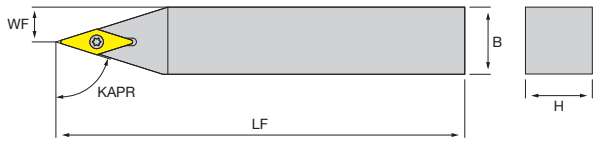
● stock standard, ○ non-standard stock, ▲ upcoming introduction, ▽ stock exhaustion

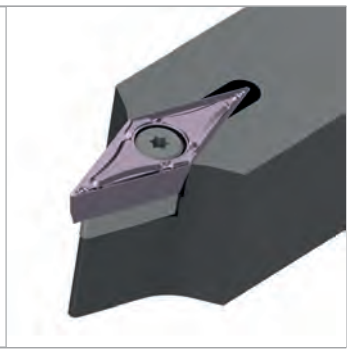
Spare parts	Shim	Shim screws	L wrench	Insert screws	Flag wrenches
NT-SVJB$^{L}/_{R}$ooooo11N	-	-	-	NT-ST25060T07	NT-FT07
NT-SVJB$^{L}/_{R}$ooooo16N	NT-SH050	NT-SR010	NT-WR035	NT-ST35115T15	NT-FT15

SVVB

ISO - VB

- External turning (KAPR 72.5°), Neutral position
- Holds VB-style inserts, tightened by screw
- Convenient to change inserts, with shim





Designation	Stock L	Stock R	H	B	WF	LF	LH	LPR	KAPR			MIID
NT-SVVBN2020K11			20	20	10	125	-	-	72.5°			VBoo1103oo
NT-SVVBN2525M11			25	25	12.5	150	-	-	72.5°			VBoo1103oo
NT-SVVBN2020K16			20	20	10	125	-	-	72.5°			VBoo1604oo
NT-SVVBN2525M16			25	25	12.5	150	-	-	72.5°			VBoo1604oo

● stock standard, ○ non-standard stock, ▲ upcoming introduction, ▽ stock exhaustion

Spare parts	Shim	Shim screws	L wrench	Insert screws	Flag wrenches
NT-SVVBNooooo11	-	-	-	NT-ST25060T07	NT-FT07
NT-SVVBNooooo16	NT-SH050	NT-SR010	NT-WR035	NT-ST35115T15	NT-FT15

V SVJB

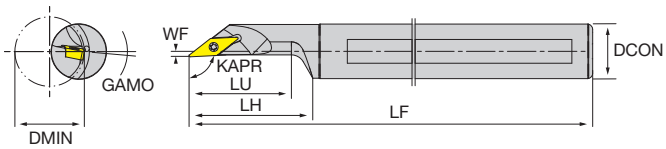
ISO - VB

- Internal turning (KAPR 93°)
- Vortex boring bar (high quality steel) with internal coolant through. Maximum overhang: 5xDCON
- Holds VB-style inserts, tightened by screws
- Special chip evacuation path

VORTEX

Right-hand shown

with internal coolant



Designation	Stock L	Stock R	DMIN	DCON	WF	LF	LH	LU	KAPR	GAMO		MIID
NT-V20R-SVJB$^{L}/_{R}$11-25	●	●	25	20	2	200	48	37.5	93°	5°		VBoo1103oo
NT-V25S-SVJB$^{L}/_{R}$11-30	●	●	30	25	3.5	250	58	46	93°	5°		VBoo1103oo

● stock standard, ○ non-standard stock, ▲ upcoming introduction, ▽ stock exhaustion

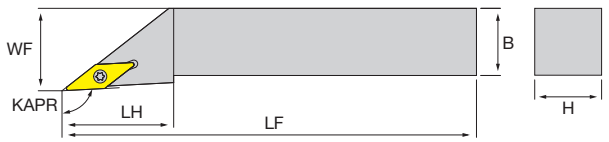
Spare parts	Insert screws	Flag wrenches
NT-Vooo-SVJB$^{L}/_{R}$11-oo	NT-ST25060T07	NT-FT07

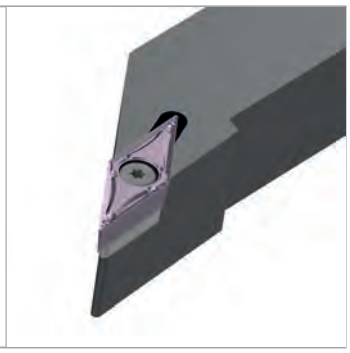
SVJC

ISO - VC

- External turning (KAPR 93°)
- Holds VC-style inserts, tightened by screw
- Convenient to change inserts, with shim

Right-hand shown





Designation	Stock L	Stock R	H	B	WF	LF	LH	LPR	KAPR			MIID
NT-SVJC^{L}/$_{R}$2020K11	●	●	20	20	25	125	22	-	93°			VC∞1103∞
NT-SVJC^{L}/$_{R}$2020K16	●	●	20	20	25	125	33	-	93°			VC∞1604∞
NT-SVJC^{L}/$_{R}$2525M16	●	●	25	25	32	150	38	-	93°			VC∞1604∞

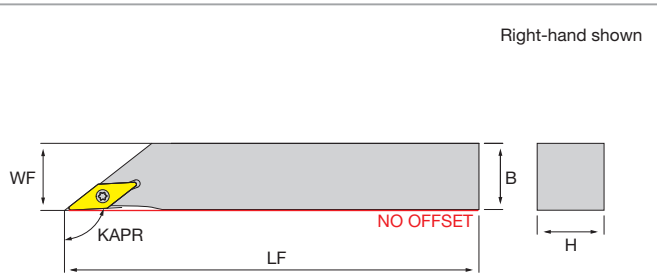
● stock standard, ○ non-standard stock, ▲ upcoming introduction, ▽ stock exhaustion

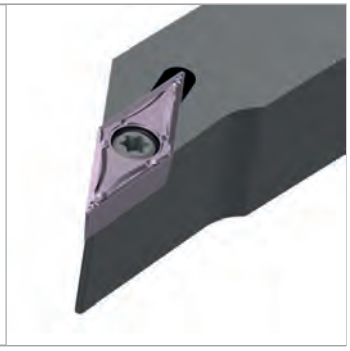
Spare parts	Shim	Shim screws	L wrench	Insert screws	Flag wrenches
NT-SVJC^{L}/$_{R}$∞∞∞∞∞11	-	-	-	NT-ST25060T07	NT-FT07
NT-SVJC^{L}/$_{R}$∞∞∞∞∞16	NT-SH050	NT-SR010	NT-WR035	NT-ST35115T15	NT-FT15

SVJC N

ISO - VC

- External turning (KAPR 93°)
- Holds VC-style inserts, tightened by screw
- Available on lathes without offset
- Convenient to change inserts, with shim





Designation	Stock L	Stock R	H	B	WF	LF	LH	LPR	KAPR			MIID
NT-SVJC$^{L}/_{R}$1010K11N	○	○	10	10	10	125	-	-	93°			VCoo1103oo
NT-SVJC$^{L}/_{R}$1212K11N	●	●	12	12	12	125	-	-	93°			VCoo1103oo
NT-SVJC$^{L}/_{R}$1616K11N	●	●	16	16	16	125	-	-	93°			VCoo1103oo
NT-SVJC$^{L}/_{R}$1616H16N	●	●	16	16	16	100	-	-	93°			VCoo1604oo

● stock standard, ○ non-standard stock, ▲ upcoming introduction, ▽ stock exhaustion

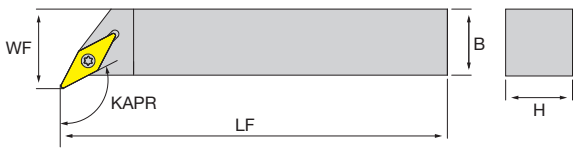
Spare parts	Shim	Shim screws	L wrench	Insert screws	Flag wrenches
NT-SVJC$^{L}/_{R}$ooooo11N	-	-	-	NT-ST25060T07	NT-FT07
NT-SVJC$^{L}/_{R}$ooooo16N	NT-SH050	NT-SR010	NT-WR035	NT-ST35115T15	NT-FT15

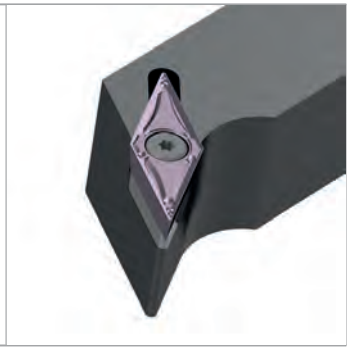
SVPC

ISO - VC

- External turning (KAPR 117.5°)
- Holds VC-style inserts, tightened by screw
- Convenient to change inserts, with shim

Right-hand shown





Designation	Stock L	Stock R	H	B	WF	LF	LH	LPR	KAPR			MIID
NT-SVPC^{L}/$_{R}$1010H11	○	○	10	10	14.5	100	-	-	117.5°			VC∞1103∞
NT-SVPC^{L}/$_{R}$1212H11	●	●	12	12	16.5	100	-	-	117.5°			VC∞1103∞
NT-SVPC^{L}/$_{R}$1616H11	●	●	16	16	20.5	100	-	-	117.5°			VC∞1103∞
NT-SVPC^{L}/$_{R}$2020K16	●	●	20	20	25	125	-	-	117.5°			VC∞1604∞
NT-SVPC^{L}/$_{R}$2525M16	●	●	25	25	32	150	-	-	117.5°			VC∞1604∞

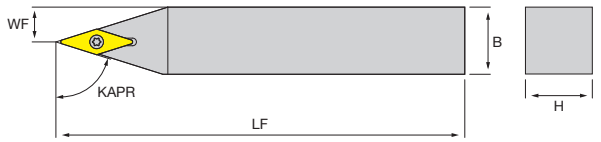
● stock standard, ○ non-standard stock, ▲ upcoming introduction, ▽ stock exhaustion

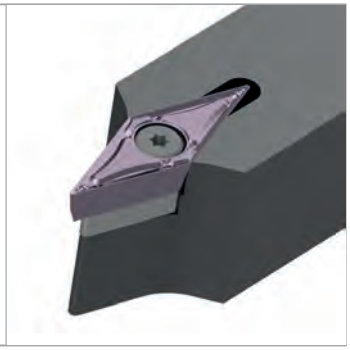
Spare parts	Shim	Shim screws	L wrench	Insert screws	Flag wrenches
NT-SVPC^{L}/$_{R}$∞∞∞∞∞11	-	-	-	NT-ST25060T07	NT-FT07
NT-SVPC^{L}/$_{R}$∞∞∞∞∞16	NT-SH050	NT-SR010	NT-WR035	NT-ST35115T15	NT-FT15

SVVC

ISO - VC

- External turning (KAPR 72.5°), Neutral position
- Holds VC-style inserts, tightened by screw
- Convenient to change inserts, with shim





Designation	Stock L	Stock R	H	B	WF	LF	LH	LPR	KAPR			MIID
NT-SVVCN1010H11			10	10	5	100	-	-	72.5°			VC∞1103∞
NT-SVVCN1212H11			12	12	6	100	-	-	72.5°			VC∞1103∞
NT-SVVCN1616H11			16	16	8	100	-	-	72.5°			VC∞1103∞
NT-SVVCN2020K16			20	20	10	125	-	-	72.5°			VC∞1604∞
NT-SVVCN2525M16			25	25	12.5	150	-	-	72.5°			VC∞1604∞

● stock standard, ○ non-standard stock, ▲ upcoming introduction, ▽ stock exhaustion

Spare parts	Shim	Shim screws	L wrench	Insert screws	Flag wrenches
NT-SVVCN∞∞∞∞11	-	-	-	NT-ST25060T07	NT-FT07
NT-SVVCN∞∞∞∞16	NT-SH050	NT-SR010	NT-WR035	NT-ST35115T15	NT-FT15

CARBIDE INSERTS p. A68 | PCBN INSERTS p. A125 | DIAMOND INSERTS p. A160 | SPARE PARTS DETAILS p. G1

nikkoTOOLS

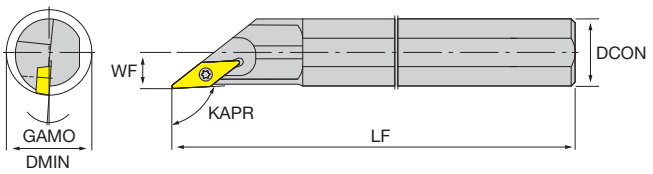
S SVJC

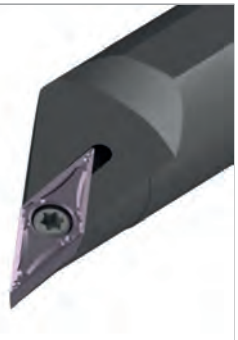
ISO - VC

- Internal turning (KAPR 93°)
- Steel boring bar without internal coolant
- Holds VC style inserts, tightened by screws

STEEL

Right-hand shown





Designation	Stock L	Stock R	DMIN	DCON	WF	LF	LH	LPR	KAPR	GAMO		MIID
NT-S12M-SVJC$^{L}/_{R}$11	○	○	14	12	7	150	-	-	93°	7°		VC∞1103∞
NT-S16Q-SVJC$^{L}/_{R}$11	●	●	18	16	9	180	-	-	93°	7°		VC∞1103∞
NT-S16Q-SVJC$^{L}/_{R}$16	●	●	18	16	9	180	-	-	93°	7°		VC∞1604∞
NT-S20R-SVJC$^{L}/_{R}$16	●	●	21	20	10.5	200	-	-	93°	6°		VC∞1604∞
NT-S25R-SVJC$^{L}/_{R}$16	○	○	27	25	13.5	200	-	-	93°	6°		VC∞1604∞
NT-S32S-SVJC$^{L}/_{R}$16	●	●	34	32	17	250	-	-	93°	4°		VC∞1604∞
NT-S40T-SVJC$^{L}/_{R}$16	○	○	44	40	22	300	-	-	93°	4°		VC∞1604∞

● stock standard, ○ non-standard stock, ▲ upcoming introduction, ▽ stock exhaustion

Spare parts	Insert screws	Flag wrenches
NT-S∞∞-SVJC$^{L}/_{R}$11	NT-ST25060T07	NT-FT07
NT-S∞∞-SVJC$^{L}/_{R}$16	NT-ST35089T15	NT-FT15

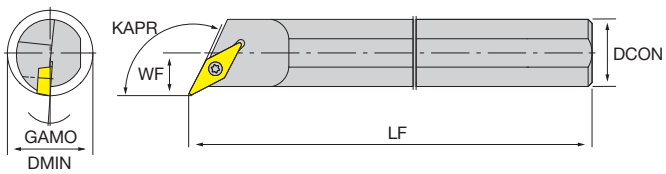
S SVQC

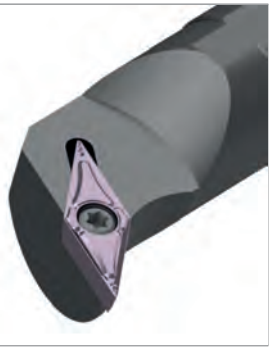
ISO - VC

- Internal turning (KAPR 107.5°)
- Steel boring bar without internal coolant
- Holds VC style inserts, tightened by screws

STEEL

Right-hand shown





Designation	Stock L	Stock R	DMIN	DCON	WF	LF	LH	LPR	KAPR	GAMO		MIID
NT-S16Q-SVQC^{L}/$_{R}$11	●	●	22	16	13	180	-	-	107.5°	7°		VC∞1103∞
NT-S20R-SVQC^{L}/$_{R}$11	○	○	27	20	15	200	-	-	107.5°	6°		VC∞1103∞
NT-S20R-SVQC^{L}/$_{R}$16	○	○	30	20	19	200	-	-	107.5°	8°		VC∞1604∞
NT-S25R-SVQC^{L}/$_{R}$16	●	●	34	25	20.5	200	-	-	107.5°	4°		VC∞1604∞
NT-S32S-SVQC^{L}/$_{R}$16	●	●	41	32	22.5	250	-	-	107.5°	8°		VC∞1604∞
NT-S40T-SVQC^{L}/$_{R}$16	○	○	50	40	27	300	-	-	107.5°	6°		VC∞1604∞

● stock standard, ○ non-standard stock, ▲ upcoming introduction, ▽ stock exhaustion

Spare parts	Insert screws	Flag wrenches
NT-S∞∞-SVQC^{L}/$_{R}$11	NT-ST25060T07	NT-FT07
NT-S∞∞-SVQC^{L}/$_{R}$16	NT-ST35089T15	NT-FT15

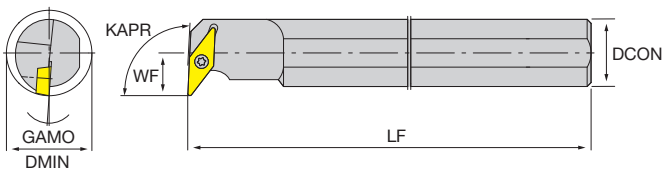
S SVUC

ISO - VC

- Internal turning (KAPR 93°)
- Steel boring bar without internal coolant
- Holds VC style inserts, tightened by screws

STEEL

Right-hand shown



Designation	Stock L	Stock R	DMIN	DCON	WF	LF	LH	LPR	KAPR	GAMO		MIID
NT-S16Q-SVUC^{L}/$_{R}$11	●	●	22	16	13	180	-	-	93°	7°		VC∞1103∞
NT-S20R-SVUC^{L}/$_{R}$11	●	●	27	20	15	200	-	-	93°	6°		VC∞1103∞
NT-S20R-SVUC^{L}/$_{R}$16	●	●	31	20	19	200	-	-	93°	8°		VC∞1604∞
NT-S25R-SVUC^{L}/$_{R}$16	○	○	33	25	20.5	200	-	-	93°	7°		VC∞1604∞
NT-S32S-SVUC^{L}/$_{R}$16	●	●	42	32	22.5	250	-	-	93°	5°		VC∞1604∞
NT-S40T-SVUC^{L}/$_{R}$16	○	○	51	40	27	300	-	-	93°	4°		VC∞1604∞

● stock standard, ○ non-standard stock, ▲ upcoming introduction, ▽ stock exhaustion

Spare parts	Insert screws	Flag wrenches
NT-S∞∞-SVUC^{L}/$_{R}$11	NT-ST25060T07	NT-FT07
NT-S∞∞-SVUC^{L}/$_{R}$16	NT-ST35089T15	NT-FT15

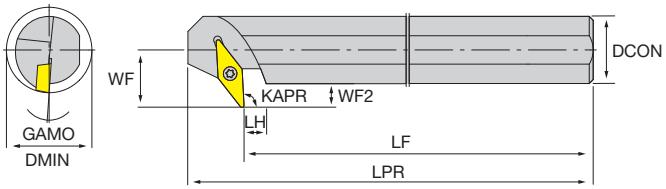
S SVZC

ISO - VC

- Internal back turning (KAPR 93°)
- Steel boring bar without internal coolant
- Holds VC style inserts, tightened by screws

STEEL

Right-hand shown



Designation	Stock L	Stock R	DMIN	DCON	WF	WF2	LF	LH	LPR	KAPR	GAMO	MIID
NT-S20R-SVZC^{L}/$_{R}$16	●	●	30	20	17	7			217	93°	7.5°	VC∞1604∞
NT-S25R-SVZC^{L}/$_{R}$16	●	●	35	25	19.5	7			220	93°	7.5°	VC∞1604∞
NT-S32S-SVZC^{L}/$_{R}$16	○	○	40	32	23	7			270	93°	7.5°	VC∞1604∞

● stock standard, ○ non-standard stock, ▲ upcoming introduction, ▽ stock exhaustion

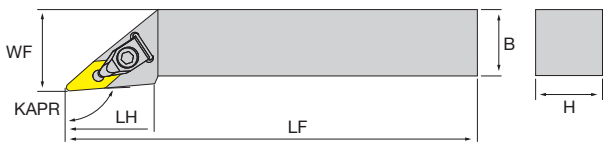
Spare parts	Insert screws	Flag wrenches
NT-S∞∞-SVZC^{L}/$_{R}$16	NT-ST35089T15	NT-FT15

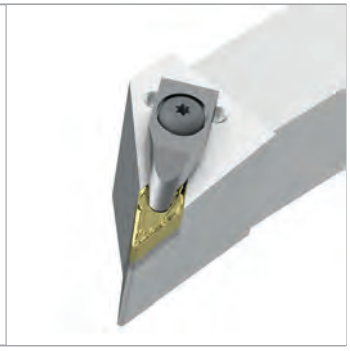
DVJN

ISO - VN

- External turning (KAPR 93°)
- Holds VN-style inserts
- Double pushing and pulling action with a single movement
- Quick and safe tightening

Right-hand shown





Designation	Stock L	Stock R	H	B	WF	LF	LH	LPR	KAPR			MIID
NT-DVJN$^{L}/_{R}$2020K16X	●	●	20	20	25	125	50	-	93°			VNoo1604oo
NT-DVJN$^{L}/_{R}$2525M16X	●	●	25	25	32	150	46	-	93°			VNoo1604oo

● stock standard, ○ non-standard stock, ▲ upcoming introduction, ▽ stock exhaustion

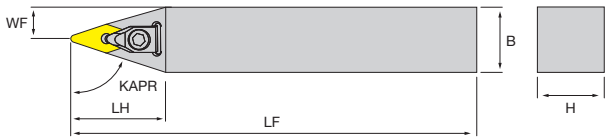
Spare parts	Shim	Shim screws	L wrench	Clamp	Springs	Clamp screws	L wrench
NT-DVJN$^{L}/_{R}$oooooo16X	NT-SH075	NT-ST250	NT-TX15	NT-CS210	NT-SG200	NT-SC200	NT-TX20

A - TURNING
B - THREADING
C - GROOVING
D - MILLING
E - DRILLING
F - ACCESSORIES
G - SPARE PARTS

DVVN

ISO - VN

- External turning (KAPR 72.5°), Neutral position
- Holds VN-style inserts
- Double pushing and pulling action with a single movement
- Quick and safe tightening



Designation	Stock	H	B	WF	LF	LH	LPR	KAPR			MIID
NT-DVVNN2020K16X	●	20	20	10	125	47	-	72.5			VNoo1604oo
NT-DVVNN2525M16X	●	25	25	12.5	150	47	-	72.5			VNoo1604oo

● stock standard, ○ non-standard stock, ▲ upcoming introduction, ▽ stock exhaustion

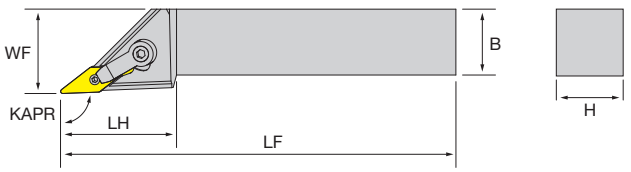
Spare parts	Shim	Shim screws	L wrench	Clamp	Springs	Clamp screws	L wrench
NT-DVVNNoooooo16X	NT-SH075	NT-ST250	NT-TX15	NT-CS210	NT-SG200	NT-SC200	NT-TX20

MVJN

ISO - VN

- External turning (KAPR 93°)
- Holds VN-style inserts
- Double locking with Eccentric pins and bracket. Excellent clamping force

Right-hand shown



Designation	Stock L	Stock R	H	B	WF	LF	LH	LPR	KAPR			MIID
NT-MVJN^{L}/$_{R}$2020K16	●	●	20	20	25	125	39	-	93°			VNoo1604oo
NT-MVJN^{L}/$_{R}$2525M16	●	●	25	25	32	150	44	-	93°			VNoo1604oo
NT-MVJN^{L}/$_{R}$3232P16	○	○	32	32	40	170	45	-	93°			VNoo1604oo

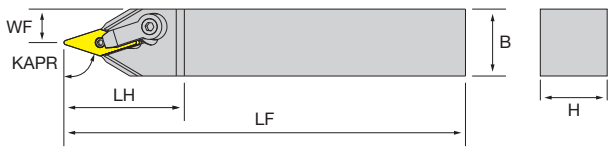
● stock standard, ○ non-standard stock, ▲ upcoming introduction, ▽ stock exhaustion

Spare parts	Shim	Eccentric pins	L wrench	Clamp	Clamp screws	L wrench
NT-MVJN^{L}/$_{R}$ooooo16	NT-SH075	NT-SP020	NT-WR020	NT-CS075	NT-SC010	NT-WR030

MVVN

ISO - VN

- External turning (KAPR 72.5°), Neutral position
- Holds VN-style inserts
- Double locking with Eccentric pins and bracket. Excellent clamping force



Designation	Stock	H	B	WF	LF	LH	LPR	KAPR			MIID
NT-MVVNN2020K16	●	20	20	10	125	45	-	72.5			VNoo1604oo
NT-MVVNN2525M16	●	25	25	12.5	150	45	-	72.5			VNoo1604oo
NT-MVVNN3232P16	○	32	32	16	170	45	-	72.5			VNoo1604oo

● stock standard, ○ non-standard stock, ▲ upcoming introduction, ▽ stock exhaustion

Spare parts	Shim	Eccentric pins	L wrench	Clamp	Clamp screws	L wrench
NT-MVVNNoooooo16	NT-SH075	NT-SP020	NT-WR020	NT-CS075	NT-SC010	NT-WR030

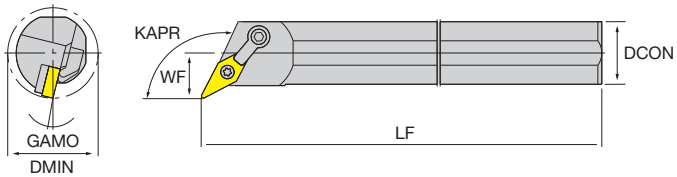
S MVQN

ISO - VN

- Internal turning (KAPR 107.5°)
- Steel boring bar without internal coolant
- Holds VN-style inserts
- Double locking with Eccentric pins and bracket. Excellent clamping force

STEEL

Right-hand shown



Designation	Stock L	Stock R	DMIN	DCON	WF	LF	LH	LPR	KAPR	GAMO		MIID
NT-S25R-MVQN$^{L}/_{R}$16	●	●	33	25	20	200	-	-	107.5°	12°		VNoo1604oo
NT-S32S-MVQN$^{L}/_{R}$16	○	○	40	32	23	250	-	-	107.5°	17°		VNoo1604oo
NT-S40T-MVQN$^{L}/_{R}$16	○	○	50	40	27	300	-	-	107.5°	15°		VNoo1604oo
NT-S50U-MVQN$^{L}/_{R}$16	●	●	63	50	33	350	-	-	107.5°	12°		VNoo1604oo

● stock standard, ○ non-standard stock, ▲ upcoming introduction, ▽ stock exhaustion

Spare parts	Shim	Eccentric pins	L wrench	Clamp	Clamp screws	L wrench
NT-S25R-MVQN$^{L}/_{R}$16	NT-SH075	NT-SP020	NT-WR020	NT-CS010	NT-SC008	NT-WR030
NT-S32S-MVQN$^{L}/_{R}$16	NT-SH075	NT-SP020	NT-WR020	NT-CS010	NT-SC008	NT-WR030
NT-S40T-MVQN$^{L}/_{R}$16	NT-SH075	NT-SP020	NT-WR020	NT-CS010	NT-SC010	NT-WR030
NT-S50U-MVQN$^{L}/_{R}$16	NT-SH075	NT-SP020	NT-WR020	NT-CS010	NT-SC010	NT-WR030

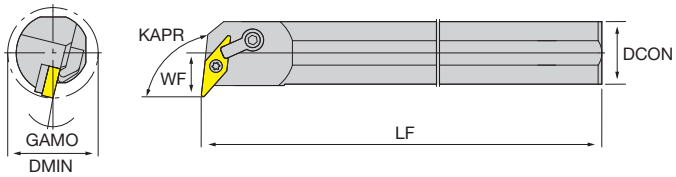
S MVUN

ISO - VN

- Internal turning (KAPR 93°)
- Steel boring bar without internal coolant
- Holds VN-style inserts
- Double locking with Eccentric pins and bracket. Excellent clamping force

STEEL

Right-hand shown



Designation	Stock L	Stock R	DMIN	DCON	WF	LF	LH	LPR	KAPR	GAMO		MIID
NT-S25R-MVUN$^{L}/_{R}$16	●	●	37	25	20	200	-	-	93°	12°		VN∞1604∞
NT-S32S-MVUN$^{L}/_{R}$16	●	●	40	32	22	250	-	-	93°	12°		VN∞1604∞
NT-S40T-MVUN$^{L}/_{R}$16	●	●	50	40	27	300	-	-	93°	15°		VN∞1604∞
NT-S50U-MVUN$^{L}/_{R}$16	○	○	63	50	32	350	-	-	93°	12°		VN∞1604∞

● stock standard, ○ non-standard stock, ▲ upcoming introduction, ▽ stock exhaustion

Spare parts	Shim	Eccentric pins	L wrench	Clamp	Clamp screws	L wrench
NT-S25R-MVUN$^{L}/_{R}$16	NT-SH075	NT-SP020	NT-WR020	NT-CS010	NT-SC008	NT-WR030
NT-S32S-MVUN$^{L}/_{R}$16	NT-SH075	NT-SP020	NT-WR020	NT-CS010	NT-SC008	NT-WR030
NT-S40T-MVUN$^{L}/_{R}$16	NT-SH075	NT-SP020	NT-WR020	NT-CS010	NT-SC010	NT-WR030
NT-S50U-MVUN$^{L}/_{R}$16	NT-SH075	NT-SP020	NT-WR020	NT-CS010	NT-SC010	NT-WR030

V SWUB

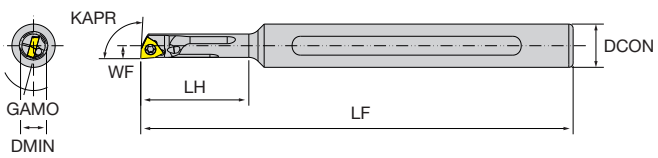
ISO - WB

- Internal turning (KAPR 93°)
- Vortex boring bar (high quality steel) with internal coolant through. Maximum overhang: 5xDCON
- Holds WB-style inserts, tightened by screws
- Special chip evacuation path

VORTEX

with internal coolant

Right-hand shown



Designation	Stock L	Stock R	DMIN	DCON	WF	LF	LH	LPR	KAPR	GAMO		MIID
NT-V10H-SWUB$^{L}/_{R}$06-06		●	6	10	3	100	25	-	93°	15°		WB∞0601∞
NT-V10H-SWUB$^{L}/_{R}$06-07		●	7	10	3.5	100	30	-	93°	13°		WB∞0601∞

● stock standard, ○ non-standard stock, ▲ upcoming introduction, ▽ stock exhaustion

Spare parts	Insert screws	Flag wrenches
NT-V10H-SWUB$^{L}/_{R}$06-∞	NT-ST20038T06	NT-FT06

A - TURNING
B - THREADING
C - GROOVING
D - MILLING
E - DRILLING
F - ACCESSORIES
G - SPARE PARTS

V SWUC

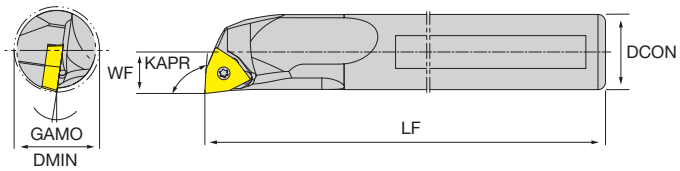
ISO - WC

- Internal turning (KAPR 93°)
- Vortex boring bar (high quality steel) with internal coolant through. Maximum overhang: 5xDCON
- Holds WC-style inserts, tightened by screws
- Special chip evacuation path

VORTEX

with internal coolant

Right-hand shown



Designation	Stock L	Stock R	DMIN	DCON	WF	LF	LH	LPR	KAPR	GAMO		MIID
NT-V12M-SWUCL/R12-14	●	●	14	12	7	150	-	-	93°	13°		WCoo12T3oo
NT-V16Q-SWUCL/R12-18	●	●	18	16	9	180	-	-	93°	10°		WCoo12T3oo
NT-V20R-SWUCL/R12-22	●	●	22	20	11	200	-	-	93°	8°		WCoo12T3oo
NT-V25S-SWUCL/R12-27	●	●	27	25	13.5	250	-	-	93°	8°		WCoo12T3oo

● stock standard, ○ non-standard stock, ▲ upcoming introduction, ▽ stock exhaustion

Spare parts	Insert screws	Flag wrenches
NT-Voooo-SWUCL/R12-oo	NT-ST40090T15	NT-FT15

CARBIDE INSERTS p. A72

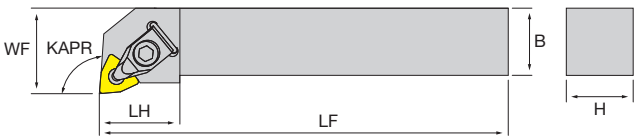
SPARE PARTS DETAILS p. G1

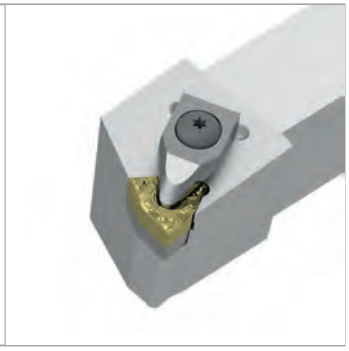
DWLN

ISO - WN

- External turning (KAPR 95°)
- Holds WN-style inserts
- Double pushing and pulling action with a single movement
- Quick and safe tightening

Right-hand shown





Designation	Stock L	Stock R	H	B	WF	LF	LH	LPR	KAPR			MIID
NT-DWLN$^{L}/_{R}$1616H06X	●	●	16	16	20	100	33	-	95°			WNoo0604oo
NT-DWLN$^{L}/_{R}$2020K06X	●	●	20	20	25	125	33	-	95°			WNoo0604oo
NT-DWLN$^{L}/_{R}$2525M06X	●	●	25	25	32	150	33	-	95°			WNoo0604oo
NT-DWLN$^{L}/_{R}$2020K08X	●	●	20	20	25	125	40	-	95°			WNoo0804oo
NT-DWLN$^{L}/_{R}$2525M08X	●	●	25	25	32	150	40	-	95°			WNoo0804oo
NT-DWLN$^{L}/_{R}$3225P08X	●	●	32	25	32	170	40	-	95°			WNoo0804oo

● stock standard, ○ non-standard stock, ▲ upcoming introduction, ▽ stock exhaustion

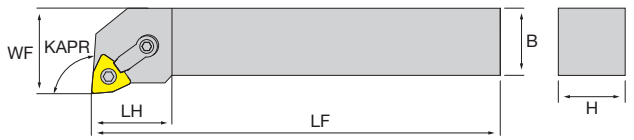
Spare parts	Shim	Shim screws	L wrench	Clamp	Springs	Clamp screws	L wrench
NT-DWLN$^{L}/_{R}$ooooo06X	NT-SH003	NT-ST250	NT-TX15	NT-CS250	NT-SG250	NT-SC250	NT-TX15
NT-DWLN$^{L}/_{R}$ooooo08X	NT-SH010	NT-ST200	NT-WR025	NT-CS200	NT-SG200	NT-SC200	NT-TX20

MWLN

ISO - WN

- External turning (KAPR 95°)
- Holds WN-style inserts
- Double locking with Eccentric pins and bracket. Excellent clamping force

Right-hand shown



Designation	Stock L	Stock R	H	B	WF	LF	LH	LPR	KAPR			MIID
NT-MWLN$^{L}/_{R}$2020K06	○	○	20	20	25	125	33	-	95°			WNoo0604oo
NT-MWLN$^{L}/_{R}$2525M06	○	○	25	25	32	150	26	-	95°			WNoo0604oo
NT-MWLN$^{L}/_{R}$2020K08	●	●	20	20	25	125	33	-	95°			WNoo0804oo
NT-MWLN$^{L}/_{R}$2525M08	●	●	25	25	32	150	26	-	95°			WNoo0804oo
NT-MWLN$^{L}/_{R}$3232P08	●	●	32	32	40	170	26	-	95°			WNoo0804oo

● stock standard, ○ non-standard stock, ▲ upcoming introduction, ▽ stock exhaustion

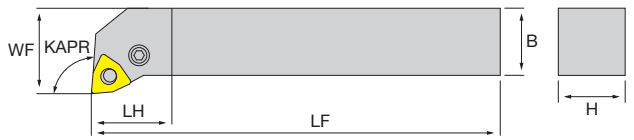
Spare parts	Shim	Eccentric pins	L wrench	Clamp	Clamp screws	L wrench
NT-MWLN$^{L}/_{R}$oooooo06	NT-SH003	NT-SP020	NT-WR020	NT-CS009	NT-SC030	NT-WR025
NT-MWLN$^{L}/_{R}$oooooo08	NT-SH010	NT-SP010	NT-WR030	NT-CS010	NT-SC010	NT-WR030

PWLN

ISO - WN

- External turning (KAPR 95°)
- Holds WN-style inserts
- Easy to use Levers-lock clamping
- Suitable for long-chip materials

Right-hand shown



Designation	Stock L	Stock R	H	B	WF	LF	LH	LPR	KAPR			MIID
NT-PWLN^{L}/$_{R}$2020K08	●	●	20	20	25	125	20	-	95°			WNoo0804oo
NT-PWLN^{L}/$_{R}$2525M08	●	●	25	25	32	150	26	-	95°			WNoo0804oo

● stock standard, ○ non-standard stock, ▲ upcoming introduction, ▽ stock exhaustion

Spare parts	Shim	Shim plugs	Levers	Levers screws	L wrench
NT-PWLN^{L}/$_{R}$ooooo08	NT-SH015	NT-SR020	NT-LL020	NT-SC025	NT-WR030

A DWLN

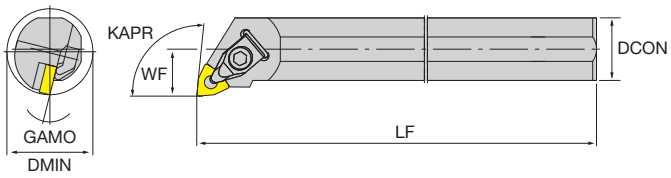
ISO - WN

- Internal turning (KAPR 95°)
- Steel boring bar with internal coolant through
- Holds WN-style inserts
- Double pushing and pulling action with a single movement. Quick and safe tightening

STEEL

with internal coolant

Right-hand shown



Designation	Stock L	Stock R	DMIN	DCON	WF	LF	LH	LPR	KAPR	GAMO		MIID
NT-A25R-DWLN$^{L}/_{R}$08	●	●	32	25	17	200	-	-	95°	14°		WNoo0804oo
NT-A32S-DWLN$^{L}/_{R}$08	●	●	40	32	22	250	-	-	95°	14°		WNoo0804oo
NT-A40T-DWLN$^{L}/_{R}$08	●	●	50	40	27	300	-	-	95°	12°		WNoo0804oo

● stock standard, ○ non-standard stock, ▲ upcoming introduction, ▽ stock exhaustion

Spare parts	Shim	Shim screws	L wrench	Clamp	Springs	Clamp screws	L wrench
NT-Aooo-DWLN$^{L}/_{R}$08	NT-SH015	NT-ST200	NT-WR025	NT-CS200	NT-SG200	NT-SC200	NT-TX20

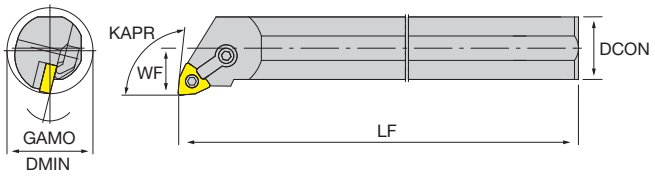
S MWLN

ISO - WN

- Internal turning (KAPR 95°)
- Steel boring bar without internal coolant
- Holds WN-style inserts
- Double locking with Eccentric pins and bracket. Excellent clamping force

STEEL

Right-hand shown



Designation	Stock L	Stock R	DMIN	DCON	WF	LF	LH	LPR	KAPR	GAMO		MIID
NT-S16Q-MWLN$^{L}/_{R}$06	○	○	22	16	11	180	-	-	95°	18°		WNoo0604oo
NT-S20R-MWLN$^{L}/_{R}$08	●	●	25	20	13	200	-	-	95°	17°		WNoo0804oo
NT-S25R-MWLN$^{L}/_{R}$08	●	●	32	25	17	200	-	-	95°	14°		WNoo0804oo
NT-S32S-MWLN$^{L}/_{R}$08	●	●	40	32	22	250	-	-	95°	14°		WNoo0804oo
NT-S40T-MWLN$^{L}/_{R}$08	●	●	50	40	27	300	-	-	95°	12°		WNoo0804oo
NT-S50U-MWLN$^{L}/_{R}$08	●	●	63	50	35	350	-	-	95°	12°		WNoo0804oo

● stock standard, ○ non-standard stock, ▲ upcoming introduction, ▽ stock exhaustion

Spare parts	Shim	Eccentric pins	L wrench	Clamp	Clamp screws	L wrench
NT-S16Q-MWLN$^{L}/_{R}$06	-	NT-SP030	NT-WR020	NT-CS030	NT-SC030	NT-WR025
NT-S20R-MWLN$^{L}/_{R}$08	-	NT-SP035	NT-WR025	NT-CS030	NT-SC030	NT-WR025
NT-S25R-MWLN$^{L}/_{R}$08	-	NT-SP035	NT-WR025	NT-CS010	NT-SC008	NT-WR030
NT-S32S-MWLN$^{L}/_{R}$08	NT-SH010	NT-SP010	NT-WR030	NT-CS010	NT-SC010	NT-WR030
NT-S40T-MWLN$^{L}/_{R}$08	NT-SH010	NT-SP010	NT-WR030	NT-CS010	NT-SC010	NT-WR030
NT-S50U-MWLN$^{L}/_{R}$08	NT-SH010	NT-SP010	NT-WR030	NT-CS010	NT-SC010	NT-WR030

A PWLN

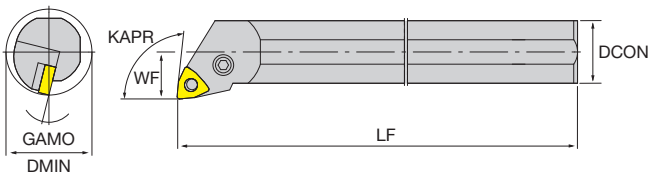
ISO - WN

- Internal turning (KAPR 95°)
- Steel boring bar with internal coolant through
- Holds WN-style inserts
- Easy to use Levers-lock clamping. Suitable for long-chip materials

STEEL

with internal coolant

Right-hand shown



Designation	Stock L	Stock R	DMIN	DCON	WF	LF	LH	LPR	KAPR	GAMO		MIID
NT-A25R-PWLN$^{L}/_{R}$08	●	●	30	25	17	200	-	-	95°	12°		WNoo0804oo
NT-A32S-PWLN$^{L}/_{R}$08	●	●	40	32	22	250	-	-	95°	10°		WNoo0804oo
NT-A40T-PWLN$^{L}/_{R}$08	●	●	48	40	27	300	-	-	95°	8°		WNoo0804oo

● stock standard, ○ non-standard stock, ▲ upcoming introduction, ▽ stock exhaustion

Spare parts	Shim	Shim plugs	Levers	Levers screws	L wrench
NT-A25R-PWLN$^{L}/_{R}$08	-	NT-SR015	NT-LL015	NT-SC015	NT-WR025
NT-A32S-PWLN$^{L}/_{R}$08	NT-SH015	NT-SR020	NT-LL020	NT-SC025	NT-WR030
NT-A40T-PWLN$^{L}/_{R}$08	NT-SH015	NT-SR020	NT-LL020	NT-SC025	NT-WR030

THREADING

Grade table .B2
Grade details .B3
Quick guide .B4
External threads .B7
Internal threads .B15
Parameters .B27

THREADING Grade table

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ISO 513		CARBIDE	PCBN	DIAMOND
		PVD COATED	PVD COATED	PCD
P Steel	P01			
	P10	JPS120		
	P20	JPS125		
	P30			
	P40			
M Stainless steel	M01			
	M10	JPS120		
	M20	JPS125		
	M30			
	M40			
K Cast iron	K01			
	K10	JPS120		
	K20	JPS125		
	K30			
N Non-ferrous materials	N01			
	N10			
	N20			ND050
	N30			
H Hardened steel	H01			
	H10			
	H20		NBL350C	
	H30			

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GRADE	SUBSTRATE	HARDNESS HV	COATING		APPLICATION		FEATURES
			TECHNOLOGY	COMPOSITION			
JP5120	micrograin carbide	1.830	PVD	TiAlN	P	P10 P20	Special coating technology balances wear resistance and toughness. The post-coating surface treatment effectively prevents built-up edge.
					M	M10 M20	
					K	K10 K20	
JP5125	micrograin carbide	1.830	PVD	TiAlN	P	P20 P30	High Co micrograin carbide substrate with high toughness and latest coating technology. Universal use with great reliability and long tool life.
					M	M20 M30	
					K	K20 K30	
NBL350C	Low volume CBN 75%	3.400	PVD	AlTiN	H	H20 H35	Hardened steel machining with a perfect combination of toughness and wear resistance.
ND050 new name: **NDP001**	diamond 85%	5.000	-	-	N	N10 N35	High productivity threading of non-ferrous materials. Excellent surface finishing and very good toughness.

THREADING Quick guide

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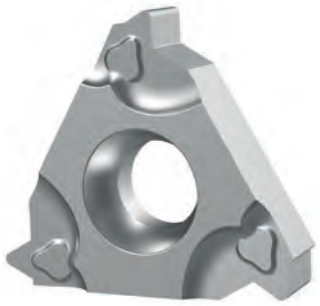
	EXTERNAL	INTERNAL
	B7	B15
	SQUARE SHANK	BORING BAR
Pressed type inserts	✓	✓
Ground type inserts*	✓	✓
Advanced material inserts	✓	✓
Available sizes	16 - 22	07 - 11 - 16 - 22
Right and left thread	✓	✓
Workpiece material	P M K N S H	P M K N S H
Full profile	M - UN - W - NPT - BSPT	M - UN - W - NPT - BSPT
Partial profile	55° - 60°	55° - 60°
M ISO Metric 60°	0.50 - 0.70 - 0.75 - 0.80 - 1.00 - 1.25 - 1.50 - 1.75 - 2.00 - 2.50 - 3.00 - 3.50 - 4.00 - 4.50 - 5.00 (mm)	0.50 - 0.75 - 1.00 - 1.25 - 1.50 - 1.75 - 2.00 - 2.50 - 3.00 - 3.50 - 4.00 - 4.50 - 5.00 (mm)
W Whitworth 55°	19 - 14 - 11 (TPI)	19 - 14 - 11 (TPI)
UN American unified 60°	24 - 20 - 18 - 16 - 14 - 12 - 08 (TPI)	24 - 20 - 18 - 16 - 14 - 12 - 08 (TPI)
NPT American tapered pipe 60°	18 - 11.5 - 14 (TPI)	18 - 11.5 - 14 (TPI)
BSPT British tapered pipe 55°	28 - 19 - 14 - 11 (TPI)	28 - 19 - 14 - 11 (TPI)
60° partial profile 60°	**A** 0.50 ÷ 1.50 (mm) / 48 ÷ 16 (TPI) **G** 1.75 ÷ 3.00 (mm) / 14 ÷ 8 (TPI) **AG** 0.50 ÷ 3.00 (mm) / 48 ÷ 8 (TPI) **N** 3.50 ÷ 5.00 (mm) / 7 ÷ 5 (TPI)	**A** 0.50 ÷ 1.50 (mm) / 48 ÷ 16 (TPI) **G** 1.75 ÷ 3.00 (mm) / 14 ÷ 8 (TPI) **AG** 0.50 ÷ 3.00 (mm) / 48 ÷ 8 (TPI) **N** 3.50 ÷ 5.00 (mm) / 7 ÷ 5 (TPI)
55° partial profile 55°	**A** 48 ÷ 16 (TPI) **G** 14 ÷ 8 (TPI) **AG** 48 ÷ 8 (TPI) **N** 7 ÷ 5 (TPI)	**A** 48 ÷ 16 (TPI) **G** 14 ÷ 8 (TPI) **AG** 48 ÷ 8 (TPI) **N** 7 ÷ 5 (TPI)
Holder sizes	square: 12 - 16 - 20 - 25 mm	cylindrical: 10 - 12 - 16 - 20 - 25 - 32 mm
Minimum entering hole	-	8 mm
Special features	holders without off-set for swiss type machining	boring bar with VORTEX technology and internal coolant

*Ground inserts can be tailored to cover virtually any thread type and pitch.



THREADING External threads

Inserts .B8
Holders .B12
Table “Number of passes” .B13

External

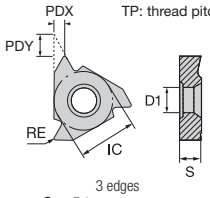
ISO 16-22

- **M**: metric threads
- **W**: parallel pipe threads (whitworth)
- **UN**: unified inch threads
- **NPT**: American national tapered pipe threads
- **BSPT**: tapered pipe threads
- Partial profile with **55°** or **60°** angle, for metric, unified and parallel pipe threads

HF: Micrograin carbide
BL: Low volume CBN
DP: Polycristalline diamond
PVD: Physical vapour deposition

	HF PVD	HF PVD	BL PVD	DP
	JP5120	JP5125	NBL350C	NDD50
Stable machining, light cut (● 1st choice, ○ suitable)	●	○	●	●
General machining, medium cut (● 1st choice, ○ suitable)	●	●		
Unstable machining, heavy cut (● 1st choice, ○ suitable)		●		

Dimensions



	S	D1
16E	3.65	4.00
22E	4.71	5.00

ISO	HF PVD JP5120	HF PVD JP5125	BL PVD NBL350C	DP NDD50
	Vc(m/min) - suggested cutting speed range (bold: 1st choice)			
P	**90** 200	**70** 180		
M	**60** 150	**50** 140		
K	90 190	60 180		
N				**400** 1600
S				**50** 100
H			**60** 140	

	Designation	RE	TP	PDX	PDY	IC	HF PVD JP5120	HF PVD JP5125	BL PVD NBL350C	DP NDD50	Stock
FULL PROFILE	M P M K **TPM pressed type** chip control oriented										
	16ER100ISO-TPM	0.14	1	0.7	0.8	9.525	●	●			
	16ER125ISO-TPM	0.18	1.25	0.9	0.8	9.525	●	●			
	16ER150ISO-TPM	0.22	1.5	1	0.8	9.525	●	●			
	16ER175ISO-TPM	0.25	1.75	1.2	1.2	9.525	●	●			
	16ER200ISO-TPM	0.29	2	1.3	1.2	9.525	●	●			
	16ER250ISO-TPM	0.36	2.5	1.5	1.2	9.525	●	●			
	16ER300ISO-TPM	0.43	3	1.5	1.2	9.525	●	●			
	22ER350ISO-TPM	0.45	3.5	2.3	1.6	12.7		●			
	22ER400ISO-TPM	0.52	4	2.3	1.6	12.7		●			
	22ER450ISO-TPM	0.58	4.5	2.4	1.7	12.7		●			
	22ER500ISO-TPM	0.63	5	2.5	1.7	12.7		●			
FULL PROFILE	M P M K **precision ground** sharpness oriented										
	16ER050ISO	0.07	0.5	0.6	0.6	9.525		●			
	16ER070ISO	0.1	0.7	0.6	0.6	9.525		●			
	16ER075ISO	0.11	0.75	0.6	0.6	9.525		●			
	16ER080ISO	0.12	0.8	0.6	0.6	9.525		●			
	16ER100ISO	0.15	1	0.7	0.7	9.525		●			
	16ER125ISO	0.18	1.25	0.9	0.8	9.525		●			
	16ER150ISO	0.22	1.5	1	0.8	9.525		●			
	16ER175ISO	0.25	1.75	1.2	0.9	9.525		●			
	16ER200ISO	0.29	2	1.3	1	9.525		●			
	16ER250ISO	0.36	2.5	1.5	1	9.525		●			
	16ER300ISO	0.43	3	1.6	1.2	9.525		●			

● stock standard, ○ non-standard stock, ▲ upcoming introduction, ▽ stock exhaustion

FULL PROFILE

- Full profile insert will form a complete thread profile including the crest.
- The distance between root and crest is controlled.
- The insert can produce only one pitch.
- Higher tool pressure compared to partial profile.

PRESSED VS GROUND

TPM pressed

- Improves the chip control
- Strongly recommended in internal application especially for difficult materials
- Best cost-performance ratio

Precision ground

- Achieves the higher precision
- A sharper cutting edge can guarantee very smooth cutting action
- Every kind of thread's standard can be easily produced using the same blank

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External

ISO 16-22

- **M**: metric threads
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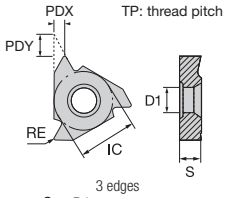
- **BSPT**: tapered pipe threads
- Partial profile with **55°** or **60°** angle, for metric, unified and parallel pipe threads

HF: Micrograin carbide
BL: Low volume CBN
DP: Polycristalline diamond
PVD: Physical vapour deposition

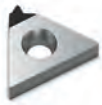
	HF PVD	HF PVD	BL PVD	DP
	JP5120	JP5125	NBL350C	NDD50
Stable machining, light cut (● 1st choice, ○ suitable)	●	○	●	●
General machining, medium cut (● 1st choice, ○ suitable)	●	●		
Unstable machining, heavy cut (● 1st choice, ○ suitable)		●		

Dimensions



	S	D1
16E	3.65	4.00
22E	4.71	5.00

ISO	JP5120	JP5125	NBL350C	NDD50
	Vc(m/min) - suggested cutting speed range (bold: 1st choice)			
P	90 200	70 180		
M	60 150	50 140		
K	90 190	60 180		
N				400 1600
S				50 100
H			60 140	

	Designation		RE	TP	PDX	PDY	IC	Stock				
FULL PROFILE	M P M K precision ground **left-hand**	16EL050ISO	0.07	0.5	0.6	0.6	9.525		●			
		16EL075ISO	0.11	0.75	0.6	0.6	9.525		●			
		16EL100ISO	0.15	1	0.7	0.7	9.525		●			
		16EL125ISO	0.18	1.25	0.9	0.8	9.525		●			
		16EL150ISO	0.22	1.5	1	0.8	9.525		●			
		16EL175ISO	0.25	1.75	1.2	0.9	9.525		●			
		16EL200ISO	0.29	2	1.3	1	9.525		●			
		16EL250ISO	0.36	2.5	1.5	1	9.525		●			
		16EL300ISO	0.43	3	1.6	1.2	9.525		●			
FULL PROFILE	M N  **PCD** carbide backed single edge	16ER100ISO-1C	0.15	1	0.7		9.525				●	
		16ER125ISO-1C	0.16	1.25	0.9		9.525				●	
		16ER150ISO-1C	0.22	1.5	1		9.525				●	
		16ER175ISO-1C	0.26	1.75	1.2		9.525				●	
		16ER200ISO-1C	0.29	2	1.3		9.525				●	
		16ER250ISO-1C	0.37	2.5	1.5		9.525				●	
		16ER300ISO-1C	0.43	3	1.5		9.525				●	
FULL PROFILE	M H **PCBN** solid brazing single edge	16ER100ISO-1S	0.15	1	0.7		9.525			●		
		16ER125ISO-1S	0.16	1.25	0.9		9.525			●		
		16ER150ISO-1S	0.22	1.5	1		9.525			●		
		16ER175ISO-1S	0.26	1.75	1.2		9.525			●		
		16ER200ISO-1S	0.29	2	1.3		9.525			●		
		16ER250ISO-1S	0.37	2.5	1.5		9.525			●		
		16ER300ISO-1S	0.43	3	1.5		9.525			●		
FULL PROFILE	W P M K **TPM pressed type** chip control oriented	16ER11W-TPM	0.3	11	1.5	1.2	9.525	●	●			
		16ER14W-TPM	0.24	14	1.5	1.2	9.525	●	●			
		16ER19W-TPM	0.17	19	1	0.8	9.525		●			

● stock standard, ○ non-standard stock, ▲ upcoming introduction, ▽ stock exhaustion

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ADVANCED THREADING

⚠ PCBN for ISO H

Please increase the number of passes when machining hardened steel with PCBN inserts. Keep the maximum infeed value lower than 0.10 mm

External

ISO 16-22

- **M**: metric threads
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- Partial profile with **55°** or **60°** angle, for metric, unified and parallel pipe threads

HF: Micrograin carbide
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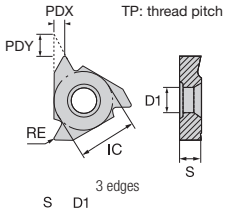
DP: Polycristalline diamond
PVD: Physical vapour deposition

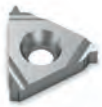
	HF PVD	HF PVD	BL PVD	DP
	JP5120	JP5125	NBL350C	NDO50
Stable machining, light cut (● 1st choice, ○ suitable)	●	○	●	●
General machining, medium cut (● 1st choice, ○ suitable)	●	●		
Unstable machining, heavy cut (● 1st choice, ○ suitable)		●		

Dimensions



	S	D1
16E	3.65	4.00
22E	4.71	5.00

ISO	HF PVD JP5120	HF PVD JP5125	BL PVD NBL350C	DP NDO50
	Vc(m/min) - suggested cutting speed range (bold: 1st choice)			
P	90 200	70 180		
M	60 150	50 140		
K	90 190	60 180		
N				400 1600
S				50 100
H			60 140	

	Designation		RE	TP	PDX	PDY	IC	Stock				
FULL PROFILE	UN P M K TPM pressed type chip control oriented	16ER08UN-TPM	0.46	8	1.7	1.3	9.525		●			
		16ER12UN-TPM	0.31	12	1.5	1.2	9.525		●			
		16ER14UN-TPM	0.26	14	1.5	1.2	9.525		●			
		16ER16UN-TPM	0.23	16	1.1	0.9	9.525		●			
		16ER18UN-TPM	0.2	18	1	0.8	9.525		●			
		16ER20UN-TPM	0.18	20	0.9	0.8	9.525		●			
		16ER24UN-TPM	0.15	24	0.8	0.8	9.525		●			
FULL PROFILE	NPT P M K TPM pressed type chip control oriented	16ER11.5NPT-TPM	0.25	11.5	1.5	1.2	9.525		●			
		16ER14NPT-TPM	0.22	14	1.5	1.2	9.525		●			
		16ER18NPT-TPM	0.2	18	1	0.8	9.525		●			
FULL PROFILE	NPT P M K  precision ground sharpness oriented	16ER11.5NPT	0.07	11.5	1.5	1.1	9.525		●			
		16ER14NPT	0.06	14	1	0.8	9.525		●			
FULL PROFILE	BSPT P M K TPM pressed type chip control oriented	16ER11BSPT-TPM	0.3	11	1.5	1.2	9.525		●			
		16ER14BSPT-TPM	0.24	14	1.5	1.2	9.525		●			
		16ER19BSPT-TPM	0.17	19	1	0.8	9.525		●			
		16ER28BSPT-TPM	0.11	28	0.8	0.7	9.525		●			

● stock standard, ○ non-standard stock, ▲ upcoming introduction, ▽ stock exhaustion

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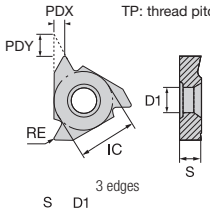
HF: Micrograin carbide
BL: Low volume CBN
DP: Polycristalline diamond
PVD: Physical vapour deposition

	HF PVD	HF PVD	BL PVD	DP
	JP5120	JP5125	NBL350C	ND050
Stable machining, light cut (● 1st choice, ○ suitable)	●	○	●	●
General machining, medium cut (● 1st choice, ○ suitable)	●	●		
Unstable machining, heavy cut (● 1st choice, ○ suitable)		●		

Dimensions



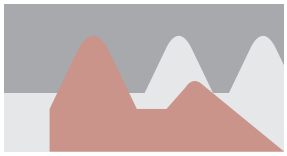
	S	D1
16E	3.65	4.00
22E	4.71	5.00

ISO	HF PVD JP5120	HF PVD JP5125	BL PVD NBL350C	DP ND050
	Vc(m/min) - suggested cutting speed range (bold: 1st choice)			
P	90 200	70 180		
M	60 150	50 140		
K	90 190	60 180		
N				400 1600
S				50 100
H			60 140	

	Designation		RE	TP	PDX	PDY	IC	Stock				
PARTIAL PROFILE	60° P M K TPM pressed type chip control oriented	16ERA60-TPM	0.08	-	0.9	0.8	9.525		●			
		16ERAG60-TPM	0.08	-	1.5	1.1	9.525		●			
		16ERG60-TPM	0.25	-	1.7	1.2	9.525		●			
		22ERN60-TPM	0.51	-	2.5	1.7	12.7		●			
PARTIAL PROFILE	55° P M K TPM pressed type chip control oriented	16ERA55-TPM	0.08	-	0.9	0.8	9.525		●			
		16ERAG55-TPM	0.08	-	1.5	1.1	9.525		●			
		16ERG55-TPM	0.21	-	1.7	1.2	9.525		●			
		22ERN55-TPM	0.44	-	2.5	1.7	12.7		●			

● stock standard, ○ non-standard stock, ▲ upcoming introduction, ▽ stock exhaustion

PARTIAL PROFILE



- Partial profile insert works without cuts the outer diameter of the thread.
- The same insert can be used for a broad range of different thread pitches.
- Can produce burr that must be taken away.

PARTIAL PROFILE 60° PITCH RANGES

	M	UN
A60	0.50÷1.50	48÷16
AG60	0.50÷3.00	48÷8
G60	1.75÷3.00	14÷8
N60	3.50÷5.00	7÷5

PARTIAL PROFILE 55° PITCH RANGES

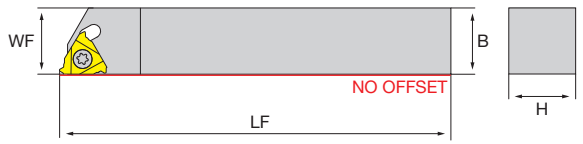
	BSW-BSF-BSP
A55	48÷16
AG55	48÷8
G55	14÷8
N55	7÷5

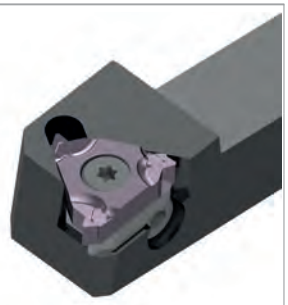
SE

ISO 16-22

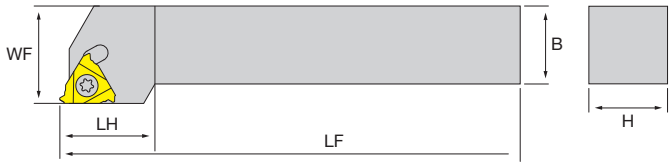
- External threading holder
- Tightened by screws
- Available with shim, convenient to change inserts
- Holds both pressed type and ground type threading inserts

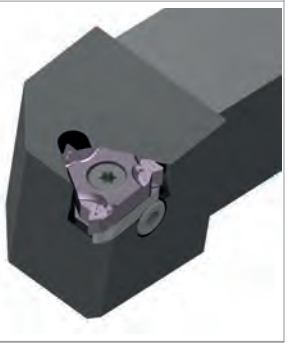
Without offset — Right-hand shown





Standard design — Right-hand shown



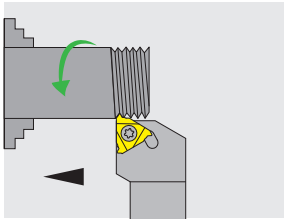


Designation	Stock L	Stock R	H	B	WF	LF	LH					MIID
WITHOUT OFFSET												
NT-SE$^{L}/_{R}$1212H16N	○	○	12	12	12	100	-					16EL/Rooo
NT-SE$^{L}/_{R}$1616H16N	○	○	16	16	16	100	-					16EL/Rooo
STANDARD DESIGN												
NT-SE$^{L}/_{R}$1616H16	●	●	16	16	20	100	22					16EL/Rooo
NT-SE$^{L}/_{R}$2020K16	●	●	20	20	25	125	25					16EL/Rooo
NT-SE$^{L}/_{R}$2525M16	●	●	25	25	32	150	25					16EL/Rooo
NT-SE$^{L}/_{R}$2525M22		●	25	25	32	150	29					22ERooo
NT-SE$^{L}/_{R}$3232M22		●	32	32	40	170	32					22ERooo

● stock standard, ○ non-standard stock, ▲ upcoming introduction, ▽ stock exhaustion

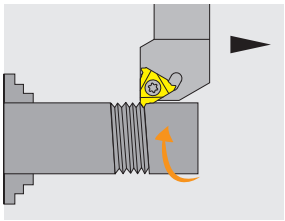
Spare parts	Shim	Shim	Locking screws	L wrench	Insert screws	Flag wrenches
NT-SELooooo16o	NT-SH065	-	NT-SC003	NT-WR025	NT-ST35115T15	NT-FT15
NT-SEROooooo16o	-	NT-SH060	NT-SC003	NT-WR025	NT-ST35115T15	NT-FT15
NT-SEROooooo22o	-	NT-SH066	NT-SC004	NT-WR030	NT-ST40140T15	NT-FT15

EXTERNAL THREAD right-hand



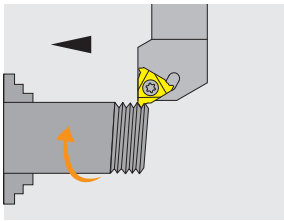
Insert: ER — Rotation: counterclockwise
Holder: R — Direction: towards chuck

EXTERNAL THREAD right-hand



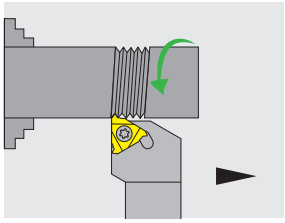
Insert: EL — Rotation: clockwise
Holder: L — Direction: from chuck

EXTERNAL THREAD left-hand



Insert: EL — Rotation: clockwise
Holder: L — Direction: towards chuck

EXTERNAL THREAD left-hand



Insert: ER — Rotation: counterclockwise
Holder: R — Direction: from chuck

M - External ISO-metric threads

TP	6.00	5.50	5.00	4.50	4.00	3.50	3.00	2.50	2.00	1.75	1.50	1.25	1.00	0.80	0.75	0.70	0.50
NO. OF INFEEDS	RADIAL INFEED PER PASS																
1	0.46	0.43	0.41	0.37	0.34	0.34	0.28	0.27	0.24	0.22	0.22	0.21	0.18	0.17	0.16	0.14	0.11
2	0.43	0.40	0.39	0.34	0.32	0.31	0.26	0.24	0.22	0.20	0.20	0.17	0.16	0.15	0.14	0.12	0.09
3	0.35	0.32	0.32	0.28	0.25	0.25	0.21	0.20	0.18	0.17	0.17	0.14	0.12	0.12	0.11	0.10	0.07
4	0.30	0.28	0.27	0.24	0.22	0.21	0.18	0.17	0.16	0.14	0.14	0.11	0.11	0.08	0.07	0.07	0.06
5	0.29	0.26	0.24	0.22	0.20	0.18	0.16	0.15	0.14	0.12	0.12	0.10	0.08	–	–	–	–
6	0.26	0.24	0.24	0.22	0.18	0.18	0.15	0.15	0.12	0.10	0.08	0.08	–	–	–	–	–
7	0.24	0.21	0.22	0.20	0.17	0.16	0.14	0.12	0.11	0.10	–	–	–	–	–	–	–
8	0.23	0.20	0.20	0.18	0.15	0.15	0.13	0.11	0.08	0.08	–	–	–	–	–	–	–
9	0.22	0.19	0.19	0.17	0.14	0.14	0.12	0.11	–	–	–	–	–	–	–	–	–
10	0.19	0.18	0.18	0.16	0.13	0.12	0.11	0.08	–	–	–	–	–	–	–	–	–
11	0.18	0.17	0.16	0.14	0.12	0.11	0.10	–	–	–	–	–	–	–	–	–	–
12	0.16	0.15	0.15	0.13	0.12	0.08	0.08	–	–	–	–	–	–	–	–	–	–
13	0.15	0.14	0.12	0.12	0.11	–	–	–	–	–	–	–	–	–	–	–	–
14	0.13	0.13	0.10	0.10	0.08	–	–	–	–	–	–	–	–	–	–	–	–
15	0.13	0.12	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–
16	0.10	0.10	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–
TOTAL INFEED	3.82	3.52	3.19	2.87	2.53	2.23	1.92	1.60	1.25	1.13	0.93	0.81	0.65	0.52	0.48	0.43	0.33

green background are standard items all other sizes can make specials

W - External Whitworth threads

TP	4	4.5	5	6	7	8	9	10	11	12	14	16	18	19	20	26	28
NO. OF INFEEDS	RADIAL INFEED PER PASS																
1	0.49	0.46	0.45	0.38	0.37	0.32	0.30	0.29	0.28	0.28	0.24	0.24	0.23	0.22	0.21	0.19	0.18
2	0.46	0.43	0.43	0.36	0.35	0.30	0.28	0.27	0.26	0.26	0.22	0.22	0.22	0.22	0.21	0.18	0.17
3	0.38	0.38	0.38	0.30	0.29	0.24	0.23	0.22	0.22	0.22	0.18	0.19	0.19	0.18	0.17	0.15	0.14
4	0.36	0.33	0.32	0.26	0.25	0.21	0.20	0.19	0.19	0.18	0.15	0.16	0.16	0.14	0.14	0.12	0.12
5	0.34	0.29	0.28	0.22	0.22	0.19	0.18	0.17	0.16	0.16	0.13	0.13	0.13	0.12	0.11	0.08	0.08
6	0.31	0.25	0.25	0.21	0.19	0.17	0.15	0.15	0.14	0.14	0.11	0.11	0.08	0.08	0.08	-	-
7	0.29	0.24	0.22	0.19	0.18	0.15	0.14	0.14	0.13	0.13	0.09	0.08	-	-	-	-	-
8	0.27	0.22	0.20	0.17	0.16	0.14	0.13	0.13	0.12	0.08	0.08	-	-	-	-	-	-
9	0.24	0.20	0.19	0.16	0.15	0.13	0.12	0.12	0.08	-	-	-	-	-	-	-	-
10	0.22	0.18	0.18	0.15	0.14	0.12	0.12	0.08	-	-	-	-	-	-	-	-	-
11	0.20	0.17	0.17	0.14	0.12	0.12	0.08	-	-	-	-	-	-	-	-	-	-
12	0.19	0.16	0.15	0.14	0.08	0.08	-	-	-	-	-	-	-	-	-	-	-
13	0.17	0.15	0.12	0.12	-	-	-	-	-	-	-	-	-	-	-	-	-
14	0.15	0.14	0.10	0.10	-	-	-	-	-	-	-	-	-	-	-	-	-
15	0.12	0.12	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
16	0.10	0.10	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
TOTAL INFEED	4.29	3.82	3.44	2.90	2.50	2.17	1.93	1.76	1.58	1.45	1.20	1.13	1.01	0.96	0.92	0.72	0.69

green background are standard items all other sizes can make specials

UN - External UN threads

TP	4	4.5	5	6	7	8	9	10	11	12	13	14	16	18	20	24	28	32
NO. OF INFEEDS	RADIAL INFEED PER PASS																	
1	0.47	0.45	0.43	0.36	0.35	0.30	0.28	0.27	0.27	0.27	0.25	0.23	0.22	0.23	0.20	0.19	0.17	0.17
2	0.44	0.41	0.40	0.34	0.33	0.28	0.26	0.26	0.25	0.26	0.24	0.22	0.21	0.21	0.19	0.17	0.15	0.15
3	0.40	0.39	0.36	0.27	0.26	0.25	0.21	0.20	0.20	0.20	0.18	0.17	0.16	0.16	0.15	0.14	0.11	0.13
4	0.36	0.31	0.31	0.23	0.22	0.21	0.20	0.17	0.19	0.18	0.17	0.15	0.14	0.14	0.12	0.12	0.09	0.08
5	0.32	0.26	0.26	0.22	0.21	0.18	0.17	0.16	0.16	0.15	0.14	0.13	0.13	0.12	0.10	0.08	0.08	-
6	0.27	0.23	0.23	0.20	0.19	0.16	0.15	0.15	0.14	0.13	0.12	0.11	0.11	0.08	0.08	-	-	-
7	0.25	0.21	0.20	0.18	0.17	0.14	0.14	0.14	0.12	0.12	0.11	0.10	0.08	-	-	-	-	-
8	0.23	0.20	0.19	0.16	0.15	0.13	0.12	0.12	0.11	0.08	0.08	0.08	-	-	-	-	-	-
9	0.22	0.18	0.19	0.15	0.14	0.12	0.12	0.11	0.08	-	-	-	-	-	-	-	-	-
10	0.21	0.17	0.18	0.14	0.12	0.12	0.11	0.08	-	-	-	-	-	-	-	-	-	-
11	0.19	0.16	0.17	0.13	0.11	0.11	0.08	-	-	-	-	-	-	-	-	-	-	-
12	0.18	0.15	0.15	0.12	0.08	0.08	-	-	-	-	-	-	-	-	-	-	-	-
13	0.16	0.14	0.12	0.11	-	-	-	-	-	-	-	-	-	-	-	-	-	-
14	0.15	0.14	0.10	0.10	-	-	-	-	-	-	-	-	-	-	-	-	-	-
15	0.12	0.12	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
16	0.10	0.10	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
TOTAL INFEED	4.07	3.62	3.29	2.71	2.33	2.08	1.84	1.66	1.52	1.39	1.29	1.19	1.05	0.94	0.84	0.70	0.60	0.53

green background are standard items all other sizes can make specials

NPT - External NPT threads

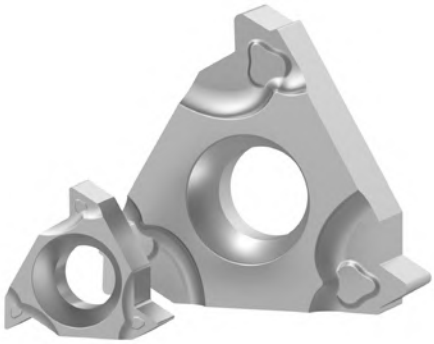
TP	8	11.5	14	18	27
NO. OF INFEEDS	RADIAL INFEED PER PASS				
1	0.28	0.25	0.24	0.22	0.19
2	0.25	0.22	0.22	0.18	0.15
3	0.22	0.18	0.17	0.15	0.13
4	0.19	0.16	0.15	0.14	0.11
5	0.18	0.16	0.14	0.13	0.09
6	0.18	0.14	0.13	0.12	0.08
7	0.17	0.14	0.12	0.10	-
8	0.17	0.12	0.10	0.08	-
9	0.16	0.12	0.10	-	-
10	0.16	0.10	0.08	-	-
11	0.14	0.09	-	-	-
12	0.13	0.08	-	-	-
13	0.12	-	-	-	-
14	0.11	-	-	-	-
15	0.08	-	-	-	-
TOTAL INFEED	2.54	1.76	1.45	1.12	0.75

green background are standard items all other sizes can make specials

BSPT - British tapered pipe threads

TP	11	14	19	28
NO. OF INFEEDS	RADIAL INFEED PER PASS			
1	0.25	0.24	0.22	0.17
2	0.23	0.20	0.19	0.14
3	0.21	0.17	0.15	0.11
4	0.18	0.14	0.12	0.10
5	0.16	0.12	0.12	0.06
6	0.14	0.12	0.06	-
7	0.13	0.11	-	-
8	0.12	0.06	-	-
9	0.06	-	-	-
TOTAL INFEED	1.58	1.20	0.86	0.58

green background are standard items all other sizes can make specials



THREADING Internal threads

Inserts Micro .B14
Holders Micro .B15
Inserts ISO 11 - 16 - 22 .B16
Holders ISO 11 - 16 - 22 .B21
Table “Number of passes” .B23

Internal

Micro 07

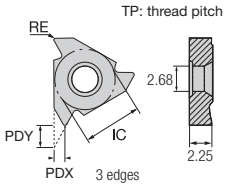
HF: Micrograin carbide
PVD: Physical vapour deposition

	HF PVD
	JP5125

- **M**: metric threads
- **W**: parallel pipe threads (whitwoth)
- **UN**: unified inch threads
- **NPT**: American national tapered pipe threads
- **BSPT**: tapered pipe threads
- Partial profile with **55°** or **60°** angle, for metric, unified and parallel pipe threads

Stable machining, light cut	● 1st choice	○ suitable
General machining, medium cut	● 1st choice	○ suitable
Unstable machining, heavy cut	● 1st choice	○ suitable

Dimensions

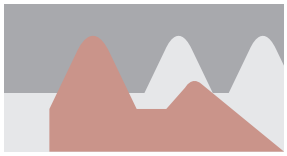


ISO	Vc(m/min) - suggested cutting speed range (bold: 1st choice)
P	70 180
M	50 140
K	60 180
N	
S	
H	

	Designation		RE	TP	PDX	PDY	IC	Stock
PARTIAL PROFILE	60° P M K **TPM pressed type** chip control oriented	07IRA60-TPM	0.08	-	0.7	0.6	4.762	●
PARTIAL PROFILE	55° P M K **TPG pressed type** ground profile	07IRA55-TPG	0.08	-	0.7	0.6	4.762	●

● stock standard, ○ non-standard stock, ▲ upcoming introduction, ▽ stock exhaustion

PARTIAL PROFILE



- Partial profile insert works without cuts the outer diameter of the thread.
- The same insert can be used for a broad range of different thread pitches.
- Can produce burr that must be taken away.

PARTIAL PROFILE 07IR PITCH RANGES

	M	UN
A60	0.50÷1.50	48÷16

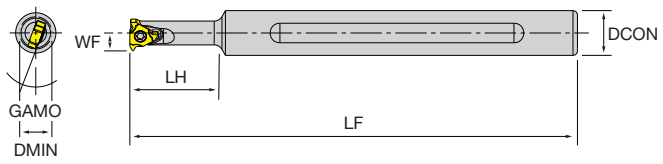
	BSW-BSF-BSP
A55	48÷16

nikkoTOOLS

V SI

Micro 07

- Internal threading holder
- Vortex boring bar (High standard steel)
- Special chip evacuation path
- With coolant through

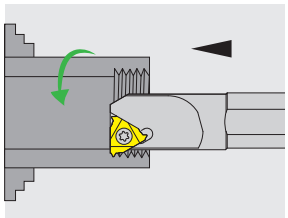


Designation	Stock L	Stock R	DMIN	DCON	WF	LF	LH	GAMO				MIID
NT-V10H-SI$^{L}/_{R}$07-08		●	8	10	4	100	20	21°				07IR○○○

● stock standard, ○ non-standard stock, ▲ upcoming introduction, ▽ stock exhaustion

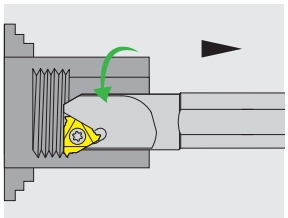
Spare parts	Insert screws	Flag wrenches
NT-V10H-SIR07-08	NT-ST22049T07	NT-FT07

INTERNAL THREAD right-hand



Insert: IR Rotation: counterclockwise
Holder: R Direction: towards chuck

INTERNAL THREAD left-hand



Insert: IR Rotation: counterclockwise
Holder: R Direction: from chuck

Internal

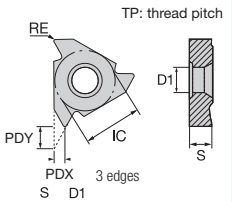
ISO 11-16-22

- **M**: metric threads
- **W**: parallel pipe threads (whitwoth)
- **UN**: unified inch threads
- **NPT**: American national tapered pipe threads
- **BSPT**: tapered pipe threads
- Partial profile with **55°** or **60°** angle, for metric, unified and parallel pipe threads

HF: Micrograin carbide
BL: Low volume CBN
DP: Polycristalline diamond
PVD: Physical vapour deposition

	HF PVD	HF PVD	BL PVD	DP
	JPS120	**JPS125**	**NBL350C**	**NDD50**
Stable machining, light cut (● 1st choice, ○ suitable)	●	○	●	●
General machining, medium cut (● 1st choice, ○ suitable)	●	●		
Unstable machining, heavy cut (● 1st choice, ○ suitable)		●		

Dimensions



	S	D1
11I	3.18	3.20
16I	3.65	4.00
22I	4.71	5.00

Vc(m/min) - suggested cutting speed range (bold: 1st choice)

ISO	HF PVD JPS120	HF PVD JPS125	BL PVD NBL350C	DP NDD50
P	90 200	70 180		
M	60 150	50 140		
K	90 190	60 180		
N				400 1600
S				50 100
H			60 140	

	Designation	RE	TP	PDX	PDY	IC	JPS120	JPS125	NBL350C	NDD50	Stock
FULL PROFILE	11IR100ISO-TPM	0.07	1	0.7	0.8	6.35		●			
	11IR125ISO-TPM	0.09	1.25	0.9	0.8	6.35		●			
	11IR150ISO-TPM	0.11	1.5	1	0.8	6.35		●			
	11IR175ISO-TPM	0.13	1.75	1.1	0.9	6.35		●			
	11IR200ISO-TPM	0.15	2	1.1	0.9	6.35		●			
	16IR100ISO-TPM	0.07	1	0.7	0.8	9.525	●	●			
	16IR125ISO-TPM	0.09	1.25	0.9	0.8	9.525	●	●			
	16IR150ISO-TPM	0.11	1.5	1	0.8	9.525	●	●			
	16IR175ISO-TPM	0.13	1.75	1.2	1.2	9.525	●	●			
	16IR200ISO-TPM	0.15	2	1.3	1.2	9.525	●	●			
	16IR250ISO-TPM	0.18	2.5	1.5	1.2	9.525	●	●			
	16IR300ISO-TPM	0.22	3	1.5	1.2	9.525	●	●			
	22IR350ISO-TPM	0.22	3.5	2.3	1.6	12.7		●			
	22IR400ISO-TPM	0.25	4	2.3	1.6	12.7		●			
	22IR450ISO-TPM	0.28	4.5	2.4	1.6	12.7		●			
	22IR500ISO-TPM	0.32	5	2.3	1.6	12.7		●			

M P M K

TPM pressed type
chip control oriented

● stock standard, ○ non-standard stock, ▲ upcoming introduction, ▽ stock exhaustion

FULL PROFILE

- Full profile insert will form a complete thread profile including the crest.
- The distance between root and crest is controlled.
- The insert can produce only one pitch.
- Higher tool pressure compared to partial profile.

PRESSED VS GROUND

TPM pressed

- Improves the chip control
- Strongly recommended in internal application especially for difficult materials
- Best cost-performance ratio

Precision ground

- Achieves the higher precision
- A sharper cutting edge can guarantee very smooth cutting action
- Every kind of thread's standard can be easily produced using the same blank

nikkoTOOLS

Internal

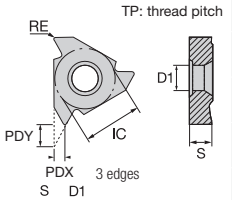
ISO 11-16-22

- **M**: metric threads
- **W**: parallel pipe threads (whitwoth)
- **UN**: unified inch threads
- **NPT**: American national tapered pipe threads
- **BSPT**: tapered pipe threads
- Partial profile with **55°** or **60°** angle, for metric, unified and parallel pipe threads

HF: Micrograin carbide
BL: Low volume CBN
DP: Polycristalline diamond
PVD: Physical vapour deposition

	HF PVD	HF PVD	BL PVD	DP
	JPS120	**JPS125**	**NBL350C**	**NDD050**
Stable machining, light cut (● 1st choice, ○ suitable)	●	○	●	●
General machining, medium cut (● 1st choice, ○ suitable)	●	●		
Unstable machining, heavy cut (● 1st choice, ○ suitable)		●		

Dimensions



	S	D1
11I	3.18	3.20
16I	3.65	4.00
22I	4.71	5.00

ISO	HF PVD JPS120	HF PVD JPS125	BL PVD NBL350C	DP NDD050
	Vc(m/min) - suggested cutting speed range (bold: 1st choice)			
P	90 200	70 180		
M	60 150	50 140		
K	90 190	60 180		
N				400 1600
S				50 100
H			60 140	

	Designation	RE	TP	PDX	PDY	IC	Stock			
FULL PROFILE	11IR050ISO	0.036	0.5	0.6	0.6	6.35		●		
	11IR075ISO	0.05	0.75	0.6	0.6	6.35		●		
	11IR100ISO	0.072	1	0.7	0.6	6.35		●		
	11IR125ISO	0.09	1.25	0.9	0.8	6.35		●		
	11IR150ISO	0.11	1.5	1	0.8	6.35		●		
	11IR175ISO	0.13	1.75	1.1	0.9	6.35		●		
	11IR200ISO	0.15	2	1.3	1	6.35		●		
	16IR100ISO	0.072	1	0.7	0.6	9.525		●		
	16IR125ISO	0.09	1.25	0.9	0.8	9.525		●		
	16IR150ISO	0.11	1.5	1	0.8	9.525		●		
	16IR175ISO	0.13	1.75	1.2	0.9	9.525		●		
	16IR200ISO	0.14	2	1.3	1	9.525		●		
	16IR250ISO	0.18	2.5	1.5	1.1	9.525		●		
	16IR300ISO	0.22	3	1.5	1.1	9.525		●		
FULL PROFILE	11IL050ISO	0.036	0.5	0.6	0.6	6.35		●		
	11IL075ISO	0.05	0.75	0.6	0.6	6.35		●		
	11IL100ISO	0.072	1	0.7	0.6	6.35		●		
	11IL125ISO	0.09	1.25	0.9	0.8	6.35		●		
	11IL150ISO	0.11	1.5	1	0.8	6.35		●		
	11IL175ISO	0.13	1.75	1.1	0.9	6.35		●		
	11IL200ISO	0.14	2	1.3	1	6.35		●		
	16IL100ISO	0.072	1	0.7	0.6	9.525		●		
	16IL125ISO	0.09	1.25	0.9	0.8	9.525		●		
	16IL150ISO	0.11	1.5	1	0.8	9.525		●		
	16IL175ISO	0.13	1.75	1.2	0.9	9.525		●		
	16IL200ISO	0.14	2	1.3	1	9.525		●		
	16IL250ISO	0.18	2.5	1.5	1.1	9.525		●		
	16IL300ISO	0.22	3	1.5	1.1	9.525		●		

M P M K

precision ground
sharpness oriented

M P M K

precision ground
left-hand

● stock standard, ○ non-standard stock, ▲ upcoming introduction, ▽ stock exhaustion

FULL PROFILE

- Full profile insert will form a complete thread profile including the crest.
- The distance between root and crest is controlled.
- The insert can produce only one pitch.
- Higher tool pressure compared to partial profile.

PRESSED VS GROUND

TPM pressed

- Improves the chip control
- Strongly recommended in internal application especially for difficult materials
- Best cost-performance ratio

Precision ground

- Achieves the higher precision
- A sharper cutting edge can guarantee very smooth cutting action
- Every kind of thread's standard can be easily produced using the same blank

Internal

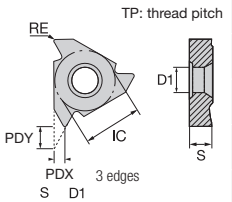
ISO 11-16-22

- **M**: metric threads
- **W**: parallel pipe threads (whitwoth)
- **UN**: unified inch threads
- **NPT**: American national tapered pipe threads
- **BSPT**: tapered pipe threads
- Partial profile with **55°** or **60°** angle, for metric, unified and parallel pipe threads

HF: Micrograin carbide
BL: Low volume CBN
DP: Polycristalline diamond
PVD: Physical vapour deposition

	HF PVD	HF PVD	BL PVD	DP
	JPS120	JPS125	NBL350C	NDD50
Stable machining, light cut (● 1st choice, ○ suitable)	●	○	●	●
General machining, medium cut (● 1st choice, ○ suitable)	●	●		
Unstable machining, heavy cut (● 1st choice, ○ suitable)		●		

Dimensions



	S	D1
11I	3.18	3.20
16I	3.65	4.00
22I	4.71	5.00

ISO	HF PVD JPS120	HF PVD JPS125	BL PVD NBL350C	DP NDD50
	Vc(m/min) - suggested cutting speed range (bold: 1st choice)			
P	90 **200**	70 **180**		
M	60 **150**	50 **140**		
K	90 190	60 180		
N				400 **1600**
S				50 **100**
H			60 **140**	

	Designation		RE	TP	PDX	PDY	IC					Stock
FULL PROFILE	M N **PCD** carbide backed single edge	16IR100ISO-1C	0.08	1	0.7	0.8	9.525				●	
		16IR125ISO-1C	0.09	1.25	0.9		9.525				●	
		16IR150ISO-1C	0.11	1.5	1		9.525				●	
		16IR175ISO-1C	0.13	1.75	1.2		9.525				●	
		16IR200ISO-1C	0.15	2	1.3		9.525				●	
		16IR250ISO-1C	0.18	2.5	1.5		9.525				●	
		16IR300ISO-1C	0.22	3	1.5		9.525				●	
FULL PROFILE	M H **PCBN** solid brazing single edge	16IR100ISO-1S	0.08	1	0.7	0.8	9.525			●		
		16IR125ISO-1S	0.09	1.25	0.9		9.525			●		
		16IR150ISO-1S	0.11	1.5	1		9.525			●		
		16IR175ISO-1S	0.13	1.75	1.2		9.525			●		
		16IR200ISO-1S	0.15	2	1.3		9.525			●		
		16IR250ISO-1S	0.18	2.5	1.5		9.525			●		
		16IR300ISO-1S	0.22	3	1.5		9.525			●		
FULL PROFILE	W P M K **TPM pressed type** chip control oriented	11IR14W-TPM	0.24	14	1.1	0.9	6.35		●			
		16IR11W-TPM	0.3	11	1.5	1.2	9.525	●	●			
		16IR14W-TPM	0.24	14	1.5	1.2	9.525	●	●			
		16IR19W-TPM	0.17	19	1	0.8	9.525		●			
FULL PROFILE	UN P M K **TPM pressed type** chip control oriented	16IR08UN-TPM	0.23	8	1.7	1.3	9.525		●			
		16IR12UN-TPM	0.16	12	1.5	1.2	9.525		●			
		16IR14UN-TPM	0.13	14	1.5	1.2	9.525		●			
		16IR16UN-TPM	0.12	16	1.1	0.9	9.525		●			
		16IR18UN-TPM	0.1	18	1	0.8	9.525		●			
		16IR20UN-TPM	0.09	20	0.9	0.8	9.525		●			
		16IR24UN-TPM	0.08	24	0.8	0.8	9.525		●			

● stock standard, ○ non-standard stock, ▲ upcoming introduction, ▽ stock exhaustion

FULL PROFILE

- Full profile insert will form a complete thread profile including the crest.
- The distance between root and crest is controlled.
- The insert can produce only one pitch.
- Higher tool pressure compared to partial profile.

ADVANCED THREADING

PCBN for ISO H

Please increase the number of passes when machining hardened steel with PCBN inserts. Keep the maximum infeed value lower than 0.10 mm

PRESSED VS GROUND

TPM pressed

- Improves the chip control
- Strongly recommended in internal application especially for difficult materials
- Best cost-performance ratio

Precision ground

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Internal

ISO 11-16-22

- **M**: metric threads
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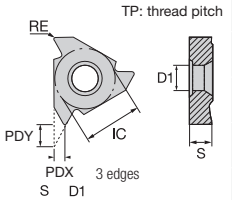
HF: Micrograin carbide
BL: Low volume CBN
DP: Polycristalline diamond
PVD: Physical vapour deposition

	HF PVD	HF PVD	BL PVD	DP
	JPS120	**JPS125**	**NBL350C**	**NDD50**
Stable machining, light cut (● 1st choice, ○ suitable)	●	○	●	●
General machining, medium cut (● 1st choice, ○ suitable)	●	●		
Unstable machining, heavy cut (● 1st choice, ○ suitable)		●		

Dimensions



	S	D1
11I	3.18	3.20
16I	3.65	4.00
22I	4.71	5.00

ISO	HF PVD JPS120	HF PVD JPS125	BL PVD NBL350C	DP NDD50
	Vc(m/min) - suggested cutting speed range (bold: 1st choice)			
P	90 200	70 180		
M	60 150	50 140		
K	90 190	60 180		
N				400 1600
S				50 100
H			60 140	

	Designation		RE	TP	PDX	PDY	IC	Stock				
FULL PROFILE	NPT P M K TPM pressed type chip control oriented	16IR11.5NPT-TPM	0.25	11.5	1.5	1.2	9.525		●			
		16IR14NPT-TPM	0.22	14	1.5	1.2	9.525		●			
		16IR18NPT-TPM	0.2	18	1	0.8	9.525		●			
FULL PROFILE	NPT P M K precision ground sharpness oriented	16IR11.5NPT	0.07	11.5	1.5	1.1	9.525		●			
		16IR14NPT	0.06	14	1	0.8	9.525		●			
FULL PROFILE	BSPT P M K TPM pressed type chip control oriented	16IR11BSPT-TPM	0.3	11	1.5	1.2	9.525		●			
		16IR14BSPT-TPM	0.24	14	1.5	1.2	9.525		●			
		16IR19BSPT-TPM	0.17	19	1	0.8	9.525		●			
		16IR28BSPT-TPM	0.11	28	0.8	0.7	9.525		●			
PARTIAL PROFILE	60° P M K TPM pressed type chip control oriented	11IRA60-TPM	0.08	-	0.9	0.8	6.35		●			
		16IRA60-TPM	0.08	-	0.9	0.8	9.525		●			
		16IRAG60-TPM	0.08	-	1.5	1.1	9.525		●			
		16IRG60-TPM	0.13	-	1.7	1.2	9.525		●			
		22IRN60-TPM	0.25	-	2.5	1.7	12.7		●			

● stock standard, ○ non-standard stock, ▲ upcoming introduction, ▽ stock exhaustion

FULL PROFILE

- Full profile insert will form a complete thread profile including the crest.
- The distance between root and crest is controlled.
- The insert can produce only one pitch.
- Higher tool pressure compared to partial profile.

PRESSED VS GROUND

TPM pressed

- Improves the chip control
- Strongly recommended in internal application especially for difficult materials
- Best cost-performance ratio

Precision ground

- Achieves the higher precision
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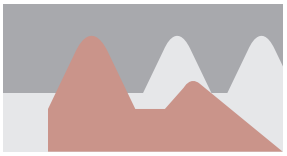
PARTIAL PROFILE



- Partial profile insert works without cuts the outer diameter of the thread.
- The same insert can be used for a broad range of different thread pitches.
- Can produce burr that must be taken away.

PARTIAL PROFILE 60° PITCH RANGES

	M	UN
A60	0.50÷1.50	48÷16
AG60	0.50÷3.00	48÷8
G60	1.75÷3.00	14÷8
N60	3.50÷5.00	7÷5

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Internal

ISO 11-16-22

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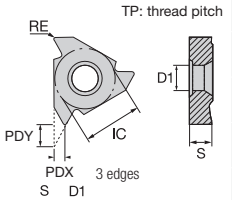
BL: Low volume CBN
DP: Polycristalline diamond
PVD: Physical vapour deposition

	HF PVD	HF PVD	BL PVD	DP
	JPS120	**JPS125**	**NBL350C**	**NDD50**
Stable machining, light cut (● 1st choice, ○ suitable)	●	○	●	●
General machining, medium cut (● 1st choice, ○ suitable)	●	●		
Unstable machining, heavy cut (● 1st choice, ○ suitable)		●		

Dimensions



	S	D1
11I	3.18	3.20
16I	3.65	4.00
22I	4.71	5.00

Vc(m/min) - suggested cutting speed range (bold: 1st choice)

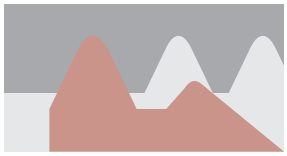
ISO	HF PVD	HF PVD	BL PVD	DP
P	**90** 200	**70** 180		
M	**60** 150	**50** 140		
K	90 190	60 180		
N				**400** 1600
S				**50** 100
H			**60** 140	

	Designation	RE	TP	PDX	PDY	IC	Stock			
PARTIAL PROFILE 55° P M K	11IRA55-TPM	0.08	-	0.9	0.8	6.35		●		
	16IRA55-TPM	0.08	-	0.9	0.8	9.525		●		
	16IRAG55-TPM	0.08	-	1.5	1.1	9.525		●		
	16IRG55-TPM	0.21	-	1.7	1.2	9.525		●		
	22IRN55-TPM	0.44	-	2.5	1.7	12.7		●		

TPM pressed type
chip control oriented

● stock standard, ○ non-standard stock, ▲ upcoming introduction, ▽ stock exhaustion

PARTIAL PROFILE



- Partial profile insert works without cuts the outer diameter of the thread.
- The same insert can be used for a broad range of different thread pitches.
- Can produce burr that must be taken away.

PARTIAL PROFILE 55° PITCH RANGES

	BSW-BSF-BSP
A55	48÷16
AG55	48÷8
G55	14÷8
N55	7÷5

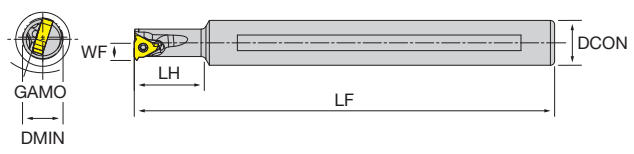
nikkoTOOLS

V SI

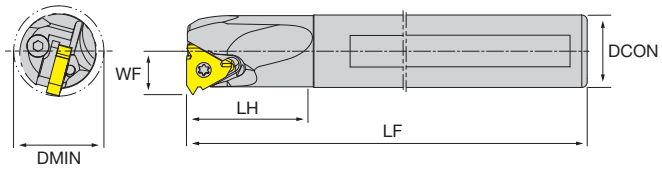
ISO 11-16-22

- Internal threading holder
- Vortex boring bar (High standard steel)
- Special chip evacuation path
- With coolant through

Reduced neck — Right-hand shown



Standard design — Right-hand shown

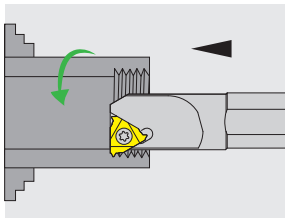


Designation	Stock L	Stock R	DMIN	DCON	WF	LF	LH	GAMO				MIID
REDUCED NECK												
NT-V16M-SI$^{L}/_{R}$11-12		●	12	16	6.3	150	25	18°				11IRooo
NT-V16M-SI$^{L}/_{R}$11-15		●	15	16	7.5	150	25	18°				11IRooo
STANDARD DESIGN												
NT-V10M-SI$^{L}/_{R}$11-10		●	10	10	5.2	150	25	21°				11IRooo
NT-V16M-SI$^{L}/_{R}$16-20		●	20	16	10	150	35	15°				16IRooo
NT-V20Q-SI$^{L}/_{R}$16-24		●	24	20	12	180	35	15°				16IRooo
NT-V25R-SI$^{L}/_{R}$16-30		●	30	25	15	200	35	15°				16IRooo
NT-V32S-SI$^{L}/_{R}$16-37		●	37	32	18.5	250	35	15°				16IRooo

● stock standard, ○ non-standard stock, ▲ upcoming introduction, ▽ stock exhaustion

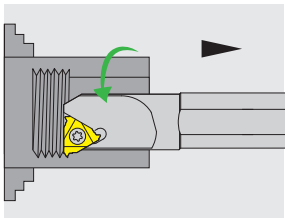
Spare parts	Shim	Locking screws	L wrench	Insert screws	Flag wrenches
NT-Voo M-SIR11-oo	-	-	-	NT-ST25059T08	NT-FT08
NT-V16M-SIR16-20	-	-	-	NT-ST35089T15	NT-FT15
NT-V20Q-SIR16-24	NT-SH065	NT-SC003	NT-WR025	NT-ST35120T15	NT-FT15
NT-V25R-SIR16-30	NT-SH065	NT-SC003	NT-WR025	NT-ST35120T15	NT-FT15
NT-V32S-SIR16-37	NT-SH065	NT-SC003	NT-WR025	NT-ST35120T15	NT-FT15

INTERNAL THREAD right-hand



Insert: IR — Rotation: counterclockwise
Holder: R — Direction: towards chuck

INTERNAL THREAD left-hand



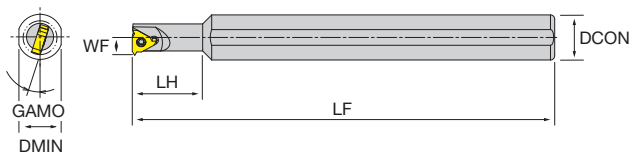
Insert: IR — Rotation: counterclockwise
Holder: R — Direction: from chuck

SI

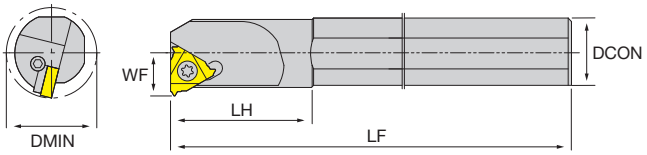
ISO 11-16-22

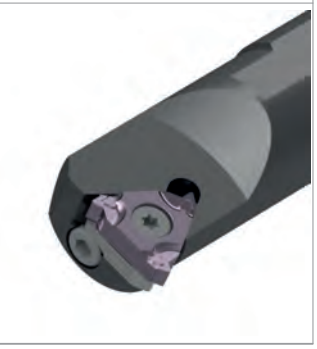
- Internal threading holder
- Steel boring bar
- Without coolant through
- Small diameters with reduced neck

Reduced neck — Right-hand shown



Standard design — Right-hand shown



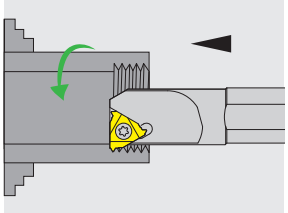


Designation	Stock L	Stock R	DMIN	DCON	WF	LF	LH	GAMO				MIID
REDUCED NECK												
NT-SI^{L}/$_{R}$1012-11		●	10	12	5.2	150	25	21°				11IRooo
NT-SI^{L}/$_{R}$1216-11		●	12	16	6.3	150	25	18°				11IRooo
NT-SI^{L}/$_{R}$1516-11		●	15	16	7.5	150	25	15°				11IRooo
STANDARD DESIGN												
NT-SI^{L}/$_{R}$2016-16	●	●	20	16	10	150	35	15°				16IL/Rooo
NT-SI^{L}/$_{R}$2420S-16	●	●	24	20	12	180	35	15°				16IL/Rooo
NT-SI^{L}/$_{R}$3025S-16	●	●	30	25	15	200	35	15°				16IL/Rooo
NT-SI^{L}/$_{R}$3732S-16	●	●	37	32	18.5	250	35	15°				16IL/Rooo
NT-SI^{L}/$_{R}$3025S-22		●	30	25	16	200	35	15°				22IRooo
NT-SI^{L}/$_{R}$3732S-22		●	37	32	19.5	250	35	15°				22IRooo
NT-SI^{L}/$_{R}$4440S-22		●	44	40	24.5	300	35	15°				22IRooo

● stock standard, ○ non-standard stock, ▲ upcoming introduction, ▽ stock exhaustion

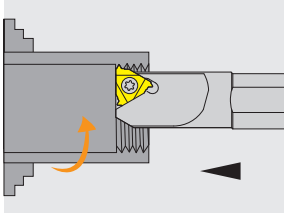
Spare parts	Shim	Shim	Locking screws	L wrench	Insert screws	Flag wrenches
NT-SI^{L}/$_{R}$oooo-11	-	-	-	-	NT-ST25059T08	NT-FT08
NT-SI^{L}/$_{R}$oooo-16	-	-	-	-	NT-ST35089T15	NT-FT15
NT-SILoooo S-16	NT-SH060	-	NT-SC003	NT-WR025	NT-ST35115T15	NT-FT15
NT-SIRoooo S-16	-	NT-SH065	NT-SC003	NT-WR025	NT-ST35115T15	NT-FT15
NT-SIRoooo S-22	-	NT-SH067	NT-SC004	NT-WR030	NT-ST40140T15	NT-FT15

INTERNAL THREAD right-hand



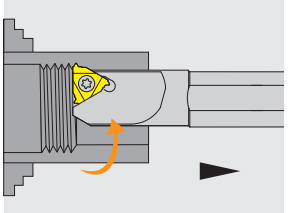
Insert: IR — Rotation: counterclockwise
Holder: R — Direction: towards chuck

INTERNAL THREAD left-hand



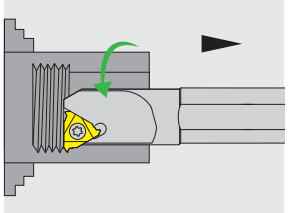
Insert: IL — Rotation: clockwise
Holder: L — Direction: towards chuck

INTERNAL THREAD right-hand



Insert: IL — Rotation: clockwise
Holder: L — Direction: from chuck

INTERNAL THREAD left-hand



Insert: IR — Rotation: counterclockwise
Holder: R — Direction: from chuck

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M - Internal ISO-metric threads

TP	6.00	5.50	5.00	4.50	4.00	3.50	3.00	2.50	2.00	1.75	1.50	1.25	1.00	0.80	0.75	0.70	0.50
NO. OF INFEEDS	RADIAL INFEED PER PASS																
1	0.46	0.43	0.42	0.37	0.34	0.32	0.28	0.26	0.23	0.22	0.20	0.17	0.17	0.17	0.16	0.13	0.10
2	0.43	0.40	0.40	0.34	0.31	0.30	0.26	0.25	0.21	0.20	0.18	0.17	0.15	0.14	0.13	0.12	0.08
3	0.35	0.33	0.32	0.28	0.24	0.24	0.21	0.18	0.17	0.15	0.15	0.14	0.11	0.11	0.10	0.10	0.07
4	0.30	0.26	0.26	0.23	0.21	0.19	0.16	0.15	0.15	0.13	0.13	0.10	0.09	0.07	0.07	0.07	0.06
5	0.26	0.22	0.22	0.21	0.18	0.17	0.14	0.13	0.12	0.10	0.11	0.09	0.08	-	-	-	-
6	0.22	0.20	0.20	0.19	0.15	0.15	0.13	0.12	0.11	0.09	0.08	0.08	-	-	-	-	-
7	0.20	0.18	0.17	0.16	0.14	0.14	0.12	0.11	0.10	0.08	-	-	-	-	-	-	-
8	0.19	0.17	0.16	0.15	0.13	0.13	0.11	0.10	0.08	0.08	-	-	-	-	-	-	-
9	0.18	0.16	0.16	0.14	0.12	0.12	0.10	0.10	-	-	-	-	-	-	-	-	-
10	0.16	0.15	0.15	0.13	0.12	0.11	0.10	0.08	-	-	-	-	-	-	-	-	-
11	0.15	0.14	0.14	0.12	0.11	0.10	0.09	-	-	-	-	-	-	-	-	-	-
12	0.15	0.14	0.14	0.12	0.10	0.08	0.08	-	-	-	-	-	-	-	-	-	-
13	0.14	0.13	0.12	0.11	0.10	-	-	-	-	-	-	-	-	-	-	-	-
14	0.13	0.12	0.10	0.10	0.08	-	-	-	-	-	-	-	-	-			-
15	0.12	0.12	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
16	0.10	0.10	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
TOTAL INFEED	3.54	3.25	2.96	2.65	2.33	2.05	1.78	1.48	1.17	1.05	0.85	0.75	0.60	0.49	0.46	0.42	0.31

green background are standard items all other sizes can make specials

W - Internal Whitworth threads

TP	4	4.5	5	6	7	8	9	10	11	12	14	16	18	19	20	26	28
NO. OF INFEEDS	RADIAL INFEED PER PASS																
1	0.49	0.46	0.45	0.38	0.37	0.32	0.30	0.29	0.28	0.28	0.24	0.24	0.23	0.22	0.21	0.19	0.18
2	0.46	0.43	0.43	0.36	0.35	0.30	0.28	0.27	0.26	0.26	0.22	0.22	0.22	0.22	0.21	0.18	0.17
3	0.38	0.38	0.38	0.30	0.29	0.24	0.23	0.22	0.22	0.22	0.18	0.19	0.19	0.18	0.17	0.15	0.14
4	0.36	0.33	0.32	0.26	0.25	0.21	0.20	0.19	0.19	0.18	0.15	0.16	0.16	0.14	0.14	0.12	0.12
5	0.34	0.29	0.28	0.22	0.22	0.19	0.18	0.17	0.16	0.16	0.13	0.13	0.13	0.12	0.11	0.08	0.08
6	0.31	0.25	0.25	0.21	0.19	0.17	0.15	0.15	0.14	0.14	0.11	0.11	0.08	0.08	0.08	-	-
7	0.29	0.24	0.22	0.19	0.18	0.15	0.14	0.14	0.13	0.13	0.09	0.08	-	-	-	-	-
8	0.27	0.22	0.20	0.17	0.16	0.14	0.13	0.13	0.12	0.08	0.08	-	-	-	-	-	-
9	0.24	0.20	0.19	0.16	0.15	0.13	0.12	0.12	0.08	-	-	-	-	-	-	-	-
10	0.22	0.18	0.18	0.15	0.14	0.12	0.12	0.08	-	-	-	-	-	-	-	-	-
11	0.20	0.17	0.17	0.14	0.12	0.12	0.08	-	-	-	-	-	-	-	-	-	-
12	0.19	0.16	0.15	0.14	0.08	0.08	-	-	-	-	-	-	-	-	-	-	-
13	0.17	0.15	0.12	0.12	-	-	-	-	-	-	-	-	-	-	-	-	-
14	0.15	0.14	0.10	0.10	-	-	-	-	-	-	-	-	-	-	-	-	-
15	0.12	0.12	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
16	0.10	0.10	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
TOTAL INFEED	4.29	3.82	3.44	2.90	2.50	2.17	1.93	1.76	1.58	1.45	1.20	1.13	1.01	0.96	0.92	0.72	0.69

green background are standard items all other sizes can make specials

UN - Internal UN threads

TP	4	4.5	5	6	7	8	9	10	11	12	13	14	16	18	20	24	28	32
NO. OF INFEEDS	RADIAL INFEED PER PASS																	
1	0.44	0.41	0.42	0.35	0.34	0.30	0.28	0.27	0.27	0.27	0.25	0.23	0.22	0.23	0.20	0.18	0.17	0.17
2	0.41	0.38	0.38	0.33	0.32	0.28	0.26	0.25	0.23	0.23	0.20	0.18	0.18	0.17	0.16	0.15	0.14	0.14
3	0.39	0.34	0.33	0.25	0.24	0.22	0.19	0.18	0.18	0.18	0.15	0.14	0.14	0.14	0.13	0.13	0.09	0.10
4	0.33	0.28	0.27	0.21	0.21	0.18	0.16	0.15	0.15	0.15	0.13	0.13	0.12	0.12	0.10	0.10	0.08	0.08
5	0.28	0.23	0.23	0.18	0.17	0.15	0.14	0.13	0.13	0.13	0.12	0.11	0.10	0.10	0.09	0.08	0.08	-
6	0.24	0.20	0.20	0.16	0.15	0.13	0.13	0.12	0.11	0.11	0.11	0.10	0.09	0.08	0.08	-	-	-
7	0.22	0.19	0.18	0.15	0.14	0.12	0.12	0.11	0.11	0.10	0.10	0.09	0.08	-	-	-	-	-
8	0.21	0.18	0.17	0.14	0.13	0.11	0.11	0.10	0.10	0.08	0.08	0.08	-	-	-	-	-	-
9	0.20	0.17	0.16	0.13	0.12	0.11	0.10	0.10	0.08	-	-	-	-	-	-	-	-	-
10	0.18	0.16	0.15	0.12	0.12	0.10	0.09	0.08	-	-	-	-	-	-	-	-	-	-
11	0.17	0.15	0.14	0.12	0.11	0.10	0.08	-	-	-	-	-	-	-	-	-	-	-
12	0.16	0.14	0.14	0.11	0.08	0.08	-	-	-	-	-	-	-	-	-	-	-	-
13	0.15	0.14	0.12	0.11	-	-	-	-	-	-	-	-	-	-	-	-	-	-
14	0.14	0.13	0.10	0.10	-	-	-	-	-	-	-	-	-	-	-	-	-	-
15	0.12	0.12	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
16	0.10	0.10	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
TOTAL INFEED	3.74	3.32	2.99	2.46	2.13	1.88	1.66	1.49	1.36	1.25	1.14	1.06	0.93	0.84	0.76	0.64	0.56	0.49

green background are standard items all other sizes can make specials

NPT - Internal NPT threads

TP	8	11.5	14	18	27.0
NO. OF INFEEDS	RADIAL INFEED PER PASS				
1	0.28	0.28	0.28	0.28	0.28
2	0.25	0.25	0.25	0.25	0.25
3	0.22	0.22	0.22	0.22	0.22
4	0.19	0.19	0.19	0.19	0.19
5	0.18	0.18	0.18	0.18	0.18
6	0.18	0.18	0.18	0.18	0.18
7	0.17	0.17	0.17	0.17	0.17
8	0.17	0.17	0.17	0.17	0.17
9	0.16	0.16	0.16	0.16	0.16
10	0.16	0.16	0.16	0.16	0.16
11	0.14	0.14	0.14	0.14	0.14
12	0.13	0.13	0.13	0.13	0.13
13	0.12	0.12	0.12	0.12	0.12
14	0.11	0.11	0.11	0.11	0.11
15	0.08	0.08	0.08	0.08	0.08
TOTAL INFEED	2.54	1.76	1.45	1.12	0.75

green background are standard items all other sizes can make specials

BSPT - British tapered pipe threads

TP	11	14	19	28
NO. OF INFEEDS	RADIAL INFEED PER PASS			
1	0.25	0.24	0.22	0.17
2	0.23	0.20	0.19	0.14
3	0.21	0.17	0.15	0.11
4	0.18	0.14	0.12	0.10
5	0.16	0.12	0.12	0.06
6	0.14	0.12	0.06	-
7	0.13	0.11	-	-
8	0.12	0.06	-	-
9	0.06	-	-	-
TOTAL INFEED	1.58	1.20	0.86	0.58

green background are standard items all other sizes can make specials

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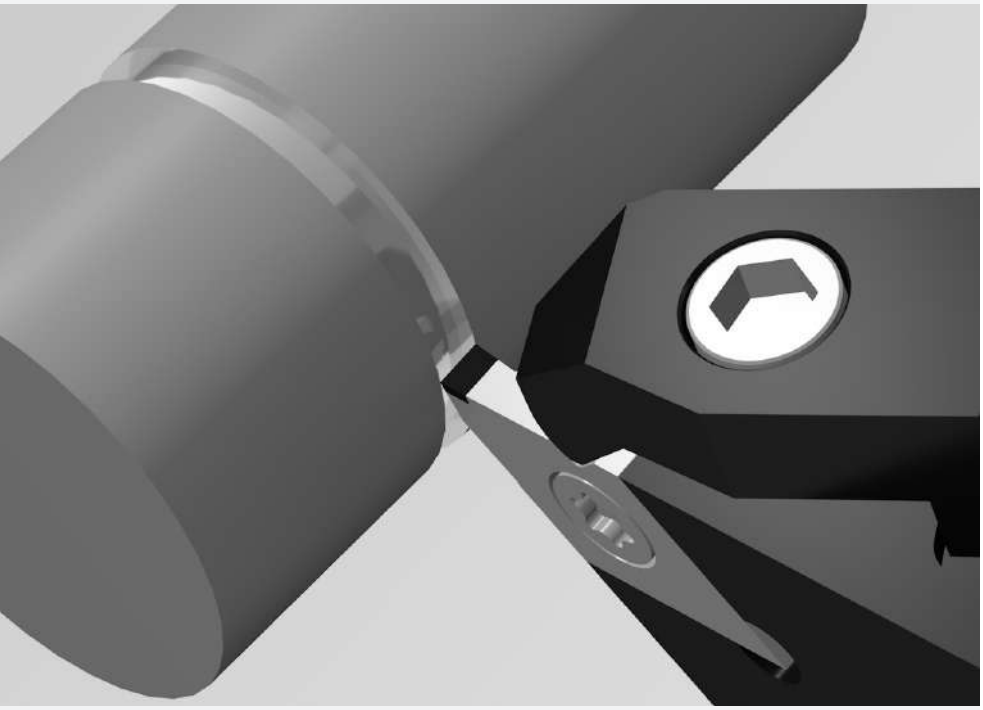
ISO 513	MATERIAL	HARDNESS HB	JP5120 min	JP5120 start	JP5120 max	JP5125 min	JP5125 start	JP5125 max
P1 - P2	Free cutting steel and low carbon (ex. 1.0715/9 smn 28/avp, 1.0503/c45)	≤ 200	100	**150**	200	100	**140**	180
			90	**130**	170	80	**120**	160
						70	**100**	130
P3 - P4	Medium and high alloy steel (ex. 1.7225/42 CrMo 4, 1.3505/100 Cr 6)	200 ÷ 300	90	**130**	170	80	**120**	160
			80	**110**	140	70	**100**	120
						60	**80**	100
P5 - P6	High tensile strength and tool steel (ex. 1.2344/X 40 CrMoV 5 1/ORVAR, Hardox400®)	300 ÷ 400	80	**110**	150	70	**100**	130
			70	**100**	130	60	**90**	120
						60	**80**	100
P7	Ferritic and martensitic stainless steel (ex. 1.4021/X 20 Cr 13/AISI420)	≤ 200	100	**150**	200	100	**140**	180
			90	**130**	170	80	**120**	160
						70	**100**	130
P8	Precipitation hardening stainless steel (ex. 1.4548/X 5 CrNiCuNb 17 4/17-4-PH)	≤ 450	70	**90**	110	60	**80**	100
			60	**80**	100	50	**70**	90
						50	**60**	70
M1	Austenitic stainless steel (ex. 1.4305/X 10 CrNiS 18 9/AISI303)	> 200	70	**110**	150	60	**100**	140
			60	**100**	140	50	**90**	130
						50	**80**	110
M2 - M3	Austenitic and Duplex stainless steel (ex. 1.4401/X 5 CrNiMo 17 12 2/AISI316)		70	**100**	130	60	**90**	120
			60	**90**	120	60	**80**	100
						50	**70**	90
K1	Grey cast iron (ex. 0.6025/GG 25/EN-GJL-250)	150 ÷ 250	110	**150**	190	100	**140**	180
			90	**135**	160	80	**115**	150
						60	**90**	120
K2	Nodular cast iron (ex. 0.7050/GGG 50/EN-GJS-500-7)	150 ÷ 350	90	**130**	170	80	**120**	160
			80	**105**	130	70	**95**	120
						60	**80**	100
K3 - K4	Austenitic and ADI cast iron (ex. 0.6660/GGL-NiCr 20 2/Ni-Resist 2, GJS-1000-5/ADI1000)	250 ÷ 500	80	**115**	150	70	**105**	140
			70	**100**	130	60	**90**	120
						50	**75**	100

ISO 513	MATERIAL	HARDNESS HB	ND050 (NDP001) min	ND050 (NDP001) start	ND050 (NDP001) max
N1	Aluminium alloys ≤ Si 12% (ex. 3.4365/AlZn5.5MgCu/ERGAL)		400	**1000**	1600
N2	Aluminium alloys Si > 12% (ex. 3.2382/G-AlSi12)		250	**400**	550
N3	Copper alloy (ex. 2.0060/E-Cu57)		300	**600**	900
S4 - S5	Titanium alloys (ex. TiAl2Sn4Zr2MoSi)		50	**75**	100

Complete workpiece materials p. **H**1.

ISO 513	MATERIAL	HARDNESS HB	NBL350C min	start	max		
H1	Case-hardened steel (ex. 1.7131/16 MnCr 5)	50 ÷ 56	● 60	**100**	140		
H2	Bearing steel, quenched and tempered steel (ex.1.3505/100 Cr 6)	54 ÷ 62	● 60	**90**	120		
H3	Hardened tool steel (ex 1.2436/X 210 CrW 12/2312)	60 ÷ 65	● 50	**70**	90		

Complete workpiece materials p. **H**1.



GROOVING

Grade table .C2
Grade details .C3
Quick guide .C4
NDB .C5
NCG .C13
BGF .C15

GROOVING Grade table

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ISO 513		CARBIDE			PCBN	DIAMOND
		CVD COATED	PVD COATED	UNCOATED	UNCOATED	PCD
P Steel	P01					
	P10	JC8025	JP5120			
	P20		JP5125	JP5130		
	P30					
	P40					
M Stainless steel	M01					
	M10		JP5120			
	M20		JP5125			
	M30			JP5130		
	M40					
K Cast iron	K01				NBH450U	
	K10	JC7010	JP5120			
	K20		JP5125			
	K30					
N Non-ferrous materials	N01					
	N10			JUG015		ND120
	N20					
	N30					
H Hardened steel	H01					
	H10					
	H20				NBH450U	
	H30				NB350	

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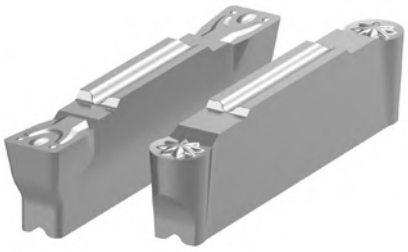
GRADE	SUBSTRATE	HARDNESS HV	COATING		APPLICATION		FEATURES
			TECHNOLOGY	COMPOSITION			
JC7010	carbide	1.830	CVD	$TiCN+Al_2O_3$	K	K05 K25	High wear resistance. First choice for grey cast iron general machining.
JC8025	carbide	1.700	CVD	$TiCN+Al_2O_3+TiN$	P	P20 P30	All around grade suitable for a wide range of applications. Excellent reliability even on medium interrupted cut.
JP5120	micrograin carbide	1.830	PVD	TiAlN	P	P10 P20	Special coating technology balances wear resistance and toughness. The post-coating surface treatment effectively prevents built-up edge.
					M	M10 M20	
					K	K10 K20	
JP5125	micrograin carbide	1.830	PVD	TiAlN	P	P20 P30	High Co micrograin carbide substrate with high toughness and latest coating technology. Universal use with great reliability and long tool life.
					M	M20 M30	
					K	K20 K30	
JP5130	micrograin carbide	1.830	PVD	TiAlN	P	P20 P35	High toughness substrate combined with super-smooth coating designed for precision applications.
					M	M20 M35	
JU6015	micrograin carbide	1.950	-	-	N	N10 N20	Uncoated carbide for universal use, from finishing to roughing, on non-ferrous materials.
NB350	Low volume CBN 75%	3.400	-	-	H	H20 H35	Hardened steel machining with a perfect combination between toughness and wear resistance. Available only for BGF system.
NBH450U	High volume CBN 95%	4.400	-	-	K	K01 K20	Gray cast iron machinining at very high cutting condition and with great wear resistance. Available only for BGF system.
ND120	diamond 95%	6.000	-	-	N	N10 N30	High productivity grooving of non-ferrous materials. Available only for BGF system.

GROOVING Quick guide

nikkoTOOLS

	NDB	NCG	BGF
	C5	C13	C15
	EXTERNAL INTERNAL	EXTERNAL INTERNAL	EXTERNAL
Pressed type inserts	✓	✗	✗
Ground type inserts	✓	✓	✓
Available sizes (CW)	2.00 / 3.00 / 4.00 / 5.00 / 6.00 / 8.00 mm	1.10 ÷ 2.15 mm	1.00 ÷ 4.00 mm
Maximum depth (CDX)	14 / 20 / 25 / 25 / 30 / 30 mm	1.30 ÷ 1.85 mm	1.80 ÷ 4.50 mm
Coolant holes	✓	✗	✗
Workpiece material	P M K N	P M	K N H
No. of cutting edges	2	3	1
No. of geometries	6	1	2
Special features	All-around system	Can be installed on threading tool holders	Easy tailor-made
Grooving	✓	✓	✓
Turning	✓	✗	✗
Profiling	✓	✗	✗
Cut-off	✓	✗	✗
Versatility	■■■■■	■■■■■	■■■■□
Strength	■■■■□	■■■□□	■■■■■
Precision	■■■□□	■■■■■	■■■■□
Finishing	■■■■□	■■■■□	■■■■□
Range	■■■■□	■■■□□	■■■□□



GROOVING NDB

Inserts .C6
Holders .C8
Parameters .C10

NDBD

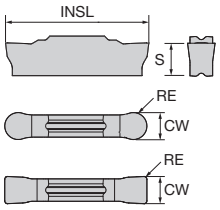
NDB system

- Double sided grooving insert
- Available for PMKN materials
- Max. grooving depth depends on INSL value and holder specifications
- Improved holding system, automatically positioned, reliable and efficient

HC: Coated carbide
HF: Micrograin carbide
CVD: Chemical vapour deposition
PVD: Physical vapour deposition

	HC CVD	HC CVD	HF PVD	HF PVD	HF
	JC7010	**JC8025**	**JP5120**	**JP5125**	**JU6015**
Stable machining, light cut (● 1st choice, ○ suitable)	●	○	●	○	●
General machining, medium cut (● 1st choice, ○ suitable)	●	●	●	●	●
Unstable machining, heavy cut (● 1st choice, ○ suitable)	○	○		●	○

Dimensions

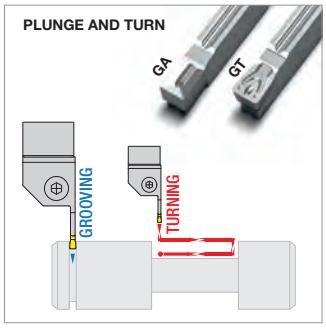


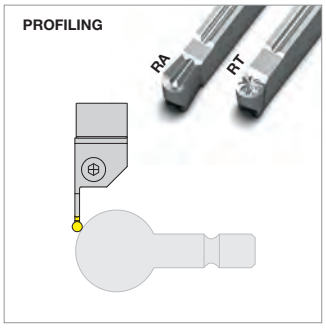
ISO	JC7010	JC8025	JP5120	JP5125	JU6015
P		140 330	90 200	70 180	
M			60 150	50 140	
K	130 380		90 190	60 180	
N					200 1000
S					
H					

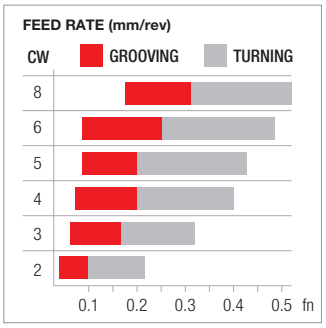
Vc(m/min) - suggested cutting speed range (bold: 1st choice)

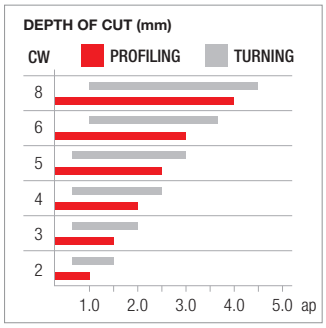
	Designation		CW	CWTOL	RE	INSL	S	JC7010	JC8025	JP5120	JP5125	JU6015	Stock
PLUNGE AND TURN	GT P M K straight edge pressed type	NDBD20R02M-GT	2	±0.050	0.2	16	3.5	●	●		●		
		NDBD30R04M-GT	3	±0.050	0.4	21	4.8	●	●		●		
		NDBD40R04M-GT	4	±0.050	0.4	21	4.8	●	●		●		
		NDBD50R04M-GT	5	±0.050	0.4	26	5.8	●	●		●		
		NDBD60R08M-GT	6	±0.050	0.8	26	5.8	●	●		●		
		NDBD80R08M-GT	8	±0.050	0.8	31	6.5	●	●				
PLUNGE AND TURN	GA N ALU straight edge ground and polished	NDBD20R02G-GA	2	±0.025	0.2	16	3.5					●	
		NDBD30R04G-GA	3	±0.025	0.4	21	4.8					●	
		NDBD40R04G-GA	4	±0.025	0.4	21	4.8					●	
PROFILING	RT P M K full radius edge pressed type	NDBD20R10M-RT	2	±0.050	1	16	3.5				●		
		NDBD30R15M-RT	3	±0.050	1.5	21	4.8				●		
		NDBD40R20M-RT	4	±0.050	2	21	4.8	●			●		
		NDBD50R25M-RT	5	±0.050	2.5	26	5.8	●			●		
		NDBD60R30M-RT	6	±0.050	3	26	5.8	●			●		
		NDBD80R40M-RT	8	±0.050	4	31	6.5				●		
PROFILING	RA N ALU full radius edge ground and polished	NDBD20R10G-RA	2	±0.025	1	16	3.5					●	
		NDBD30R15G-RA	3	±0.025	1.5	21	4.8					●	
		NDBD40R20G-RA	4	±0.025	2	21	4.8					●	

● stock standard, ○ non-standard stock, ▲ upcoming introduction, ▽ stock exhaustion









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NDBD

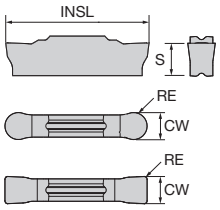
NDB system

- Double sided grooving insert
- Available for PMKN materials
- Max. grooving depth depends on INSL value and holder specifications
- Improved holding system, automatically positioned, reliable and efficient

HC: Coated carbide
HF: Micrograin carbide
CVD: Chemical vapour deposition
PVD: Physical vapour deposition

	HC CVD	HC CVD	HF PVD	HF PVD	HF
	JC7010	**JC8025**	**JP5120**	**JP5125**	**JU6015**
Stable machining, light cut (● 1st choice, ○ suitable)	●	○	●	○	●
General machining, medium cut (● 1st choice, ○ suitable)	●	●	●	●	●
Unstable machining, heavy cut (● 1st choice, ○ suitable)	○	○		●	○

Dimensions

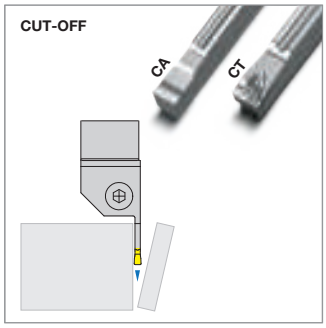


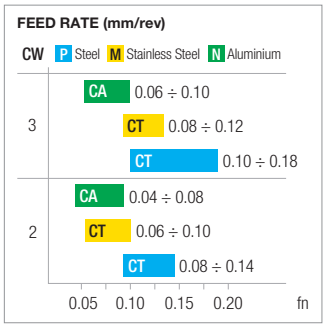
ISO	JC7010	JC8025	JP5120	JP5125	JU6015
P		140 330	90 200	70 180	
M			60 150	50 140	
K	130 380		90 190	60 180	
N					200 1000
S					
H					

Vc(m/min) - suggested cutting speed range (bold: 1st choice)

	Designation		CW	CWTOL	RE	INSL	S	JC7010	JC8025	JP5120	JP5125	JU6015	Stock
CUT-OFF	CT P M concave edge medium feed rate	NDBD20R02M-CT	2	±0.050	0.2	16	3.5			●	●		
		NDBD30R02M-CT	3	±0.050	0.2	21	4.8			●	●		
CUT-OFF	CA N concave edge ground and polished	NDBD20R02M-CA	2	±0.025	0.2	16	3.5					●	
		NDBD30R02G-CA	3	±0.025	0.2	21	4.8					●	

● stock standard, ○ non-standard stock, ▲ upcoming introduction, ▽ stock exhaustion



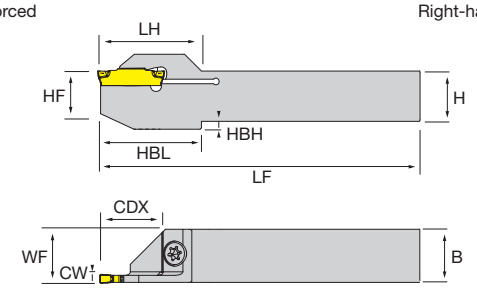


NDB E

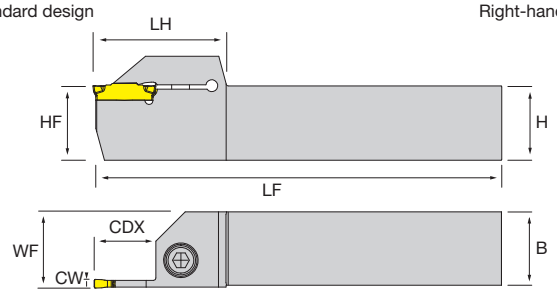
NDB system

- External holders for NDB double sided grooving insert
- Different grooving depth (CDX) available for different groove width
- Clamp fastened and loosened by screw
- Improved holding system, automatically positioned, reliable and efficient

Radial reinforced — Right-hand shown



Standard design — Right-hand shown



Designation	Stock L	Stock R	CW	CDX	H	B	WF	LF	LH	HF	HBL	HBH
WITH RADIAL REINFORCEMENT												
NDB E$^{L}/_{R}$1212-2-CDX14	●	●	2	14	12	12	12.2	120	25	12	24	2
NDB E$^{L}/_{R}$1616-2-CDX14	●	●	2	14	16	16	16.2	120	25	16	24	2
NDB E$^{L}/_{R}$1616-3-CDX20	●	●	3	20	16	16	16.3	120	31	16	30	2
STANDARD DESIGN												
NDB E$^{L}/_{R}$2020-2-CDX14	●	●	2	14	20	20	21	125	38	20	-	-
NDB E$^{L}/_{R}$1616-3-CDX10	●	●	3	10	16	16	16.2	120	35	16	-	-
NDB E$^{L}/_{R}$2020-3-CDX10	●	●	3	10	20	20	21	125	38	20	-	-
NDB E$^{L}/_{R}$2020-3-CDX20	●	●	3	20	20	20	21	125	40	20	-	-
NDB E$^{L}/_{R}$2525-3-CDX10	●	●	3	10	25	25	26	150	40	25	-	-
NDB E$^{L}/_{R}$2525-3-CDX20	●	●	3	20	25	25	26	150	45	25	-	-
NDB E$^{L}/_{R}$2020-4-CDX10	●	●	4	10	20	20	21	125	35	20	-	-
NDB E$^{L}/_{R}$2020-4-CDX25	●	●	4	25	20	20	21	125	50	20	-	-
NDB E$^{L}/_{R}$2525-4-CDX10	●	●	4	10	25	25	26	150	40	25	-	-
NDB E$^{L}/_{R}$2525-4-CDX25	●	●	4	25	25	25	26	150	50	25	-	-
NDB E$^{L}/_{R}$2525-5-CDX10	●	●	5	10	25	25	26	150	40	25	-	-
NDB E$^{L}/_{R}$2525-5-CDX25	●	●	5	25	25	25	26	150	50	25	-	-
NDB E$^{L}/_{R}$2525-6-CDX15	●	●	6	15	25	25	26	150	45	25	-	-
NDB E$^{L}/_{R}$2525-6-CDX30	●	●	6	30	25	25	26	150	56	25	-	-
NDB E$^{L}/_{R}$2525-8-CDX15	●	●	8	15	25	25	26.5	150	43	25	-	-
NDB E$^{L}/_{R}$2525-8-CDX30	●	●	8	30	25	25	27	150	55	25	-	-

● stock standard, ○ non-standard stock, ▲ upcoming introduction, ▽ stock exhaustion

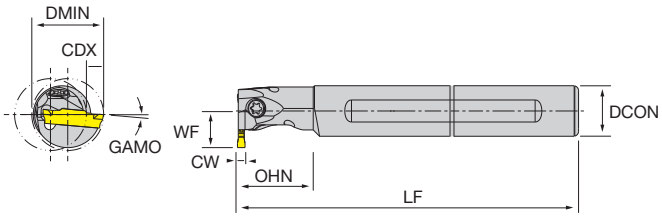
Spare parts	Locking screws	Flag wrenches	Locking screws	L wrench
NDB E$^{L}/_{R}$1212-2-CDX14	NT-ST076	NT-FT15	-	-
NDB E$^{L}/_{R}$1616-2-CDX14	NT-ST077	NT-FT15	-	-
NDB E$^{L}/_{R}$1616-3-CDX10	-	-	NT-SC001	NT-WR040
NDB E$^{L}/_{R}$1616-3-CDX20	NT-ST077	NT-FT15	-	-
NDB E$^{L}/_{R}$2020-○-CDX○○	-	-	NT-SC001	NT-WR040
NDB E$^{L}/_{R}$2525-○-CDX○○	-	-	NT-SC002	NT-WR040

NDB I

NDB system

- Internal holders for NDB double-headed grooving insert
- Vortex boring bar (high quality steel) with coolant through
- Special chip evacuation path
- Clamp tightened by screw

Right-hand shown



Designation	Stock L	Stock R	CW	CDX	DMIN	DCON	WF	LF	OHN	GAMO		
NDB I^{L}/$_{R}$1620V-2-CDX04	●	●	2	4	20	16	11.5	150	25	15°		
NDB I^{L}/$_{R}$2025V-2-CDX06	●	●	2	6	25	20	14.5	180	30	15°		
NDB I^{L}/$_{R}$2025V-3-CDX06	●	●	3	6	25	20	14.5	180	30	15°		
NDB I^{L}/$_{R}$2532V-3-CDX08	●	●	3	8	32	25	19	200	40	15°		
NDB I^{L}/$_{R}$3240V-3-CDX10	●	●	3	10	40	32	23.5	200	50	15°		
NDB I^{L}/$_{R}$2532V-4-CDX08	●	●	4	8	32	25	19	220	40	15°		
NDB I^{L}/$_{R}$3240V-4-CDX10	●	●	4	10	40	32	23.5	220	50	15°		

● stock standard, ○ non-standard stock, ▲ upcoming introduction, ▽ stock exhaustion

Spare parts	Insert screws	L wrench
NDB I^{L}/$_{R}$1620V-2-CDX04	NT-ST40115T15	NT-TX15
NDB I^{L}/$_{R}$○○○○V-○-CDX○○	NT-ST051	NT-TX20

GROOVING Parameters - cutting speed · MULTIFUNCTION

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ISO 513	MATERIAL	HARDNESS HB	JC8025			JP5120			JP5125		
			min	start	max	min	start	max	min	start	max
P1 - P2	Free cutting steel and low carbon (ex. 1.0715/9 smn 28/avp, 1.0503/c45)	≤ 200	170	**250**	330	100	**150**	200	100	**140**	180
			160	**225**	290	90	**130**	170	80	**120**	160
			140	**195**	250				70	**100**	130
P3 - P4	Medium and high alloy steel (ex. 1.7225/42 CrMo 4, 1.3505/100 Cr 6)	200 ÷ 300	150	**220**	290	90	**130**	170	80	**120**	160
			140	**205**	270	80	**110**	140	70	**100**	120
			130	**190**	250				60	**80**	100
P5 - P6	High tensile strength and tool steel (ex. 1.2344/X 40 CrMoV 5 1/ORVAR, Hardox400®)	300 ÷ 400	140	**205**	270	80	**115**	150	70	**100**	130
			130	**190**	250	70	**100**	130	60	**90**	120
			120	**170**	220				60	**80**	100
ISO 513	MATERIAL	HARDNESS HB	JP5120			JP5125					
			min	start	max	min	start	max			
P7	Ferritic and martensitic stainless steel (ex. 1.4021/X 20 Cr 13/AISI420)	≤ 200	100	**150**	200	100	**140**	180			
			90	**130**	170	80	**120**	160			
						70	**100**	130			
P8	Precipitation hardening stainless steel (ex. 1.4548/X 5 CrNiCuNb 17 4/17-4-PH)	≤ 450	70	**90**	110	60	**80**	100			
			60	**80**	100	50	**70**	90			
						50	**60**	70			
M1	Austenitic stainless steel (ex. 1.4305/X 10 CrNiS 18 9/AISI303)	> 200	70	**110**	150	60	**100**	140			
			60	**100**	140	50	**90**	130			
						50	**80**	110			
M2 - M3	Austenitic and Duplex stainless steel (ex. 1.4401/X 5 CrNiMo 17 12 2/AISI316)		70	**100**	130	60	**90**	120			
			60	**90**	120	60	**80**	100			
						50	**70**	90			
ISO 513	MATERIAL	HARDNESS HB	JC7010			JP5120			JP5125		
			min	start	max	min	start	max	min	start	max
K1	Grey cast iron (ex. 0.6025/GG 25/EN-GJL-250)	150 ÷ 250	180	**280**	380	110	**150**	190	100	**140**	180
			150	**225**	300	90	**130**	170	80	**115**	150
			130	**195**	260				60	**90**	120
K2	Nodular cast iron (ex. 0.7050/GGG 50/EN-GJS-500-7)	150 ÷ 350	150	**200**	250	90	**130**	170	80	**120**	160
			130	**175**	220	80	**110**	140	70	**95**	120
			120	**160**	200				60	**80**	100
K3 - K4	Austenitic and ADI cast iron (ex. 0.6660/GGL-NiCr 20 2/Ni-Resist 2, GJS-1000-5/ADI1000)	250 ÷ 500	140	**190**	240	80	**110**	140	70	**105**	140
			120	**165**	210	70	**100**	130	60	**90**	120
			110	**155**	200				50	**75**	100
ISO 513	MATERIAL	HARDNESS HB	JU6015								
			min	start	max						
N1	Aluminium alloys ≤ Si 12% (ex. 3.4365/AlZn5.5MgCu/ERGAL)		400	**700**	1000						
			300	**500**	700						
			200	**400**	600						
N2	Aluminium alloys Si > 12% (ex. 3.2382/G-AlSi12)		200	**300**	400						
			200	**250**	300						
			100	**150**	200						

Complete workpiece materials p. **H**1.

	DESIGNATION	Grooving			Turning and Profiling						Cut-off		
		FEED RATE			DEPTH OF CUT			FEED RATE			FEED RATE		
		fn (mm/rev)			ap (mm)			fn (mm/rev)			fn (mm/rev)		
		min	start	max	min	start	max	min	start	max	min	start	max
STRAIGHT EDGE	NDBD20R02o-Go	0.06	**0.08**	0.10	0.30	**0.90**	1.50	0.10	**0.13**	0.16	-	-	-
	NDBD30R04o-Go	0.07	**0.10**	0.13	0.40	**1.20**	2.00	0.16	**0.18**	0.20	-	-	-
	NDBD40R04o-Go	0.10	**0.12**	0.14	0.50	**1.50**	2.50	0.18	**0.21**	0.24	-	-	-
	NDBD50R04o-Go	0.11	**0.15**	0.19	0.60	**1.80**	3.00	0.20	**0.25**	0.30	-	-	-
	NDBD60R08o-Go	0.13	**0.19**	0.25	0.70	**2.10**	3.50	0.24	**0.33**	0.42	-	-	-
	NDBD80R08o-Go	0.18	**0.26**	0.34	0.80	**2.65**	4.50	0.32	**0.44**	0.56	-	-	-
FULL RADIUS	NDBD20R10o-Ro	0.06	**0.09**	0.12	0.00	**0.50**	1.00	0.14	**0.18**	0.22	-	-	-
	NDBD30R15o-Ro	0.08	**0.11**	0.14	0.00	**0.75**	1.50	0.18	**0.23**	0.28	-	-	-
	NDBD40R20o-Ro	0.10	**0.13**	0.16	0.00	**1.00**	2.00	0.20	**0.27**	0.34	-	-	-
	NDBD50R25o-Ro	0.12	**0.16**	0.20	0.00	**1.25**	2.50	0.24	**0.33**	0.42	-	-	-
	NDBD60R30o-Ro	0.13	**0.19**	0.25	0.00	**1.50**	3.00	0.24	**0.37**	0.50	-	-	-
	NDBD80R40o-Ro	0.18	**0.26**	0.34	0.00	**2.00**	4.00	0.32	**0.49**	0.66	-	-	-
CONCAVE EDGE	NDBD20R02M-CA	-	-	-	-	-	-	-	-	-	0.04	**0.06**	0.08
	NDBD30R04M-CA	-	-	-	-	-	-	-	-	-	0.06	**0.08**	0.10
	NDBD20R02M-CT	-	-	-	-	-	-	-	-	-	0.06	**0.10**	0.14
	NDBD30R04M-CT	-	-	-	-	-	-	-	-	-	0.08	**0.13**	0.18

GROOVING NCG

Inserts .C14

NCG

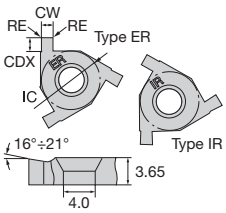
Circlip Grooving

- Triple head top mounted grooving insert
- Available for P/M materials
- According to DIN 471/472
- Can share holders with 16IR/ER threading inserts

HF: Micrograin carbide
PVD: Physical vapour deposition

	HF	JP5130
Stable machining, light cut	● 1st choice	○ suitable
General machining, medium cut	● 1st choice	○ suitable
Unstable machining, heavy cut	● 1st choice	○ suitable

Dimensions



ISO	HF	JP5130
P	60 180	
M	50 110	
K		
N		
S		
H		

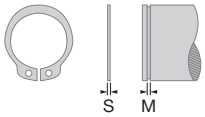
Vc(m/min) - suggested cutting speed range (bold: 1st choice)

	Designation	CW	CWTOL	CDX	RE	IC	Stock
EXTERNAL P M	NCG16ER 110-010	1.1	0/+0.02	1.3	0.1	9.525	●
	NCG16ER 130-010	1.3	0/+0.02	1.6	0.1	9.525	●
	NCG16ER 160-010	1.6	0/+0.02	1.85	0.1	9.525	●
	NCG16ER 185-010	1.85	0/+0.02	1.85	0.1	9.525	●
	NCG16ER 215-010	2.15	0/+0.02	1.85	0.1	9.525	●
INTERNAL P M	NCG16IR 110-010	1.1	0/+0.02	1.3	0.1	9.525	●
	NCG16IR 130-010	1.3	0/+0.02	1.6	0.1	9.525	●
	NCG16IR 160-010	1.6	0/+0.02	1.85	0.1	9.525	●
	NCG16IR 185-010	1.85	0/+0.02	1.85	0.1	9.525	●
	NCG16IR 215-010	2.15	0/+0.02	1.85	0.1	9.525	●

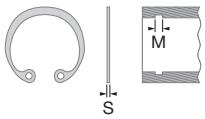
● stock standard, ○ non-standard stock, ▲ upcoming introduction, ▽ stock exhaustion

CIRCLIP RINGS

DIN 471 EXTERNAL



DIN 472 INTERNAL



GROOVE TOLERANCES

RING (S)	GROOVE (M)	TOLL.	INSERT
1.00	1.10	H13	NCG 16 ER/IR 110-010
1.20	1.30	H13	NCG 16 ER/IR 130-010
1.50	1.60	H13	NCG 16 ER/IR 160-010
1.75	1.85	H13	NCG 16 ER/IR 185-010
2.00	2.15	H13	NCG 16 ER/IR 215-010

NCG cutting speed (m/min)

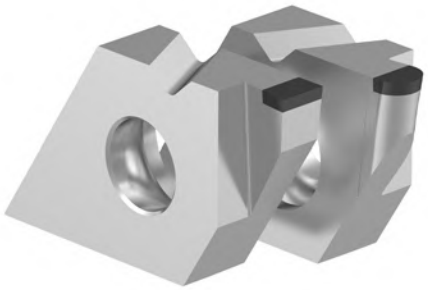
P1-P2	Low carbon and soft steel	60÷180
P3-P4	Medium and high alloy steel	60÷160
P5-P6	High tensile strength steel	60÷140
P7	Ferritic stainless steel	60÷120
P8	PH stainless steel	40÷70
M1	Austenitic stainless steel	50÷110
M2-M3	Difficult stainless steel	40÷80

NCG feed rate (mm/rev)

	ER	IR
NCG 16 ER/IR 110-010	0.03÷0.07	0.01÷0.05
NCG 16 ER/IR 130-010	0.04÷0.08	0.02÷0.06
NCG 16 ER/IR 160-010	0.04÷0.08	0.02÷0.06
NCG 16 ER/IR 185-010	0.04÷0.10	0.03÷0.07
NCG 16 ER/IR 215-010	0.04÷0.10	0.03÷0.07

EXTERNAL HOLDERS p. B10

INTERNAL HOLDERS p. B21



GROOVING BGF

Inserts .C16
Holders .C17

BGF

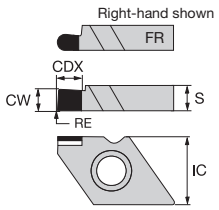
Advanced Grooving

- Tangentially mounted brazed-tip advance material grooving inserts
- Available with PCD and CBN type for K / H or N materials
- Reliable and quick change clamping system

BL: Low volume CBN
BH: High volume CBN
DP: Polycristalline diamond

	BL	BH	DP
	NB350	NBH450U	ND120
Stable machining, light cut (● 1st choice, ○ suitable)		●	●
General machining, medium cut (● 1st choice, ○ suitable)	○	●	●
Unstable machining, heavy cut (● 1st choice, ○ suitable)	●	○	

Dimensions



ISO	BL	BH	DP
P			
M			
K		340 1000	
N			450 2400
S			
H	60 150		

Vc(m/min) - suggested cutting speed range (bold: 1st choice)

	Designation		CW	CWTOL	CDX	RE	IC				Stock
LEFT-HAND	N H straight edge carbide backed	BGFL 100-010	1	±0.050	1.8	0.1	12.7		○		
		BGFL 150-010	1.5	±0.050	2.6	0.1	12.7		○		
		BGFL 200-020	2	±0.050	3	0.2	12.7		○		
		BGFL 250-020	2.5	±0.050	3.5	0.2	12.7	▽	○		
		BGFL 300-020	3	±0.050	4.5	0.2	12.7		○		
		BGFL 350-020	3.5	±0.050	4.5	0.2	12.7	▽	○		
		BGFL 400-020	4	±0.050	4.5	0.2	12.7		○		
LEFT-HAND	FR N H full radius edge carbide backed	BGFL 100-050FR	1	±0.050	1.8	0.5	12.7		○		
		BGFL 150-075FR	1.5	±0.050	2.6	0.75	12.7		○		
		BGFL 200-100FR	2	±0.050	3	1	12.7		○		
		BGFL 250-125FR	2.5	±0.050	3.5	1.25	12.7		○		
		BGFL 300-150FR	3	±0.050	4.5	1.5	12.7		○		
		BGFL 350-175FR	3.5	±0.050	4.5	1.75	12.7		○		
		BGFL 400-200FR	4	±0.050	4.5	2	12.7		○		
RIGHT-HAND	N H straight edge carbide backed	BGFR 100-010	1	±0.050	1.8	0.1	12.7	▽	○	○	
		BGFR 150-010	1.5	±0.050	2.6	0.1	12.7		○	○	
		BGFR 200-020	2	±0.050	3	0.2	12.7		○	○	
		BGFR 250-020	2.5	±0.050	3.5	0.2	12.7	▽	○	○	
		BGFR 300-020	3	±0.050	4.5	0.2	12.7		○	○	
		BGFR 350-020	3.5	±0.050	4.5	0.2	12.7		○	○	
		BGFR 400-020	4	±0.050	4.5	0.2	12.7	○	○	○	
RIGHT-HAND	FR N H full radius edge carbide backed	BGFR 100-050FR	1	±0.050	1.8	0.5	12.7		○	○	
		BGFR 150-075FR	1.5	±0.050	2.6	0.75	12.7		○	○	
		BGFR 200-100FR	2	±0.050	3	1	12.7		○	○	
		BGFR 250-125FR	2.5	±0.050	3.5	1.25	12.7		○	○	
		BGFR 300-150FR	3	±0.050	4.5	1.5	12.7	▽	○	○	
		BGFR 350-175FR	3.5	±0.050	4.5	1.75	12.7		○	○	
		BGFR 400-200FR	4	±0.050	4.5	2	12.7		○	○	

● stock standard, ○ non-standard stock, ▲ upcoming introduction, ▽ stock exhaustion

BGF cutting speed (m/min)

N1	Alluminium alloy Si ≤ 12%	450÷2400
N2	Alluminium alloy Si > 12%	250÷700
N3	Copper alloy	350÷1400
H1	Case-hardened steel	60÷150
H2	Bearing steel	60÷130
H3	Hardened tool steel	50÷100

BGF feed rate (mm/rev)

	N	K H
BGF ER/IR 100	0.04÷0.12	0.04÷0.06
BGF ER/IR 150	0.04÷0.12	0.04÷0.06
BGF ER/IR 200	0.06÷0.14	0.04÷0.08
BGF ER/IR 250	0.06÷0.14	0.04÷0.08
BGF ER/IR 300	0.06÷0.14	0.04÷0.08
BGF ER/IR 350	0.08÷0.16	0.06÷0.10
BGF ER/IR 400	0.08÷0.16	0.06÷0.10

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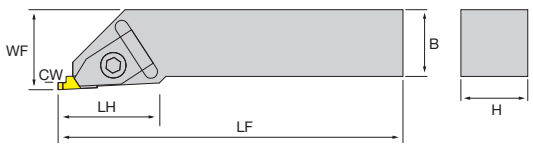
BGF-HLD

Advanced Grooving

- External holders for tangential mounted advanced grooving insert
- Clamp tightened by screw

Right-hand shown



Designation	Stock L	Stock R	H	B	WF	LF	LH					
BGF-HLD 1616L/R		▽	16	16	30	150	45					
BGF-HLD 2020L/R	●	●	20	20	30	150	45					
BGF-HLD 2525L/R	●	●	25	25	30	150	45					

● stock standard, ○ non-standard stock, ▲ upcoming introduction, ▽ stock exhaustion

Spare parts	Insert screws	Flag wrenches	Clamp	Clamp screws	L wrench
BGF-HLD ∞∞∞∞R	NT-ST50110T20	NT-FT15	NT-CS300R	NT-SC300	NT-WR040
BGF-HLD ∞∞∞∞L	NT-ST50110T20	NT-FT15	NT-CS300L	NT-SC300	NT-WR040

RELIABLE CLAMPING

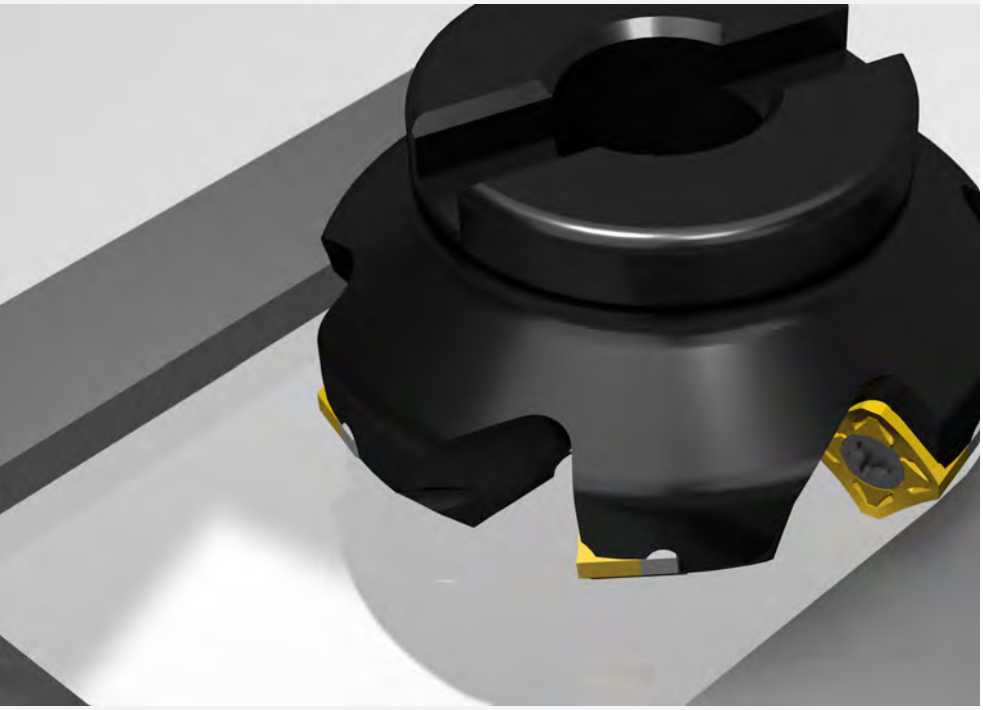
1. Install the insert and screw lightly
2. Firmly fix the clamp

3. Screw tight the insert

HOLDER AND INSERT COUPLING

Holder R → Insert R

Holder L → Insert L



MILLING

Grade table .D3
Grade details .D4
Grade cross reference .D6
Application overview .D8
Shouldering .D11
Facing .D45
High feed .D75
Profiling .D85
Chamfering .D99
Advanced .D105

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ISO 513		CARBIDE			CERMET	PCBN	DIAMOND	CERAMIC	
		CVD COATED	PVD COATED	UNCOATED	UNCOATED	UNCOATED	PCD	Si_3N_4	Al_2O_3 mixed
P Steel	P01								
	P10	JC8520			JU4525				
	P20		JP5530, JP8625, JP8725						
	P30	JC8530	JP5540						
	P40								
M Stainless steel	M01								
	M10								
	M20	JC9540	JP5530, JP9535-JP9635						
	M30		JP5540						
	M40		JP9545						
K Cast iron	K01	JC7515				NBH450U		NSN350	NAC200
	K10	JC8520	JP7615			NBH550U		NSN400	
	K20	JC7530	JP7525			NBH900U			
	K30					NBH950U			
N Non-ferrous material	N01								
	N10		JP6525	JU6520			ND150		
	N20						ND120		
	N30								
S Heat resistance alloy	S01								
	S10		JP9535-JP9635						
	S20	JC9540	JP5540						
	S30		JP9545						
H Hardened steel	H01					NBH450U			
	H10					NBH900U			
	H20					NBH950U			
	H30								

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GRADE	SUBSTRATE	HARDNESS HV	COATING		APPLICATION		FEATURES
			TECHNOLOGY	COMPOSITION			
JC7515	carbide	1.950	CVD	$TiCN+Al_2O_3$	K	K05 K20	MTCVD special coating with extreme wear resistance. Recommended for grey cast iron machining at high cutting speed.
JC8520	carbide	1.640	CVD	$TiCN+Al_2O_3$	P K	P10 P20 K15 K25	High wear resistance on steel machining at high cutting speed, very good performance also in cast iron machining as a complementary solution.
JC9540	carbide	1.560	CVD	$TiCN+Al_2O_3$	M S	M25 M40 S20 S30	Tough substrate with high stability at high temperature. High wear resistance on stainless steel and HRSA machining.
JP5530	micrograin carbide	1.840	PVD	TiAlN	P M K	P20 P40 M25 M30 K25 K30	Universal grade mainly for steel application but also available for ISO M and ISO K machining.
JP5540	carbide	1.560	PVD	TiAlSiN	P M S	P35 P45 M30 M40 S20 S30	All-around solution with high reliability thanks to a special tough substrate with high stability at high temperature.
JP6525	micrograin carbide	1700	PVD	TiBCN	N	N05 N25	High performance coated grade for non-ferrous materials. Very low friction coefficient reduces adhesions and improves surface finishing.
JP7525	carbide	1.840	PVD	TiAlN	K	K15 K35	First choice for ISO K machining with a predictable long tool life. Perfect performance both on gray and nodular cast iron.
JP7615	carbide	1.840	PVD	TiAlN	K	K10 K20	A hard multilayered PVD coating for succesful milling of cast iron under stable conditions. Available only for RekPlus series, until stock exhaustion.
JP8625	micrograin carbide	1.600	PVD	TiAlN	P	P15 P25	Micrograin PVD grade for general machining of steel under various cutting conditions. Available only for RekPlus series, until stock exhaustion.
JP8725	micrograin carbide	1.840	PVD	AlCrN	P	P15 P30	First choiche for steel application. The new substrate contributes to a great performance increase compared to conventional products.
JP9535	micrograin carbide	1.640	PVD	TiAlN	M S	M20 M35 S15 S25	First choice for stainless steel machining under general cutting conditions. Also applicable on titanium thanks to a great stability at high temperature.
JP9635	micrograin carbide	1.640	PVD	TiAlN	M S	M20 M35 S15 S25	Micrograin PVD grade for general machining of stainless steel under various cutting conditions. Available only for RekPlus series, until stock exhaustion.
JP9545	carbide	1.560	PVD	TiAlSiN	M S	M35 M45 S25 S35	Ultra tough substrate with high stability at high temperature. Perfect choice for difficult to cut materials under sever cutting conditions.
JU4525	cermet	1.560	-	-	P	P05 P15	Uncoated cermet for high speed machining of steel. Optimum solution for finishing application under stable conditions.
JU6520	micrograin carbide	1.560	-	-	N	N10 N30	Uncoated grade for non-ferrous materials. The micrograin substrate toughness allows the production of very sharp ground cutting edges.
NAC200	Al_2O_3+TiCN	2.300	-	-	K H	K01 K20 H01 H20	Applicable for finishing application of cast iron and hardened steel in case of very stable cutting conditions.

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GRADE	SUBSTRATE	HARDNESS HV	COATING		APPLICATION		FEATURES
			TECHNOLOGY	COMPOSITION			
NBH450U	High volume CBN 95%	4.400	-	-	K	K01 K20	First choice for gray cast iron finishing at very high cutting condition and with great wear resistance.
NBH550U	High volume CBN 80%	3.500	-	-	K	K20 K30	First choice for gray cast iron roughing at very high cutting condition (until 2000 m/min). Productivity unattainable with conventional products.
NBH900U	High volume CBN 80%	3.500	-	-	H K	H25 H35 K25 K35	Universal grade for severe applications both on ISO K and ISO H materials. High reliability on roughing operations.
NBH950U	High volume CBN 90%	4.000	-	-	H K	H30 H35 K30 K35	Extreme toughness mainly for cast iron machining but appliable, as alternative grade, even on hardened steel.
ND120	diamond 95%	6.000	-	-	N	N10 N30	First choice for all-around application on non-ferrous materials.
ND150 new name: **NDP302**	diamond 95%	7.000	-	-	N	N05 N25	Multi-modal grade for a perfect balance between toughness and wear resistance. Good solution for high silicon aluminium and bi-metal applications.
NSA6000	SiAlON	1.800	-	-	S	S10 S30	First choice for heat resistant super alloys (HRSA) machining with variable cutting conditions. Perfect balance between toughness and wear resistance.
NSN350	Si_3N_4	1.700	-	-	K	K05 K20	High wear resistance for stable applications.
NSN400	Si_3N_4	1.700	-	-	K	K05 K30	First choice for roughing machining of gray cast iron even with interrupted cut.

MILLING Grade cross reference

nikkoTOOLS

ISO 513		nikkoTOOLS		ISCAR		KENNAMETAL		KYOCERA		MITSUBISHI	
		carbide	cermet	carbide	cermet	carbide	cermet	carbide	cermet	carbide	cermet
P	P01 - P10	JC8520	JU4525	IC5400	IC30N		KTPK20		TN100M		
	P10 - P20	JC8520 JP5530 JP8725	JU4525	IC5400 IC5500 IC808	IC30N		KTPK20	PR1225 PR1525	TN100M PV60M	MC7020 MP6120 VP15TF	NX2525
	P20 - P30	JP5530 JP8725		IC5500 IC808 IC830		KCPK30 KC522M KC725M KCPM40		PR1225 PR1525		MP6130 VP20RT	NX4545
	P30 - P40	JP5540		IC330 IC830 IC845		KC725M KCPK30 KCPM40		PR1230 PR1535		MP6130 VP30RT	
M	M01 - M10				IC30N		KTPK20		TN100M PV60M		NX2525
	M10 - M20	JP9535		IC808	IC30N	KC522M		PR1525		VP15TF	NX4545
	M20 - M30	JC9540 JP9535		IC5820 IC380 IC830		KC522M KCPM40		CA6535 PR1525 PR1535		MC7020 MP7130 VP20RT	
	M30 - M40	JC9540 JP5540 JP9535 JP9545		IC5820 IC830 IC840 IC882		KC725M KCPM40 KCSM40		CA6535 PR1535		MP7140 VP30RT	
K	K01 - K10	JC7515 JC8520		IC5100	IC30N	KCK15	KTPK20	PR1210 PR1510	TN100M PV60M	MC5020	NX2525
	K10 - K20	JC7515 JC8520 JP7525 JP7615		IC5100 IC810		KCK15 KCK20		CA420M PR1210 PR1510		MC5020 MP8010	
	K20 - K30	JP7525		IC810		KCK20 KCPK30		CA420M PR1210 PR1510		VP15TF	
N	N01 - N10	JP6525	-		-	KC410M	-	KW10	-		-
	N10 - N20	JP6525 JU6525	-	IC28	-	KC410M K313	-	KW10 GW25	-	HTI10 LC15TF	-
	N20 - N30	JU6525	-	IC28	-	KC422M	-	GW25	-	TF15	-
S HRSA	S01 - S10	JC9540 JP5540	-	IC808	-		-		-		-
	S10 - S20	JP9535 JP9635	-	IC830	-	KC522M KCSM30	-	CA6535 PR1535	-	MP9120	-
	S20 - S30	JC9540 JP5540	-	IC380 IC840	-	KC725M KCSM40	-	CA6535 PR1535	-	MP9130 VP15TF	-
S TITANIUM	S01 - S10		-		-		-		-		-
	S10 - S20	JP6525 JP9535 JU6520	-	IC28 IC808	-	KCSM30	-	GW25 PR1535	-	MP9120	-
	S20 - S30	JP9535	-	IC28 IC808	-	KCSM30 KCSM40	-	PR1535	-	MP9130 VP15TF	-

BLACK: CVD, UNDERLINED: PVD, RED: uncoated

MILLING Grade cross reference

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SANDVIK		SECO		SUMITOMO		TAEGUTEC		TUNGALOY		WALTER	
carbide	cermet	carbide	cermet	carbide	cermet	carbide	cermet	carbide	cermet	carbide	cermet
GC1010	CT530	MP1501	MP1020	ACP100	T2500A	TT2510	CT7000	AH110 AH710	NS740		
GC1130 GC4220	CT530	MP1501	MP1020	ACP100 ACP200	T2500A	TT7080	CT7000	AH725 T3225	NS740	WKP25S	
GC1130 GC4330		MP2501 MP3000 F40M		ACP200 ACP300 ACU2500		TT7080 TT8080		AH130 AH725 T3130 T3225		WKP25S WKP35G	
GC4340		F40M MM4500 T350M		ACP300		TT8080 TT8020 TT8525B		AH140 AH3135 T3130		WKP35G WSP45S	
	CT530		MP1020		T2500A		CT7000		NS740		
		MS2050		ACM200 ACU2500		TT9030 TT9080		AH725			
GC2030		F40M MP2050 MS2050		ACM200 ACP300		TT9080 TT8080		AH130 AH725 T3130 T3225		WSM35S	
GC1040 GC2040		F40M MP2050 MM4500 T350M		ACM300 ACP300		TT8080 TT8020		AH140 AH3135		WSM45X WSM35S WSP45S	
GC3220	CT530	MK1500	MP1020	ACK200	T2500A	TT2510	CT7000	T1115 T1215	NS740	WAK15	
GC1020 GC3220 GC3330		MK1500 MK2050 MP1501		ACK2000 ACK3000		TT6080 TT7515		AH120 T1115 T1215		WKP25S WKK25S	
GC1020 GC3040		MK2050		ACK3000		TT6080		AH120		WKP35S WKK25S	
H10	-	H15	-		-	K10	-	KS05F TH10	-	WK10	-
H10	-	H15	-	H20	-	K10	-	KS05F TH10	-	WK10 WXN15	-
	-	H25	-	H20	-		-		-		-
	-		-		-		-	AH120	-		-
GC1130 S30T	-	MS2500	-	ACM200	-	TT9540	-	AH725	-	WSM35S	-
S40T	-	MS2050 F40M	-	ACM300	-	TT9540	-		-	WSM45X	-
	-		-		-		-	AH120	-	WK10	-
GC1130 S30T	-	MS2500	-	ACM200	-	K10	-	AH725	-	WK10 WSM35S	-
S40T	-	MS2050 F40M	-	ACM300	-	TT3540	-		-	WSM45X	-

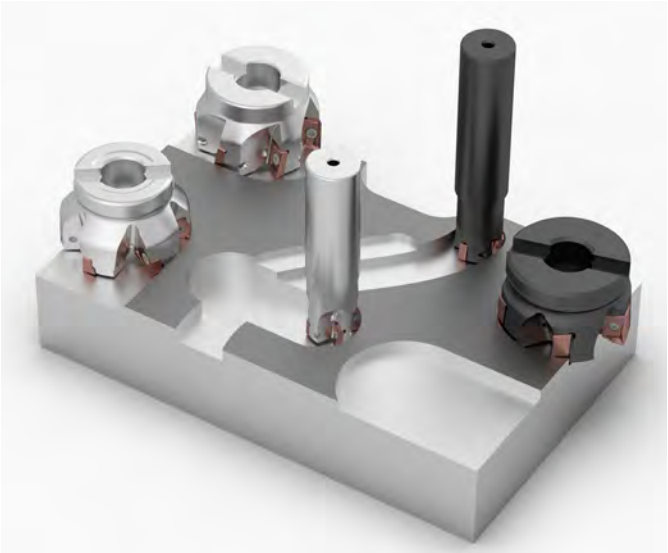
This table is our own estimation based on information available to the public and is not authorized by the company mentioned on it.

A - TURNING
B - THREADING
C - GROOVING
D - MILLING
E - DRILLING
F - ACCESSORIES
G - SPARE PARTS

SHOULDERING

quick guide D12

REKPLUS	P M K N S	D14
DOUBLEREK	P M K	D23
DOUBLE3GON	P M K N S	D29
ISO APKT	P M N	D42
ALUREK	N	D37



FACING

quick guide D46

4FACEPLUS	P M K N S	D48
OKTOPLUS	P M K N S	D55
DOUBLE4FACE	P M K N S	D62
ISO SEHX	P K N	D72
DOUBLEHEX	K	D67

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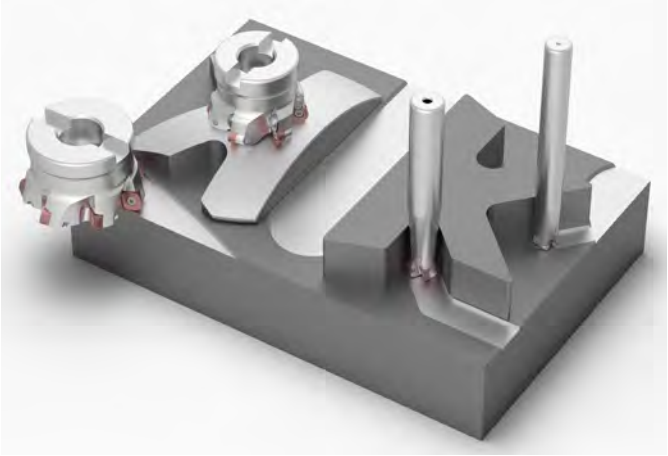
HIGH FEED PROFILING

quick guide D76

quick guide D86

HF4PLUS	P M K S	D77
ROUNDPLUS	P M K S	D87



CHAMFERING

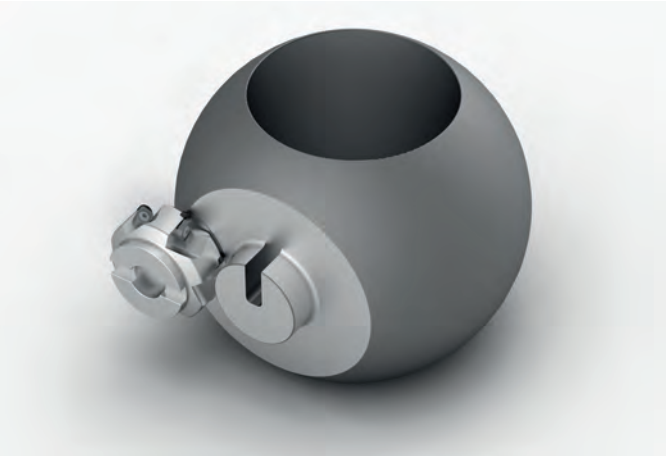
quick guide D100

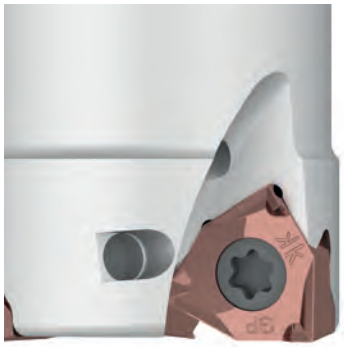
CHAMFERSQUARE	P M K N	D101

ADVANCED

quick guide D106

TANGENTIAL	K	D110
SQUARE SERIES	K	D114
XP SERIES	K N	D112
ROUND SERIES	S H	D108





MILLING Shouldering

Quick guide .D12

REKPLUS .D14
DOUBLEREK .D23
DOUBLE3GON .D29
ALUREK .D37
ISO APKT .D42

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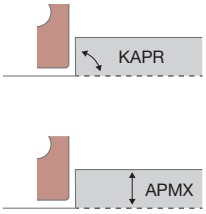

	REKPLUS	DOUBLEREK	DOUBLE3CON
	D14	D23	D29
	SCREW-IN	SCREW-IN	SCREW-IN
	CYLINDRICAL	CYLINDRICAL	CYLINDRICAL
	ARBOR	ARBOR	ARBOR
KAPR	90°	90°	90°
Insert sizes	11 / 16	10 / 17	04 / 08
APMX	8 / 15	7 / 15	3 / 7
Tool diameter	Ø16 - Ø100	Ø16 - Ø125	Ø20 - Ø160
Coolant holes	✓	✓	✓
Workpiece material	P M K N S	P M K	P M K N S
No. of cutting edges	2	4	6
No. of geometries	5	2	4
Special features	cylindrical 10xD cutters		
Side Milling	✓	✓	✓
Slotting	✓	✓	✓
Face Milling	✓	✓	✓
Ramping	✓	✗	✗
Helical Interpolation	✓	✗	✗
Machine load	■■■□□	■■■□□	■■■□□
Strength	■■■■□	■■■■■	■■■□□
Precision	■■■■□	■■■■□	■■■■■
Finishing	■■■□□	■■■■■	■■■■□
Range	■■■■□	■■■□□	■■■□□

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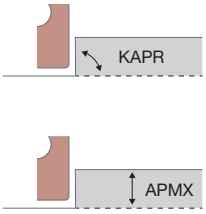
	ALUREK	ISO APKT
	D37	D42
	SCREW-IN CYLINDRICAL ARBOR	Only insert is available.
KAPR	90°	90°
Insert sizes	19	10 / 16
APMX	19	9 / 15
Tool diameter	Ø25 - Ø50	-
Coolant holes	✓	-
Workpiece material	N	P M N
No. of cutting edges	2	2
No. of geometries	1	2
Special features	PVD coated grade for non-ferrous materials	-
Side Milling	✓	✓
Slotting	✓	✓
Face Milling	✓	✓
Ramping	✓	✓
Helical Interpolation	✓	✗
Machine load	■□□□□	■■■■□
Strenght	■■■□□	■■■□□
Precision	■■■■□	■■■□□
Finishing	■■■■□	■■■□□
Range	■■□□□	■□□□□

REKPLUS

Versatile shoulder milling cutters capable of ramping for diverse application

APPLICATION

- Shoulder milling
- Long overhang milling
- Profiling and Pocketing
- Linear and helical ramping

ISO APPLICATION FIELDS

P M K N S

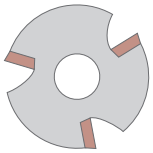
ADVANTAGES AND CHARACTERISTICS

- Inserts of helical geometry type can produce high precision 90°.
- The straight geometries are suitable for roughing without special finishing needs and ensure excellent competitiveness.
- Extremely complete range of cutter bodies with cylindrical shank (Weldon also available), both with standard and 10xD lengths, with threaded connection plus 10xD extensive sleeves, all with internal cooling.

Cutter bodies

- Arbor type
- Cylindrical type (up to 10xD)
- Screw-in type
- Extension sleeves (steel/carbide 10xD)
- From D16 to D100

Extension arbors



Coarse pitch

Fine pitch

Inserts

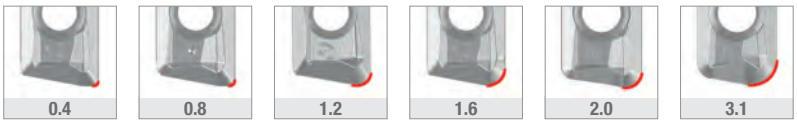
- 2 cutting edges
- Edge length 11 and 16
- Cemented carbide grades with CVD and PVD coatings
- Geometries: HSC, HGP, GP, TE, AL.

HSC P M S

SIZE
11 16

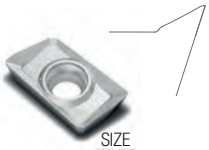
HGP P M K

SIZE
11 16



Helical geometries are available with a wide range of radii.

GP P M K



SIZE
11 16

TE P K

SIZE
11 16

AL N

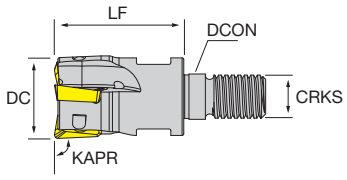
SIZE
11 16

NT-RKP

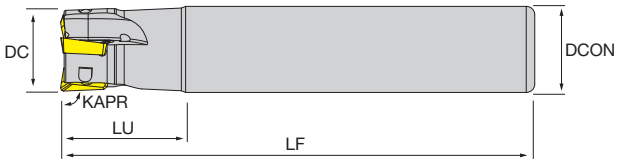
RekPlus

- Positive type precision shoulder milling system, with coolant through
- Tolerance of tool diameter (with Nikko inserts installed) 0/-0.2
- 10xD cylindrical body and screw-in type for applications that need long-overhang
- High-Quality Swiss screws available to guarantee your machining process

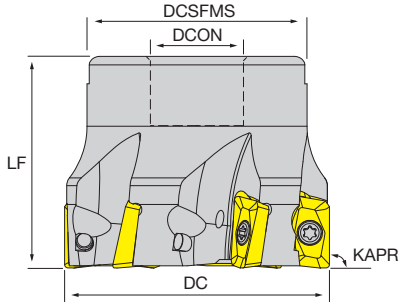
Screw-in



Cylindrical



Arbor



Designation	Stock	DC	CICT	DCON	LF	LU	DCSFMS	CRKS	KAPR	WT	MIID
SCREW-IN											
NT-RKP11 D016-M08-Z02	●	16	2	8.5	25	-	-	M8	90°	0.03 Kg	NT-RKP11
NT-RKP11 D020-M10-Z03	●	20	3	10.5	38	-	-	M10	90°	0.07 Kg	NT-RKP11
NT-RKP11 D025-M12-Z03	●	25	3	12.5	38	-	-	M12	90°	0.12 Kg	NT-RKP11
NT-RKP11 D025-M12-Z04	●	25	4	12.5	38	-	-	M12	90°	0.11 Kg	NT-RKP11
NT-RKP11 D032-M16-Z04	●	32	4	17	43	-	-	M16	90°	0.23 Kg	NT-RKP11
NT-RKP11 D032-M16-Z05	●	32	5	17	43	-	-	M16	90°	0.22 Kg	NT-RKP11
NT-RKP16 D025-M12-Z02	●	25	2	12.5	38	-	-	M12	90°	0.11 Kg	NT-RKP16
NT-RKP16 D032-M16-Z03	●	32	3	17	43	-	-	M16	90°	0.19 Kg	NT-RKP16
NT-RKP16 D040-M16-Z04	●	40	4	17	43	-	-	M16	90°	0.24 Kg	NT-RKP16
CYLINDRICAL											
NT-RKP11 D016-S16-Z02	●	16	2	16	100	25	-	-	90°	0.13 Kg	NT-RKP11
NT-RKP11 D020-S20-Z03	●	20	3	20	110	30	-	-	90°	0.23 Kg	NT-RKP11
NT-RKP11 D025-S25-Z03	●	25	3	25	120	35	-	-	90°	0.41 Kg	NT-RKP11
NT-RKP11 D025-S25-Z04	●	25	4	25	120	35	-	-	90°	0.40 Kg	NT-RKP11
NT-RKP11 D032-S32-Z04	●	32	4	32	130	35	-	-	90°	0.74 Kg	NT-RKP11
NT-RKP11 D032-S32-Z05	●	32	5	32	130	35	-	-	90°	0.73 Kg	NT-RKP11
NT-RKP16 D025-S25-Z02	●	25	2	25	120	35	-	-	90°	0.40 Kg	NT-RKP16
NT-RKP16 D032-S32-Z03	●	32	3	32	130	45	-	-	90°	0.71 Kg	NT-RKP16
CYLINDRICAL - LONG TYPE (10XD)											
NT-RKP11 D016-S15-Z02-L	●	16	2	15	160	25	-	-	90°	0.19 Kg	NT-RKP11
NT-RKP11 D016-S16-Z02-L	●	16	2	16	160	25	-	-	90°	0.21 Kg	NT-RKP11
NT-RKP11 D017-S16-Z02-L	●	17	2	16	170	25	-	-	90°	0.23 Kg	NT-RKP11
NT-RKP11 D020-S19-Z03-L	●	20	3	19	200	30	-	-	90°	0.39 Kg	NT-RKP11
NT-RKP11 D020-S20-Z03-L	●	20	3	20	200	30	-	-	90°	0.43 Kg	NT-RKP11
NT-RKP11 D021-S20-Z03-L	●	21	3	20	210	30	-	-	90°	0.46 Kg	NT-RKP11

● stock standard, ○ non-standard stock, ▲ upcoming introduction, ▽ stock exhaustion

Designation	Stock	DC	CICT	DCON	LF	LU	DCSFMS	CRKS	KAPR	WT	MIID
NT-RKP11 D025-S24-Z03-L	●	25	3	25	250	35	-	-	90°	0.82 Kg	NT-RKP11
NT-RKP11 D025-S25-Z03-L	●	25	3	25	250	35	-	-	90°	0.89 Kg	NT-RKP11
NT-RKP11 D026-S25-Z03-L	●	26	3	25	260	35	-	-	90°	0.94 Kg	NT-RKP11
CYLINDRICAL - REDUCED SHANK											
NT-RKP11 D020-S16-Z03	●	20	3	16	110	30	-	-	90°	0.15 Kg	NT-RKP11
NT-RKP11 D025-S20-Z03	●	25	3	20	120	35	-	-	90°	0.28 Kg	NT-RKP11
NT-RKP11 D028-S25-Z04	○	28	4	25	120	35	-	-	90°	-	NT-RKP11
NT-RKP11 D030-S25-Z04	○	30	4	25	130	35	-	-	90°	-	NT-RKP11
NT-RKP11 D032-S25-Z04	●	32	4	25	130	35	-	-	90°	0.49 Kg	NT-RKP11
NT-RKP16 D040-S32-Z04	●	40	4	32	150	45	-	-	90°	0.89 Kg	NT-RKP16
CYLINDRICAL - WELDON CONNECTION											
NT-RKP11 D016-W16-Z02	●	16	2	16	80	25	-	-	90°	0.10 Kg	NT-RKP11
NT-RKP11 D020-W20-Z03	●	20	3	20	90	30	-	-	90°	0.18 Kg	NT-RKP11
NT-RKP11 D025-W25-Z04	●	25	4	25	100	35	-	-	90°	0.32 Kg	NT-RKP11
ARBOR											
NT-RKP11 D032-F16-Z04	●	32	4	16	40	-	28	-	90°	0.11 Kg	NT-RKP11
NT-RKP11 D040-F16-Z05	●	40	5	16	40	-	35	-	90°	0.22 Kg	NT-RKP11
NT-RKP11 D040-F16-Z06	●	40	6	16	40	-	35	-	90°	0.20 Kg	NT-RKP11
NT-RKP11 D050-F22-Z05	●	50	5	22	40	-	40	-	90°	0.33 Kg	NT-RKP11
NT-RKP11 D050-F22-Z07	●	50	7	22	40	-	46	-	90°	0.37 Kg	NT-RKP11
NT-RKP11 D063-F22-Z06	●	63	6	22	40	-	50	-	90°	0.59 Kg	NT-RKP11
NT-RKP11 D063-F22-Z08	●	63	8	22	40	-	50	-	90°	0.57 Kg	NT-RKP11
NT-RKP11 D080-F27-Z07	●	80	7	27	50	-	60	-	90°	1.21 Kg	NT-RKP11
NT-RKP11 D080-F27-Z10	●	80	10	27	50	-	60	-	90°	1.07 Kg	NT-RKP11
NT-RKP16 D040-F16-Z04	●	40	4	16	40	-	35	-	90°	0.19 Kg	NT-RKP16
NT-RKP16 D040-F16-Z05	●	40	5	16	40	-	35	-	90°	0.18 Kg	NT-RKP16
NT-RKP16 D050-F22-Z04	●	50	4	22	40	-	40	-	90°	0.29 Kg	NT-RKP16
NT-RKP16 D050-F22-Z05	●	50	5	22	40	-	40	-	90°	0.27 Kg	NT-RKP16
NT-RKP16 D063-F22-Z05	●	63	5	22	40	-	50	-	90°	0.53 Kg	NT-RKP16
NT-RKP16 D063-F22-Z06	●	63	6	22	40	-	50	-	90°	0.51 Kg	NT-RKP16
NT-RKP16 D080-F27-Z06	●	80	6	27	50	-	60	-	90°	1.09 Kg	NT-RKP16
NT-RKP16 D080-F27-Z08	●	80	8	27	50	-	60	-	90°	1.06 Kg	NT-RKP16
NT-RKP16 D100-F32-Z07	●	100	7	32	50	-	80	-	90°	1.90 Kg	NT-RKP16
NT-RKP16 D100-F32-Z09	●	100	9	32	50	-	80	-	90°	1.85 Kg	NT-RKP16

● stock standard, ○ non-standard stock, ▲ upcoming introduction, ▽ stock exhaustion

Spare parts	Insert screws	Flag wrenches
NT-RKP11 Dooo-ooo-Zoo	NT-ST25056T08HQ	NT-FTB08
NT-RKP16 Dooo-ooo-Zoo	NT-ST40095T15HQ	NT-FTB15

nikkoTOOLS

NT-RKP

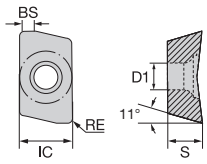
RekPlus

- HGP and HSC are high precision helical type geometries, better guarantee your shouldering precision
- GP, TE and SC are economical straight type geometries
- Available in different radii besides R0.8, such as R0.4, 1.2, 1.6, 2.0, 3.1
- Available with cermet and diverse carbide grades covering PMKNS applications
- Aluminum type available with different radius. For more possibilities for non ferrous materials, please go to AluRek series
- For H materials please go to advanced milling chapter

HC: Coated carbide
HF: Micrograin carbide
HT: Cermet
CVD: Chemical vapour deposition
PVD: Physical vapour deposition

		HC CVD	HF PVD	HF PVD	HF PVD	HF PVD	HF PVD	HF PVD	HF PVD	HF PVD	HF PVD	HT	HF
		JC7515	JP5520	JP5530	JP5540	JP7525	JP7615	JP8625	JP8725	JP9535	JP9635	JU4525	JU6520
Stable machining, light cut	● 1st choice ○ suitable	●	○				○	○	○			●	●
General machining, medium cut	● 1st choice ○ suitable	●	●	●	○	●	●	●	●	●	●		●
Unstable machining, heavy cut	● 1st choice ○ suitable			○	●	●				●	●		

Dimensions

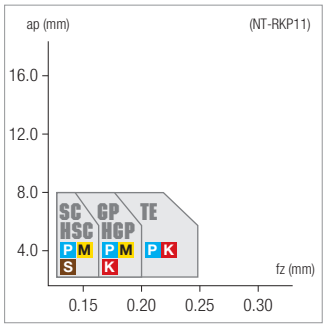


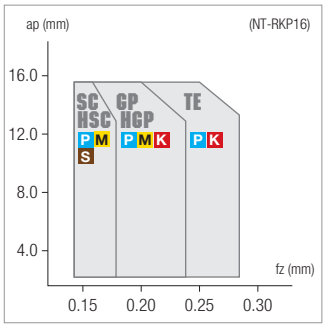
2 edges

ISO	JC7515	JP5520	JP5530	JP5540	JP7525	JP7615	JP8625	JP8725	JP9535	JP9635	JU4525	JU6520
	Vc(m/min) - suggested cutting speed range (bold: 1st choice)											
P		100 260	100 260	80 220			100 260	100 280			130 300	
M		60 180	60 180	60 180					80 200	80 180		
K	180 360				140 300	140 300						
N												300 1100
S				20 50					20 60	20 50		
H												

	Designation		RE	IC	S	D1	BS	JC7515	JP5520	JP5530	JP5540	JP7525	JP7615	JP8625	JP8725	JP9535	JP9635	JU4525	JU6520
GENERAL	HGP P M K helical type all-around application	NT-RKP11R04M-HGP	0.4	6.35	3.5	2.8	1.2							●			●		
		NT-RKP11R08M-HGP	0.8	6.35	3.5	2.8	0.7				●		●	●	●				
		NT-RKP11R12M-HGP	1.2	6.35	3.5	2.8	0.5							●			●		
		NT-RKP11R16M-HGP	1.6	6.35	3.5	2.8	-							●			●		
		NT-RKP16R08M-HGP	0.8	9.525	4.76	4.5	0.7				▲		●	●	▲		●		
		NT-RKP16R12M-HGP	1.2	9.525	4.76	4.5	0.5							●			●		
		NT-RKP16R16M-HGP	1.6	9.525	4.76	4.5	-							●			●		
		NT-RKP16R20M-HGP	2	9.525	4.76	4.5	-							●			●		
		NT-RKP16R31M-HGP	3.1	9.525	4.76	4.5	-							●			●		
GENERAL	GP P M K	NT-RKP11R08M-GP	0.8	6.35	3.5	2.8	1.9	▽		●		○			●	●		●	
		NT-RKP16R08M-GP	0.8	9.525	4.76	4.5	2	▽		●		○			●	●		●	
LOW FORCE	HSC P M S helical type low cutting force	NT-RKP11R04M-HSC	0.4	6.35	3.5	2.8	1.2							●			●		
		NT-RKP11R08M-HSC	0.8	6.35	3.5	2.8	0.7				●				●		●		
		NT-RKP11R12M-HSC	1.2	6.35	3.5	2.8	0.5							●			●		
		NT-RKP16R08M-HSC	0.8	9.525	4.76	4.5	0.7				▲			●	▲		●		
		NT-RKP16R12M-HSC	1.2	9.525	4.76	4.5	0.5							●			●		
LOW FORCE	SC P M S	NT-RKP11R08M-SC	0.8	6.35	3.5	2.8	1.9		▽	▽									
		NT-RKP16R08M-SC	0.8	9.525	4.76	4.5	2		▽							▽			

● stock standard, ○ non-standard stock, ▲ upcoming introduction, ▽ stock exhaustion



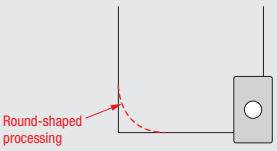


UPCOMING GRADES UPDATE (only for helical type)

OLD		NEW
JP8625	▶	JP8725
JP9635	▶	JP9535 JP5540
JP7615	▶	JP7525

MODIFICATION OF THE CUTTER BODY

When using inserts with corner radius larger than 1.6 mm the cutter body must be modified



NT-RKP

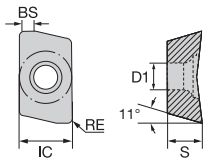
RekPlus

- HGP and HSC are high precision helical type geometries, better guarantee your shouldering precision
- GP, TE and SC are economical straight type geometries
- Available in different radii besides R0.8, such as R0.4, 1.2, 1.6, 2.0, 3.1
- Available with cermet and diverse carbide grades covering PMKNS applications
- Aluminum type available with different radius. For more possibilities for non ferrous materials, please go to AluRek series
- For H materials please go to advanced milling chapter

HC: Coated carbide
HF: Micrograin carbide
HT: Cermet
CVD: Chemical vapour deposition
PVD: Physical vapour deposition

	HC CVD	HF PVD	HF PVD	HF PVD	HF PVD	HF PVD	HF PVD	HF PVD	HF PVD	HF PVD	HT	HF
	JC7515	**JP5520**	**JP5530**	**JP5540**	**JP7525**	**JP7615**	**JP8625**	**JP8725**	**JP9535**	**JP9635**	**JU4525**	**JU6520**
Stable machining, light cut (● 1st choice, ○ suitable)	●	○				○	○	○			●	●
General machining, medium cut (● 1st choice, ○ suitable)	●	●	●	○	●	●	●	●	●	●		●
Unstable machining, heavy cut (● 1st choice, ○ suitable)			○	●	●				●	●		

Dimensions



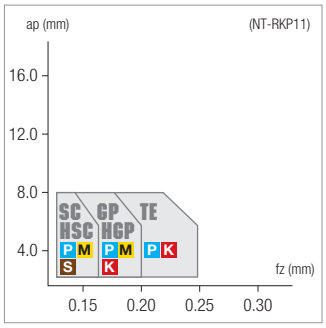
2 edges

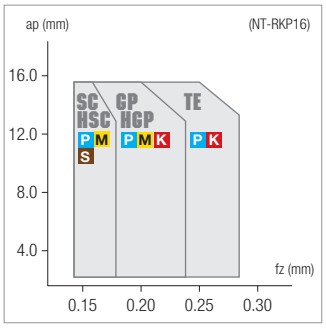
Vc(m/min) - suggested cutting speed range (bold: 1st choice)

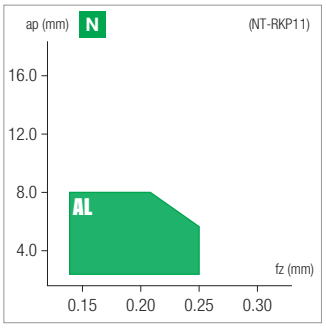
ISO	JC7515	JP5520	JP5530	JP5540	JP7525	JP7615	JP8625	JP8725	JP9535	JP9635	JU4525	JU6520
P		100 260	100 260	80 220			100 260	100 280			130 300	
M		60 180	60 180	60 180					80 200	80 180		
K	180 360				140 300	140 300						
N												300 1100
S				20 50					20 60	20 50		
H												

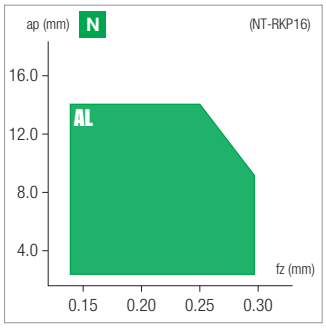
	Designation	RE	IC	S	D1	BS	JC7515	JP5520	JP5530	JP5540	JP7525	JP7615	JP8625	JP8725	JP9535	JP9635	JU4525	JU6520
REINFORCED TE P K	NT-RKP11R08M-TE	0.8	6.35	3.5	2.8	1.9			●		○			●				
	NT-RKP16R08M-TE	0.8	9.525	4.76	4.5	2.2			○		○			●				
ALUMINIUM AL N	NT-RKP11R04G-AL	0.4	6.35	3.5	2.8	1.9												●
	NT-RKP11R08G-AL	0.8	6.35	3.5	2.8	1.9												●
polished surface, periphery ground	NT-RKP16R08G-AL	0.8	9.525	4.76	4.5	2.2												●

● stock standard, ○ non-standard stock, ▲ upcoming introduction, ▽ stock exhaustion









MILLING Parameters - cutting speed · REKPLUS

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ISO 513	MATERIAL	HARDNESS HB	ae/DC	JP5530 min	JP5530 start	JP5530 max	JP5540 min	JP5540 start	JP5540 max	JP8625 min	JP8625 start	JP8625 max
P1 - P2	Free cutting steel and low carbon (ex. 1.0715/9 smn 28/avp, 1.0503/c45)	≤ 200	100%	100	**140**	180	80	**120**	160	100	**140**	180
			30%	160	**200**	240	120	**160**	200	160	**200**	240
			10%	220	**240**	260	180	**200**	220	220	**240**	260
P3 - P4	Medium and high alloy steel (ex. 1.7225/42 CrMo 4, 1.3505/100 Cr 6)	200 ÷ 300	100%	80	**120**	160	60	**100**	140	80	**120**	160
			30%	120	**160**	200	100	**140**	180	120	**160**	200
			10%	180	**200**	220	160	**180**	200	180	**200**	220
P5 - P6	High tensile strength and tool steel (ex. 1.2344/X 40 CrMoV 5 1/ORVAR, Hardox400®)	300 ÷ 400	100%	60	**90**	120				60	**90**	120
			30%	100	**130**	160				100	**130**	160
			10%	140	**170**	200				140	**170**	200
ISO 513	MATERIAL	HARDNESS HB	ae/DC	JP5530 min	JP5530 start	JP5530 max	JP5540 min	JP5540 start	JP5540 max	JP9535 min	JP9535 start	JP9535 max
P7	Ferritic and martensitic stainless steel (ex. 1.4021/X 20 Cr 13/AISI420)	≤ 200	100%	60	**100**	140	60	**100**	140	80	**120**	160
			30%	80	**130**	180	80	**130**	180	100	**150**	200
			10%	100	**160**	220	100	**160**	220	120	**180**	240
P8	Precipitation hardening stainless steel (ex. 1.4548/X 5 CrNiCuNb 17 4/17-4-PH)	≤ 450	100%				50	**80**	110	60	**90**	120
			30%				60	**90**	120	70	**100**	130
			10%				70	**100**	130	80	**110**	140
M1	Austenitic stainless steel (ex. 1.4305/X 10 CrNiS 18 9/AISI303)	> 200	100%	60	**90**	120	60	**90**	120	80	**110**	140
			30%	80	**120**	160	80	**120**	160	100	**140**	180
			10%	100	**140**	180	100	**140**	180	120	**160**	200
M2 - M3	Austenitic and Duplex stainless steel (ex. 1.4401/X 5 CrNiMo 17 12 2/AISI316)		100%				60	**90**	120	70	**100**	130
			30%				70	**100**	130	80	**110**	140
							80	**110**	140	90	**120**	150
ISO 513	MATERIAL	HARDNESS HB	ae/DC	JP7525 min	JP7525 start	JP7525 max	JP7615 min	JP7615 start	JP7615 max			
K1	Grey cast iron (ex. 0.6025/GG 25/EN-GJL-250)	150 ÷ 250	100%	140	**180**	220	140	**180**	220			
			30%	160	**210**	260	160	**210**	260			
			10%	180	**240**	300	180	**240**	300			
K2	Nodular cast iron (ex. 0.7050/GGG 50/EN-GJS-500-7)	150 ÷ 350	100%	100	**140**	180	100	**140**	180			
			30%	120	**170**	220	120	**170**	220			
			10%	140	**200**	260	140	**200**	260			
K3 - K4	Austenitic and ADI cast iron (ex. 0.6660/GGL-NiCr 20 2/Ni-Resist 2, GJS-1000-5/ ADI1000)	250 ÷ 500	100%	90	**120**	150	90	**120**	150			
			30%	120	**150**	180	120	**150**	180			
			10%	150	**180**	210	150	**180**	210			
ISO 513	MATERIAL	HARDNESS HB	ae/DC	JU6520 min	JU6520 start	JU6520 max						
N1	Aluminium alloys ≤ Si 12% (ex. 3.4365/AlZn5.5MgCu/ERGAL)		100%	300	**400**	500						
			30%	400	**600**	800						
			10%	500	**800**	1100						
N2	Aluminium alloys Si > 12% (ex. 3.2382/G-AlSi12)		100%	200	**250**	300						
			30%	300	**350**	400						
			10%	400	**450**	500						
ISO 513	MATERIAL	HARDNESS HB	ae/DC	JP5540 min	JP5540 start	JP5540 max	JP9535 min	JP9535 start	JP9535 max	JP9635 min	JP9635 start	JP9635 max
S1 - S2 - S3	Fe/Ni/Co based heat resistant alloys (ex. Hastelloy, Inconel 625, Inconel 718)		100%	20	**25**	30	20	**30**	40	20	**25**	30
			30%	30	**35**	40	30	**40**	50	30	**35**	40
			10%	40	**45**	50	40	**50**	60	40	**45**	50
S4 - S5	Titanium alloys (ex. TiAl2Sn4Zr2MoSi)		100%	30	**40**	50	40	**50**	60	30	**40**	50
			30%	40	**50**	60	50	**60**	70	40	**50**	60
			10%	50	**60**	70	60	**70**	80	50	**60**	70

ae: radial depth of cut; DC: milling cutter diameter

Complete workpiece materials p. **H**1.

JP8725			JU4525						
min	start	max	min	start	max				
100	**150**	200	130	**180**	230				
160	**210**	260	200	**240**	280				
220	**250**	280	260	**280**	300				
90	**130**	170	120	**150**	180				
130	**170**	210	180	**210**	240				
190	**210**	230	230	**250**	270				
80	**110**	140	90	**120**	150				
120	**150**	180	150	**180**	210				
160	**190**	220	190	**220**	250				
JP9635									
min	start	max							
80	**110**	140							
100	**140**	180							
120	**170**	220							
60	**80**	100							
70	**90**	110							
80	**100**	120							
80	**100**	120							
100	**130**	160							
120	**150**	180							
70	**90**	110							
80	**100**	120							
90	**110**	130							

Complete workpiece materials p. **H**1.

MILLING Parameters - depth of cut and feed rate · REKPLUS

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DESIGNATION	ae/DC	DEPTH OF CUT			FEED RATE		
		ap (mm)			fz (mm)		
		min	start	max	min	start	max
NT-RKP11RooM-HGP	100%	1.00	**2.50**	4.00	0.06	**0.09**	0.12
	30%	1.00	**4.50**	8.00	0.08	**0.11**	0.14
	10%	1.00	**4.50**	8.00	0.10	**0.15**	0.20
NT-RKP16RooM-HGP	100%	1.00	**4.00**	7.00	0.10	**0.13**	0.16
	30%	1.00	**8.00**	15.00	0.12	**0.16**	0.20
	10%	1.00	**8.00**	15.00	0.16	**0.20**	0.24
NT-RKP11RooM-HSC	100%	1.00	**2.50**	4.00	0.04	**0.07**	0.10
	30%	1.00	**4.50**	8.00	0.06	**0.09**	0.12
	10%	1.00	**4.50**	8.00	0.08	**0.12**	0.16
NT-RKP16RooM-HSC	100%	1.00	**4.00**	7.00	0.06	**0.10**	0.14
	30%	1.00	**8.00**	15.00	0.10	**0.13**	0.16
	10%	1.00	**8.00**	15.00	0.12	**0.15**	0.18

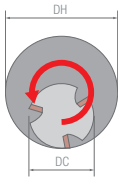
DESIGNATION	ae/DC	DEPTH OF CUT			FEED RATE		
		ap (mm)			fz (mm)		
		min	start	max	min	start	max
NT-RKP11R08M-GP	100%	1.00	**2.50**	4.00	0.06	**0.09**	0.12
	30%	1.00	**4.50**	8.00	0.08	**0.11**	0.14
	10%	1.00	**4.50**	8.00	0.10	**0.15**	0.20
NT-RKP16R08M-GP	100%	1.00	**4.00**	7.00	0.10	**0.13**	0.16
	30%	1.00	**8.00**	15.00	0.12	**0.16**	0.20
	10%	1.00	**8.00**	15.00	0.16	**0.20**	0.24
NT-RKP11R08M-SC	100%	1.00	**2.50**	4.00	0.04	**0.07**	0.10
	30%	1.00	**4.50**	8.00	0.06	**0.09**	0.12
	10%	1.00	**4.50**	8.00	0.08	**0.12**	0.16
NT-RKP16R08M-SC	100%	1.00	**4.00**	7.00	0.06	**0.10**	0.14
	30%	1.00	**8.00**	15.00	0.10	**0.13**	0.16
	10%	1.00	**8.00**	15.00	0.12	**0.15**	0.18
NT-RKP11R08M-TE	100%	1.00	**2.50**	4.00	0.08	**0.11**	0.14
	30%	1.00	**4.50**	8.00	0.10	**0.14**	0.18
	10%	1.00	**4.50**	8.00	0.12	**0.17**	0.22
NT-RKP16R08M-TE	100%	1.00	**4.00**	7.00	0.12	**0.15**	0.18
	30%	1.00	**8.00**	15.00	0.14	**0.18**	0.22
	10%	1.00	**8.00**	15.00	0.18	**0.23**	0.28
NT-RKP11RooG-AL	100%	1.00	**2.50**	4.00	0.08	**0.14**	0.20
	30%	1.00	**4.50**	8.00	0.10	**0.17**	0.24
	10%	1.00	**4.50**	8.00	0.12	**0.20**	0.28
NT-RKP16RooG-AL	100%	1.00	**4.00**	7.00	0.11	**0.18**	0.25
	30%	1.00	**8.00**	15.00	0.14	**0.22**	0.30
	10%	1.00	**8.00**	15.00	0.16	**0.25**	0.34

Parameters for ramping

NT-RKP11			NT-RKP16		
DC	RMPX	L	DC	RMPX	L
16	4.2°	10.8	25	5.0°	9.0
17	3.9°	11.5	32	1.7°	24.3
20	2.9°	15.4	40	1.1°	36.5
21	2.7°	16.6			
25	2.0°	21.5			
26	1.9°	22.4			
32	1.4°	29.5			
40	1.0°	39.3			

RMPX: max. ramping angle; L: max. ramping path

Parameters for helical milling



NT-RKP11 R0.4			NT-RKP11 R0.8/1.2/1.6					
DC	DH min.	DH max.	DC	DH min.	DH max.			
16	20	32	16	21	31			
17	22	34	17	23	33			
20	28	40	20	29	39			
21	30	42	21	31	41			
25	38	50	25	39	49			
26	40	52	26	41	51			
32	52	64	32	53	63			
40	68	80	40	69	79			
NT-RKP16 R0.8			NT-RKP16 R1.2/1.6/2.0			NT-RKP16 R3.1		
DC	DH min.	DH max.	DC	DH min.	DH max.	DC	DH min.	DH max.
25	32	49	25	33	49	25	35	47
32	46	63	32	47	63	32	49	61
40	62	79	40	63	79	40	65	77

DH min.: min. cutting dia.; DH max.: max. cutting dia.

nikkoTOOLS

DOUBLEREK

High productivity high precision double sided shoulder milling system

APPLICATION

· Shoulder milling
· Shoulders with repeated passes
· Long overhang shoulder milling

ISO APPLICATION FIELDS

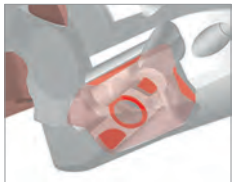
P M K

ADVANTAGES AND CHARACTERISTICS

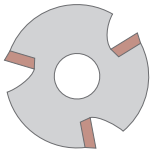
· Available in big and small dimensions allow axial removals up to 15 mm.
· Super positive rake with helical geometry, extremely smooth cutting action.
· Fully ground inserts for precision machining and excellent finishes.
· Thickness greater than conventional inserts of the same size ensures better heat dissipation and excellent mechanical strength
· Secure and reliable installation guarantees better precision especially at tough conditions

Cutter bodies

· Arbor type
· Cylindrical type
· Screw-in type
· Extension sleeves (steel/carbide 10xD)
· From D16 to D125



Precise and stable positioning



Coarse pitch

Fine pitch

Inserts

· 4 cutting edges
· Edge length 10 and 17
· Cemented carbide grades with CVD and PVD coatings
· Geometries: GP, TE

GP P M K

SIZE
10 17

TE P K

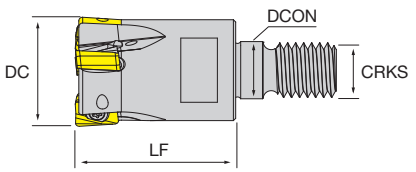
SIZE
17

NT-DRK

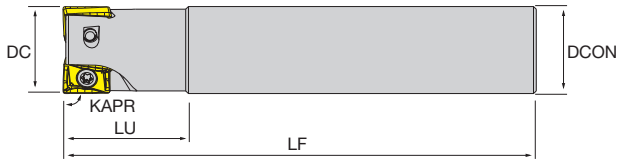
DoubleRek

- Double-sided precision shoulder milling system, with coolant through
- Low resistance robust helical shoulder milling system, provides precision, good surface and reliability
- Tolerance of tool diameter (with Nikko inserts installed) 0/-0.2
- Steel and carbide arbors available for screw-in type holders

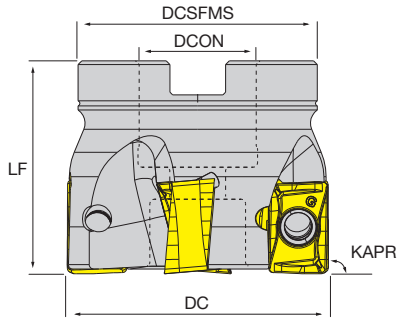
Screw-in



Cylindrical



Arbor



Designation	Stock	DC	CICT	DCON	LF	LU	DCSFMS	CRKS	KAPR	WT	MIID
SCREW-IN											
NT-DRK10 D016-M08-Z02	●	16	2	8.5	25	-	-	M8	90°	0.03 Kg	NT-DRK10
NT-DRK10 D020-M12-Z03	●	20	3	10.5	30	-	-	M10	90°	0.05 Kg	NT-DRK10
NT-DRK10 D025-M16-Z03	●	25	3	12.5	35	-	-	M12	90°	0.10 Kg	NT-DRK10
NT-DRK10 D032-M16-Z04	●	32	4	17	43	-	-	M16	90°	0.22 Kg	NT-DRK10
CYLINDRICAL											
NT-DRK10 D016-S16-Z02	●	16	2	16	100	25	-	-	90°	0.13 Kg	NT-DRK10
NT-DRK10 D020-S20-Z03	●	20	3	20	110	30	-	-	90°	0.23 Kg	NT-DRK10
NT-DRK10 D025-S25-Z03	●	25	3	25	120	35	-	-	90°	0.41 Kg	NT-DRK10
NT-DRK10 D032-S32-Z04	●	32	4	32	130	45	-	-	90°	0.74 Kg	NT-DRK10
NT-DRK17 D032-S32-Z02	●	32	2	32	130	45	-	-	90°	0.69 Kg	NT-DRK17
NT-DRK17 D040-S32-Z03	●	40	3	32	150	40	-	-	90°	0.89 Kg	NT-DRK17
ARBOR											
NT-DRK10 D032-F16-Z04	●	32	4	16	35	-	30	-	90°	0.10 Kg	NT-DRK10
NT-DRK10 D040-F16-Z05	●	40	5	16	40	-	30	-	90°	0.18 Kg	NT-DRK10
NT-DRK10 D050-F22-Z05	●	50	5	22	40	-	40	-	90°	0.31 Kg	NT-DRK10
NT-DRK10 D050-F22-Z07	●	50	7	22	40	-	40	-	90°	0.30 Kg	NT-DRK10
NT-DRK10 D063-F22-Z06	●	63	6	22	40	-	55	-	90°	0.62 Kg	NT-DRK10
NT-DRK10 D063-F22-Z08	●	63	8	22	40	-	55	-	90°	0.62 Kg	NT-DRK10
NT-DRK10 D080-F27-Z07	●	80	7	27	50	-	63	-	90°	1.26 Kg	NT-DRK10
NT-DRK10 D080-F27-Z10	●	80	10	27	50	-	63	-	90°	1.24 Kg	NT-DRK10
NT-DRK17 D050-F22-Z04	●	50	4	22	40	-	45	-	90°	0.29 Kg	NT-DRK17
NT-DRK17 D063-F22-Z05	●	63	5	22	40	-	56	-	90°	0.54 Kg	NT-DRK17
NT-DRK17 D063-F22-Z06	●	63	6	22	40	-	56	-	90°	0.51 Kg	NT-DRK17
NT-DRK17 D080-F27-Z06	●	80	6	27	50	-	63	-	90°	1.13 Kg	NT-DRK17
NT-DRK17 D080-F27-Z07	●	80	7	27	50	-	63	-	90°	1.10 Kg	NT-DRK17

● stock standard, ○ non-standard stock, ▲ upcoming introduction, ▽ stock exhaustion

Designation	Stock	DC	CICT	DCON	LF	LU	DCSFMS	CRKS	KAPR	WT	MIID
NT-DRK17 D100-F32-Z07	●	100	7	32	50	-	78	-	90°	1.71 Kg	NT-DRK17
NT-DRK17 D100-F32-Z09	●	100	9	32	50	-	78	-	90°	1.71 Kg	NT-DRK17
NT-DRK17 D125-F40-Z08	●	125	8	40	63	-	80	-	90°	3.20 Kg	NT-DRK17
NT-DRK17 D125-F40-Z10	●	125	10	40	63	-	80	-	90°	3.15 Kg	NT-DRK17

● stock standard, ○ non-standard stock, ▲ upcoming introduction, ▽ stock exhaustion

Spare parts	Insert screws	Flag wrenches
NT-DRK10 D○○○-○○○-Z○○	NT-ST25078P08	NT-FTP08
NT-DRK17 D○○○-○○○-Z○○	NT-ST45111T15	NT-FTB15

NT-DRK

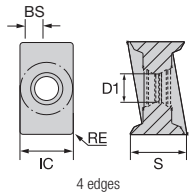
DoubleRek

- GP and TE are both helical geometries with reduced cutting resistance
- Precise and enhanced positioning guarantees more reliability in machining
- Available in diverse grades covering wide application range

HC: Coated carbide
HF: Micrograin carbide
CVD: Chemical vapour deposition
PVD: Physical vapour deposition

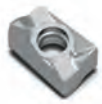
	JC7515	JC8520	JC9540	JP5530	JP7525	JP8725	JP9535	JP9545
	HC CVD	HC CVD	HC CVD	HF PVD	HF PVD	HF PVD	HF PVD	HF PVD
Stable machining, light cut (● 1st choice, ○ suitable)	●	●				○		
General machining, medium cut (● 1st choice, ○ suitable)	●	○	●	●	●	●	●	○
Unstable machining, heavy cut (● 1st choice, ○ suitable)			●	○	●		●	●

Dimensions

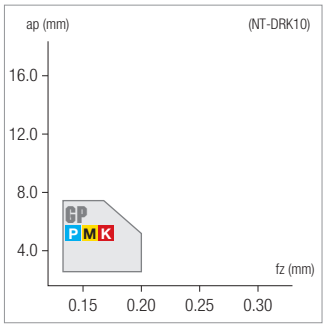


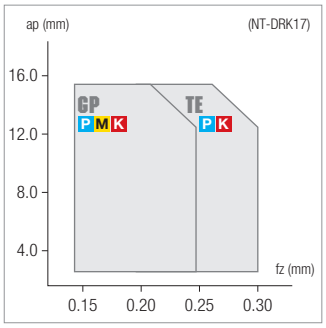
Vc(m/min) - suggested cutting speed range (bold: 1st choice)

ISO	JC7515	JC8520	JC9540	JP5530	JP7525	JP8725	JP9535	JP9545
P		130 300		100 260		100 280		
M			90 210	60 180			80 200	60 180
K	180 360	160 320			140 300			
N								
S			30 70				20 60	20 50
H								

	Designation		RE	IC	S	D1	BS	JC7515	JC8520	JC9540	JP5530	JP7525	JP8725	JP9535	JP9545
GENERAL	GP P M K 	NT-DRK10R08K-GP	0.8	5.82	5.45	2.9	0.9		●	●	●	●	●	●	●
	GP P M K	NT-DRK17R08K-GP	0.8	11.2	10.94	5.2	3.2	●	●	●	●	●	●	●	
REINFORCED	TE P K	NT-DRK17R12K-TE	1.2	11.2	10.94	5.2	3.2	●	●		●	●	●		

● stock standard, ○ non-standard stock, ▲ upcoming introduction, ▽ stock exhaustion





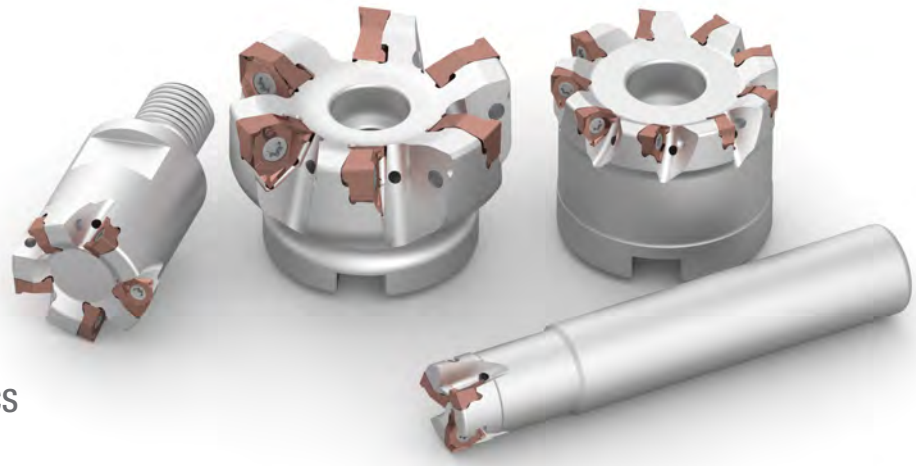
ISO 513	MATERIAL	HARDNESS HB	ae/DC	JC8520 min	JC8520 start	JC8520 max	JP5530 min	JP5530 start	JP5530 max	JP8725 min	JP8725 start	JP8725 max
P1 - P2	Free cutting steel and low carbon (ex. 1.0715/9 smn 28/avp, 1.0503/c45)	≤ 200	100%	130	**180**	230	100	**140**	180	100	**150**	200
			30%	200	**240**	280	160	**200**	240	160	**210**	260
			10%	260	**280**	300	220	**240**	260	220	**250**	280
P3 - P4	Medium and high alloy steel (ex. 1.7225/42 CrMo 4, 1.3505/100 Cr 6)	200 ÷ 300	100%	100	**140**	180	80	**120**	160	90	**130**	170
			30%	160	**200**	240	120	**160**	200	130	**170**	210
			10%	220	**240**	260	180	**200**	220	190	**210**	230
P5 - P6	High tensile strength and tool steel (ex. 1.2344/X 40 CrMoV 5 1/ORVAR, Hardox400®)	300 ÷ 400	100%	70	**100**	130	60	**90**	120	80	**110**	140
			30%	120	**160**	200	100	**130**	160	120	**150**	180
			10%	200	**220**	240	140	**170**	200	160	**190**	220
ISO 513	MATERIAL	HARDNESS HB	ae/DC	JC9540 min	JC9540 start	JC9540 max	JP9535 min	JP9535 start	JP9535 max	JP9545 min	JP9545 start	JP9545 max
P7	Ferritic and martensitic stainless steel (ex. 1.4021/X 20 Cr 13/AISI420)	≤ 200	100%	90	**130**	170	80	**120**	160	60	**100**	140
			30%	110	**160**	210	100	**150**	200	80	**130**	180
			10%	130	**190**	250	120	**180**	240	100	**160**	220
P8	Precipitation hardening stainless steel (ex. 1.4548/X 5 CrNiCuNb 17 4/17-4-PH)	≤ 450	100%	70	**100**	130	60	**90**	120	50	**80**	110
			30%	80	**110**	140	70	**100**	130	60	**90**	120
			10%	90	**120**	150	80	**110**	140	70	**100**	130
M1	Austenitic stainless steel (ex. 1.4305/X 10 CrNiS 18 9/AISI303)	> 200	100%	90	**120**	150	80	**110**	140	60	**90**	120
			30%	110	**150**	190	100	**140**	180	80	**120**	160
			10%	130	**170**	210	120	**160**	200	100	**140**	180
M2 - M3	Austenitic and Duplex stainless steel (ex. 1.4401/X 5 CrNiMo 17 12 2/AISI316)		100%	80	**110**	140	70	**100**	130	60	**90**	120
			30%	90	**120**	150	80	**110**	140	70	**100**	130
				100	**130**	160	90	**120**	150	80	**110**	140
ISO 513	MATERIAL	HARDNESS HB	ae/DC	JC7515 min	JC7515 start	JC7515 max	JC8520 min	JC8520 start	JC8520 max	JP7525 min	JP7525 start	JP7525 max
K1	Grey cast iron (ex. 0.6025/GG 25/EN-GJL-250)	150 ÷ 250	100%	180	**230**	280	160	**200**	240	140	**180**	220
			30%	200	**260**	320	180	**230**	280	160	**210**	260
			10%	220	**290**	360	200	**260**	320	180	**240**	300
K2	Nodular cast iron (ex. 0.7050/GGG 50/EN-GJS-500-7)	150 ÷ 350	100%	120	**180**	240	120	**160**	200	100	**140**	180
			30%	160	**220**	280	140	**190**	240	120	**170**	220
			10%	200	**260**	320	160	**220**	280	140	**200**	260
K3 - K4	Austenitic and ADI cast iron (ex. 0.6660/GGL-NiCr 20 2/Ni-Resist 2, GJS-1000-5/ ADI1000)	250 ÷ 500	100%	100	**140**	180	100	**130**	160	90	**120**	150
			30%	140	**180**	220	120	**160**	200	120	**150**	180
			10%	180	**220**	260	140	**190**	240	150	**180**	210
ISO 513	MATERIAL	HARDNESS HB	ae/DC	JC9540 min	JC9540 start	JC9540 max	JP9535 min	JP9535 start	JP9535 max	JP9545 min	JP9545 start	JP9545 max
S1 - S2 - S3	Fe/Ni/Co based heat resistant alloys (ex. Hastelloy, Inconel 625, Inconel 718)		100%	30	**40**	50	20	**30**	40	20	**25**	30
			30%	40	**50**	60	30	**40**	50	30	**35**	40
			10%	50	**60**	70	40	**50**	60	40	**45**	50
S4 - S5	Titanium alloys (ex. TiAl2Sn4Zr2MoSi)		100%				40	**50**	60	30	**40**	50
			30%				50	**60**	70	40	**50**	60
			10%				60	**70**	80	50	**60**	70

ae: radial depth of cut; DC: milling cutter diameter

Complete workpiece materials p. **H**1.

DESIGNATION	ae/Dc	DEPTH OF CUT			FEED RATE		
		ap (mm)			fz (mm)		
		min	start	max	min	start	max
NT-DRK10R08K-GP	100%	1.00	**2.50**	4.00	0.08	**0.10**	0.12
	30%	1.00	**4.00**	7.00	0.10	**0.13**	0.16
	10%	1.00	**4.00**	7.00	0.12	**0.16**	0.20
NT-DRK17R08K-GP	100%	1.00	**4.00**	7.00	0.11	**0.18**	0.21
	30%	1.00	**8.00**	15.00	0.14	**0.20**	0.26
	10%	1.00	**8.00**	15.00	0.16	**0.23**	0.30
NT-DRK17R12K-TE	100%	1.00	**4.00**	7.00	0.13	**0.19**	0.25
	30%	1.00	**8.00**	15.00	0.16	**0.23**	0.30
	10%	1.00	**8.00**	15.00	0.20	**0.27**	0.34

DOUBLE3GON High economical trigonal shoulder milling system for universal processes



APPLICATION

· Shoulder milling
· Shoulders with repeated passes
· Long overhang shoulder milling

ISO APPLICATION FIELDS

P M K N S

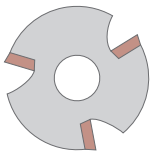
ADVANTAGES AND CHARACTERISTICS

· High precision in making 90° side milling
· Reduced cost per edge than conventional shoulder milling systems.
· Very robust system because of the negative trigonal and reliable installation.
· Full range of carbide geometries, radii and grades.
· «Ultra-precise» cutter bodies with special surface treatment to ensure longer life.

Cutter bodies

· Arbor type
· Cylindrical type
· Screw-in type
· Extension sleeves (steel/carbide 10xD)
· From D20 to D160

Extension arbors



Coarse pitch

Fine pitch

Inserts

· 6 cutting edges
· Edge length 04 and 08
· Cemented carbide grades with CVD and PVD coatings
· Geometries: SC, GP, TE, AL

SC P M S

SIZE
08

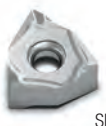
GP P M K

SIZE
04 08

TE P K

SIZE
08

AL N



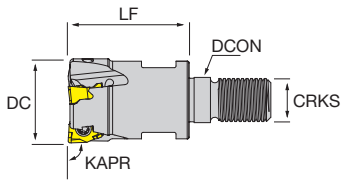
SIZE
08

NT-WX

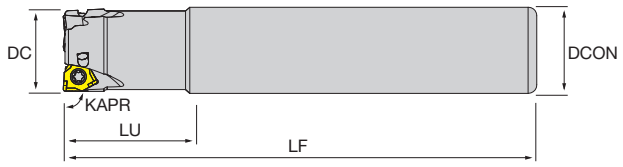
Double3Gon

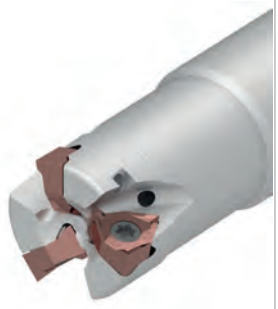
- Double sided trigonal type shoulder milling system, with coolant through
- Tolerance of tool diameter (with Nikko inserts installed) 0/-0.2
- Steel and carbide arbors available for screw-in type holders
- High-Quality Swiss screws guarantee more reliability in your machining

Screw-in

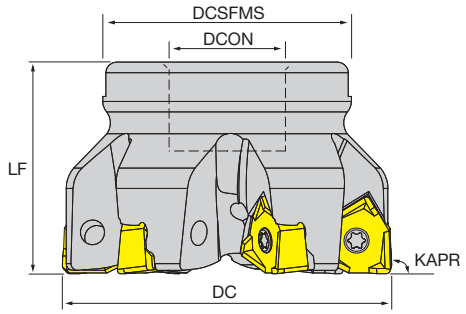


Cylindrical





Arbor



Designation	Stock	DC	CICT	DCON	LF	LU	DCSFMS	CRKS	KAPR	WT	MIID
SCREW-IN											
NT-WX04H D020-M10-Z03	●	20	3	10.5	28	-	-	M10	90°	0.05 Kg	WNEX0403
NT-WX04H D025-M12-Z03	○	25	3	12.5	30	-	-	M12	90°	-	WNEX0403
NT-WX04H D025-M12-Z04	●	25	4	12.5	30	-	-	M12	90°	0.09 Kg	WNEX0403
NT-WX04H D032-M16-Z04	○	32	4	17	40	-	-	M16	90°	-	WNEX0403
NT-WX04H D032-M16-Z05	●	32	5	17	40	-	-	M16	90°	0.20 Kg	WNEX0403
CYLINDRICAL											
NT-WX04H D020-S16-Z03	●	20	3	16	110	20	-	-	90°	0.16 Kg	WNEX0403
NT-WX04H D020-S20-Z03	●	20	3	20	110	28	-	-	90°	0.23 Kg	WNEX0403
NT-WX04H D025-S20-Z04	●	25	4	20	120	22	-	-	90°	0.27 Kg	WNEX0403
NT-WX04H D025-S25-Z04	●	25	4	25	120	30	-	-	90°	0.40 Kg	WNEX0403
NT-WX04H D032-S25-Z05	●	32	5	25	130	25	-	-	90°	0.47 Kg	WNEX0403
NT-WX04H D032-S32-Z05	●	32	5	32	130	40	-	-	90°	0.72 Kg	WNEX0403
ARBOR											
NT-WX04H D040-F16-Z05	○	40	5	16	40	-	35	-	90°	-	WNEX0403
NT-WX04H D040-F16-Z07	●	40	7	16	40	-	35	-	90°	0.22 Kg	WNEX0403
NT-WX04H D050-F22-Z06	○	50	6	22	40	-	47	-	90°	-	WNEX0403
NT-WX04H D050-F22-Z09	●	50	9	22	40	-	47	-	90°	0.38 Kg	WNEX0403
NT-WX04H D063-F22-Z08	○	63	8	22	40	-	47	-	90°	-	WNEX0403
NT-WX04H D063-F22-Z10	○	63	10	22	40	-	47	-	90°	-	WNEX0403
NT-WX08H D050-F22-Z04	●	50	4	22	40	-	47	-	90°	0.31 Kg	WNEX0806
NT-WX08H D050-F22-Z05	●	50	5	22	40	-	47	-	90°	0.33 Kg	WNEX0806
NT-WX08H D063-F22-Z06	●	63	6	22	40	-	47	-	90°	0.43 Kg	WNEX0806
NT-WX08H D063-F22-Z07	●	63	7	22	40	-	47	-	90°	0.42 Kg	WNEX0806
NT-WX08H D063-F27-Z06	●	63	6	27	40	-	47	-	90°	0.63 Kg	WNEX0806
NT-WX08H D080-F27-Z07	●	80	7	27	50	-	62.1	-	90°	0.99 Kg	WNEX0806

● stock standard, ○ non-standard stock, ▲ upcoming introduction, ▽ stock exhaustion

Designation	Stock	DC	CICT	DCON	LF	LU	DCSFMS	CRKS	KAPR	WT	MIID
NT-WX08H D080-F27-Z09	●	80	9	27	50	-	62.1	-	90°	0.96 Kg	WNEX0806
NT-WX08H D100-F32-Z08	●	100	8	32	50	-	77.1	-	90°	-	WNEX0806
NT-WX08H D100-F32-Z11	●	100	11	32	50	-	77.1	-	90°	1.45 Kg	WNEX0806
NT-WX08H D125-F40-Z11	●	125	11	40	63	-	80	-	90°	2.38 Kg	WNEX0806
NT-WX08H D160-F40-Z12	●	160	12	40	63	-	85	-	90°	3.86 Kg	WNEX0806

● stock standard, ○ non-standard stock, ▲ upcoming introduction, ▽ stock exhaustion

Spare parts	Insert screws	Flag wrenches
NT-WX04H D○○○-○○○-Z○○	NT-ST25056T08HQ	NT-FTB08
NT-WX08H D○○○-○○○-Z○○	NT-ST40110T15HQ	NT-FTB15

WNEX

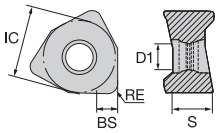
Double3Gon

- Double-sided trigonal inserts offering 6 edges!
- Stable sitting in the pocket guarantees more reliability in machining
- Available in diverse grades covering wide application range

HC: Coated carbide
HF: Micrograin carbide
CVD: Chemical vapour deposition
PVD: Physical vapour deposition

	JC7515	JC7530	JC8520	JC9540	JP5530	JP5540	JP7525	JP8525	JP8725	JP9525	JU6520
	HC CVD	HC CVD	HC CVD	HC CVD	HF PVD	HF PVD	HF PVD	HF PVD	HF PVD	HF PVD	HF
Stable machining, light cut (● 1st choice, ○ suitable)	●		●					○	○		●
General machining, medium cut (● 1st choice, ○ suitable)	●	●	○	●	●	○	●	●	●	●	●
Unstable machining, heavy cut (● 1st choice, ○ suitable)		●		●	○	●	●				

Dimensions



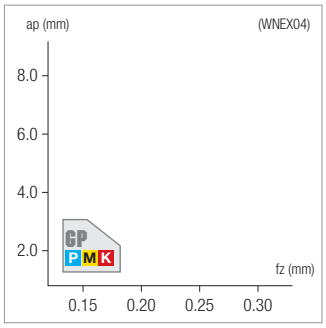
6 edges

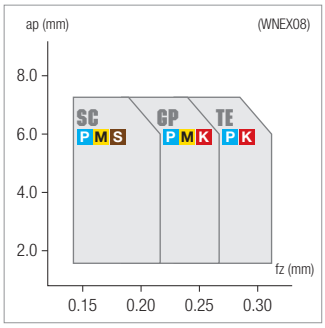
Vc(m/min) - suggested cutting speed range (bold: 1st choice)

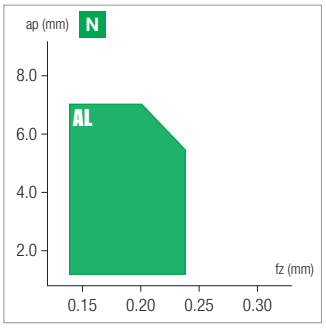
ISO	JC7515	JC7530	JC8520	JC9540	JP5530	JP5540	JP7525	JP8525	JP8725	JP9525	JU6520
P			130 300		100 260	80 220		100 260	100 280		
M				90 210	60 180	60 180				80 200	
K	180 360	160 320	160 320				140 300				
N											300 1100
S				30 70		20 50					
H											

	Designation		RE	IC	S	D1	BS	JC7515	JC7530	JC8520	JC9540	JP5530	JP5540	JP7525	JP8525	JP8725	JP9525	JU6520
GENERAL	GP P M K	WNEX040304R-GP	0.4	6.7	3.3	3.1	0.9						●	●	▽		▽	
		WNEX040308R-GP	0.8	6.7	3.3	3.1	0.9							●				
		WNEX080608R-GP	0.8	12.5	6.5	4.6	1.5	●		●	●	●	●	●		●		
LOW FORCE	SC P M S	WNEX080604R-SC	0.4	12.5	6.5	4.6	1.8						●		▽			
		WNEX080608R-SC	0.8	12.5	6.5	4.6	1.5						●					
REINFORCED	TE P K	WNEX080608R-TE	0.8	12.5	6.5	4.6	1.5	●	▽			●	●	●		●	▽	
		WNEX080612R-TE	1.2	12.5	6.5	4.6	1.1						●		▽			
ALUMINIUM	AL N polished surface periphery ground	WNEX080608R-AL	0.8	12.5	6.5	4.6	1.4											●

● stock standard, ○ non-standard stock, ▲ upcoming introduction, ▽ stock exhaustion







MILLING Parameters - cutting speed · DOUBLE3GON

nikkoTOOLS

ISO 513	MATERIAL	HARDNESS HB	ae/DC	JC8520 min	JC8520 start	JC8520 max	JP5530 min	JP5530 start	JP5530 max	JP5540 min	JP5540 start	JP5540 max
P1 - P2	Free cutting steel and low carbon (ex. 1.0715/9 smn 28/avp, 1.0503/c45)	≤ 200	100%	130	**180**	230	100	**140**	180	80	**120**	160
			30%	200	**240**	280	160	**200**	240	120	**160**	200
			10%	260	**280**	300	220	**240**	260	180	**200**	220
P3 - P4	Medium and high alloy steel (ex. 1.7225/42 CrMo 4, 1.3505/100 Cr 6)	200 ÷ 300	100%	100	**140**	180	80	**120**	160	60	**100**	140
			30%	160	**200**	240	120	**160**	200	100	**140**	180
			10%	220	**240**	260	180	**200**	220	160	**180**	200
P5 - P6	High tensile strength and tool steel (ex. 1.2344/X 40 CrMoV 5 1/ORVAR, Hardox400®)	300 ÷ 400	100%	70	**100**	130	60	**90**	120			
			30%	120	**160**	200	100	**130**	160			
			10%	200	**220**	240	140	**170**	200			
ISO 513	MATERIAL	HARDNESS HB	ae/DC	JC9540 min	JC9540 start	JC9540 max	JP5530 min	JP5530 start	JP5530 max	JP5540 min	JP5540 start	JP5540 max
P7	Ferritic and martensitic stainless steel (ex. 1.4021/X 20 Cr 13/AISI420)	≤ 200	100%	90	**130**	170	60	**100**	140	60	**100**	140
			30%	110	**160**	210	80	**130**	180	80	**130**	180
			10%	130	**190**	250	100	**160**	220	100	**160**	220
P8	Precipitation hardening stainless steel (ex. 1.4548/X 5 CrNiCuNb 17 4/17-4-PH)	≤ 450	100%	70	**100**	130				50	**80**	110
			30%	80	**110**	140				60	**90**	120
			10%	90	**120**	150				70	**100**	130
M1	Austenitic stainless steel (ex. 1.4305/X 10 CrNiS 18 9/AISI303)	> 200	100%	90	**120**	150	60	**90**	120	60	**90**	120
			30%	110	**150**	190	80	**120**	160	80	**120**	160
			10%	130	**170**	210	100	**140**	180	100	**140**	180
M2 - M3	Austenitic and Duplex stainless steel (ex. 1.4401/X 5 CrNiMo 17 12 2/AISI316)		100%	80	**110**	140				60	**90**	120
			30%	90	**120**	150				70	**100**	130
				100	**130**	160				80	**110**	140
ISO 513	MATERIAL	HARDNESS HB	ae/DC	JC7515 min	JC7515 start	JC7515 max	JC8520 min	JC8520 start	JC8520 max	JP7525 min	JP7525 start	JP7525 max
K1	Grey cast iron (ex. 0.6025/GG 25/EN-GJL-250)	150 ÷ 250	100%	180	**230**	280	160	**200**	240	140	**180**	220
			30%	200	**260**	320	180	**230**	280	160	**210**	260
			10%	220	**290**	360	200	**260**	320	180	**240**	300
K2	Nodular cast iron (ex. 0.7050/GGG 50/EN-GJS-500-7)	150 ÷ 350	100%	120	**180**	240	120	**160**	200	100	**140**	180
			30%	160	**220**	280	140	**190**	240	120	**170**	220
			10%	200	**260**	320	160	**220**	280	140	**200**	260
K3 - K4	Austenitic and ADI cast iron (ex. 0.6660/GGL-NiCr 20 2/Ni-Resist 2, GJS-1000-5/ ADI1000)	250 ÷ 500	100%	100	**140**	180	100	**130**	160	90	**120**	150
			30%	140	**180**	220	120	**160**	200	120	**150**	180
			10%	180	**220**	260	140	**190**	240	150	**180**	210
ISO 513	MATERIAL	HARDNESS HB	ae/DC	JU6520 min	JU6520 start	JU6520 max						
N1	Aluminium alloys ≤ Si 12% (ex. 3.4365/AlZn5.5MgCu/ERGAL)		100%	300	**400**	500						
			30%	400	**600**	800						
			10%	500	**800**	1100						
N2	Aluminium alloys Si > 12% (ex. 3.2382/G-AlSi12)		100%	200	**250**	300						
			30%	300	**350**	400						
			10%	400	**450**	500						
ISO 513	MATERIAL	HARDNESS HB	ae/DC	JC9540 min	JC9540 start	JC9540 max	JP5540 min	JP5540 start	JP5540 max			
S1 - S2 - S3	Fe/Ni/Co based heat resistant alloys (ex. Hastelloy, Inconel 625, Inconel 718)		100%	30	**40**	50	20	**25**	30			
			30%	40	**50**	60	30	**35**	40			
			10%	50	**60**	70	40	**45**	50			
S4 - S5	Titanium alloys (ex. TiAl2Sn4Zr2MoSi)		100%				30	**40**	50			
			30%				40	**50**	60			
			10%				50	**60**	70			

ae: radial depth of cut; DC: milling cutter diameter

Complete workpiece materials p. **H**1.

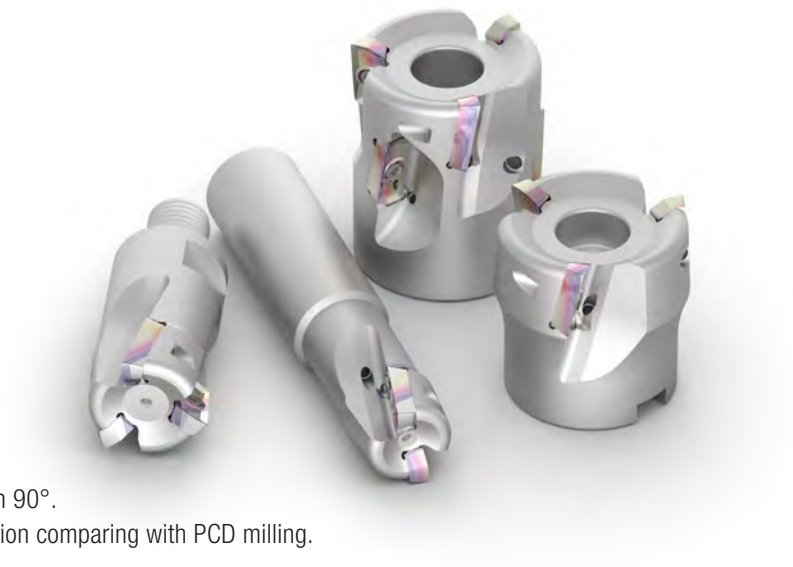
JP8725							
min	start	max					
100	**150**	200					
160	**210**	260					
220	**250**	280					
90	**130**	170					
130	**170**	210					
190	**210**	230					
80	**110**	140					
120	**150**	180					
160	**190**	220					

Complete workpiece materials p. **H**1.

DESIGNATION	ae/DC	DEPTH OF CUT			FEED RATE		
		ap (mm)			fz (mm)		
		min	start	max	min	start	max
WNEX0403ooR-GP	100%	0.60	**1.00**	1.40	0.05	**0.10**	0.15
	30%	0.60	**1.80**	3.00	0.06	**0.12**	0.18
	10%	0.60	**1.80**	3.00	0.07	**0.14**	0.20
WNEX0806ooR-GP	100%	1.00	**2.50**	4.00	0.11	**0.18**	0.21
	30%	1.00	**4.00**	7.00	0.14	**0.20**	0.26
	10%	1.00	**4.00**	7.00	0.16	**0.23**	0.30
WNEX0806ooR-SC	100%	1.00	**2.50**	4.00	0.08	**0.13**	0.18
	30%	1.00	**4.00**	7.00	0.10	**0.16**	0.22
	10%	1.00	**4.00**	7.00	0.12	**0.20**	0.26
WNEX0806ooR-TE	100%	1.00	**2.50**	4.00	0.13	**0.19**	0.25
	30%	1.00	**4.00**	7.00	0.16	**0.23**	0.30
	10%	1.00	**4.00**	7.00	0.20	**0.27**	0.34
WNEX080608R-AL	100%	1.00	**2.50**	4.00	0.08	**0.14**	0.20
	30%	1.00	**4.00**	7.00	0.10	**0.17**	0.24
	10%	1.00	**4.00**	7.00	0.12	**0.20**	0.28

ALUREK

Multi-functional shoulder milling cutters specially for non-ferrous materials



APPLICATION

- Shoulder milling
- Long overhang milling
- Profiling and Pocketing
- Linear and helical ramping

ISO APPLICATION FIELDS

N

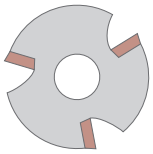
ADVANTAGES AND CHARACTERISTICS

- Inserts of helical geometry type can produce high precision 90°.
- PVD coated carbide inserts, an optimal cost-effective solution comparing with PCD milling.
- Different radii of inserts available.
- Smart-Lock at the back of the insert and on the cutter seats, guarantees a more reliable machining process and better surface finishing.
- Popular sizes of cutter bodies available with cylindrical shank, screw-in and arbor type connection, all with internal coolant.
- 10xD extensive sleeves available in both steel and carbide.

Cutter bodies

- Arbor type
- Cylindrical type (up to 10xD)
- Screw-in type
- Extension sleeves (steel/carbide 10xD)
- From D25 to D50

Smart-Lock



Coarse pitch

Fine pitch

Inserts

- 2 cutting edges
- Edge length 19
- PVD coated carbide grade specially for N materials
- Geometries: AL
- With Smart-Lock

AL N

SIZE 19

Smart-Lock on the back

0.2

0.8

2.0*

3.2

4.0*

5.0*

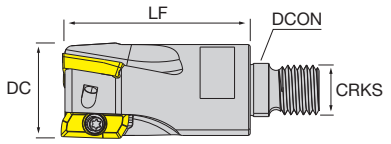
*Available upon request

NT-ALU90

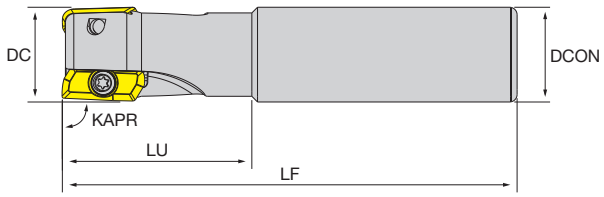
AluRek

- Highly positive and fine polished precision shoulder milling system tailored for aluminum and non-ferrous materials
- All with coolant through
- With Nikko smart-lock at the back of the insert and on the seat, offering better reliability and surface finishing
- Tolerance of tool diameter (with Nikko inserts installed) 0/-0.2

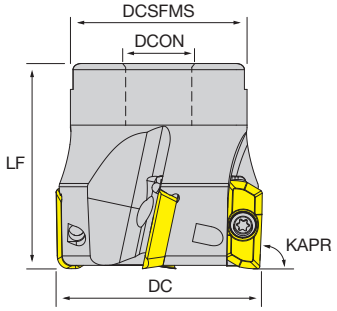
Screw-in

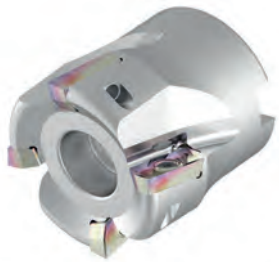


Cylindrical



Arbor





Designation	Stock	DC	CICT	DCON	LF	LU	DCSFMS	CRKS	KAPR		MIID
SCREW-IN											
NT-ALU9019 D025-M12-Z02	●	25	2	12.5	50	-	-	M12	90°		NT-ALU9019
NT-ALU9019 D032-M16-Z03	●	32	3	17	60	-	-	M16	90°		NT-ALU9019
CYLINDRICAL											
NT-ALU9019 D025-S25-Z02	●	25	2	25	120	50	-	-	90°		NT-ALU9019
NT-ALU9019 D032-S32-Z03	●	32	3	32	130	60	-	-	90°		NT-ALU9019
ARBOR											
NT-ALU9019 D040-F16-Z03	●	40	3	16	50	-	33	-	90°		NT-ALU9019
NT-ALU9019 D050-F22-Z03	●	50	3	22	50	-	43	-	90°		NT-ALU9019
NT-ALU9019 D050-F22-Z04	●	50	4	22	50	-	43	-	90°		NT-ALU9019

● stock standard, ○ non-standard stock, ▲ upcoming introduction, ▽ stock exhaustion

Spare parts	Insert screws	Flag wrenches
NT-ALU9019 D○○○-○○○-Z○○	NT-ST40090T15	NT-FTB15

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NT-ALU90

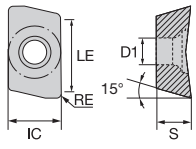
AluRek

- PVD coated micro-grain grade, optimal cost effective solution between uncoated carbide inserts and PCD
- With Nikko smart lock at the back, provides better surface finishing
- Sharp but reliable geometry, polished surface, precision periphery ground high performance solution
- Multiple radii available, R0.2 / 0.8 / 3.2

HF: Micrograin carbide
PVD: Physical vapour deposition

	HF PVD
	JP6525
Stable machining, light cut	● 1st choice ○ suitable
General machining, medium cut	● 1st choice ○ suitable
Unstable machining, heavy cut	● 1st choice ○ suitable

Dimensions

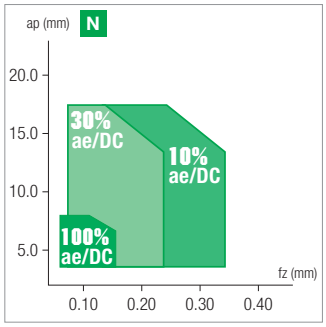


2 edges

ISO	Vc(m/min) - suggested cutting speed range (bold: 1st choice)
P	
M	
K	
N	400 1400
S	
H	

	Designation	RE	IC	S	D1	LE	Stock
ALUMINIUM AL N polished surface periphery ground	NT-ALU9019R02H-AL	0.2	9.5	4.76	4.6	19	●
	NT-ALU9019R08H-AL	0.8	9.5	4.76	4.6	19	●
	NT-ALU9019R32H-AL	3.2	9.5	4.76	4.6	19	●

● stock standard, ○ non-standard stock, ▲ upcoming introduction, ▽ stock exhaustion



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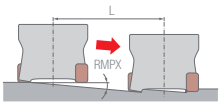
ISO 513	MATERIAL	HARDNESS HB	ae/DC	JP6525 min	JP6525 start	JP6525 max		
N1	Aluminium alloys ≤ Si 12% (ex. 3.4365/AlZn5.5MgCu/ERGAL)		100%	400	**500**	600		
			30%	600	**800**	1000		
			10%	800	**1100**	1400		
N2	Aluminium alloys Si > 12% (ex. 3.2382/G-AlSi12)		100%	200	**350**	500		
			30%	300	**450**	600		
			10%	400	**550**	700		

ae: radial depth of cut; DC: milling cutter diameter
Complete workpiece materials p. **H**1.

DESIGNATION	ae/DC	DEPTH OF CUT			FEED RATE		
		ap (mm)			fn (mm/rev)		
		min	start	max	min	start	max
NT-ALU9019RooH-AL	100%	1.00	**4.00**	7.00	0.06	**0.10**	0.14
	30%	1.00	**9.00**	17.00	0.08	**0.15**	0.22
	10%	1.00	**9.00**	17.00	0.10	**0.20**	0.30

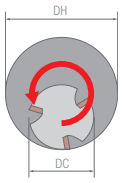
Parameters for ramping



ALU9019		
DC	RMPX	L
25	3.4°	3.0
32	2.5°	2.9
40	1.4°	2.1
50	0.7°	1.4

RMPX: max. ramping angle; L: max. ramping path

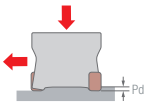
Parameters for helical milling



ALU9019 R0.2			ALU9019 R0.8			ALU9019 R3.2		
DC	DH min.	DH max.	DC	DH min.	DH max.	DC	DH min.	DH max.
25	32	49	25	33	48	25	37	47
32	46	63	32	47	62	32	51	61
40	62	79	40	63	78	40	67	77
50	82	99	50	83	98	50	87	97

DH min.: min. cutting dia.; DH max.: max. cutting dia.

Peck milling



Pd maximum pecking depth
Pd = 1 mm

APKT

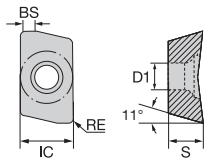
ISO

- Positive shoulder milling insert for general purpose use
- 3 geometries available, GP for universal use, TE for difficult conditions, AL for aluminum and non-ferrous materials
- AL geometry is highly sharp, periphery ground and fine polished

HC: Coated carbide
HF: Micrograin carbide
CVD: Chemical vapour deposition
PVD: Physical vapour deposition

	HC CVD	HF PVD	HF PVD	HF
	JC7530	JP5540	JP8725	JU6520
Stable machining, light cut (● 1st choice, ○ suitable)			○	●
General machining, medium cut (● 1st choice, ○ suitable)	●	○	●	●
Unstable machining, heavy cut (● 1st choice, ○ suitable)	●	●		

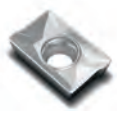
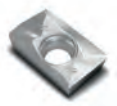
Dimensions



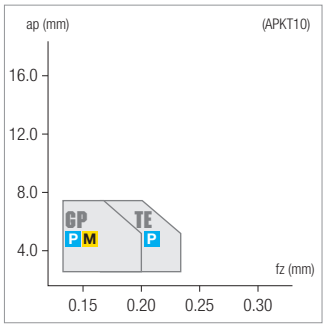
2 edges

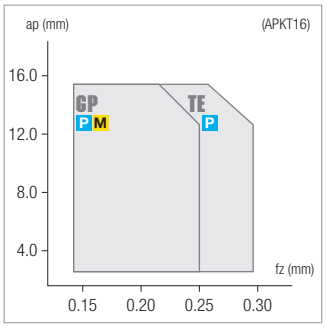
ISO	JC7530	JP5540	JP8725	JU6520
P		80 220	100 280	
M		60 180		
K	160 320			
N				300 1100
S		20 50		
H				

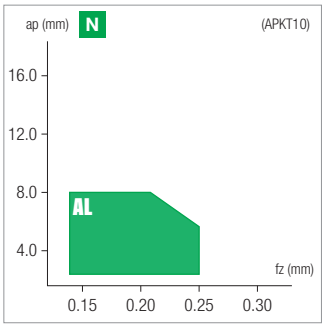
Vc(m/min) - suggested cutting speed range (bold: 1st choice)

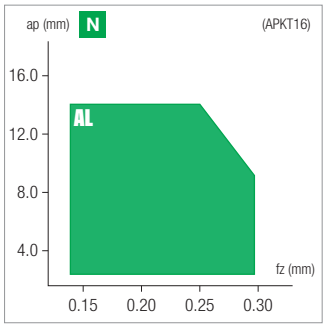
	Designation	RE	IC	S	D1	BS	JC7530	JP5540	JP8725	JU6520
GENERAL	GP P M APKT1003PDSR-GP	0.5	6.7	3.18	3.15	0.9		●	●	
	APKT1604PDSR-GP	1	9.525	4.76	4.4	1.9	▽	●	●	
REINFORCED	TE P  APKT1003PDSR-TE	0.5	6.7	3.18	3.15	0.9		●	●	
	APKT1604PDSR-TE	1	9.525	4.76	4.4	1.3	▽	●	●	
ALUMINIUM	AL N  polished surface periphery ground APKT1003PDFR-AL	0.5	6.7	3.18	3.15	1.6				●
	APKT1604PDFR-AL	1	9.525	4.76	4.4	1.9				●

● stock standard, ○ non-standard stock, ▲ upcoming introduction, ▽ stock exhaustion









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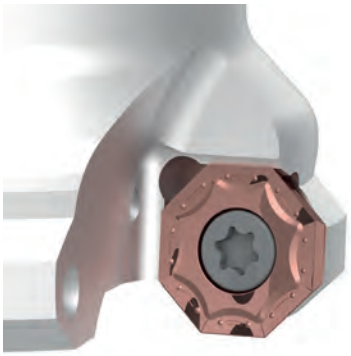
ISO 513	MATERIAL	HARDNESS HB	ae/DC	JP5540 min	JP5540 start	JP5540 max	JP8725 min	JP8725 start	JP8725 max
P1 - P2	Free cutting steel and low carbon (ex. 1.0715/9 smn 28/avp, 1.0503/c45)	≤ 200	100%	80	**120**	160	100	**150**	200
			30%	120	**160**	200	160	**210**	260
			10%	180	**200**	220	220	**250**	280
P3 - P4	Medium and high alloy steel (ex. 1.7225/42 CrMo 4, 1.3505/100 Cr 6)	200 ÷ 300	100%	60	**100**	140	90	**130**	170
			30%	100	**140**	180	130	**170**	210
			10%	160	**180**	200	190	**210**	230
P5 - P6	High tensile strength and tool steel (ex. 1.2344/X 40 CrMoV 5 1/ORVAR, Hardox400®)	300 ÷ 400	100%				80	**110**	140
			30%				120	**150**	180
			10%				160	**190**	220
ISO 513	MATERIAL	HARDNESS HB	ae/DC	JP5540 min	JP5540 start	JP5540 max			
P7	Ferritic and martensitic stainless steel (ex. 1.4021/X 20 Cr 13/AISI420)	≤ 200	100%	60	**100**	140			
			30%	80	**130**	180			
			10%	100	**160**	220			
P8	Precipitation hardening stainless steel (ex. 1.4548/X 5 CrNiCuNb 17 4/17-4-PH)	≤ 450	100%	50	**80**	110			
			30%	60	**90**	120			
			10%	70	**100**	130			
M1	Austenitic stainless steel (ex. 1.4305/X 10 CrNiS 18 9/AISI303)	> 200	100%	60	**90**	120			
			30%	80	**120**	160			
			10%	100	**140**	180			
M2 - M3	Austenitic and Duplex stainless steel (ex. 1.4401/X 5 CrNiMo 17 12 2/AISI316)		100%	60	**90**	120			
			30%	70	**100**	130			
				80	**110**	140			
ISO 513	MATERIAL	HARDNESS HB	ae/DC	JU6520 min	JU6520 start	JU6520 max			
N1	Aluminium alloys ≤ Si 12% (ex. 3.4365/AlZn5.5MgCu/ERGAL)		100%	300	**400**	500			
			30%	400	**600**	800			
			10%	500	**800**	1100			
N2	Aluminium alloys Si > 12% (ex. 3.2382/G-AlSi12)		100%	200	**250**	300			
			30%	300	**350**	400			
			10%	400	**450**	500			

ae: radial depth of cut; DC: milling cutter diameter

Complete workpiece materials p. **H**1.

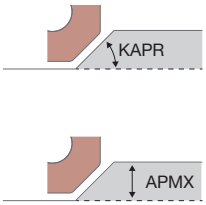
DESIGNATION	ae/DC	DEPTH OF CUT			FEED RATE		
		ap (mm)			fz (mm)		
		min	start	max	min	start	max
APKT1003PDSR-GP	100%	1.00	**2.50**	4.00	0.06	**0.11**	0.16
	30%	1.00	**4.00**	7.00	0.08	**0.14**	0.20
	10%	1.00	**4.00**	7.00	0.10	**0.16**	0.22
APKT1604PDSR-GP	100%	1.00	**4.00**	7.00	0.08	**0.14**	0.19
	30%	1.00	**7.00**	13.00	0.10	**0.17**	0.24
	10%	1.00	**7.00**	13.00	0.12	**0.20**	0.28
APKT1003PDSR-TE	100%	1.00	**2.50**	4.00	0.08	**0.13**	0.18
	30%	1.00	**4.00**	7.00	0.10	**0.16**	0.22
	10%	1.00	**4.00**	7.00	0.12	**0.19**	0.26
APKT1604PDSR-TE	100%	1.00	**4.00**	7.00	0.10	**0.16**	0.22
	30%	1.00	**7.00**	13.00	0.12	**0.20**	0.28
	10%	1.00	**7.00**	13.00	0.14	**0.24**	0.34
APKT1003PDFR-AL	100%	1.00	**2.50**	4.00	0.08	**0.14**	0.20
	30%	1.00	**4.00**	7.00	0.10	**0.17**	0.24
	10%	1.00	**4.00**	7.00	0.12	**0.20**	0.28
APKT1604PDFR-AL	100%	1.00	**4.00**	7.00	0.08	**0.16**	0.24
	30%	1.00	**7.00**	13.00	0.10	**0.20**	0.30
	10%	1.00	**7.00**	13.00	0.12	**0.24**	0.36



MILLING Facing

Quick guide .D46

4FACEPLUS .D48
OKTOPLUS .D55
DOUBLE4FACE .D62
DOUBLEHEX .D67
ISO SEHX .D72



	4FACEPLUS	OKTOPLUS	DOUBLE4FACE
	D48	D55	D62
	ARBOR	ARBOR	ARBOR
KAPR	45°	43°	45°
Insert sizes	13	05 / 06	12
APMX	6	3 / 4	3
Tool diameter	Ø40 - Ø200	Ø50 - Ø160	Ø50 - Ø160
Coolant holes	✗	✓	✓
Workpiece material	P M K N S	P M K N S	P M K N S
No. of cutting edges	4	8	8
No. of geometries	8	5	5
Special features	single edge Wiper type	double edge Wiper type	double edge Wiper type
Face Milling	✓	✓	✓
Intermittent Milling	✓	✓	✓
Machine load	■■■□□	■■■□□	■■■□□
Strenght	■■■□□	■■■□□	■■■■□
Precision	■■■■□	■■■□□	■■■■□
Finishing	■■■■□	■■■□□	■■■■□
Range	■■■■■	■■■□□	■■■■□

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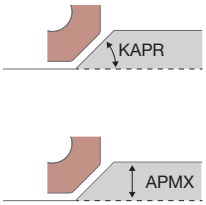
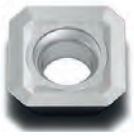
	DOUBLEHEX	ISO SEHX
	D67	D72
	ARBOR	 Only insert is available.
KAPR	60° (45° on request)	45°
Insert sizes	09	12
APMX	6	5
Tool diameter	Ø80 - Ø160	-
Coolant holes	✗	-
Workpiece material	K	P M K N
No. of cutting edges	12	4
No. of geometries	4	4
Special features	solid PCBN and ceramic available	-
Face Milling	✓	✓
Intermittent Milling	✓	✓
Machine load	■■■■□	■■□□□
Strenght	■■■■■	■■■□□
Precision	■■■□□	■■□□□
Finishing	■■■□□	■■■□□
Range	■■■■□	■□□□□

4FACEPLUS

Face milling system for multiple use general purpose operations

APPLICATION

· Finishing / semi-finishing / rough face milling
· Removal of the crusted surfaces
· General milling of interrupted surfaces
· Machining of linear and helical ramping

ISO APPLICATION FIELDS

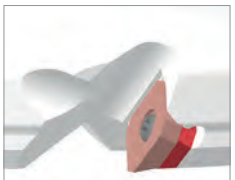
P M K N S

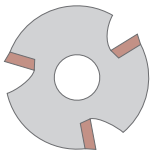
ADVANTAGES AND CHARACTERISTICS

· High productivity and easy to use
· Light cutting action with low power consumption
· Available in E tol. (ground type) and M tol. (pressed type)
· Available with wiper geometry for good surface finish

Cutter bodies

· Arbor type with shim
· From D50 to D200


With shim


Coarse pitch

Close pitch

Inserts

· 4 cutting edges
· Edge length 13 with APMX = 6mm
· Cemented carbide grades with CVD and PVD coatings
· Geometries: SC, GP, TE, AL, GG, GH, Flat, WU

SC P M S

SIZE 13

GP P M

SIZE 13

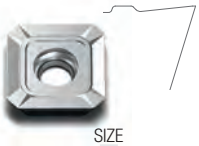
TE P

SIZE 13

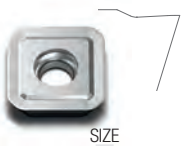
AL N

SIZE 13

GG K


SIZE 13

GH K


SIZE 13

FLAT K

SIZE 13

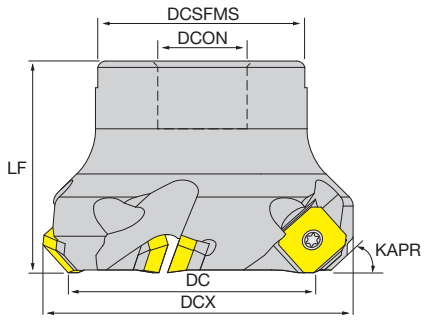
WU P K

SIZE 13

NT-SE

4FacePlus

- Positive general face milling cutters
- With shims to protect the insert seats
- Kapr 45°, without coolant through



Designation	Stock	DC	CICT	DCON	LF	LU	DCSFMS	CRKS	DCX	WT	MIID
NT-SE13 D040-F16-Z03	○	40	3	16	40	-	35	-	53	-	SEoo13T3
NT-SE13 D050-F22-Z04	●	50	4	22	40	-	40	-	63	0.41 Kg	SEoo13T3
NT-SE13 D050-F22-Z05	●	50	5	22	50	-	40	-	63	0.39 Kg	SEoo13T3
NT-SE13 D063-F22-Z05	●	63	5	22	50	-	50	-	76	0.71 Kg	SEoo13T3
NT-SE13 D063-F22-Z06	●	63	6	22	50	-	50	-	76	0.70 Kg	SEoo13T3
NT-SE13 D080-F27-Z06	●	80	6	27	50	-	60	-	93	1.06 Kg	SEoo13T3
NT-SE13 D080-F27-Z08	●	80	8	27	50	-	60	-	93	1.02 Kg	SEoo13T3
NT-SE13 D100-F32-Z07	●	100	7	32	50	-	80	-	113	1.56 Kg	SEoo13T3
NT-SE13 D100-F32-Z10	●	100	10	32	50	-	80	-	113	1.54 Kg	SEoo13T3
NT-SE13 D125-F40-Z08	●	125	8	40	63	-	100	-	138	2.92 Kg	SEoo13T3
NT-SE13 D125-F40-Z12	●	125	12	40	63	-	100	-	138	3.04 Kg	SEoo13T3
NT-SE13 D160-F40-Z10	●	160	10	40	63	-	100	-	173	4.06 Kg	SEoo13T3
NT-SE13 D200-F60-Z12	●	200	12	60	63	-	130	-	213	6.34 Kg	SEoo13T3

● stock standard, ○ non-standard stock, ▲ upcoming introduction, ▽ stock exhaustion

Spare parts	Insert screws	Flag wrenches	Shim	Shim screws	L wrench
NT-SE13 Dooo-Foo-Zoo	NT-ST35120T15	NT-FTB15	NT-SH004	NT-SR002	NT-WR035

SE

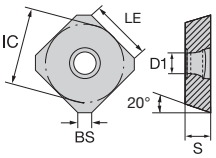
4FacePlus

- Positive general face milling inserts
- Diverse carbide grades with PVD and CVD coatings and also cermet grades available, covering a wide range of applications
- Sharp/universal/robust/cast iron featured/ wiper geometries available

HC: Coated carbide
HF: Micrograin carbide
HT: Cermet
CVD: Chemical vapour deposition
PVD: Physical vapour deposition

	JC7530	JC8520	JC9540	JP5530	JP7525	JP8725	JP9535	JU4525	JU6520
	HC CVD	HC CVD	HC CVD	HF PVD	HF PVD	HF PVD	HF PVD	HT	HF
Stable machining, light cut (● 1st choice, ○ suitable)		●				○		●	●
General machining, medium cut (● 1st choice, ○ suitable)	●	○	●	●	●	●	●		●
Unstable machining, heavy cut (● 1st choice, ○ suitable)	●		●	○	●		●		

Dimensions



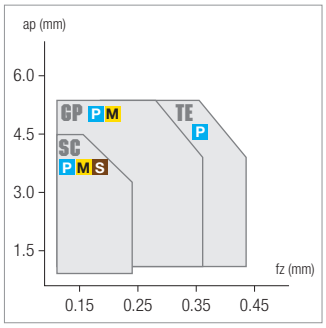
4 edges

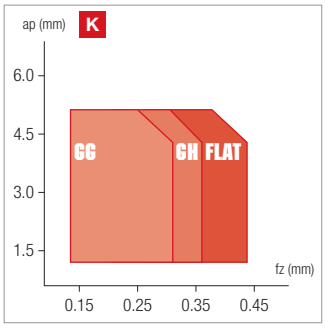
Vc(m/min) - suggested cutting speed range (bold: 1st choice)

ISO	JC7530	JC8520	JC9540	JP5530	JP7525	JP8725	JP9535	JU4525	JU6520
P		130 300		100 260		100 280		130 300	
M			90 210	60 180			80 200		
K	160 320	160 320			140 300				
N									300 1100
S			30 70				20 60		
H									

	Designation		BS	IC	S	D1	LE	JC7530	JC8520	JC9540	JP5530	JP7525	JP8725	JP9535	JU4525	JU6520
GENERAL	GP P M	SEET13T3AGEN-GP	1.2	13.4	3.97	4.4	8.8				●		●	●	●	
		SEMT13T3AGEN-GP	1.2	13.4	3.97	4.4	8.8		●	●	●		●	●		
GENERAL	GG K	SEET13T3AGSN-GG	1.3	13.4	3.97	4.4	8.8					●				
		SEMT13T3AGSN-GG	1.3	13.4	3.97	4.4	8.8					▲				
LOW FORCE	SC P M S	SEET13T3AGEN-SC	1.7	13.4	3.97	4.4	8.8			●	●		●	●		
REINFORCED	TE P	SEET13T3AGSN-TE	1.2	13.4	3.97	4.4	8.8				●					
		SEMT13T3AGSN-TE	1.2	13.4	3.97	4.4	8.8		●		●		●			
REINFORCED	GH K	SEET13T3AGSN-GH	1.3	13.4	3.97	4.4	8.8					●				
		SEMT13T3AGSN-GH	1.3	13.4	3.97	4.4	8.8					▲				

● stock standard, ○ non-standard stock, ▲ upcoming introduction, ▽ stock exhaustion





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SE

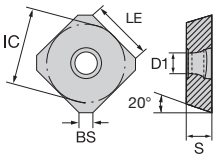
4FacePlus

- Positive general face milling inserts
- Diverse carbide grades with PVD and CVD coatings and also cermet grades available, covering a wide range of applications
- Sharp/universal/robust/cast iron featured/ wiper geometries available

HC: Coated carbide
HF: Micrograin carbide
HT: Cermet
CVD: Chemical vapour deposition
PVD: Physical vapour deposition

	JC7530	JC8520	JC9540	JP5530	JP7525	JP8725	JP9535	JU4525	JU6520
	HC CVD	HC CVD	HC CVD	HF PVD	HF PVD	HF PVD	HF PVD	HT	HF
Stable machining, light cut (● 1st choice, ○ suitable)		●				○		●	●
General machining, medium cut (● 1st choice, ○ suitable)	●	○	●	●	●	●	●		●
Unstable machining, heavy cut (● 1st choice, ○ suitable)	●		●	○	●		●		

Dimensions



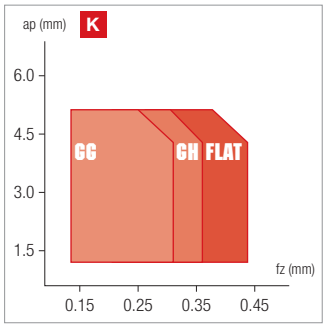
4 edges

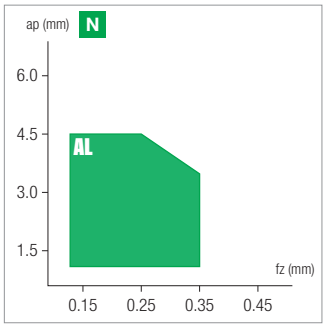
Vc(m/min) - suggested cutting speed range (bold: 1st choice)

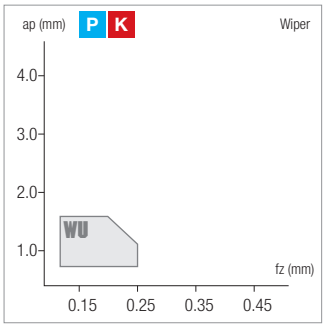
ISO	JC7530	JC8520	JC9540	JP5530	JP7525	JP8725	JP9535	JU4525	JU6520
P		130 300		100 260		100 280		130 300	
M			90 210	60 180			80 200		
K	160 320	160 320			140 300				
N									300 1100
S			30 70				20 60		
H									

	Designation		BS	IC	S	D1	LE	JC7530	JC8520	JC9540	JP5530	JP7525	JP8725	JP9535	JU4525	JU6520
REINFORCED	Flat K flat type	SEEW13T3AGSN	7.5	13.4	3.97	4.4	8.8	▽								
ALUMINIUM	AL N polished surface periphery ground	SEET13T3AGFN-AL	2.2	13.4	3.97	4.4	8.8									●
WIPER	WU P K 1 edge	SEET13T3-WU	7.5	13.4	3.97	4.4	8.8				●	●				

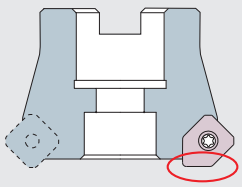
● stock standard, ○ non-standard stock, ▲ upcoming introduction, ▽ stock exhaustion







WIPER POSITION



The wiper insert must be mounted face towards the centre of the holder.
Only 1 wiper insert per setup.

MILLING Parameters - cutting speed · 4FACEPLUS

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ISO 513	MATERIAL	HARDNESS HB	ae/DC	JC8520 min	JC8520 start	JC8520 max	JP5530 min	JP5530 start	JP5530 max	JP8725 min	JP8725 start	JP8725 max
P1 - P2	Free cutting steel and low carbon (ex. 1.0715/9 smn 28/avp, 1.0503/c45)	≤ 200	100%	130	**180**	230	100	**140**	180	100	**150**	200
			30%	200	**240**	280	160	**200**	240	160	**210**	260
			10%	260	**280**	300	220	**240**	260	220	**250**	280
P3 - P4	Medium and high alloy steel (ex. 1.7225/42 CrMo 4, 1.3505/100 Cr 6)	200 ÷ 300	100%	100	**140**	180	80	**120**	160	90	**130**	170
			30%	160	**200**	240	120	**160**	200	130	**170**	210
			10%	220	**240**	260	180	**200**	220	190	**210**	230
P5 - P6	High tensile strength and tool steel (ex. 1.2344/X 40 CrMoV 5 1/ORVAR, Hardox400®)	300 ÷ 400	100%	70	**100**	130	60	**90**	120	80	**110**	140
			30%	120	**160**	200	100	**130**	160	120	**150**	180
			10%	200	**220**	240	140	**170**	200	160	**190**	220
ISO 513	MATERIAL	HARDNESS HB	ae/DC	JC9540 min	JC9540 start	JC9540 max	JP5530 min	JP5530 start	JP5530 max	JP9535 min	JP9535 start	JP9535 max
P7	Ferritic and martensitic stainless steel (ex. 1.4021/X 20 Cr 13/AISI420)	≤ 200	100%	90	**130**	170	60	**100**	140	80	**120**	160
			30%	110	**160**	210	80	**130**	180	100	**150**	200
			10%	130	**190**	250	100	**160**	220	120	**180**	240
P8	Precipitation hardening stainless steel (ex. 1.4548/X 5 CrNiCuNb 17 4/17-4-PH)	≤ 450	100%	70	**100**	130				60	**90**	120
			30%	80	**110**	140				70	**100**	130
			10%	90	**120**	150				80	**110**	140
M1	Austenitic stainless steel (ex. 1.4305/X 10 CrNiS 18 9/AISI303)	> 200	100%	90	**120**	150	60	**90**	120	80	**110**	140
			30%	110	**150**	190	80	**120**	160	100	**140**	180
			10%	130	**170**	210	100	**140**	180	120	**160**	200
M2 - M3	Austenitic and Duplex stainless steel (ex. 1.4401/X 5 CrNiMo 17 12 2/AISI316)		100%	80	**110**	140				70	**100**	130
			30%	90	**120**	150				80	**110**	140
				100	**130**	160				90	**120**	150
ISO 513	MATERIAL	HARDNESS HB	ae/DC	JC8520 min	JC8520 start	JC8520 max	JP7525 min	JP7525 start	JP7525 max			
K1	Grey cast iron (ex. 0.6025/GG 25/EN-GJL-250)	150 ÷ 250	100%	160	**200**	240	140	**180**	220			
			30%	180	**230**	280	160	**210**	260			
			10%	200	**260**	320	180	**240**	300			
K2	Nodular cast iron (ex. 0.7050/GGG 50/EN-GJS-500-7)	150 ÷ 350	100%	120	**160**	200	100	**140**	180			
			30%	140	**190**	240	120	**170**	220			
			10%	160	**220**	280	140	**200**	260			
K3 - K4	Austenitic and ADI cast iron (ex. 0.6660/GGL-NiCr 20 2/Ni-Resist 2, GJS-1000-5/ADI1000)	250 ÷ 500	100%	100	**130**	160	90	**120**	150			
			30%	120	**160**	200	120	**150**	180			
			10%	140	**190**	240	150	**180**	210			
ISO 513	MATERIAL	HARDNESS HB	ae/DC	JU6520 min	JU6520 start	JU6520 max						
N1	Aluminium alloys ≤ Si 12% (ex. 3.4365/AlZn5.5MgCu/ERGAL)		100%	300	**400**	500						
			30%	400	**600**	800						
			10%	500	**800**	1100						
N2	Aluminium alloys Si > 12% (ex. 3.2382/G-AlSi12)		100%	200	**250**	300						
			30%	300	**350**	400						
			10%	400	**450**	500						
ISO 513	MATERIAL	HARDNESS HB	ae/DC	JC9540 min	JC9540 start	JC9540 max	JP9535 min	JP9535 start	JP9535 max			
S1 - S2 - S3	Fe/Ni/Co based heat resistant alloys (ex. Hastelloy, Inconel 625, Inconel 718)		100%	30	**40**	50	20	**30**	40			
			30%	40	**50**	60	30	**40**	50			
			10%	50	**60**	70	40	**50**	60			
S4 - S5	Titanium alloys (ex. TiAl2Sn4Zr2MoSi)		100%				40	**50**	60			
			30%				50	**60**	70			
			10%				60	**70**	80			

ae: radial depth of cut; DC: milling cutter diameter

Complete workpiece materials p. **H**1.

JU4525							
min	start	max					
130	**180**	230					
200	**240**	280					
260	**280**	300					
120	**150**	180					
180	**210**	240					
230	**250**	270					
90	**120**	150					
150	**180**	210					
190	**220**	250					

Complete workpiece materials p. **H**1.

DESIGNATION	ae/DC	DEPTH OF CUT			FEED RATE		
		ap (mm)			fz (mm)		
		min	start	max	min	start	max
SEoT13T3AGEN-GP	100%	1.00	**3.00**	5.00	0.08	**0.15**	0.22
	30%	1.00	**3.00**	5.00	0.10	**0.19**	0.28
	10%	1.00	**3.00**	5.00	0.12	**0.22**	0.32
SEET13T3AGEN-SC	100%	0.50	**2.50**	4.50	0.06	**0.11**	0.16
	30%	0.50	**2.50**	4.50	0.08	**0.14**	0.20
	10%	0.50	**2.50**	4.50	0.09	**0.16**	0.23
SEoT13T3AGSN-TE	100%	1.00	**3.00**	5.00	0.11	**0.20**	0.29
	30%	1.00	**3.00**	5.00	0.14	**0.25**	0.36
	10%	1.00	**3.00**	5.00	0.16	**0.29**	0.42
SEoT13T3AGSN-GG	100%	0.50	**2.50**	4.50	0.10	**0.18**	0.26
	30%	0.50	**2.50**	4.50	0.12	**0.22**	0.32
	10%	0.50	**2.50**	4.50	0.14	**0.26**	0.38
SEoT13T3AGSN-GH	100%	1.00	**3.00**	5.00	0.13	**0.23**	0.33
	30%	1.00	**3.00**	5.00	0.16	**0.28**	0.40
	10%	1.00	**3.00**	5.00	0.19	**0.33**	0.47
SEEW13T3AGSN	100%	1.00	**3.00**	5.00	0.14	**0.24**	0.34
	30%	1.00	**3.00**	5.00	0.18	**0.30**	0.42
	10%	1.00	**3.00**	5.00	0.21	**0.35**	0.49
SEET13T3AGFN-AL	100%	0.50	**2.50**	4.50	0.06	**0.11**	0.16
	30%	0.50	**2.50**	4.50	0.08	**0.14**	0.20
	10%	0.50	**2.50**	4.50	0.09	**0.16**	0.23
SEET13T3-WU	100%	0.50	**1.00**	1.50	0.06	**0.13**	0.20
	30%	0.50	**1.00**	1.50	0.08	**0.16**	0.24
	10%	0.50	**1.00**	1.50	0.09	**0.18**	0.27

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OKTOPLUS

Multi-edge face mill to optimize production economy

APPLICATION

· Finishing / semi-finishing / rough face milling
· Removal of the crusted surfaces
· General milling of interrupted surfaces

ISO APPLICATION FIELDS

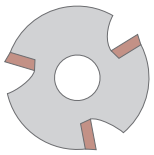
P M K N S

ADVANTAGES AND CHARACTERISTICS

· Super-positive cutter with a very gentle cutting action.
· Great performance even on circular interpolation milling.
· Excellent performance on difficult to machine materials (ISO M and ISO S).
· Extremely complete range of chipbreakers in both ground (E tolerance) and pressed (M tolerance) versions.

Cutter bodies

· Arbor type with coolant
· From D50 to D160



Coarse pitch

Fine pitch

Inserts

· 8 cutting edges
· Edge length 06 with APMX = 4 mm and 05 with APMX = 3
· Cemented carbide grades with CVD and PVD coatings
· Geometries: SC, GP, TE, AL, WU

OKTOPLUS OD

SC P M S

SIZE 06

GP P M K

SIZE 06

TE P K

SIZE 06

AL N

SIZE 06

WU P K

SIZE 06

OKTOPLUS OF

GP P M K

SIZE 05

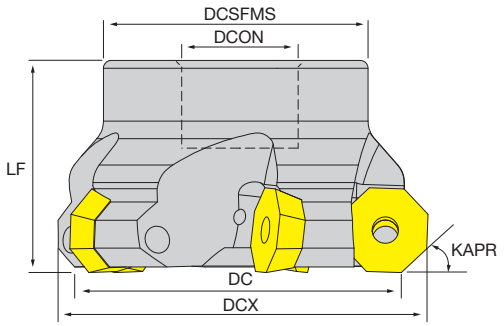
AL N

SIZE 05

NT-OD

OktoPlus OD

- Positive general face milling cutters
- For octagonal inserts with 8 cutting edges
- Kapr 43°
- With coolant through



Designation	Stock	DC	CICT	DCON	LF	LU	DCSFMS	CRKS	DCX	WT	MIID
NT-OD06H D050-F22-Z04	●	50	4	22	40	-	48	-	60	0.34 Kg	ODoo0605
NT-OD06H D063-F22-Z05	●	63	5	22	40	-	50	-	73	0.52 Kg	ODoo0605
NT-OD06H D080-F27-Z06	●	80	6	27	50	-	60	-	90	1.05 Kg	ODoo0605
NT-OD06H D100-F32-Z07	●	100	7	32	50	-	70	-	110	1.48 Kg	ODoo0605
NT-OD06H D125-F40-Z08	●	125	8	40	63	-	80	-	135	2.60 Kg	ODoo0605
NT-OD06H D160-F40-Z10	●	160	10	40	63	-	85	-	170	3.96 Kg	ODoo0605

● stock standard, ○ non-standard stock, ▲ upcoming introduction, ▽ stock exhaustion

Spare parts	Insert screws	Flag wrenches
NT-OD06H Dooo-Foo-Zoo	NT-ST50110T20	NT-FTB20

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OD

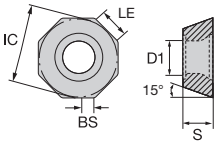
OktoPlus OD

- Positive general face milling inserts
- 8 cutting edges
- Kapr 43°
- Diverse carbide grades with PVD and CVD coating grades available, covering a wide range of applications
- Sharp/universal/robust/wiper geometries available

HC: Coated carbide
HF: Micrograin carbide
CVD: Chemical vapour deposition
PVD: Physical vapour deposition

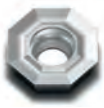
	HC CVD	HF PVD	HF PVD	HF PVD	HF PVD	HF
	JC7515	JP5520	JP5530	JP7525	JP9535	JU6520
Stable machining, light cut (● 1st choice, ○ suitable)	●	○				●
General machining, medium cut (● 1st choice, ○ suitable)	●	●	●	●	●	●
Unstable machining, heavy cut (● 1st choice, ○ suitable)			○	●	●	

Dimensions

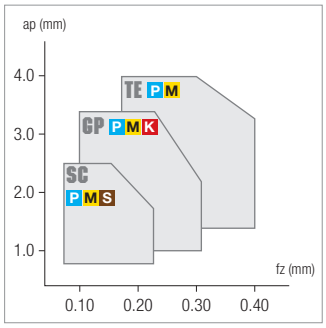


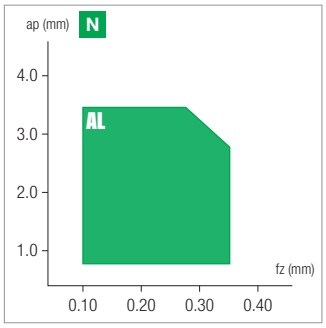
8 edges

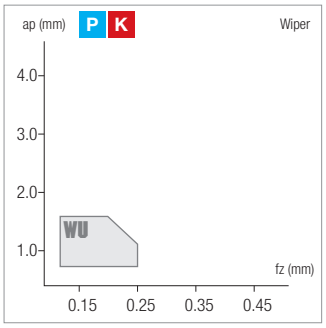
ISO	JC7515	JP5520	JP5530	JP7525	JP9535	JU6520
	Vc(m/min) - suggested cutting speed range (bold: 1st choice)					
P		100 260	100 260			
M		60 180	60 180		80 200	
K	180 360			140 300		
N						300 1100
S					20 60	
H						

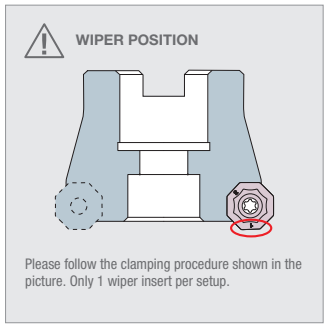
	Designation		BS	IC	S	D1	LE	JC7515	JP5520	JP5530	JP7525	JP9535	JU6520	Stock
GENERAL	GP P M K 	ODKT060508-GP	1.8	15.875	3.56	5.5	5				▽	●		
		ODMT060508-GP	1.8	15.875	3.56	5.5	5	●	▽	●	●	●		
LOW FORCE	SC P M S	ODKT060508-SC	1.8	15.875	3.56	5.5	5		▽	▽		●		
REINFORCED	TE P K	ODKT060508-TE	1.8	15.875	3.56	5.5	5		▽					
		ODMT060508-TE	1.8	15.875	3.56	5.5	5	○	▽	●	●			
ALUMINIUM	AL N polished surface periphery ground	ODKT060508-AL	1.8	15.875	3.56	5.5	5						●	
WIPER	WU P K 2 edges	ODKW060508-WU	6.4	15.875	3.56	5.5	5		▽	●	●			

● stock standard, ○ non-standard stock, ▲ upcoming introduction, ▽ stock exhaustion





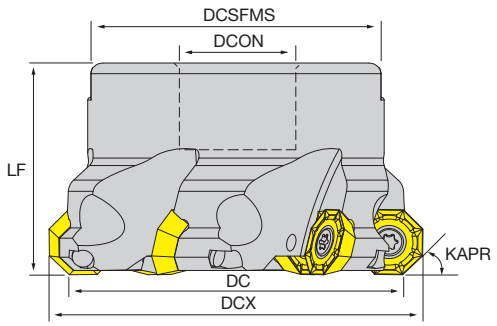


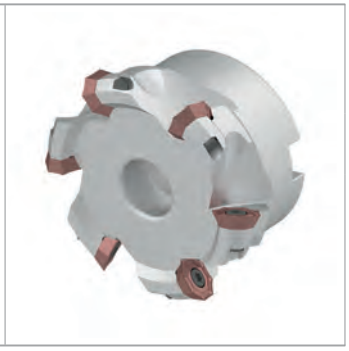


NT-OF

OktoPlus OF

- Positive general face milling cutters
- For octagonal inserts with 8 cutting edges
- Kapr 43°
- With coolant through





Designation	Stock	DC	CICT	DCON	LF	LU	DCSFMS	CRKS	DCX	WT	MIID
NT-OF05H D050-F22-Z05	●	50	5	22	40	-	46.8	-	58	0.34 Kg	OFoo05T3
NT-OF05H D063-F22-Z06	●	63	6	22	40	-	56	-	71	0.58 Kg	OFoo05T3
NT-OF05H D080-F27-Z07	●	80	7	27	50	-	60	-	88	0.91 Kg	OFoo05T3
NT-OF05H D100-F32-Z08	▲	100	8	32	50	-	70	-	108	1.40 Kg	OFoo05T3

● stock standard, ○ non-standard stock, ▲ upcoming introduction, ▽ stock exhaustion

Spare parts	Insert screws	Flag wrenches
NT-OF05H Dooo-Foo-Zoo	NT-ST40110T15HQ	NT-FTB15

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OFKT

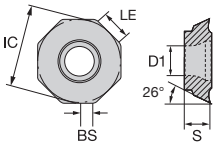
OktoPlus OF

- Positive general face milling inserts
- 8 cutting edges
- Kapr 43°
- Diverse carbide grades with PVD and CVD coating grades available, covering a wide range of applications
- Sharp/universal/robust/wiper geometries available

HC: Coated carbide
HF: Micrograin carbide
CVD: Chemical vapour deposition
PVD: Physical vapour deposition

	HC CVD	HF PVD	HF
	JC7530	JP5540	JU6520
Stable machining, light cut (● 1st choice, ○ suitable)			●
General machining, medium cut (● 1st choice, ○ suitable)	●	○	●
Unstable machining, heavy cut (● 1st choice, ○ suitable)	●	●	

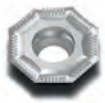
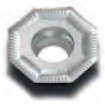
Dimensions



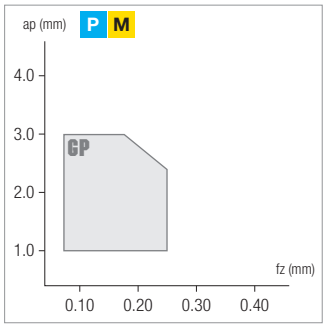
8 edges

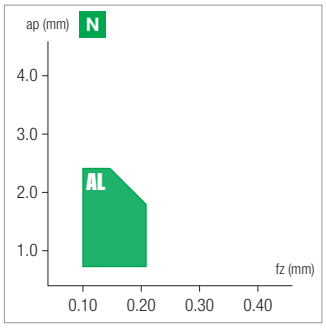
ISO	HC CVD	HF PVD	HF
P		80 220	
M		60 180	
K	160 320		
N			300 1100
S		20 50	
H			

Vc(m/min) - suggested cutting speed range (bold: 1st choice)

	Designation		BS	IC	S	D1	LE	HC CVD	HF PVD	HF	Stock
GENERAL	GP P M K 	OFKT05T305-GP	1.1	12.7	3.97	4.4	4	▽	●		
ALUMINIUM	AL N  polished surface periphery ground	OFKT05T305-AL	1.1	12.7	3.97	4.4	4			●	

● stock standard, ○ non-standard stock, ▲ upcoming introduction, ▽ stock exhaustion





MILLING Parameters - cutting speed · OKTOPLUS

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ISO 513	MATERIAL	HARDNESS HB	ae/DC	JP5530 min	JP5530 start	JP5530 max	JP5540 min	JP5540 start	JP5540 max	JP9535 min	JP9535 start	JP9535 max
P1 - P2	Free cutting steel and low carbon (ex. 1.0715/9 smn 28/avp, 1.0503/c45)	≤ 200	100%	100	**140**	180	80	**120**	160			
			30%	160	**200**	240	120	**160**	200			
			10%	220	**240**	260	180	**200**	220			
P3 - P4	Medium and high alloy steel (ex. 1.7225/42 CrMo 4, 1.3505/100 Cr 6)	200 ÷ 300	100%	80	**120**	160	60	**100**	140			
			30%	120	**160**	200	100	**140**	180			
			10%	180	**200**	220	160	**180**	200			
P5 - P6	High tensile strength and tool steel (ex. 1.2344/X 40 CrMoV 5 1/ORVAR, Hardox400®)	300 ÷ 400	100%	60	**90**	120						
			30%	100	**130**	160						
			10%	140	**170**	200						
ISO 513	MATERIAL	HARDNESS HB	ae/DC	JP5530 min	JP5530 start	JP5530 max	JP5540 min	JP5540 start	JP5540 max	JP9535 min	JP9535 start	JP9535 max
P7	Ferritic and martensitic stainless steel (ex. 1.4021/X 20 Cr 13/AISI420)	≤ 200	100%	60	**100**	140	60	**100**	140	80	**120**	160
			30%	80	**130**	180	80	**130**	180	100	**150**	200
			10%	100	**160**	220	100	**160**	220	120	**180**	240
P8	Precipitation hardening stainless steel (ex. 1.4548/X 5 CrNiCuNb 17 4/17-4-PH)	≤ 450	100%				50	**80**	110	60	**90**	120
			30%				60	**90**	120	70	**100**	130
			10%				70	**100**	130	80	**110**	140
M1	Austenitic stainless steel (ex. 1.4305/X 10 CrNiS 18 9/AISI303)	> 200	100%	60	**90**	120	60	**90**	120	80	**110**	140
			30%	80	**120**	160	80	**120**	160	100	**140**	180
			10%	100	**140**	180	100	**140**	180	120	**160**	200
M2 - M3	Austenitic and Duplex stainless steel (ex. 1.4401/X 5 CrNiMo 17 12 2/AISI316)		100%				60	**90**	120	70	**100**	130
			30%				70	**100**	130	80	**110**	140
							80	**110**	140	90	**120**	150
ISO 513	MATERIAL	HARDNESS HB	ae/DC	JC7515 min	JC7515 start	JC7515 max	JP7525 min	JP7525 start	JP7525 max			
K1	Grey cast iron (ex. 0.6025/GG 25/EN-GJL-250)	150 ÷ 250	100%	180	**230**	280	140	**180**	220			
			30%	200	**260**	320	160	**210**	260			
			10%	220	**290**	360	180	**240**	300			
K2	Nodular cast iron (ex. 0.7050/GGG 50/EN-GJS-500-7)	150 ÷ 350	100%	120	**180**	240	100	**140**	180			
			30%	160	**220**	280	120	**170**	220			
			10%	200	**260**	320	140	**200**	260			
K3 - K4	Austenitic and ADI cast iron (ex. 0.6660/GGL-NiCr 20 2/Ni-Resist 2, GJS-1000-5/ ADI1000)	250 ÷ 500	100%	100	**140**	180	90	**120**	150			
			30%	140	**180**	220	120	**150**	180			
			10%	180	**220**	260	150	**180**	210			
ISO 513	MATERIAL	HARDNESS HB	ae/DC	JU6520 min	JU6520 start	JU6520 max						
N1	Aluminium alloys ≤ Si 12% (ex. 3.4365/AlZn5.5MgCu/ERGAL)		100%	300	**400**	500						
			30%	400	**600**	800						
			10%	500	**800**	1100						
N2	Aluminium alloys Si > 12% (ex. 3.2382/G-AlSi12)		100%	200	**250**	300						
			30%	300	**350**	400						
			10%	400	**450**	500						
ISO 513	MATERIAL	HARDNESS HB	ae/DC	JP5540 min	JP5540 start	JP5540 max	JP9535 min	JP9535 start	JP9535 max			
S1 - S2 - S3	Fe/Ni/Co based heat resistant alloys (ex. Hastelloy, Inconel 625, Inconel 718)		100%	20	**25**	30	20	**30**	40			
			30%	30	**35**	40	30	**40**	50			
			10%	40	**45**	50	40	**50**	60			
S4 - S5	Titanium alloys (ex. TiAl2Sn4Zr2MoSi)		100%	30	**40**	50	40	**50**	60			
			30%	40	**50**	60	50	**60**	70			
			10%	50	**60**	70	60	**70**	80			

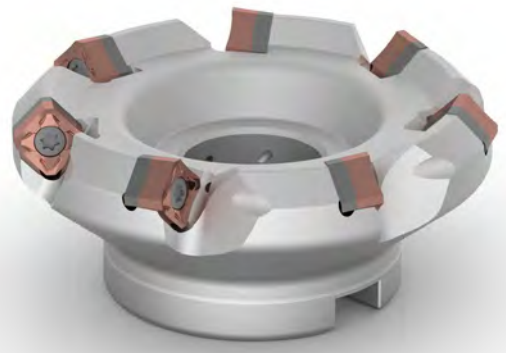
ae: radial depth of cut; DC: milling cutter diameter

Complete workpiece materials p. **H**1.

DESIGNATION	ae/DC	DEPTH OF CUT			FEED RATE		
		ap (mm)			fz (mm)		
		min	start	max	min	start	max
OFKT05T305-GP	100%	1.00	**2.00**	3.00	0.08	**0.12**	0.16
	30%	1.00	**2.00**	3.00	0.10	**0.15**	0.20
	10%	1.00	**2.00**	3.00	0.12	**0.18**	0.24
ODoT060508-GP	100%	1.00	**2.50**	4.00	0.10	**0.18**	0.26
	30%	1.00	**2.50**	4.00	0.12	**0.22**	0.32
	10%	1.00	**2.50**	4.00	0.14	**0.26**	0.38
ODKT060508-SC	100%	0.50	**2.00**	3.50	0.08	**0.14**	0.20
	30%	0.50	**2.00**	3.50	0.10	**0.17**	0.24
	10%	0.50	**2.00**	3.50	0.12	**0.20**	0.28
ODoT060508-TE	100%	1.00	**2.50**	4.00	0.12	**0.21**	0.30
	30%	1.00	**2.50**	4.00	0.14	**0.26**	0.38
	10%	1.00	**2.50**	4.00	0.16	**0.30**	0.44
OFKT05T305-AL	100%	0.50	**1.50**	2.50	0.08	**0.11**	0.14
	30%	0.50	**1.50**	2.50	0.10	**0.14**	0.18
	10%	0.50	**1.50**	2.50	0.12	**0.17**	0.22
ODKT060508-AL	100%	0.50	**2.00**	3.50	0.08	**0.14**	0.20
	30%	0.50	**2.00**	3.50	0.10	**0.17**	0.24
	10%	0.50	**2.00**	3.50	0.12	**0.20**	0.28
ODKW060508-WU	100%	0.50	**1.00**	1.50	0.06	**0.13**	0.20
	30%	0.50	**1.00**	1.50	0.08	**0.16**	0.24
	10%	0.50	**1.00**	1.50	0.09	**0.18**	0.27

DOUBLE4FACE

First choice for high productivity face milling



APPLICATION

· Finishing / semi-finishing / rough face milling
· Removal of the crusted surfaces
· General milling of interrupted surfaces

ISO APPLICATION FIELDS

P M K N S

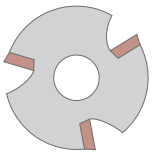
ADVANTAGES AND CHARACTERISTICS

· Curved geometry generates low cutting force and smooth cutting process.
· Shim style cutter in the entire range guarantees high stability and operational.
· Complete grades covering ISO P, M, K, N, S materials (with both PVD and CVD coating).
· Accurate inserts in tolerance E or pressed inserts in tolerance M - available both high precision and high economical solutions.

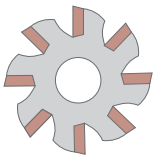
Cutter bodies

· Arbor type with shim
· From D50 to D160

With shim


Coarse pitch

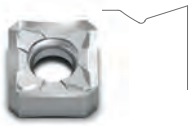
Fine pitch


Extra fine pitch

Inserts

· 8 cutting edges
· Edge length 12 with APMX = 3 mm
· Cemented carbide grades with CVD and PVD coatings
· Geometries: SC, GP, TE, AL, WU wiper

SC P M S


SIZE 12

GP P M K

SIZE 12

TE P K

SIZE 12

AL N

SIZE 12

WU P K

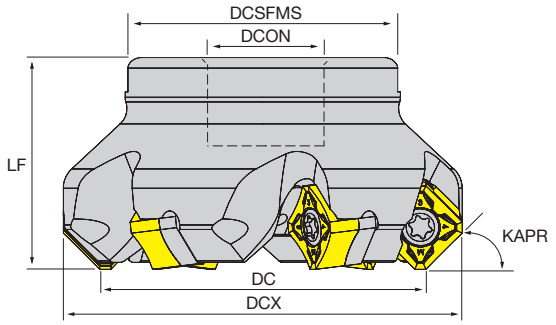
SIZE 12

nikkoTOOLS

NT-SX

Double4Face

- Double-sided face milling cutters, Kapr 45°
- With shims to protect the insert seats
- For double-sided square inserts with 8 cutting edges
- With coolant through



Designation	Stock	DC	CICT	DCON	LF	LU	DCSFMS	CRKS	DCX	WT	MIID
NT-SX12H D050-F22-Z04	●	50	4	22	40	-	48	-	64	0.48 Kg	SNoX1205
NT-SX12H D050-F22-Z05	●	50	5	22	40	-	48	-	64	0.46 Kg	SNoX1205
NT-SX12H D063-F22-Z05	●	63	5	22	50	-	52	-	77	0.69 Kg	SNoX1205
NT-SX12H D063-F22-Z06	●	63	6	22	50	-	52	-	77	0.67 Kg	SNoX1205
NT-SX12H D080-F27-Z06	●	80	6	27	50	-	60	-	94	1.29 Kg	SNoX1205
NT-SX12H D080-F27-Z07	●	80	7	27	50	-	60	-	94	1.27 Kg	SNoX1205
NT-SX12H D080-F27-Z08	●	80	8	27	50	-	60	-	94	1.25 Kg	SNoX1205
NT-SX12H D100-F32-Z07	●	100	7	32	50	-	70	-	114	1.64 Kg	SNoX1205
NT-SX12H D100-F32-Z08	●	100	8	32	50	-	70	-	114	1.62 Kg	SNoX1205
NT-SX12H D100-F32-Z09	●	100	9	32	50	-	70	-	114	1.59 Kg	SNoX1205
NT-SX12H D125-F40-Z10	●	125	10	40	63	-	80	-	139	2.92 Kg	SNoX1205
NT-SX12H D160-F40-Z12	●	160	12	40	63	-	85	-	174	4.36 Kg	SNoX1205

● stock standard, ○ non-standard stock, ▲ upcoming introduction, ▽ stock exhaustion

Spare parts	Insert screws	Flag wrenches	Shim	Shim screws	L wrench
NT-SX12H Dooo-Foo-Zoo	NT-ST40136T15	NT-FTB15	NT-SH009	NT-SR009	NT-WR040

SN

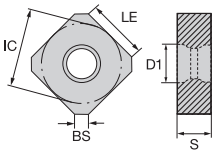
Double4Face

- Double-sided face milling inserts
- 8 cutting edges
- Curved design effectively reduces cutting force
- Kapr 45°
- Diverse carbide grades with PVD and CVD coating grades available, covering a wide range of applications
- 3D geometries, sharp/ universal/ reinforced/ wiper types available

HC: Coated carbide
HF: Micrograin carbide
CVD: Chemical vapour deposition
PVD: Physical vapour deposition

	HC CVD	HC CVD	HC CVD	HF PVD	HF PVD	HF PVD	HF PVD	HF PVD	HF
	JC7515	**JC8520**	**JC9540**	**JP5520**	**JP5530**	**JP7525**	**JP8725**	**JP9535**	**JU6520**
Stable machining, light cut (● 1st choice, ○ suitable)	●	●		○			○		●
General machining, medium cut (● 1st choice, ○ suitable)	●	○	●	●	●	●	●	●	●
Unstable machining, heavy cut (● 1st choice, ○ suitable)			●		○	●		●	

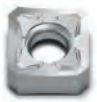
Dimensions



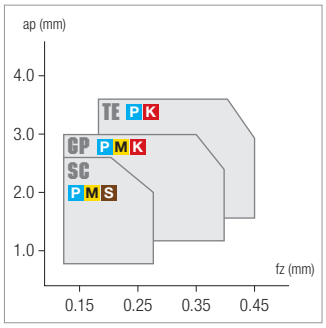
8 edges

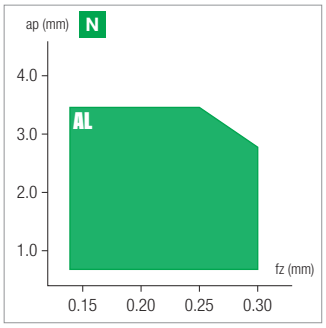
Vc(m/min) - suggested cutting speed range (bold: 1st choice)

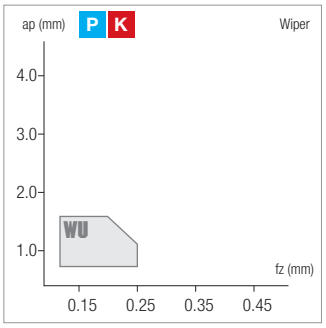
ISO	JC7515	JC8520	JC9540	JP5520	JP5530	JP7525	JP8725	JP9535	JU6520
P		130 300		100 260	100 260		100 280		
M			90 210	60 180	60 180			80 200	
K	180 360	160 320				140 300			
N									300 1100
S			30 70					20 60	
H									

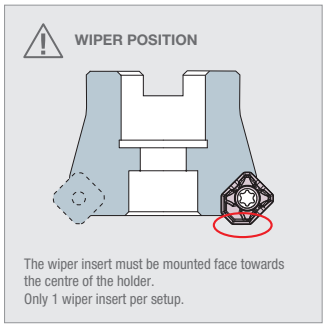
	Designation		BS	IC	S	D1	LE	JC7515	JC8520	JC9540	JP5520	JP5530	JP7525	JP8725	JP9535	JU6520
GENERAL	GP P M K 	SNEX1205ANEN-GP	1.6	12.7	6.35	5.9	9.1	●				●	●	●	●	
		SNMX1205ANEN-GP	1.6	12.7	6.35	5.9	9.1	●	●	●		●	▲	●	▲	
LOW FORCE	SC P M S	SNEX1205ANEN-SC	1.6	12.7	6.35	5.9	9.1	●		●		●	●	▲	●	
REINFORCED	TE P K	SNEX1205ANSN-TE	1.6	12.7	6.35	5.9	9.1	○			▽	●	●			
		SNMX1205ANSN-TE	1.6	12.7	6.35	5.9	9.1	▲	●		▽	●	●	▲		
ALUMINIUM	AL N polished surface periphery ground	SNEX1205ANFN-AL	1.6	12.7	6.35	5.9	9.1									●
WIPER	WU P K 2 edges	SNEX1205-WU	5.1	12.7	6.35	5.9	9.1	●			▽	●	●			

● stock standard, ○ non-standard stock, ▲ upcoming introduction, ▽ stock exhaustion









ISO 513	MATERIAL	HARDNESS HB	ae/DC	JC8520 min	JC8520 start	JC8520 max	JP5530 min	JP5530 start	JP5530 max	JP8725 min	JP8725 start	JP8725 max
P1 - P2	Free cutting steel and low carbon (ex. 1.0715/9 smn 28/avp, 1.0503/c45)	≤ 200	100%	130	**180**	230	100	**140**	180	100	**150**	200
			30%	200	**240**	280	160	**200**	240	160	**210**	260
			10%	260	**280**	300	220	**240**	260	220	**250**	280
P3 - P4	Medium and high alloy steel (ex. 1.7225/42 CrMo 4, 1.3505/100 Cr 6)	200 ÷ 300	100%	100	**140**	180	80	**120**	160	90	**130**	170
			30%	160	**200**	240	120	**160**	200	130	**170**	210
			10%	220	**240**	260	180	**200**	220	190	**210**	230
P5 - P6	High tensile strength and tool steel (ex. 1.2344/X 40 CrMoV 5 1/ORVAR, Hardox400®)	300 ÷ 400	100%	70	**100**	130	60	**90**	120	80	**110**	140
			30%	120	**160**	200	100	**130**	160	120	**150**	180
			10%	200	**220**	240	140	**170**	200	160	**190**	220
ISO 513	MATERIAL	HARDNESS HB	ae/DC	JC9540 min	JC9540 start	JC9540 max	JP5530 min	JP5530 start	JP5530 max	JP9535 min	JP9535 start	JP9535 max
P7	Ferritic and martensitic stainless steel (ex. 1.4021/X 20 Cr 13/AISI420)	≤ 200	100%	90	**130**	170	60	**100**	140	80	**120**	160
			30%	110	**160**	210	80	**130**	180	100	**150**	200
			10%	130	**190**	250	100	**160**	220	120	**180**	240
P8	Precipitation hardening stainless steel (ex. 1.4548/X 5 CrNiCuNb 17 4/17-4-PH)	≤ 450	100%	70	**100**	130				60	**90**	120
			30%	80	**110**	140				70	**100**	130
			10%	90	**120**	150				80	**110**	140
M1	Austenitic stainless steel (ex. 1.4305/X 10 CrNiS 18 9/AISI303)	> 200	100%	90	**120**	150	60	**90**	120	80	**110**	140
			30%	110	**150**	190	80	**120**	160	100	**140**	180
			10%	130	**170**	210	100	**140**	180	120	**160**	200
M2 - M3	Austenitic and Duplex stainless steel (ex. 1.4401/X 5 CrNiMo 17 12 2/AISI316)		100%	80	**110**	140				70	**100**	130
			30%	90	**120**	150				80	**110**	140
				100	**130**	160				90	**120**	150
ISO 513	MATERIAL	HARDNESS HB	ae/DC	JC7515 min	JC7515 start	JC7515 max	JC8520 min	JC8520 start	JC8520 max	JP7525 min	JP7525 start	JP7525 max
K1	Grey cast iron (ex. 0.6025/GG 25/EN-GJL-250)	150 ÷ 250	100%	180	**230**	280	160	**200**	240	140	**180**	220
			30%	200	**260**	320	180	**230**	280	160	**210**	260
			10%	220	**290**	360	200	**260**	320	180	**240**	300
K2	Nodular cast iron (ex. 0.7050/GGG 50/EN-GJS-500-7)	150 ÷ 350	100%	120	**180**	240	120	**160**	200	100	**140**	180
			30%	160	**220**	280	140	**190**	240	120	**170**	220
			10%	200	**260**	320	160	**220**	280	140	**200**	260
K3 - K4	Austenitic and ADI cast iron (ex. 0.6660/GGL-NiCr 20 2/Ni-Resist 2, GJS-1000-5/ ADI1000)	250 ÷ 500	100%	100	**140**	180	100	**130**	160	90	**120**	150
			30%	140	**180**	220	120	**160**	200	120	**150**	180
			10%	180	**220**	260	140	**190**	240	150	**180**	210
ISO 513	MATERIAL	HARDNESS HB	ae/DC	JU6520 min	JU6520 start	JU6520 max						
N1	Aluminium alloys ≤ Si 12% (ex. 3.4365/AlZn5.5MgCu/ERGAL)		100%	300	**400**	500						
			30%	400	**600**	800						
			10%	500	**800**	1100						
N2	Aluminium alloys Si > 12% (ex. 3.2382/G-AlSi12)		100%	200	**250**	300						
			30%	300	**350**	400						
			10%	400	**450**	500						
ISO 513	MATERIAL	HARDNESS HB	ae/DC	JC9540 min	JC9540 start	JC9540 max	JP9535 min	JP9535 start	JP9535 max			
S1 - S2 - S3	Fe/Ni/Co based heat resistant alloys (ex. Hastelloy, Inconel 625, Inconel 718)		100%	30	**40**	50	20	**30**	40			
			30%	40	**50**	60	30	**40**	50			
			10%	50	**60**	70	40	**50**	60			
S4 - S5	Titanium alloys (ex. TiAl2Sn4Zr2MoSi)		100%				40	**50**	60			
			30%				50	**60**	70			
			10%				60	**70**	80			

ae: radial depth of cut; DC: milling cutter diameter

Complete workpiece materials p. **H**1.

DESIGNATION	ae/DC	DEPTH OF CUT			FEED RATE		
		ap (mm)			fz (mm)		
		min	start	max	min	start	max
SNoX1205ANEN-GP	100%	1.00	**2.00**	3.00	0.13	**0.21**	0.29
	30%	1.00	**2.00**	3.00	0.16	**0.26**	0.36
	10%	1.00	**2.00**	3.00	0.20	**0.31**	0.42
SNEX1205ANEN-SC	100%	0.50	**1.50**	2.50	0.06	**0.12**	0.18
	30%	0.50	**1.50**	2.50	0.08	**0.15**	0.22
	10%	0.50	**1.50**	2.50	0.10	**0.18**	0.26
SNoX1205ANSN-TE	100%	1.00	**2.00**	3.00	0.16	**0.25**	0.34
	30%	1.00	**2.00**	3.00	0.20	**0.32**	0.44
	10%	1.00	**2.00**	3.00	0.24	**0.38**	0.52
SNEX1205ANFN-AL	100%	0.50	**1.50**	2.50	0.10	**0.20**	0.30
	30%	0.50	**1.50**	2.50	0.12	**0.25**	0.38
	10%	0.50	**1.50**	2.50	0.14	**0.28**	0.42
SNEX1205-WU	100%	0.50	**1.00**	1.50	0.06	**0.13**	0.20
	30%	0.50	**1.00**	1.50	0.08	**0.16**	0.24
	10%	0.50	**1.00**	1.50	0.10	**0.19**	0.28

DOUBLEHEX

Safe and high economical milling system for cast iron

APPLICATION

· Roughing or semi-finishing face milling of cast iron
· Adapted for interrupted surfaces
· Adapted for remove the casted hard skins

ISO APPLICATION FIELDS

K

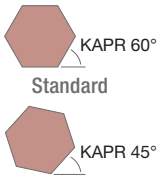
ADVANTAGES AND CHARACTERISTICS

· Fine pitch and extra-fine pitch type cutters available. Dense teeth in the cutter body allows higher table feeds with exceptional productivity.
· Precise inserts in tol.E or in tol.M, high precision or high economical solutions available.
· 3 different chipbreakers combined with both PVD and CVD grades.
· Inserts also available in solid PCBN and Silicon Nitride.
· Extremely competitive cost per cutting edge.

Cutter bodies

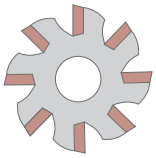
· Arbor type
· From D80 to D160

Wedge clampimg



On request

Fine pitch



Extra fine pitch

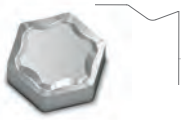
Inserts

· 12 edges
· Edge length 09 with APMX = 6 mm
· Carbide grades with PVD and CVD coatings,solid PCBN and ceramic
· Geometries: GL, GG, GH, Advanced

GL K

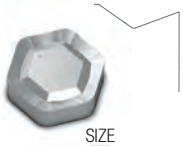
SIZE 09

GG K



SIZE 09

GH K



SIZE 09

UE K H PCBN

SIZE 09

UE K CERAMIC

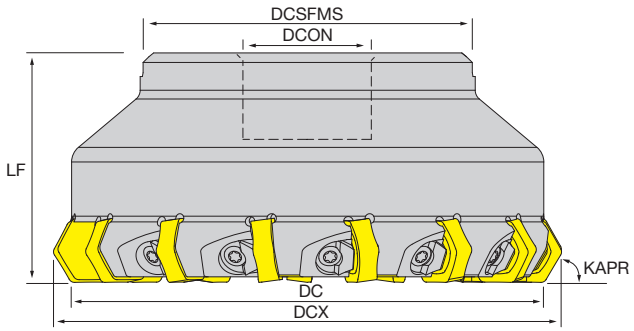
SIZE 09

A - TURNING
B - THREADING
C - GROOVING
D - MILLING
E - DRILLING
F - ACCESSORIES
G - SPARE PARTS

NT-HN

DoubleHex

- Double-sided face milling cutters specially for cast iron
- For hexagonal inserts with 12 cutting edges
- Kapr 60° and 45° upon request
- Extra fine pitch available



Designation	Stock	DC	CICT	DCON	LF	LU	DCSFMS	CRKS	DCX	WT	MIID
KAPR 60°											
NT-HN09 D080-F27-Z08	●	80	8	27	50	-	60	-	90	1.28 Kg	HNoX0905
NT-HN09 D080-F27-Z10	●	80	10	27	50	-	60	-	90	1.23 Kg	HNoX0905
NT-HN09 D100-F32-Z10	●	100	10	32	50	-	80	-	110	1.87 Kg	HNoX0905
NT-HN09 D100-F32-Z14	●	100	14	32	50	-	80	-	110	1.80 Kg	HNoX0905
NT-HN09 D125-F40-Z12	●	125	12	40	63	-	88	-	135	3.55 Kg	HNoX0905
NT-HN09 D125-F40-Z15	●	125	15	40	63	-	88	-	135	3.33 Kg	HNoX0905
NT-HN09 D160-F40-Z15	●	160	15	40	63	-	120	-	170	5.10 Kg	HNoX0905
NT-HN09 D160-F40-Z20	●	160	20	40	63	-	120	-	170	4.98 Kg	HNoX0905
KAPR 45°											
NT-HN0945 D080-F27-Z10	●	80	10	27	50	-	60	-	92.4	1.30 Kg	HNoX0905

● stock standard, ○ non-standard stock, ▲ upcoming introduction, ▽ stock exhaustion

Spare parts	Wedge	Wedge screws	L wrench
NT-HN09 Dooo-Foo-Zoo	NT-WD090	NT-SC090	NT-WR030

nikkoTOOLS

HN

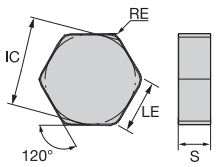
DoubleHex

- Double-sided face milling inserts specially for cast iron
- Hexagonal inserts with 12 cutting edges
- Coated carbide, CBN and ceramic grades available, covering a wide range of applications
- Geometries featuring different applications on cast iron, from light to heavy cutting

HC: Coated carbide
HF: Micrograin carbide
BH: High volume CBN
CN: Silicon nitride ceramic Si3N4
CVD: Chemical vapour deposition
PVD: Physical vapour deposition

	HC CVD	HF PVD	BH	CN
	JC7515	JP7525	NBH550U	NSN400
Stable machining, light cut (● 1st choice, ○ suitable)	●			●
General machining, medium cut (● 1st choice, ○ suitable)	●	●	●	●
Unstable machining, heavy cut (● 1st choice, ○ suitable)		●	●	

Dimensions



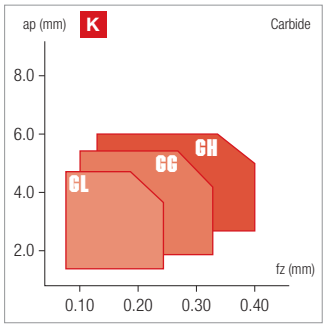
12 edges

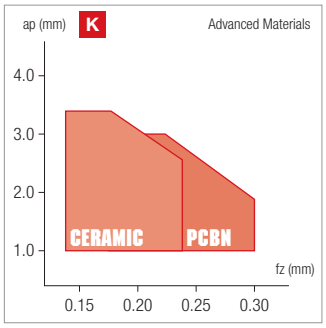
ISO	HC CVD JC7515	HF PVD JP7525	BH NBH550U	CN NSN400
P				
M				
K	180 360	140 300	800 2000	600 1200
N				
S				
H				

Vc(m/min) - suggested cutting speed range (bold: 1st choice)

	Designation		RE	IC	S	LE	AN	Stock				
GENERAL	GG K	HNEX090520-GG	2	16.2	5.56	9.35	0°	●	●			
		HNMX090520-GG	2	16.2	5.56	9.35	0°	●	●			
LOW FORCE	GL K	HNEX090510-GL	1	16.2	5.56	9.35	0°	●	●			
		HNEX090520-GL	2	16.2	5.56	9.35	0°	●	●			
REINFORCED	GH K	HNEX090516-GH	1.6	16.2	5.56	9.35	0°	●	●			
		HNEX090530-GH	3	16.2	5.56	9.35	0°	●	●			
		HNMX090516-GH	1.6	16.2	5.56	9.35	0°	●	●			
ADVANCED	UE K PCBN full solid	HNEN090520S-UE	2	16.2	5.56	9.35	0°			●		
ADVANCED	UE K CERAMIC silicon nitride	HNEN090520T-UE	2	16.2	5.56	9.35	0°				●	
		HNEN090530T-UE	3	16.2	5.56	9.35	0°				●	

● stock standard, ○ non-standard stock, ▲ upcoming introduction, ▽ stock exhaustion





ISO 513	MATERIAL	HARDNESS HB	ae/DC	JC7515			JP7525		
				min	start	max	min	start	max
K1	Grey cast iron (ex. 0.6025/GG 25/EN-GJL-250)	150 ÷ 250	100%	180	**230**	280	140	**180**	220
			30%	200	**260**	320	160	**210**	260
			10%	220	**290**	360	180	**240**	300
K2	Nodular cast iron (ex. 0.7050/GGG 50/EN-GJS-500-7)	150 ÷ 350	100%	120	**180**	240	100	**140**	180
			30%	160	**220**	280	120	**170**	220
			10%	200	**260**	320	140	**200**	260
K3 - K4	Austenitic and ADI cast iron (ex. 0.6660/GGL-NiCr 20 2/Ni-Resist 2, GJS-1000-5/ ADI1000)	250 ÷ 500	100%	100	**140**	180	90	**120**	150
			30%	140	**180**	220	120	**150**	180
			10%	180	**220**	260	150	**180**	210

ISO 513	MATERIAL	HARDNESS HB	ae/DC	NBH550U			NSN400		
				min	start	max	min	start	max
K1	Grey cast iron (ex. 0.6025/GG 25/EN-GJL-250)	150 ÷ 250	100%	800	**1000**	1200	400	**600**	800
			30%	1000	**1300**	1600	550	**750**	950
			10%	1200	**1600**	2000	800	**900**	1000

ae: radial depth of cut; DC: milling cutter diameter
Complete workpiece materials p. H1.

DESIGNATION	ae/DC	DEPTH OF CUT			FEED RATE		
		ap (mm)			fz (mm)		
		min	start	max	min	start	max
HNoX090520-GG	100%	1.00	**3.00**	5.00	0.10	**0.25**	0.40
	30%	1.00	**3.00**	5.00	0.13	**0.32**	0.51
	10%	1.00	**3.00**	5.00	0.16	**0.38**	0.60
HNEX0905oo-GL	100%	0.50	**2.50**	4.50	0.08	**0.22**	0.36
	30%	0.50	**2.50**	4.50	0.10	**0.27**	0.44
	10%	0.50	**2.50**	4.50	0.12	**0.32**	0.52
HNoX0905oo-GH	100%	1.00	**3.50**	6.00	0.13	**0.31**	0.50
	30%	1.00	**3.50**	6.00	0.16	**0.39**	0.62
	10%	1.00	**3.50**	6.00	0.19	**0.46**	0.73
HNEN0905ooo-UE	100%	1.00	**2.00**	3.00	0.13	**0.28**	0.43
	30%	1.00	**2.00**	3.00	0.16	**0.35**	0.54
	10%	1.00	**2.00**	3.00	0.20	**0.41**	0.62

nikkoTOOLS

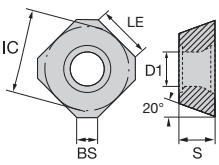
SEHX

ISO

- Positive type general face milling inserts
- 4 cutting edges
- Kapr 45°
- Diverse carbide grades with PVD and CVD coating grades available, covering a wide range of applications
- 3D geometries, general machining, low force, reinforced and aluminium types available

HC: Coated carbide
HF: Micrograin carbide
HT: Cermet
CVD: Chemical vapour deposition
PVD: Physical vapour deposition

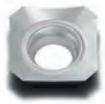
	HC CVD	HF PVD	HT	HF
	JC7530	JP8725	JU4525	JU6520
Stable machining, light cut (● 1st choice, ○ suitable)		○	●	●
General machining, medium cut (● 1st choice, ○ suitable)	●	●		●
Unstable machining, heavy cut (● 1st choice, ○ suitable)	●			



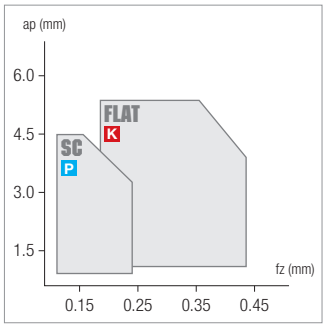
4 edges

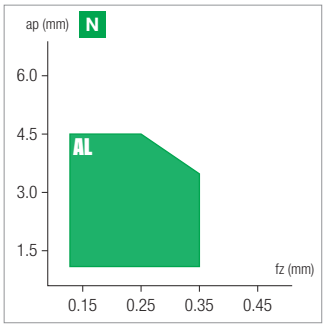
Dimensions	ISO	JC7530	JP8725	JU4525	JU6520
	P		100 280	130 300	
	M				
	K	160 320			
	N				300 1100
	S				
	H				

Vc(m/min) - suggested cutting speed range (bold: 1st choice)

	Designation		BS	IC	S	D1	LE	JC7530	JP8725	JU4525	JU6520	Stock
LOW FORCE	SC P	SEHX1204AFEN-SC	1.6	12.7	4.76	5.5	8.2		●	○		
REINFORCED	Flat K flat type	SEHX1204AFSN	1.6	12.7	4.76	5.5	8.2	▽				
ALUMINIUM	AL N  polished surface periphery ground	SEHX1204AFFN-AL	2.5	12.7	4.76	5.5	8.2				▽	

● stock standard, ○ non-standard stock, ▲ upcoming introduction, ▽ stock exhaustion



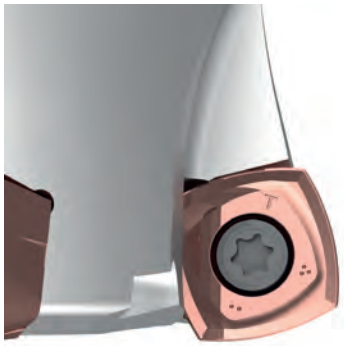


ISO 513	MATERIAL	HARDNESS HB	ae/DC	JP8725 min	JP8725 start	JP8725 max	JU4525 min	JU4525 start	JU4525 max
P1 - P2	Free cutting steel and low carbon (ex. 1.0715/9SMn28/AVP, 1.0503/C45)	≤ 200	100%	100	**150**	200	130	**180**	230
			30%	160	**210**	260	200	**240**	280
			10%	220	**250**	280	260	**280**	300
P3 - P4	Medium and high alloy steel (ex. 1.7225/42CrMo4, 1.3505/100Cr6)	200 ÷ 300	100%	90	**130**	170	120	**150**	180
			30%	130	**170**	210	180	**210**	240
			10%	190	**210**	230	230	**250**	270
P5 - P6	High tensile strength and tool steel (ex. 1.2344/X40CrMoV5-1/ORVAR, Hardox400®)	300 ÷ 400	100%	80	**110**	140	90	**120**	150
			30%	120	**150**	180	150	**180**	210
			10%	160	**190**	220	190	**220**	250
ISO 513	MATERIAL	HARDNESS HB	ae/DC	JC7530 min	JC7530 start	JC7530 max			
K1	Grey cast iron (ex. 0.6025/GG 25/EN-GJL-250)	150 ÷ 250	100%	160	**200**	240			
			30%	180	**230**	280			
			10%	200	**260**	320			
K2	Nodular cast iron (ex. 0.7050/GGG 50/EN-GJS-500-7)	150 ÷ 350	100%	120	**160**	200			
			30%	140	**190**	240			
			10%	160	**220**	280			
ISO 513	MATERIAL	HARDNESS HB	ae/DC	JU6520 min	JU6520 start	JU6520 max			
N1	Aluminium alloys ≤ Si 12% (ex. 3.4365/AlZn5.5MgCu/ERGAL)		100%	300	**400**	500			
			30%	400	**600**	800			
			10%	500	**800**	1100			
N2	Aluminium alloys Si > 12% (ex. 3.2382/G-AlSi12)		100%	200	**250**	300			
			30%	300	**350**	400			
			10%	400	**450**	500			

ae: radial depth of cut; DC: milling cutter diameter

Complete workpiece materials p. **H**1.

DESIGNATION	ae/DC	DEPTH OF CUT			FEED RATE		
		ap (mm)			fz (mm)		
		min	start	max	min	start	max
SEHX1204AFEN-SC	100%	0.50	**2.00**	3.50	0.06	**0.11**	0.16
	30%	0.50	**2.00**	3.50	0.08	**0.14**	0.20
	10%	0.50	**2.00**	3.50	0.09	**0.16**	0.23
SEHX1204AFSN	100%	1.50	**3.00**	4.50	0.14	**0.24**	0.34
	30%	1.50	**3.00**	4.50	0.18	**0.30**	0.42
	10%	1.50	**3.00**	4.50	0.21	**0.35**	0.49
SEHX1204AFFN-AL	100%	0.50	**2.50**	4.50	0.08	**0.17**	0.28
	30%	0.50	**2.50**	4.50	0.10	**0.22**	0.34
	10%	0.50	**2.50**	4.50	0.12	**0.26**	0.40

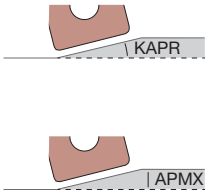


MILLING High Feed

Quick guide .D76

HF4PLUS .D77

nikkoTOOLS



	HF4PLUS SD	HF4PLUS SP
	D78	D80
	SCREW-IN	SCREW-IN
		CYLINDRICAL
	ARBOR	ARBOR
KAPR	13°	13°
Insert sizes	10 / 12 / 15	07
APMX	1.5 / 2 / 3	1
Tool diameter	Ø35 - Ø125	Ø20 - Ø52
Coolant holes	✓	✓
Workpiece material	P M K S	P M K S
No. of cutting edges	4	4
No. of geometries	4	2
Special features	special geometry for ISO S	-
Face Milling	✓	✓
Long Overhang	✓	✓
Ramping	✓	✓
Pocketing	✓	✓
Helical Interpolation	✓	✓
Machine load	■■■□□	■■□□□
Strenght	■■■■■	■■■□□
Range	■■■■■	■■■■□

HF4PLUS

High productivity high feed milling system available from big to small diameters

APPLICATION

- Semi-finishing or roughing of surfaces
- Profiling and contouring
- Linear or trochoidal ramping
- Pocketing

ISO APPLICATION FIELDS

P M K S

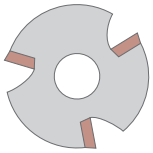
ADVANTAGES AND CHARACTERISTICS

- High feed machining that effectively reduces cycle time and improves efficiency
- Versatile in operations and simplify the process (can do face milling, ramping, helical pocketing, counterbore and countersink, combines roughing and semi finishing)
- Multiple-curve edge design improves robustness and reliability
- Available from mini size 07 to cost-effective 10, frequent 12 and large size 15

Cutter bodies

- Arbor type
- Cylindrical type
- Screw-in type
- Extension sleeves (steel/carbide 10xD)
- From D20 to D125

Extension arbors



Coarse pitch

Fine pitch

Inserts

- 4 edges
- Edge length 07, 10, 12 and 15
- Cemented carbide grades with PVD and CVD coatings
- Geometries: SC, GP, SS, TE

SC P M S

SIZE
07 10

GP P M K

SIZE
07 10 12 15

SS M S

SIZE
12

TE P K

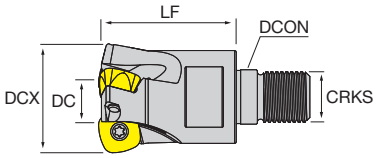
SIZE
10 12 15

NT-SD

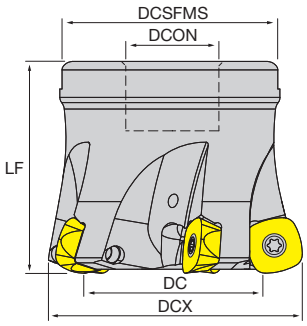
HF4Plus SD

- High feed milling system with positive square inserts, with coolant through
- Diverse combination of diameters and pitches, available with different insert sizes
- Tolerance of tool diameter (with Nikko inserts installed) 0/-0.2
- Steel and carbide arbors available for screw-in type holders

Screw-in



Arbor



Designation	Stock	DCX	CICT	DC	DCON	LF	LU	DCSFMS	CRKS	WT	MIID
SCREW-IN											
NT-SD10HF D035-M16-Z04	●	35	4	20	17	40	-	-	M16	0.18 Kg	SDMT1004
NT-SD10HF D042-M16-Z05	●	42	5	27	17	40	-	-	M16	0.23 Kg	SDMT1004
NT-SD12HF D032-M16-Z02	●	32	2	12.5	17	43	-	-	M16	0.18 Kg	SDMT1205
NT-SD12HF D035-M16-Z03	●	35	3	15.5	17	43	-	-	M16	0.19 Kg	SDMT1205
NT-SD12HF D040-M16-Z04	●	40	4	20.5	17	43	-	-	M16	0.20 Kg	SDMT1205
NT-SD12HF D042-M16-Z04	●	42	4	22.5	17	43	-	-	M16	0.22 Kg	SDMT1205
ARBOR											
NT-SD10HF D050-F22-Z06	●	50	6	35	22	50	-	47	-	0.38 Kg	SDMT1004
NT-SD10HF D052-F22-Z06	●	52	6	37	22	50	-	47	-	0.39 Kg	SDMT1004
NT-SD10HF D063-F27-Z07	●	63	7	48	27	50	-	58	-	0.65 Kg	SDMT1004
NT-SD10HF D066-F27-Z07	●	66	7	51	27	50	-	60	-	0.72 Kg	SDMT1004
NT-SD10HF D080-F27-Z08	●	80	8	65	27	50	-	65	-	1.00 Kg	SDMT1004
NT-SD12HF D042-F16-Z04	●	42	4	22.5	16	40	-	35	-	0.19 Kg	SDMT1205
NT-SD12HF D050-F22-Z04	●	50	4	30.5	22	50	-	47	-	0.37 Kg	SDMT1205
NT-SD12HF D050-F22-Z05	●	50	5	30.5	22	50	-	47	-	0.35 Kg	SDMT1205
NT-SD12HF D052-F22-Z04	●	52	4	32.5	22	50	-	47	-	0.39 Kg	SDMT1205
NT-SD12HF D052-F22-Z05	●	52	5	32.5	22	50	-	47	-	0.37 Kg	SDMT1205
NT-SD12HF D063-F22-Z04	●	63	4	43.5	22	50	-	52	-	0.56 Kg	SDMT1205
NT-SD12HF D063-F22-Z05	●	63	5	43.5	22	50	-	52	-	0.54 Kg	SDMT1205
NT-SD12HF D063-F27-Z04	●	63	4	43.5	27	50	-	52	-	0.58 Kg	SDMT1205
NT-SD12HF D063-F27-Z05	●	63	5	43.5	27	50	-	52	-	0.56 Kg	SDMT1205
NT-SD12HF D066-F27-Z06	●	66	6	46.5	27	50	-	60	-	0.68 Kg	SDMT1205
NT-SD12HF D080-F27-Z06	●	80	6	60.5	27	50	-	65	-	0.94 Kg	SDMT1205
NT-SD12HF D080-F27-Z07	●	80	7	60.5	27	50	-	65	-	0.99 Kg	SDMT1205
NT-SD12HF D100-F32-Z07	●	100	7	80.5	32	50	-	70	-	1.60 Kg	SDMT1205
NT-SD15HF D080-F27-Z05	●	80	5	61	27	50	-	58	-	0.80 Kg	SDMT1505
NT-SD15HF D080-F27-Z06	●	80	6	61	27	50	-	58	-	0.60 Kg	SDMT1505
NT-SD15HF D100-F32-Z06	●	100	6	81	32	50	-	70	-	1.20 Kg	SDMT1505
NT-SD15HF D125-F40-Z07	●	125	7	106	40	63	-	90	-	2.28 Kg	SDMT1505

● stock standard, ○ non-standard stock, ▲ upcoming introduction, ▽ stock exhaustion

Spare parts	Insert screws	Flag wrenches
NT-SD10HF D○○○-○○○-Z○○	NT-ST35095T15HQ	NT-FTB15
NT-SD12HF D○○○-○○○-Z○○	NT-ST40110T15HQ	NT-FTB15
NT-SD15HF D○○○-○○○-Z○○	NT-ST50110T20	NT-FTB20

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SDMT

HF4Plus SD

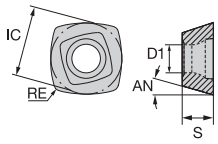
- GP geometry is for general purpose use
- SC and SS geometries are sharper, for M and S materials
- TE edge is reinforced and stronger
- Available with diverse carbide grades covering PMKS applications
- For the program radius and various other parameters for CNC program please go to the technical instruction page, it differs with sizes and geometries

HC: Coated carbide
HF: Micrograin carbide
CVD: Chemical vapour deposition
PVD: Physical vapour deposition

Stable machining, light cut: ● 1st choice ○ suitable
General machining, medium cut: ● 1st choice ○ suitable
Unstable machining, heavy cut: ● 1st choice ○ suitable

	JC8520	JC9540	JP5530	JP7525	JP8725	JP9535	JP9545
	HC CVD	HC CVD	HF PVD	HF PVD	HF PVD	HF PVD	HF PVD
Stable machining, light cut	●				○		
General machining, medium cut	○	●	●	●	●	●	○
Unstable machining, heavy cut		●	○	●		●	●

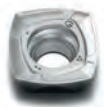
Dimensions



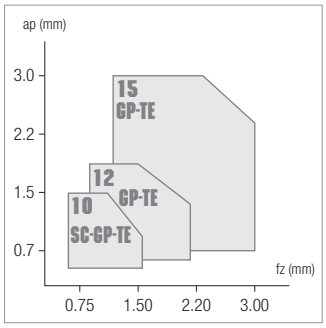
4 edges

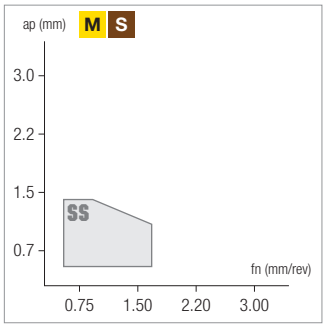
Vc(m/min) - suggested cutting speed range (bold: 1st choice)

ISO	JC8520	JC9540	JP5530	JP7525	JP8725	JP9535	JP9545
P	130 300		100 260		100 280		
M		90 210	60 180			80 200	60 180
K	160 320			140 300			
N							
S		30 70				20 60	20 50
H							

	Designation		RE	IC	S	D1	AN	JC8520	JC9540	JP5530	JP7525	JP8725	JP9535	JP9545	Stock
GENERAL	GP P M K 	SDMT100410R-GP	10	10	4.76	4	15°	●	●	●	●	●	●	●	
		SDMT120512R-GP	12	12.7	5.56	4.4	15°	●	●	●	●	●	●		
		SDMT150512R-GP	12	15.875	5.56	5.5	15°	●	●			●	●		
LOW FORCE	SC P M S	SDMT100410R-SC	10	10	4.76	4	15°			●			●		
SUPER SHARP	SS M S	SDMT120512R-SS	12	12.7	5.56	4.4	15°		●				●		
REINFORCED	TE P K	SDMT100410R-TE	10	10	4.76	4	15°			●		●	●		
		SDMT120512R-TE	12	12.7	5.56	4.4	15°	●		●		●			
		SDMT150512R-TE	12	15.875	5.56	5.5	15°	●				●			

● stock standard, ○ non-standard stock, ▲ upcoming introduction, ▽ stock exhaustion





Rp SUGGESTED PROGRAMMING RADIUS

SDMT 10	2.5
SDMT 12	3.5
SDMT 15	5.0

more details at page D83

SDMT12-SS

SS geometry generates a bigger milling cutter diameter compared to GP and TE types.

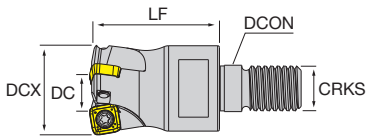
Please add **0.85 mm** to DCX values and **0.40 mm** to LF values, shown on page D78.

NT-SP

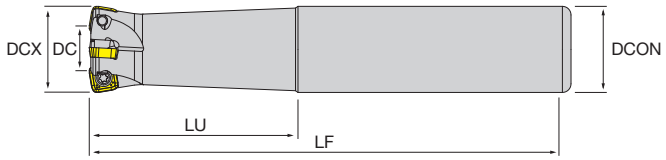
HF4Plus SP

- High feed milling system with positive square inserts, with coolant through
- Diverse combination of diameters and pitches available, focus on small diameters
- Tolerance of tool diameter (with Nikko inserts installed) 0/-0.2
- Steel and carbide arbors available for screw-in type holders

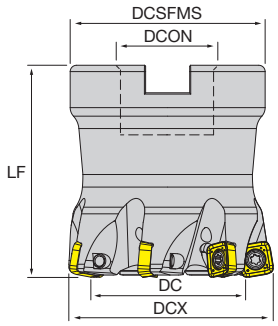
Screw-in



Cylindrical



Arbor



Designation	Stock	DCX	CICT	DC	DCON	LF	LU	DCSFMS	CRKS	WT	MIID
SCREW-IN											
NT-SP07HF D020-M10-Z02	●	20	2	7.3	10.5	30	-	-	M10	0.05 Kg	SPMT07T2
NT-SP07HF D020-M10-Z03	●	20	3	7.3	10.5	30	-	-	M10	0.04 Kg	SPMT07T2
NT-SP07HF D025-M12-Z03	●	25	3	12.3	12.5	35	-	-	M12	0.10 Kg	SPMT07T2
NT-SP07HF D025-M12-Z04	●	25	4	12.3	12.5	35	-	-	M12	0.10 Kg	SPMT07T2
NT-SP07HF D032-M16-Z04	●	32	4	19.3	17	40	-	-	M16	0.19 Kg	SPMT07T2
NT-SP07HF D032-M16-Z05	●	32	5	19.3	17	40	-	-	M16	0.17 Kg	SPMT07T2
NT-SP07HF D035-M16-Z05	●	35	5	22.3	17	40	-	-	M16	0.20 Kg	SPMT07T2
NT-SP07HF D042-M16-Z06	●	42	6	29.3	17	40	-	-	M16	0.24 Kg	SPMT07T2
CYLINDRICAL											
NT-SP07HF D020-S20-Z03	●	20	3	7.3	20	130	50	-	-	0.26 Kg	SPMT07T2
NT-SP07HF D025-S25-Z03	●	25	3	12.3	25	140	60	-	-	0.44 Kg	SPMT07T2
NT-SP07HF D025-S25-Z04	●	25	4	12.3	25	140	60	-	-	0.40 Kg	SPMT07T2
NT-SP07HF D032-S32-Z05	●	32	5	19.3	32	150	70	-	-	0.79 Kg	SPMT07T2
ARBOR											
NT-SP07HF D040-F16-Z05	●	40	5	27.3	16	40	-	35	-	0.21 Kg	SPMT07T2
NT-SP07HF D040-F16-Z06	●	40	6	27.3	16	40	-	35	-	0.20 Kg	SPMT07T2
NT-SP07HF D042-F16-Z05	●	42	5	29.3	16	40	-	35	-	0.22 Kg	SPMT07T2
NT-SP07HF D042-F16-Z06	●	42	6	29.3	16	40	-	35	-	0.21 Kg	SPMT07T2
NT-SP07HF D050-F22-Z07	●	50	7	37.3	22	50	-	46	-	0.41 Kg	SPMT07T2
NT-SP07HF D052-F22-Z07	●	52	7	39.3	22	50	-	46	-	0.44 Kg	SPMT07T2

● stock standard, ○ non-standard stock, ▲ upcoming introduction, ▽ stock exhaustion

Spare parts	Insert screws	Flag wrenches
NT-SP07HF D○○○-○○○-Z○○	NT-ST30070T10HQ	NT-FTB10

nikkoTOOLS

SPMT

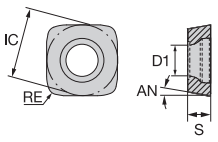
HF4Plus SP

- GP geometry is for general purpose use
- SC is sharper for M and S materials
- Available with diverse carbide grades covering PMKS applications
- For the program radius and various other parameters for CNC program please go to the technical instruction page

HC: Coated carbide
HF: Micrograin carbide
CVD: Chemical vapour deposition
PVD: Physical vapour deposition

	JC8520	JC9540	JP5530	JP7525	JP8725	JP9535	JP9545
	HC CVD	HC CVD	HF PVD	HF PVD	HF PVD	HF PVD	HF PVD
Stable machining, light cut (● 1st choice, ○ suitable)	●				○		
General machining, medium cut (● 1st choice, ○ suitable)	○	●	●	●	●	●	○
Unstable machining, heavy cut (● 1st choice, ○ suitable)		●	○	●		●	●

Dimensions



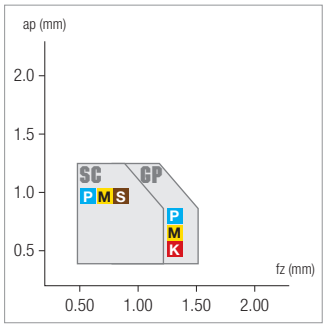
4 edges

Vc(m/min) - suggested cutting speed range (bold: 1st choice)

ISO	JC8520	JC9540	JP5530	JP7525	JP8725	JP9535	JP9545
P	130 300		100 260		100 280		
M		90 210	60 180			80 200	60 180
K	160 320			140 300			
N							
S		30 70				20 60	20 50
H							

	Designation		RE	IC	S	D1	AN	JC8520	JC9540	JP5530	JP7525	JP8725	JP9535	JP9545
GENERAL	GP P M K	SPMT07T210R-GP	1	7.8	2.8	3.5	11°	●	●	●	●	●	●	●
LOW FORCE	SC P M S	SPMT07T210R-SC	1	7.8	2.8	3.5	11°			●			●	

● stock standard, ○ non-standard stock, ▲ upcoming introduction, ▽ stock exhaustion



Rp SUGGESTED PROGRAMMING RADIUS

SPMT 07	2.0

more details at page D83

ISO 513	MATERIAL	HARDNESS HB	ae/DC	JC8520			JP5530			JP8725		
				min	start	max	min	start	max	min	start	max
P1 - P2	Free cutting steel and low carbon (ex. 1.0715/9 smn 28/avp, 1.0503/c45)	≤ 200	100%	130	**180**	230	100	**140**	180	100	**150**	200
			30%	200	**240**	280	160	**200**	240	160	**210**	260
			10%	260	**280**	300	220	**240**	260	220	**250**	280
P3 - P4	Medium and high alloy steel (ex. 1.7225/42 CrMo 4, 1.3505/100 Cr 6)	200 ÷ 300	100%	100	**140**	180	80	**120**	160	90	**130**	170
			30%	160	**200**	240	120	**160**	200	130	**170**	210
			10%	220	**240**	260	180	**200**	220	190	**210**	230
P5 - P6	High tensile strength and tool steel (ex. 1.2344/X 40 CrMoV 5 1/ORVAR, Hardox400®)	300 ÷ 400	100%	70	**100**	130	60	**90**	120	80	**110**	140
			30%	120	**160**	200	100	**130**	160	120	**150**	180
			10%	200	**220**	240	140	**170**	200	160	**190**	220
ISO 513	MATERIAL	HARDNESS HB	ae/DC	JC9540			JP9535			JP9545		
				min	start	max	min	start	max	min	start	max
P7	Ferritic and martensitic stainless steel (ex. 1.4021/X 20 Cr 13/AISI420)	≤ 200	100%	90	**130**	170	80	**120**	160	60	**100**	140
			30%	110	**160**	210	100	**150**	200	80	**130**	180
			10%	130	**190**	250	120	**180**	240	100	**160**	220
P8	Precipitation hardening stainless steel (ex. 1.4548/X 5 CrNiCuNb 17 4/17-4-PH)	≤ 450	100%	70	**100**	130	60	**90**	120	50	**80**	110
			30%	80	**110**	140	70	**100**	130	60	**90**	120
			10%	90	**120**	150	80	**110**	140	70	**100**	130
M1	Austenitic stainless steel (ex. 1.4305/X 10 CrNiS 18 9/AISI303)	> 200	100%	90	**120**	150	80	**110**	140	60	**90**	120
			30%	110	**150**	190	100	**140**	180	80	**120**	160
			10%	130	**170**	210	120	**160**	200	100	**140**	180
M2 - M3	Austenitic and Duplex stainless steel (ex. 1.4401/X 5 CrNiMo 17 12 2/AISI316)		100%	80	**110**	140	70	**100**	130	60	**90**	120
			30%	90	**120**	150	80	**110**	140	70	**100**	130
				100	**130**	160	90	**120**	150	80	**110**	140
ISO 513	MATERIAL	HARDNESS HB	ae/DC	JC8520			JP7525					
				min	start	max	min	start	max			
K1	Grey cast iron (ex. 0.6025/GG 25/EN-GJL-250)	150 ÷ 250	100%	160	**200**	240	140	**180**	220			
			30%	180	**230**	280	160	**210**	260			
			10%	200	**260**	320	180	**240**	300			
K2	Nodular cast iron (ex. 0.7050/GGG 50/EN-GJS-500-7)	150 ÷ 350	100%	120	**160**	200	100	**140**	180			
			30%	140	**190**	240	120	**170**	220			
			10%	160	**220**	280	140	**200**	260			
K3 - K4	Austenitic and ADI cast iron (ex. 0.6660/GGL-NiCr 20 2/Ni-Resist 2, GJS-1000-5/ ADI1000)	250 ÷ 500	100%	100	**130**	160	90	**120**	150			
			30%	120	**160**	200	120	**150**	180			
			10%	140	**190**	240	150	**180**	210			
ISO 513	MATERIAL	HARDNESS HB	ae/DC	JC9540			JP9535			JP9545		
				min	start	max	min	start	max	min	start	max
S1 - S2 - S3	Fe/Ni/Co based heat resistant alloys (ex. Hastelloy, Inconel 625, Inconel 718)		100%	30	**40**	50	20	**30**	40	20	**25**	30
			30%	40	**50**	60	30	**40**	50	30	**35**	40
			10%	50	**60**	70	40	**50**	60	40	**45**	50
S4 - S5	Titanium alloys (ex. TiAl2Sn4Zr2MoSi)		100%				40	**50**	60	30	**40**	50
			30%				50	**60**	70	40	**50**	60
			10%				60	**70**	80	50	**60**	70

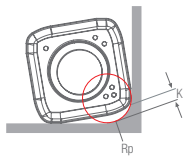
ae: radial depth of cut; DC: milling cutter diameter

Complete workpiece materials p. **H**1.

DESIGNATION	ae/DCX	DEPTH OF CUT			FEED RATE		
		ap (mm)			fz (mm)		
		min	start	max	min	start	max
SPMT07T210R-GP	100%	0.20	**0.60**	1.00	0.40	**0.70**	1.00
	30%	0.20	**0.60**	1.00	0.50	**0.90**	1.30
	10%	0.20	**0.60**	1.00	0.60	**1.10**	1.60
SDMT100410R-GP	100%	0.30	**0.90**	1.50	0.40	**0.75**	1.10
	30%	0.30	**0.90**	1.50	0.50	**1.00**	1.50
	10%	0.30	**0.90**	1.50	0.60	**1.20**	1.60
SDMT120512R-GP	100%	0.40	**1.20**	2.00	0.60	**0.90**	1.20
	30%	0.40	**1.20**	2.00	0.70	**1.10**	1.50
	10%	0.40	**1.20**	2.00	0.80	**1.30**	1.80
SDMT150512R-GP	100%	0.60	**1.80**	3.00	0.60	**1.00**	1.40
	30%	0.60	**1.80**	3.00	0.80	**1.30**	1.80
	10%	0.60	**1.80**	3.00	0.90	**1.50**	2.10
SPMT07T210R-SC	100%	0.20	**0.60**	1.00	0.30	**0.60**	0.90
	30%	0.20	**0.60**	1.00	0.40	**0.80**	1.20
	10%	0.20	**0.60**	1.00	0.50	**0.90**	1.40
SDMT100410R-SC	100%	0.30	**0.90**	1.50	0.30	**0.70**	1.10
	30%	0.30	**0.90**	1.50	0.40	**0.90**	1.40
	10%	0.30	**0.90**	1.50	0.50	**1.00**	1.50

DESIGNATION	ae/DCX	DEPTH OF CUT			FEED RATE		
		ap (mm)			fz (mm)		
		min	start	max	min	start	max
SDMT100410R-TE	100%	0.30	**0.90**	1.50	0.60	**0.90**	1.20
	30%	0.30	**0.90**	1.50	0.70	**1.20**	1.60
	10%	0.30	**0.90**	1.50	0.80	**1.40**	1.60
SDMT120512R-TE	100%	0.40	**1.20**	2.00	0.70	**1.00**	1.30
	30%	0.40	**1.20**	2.00	0.90	**1.30**	1.70
	10%	0.40	**1.20**	2.00	1.00	**1.50**	2.00
SDMT150512R-TE	100%	0.60	**1.80**	3.00	0.80	**1.20**	1.60
	30%	0.60	**1.80**	3.00	1.00	**1.50**	2.00
	10%	0.60	**1.80**	3.00	1.20	**1.80**	2.40
SDMT120512R-SS	100%	0.40	**0.70**	1.00	0.50	**0.80**	1.10
	30%	0.40	**0.70**	1.00	0.60	**1.00**	1.40
	10%	0.40	**0.70**	1.00	0.70	**1.20**	1.70

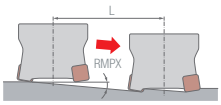
Approximate programming radius adjustment (Rp)



SPMT07			SDMT10			SDMT12 *			SDMT15		
Rp	undercut K	overcut r	Rp	undercut K	overcut r	Rp	undercut K	overcut r	Rp	undercut K	overcut r
1.5	0.69	0	2	1.18	0	3	1.28	0	4.5	1.15	0
2	**0.61**	**0**	**2.5**	**1.02**	**0**	**3.5**	**1.11**	**0**	**5**	**0.99**	**0**
2.5	0.54	0.08	3	0.86	0.02	4	0.95	0.02	5.5	0.82	0.14
3	0.46	0.24	3.5	0.70	0.13	4.5	0.79	0.14	6	0.67	0.03

*for SDMT12-SS programming radius adjustment please see next page. Green background are suggested values.

Parameters for ramping

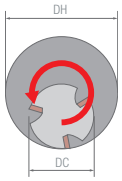


SPMT07			SDMT10			SDMT12 *			SDMT15		
DCX	RMPX	L	DCX	RMPX	L	DCX	RMPX	L	DCX	RMPX	L
20	3.5°	2.5	35	1.6°	2	32	4.0°	4.5	80		
25	3.0°	1.6	42	1.5°	1.7	40	2.4°	3.4	100		
32	1.2°	1.4	50	0.8°	1.5	42	2.1°	3.2	125		
35	1.2°	1.5	52	1.0°	2	50	1.5°	2.9			
40	1.0°	1.3	63	0.6°	1.8	52	1.0°	2			
42	0.9°	1.3	66	0.6°	1.8	63	1.0°	2.5			
52	0.6°	1.2	80	0.4°	1.6	66	0.9°	2.5			
						80	0.7°	2.2			
						100					

*for SDMT12-SS guide for ramping please see next page.

RMPX: max. ramping angle; L: max. ramping path

Parameters for helical milling

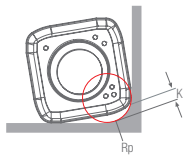


SPMT07			SDMT10			SDMT12 *			SDMT15		
DCX	DH min.	DH max.	DCX	DH min.	DH max.	DCX	DH min.	DH max.	DCX	DH min.	DH max.
20	28	40	35	54	70	32	46	64	80		
25	38	50	42	68	84	40	62	80	100		
32	52	64	50	84	100	42	66	84	125		
35	58	70	52	88	104	50	82	100			
40	68	80	63	110	126	52	86	104			
42	72	84	66	116	132	63	108	126			
52	92	104	80	144	160	66	114	132			
						80	142	160			
						100					

*for SDMT12-SS guide for helical milling please see next page.

DH min.: min. cutting dia.; DH max.: max. cutting dia.

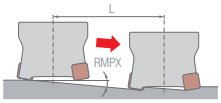
Approximate programming radius adjustment (Rp)



SDMT12-SS		
Rp	undercut K	overcut r
3	1.52	0
3.5	**1.45**	**0**
4	1.28	0.07

Green background are suggested values.

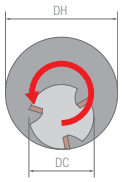
Parameters for ramping



SDMT12-SS		
DCX	RMPX	L
32	5.5°	6
40	3.7°	5.2
42	3.3°	5
50	2.4°	4.4
52	2.2°	4.2
63	1.5°	3.7
66	1.4°	3.5
80	1.0°	3.3

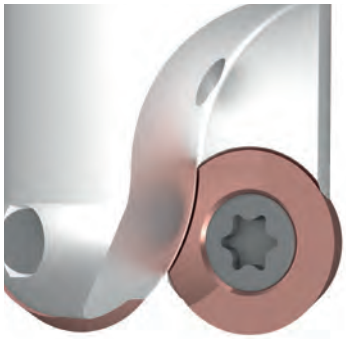
RMPX: max. ramping angle; L: max. ramping path

Parameters for helical milling



SDMT12-SS		
DCX	DH min.	DH max.
32	42	64
40	58	80
42	62	84
50	78	100
52	82	104
63	104	126
66	110	132
80	138	160

DH min.: min. cutting dia.; DH max.: max. cutting dia.

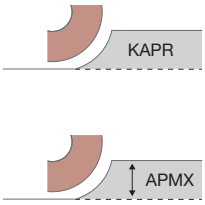


MILLING Profiling

Quick guide .D84

ROUNDPLUS .D85

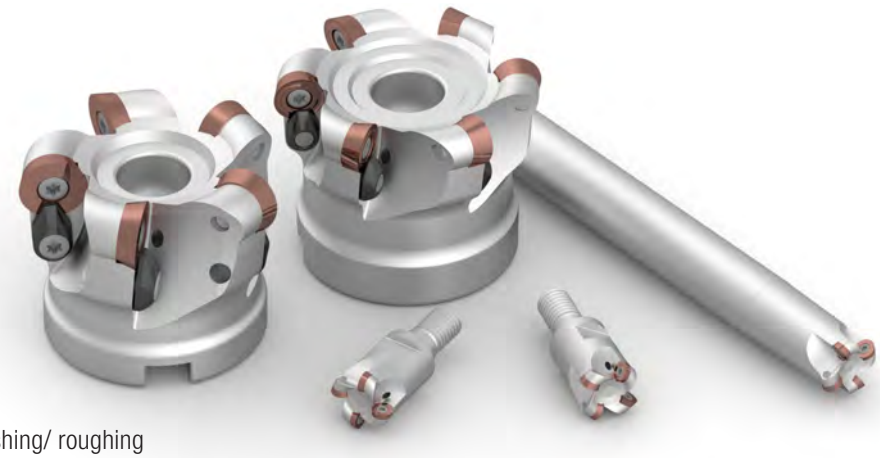
nikkoTOOLS



	ROUNDPLUS RC	ROUNDPLUS RD	ROUNDPLUS RP
	D86	D88	D92
	ARBOR	SCREW-IN CYLINDRICAL ARBOR	ARBOR
KAPR	variable	variable	variable
Insert sizes	12 / 16 / 20	05 / 07 / 10 / 12 / 16	12
APMX	3 / 4 / 5	1.25 / 1.75 / 2.5 / 3 / 4	3
Tool diameter	Ø063 - Ø160	Ø9 - Ø125	Ø42 - Ø80
Coolant holes	✓	✓	✓
Workpiece material	P M S	P M K S	P M S
No. of cutting edges	variable	variable	variable
No. of geometries	1	3	3
Special features	indexing faces	-	-
Face Milling	✓	✓	✓
Profiling	✓	✓	✓
Long Overhang	✓	✓	✓
Ramping	✓	✓	✓
Pocketing	✓	✓	✓
Helical Interpolation	✓	✓	✓
Machine load	■■■■□	■■■□□	■■■□□
Strenght	■■■■■	■■■■□	■■■□□
Range	■■■□□	■■■■■	■■□□□

ROUNDPLUS

Facing and Profiling milling cutters for multi-functional application



APPLICATION

· Profiling of finishing/ semi-finishing/ roughing
· Face milling of finishing/ semi-finishing/ roughing
· Possible to do ramping and pocket interpolation

ISO APPLICATION FIELDS

P M K S

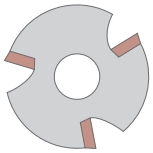
ADVANTAGES AND CHARACTERISTICS

· Insert geometries available for finishing/ semi-finishing/ roughing
· Cutters range from D9 all the way to D160
· Low cutting force with good robustness, allows long overhang working (up to 10xD)
· Multi-functional tool with good flexibility in machining

Cutter bodies

· Arbor type
· Cylindrical type (up to 10xD)
· Screw-in type
· Extension sleeves (steel/carbide 10xD)
· From D9 to D160

Extension arbors



Coarse pitch

Fine pitch

Inserts

· Multi-edges
· IC 05 / 07 / 10 / 12 / 16 / 20
· Cemented carbide grades with PVD and CVD coatings
· Geometries: SC, GP, Flat

SC P M

SIZE RD 10 12 16 | SIZE RP 12

GP P M S

SIZE RD 10 12 16 | SIZE RP 12

FLAT P K

SIZE RD 07 10 12 16 | SIZE RP 12

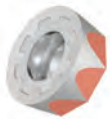
FLAT-D6 P

SIZE RD 12

FLAT-D8 P

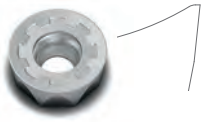
SIZE RD 12

RCEX inserts



with 8 indexes for easy positioning

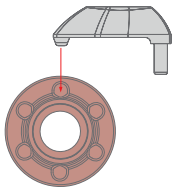
GP P M S



SIZE 16 20

RDEW12 with dots

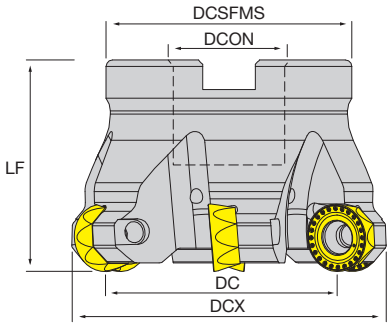
The clamp NT-CS014 has been designed to facilitate the inserts repositioning.
· The rounded front part perfectly fits in the dots on the insert top face.
· The same clamp fits on flat type inserts and positive inserts with geometries GP and SC.



NT-RC

RoundPlus RC

- Positive general face milling cutters for RC inserts
- All with coolant through
- Very robust milling solution for massive chip removal application



Designation	Stock	DCX	CICT	DC	DCON	LF	LU	DCSFMS	CRKS	WT	MIID
NT-RC16H D063-F22-Z05	●	63	5		22	50	-	45	-	0.46 Kg	RCEX1606
NT-RC16H D080-F27-Z06	●	80	6		27	50	-	58	-	0.78 Kg	RCEX1606
NT-RC16H D100-F32-Z06	●	100	6		32	50	-	70	-	1.26 Kg	RCEX1606
NT-RC20H D100-F32-Z06	●	100	6		32	50	-	70	-	1.19 Kg	RCEX2006
NT-RC20H D125-F40-Z07	●	125	7		40	63	-	90	-	2.71 Kg	RCEX2006
NT-RC20H D160-F40-Z08	●	160	8		40	63	-	100	-	3.98 Kg	RCEX2006

● stock standard, ○ non-standard stock, ▲ upcoming introduction, ▽ stock exhaustion

Spare parts	Insert screws	Flag wrenches
NT-RC16H D○○○-○○○-Z○○	NT-ST50110T20	NT-FTB20
NT-RC16H D100-F32-Z06	NT-ST50110T20	NT-TT20
NT-RC20H D○○○-○○○-Z○○	NT-ST60160T25	NT-TT25

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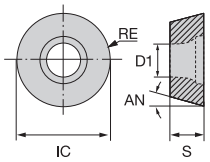
RC

RoundPlus RC

- GP geometry is for general purpose use
- 8 index facets for seating
- Both PVD and CVD coated carbide grades available
- Very reliable and cost effective solution for massive metal removal operations

HC: Coated carbide
HF: Micrograin carbide
CVD: Chemical vapour deposition
PVD: Physical vapour deposition

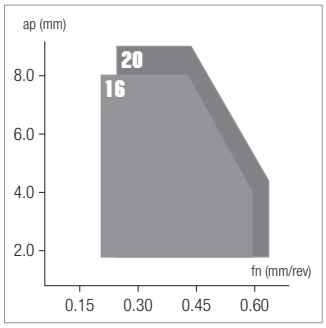
	HC CVD	HC CVD	HF PVD	HF PVD
	JC8520	JC9540	JP8725	JP9535
Stable machining, light cut (● 1st choice, ○ suitable)	●		○	
General machining, medium cut (● 1st choice, ○ suitable)	○	●	●	●
Unstable machining, heavy cut (● 1st choice, ○ suitable)		●		●



Dimensions	ISO	JC8520	JC9540	JP8725	JP9535
		Vc(m/min) - suggested cutting speed range (bold: 1st choice)			
	P	130 300		100 280	
	M		90 210		80 200
	K	160 320			
	N				
	S		30 70		20 60
	H				

	Designation	RE	IC	S	D1	AN	JC8520	JC9540	JP8725	JP9535	Stock
GENERAL	GP P M S with 8 indexes										
	RCEX1606M0E-GP-8X	8	16	6.35	5.5	7°	●	●	●	●	
	RCEX2006M0E-GP-8X	10	20	6.35	6.5	7°	●	●	●	●	

● stock standard, ○ non-standard stock, ▲ upcoming introduction, ▽ stock exhaustion

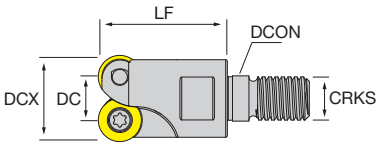


NT-RD

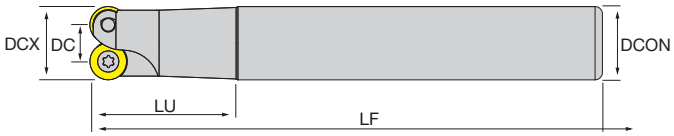
RoundPlus RD

- Positive general face milling cutters for RD inserts, with or without coolant through, various options available
- Very convenient multipurpose tool, at small depth of cut could be used as highfeed, at bigger depth of cut is robust with big radii, can also do profiling and copy milling
- Tolerance of tool diameter (with Nikko inserts installed) 0/-0.2
- Steel and carbide arbors available for screw-in type holders

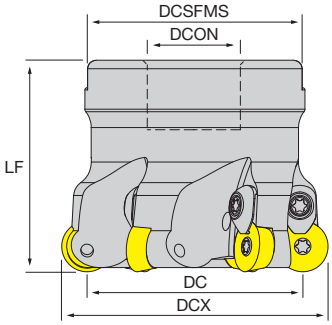
Screw-in



Cylindrical



Arbor



Designation	Stock	DCX	CICT	DC	DCON	LF	LU	DCSFMS	CRKS	WT	MIID
SCREW-IN - WITHOUT COOLANT HOLES											
NT-RD05 D012-M06-Z02	▽	12	2		6.5	18	-	-	M6	0.01 Kg	RDoo0501
NT-RD05 D012-M06-Z03	▽	12	3		6.5	18	-	-	M6	0.01 Kg	RDoo0501
NT-RD05 D013-M06-Z02	▽	13	2		6.5	18	-	-	M6	0.01 Kg	RDoo0501
NT-RD05 D013-M06-Z03	▽	13	3		6.5	18	-	-	M6	0.01 Kg	RDoo0501
NT-RD05 D016-M08-Z04	▽	16	4		8.5	23	-	-	M8	0.03 Kg	RDoo0501
NT-RD05 D017-M08-Z04	▽	17	4		8.5	23	-	-	M8	0.03 Kg	RDoo0501
NT-RD07 D016-M08-Z02	▽	16	2		8.5	23	-	-	M8	0.03 Kg	RDoo0702
NT-RD07 D017-M08-Z02	▽	17	2		8.5	23	-	-	M8	0.03 Kg	RDoo0702
NT-RD07 D017-M08-Z03	▽	17	3		8.5	23	-	-	M8	0.03 Kg	RDoo0702
NT-RD07 D021-M10-Z02	▽	21	2		10.5	30	-	-	M10	0.06 Kg	RDoo0702
NT-RD07 D021-M10-Z03	▽	21	3		10.5	30	-	-	M10	0.05 Kg	RDoo0702
NT-RD07 D025-M12-Z05	▽	25	5		12.5	35	-	-	M12	0.10 Kg	RDoo0702
NT-RD07 D026-M12-Z04	▽	26	4		12.5	35	-	-	M12	0.11 Kg	RDoo0702
NT-RD07 D026-M12-Z05	▽	26	5		12.5	35	-	-	M12	0.10 Kg	RDoo0702
NT-RD07 D035-M16-Z05	▽	35	5		17	43	-	-	M16	0.24 Kg	RDoo0702
NT-RD10 D021-M10-Z02	▽	21	2		10.5	30	-	-	M10	0.05 Kg	RDoo1003
SCREW-IN - WITH COOLANT HOLES											
NT-RD07H D016-M08-Z03	●	16	3		8.5	23	-	-	M8	0.02 Kg	RDoo0702
NT-RD07H D020-M10-Z03	●	20	3		10.5	30	-	-	M10	0.06 Kg	RDoo0702
NT-RD07H D025-M12-Z04	●	25	4		12.5	35	-	-	M12	0.09 Kg	RDoo0702
NT-RD07H D035-M16-Z06	●	35	6		17	43	-	-	M16	0.22 Kg	RDoo0702
NT-RD10H D020-M10-Z02	●	20	2		10.5	30	-	-	M10	0.05 Kg	RDoo1003
NT-RD10H D025-M12-Z03	●	25	3		12.5	35	-	-	M12	0.09 Kg	RDoo1003
NT-RD10H D026-M12-Z03	●	26	3		12.5	35	-	-	M12	0.09 Kg	RDoo1003
NT-RD10H D030-M12-Z03	●	30	3		12.5	35	-	-	M12	0.11 Kg	RDoo1003

● stock standard, ○ non-standard stock, ▲ upcoming introduction, ▽ stock exhaustion

Designation	Stock	DCX	CICT	DC	DCON	LF	LU	DCSFMS	CRKS	WT	MIID
NT-RD10H D032-M16-Z03	●	32	3		17	43	-	-	M16	0.20 Kg	RDoo1003
NT-RD10H D032-M16-Z04	●	32	4		17	43	-	-	M16	0.18 Kg	RDoo1003
NT-RD10H D035-M16-Z03	●	35	3		17	43	-	-	M16	0.22 Kg	RDoo1003
NT-RD10H D035-M16-Z04	●	35	4		17	43	-	-	M16	0.20 Kg	RDoo1003
NT-RD10H D040-M16-Z04	●	40	4		17	43	-	-	M16	0.24 Kg	RDoo1003
NT-RD10H D042-M16-Z05	●	42	5		17	43	-	-	M16	0.21 Kg	RDoo1003
CYLINDRICAL - WITHOUT COOLANT HOLES											
NT-RD05 D009-S08-Z02	▽	9	2		8	100	12	-	-	0.04 Kg	RDoo0501
NT-RD05 D011-S10-Z02	▽	11	2		10	100	15	-	-	0.06 Kg	RDoo0501
NT-RD05 D013-S12-Z03	▽	13	3		12	100	18	-	-	0.08 Kg	RDoo0501
NT-RD05 D017-S16-Z04	▽	17	4		16	150	20	-	-	0.23 Kg	RDoo0501
NT-RD07 D021-S20-Z03	▽	21	3		20	150	25	-	-	0.35 Kg	RDoo0702
NT-RD07 D026-S25-Z05	▽	26	5		25	150	25	-	-	0.55 Kg	RDoo0702
NT-RD07 D035-S32-Z06	▽	35	6		32	150	30	-	-	0.92 Kg	RDoo0702
CYLINDRICAL - WITH COOLANT HOLES											
NT-RD05H D010-S10-Z02	●	10	2		10	100	18	-	-	0.05 Kg	RDoo0501
NT-RD05H D012-S12-Z03	●	12	3		12	100	22	-	-	0.07 Kg	RDoo0501
NT-RD05H D016-S16-Z04	●	16	4		16	150	30	-	-	0.21 Kg	RDoo0501
NT-RD07H D016-S16-Z02	●	16	2		16	150	25	-	-	0.21 Kg	RDoo0702
NT-RD07H D017-S16-Z02	●	17	2		16	150	20	-	-	0.20 Kg	RDoo0702
NT-RD07H D020-S20-Z03	●	20	3		20	150	35	-	-	0.33 Kg	RDoo0702
NT-RD07H D025-S25-Z05	●	25	5		25	150	40	-	-	0.51 Kg	RDoo0702
NT-RD10H D020-S20-Z02	●	20	2		20	150	40	-	-	0.32 Kg	RDoo1003
NT-RD10H D021-S20-Z02	●	21	2		20	150	25	-	-	0.34 Kg	RDoo1003
NT-RD10H D025-S25-Z03	●	25	3		25	150	40	-	-	0.50 Kg	RDoo1003
NT-RD10H D026-S25-Z03	●	26	3		25	150	25	-	-	0.52 Kg	RDoo1003
NT-RD10H D030-S25-Z03	●	30	3		25	150	25	-	-	0.53 Kg	RDoo1003
NT-RD10H D032-S32-Z03	●	32	3		32	150	40	-	-	0.82 Kg	RDoo1003
NT-RD10H D035-S32-Z04	●	35	4		32	150	35	-	-	0.85 Kg	RDoo1003
ARBOR - WITHOUT COOLANT HOLES											
NT-RD16 D066-F22-Z05	▽	66	5		22	50	-	56	-	0.62 Kg	RDoo1604
ARBOR - WITH COOLANT HOLES											
NT-RD10H D042-F16-Z05	●	42	5		16	40	-	35	-	0.20 Kg	RDoo1003
NT-RD10H D052-F22-Z06	●	52	6		22	40	-	46	-	0.33 Kg	RDoo1003
NT-RD12H D040-F16-Z04	○	40	4		16	50	-		-	-	RDoo1204
NT-RD12H D042-F16-Z04	●	42	4		16	50	-	38	-	0.25 Kg	RDoo1204
NT-RD12H D050-F22-Z04	●	50	4		22	50	-	46	-	0.35 Kg	RDoo1204
NT-RD12H D050-F22-Z05	●	50	5		22	50	-	46	-	0.37 Kg	RDoo1204
NT-RD12H D052-F22-Z04	●	52	4		22	50	-	46	-	0.40 Kg	RDoo1204
NT-RD12H D052-F22-Z05	●	52	5		22	50	-	46	-	0.42 Kg	RDoo1204
NT-RD12H D063-F22-Z05	●	63	5		22	50	-	52	-	0.56 Kg	RDoo1204
NT-RD12H D063-F22-Z06	●	63	6		22	50	-	52	-	0.58 Kg	RDoo1204
NT-RD12H D066-F22-Z06	●	66	6		22	50	-	56	-	0.71 Kg	RDoo1204
NT-RD12H D080-F27-Z07	●	80	7		27	50	-	60	-	0.93 Kg	RDoo1204
NT-RD16H D063-F22-Z05	●	63	5		22	50	-	52	-	0.50 Kg	RDoo1604
NT-RD16H D066-F27-Z05	●	66	5		27	50	-	56	-	0.56 Kg	RDoo1604
NT-RD16H D080-F27-Z05	●	80	5		27	50	-	60	-	0.85 Kg	RDoo1604
NT-RD16H D080-F27-Z06	●	80	6		27	50	-	60	-	0.87 Kg	RDoo1604
NT-RD16H D100-F32-Z07	●	100	7		32	50	-	70	-	1.22 Kg	RDoo1604
NT-RD16H D125-F40-Z08	●	125	8		40	63	-	90	-	2.50 Kg	RDoo1604

● stock standard, ○ non-standard stock, ▲ upcoming introduction, ▽ stock exhaustion

Spare parts	Insert screws	Flag wrenches	Clamping set
NT-RD05o DCX ≤ 10	NT-ST20033T06	NT-FTB06	-
NT-RD05o DCX ≥ 11	NT-ST20040T06	NT-FTB06	-
NT-RD07o Dooo-ooo-Zoo	NT-ST25056T08HQ	NT-FTB08	-
NT-RD10o DCX ≤ 26	NT-ST35070T15	NT-FTB15	-

Spare parts	Insert screws	Flag wrenches	Clamping set
NT-RD10o DCX = 30	NT-ST35095T15HQ	NT-FTB15	-
NT-RD10o DCX ≥ 32	NT-ST35095T15HQ	NT-FTB15	NT-CS013
NT-RD12H Dooo-ooo-Zoo	NT-ST40110T15HQ	NT-FTB15	NT-CS014
NT-RD16H Dooo-ooo-Zoo	NT-ST45110T20	NT-FTB20	NT-CS021

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RD

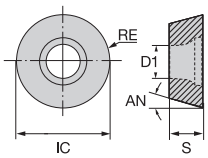
RoundPlus RD

- GP geometry is for general purpose use, SC geometry is sharper
- Reinforced with chamfer edge type available in multiple sizes
- Both PVD and CVD coated different carbide grades available
- Different dots fits with the same universal-clamp on our cutters
- Very reliable and cost efficient solution for multiple purpose and massive metal removal operations

HC: Coated carbide
HF: Micrograin carbide
HT: Cermet
CVD: Chemical vapour deposition
PVD: Physical vapour deposition

	HC CVD	HF PVD	HF PVD	HF PVD	HF PVD	HF PVD	HT
	JC9540	**JP5520**	**JP5530**	**JP7525**	**JP8725**	**JP9535**	**JU4525**
Stable machining, light cut (● 1st choice, ○ suitable)		○			○		●
General machining, medium cut (● 1st choice, ○ suitable)	●	●	●	●	●	●	
Unstable machining, heavy cut (● 1st choice, ○ suitable)	●		○	●		●	

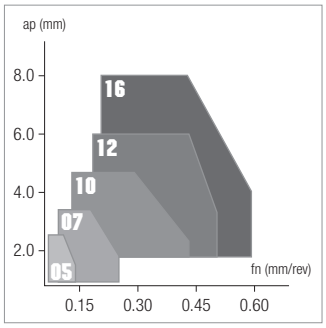
Dimensions



ISO	HC CVD	HF PVD	HF PVD	HF PVD	HF PVD	HF PVD	HT
	Vc(m/min) - suggested cutting speed range (bold: 1st choice)						
P		100 260	100 260		100 280		130 300
M	90 210	60 180	60 180			80 200	
K				140 300			
N							
S	30 70					20 60	
H							

	Designation		RE	IC	S	D1	AN	Stock						
GENERAL	GP P M S	RDET0803M0E-GP	4	8	3.18	2.9	15°			○				
		RDET1003M0E-GP	5	10	3.18	4.4	15°		▽	●		▲	●	
		RDET10T3M0E-GP	5	10	3.97	4.4	15°			○		○		
		RDET1204M0E-GP	6	12	4.76	4.4	15°	●		●		▲	●	
		RDMT1204M0E-GP	6	12	4.76	4.4	15°			●				
		RDET1604M0E-GP	8	16	4.76	5.5	15°			○		●	●	
LOW FORCE	SC P	RDET1204M0E-SC	6	12	4.76	4.4	15°			○				
		RDET1604M0E-SC	8	16	4.76	5.5	15°		▽	●		▲		
REINFORCED	M0E P M K flat type honed edge	RDEW0501M0E	2.5	5	1.51	2.2	15°			●	●	●	○	
		RDEW0702M0E	3.5	7	2.38	2.8	15°						●	▽
REINFORCED	MOT P K flat type chamfered edge	RDEW0702M0T	3.5	7	2.38	2.8	15°		▽	●	●	▲		
		RDEW1003M0T	5	10	3.18	4.4	15°			●	●	●		
		RDEW10T3M0T	5	10	3.97	4.4	15°		▽	●				
		RDEW1204M0T	6	12	4.76	4.4	15°			●	○	●		
		RDEW1604M0T	8	16	4.76	5.5	15°			●	●	●		
		RDMW1604M0T	8	16	4.76	5.5	15°			●		●		
REINFORCED	MOT P flat type - 6 dots chamfered edge	RDMW1204M0T-D6	6	12	4.76	4.4	15°					●		
		RDEW1605M0T-D6	8	16	5.66	5.5	15°		▽					

● stock standard, ○ non-standard stock, ▲ upcoming introduction, ▽ stock exhaustion



nikkoTOOLS

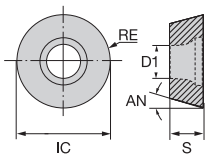
RD

RoundPlus RD

- GP geometry is for general purpose use, SC geometry is sharper
- Reinforced with chamfer edge type available in multiple sizes
- Both PVD and CVD coated different carbide grades available
- Different dots fits with the same universal-clamp on our cutters
- Very reliable and cost efficient solution for multiple purpose and massive metal removal operations

HC: Coated carbide
HF: Micrograin carbide
HT: Cermet
CVD: Chemical vapour deposition
PVD: Physical vapour deposition

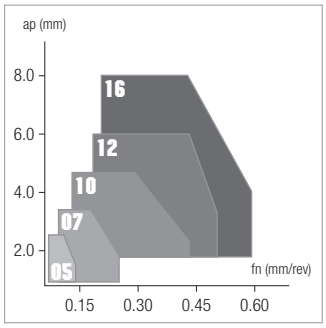
	HC CVD	HF PVD	HF PVD	HF PVD	HF PVD	HF PVD	HT
	JC9540	**JP5520**	**JP5530**	**JP7525**	**JP8725**	**JP9535**	**JU4525**
Stable machining, light cut (● 1st choice, ○ suitable)		○			○		●
General machining, medium cut (● 1st choice, ○ suitable)	●	●	●	●	●	●	
Unstable machining, heavy cut (● 1st choice, ○ suitable)	●		○	●		●	



Dimensions	ISO	JC9540	JP5520	JP5530	JP7525	JP8725	JP9535	JU4525
		Vc(m/min) - suggested cutting speed range (bold: 1st choice)						
	P		100 260	100 260		100 280		130 300
	M	90 210	60 180	60 180			80 200	
	K				140 300			
	N							
	S	30 70					20 60	
	H							

	Designation		RE	IC	S	D1	AN	Stock						
REINFORCED	MOT P	RDEW12T3M0T-D8	6	12	3.97	4.4	15°			○		●		
		RDEW1204M0T-D8	6	12	4.76	4.4	15°			○				
		RDMW1204M0T-D8	6	12	4.76	4.4	15°			○				
	flat type - 8 dots **chamfered edge**	RDMW1605M0T-D8	8	16	5.66	5.5	15°			●				

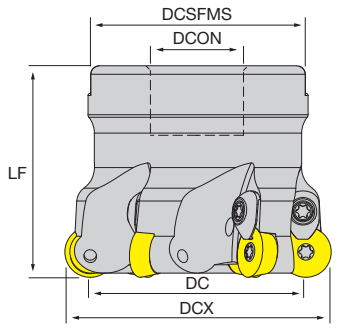
● stock standard, ○ non-standard stock, ▲ upcoming introduction, ▽ stock exhaustion



NT-RP

RoundPlus RP

- Positive general face milling cutters for RP inserts
- All with coolant through
- High clearance angle useful for M and S material roughing



Designation	Stock	DCX	CICT	DC	DCON	LF	LU	DCSFMS	CRKS	WT	MIID
NT-RP12H D042-F16-Z04	●	42	4		16	50	-	38	-	0.26 Kg	RPoo1204
NT-RP12H D050-F22-Z05	●	50	5		22	50	-	46	-	0.40 Kg	RPoo1204
NT-RP12H D052-F22-Z05	●	52	5		22	50	-	46	-	0.40 Kg	RPoo1204
NT-RP12H D063-F22-Z06	●	63	6		22	50	-	52	-	0.59 Kg	RPoo1204
NT-RP12H D066-F22-Z06	●	66	6		22	50	-	56	-	0.73 Kg	RPoo1204
NT-RP12H D080-F27-Z07	●	80	7		27	50	-	60	-	0.94 Kg	RPoo1204

● stock standard, ○ non-standard stock, ▲ upcoming introduction, ▽ stock exhaustion

Spare parts	Insert screws	Flag wrenches	Clamping set
NT-RP12H Dooo-Foo-Zoo	NT-ST40110T15HQ	NT-FTB15	NT-CS013

nikkoTOOLS

RP

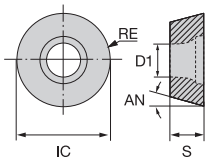
RoundPlus RP

- Sharp / general purpose /reinforced with chamfer edge types available
- Flat top surface or with geometries all fit with the same universal-clamp on our cutters
- Both PVD and CVD coated different carbide grades available
- Very reliable and cost efficient solution for roughing, especially on stainless steel or heat resistant super alloys

HC: Coated carbide
HF: Micrograin carbide
CVD: Chemical vapour deposition
PVD: Physical vapour deposition

	HC CVD	HF PVD	HF PVD	HF PVD
	JC9540	JP5530	JP8725	JP9535
Stable machining, light cut (● 1st choice, ○ suitable)			○	
General machining, medium cut (● 1st choice, ○ suitable)	●	●	●	●
Unstable machining, heavy cut (● 1st choice, ○ suitable)	●	○		●

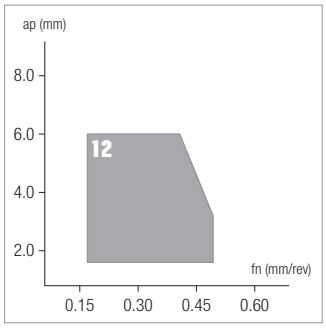
Dimensions



ISO	JC9540	JP5530	JP8725	JP9535
	Vc(m/min) - suggested cutting speed range (bold: 1st choice)			
P		100 260	100 280	
M	90 210	60 180		80 200
K				
N				
S	30 70			20 60
H				

	Designation		RE	IC	S	D1	AN	Stock				
GENERAL	GP P M S chipbreaker type **honed edge**	RPET1204M0E-GP	6	12	4.76	4.4	11°			●	●	
GENERAL	GP M S **with 4 indexes chamfered edge**	RPET1204M0T-GP-4X	6	12	4.76	4.4	11°	●				
LOW FORCE	SC P chipbreaker type **honed edge**	RPET1204M0E-SC	6	12	4.76	4.4	11°		○			
REINFORCED	M0T P flat type **chamfered edge**	RPEW1204M0T	6	12	4.76	4.4	11°		●			
		RPMW1204M0T	6	12	4.76	4.4	11°		●	●		

● stock standard, ○ non-standard stock, ▲ upcoming introduction, ▽ stock exhaustion



ISO 513	MATERIAL	HARDNESS HB	ae/DC	JP5530			JP8725			JU4225		
				min	start	max	min	start	max	min	start	max
P1 - P2	Free cutting steel and low carbon (ex. 1.0715/9 smn 28/avp, 1.0503/c45)	≤ 200	100%	100	**140**	180	100	**150**	200	130	**180**	230
			30%	160	**200**	240	160	**210**	260	200	**240**	280
			10%	220	**240**	260	220	**250**	280	260	**280**	300
P3 - P4	Medium and high alloy steel (ex. 1.7225/42 CrMo 4, 1.3505/100 Cr 6)	200 ÷ 300	100%	80	**120**	160	90	**130**	170	120	**150**	180
			30%	120	**160**	200	130	**170**	210	180	**210**	240
			10%	180	**200**	220	190	**210**	230	230	**250**	270
P5 - P6	High tensile strength and tool steel (ex. 1.2344/X 40 CrMoV 5 1/ORVAR, Hardox400®)	300 ÷ 400	100%	60	**90**	120	80	**110**	140	90	**120**	150
			30%	100	**130**	160	120	**150**	180	150	**180**	210
			10%	140	**170**	200	160	**190**	220	190	**220**	250
ISO 513	MATERIAL	HARDNESS HB	ae/DC	JC9540			JP5530			JP9535		
				min	start	max	min	start	max	min	start	max
P7	Ferritic and martensitic stainless steel (ex. 1.4021/X 20 Cr 13/AISI420)	≤ 200	100%	90	**130**	170	60	**100**	140	80	**120**	160
			30%	110	**160**	210	80	**130**	180	100	**150**	200
			10%	130	**190**	250	100	**160**	220	120	**180**	240
P8	Precipitation hardening stainless steel (ex. 1.4548/X 5 CrNiCuNb 17 4/17-4-PH)	≤ 450	100%	70	**100**	130				60	**90**	120
			30%	80	**110**	140				70	**100**	130
			10%	90	**120**	150				80	**110**	140
M1	Austenitic stainless steel (ex. 1.4305/X 10 CrNiS 18 9/AISI303)	> 200	100%	90	**120**	150	60	**90**	120	80	**110**	140
			30%	110	**150**	190	80	**120**	160	100	**140**	180
			10%	130	**170**	210	100	**140**	180	120	**160**	200
M2 - M3	Austenitic and Duplex stainless steel (ex. 1.4401/X 5 CrNiMo 17 12 2/AISI316)		100%	80	**110**	140				70	**100**	130
			30%	90	**120**	150				80	**110**	140
				100	**130**	160				90	**120**	150
ISO 513	MATERIAL	HARDNESS HB	ae/DC	JP7525								
				min	start	max						
K1	Grey cast iron (ex. 0.6025/GG 25/EN-GJL-250)	150 ÷ 250	100%	140	**180**	220						
			30%	160	**210**	260						
			10%	180	**240**	300						
K2	Nodular cast iron (ex. 0.7050/GGG 50/EN-GJS-500-7)	150 ÷ 350	100%	100	**140**	180						
			30%	120	**170**	220						
			10%	140	**200**	260						
K3 - K4	Austenitic and ADI cast iron (ex. 0.6660/GGL-NiCr 20 2/Ni-Resist 2, GJS-1000-5/ ADI1000)	250 ÷ 500	100%	90	**120**	150						
			30%	120	**150**	180						
			10%	150	**180**	210						
ISO 513	MATERIAL	HARDNESS HB	ae/DC	JC9540			JP9535					
				min	start	max	min	start	max			
S1 - S2 - S3	Fe/Ni/Co based heat resistant alloys (ex. Hastelloy, Inconel 625, Inconel 718)		100%	30	**40**	50	20	**30**	40			
			30%	40	**50**	60	30	**40**	50			
			10%	50	**60**	70	40	**50**	60			
S4 - S5	Titanium alloys (ex. TiAl2Sn4Zr2MoSi)		100%				40	**50**	60			
			30%				50	**60**	70			
			10%				60	**70**	80			

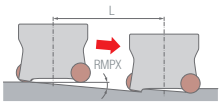
ae: radial depth of cut; DC: milling cutter diameter

Complete workpiece materials p. **H**1.

DESIGNATION	ae/DCX	DEPTH OF CUT			FEED RATE		
		ap (mm)			fz (mm)		
		min	start	max	min	start	max
IC=10 GP chipbreaker	100%	0.50	**1.50**	2.50	0.10	**0.18**	0.26
	30%	1.00	**3.00**	5.00	0.12	**0.21**	0.30
	10%	1.00	**3.00**	5.00	0.16	**0.28**	0.40
IC=12 GP chipbreaker	100%	1.00	**2.00**	3.00	0.12	**0.23**	0.34
	30%	1.00	**3.50**	6.00	0.16	**0.28**	0.40
	10%	1.00	**3.50**	6.00	0.20	**0.35**	0.50
IC=16 GP chipbreaker	100%	1.00	**2.50**	4.00	0.16	**0.28**	0.40
	30%	1.00	**4.50**	8.00	0.20	**0.33**	0.46
	10%	1.00	**4.50**	8.00	0.24	**0.42**	0.60
IC=20 GP chipbreaker	100%	1.00	**3.00**	5.00	0.18	**0.33**	0.48
	30%	1.00	**5.50**	10.00	0.22	**0.40**	0.58
	10%	1.00	**5.50**	10.00	0.30	**0.50**	0.70
IC=12 SC chipbreaker	100%	1.00	**2.00**	3.00	0.12	**0.20**	0.28
	30%	1.00	**3.50**	6.00	0.14	**0.24**	0.34
	10%	1.00	**3.50**	6.00	0.16	**0.28**	0.40
IC=16 SC chipbreaker	100%	1.00	**2.50**	4.00	0.14	**0.25**	0.36
	30%	1.00	**4.50**	8.00	0.18	**0.30**	0.42
	10%	1.00	**4.50**	8.00	0.22	**0.35**	0.48

DESIGNATION	ae/DCX	DEPTH OF CUT			FEED RATE		
		ap (mm)			fz (mm)		
		min	start	max	min	start	max
IC=05 Flat (MOE)	100%	0.25	**0.75**	1.25	0.04	**0.06**	0.08
	30%	0.50	**1.50**	2.50	0.06	**0.08**	0.10
	10%	0.50	**1.50**	2.50	0.08	**0.10**	0.12
IC=07 Flat (MOE, MOT)	100%	0.25	**1.00**	1.75	0.08	**0.12**	0.16
	30%	0.50	**2.00**	3.50	0.10	**0.15**	0.20
	10%	0.50	**2.00**	3.50	0.12	**0.18**	0.24
IC=10 Flat (MOT)	100%	0.50	**1.50**	2.50	0.12	**0.20**	0.28
	30%	1.00	**3.00**	5.00	0.15	**0.25**	0.35
	10%	1.00	**3.00**	5.00	0.18	**0.30**	0.42
IC=12 Flat (MOT)	100%	1.00	**2.00**	3.00	0.16	**0.27**	0.38
	30%	1.00	**3.50**	6.00	0.20	**0.34**	0.48
	10%	1.00	**3.50**	6.00	0.24	**0.40**	0.56
IC=16 Flat (MOT)	100%	1.00	**2.50**	4.00	0.19	**0.32**	0.45
	30%	1.00	**4.50**	8.00	0.24	**0.40**	0.56
	10%	1.00	**4.50**	8.00	0.28	**0.47**	0.66

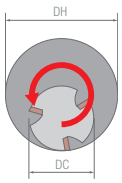
Parameters for ramping



NT-RD05H			NT-RD07H			NT-RD10H		
DCX	RMPX	L	DCX	RMPX	L	DCX	RMPX	L
10	6.2°	2.1	16	4.7°	2.6	20	9.4°	6.6
12	4.4°	1.8	17	4.1°	2.4	21	6.6°	4.8
13	3.6°	1.6	20	3.3°	2.2	25	4.4°	3.9
16	2.0°	1.0	25	2.3°	2.0	26	4.3°	3.9
17	2.0°	1.0	35	2.0°	1.0	30	3.2°	3.4
						32	1.2°	1.5
						35	1.0°	1.4
						40	0.9°	1.4
						42	0.8°	1.3
						52	0.6°	0.9

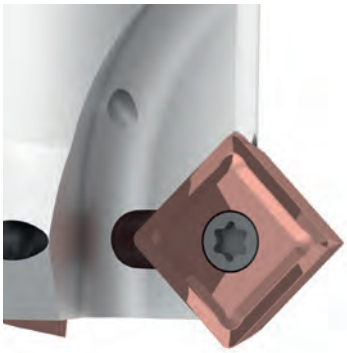
RMPX: max. ramping angle; L: max. ramping path

Parameters for helical milling



NT-RD05H			NT-RD07H			NT-RD10H		
DCX	DH min.	DH max.	DCX	DH min.	DH max.	DCX	DH min.	DH max.
10	12	18	16	24	30	20	22	38
12	16	22	17	26	32	21	24	40
13	18	24	20	32	38	25	32	48
16	24	30	25	42	48	26	34	50
17	26	32	35	62	68	30	42	58
						32	46	62
						35	52	68
						40	62	78
						42	66	82
						52	86	102

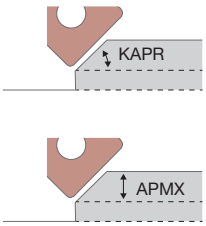
DH min.: min. cutting dia.; DH max.: max. cutting dia.



MILLING Chamfering

Quick guide .D100

CHAMFERSQUARE .D101



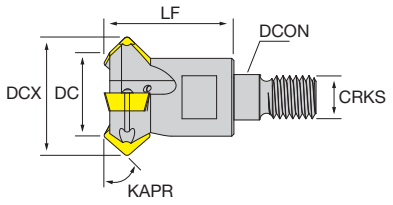
	CHAMFERSQUARE
	D101
	SCREW-IN CYLINDRICAL
KAPR	45°
Insert sizes	05 / 07 / 09
APMX	4.2 / 6.34 / 8.2
Tool diameter	Ø12 - Ø32
Coolant holes	✓
Workpiece material	P M K N
No. of cutting edges	4
No. of geometries	2
Special features	-
Chamfering	✓
Machine load	■ ■ □ □ □
Strenght	■ ■ ■ □ □
Precision	■ ■ ■ □ □
Finishing	■ ■ ■ □ □
Range	■ ■ ■ ■ □

NT-CHS45

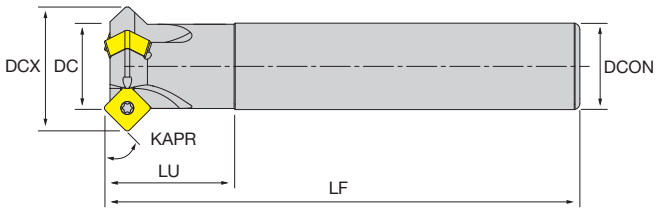
ChamferSquare

- Positive chamfering cutters for SP inserts
- All with coolant through
- Please select insert size according to your chamfer length
- Inserts could also be mounted on DRS drills

Screw-in



Cylindrical



Designation	Stock	DC	CICT	DCX	DCON	LF	LU	CRKS			MIID
SCREW-IN											
NT-CHS45 D12/19-M06-Z3-05	●	12	3	19	6.5	20	-	M6			SPoX05
NT-CHS45 D16/22-M08-Z4-05	●	16	4	22	8.5	25	-	M8			SPoX05
NT-CHS45 D20/30-M10-Z3-07	●	20	3	30	10.5	30	-	M10			SPoX07
NT-CHS45 D25/37-M12-Z3-09	●	25	3	37	12.5	35	-	M12			SPoX09
NT-CHS45 D32/44-M16-Z4-09	●	32	4	44	17	40	-	M16			SPoX09
CYLINDRICAL											
NT-CHS45 D12/19-S12-Z3-05	●	12	3	19	12	80	20	-			SPoX05
NT-CHS45 D16/22-S16-Z4-05	●	16	4	22	16	100	25	-			SPoX05
NT-CHS45 D20/30-S20-Z3-07	●	20	3	30	20	110	30	-			SPoX07
NT-CHS45 D25/37-S25-Z3-09	●	25	3	37	25	120	35	-			SPoX09
NT-CHS45 D32/44-S32-Z4-09	●	32	4	44	32	130	40	-			SPoX09

● stock standard, ○ non-standard stock, ▲ upcoming introduction, ▽ stock exhaustion

Spare parts	Insert screws	Flag wrenches
NT-CHS45 D○○/○○-○○○-Z○-05	NT-ST20043T06	NT-FTB06
NT-CHS45 D○○/○○-○○○-Z○-07	NT-ST25065T07	NT-FTB07
NT-CHS45 D○○/○○-○○○-Z○-09	NT-ST35051T15	NT-FTB15

SPoX

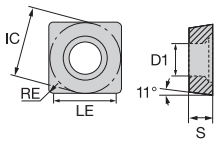
ChamferSquare

- General purpose type or fine polished sharp geometries for aluminum or non-ferrous materials available
- Diverse PVD coated carbide grades available
- Inserts could also be mounted on DRS drills

HF: Micrograin carbide
PVD: Physical vapour deposition

	JP5530	JP8725	JP9535	JP9635	JU6520
	HF PVD	HF PVD	HF PVD	HF PVD	HF
Stable machining, light cut (● 1st choice, ○ suitable)		○			●
General machining, medium cut (● 1st choice, ○ suitable)	●	●	●	●	●
Unstable machining, heavy cut (● 1st choice, ○ suitable)	○		●	●	

Dimensions



4 edges

ISO	JP5530	JP8725	JP9535	JP9635	JU6520
P	100 260	100 280			
M	60 180		80 200	80 180	
K					
N					300 1100
S			20 60	20 50	
H					

Vc(m/min) - suggested cutting speed range (bold: 1st choice)

	Designation		RE	IC	S	D1	LE	JP5530	JP8725	JP9535	JP9635	JU6520	Stock
GENERAL	GP P M	SPMX050204-GP	0.4	5	2.38	2.5	4.2	●	●	●			
		SPMX07T308-GP	0.8	7.94	3.97	2.8	6.34	●	●	●			
		SPMX090408-GP	0.8	9.8	4.3	4.2	8.2	●	●	▲	●		
ALUMINIUM	AL N polished surface periphery ground	SPGX050204-AL	0.4	5	2.38	2.5	4.2					●	
		SPGX07T308-AL	0.8	7.94	3.97	2.8	6.34					●	
		SPGX090408-AL	0.8	9.8	4.3	4.2	8.2					●	

● stock standard, ○ non-standard stock, ▲ upcoming introduction, ▽ stock exhaustion

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ISO 513	MATERIAL	HARDNESS HB	ae/DC	JP5530 min	JP5530 start	JP5530 max	JP8725 min	JP8725 start	JP8725 max
P1 - P2	Free cutting steel and low carbon (ex. 1.0715/9 smn 28/avp, 1.0503/c45)	≤ 200	100%	100	**140**	180	100	**150**	200
			30%	160	**200**	240	160	**210**	260
			10%	220	**240**	260	220	**250**	280
P3 - P4	Medium and high alloy steel (ex. 1.7225/42 CrMo 4, 1.3505/100 Cr 6)	200 ÷ 300	100%	80	**120**	160	90	**130**	170
			30%	120	**160**	200	130	**170**	210
			10%	180	**200**	220	190	**210**	230
P5 - P6	High tensile strength and tool steel (ex. 1.2344/X 40 CrMoV 5 1/ORVAR, Hardox400®)	300 ÷ 400	100%	60	**90**	120	80	**110**	140
			30%	100	**130**	160	120	**150**	180
			10%	140	**170**	200	160	**190**	220
ISO 513	MATERIAL	HARDNESS HB	ae/DC	JP5530 min	JP5530 start	JP5530 max	JP9535 min	JP9535 start	JP9535 max
P7	Ferritic and martensitic stainless steel (ex. 1.4021/X 20 Cr 13/AISI420)	≤ 200	100%	60	**100**	140	80	**120**	160
			30%	80	**130**	180	100	**150**	200
			10%	100	**160**	220	120	**180**	240
P8	Precipitation hardening stainless steel (ex. 1.4548/X 5 CrNiCuNb 17 4/17-4-PH)	≤ 450	100%				60	**90**	120
			30%				70	**100**	130
			10%				80	**110**	140
M1	Austenitic stainless steel (ex. 1.4305/X 10 CrNiS 18 9/AISI303)	> 200	100%	60	**90**	120	80	**110**	140
			30%	80	**120**	160	100	**140**	180
			10%	100	**140**	180	120	**160**	200
M2 - M3	Austenitic and Duplex stainless steel (ex. 1.4401/X 5 CrNiMo 17 12 2/AISI316)		100%				70	**100**	130
			30%				80	**110**	140
							90	**120**	150
ISO 513	MATERIAL	HARDNESS HB	ae/DC	JU6520 min	JU6520 start	JU6520 max			
N1	Aluminium alloys ≤ Si 12% (ex. 3.4365/AlZn5.5MgCu/ERGAL)		100%	300	**400**	500			
			30%	400	**600**	800			
			10%	500	**800**	1100			
N2	Aluminium alloys Si > 12% (ex. 3.2382/G-AlSi12)		100%	200	**250**	300			
			30%	300	**350**	400			
			10%	400	**450**	500			
ISO 513	MATERIAL	HARDNESS HB	ae/DC	JP9535 min	JP9535 start	JP9535 max			
S1 - S2 - S3	Fe/Ni/Co based heat resistant alloys (ex. Hastelloy, Inconel 625, Inconel 718)		100%	20	**30**	40			
			30%	30	**40**	50			
			10%	40	**50**	60			
S4 - S5	Titanium alloys (ex. TiAl2Sn4Zr2MoSi)		100%	40	**50**	60			
			30%	50	**60**	70			
			10%	60	**70**	80			

ae: radial depth of cut; DC: milling cutter diameter

Complete workpiece materials p. H1.

DESIGNATION	ae/Dc	FEED RATE fz (mm)		
		min	start	max
SPMX050204-GP	100%	0.08	**0.13**	0.18
	30%	0.10	**0.16**	0.22
	10%	0.12	**0.19**	0.26
SPMX07T308-GP	100%	0.10	**0.16**	**0.22**
	30%	0.12	**0.20**	**0.28**
	10%	0.14	**0.24**	**0.34**
SPMX090408-GP	100%	0.11	**0.19**	**0.27**
	30%	0.14	**0.24**	**0.34**
	10%	0.16	**0.28**	**0.40**
SPGX050204-AL	100%	0.06	**0.10**	**0,14**
	30%	0.08	**0.13**	**0.18**
	10%	0.09	**0.15**	**0,21**
SPGX07T308-AL	100%	0.08	**0.13**	**0.18**
	30%	0.10	**0.16**	**0.22**
	10%	0.12	**0.19**	**0.26**
SPGX090408-AL	100%	0.10	**0.16**	**0,22**
	30%	0.12	**0.19**	**0.26**
	10%	0.14	**0.23**	**0.32**

MILLING Advanced

Quick guide .D106

ROUND SERIES .D108
TANGENTIAL .D110
XP SERIES .D112
SQUARE SERIES .D114

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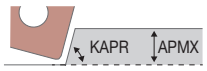
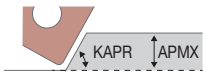
	ROUND	SQUARE	TANGENTIAL
	D108	D114	D110
NT-SN1288 			
NT-SN1275 			
NT-XP08 NT-SP12		ARBOR 75°	
NT-RN12	ARBOR	ARBOR 88°	ARBOR
KAPR	variable	75° / 88°	90°
Insert sizes	12	12	12
APMX	3		3 / 7
Tool diameter	Ø50 - Ø100	Ø50 - Ø125	Ø50 - Ø125
Coolant holes	✓	✓	✓
Workpiece material	S H	K	K
No. of cutting edges	variable	8	8
No. of geometries	3	4	1
Special features		chipbreaker type available	
Face Milling	✓	✓	✓
Side Milling	✓	✓	✓
Ramping	✓	✗	✗
Machine load	■■■■□	■■■□□	■■■□□
Strenght	■■■■■	■■■□□	■■■■□
Precision	■■■□□	■■■□□	■■■□□
Finishing	■■■□□	■■■□□	■■■□□
Range	■■■□□	■■■■□	■■■□□

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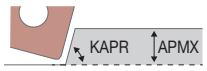
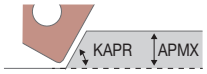
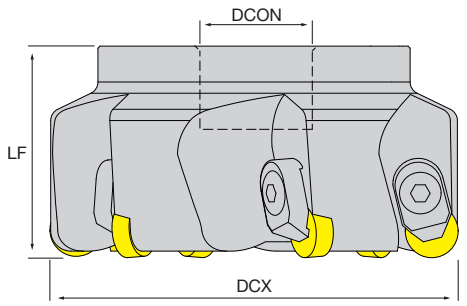
	XP SERIES
	D112
NT-SN1288  NT-SN1275  NT-XP08 NT-SP12 NT-RN12	ARBOR ALU ARBOR STEEL
KAPR	90°
Insert sizes	08
APMX	3 (PCD) / 1 (PCBN)
Tool diameter	Ø50 - Ø125
Coolant holes	-
Workpiece material	K N
No. of corners	1 (PCD) / 2 (PCBN)
No. of geometries	1
Special features	
Face Milling	✓
Side Milling	✓
Ramping	✗
Machine load	■ ■ □ □ □
Strenght	■ ■ ■ □ □
Precision	■ ■ ■ ■ □
Finishing	■ ■ ■ ■ □
Range	■ ■ ■ □ □

NT-RN

Round series

- Milling holder for doublesided solid round inserts without holes
- For dry cut milling
- Please select according to the thickness of the inserts



Designation	Stock	DCX	CICT	DCON	LF	LU	DCSFMS	CRKS		WT	MIID
FOR RNGN12**04**00											
NT-RN12 D050-F22-Z04	●	50	4	22	50	-	45	-			RNGN1204
NT-RN12 D063-F22-Z04	●	63	4	22	50	-	45	-			RNGN1204
NT-RN12 D080-F27-Z05	●	80	5	27	50	-	58	-			RNGN1204
NT-RN12 D100-F32-Z06	●	100	6	32	50	-	75	-			RNGN1204
FOR RNGN12**07**00											
NT-RN12X D050-F22-Z04	●	50	4	22	50	-	45	-			RNGN1207
NT-RN12X D063-F22-Z04	●	63	4	22	50	-	45	-			RNGN1207
NT-RN12X D080-F27-Z05	●	80	5	27	50	-	58	-			RNGN1207
NT-RN12X D100-F32-Z06	●	100	6	32	50	-	60	-			RNGN1207

● stock standard, ○ non-standard stock, ▲ upcoming introduction, ▽ stock exhaustion

Spare parts	Clamp	Clamp screws	Springs	L wrench
NT-RN12○ D○○○-F○○-Z○○	NT-CS028	NT-SC035	NT-SG028	NT-WR030

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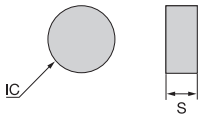
RN

Round series

- Solid CBN and solid ceramic inserts for advanced milling
- Different thickness and edge preparation available upon request
- Very reliable and cost efficient solution for multiple purpose use on S/H materials
- Wider range available on request

BH: High volume CBN
CN: Silicon nitride ceramic Si3N4
PVD: Physical vapour deposition

	NBH9000	NBH9500	NSA9000
	BH	BH	CN
Stable machining, light cut (1st choice / suitable)	○		○
General machining, medium cut (1st choice / suitable)	●	○	●
Unstable machining, heavy cut (1st choice / suitable)	●	●	○



ISO	NBH9000	NBH9500	NSA9000
P			
M			
K			
N			
S			800 1200
H	100 400	100 300	

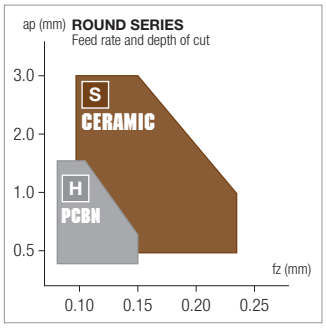
Vc(m/min) - suggested cutting speed range (bold: 1st choice)

	Designation		RE	IC	S	AN		Stock			
PCBN	UE H full solid	RNGN120400S-UE	6.35	12.7	4.76	0°		●	●		
CERAMIC	E S SiAlON	RNGN120700E	6.35	12.7	7.94	0°				○	
CERAMIC	CC S SiAlON	RNGN120400-CC	6.35	12.7	4.76	0°				●	
		RNGN120700-CC	6.35	12.7	7.94	0°				●	

● stock standard, ○ non-standard stock, ▲ upcoming introduction, ▽ stock exhaustion

ROUND SERIES cutting speed (m/min)

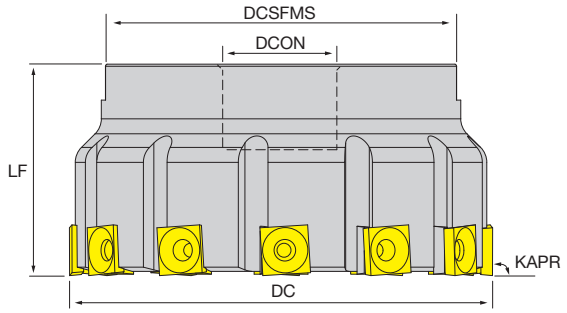
S1	HRSA good machinability <25 HRC	800÷1200
S2	HRSA medium machinability 25÷35 HRC	800÷1200
S3	HRSA low machinability 25÷45 HRC	600÷1200
H1	Case-hardened steel	100÷300
H2	Bearing steel	200÷400
H3	Hardened tool steel	150÷350



NT-SP

Tangential

- Milling holder for tangential solid square inserts
- For dry cut milling
- Kapr 90°
- More teeth density comparing to flat-mount type



Designation	Stock	DC	CICT	DCON	LF	LU	DCSFMS	CRKS		WT	MIID
NT-SP12-TAN D050-F22-Z05	●	50	5	22	50	-	45	-			SPHX1205
NT-SP12-TAN D063-F22-Z07	●	63	7	22	50	-	50	-			SPHX1205
NT-SP12-TAN D080-F27-Z08	●	80	8	27	50	-	60	-			SPHX1205
NT-SP12-TAN D100-F32-Z12	●	100	12	32	50	-	85	-			SPHX1205
NT-SP12-TAN D125-F40-Z15	●	125	15	40	50	-	85	-			SPHX1205

● stock standard, ○ non-standard stock, ▲ upcoming introduction, ▽ stock exhaustion

Spare parts	Insert screws	Flag wrenches
NT-SP12-TAN D○○○-F○○-Z○○	NT-ST40101T15	NT-FTB15

nikkoTOOLS

SPHX

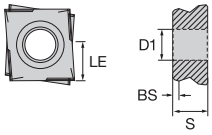
Tangential

- Tangentially mounted positive ceramic for advanced milling
- 8 cutting edges available
- Very robust and reliable solution for cast iron advanced milling
- Better surface quality with tangential solution when the clamping isn't ideal

CN: Silicon nitride ceramic Si3N4

		CN	CN
		NSN350	NSN400
Stable machining, light cut	● 1st choice ○ suitable	●	●
General machining, medium cut	● 1st choice ○ suitable	○	●
Unstable machining, heavy cut	● 1st choice ○ suitable		

Dimensions



8 edges

ISO	NSN350	NSN400	Vc(m/min) - suggested cutting speed range (bold: 1st choice)
P			
M			
K	600 1200	600 1200	
N			
S			
H			

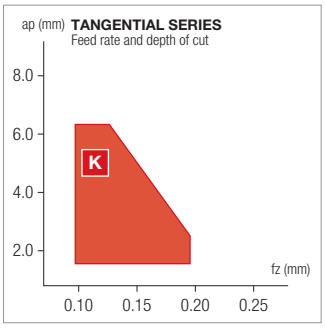
	Designation		BS	S	D1	LE	AN	NSN350	NSN400	Stock
CERAMIC	GP K silicon nitride	SPHX1205PCTR-GP	0.8	5.5	5.1	8	11°	●	●	

● stock standard, ○ non-standard stock, ▲ upcoming introduction, ▽ stock exhaustion

TANGENTIAL SERIES
cutting speed (m/min)

K1	Gray cast iron

CERAMIC NSN 600÷1200
roughing and finishing

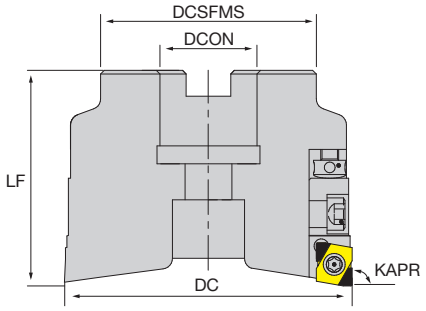


NT-XP

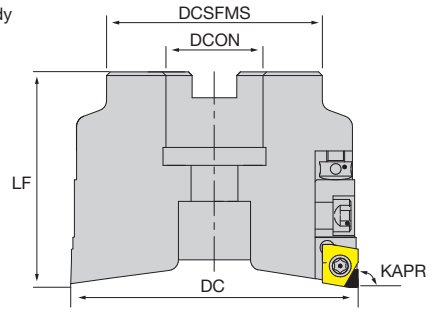
XP series

- Milling holder for brazed tip XP type inserts
- For dry cut milling
- Kapr 90°
- Both aluminum light body and robust steel body available

Steel body



Aluminium body



Designation	Stock	DC	CICT	DCON	LF	LU	DCSFMS	CRKS		WT	MIID
STEEL BODY											
NT-XP08-ST D050-F16-Z05	●	50	5	16	50	-	32	-			XPGo0802
NT-XP08-ST D063-F22-Z06	●	63	6	22	50	-	44	-			XPGo0802
NT-XP08-ST D080-F27-Z07	●	80	7	27	50	-	60	-			XPGo0802
NT-XP08-ST D100-F32-Z08	●	100	8	32	50	-	80	-			XPGo0802
ALUMINIUM BODY											
NT-XP08-AL D063-F22-Z05	●	63	5	22	50	-	44	-			XPGo0802
NT-XP08-AL D080-F27-Z07	●	80	7	27	50	-	60	-			XPGo0802
NT-XP08-AL D100-F32-Z08	●	100	8	32	50	-	80	-			XPGo0802
NT-XP08-AL D125-F40-Z10	●	125	10	40	63	-	105	-			XPGo0802

● stock standard, ○ non-standard stock, ▲ upcoming introduction, ▽ stock exhaustion

Spare parts	Cartridge	Cartridge screw	L wrench	Adjusting screw	Chip cover	Insert screws	Insert screws
NT-XP08-AL Dooo-Foo-Zoo	NT-CRD-XP08	NT-CW040	NT-WR040	NT-AD040	NT-CH030	NT-ST40100T15	NT-ST30070T10HQ
NT-XP08-ST Dooo-Foo-Zoo	NT-CRD-XP08	NT-CW040	NT-WR040	NT-AD040	-	-	NT-ST30070T10HQ

XP

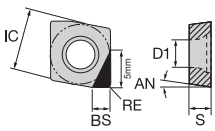
XP series

- Brazed-tip type insert available in both PCBN and PCD
- 2 cutting edges for PCBN, 1 cutting edge for PCD
- Edge length/RE/BS can be tailor made upon requests
- Different grades and edge preparation also available upon requests

BH: High volume CBN
DP: Polycristalline diamond

	BH	DP	DP
	NBH450U	ND120	ND150
Stable machining, light cut (● 1st choice, ○ suitable)	●	●	●
General machining, medium cut (● 1st choice, ○ suitable)	●	●	○
Unstable machining, heavy cut (● 1st choice, ○ suitable)	○		

Dimensions



DIAMOND 1 edge - PCBN 2 edges

ISO	BH	DP	DP
	Vc(m/min) - suggested cutting speed range (bold: 1st choice)		
P			
M			
K	500 2000		
N		500 2000	500 2500
S			
H			

	Designation		RE	IC	S	D1	BS				Stock
PCBN	UE K chamfer+hone	XPGW080204S-UE-2C	0.4	7.91	2.38	3.6	2.5	●			
		XPGW080208S-UE-2C	0.8	7.91	2.38	3.6	2.5	●			
DIAMOND	F N sharp edge	XPGT080204F-1C	0.4	7.91	2.38	3.6	2.5		●	●	
		XPGT080208F-1C	0.8	7.91	2.38	3.6	2.5		●	○	

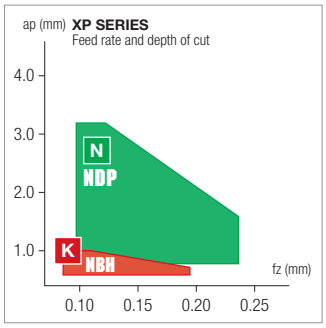
● stock standard, ○ non-standard stock, ▲ upcoming introduction, ▽ stock exhaustion

XP SERIES cutting speed (m/min)

K1	Gray cast iron	500÷2000
N1	Aluminium alloy Si ≤ 12	1000÷3000
N2	Aluminium alloy Si > 12	300÷1000

K PCBN NBH only finishing

N DIAMOND NDP roughing and finishing

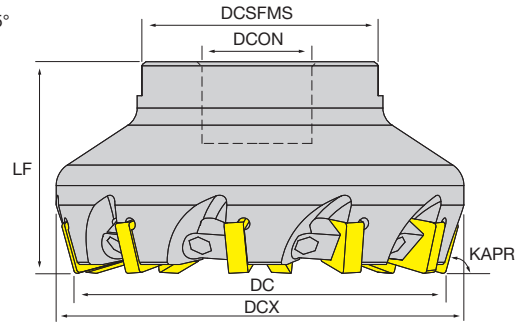


NT-SN

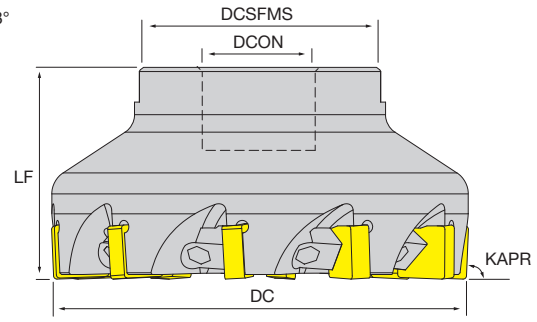
Square series

- Milling holder for doublesided solid square inserts without holes
- For dry cut milling
- Kapr 75° and 88° available
- Wider range available on request

KAPR 75°



KAPR 88°



Designation	Stock	DC	CICT	DCX	DCON	LF	LU	DCSFMS	CRKS	WT	MIID
KAPR 75°											
NT-SN1275 D050-F22-Z05	●	50	5		22	50	-	45	-		SNoN1204
NT-SN1275 D063-F22-Z06	●	63	6		22	50	-	45	-		SNoN1204
NT-SN1275 D080-F27-Z08	●	80	8		27	50	-	58	-		SNoN1204
NT-SN1275 D100-F32-Z10	●	100	10		32	50	-	60	-		SNoN1204
NT-SN1275 D125-F40-Z12	●	125	12		40	50	-	85	-		SNoN1204
KAPR 88°											
NT-SN1288 D063-F22-Z06	●	63	6	-	22	50	-	45	-		SNoN1204
NT-SN1288 D080-F27-Z08	●	80	8	-	27	50	-	58	-		SNoN1204
NT-SN1288 D100-F32-Z10	●	100	10	-	32	50	-	60	-		SNoN1204
NT-SN1288 D125-F40-Z12	●	125	12	-	40	50	-	85	-		SNoN1204

● stock standard, ○ non-standard stock, ▲ upcoming introduction, ▽ stock exhaustion

Spare parts	Wedge	Wedge screws	L wrench
NT-SN12oo Dooo-Foo-Zoo	NT-WD070	NT-SC060	NT-WR030

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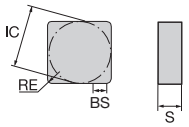
SN

Square series

- Solid square-shape CBN and solid ceramic inserts for advanced milling
- Different sizes and edge preparation available upon request
- Very reliable and cost efficient solution for multiple purpose use on K/H materials
- Wider range available on request

CM: Mixed ceramic Al2O3
BH: High volume CBN
CN: Silicon nitride ceramic Si3N4
PVD: Physical vapour deposition

	CM	BH	BH	CN
	NAC200	NBH550U	NBH900U	NSN400
Stable machining, light cut (● 1st choice, ○ suitable)	●		○	●
General machining, medium cut (● 1st choice, ○ suitable)	●	●	●	●
Unstable machining, heavy cut (● 1st choice, ○ suitable)		●	●	



8 edges

Dimensions	ISO	NAC200	NBH550U	NBH900U	NSN400
	P				
	M				
	K	400 800	800 2000	800 1500	600 1200
	N				
	S				
	H				

Vc(m/min) - suggested cutting speed range (bold: 1st choice)

	Designation		RE	IC	S	BS	AN					Stock
PCBN	UE K full solid	SNGN120412S-UE	1.2	12.7	4.76	-	0°			●		
PCBN	EN K full solid for 75° milling cutters	SNXN1204EN	-	12.7	4.76	1.4	0°		●			
PCBN	HN K full solid for 88° milling cutters	SNXN1204HN	-	12.7	4.76	1.8	0°		●			
PCBN	CB K full solid	SNXN120412-CB	1.2	12.7	4.76	-	0°		●			

● stock standard, ○ non-standard stock, ▲ upcoming introduction, ▽ stock exhaustion

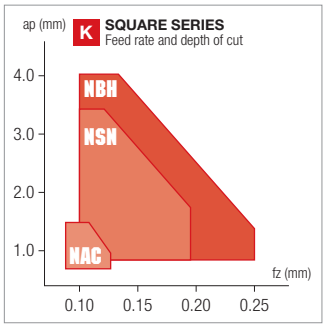
SQUARE SERIES cutting speed (m/min)

K1	Gray cast iron

PCBN NBH 800÷2000
roughing and finishing

CERAMIC NSN 600÷1200
roughing and finishing

CERAMIC NAC 400÷800
only finishing



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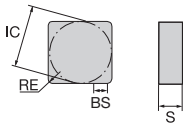
SN

Square series

- Solid square-shape CBN and solid ceramic inserts for advanced milling
- Different sizes and edge preparation available upon request
- Very reliable and cost efficient solution for multiple purpose use on K/H materials
- Wider range available on request

CM: Mixed ceramic Al2O3
BH: High volume CBN
CN: Silicon nitride ceramic Si3N4
PVD: Physical vapour deposition

	CM	BH	BH	CN
	NAC200	NBH550U	NBH900U	NSN400
Stable machining, light cut (● 1st choice, ○ suitable)	●		○	●
General machining, medium cut (● 1st choice, ○ suitable)	●	●	●	●
Unstable machining, heavy cut (● 1st choice, ○ suitable)		●	●	



8 edges

Dimensions	ISO	NAC200	NBH550U	NBH900U	NSN400
	P				
	M				
	K	400 800	800 2000	800 1500	600 1200
	N				
	S				
	H				

Vc(m/min) - suggested cutting speed range (bold: 1st choice)

	Designation		RE	IC	S	BS	AN					Stock
CERAMIC	GP K Si3N4	SNGN120412-GP	1.2	12.7	4.76	-	0°				●	
CERAMIC	EN K Si3N4 or mixed Al2O3 for 75° milling cutters	SNXN1204EN	-	12.7	4.76	1.4	0°	●			●	
CERAMIC	HN K Si3N4 or mixed Al2O3 for 88° milling cutters	SNXN1204HN	-	12.7	4.76	1.8	0°	●			●	
CERAMIC	CB K Si3N4	SNXN120412-CB	1.2	12.7	4.76	-	0°				●	

● stock standard, ○ non-standard stock, ▲ upcoming introduction, ▽ stock exhaustion

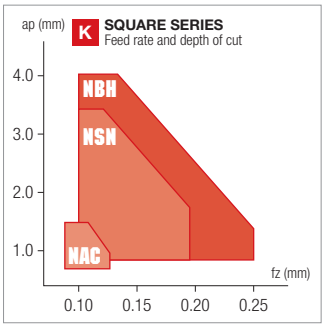
SQUARE SERIES cutting speed (m/min)

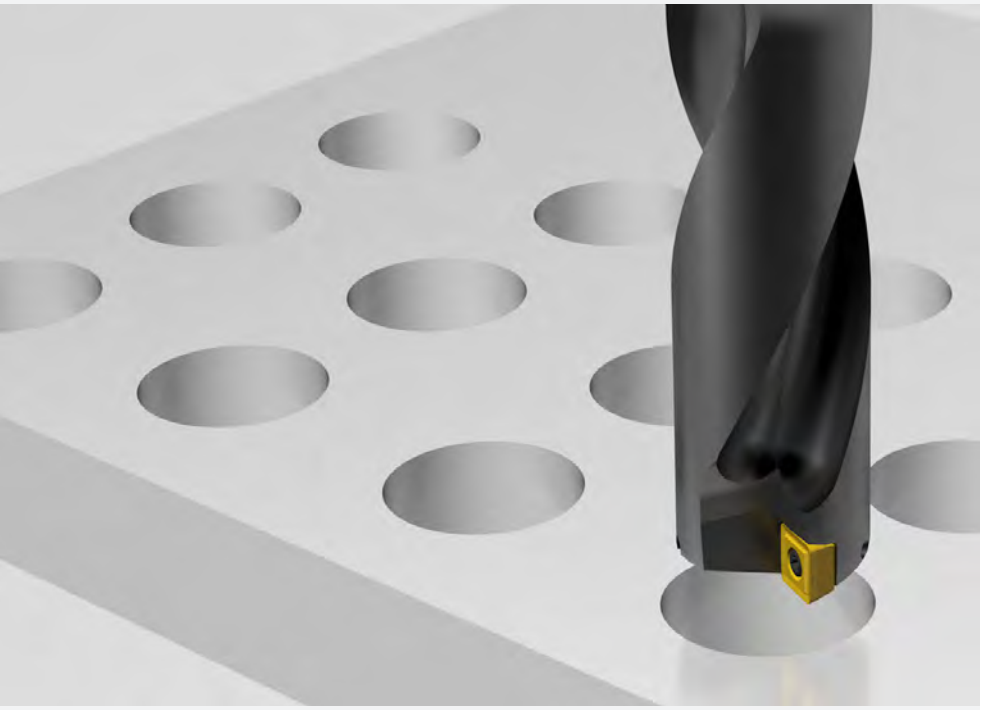
K1	Gray cast iron

PCBN NBH 800÷2000
roughing and finishing

CERAMIC NSN 600÷1200
roughing and finishing

CERAMIC NAC 400÷800
only finishing





DRILLING

Grade table .E2
Grade details .E3
Quick guide .E4
Indexable drills - DRS .E6
Modular heads - DEX .E24
Combined series - DXP .E52
Multi-functional - SPOT DRILL .E62
Iso Trigon - ISO WCMX .E84
Carbide drills - NCD .E66

DRILLING Grade table

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ISO 513		CARBIDE			
		PVD COATED			UNCOATED
		DEX	DXP	DRS	DRS
P Steel	P01				
	P10				
	P20	JP5630, JP5725	JP5725	JP5530, JP8725	
	P30				
	P40				
M Stainless steel	M01				
	M10				
	M20	JP5630		JP5530, JP9535	
	M30				
	M40				
K Cast iron	K01				
	K10	JP7625, JP5725	JP5725		
	K20			JP5530	
	K30				
N Non-ferrous material	N01				
	N10				JU6520
	N20				
	N30				
S Heat resistance	S01				
	S10			JP9535	
	S20				
	S30				

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GRADE	SYSTEM	HARDNESS HV	COATING		APPLICATION		FEATURES
			TECHNOLOGY	COMPOSITION			
JP5725	DEX - DXP	1.840	PVD	AlTiN	P	P15 P30	High performance grade for steel drilling with a perfect combination between toughness and wear resistance. A very good choice even for nodular cast iron machining.
					K	K10 K30	
JP5630	DEX	1.700	PVD	TiSiN	P	P30	First choice for stainless steel and free-cutting steels. Tough substrate and special coating with low friction coefficient specifically developed for sticky materials.
					M	M30	
JP7625	DEX	1.840	PVD	TiAlCrN	K	K10 K30	Very hard coating film specifically studied for abrasive materials machining. First choice for gray cast iron in combination with TE chamfered geometry.
JP5530	DRS	1.840	PVD	TiAlN	P	P20 P40	Universal grade mainly for steel application but also available for ISO M and ISO K machining.
					M	M25 M30	
					K	K25 K30	
JP8725	DRS	1.840	PVD	AlCrN	P	P15 P30	First choiche for steel application. The new substrate contribute to a great performance increase compared to conventional product.
JP9535	DRS	1.640	PVD	TiAlN	M	M20 M35	First choice for stainless steel machining under general cutting conditions. Also applicable on titanium thanks to a great stability at high temperature.
					S	S15 S25	
JU6520	DRS	1.560	-	-	N	N10 N30	Uncoated grade for non-ferrous materials. The micrograin substrate toughness allows the production of very sharp ground cutting edges.

DRILLING Quick guide

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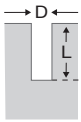
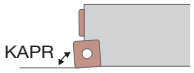
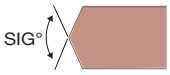


DRS

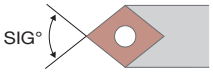


DEX
DXP

NCD



SPOTdrill



	DRS	DRS PILOT	DEX
	E6	E18	E24
Tool diameter	Ø12.50 - Ø50.00	Ø18.00 - Ø30.00	Ø10.00 - Ø26.00
L / D	2 - 3 - 4 - 5	6 - 9	3 - 5 (8 - 12 upon request)
Coolant holes	✓	✓	✓
Effective cutting edges	1	1	2
Point angle	KAPR 85°	SIG pilot 118° - KAPR 87.5°	SIG 140°
Workpiece material	P M K N	P M K N	P M K
No. of corners	4	4	1
No. of geometries	2	2 (periferic) - 1(pilot)	4 (2 upon request)
Special features	-	HSS center pilot	-
Plain Surface	✓	✓	✓
Slant Surface	✓	✗	✗
Concave Surface	✓	✓	✓
Convex Surface	✓	✓	✓
Stacked Plates	✗	✗	✓
Pipes	✓	✓	✓
Half Hole	✓	✗	✗
Hole Expansion	✓	✗	✗
Precision	■■□□□	■■□□□	■■■□□
Productivity	■■■□□	■■■□□	■■■■■
Cost per hole	■■□□□	■■■□□	■■■■□
Range	■■■■□	■■■□□	■■■■□

DRILLING Quick guide

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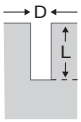
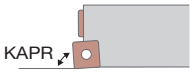
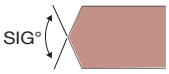


DRS

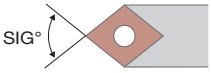


DEX
DXP

NCD



SPOTdrill



	DXP	NCD	SPOTDRILL
	E52	E66	E62
			SCREW-IN CYLINDRICAL
Tool diameter	Ø30.00 - Ø60.00	Ø3.00 - Ø20.00	Ø14.00
L / D	3 - 6 - 8 - 10	3 - 5 (8 upon request)	-
Coolant holes	✓	both	✗
Effective cutting edge	2	2	2
Point angle	SIG pilot 140°	SIG 140°	SIG 90°
Workpiece material	P K	P M K S	P M K N
No. of corners	peripheral 2 / 3	1	4
No. of geometries	1	2	2
Special features	Chip split chipbreaker	-	-
Plain Surface	✓	✓	Spotting
Slant Surface	✗	✗	
Concave Surface	✓	✓	Engraving
Convex Surface	✓	✓	
Stacked Plates	✓	✓	V-Grooving
Pipes	✓	✓	
Half Hole	✗	✗	Chamfering
Hole Expansion	✗	✗	
Precision	■■■□□	■■■■■	
Productivity	■■■■□	■■■■□	
Cost per hole	■■■■□	■■■□□	
Range	■■■■■	■■■■□	

DRS DRILLS

High performance universal indexable drilling system with inserts

APPLICATION

Plane surface	Slant surface	Concave surface	Convex surface	Pipes	Half hole	Hole expansion

ISO APPLICATION FIELDS

P M K N

ADVANTAGES AND CHARACTERISTICS

- Highly universal drilling system suitable for diverse conditions
- Highly cost-efficient system
- Twisted flute style available in 2xD and 3xD, straight flute style in 4xD and 5xD to improve chip evacuation

Drilling bodies

- Weldon shank with internal coolant
- 2/ 3/ 4/ 5xD available from D13 to D50
- Special length and stepped body available upon request

2D - 3D Twisted flute, coolant holes with "Y" design

4D - 5D Straight flute, coolant holes with "II" design

Inserts

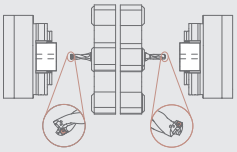
- Available sizes 05/06/07/09/11/14
- Cemented carbide grades with PVD coatings or uncoated for N materials
- Geometries: GP, AL

GP P M K

SIZE
05 06 07 09 11 14

AL N

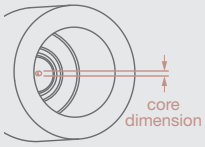
SIZE
05 06 07 09 11 14



Lathe installation

It's recommended to set the outer insert facing the operator as shown in the drawing, both for main and sub-spindle to gain the best results.

Following this suggestion, generally, the inner insert will be set below the center which is the recommended situation for optimal operation.



Quick check of the center height

To check if the machine axis is correctly aligned, a test hole should be drilled checking the remaining core on the hole bottom.

Center-height adjustment is necessary when no core remains or if the core diameter is larger than 1mm.

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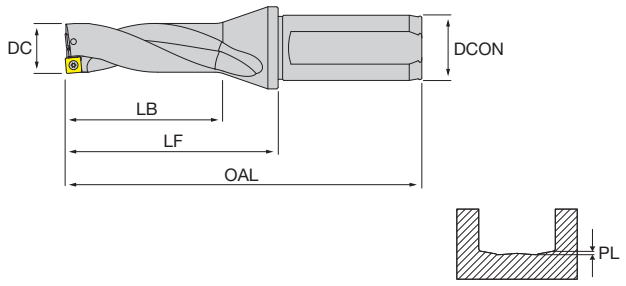
2xD

DRS drill

- 2xD indexable drill body for SP inserts with helical flutes
- All with coolant through
- Please select insert size according to the drill diameter



Designation	Stock	DC	DCON	OAL	LF	LB	PL	ADJLX			MIID
NT-DRS-2D D12.50-S20-05	▽	12.5	20	94	44	26	0.4	0.5			SPoX05
NT-DRS-2D D13.00-S20-05	●	13	20	94	44	26	0.4	0.5			SPoX05
NT-DRS-2D D14.00-S20-05	●	14	20	96	46	28	0.4	0.5			SPoX05
NT-DRS-2D D15.00-S20-05	●	15	20	99	49	30	0.4	0.5			SPoX05
NT-DRS-2D D16.00-S25-06	●	16	25	108	52	32	0.5	0.5			SPoX06
NT-DRS-2D D17.00-S25-06	●	17	25	110	54	34	0.5	0.5			SPoX06
NT-DRS-2D D18.00-S25-06	●	18	25	113	57	36	0.5	0.5			SPoX06
NT-DRS-2D D19.00-S25-06	●	19	25	115	59	38	0.5	0.5			SPoX06
NT-DRS-2D D20.00-S25-06	●	20	25	119	63	40	0.5	0.5			SPoX06
NT-DRS-2D D21.00-S25-06	●	21	25	121	65	42	0.5	0.25			SPoX06
NT-DRS-2D D22.00-S25-07	●	22	25	123	67	44	0.5	0.5			SPoX07
NT-DRS-2D D23.00-S32-07	●	23	32	131	71	46	0.5	0.5			SPoX07
NT-DRS-2D D24.00-S32-07	●	24	32	134	74	48	0.5	0.5			SPoX07
NT-DRS-2D D25.00-S32-07	●	25	32	137	77	50	0.5	0.5			SPoX07
NT-DRS-2D D26.00-S32-07	●	26	32	139	79	52	0.6	0.25			SPoX07
NT-DRS-2D D27.00-S32-07	●	27	32	141	81	54	0.6	0.25			SPoX07
NT-DRS-2D D28.00-S32-09	●	28	32	144	84	56	0.8	0.5			SPoX09
NT-DRS-2D D29.00-S32-09	●	29	32	146	86	58	0.8	0.5			SPoX09
NT-DRS-2D D30.00-S32-09	●	30	32	151	91	60	0.8	0.5			SPoX09
NT-DRS-2D D31.00-S32-09	●	31	32	154	94	62	0.8	0.25			SPoX09
NT-DRS-2D D32.00-S32-09	●	32	32	156	96	64	0.8	0.25			SPoX09
NT-DRS-2D D33.00-S32-09	●	33	32	159	99	66	0.8	0.25			SPoX09
NT-DRS-2D D34.00-S40-11	●	34	40	171	101	68	0.9	0.5			SPoX11
NT-DRS-2D D35.00-S40-11	●	35	40	174	104	70	0.9	0.5			SPoX11
NT-DRS-2D D36.00-S40-11	●	36	40	177	107	72	0.9	0.5			SPoX11
NT-DRS-2D D37.00-S40-11	●	37	40	180	110	74	0.9	0.5			SPoX11
NT-DRS-2D D38.00-S40-11	●	38	40	183	113	76	0.9	0.5			SPoX11
NT-DRS-2D D39.00-S40-11	●	39	40	185	115	78	0.9	0.5			SPoX11
NT-DRS-2D D40.00-S40-11	●	40	40	188	118	80	0.9	0.25			SPoX11
NT-DRS-2D D41.00-S40-11	●	41	40	191	121	82	0.9	0.25			SPoX11
NT-DRS-2D D42.00-S40-14	●	42	40	193	123	84	1	0.5			SPoX14
NT-DRS-2D D43.00-S40-14	●	43	40	196	126	86	1	0.5			SPoX14
NT-DRS-2D D44.00-S40-14	●	44	40	198	128	88	1	0.5			SPoX14
NT-DRS-2D D45.00-S40-14	●	45	40	202	132	90	1	0.5			SPoX14
NT-DRS-2D D46.00-S40-14	●	46	40	205	135	92	1	0.5			SPoX14
NT-DRS-2D D47.00-S40-14	●	47	40	207	137	94	1	0.5			SPoX14
NT-DRS-2D D48.00-S40-14	●	48	40	210	140	96	1	0.25			SPoX14
NT-DRS-2D D49.00-S40-14	●	49	40	212	142	98	1	0.25			SPoX14
NT-DRS-2D D50.00-S40-14	●	50	40	215	145	100	1	0.25			SPoX14

● stock standard, ○ non-standard stock, ▲ upcoming introduction, ▽ stock exhaustion

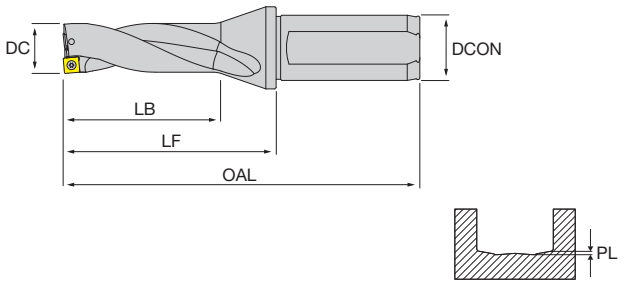
Spare parts	Insert screws	Flag wrenches
NT-DRS-2D Doo.oo-Soo-05	NT-ST20043T06	NT-FTB06
NT-DRS-2D Doo.oo-Soo-06	NT-ST22055T06	NT-FTB06
NT-DRS-2D Doo.oo-Soo-07	NT-ST25065T07	NT-FTB07

Spare parts	Insert screws	Flag wrenches
NT-DRS-2D Doo.oo-Soo-09	NT-ST35080T15	NT-FTB15
NT-DRS-2D Doo.oo-Soo-11	NT-ST40100T15	NT-FTB15
NT-DRS-2D Doo.oo-Soo-14	NT-ST50108T20	NT-FTB20

3xD

DRS drill

- 3xD indexable drill body for SP inserts with helical flutes
- All with coolant through
- Please select insert size according to the drill diameter



Designation	Stock	DC	DCON	OAL	LF	LB	PL	ADJLX			MIID
NT-DRS-3D D12.50-S20-05	●	12.5	20	107	57	39	0.4	0.5			SPoX05
NT-DRS-3D D13.00-S20-05	●	13	20	107	57	39	0.4	0.5			SPoX05
NT-DRS-3D D13.50-S20-05	●	13.5	20	110	60	42	0.4	0.5			SPoX05
NT-DRS-3D D14.00-S20-05	●	14	20	110	60	42	0.4	0.5			SPoX05
NT-DRS-3D D14.50-S20-05	●	14.5	20	114	64	45	0.4	0.5			SPoX05
NT-DRS-3D D15.00-S20-05	●	15	20	114	64	45	0.4	0.5			SPoX05
NT-DRS-3D D15.50-S25-06	●	15.5	25	124	68	48	0.5	0.5			SPoX06
NT-DRS-3D D16.00-S25-06	●	16	25	124	68	48	0.5	0.5			SPoX06
NT-DRS-3D D16.50-S25-06	●	16.5	25	127	71	51	0.5	0.5			SPoX06
NT-DRS-3D D17.00-S25-06	●	17	25	127	71	51	0.5	0.5			SPoX06
NT-DRS-3D D17.50-S25-06	●	17.5	25	131	75	54	0.5	0.5			SPoX06
NT-DRS-3D D18.00-S25-06	●	18	25	131	75	54	0.5	0.5			SPoX06
NT-DRS-3D D18.50-S25-06	●	18.5	25	134	78	57	0.5	0.5			SPoX06
NT-DRS-3D D19.00-S25-06	●	19	25	134	78	57	0.5	0.5			SPoX06
NT-DRS-3D D19.50-S25-06	●	19.5	25	139	83	60	0.5	0.5			SPoX06
NT-DRS-3D D20.00-S25-06	●	20	25	139	83	60	0.5	0.5			SPoX06
NT-DRS-3D D20.50-S25-06	●	20.5	25	142	86	63	0.5	0.25			SPoX06
NT-DRS-3D D21.00-S25-06	●	21	25	142	86	63	0.5	0.25			SPoX06
NT-DRS-3D D21.50-S25-06	●	21.5	25	145	89	66	0.5	0.25			SPoX06
NT-DRS-3D D22.00-S25-07	●	22	25	145	89	66	0.5	0.5			SPoX07
NT-DRS-3D D22.50-S32-07	●	22.5	32	154	94	69	0.5	0.5			SPoX07
NT-DRS-3D D23.00-S32-07	●	23	32	154	94	69	0.5	0.5			SPoX07
NT-DRS-3D D23.50-S32-07	●	23.5	32	158	98	72	0.5	0.5			SPoX07
NT-DRS-3D D24.00-S32-07	●	24	32	158	98	72	0.5	0.5			SPoX07
NT-DRS-3D D24.50-S32-07	●	24.5	32	162	102	75	0.5	0.5			SPoX07
NT-DRS-3D D25.00-S32-07	●	25	32	162	102	75	0.5	0.5			SPoX07
NT-DRS-3D D25.50-S32-07	●	25.5	32	165	105	78	0.6	0.5			SPoX07
NT-DRS-3D D26.00-S32-07	●	26	32	165	105	78	0.6	0.25			SPoX07
NT-DRS-3D D26.50-S32-07	●	26.5	32	168	108	81	0.6	0.25			SPoX07
NT-DRS-3D D27.00-S32-07	●	27	32	168	108	81	0.6	0.25			SPoX07
NT-DRS-3D D27.50-S32-07	●	27.5	32	172	112	84	0.6	0.25			SPoX07
NT-DRS-3D D28.00-S32-09	●	28	32	172	112	84	0.8	0.5			SPoX09
NT-DRS-3D D28.50-S32-09	●	28.5	32	175	115	87	0.8	0.5			SPoX09
NT-DRS-3D D29.00-S32-09	●	29	32	175	115	87	0.8	0.5			SPoX09
NT-DRS-3D D29.50-S32-09	●	29.5	32	181	121	90	0.8	0.5			SPoX09
NT-DRS-3D D30.00-S32-09	●	30	32	181	121	90	0.8	0.5			SPoX09
NT-DRS-3D D31.00-S32-09	●	31	32	185	125	93	0.8	0.25			SPoX09
NT-DRS-3D D32.00-S32-09	●	32	32	188	128	96	0.8	0.25			SPoX09
NT-DRS-3D D33.00-S32-09	●	33	32	192	132	99	0.8	0.25			SPoX09
NT-DRS-3D D34.00-S40-11	●	34	40	205	135	102	0.9	0.5			SPoX11
NT-DRS-3D D35.00-S40-11	●	35	40	209	139	105	0.9	0.5			SPoX11
NT-DRS-3D D36.00-S40-11	●	36	40	213	143	108	0.9	0.5			SPoX11
NT-DRS-3D D37.00-S40-11	●	37	40	217	147	111	0.9	0.5			SPoX11
NT-DRS-3D D38.00-S40-11	●	38	40	221	151	114	0.9	0.5			SPoX11
NT-DRS-3D D39.00-S40-11	●	39	40	224	154	117	0.9	0.25			SPoX11
NT-DRS-3D D40.00-S40-11	●	40	40	228	158	120	0.9	0.25			SPoX11
NT-DRS-3D D41.00-S40-11	●	41	40	232	162	123	0.9	0.5			SPoX11

● stock standard, ○ non-standard stock, ▲ upcoming introduction, ▽ stock exhaustion

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Designation	Stock	DC	DCON	OAL	LF	LB	PL	ADJLX			MIID
NT-DRS-3D D42.00-S40-14	●	42	40	235	165	126	1	0.5			SPoX14
NT-DRS-3D D43.00-S40-14	●	43	40	239	169	129	1	0.5			SPoX14
NT-DRS-3D D44.00-S40-14	●	44	40	242	172	132	1	0.5			SPoX14
NT-DRS-3D D45.00-S40-14	●	45	40	247	177	135	1	0.5			SPoX14
NT-DRS-3D D46.00-S40-14	●	46	40	251	181	138	1	0.5			SPoX14
NT-DRS-3D D47.00-S40-14	●	47	40	254	184	141	1	0.5			SPoX14
NT-DRS-3D D48.00-S40-14	●	48	40	258	188	144	1	0.25			SPoX14
NT-DRS-3D D49.00-S40-14	●	49	40	261	191	147	1	0.25			SPoX14
NT-DRS-3D D50.00-S40-14	●	50	40	265	195	150	1	0.25			SPoX14

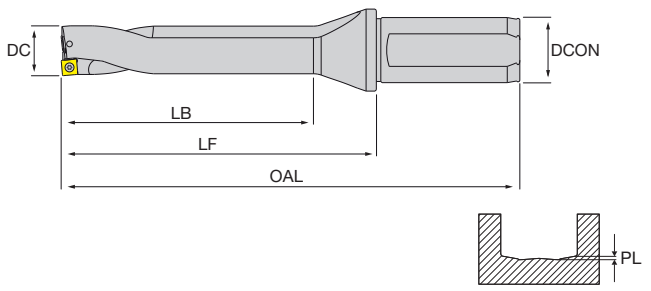
● stock standard, ○ non-standard stock, ▲ upcoming introduction, ▽ stock exhaustion

Spare parts	Insert screws	Flag wrenches
NT-DRS-3D Doo.oo-Soo-05	NT-ST20043T06	NT-FTB06
NT-DRS-3D Doo.oo-Soo-06	NT-ST22055T06	NT-FTB06
NT-DRS-3D Doo.oo-Soo-07	NT-ST25065T07	NT-FTB07
NT-DRS-3D Doo.oo-Soo-09	NT-ST35080T15	NT-FTB15
NT-DRS-3D Doo.oo-Soo-11	NT-ST40100T15	NT-FTB15
NT-DRS-3D Doo.oo-Soo-14	NT-ST50108T20	NT-FTB20

4xD

DRS drill

- 4xD indexable drill body for SP inserts with straight flutes
- All with coolant through
- Please select insert size according to the drill diameter



Designation	Stock	DC	DCON	OAL	LF	LB	PL	ADJLX			MIID
NT-DRS-4D D12.50-S20-05	●	12.5	20	120	70	52	0.4	0.5			SPoX05
NT-DRS-4D D13.00-S20-05	●	13	20	120	70	52	0.4	0.5			SPoX05
NT-DRS-4D D13.50-S20-05	●	13.5	20	124	74	56	0.4	0.5			SPoX05
NT-DRS-4D D14.00-S20-05	●	14	20	124	74	56	0.4	0.5			SPoX05
NT-DRS-4D D14.50-S20-05	●	14.5	20	129	79	60	0.4	0.5			SPoX05
NT-DRS-4D D15.00-S20-05	●	15	20	129	79	60	0.4	0.5			SPoX05
NT-DRS-4D D15.50-S25-06	●	15.5	25	140	84	64	0.5	0.5			SPoX06
NT-DRS-4D D16.00-S25-06	●	16	25	140	84	64	0.5	0.5			SPoX06
NT-DRS-4D D16.50-S25-06	●	16.5	25	144	88	68	0.5	0.5			SPoX06
NT-DRS-4D D17.00-S25-06	●	17	25	144	88	68	0.5	0.5			SPoX06
NT-DRS-4D D17.50-S25-06	●	17.5	25	149	93	72	0.5	0.5			SPoX06
NT-DRS-4D D18.00-S25-06	●	18	25	149	93	72	0.5	0.5			SPoX06
NT-DRS-4D D18.50-S25-06	●	18.5	25	153	97	76	0.5	0.5			SPoX06
NT-DRS-4D D19.00-S25-06	●	19	25	153	97	76	0.5	0.5			SPoX06
NT-DRS-4D D19.50-S25-06	●	19.5	25	159	103	80	0.5	0.5			SPoX06
NT-DRS-4D D20.00-S25-06	●	20	25	159	103	80	0.5	0.5			SPoX06
NT-DRS-4D D20.50-S25-06	●	20.5	25	163	107	84	0.5	0.25			SPoX06
NT-DRS-4D D21.00-S25-06	●	21	25	163	107	84	0.5	0.25			SPoX06
NT-DRS-4D D21.50-S25-06	●	21.5	25	167	111	88	0.5	0.25			SPoX06
NT-DRS-4D D22.00-S25-07	●	22	25	167	111	88	0.5	0.5			SPoX07
NT-DRS-4D D22.50-S32-07	●	22.5	32	177	117	92	0.5	0.5			SPoX07
NT-DRS-4D D23.00-S32-07	●	23	32	177	117	92	0.5	0.5			SPoX07
NT-DRS-4D D23.50-S32-07	●	23.5	32	182	122	96	0.5	0.5			SPoX07
NT-DRS-4D D24.00-S32-07	●	24	32	182	122	96	0.5	0.5			SPoX07
NT-DRS-4D D24.50-S32-07	●	24.5	32	187	127	100	0.5	0.5			SPoX07
NT-DRS-4D D25.00-S32-07	●	25	32	187	127	100	0.5	0.5			SPoX07
NT-DRS-4D D25.50-S32-07	●	25.5	32	191	131	104	0.6	0.5			SPoX07
NT-DRS-4D D26.00-S32-07	●	26	32	191	131	104	0.6	0.25			SPoX07
NT-DRS-4D D26.50-S32-07	●	26.5	32	195	135	108	0.6	0.25			SPoX07
NT-DRS-4D D27.00-S32-07	●	27	32	195	135	108	0.6	0.25			SPoX07
NT-DRS-4D D27.50-S32-07	●	27.5	32	200	140	112	0.6	0.25			SPoX07
NT-DRS-4D D28.00-S32-09	●	28	32	200	140	112	0.8	0.5			SPoX09
NT-DRS-4D D28.50-S32-09	●	28.5	32	204	144	116	0.8	0.5			SPoX09
NT-DRS-4D D29.00-S32-09	●	29	32	204	144	116	0.8	0.5			SPoX09
NT-DRS-4D D29.50-S32-09	●	29.5	32	211	151	120	0.8	0.5			SPoX09
NT-DRS-4D D30.00-S32-09	●	30	32	211	151	120	0.8	0.5			SPoX09
NT-DRS-4D D31.00-S32-09	●	31	32	216	156	124	0.8	0.25			SPoX09
NT-DRS-4D D32.00-S32-09	●	32	32	220	160	128	0.8	0.25			SPoX09
NT-DRS-4D D33.00-S32-09	●	33	32	225	165	132	0.8	0.25			SPoX09
NT-DRS-4D D34.00-S40-11	●	34	40	239	169	136	0.9	0.5			SPoX11
NT-DRS-4D D35.00-S40-11	●	35	40	244	174	140	0.9	0.5			SPoX11
NT-DRS-4D D36.00-S40-11	●	36	40	249	179	144	0.9	0.5			SPoX11
NT-DRS-4D D37.00-S40-11	●	37	40	254	184	148	0.9	0.5			SPoX11
NT-DRS-4D D38.00-S40-11	●	38	40	259	189	152	0.9	0.5			SPoX11
NT-DRS-4D D39.00-S40-11	●	39	40	263	193	156	0.9	0.25			SPoX11
NT-DRS-4D D40.00-S40-11	●	40	40	268	198	160	0.9	0.25			SPoX11
NT-DRS-4D D41.00-S40-11	▲	41	40	273	203	164	0.9	0.5			SPoX11

● stock standard, ○ non-standard stock, ▲ upcoming introduction, ▽ stock exhaustion

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Designation	Stock	DC	DCON	OAL	LF	LB	PL	ADJLX			MIID
NT-DRS-4D D42.00-S40-14	●	42	40	277	207	168	1	0.5			SPoX14
NT-DRS-4D D43.00-S40-14	●	43	40	282	212	172	1	0.5			SPoX14
NT-DRS-4D D44.00-S40-14	●	44	40	286	216	176	1	0.5			SPoX14
NT-DRS-4D D45.00-S40-14	●	45	40	292	222	180	1	0.5			SPoX14
NT-DRS-4D D46.00-S40-14	●	46	40	297	227	184	1	0.5			SPoX14
NT-DRS-4D D47.00-S40-14	●	47	40	301	231	188	1	0.5			SPoX14
NT-DRS-4D D48.00-S40-14	●	48	40	306	236	192	1	0.25			SPoX14
NT-DRS-4D D49.00-S40-14	▲	49	40	310	240	196	1	0.25			SPoX14
NT-DRS-4D D50.00-S40-14	●	50	40	315	245	200	1	0.25			SPoX14

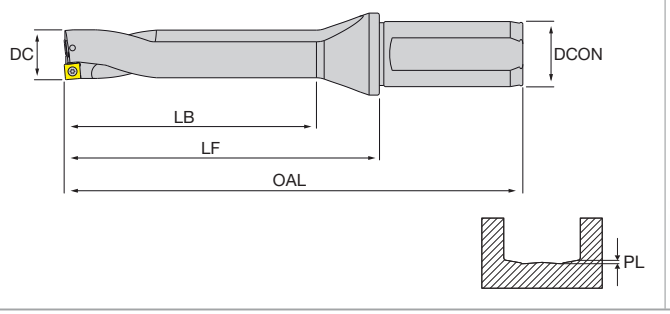
● stock standard, ○ non-standard stock, ▲ upcoming introduction, ▽ stock exhaustion

Spare parts	Insert screws	Flag wrenches
NT-DRS-4D Doo.oo-Soo-05	NT-ST20043T06	NT-FTB06
NT-DRS-4D Doo.oo-Soo-06	NT-ST22055T06	NT-FTB06
NT-DRS-4D Doo.oo-Soo-07	NT-ST25065T07	NT-FTB07
NT-DRS-4D Doo.oo-Soo-09	NT-ST35080T15	NT-FTB15
NT-DRS-4D Doo.oo-Soo-11	NT-ST40100T15	NT-FTB15
NT-DRS-4D Doo.oo-Soo-14	NT-ST50108T20	NT-FTB20

5xD

DRS drill

- 5xD indexable drill body for SP inserts with straight flutes
- All with coolant through
- Please select insert size according to the drill diameter



Designation	Stock	DC	DCON	OAL	LF	LB	PL	ADJLX			MIID
NT-DRS-5D D13.00-S20-05	●	13	20	133	83	65	0.4	0.5			SPoX05
NT-DRS-5D D14.00-S20-05	●	14	20	138	88	70	0.4	0.5			SPoX05
NT-DRS-5D D15.00-S20-05	●	15	20	144	94	75	0.4	0.5			SPoX05
NT-DRS-5D D16.00-S25-06	●	16	25	156	100	80	0.5	0.5			SPoX06
NT-DRS-5D D17.00-S25-06	●	17	25	161	105	85	0.5	0.5			SPoX06
NT-DRS-5D D18.00-S25-06	●	18	25	167	111	90	0.5	0.5			SPoX06
NT-DRS-5D D19.00-S25-06	●	19	25	172	116	95	0.5	0.5			SPoX06
NT-DRS-5D D20.00-S25-06	●	20	25	179	123	100	0.5	0.5			SPoX06
NT-DRS-5D D21.00-S25-06	●	21	25	184	128	105	0.5	0.25			SPoX06
NT-DRS-5D D22.00-S25-07	●	22	25	189	133	110	0.5	0.5			SPoX07
NT-DRS-5D D23.00-S32-07	●	23	32	200	140	115	0.5	0.5			SPoX07
NT-DRS-5D D24.00-S32-07	●	24	32	206	146	120	0.5	0.5			SPoX07
NT-DRS-5D D25.00-S32-07	●	25	32	212	152	125	0.5	0.5			SPoX07
NT-DRS-5D D26.00-S32-07	●	26	32	217	157	130	0.6	0.25			SPoX07
NT-DRS-5D D27.00-S32-07	●	27	32	222	162	135	0.6	0.25			SPoX07
NT-DRS-5D D28.00-S32-09	●	28	32	228	168	140	0.8	0.5			SPoX09
NT-DRS-5D D29.00-S32-09	●	29	32	233	173	145	0.8	0.5			SPoX09
NT-DRS-5D D30.00-S32-09	●	30	32	241	181	150	0.8	0.5			SPoX09
NT-DRS-5D D31.00-S32-09	●	31	32	247	187	155	0.8	0.25			SPoX09
NT-DRS-5D D32.00-S32-09	●	32	32	252	192	160	0.8	0.25			SPoX09
NT-DRS-5D D33.00-S32-09	●	33	32	258	198	165	0.8	0.25			SPoX09
NT-DRS-5D D34.00-S40-11	●	34	40	273	203	170	0.9	0.5			SPoX11
NT-DRS-5D D35.00-S40-11	●	35	40	279	209	175	0.9	0.5			SPoX11
NT-DRS-5D D36.00-S40-11	●	36	40	285	215	180	0.9	0.5			SPoX11
NT-DRS-5D D37.00-S40-11	●	37	40	291	221	185	0.9	0.5			SPoX11
NT-DRS-5D D38.00-S40-11	●	38	40	297	227	190	0.9	0.5			SPoX11
NT-DRS-5D D39.00-S40-11	●	39	40	302	232	195	0.9	0.5			SPoX11
NT-DRS-5D D40.00-S40-11	●	40	40	308	238	200	0.9	0.25			SPoX11
NT-DRS-5D D41.00-S40-11	●	41	40	314	244	205	0.9	0.25			SPoX11
NT-DRS-5D D42.00-S40-14	●	42	40	319	249	210	1	0.5			SPoX14
NT-DRS-5D D43.00-S40-14	●	43	40	325	255	215	1	0.5			SPoX14
NT-DRS-5D D44.00-S40-14	●	44	40	330	260	220	1	0.5			SPoX14
NT-DRS-5D D45.00-S40-14	●	45	40	337	267	225	1	0.5			SPoX14
NT-DRS-5D D46.00-S40-14	●	46	40	343	273	230	1	0.5			SPoX14
NT-DRS-5D D47.00-S40-14	●	47	40	348	278	235	1	0.5			SPoX14
NT-DRS-5D D48.00-S40-14	●	48	40	354	284	240	1	0.25			SPoX14
NT-DRS-5D D49.00-S40-14	●	49	40	359	289	245	1	0.25			SPoX14
NT-DRS-5D D50.00-S40-14	●	50	40	365	295	250	1	0.25			SPoX14

● stock standard, ○ non-standard stock, ▲ upcoming introduction, ▽ stock exhaustion

Spare parts	Insert screws	Flag wrenches
NT-DRS-5D Doo.oo-Soo-05	NT-ST20043T06	NT-FTB06
NT-DRS-5D Doo.oo-Soo-06	NT-ST22055T06	NT-FTB06
NT-DRS-5D Doo.oo-Soo-07	NT-ST25065T07	NT-FTB07

Spare parts	Insert screws	Flag wrenches
NT-DRS-5D Doo.oo-Soo-09	NT-ST35080T15	NT-FTB15
NT-DRS-5D Doo.oo-Soo-11	NT-ST40100T15	NT-FTB15
NT-DRS-5D Doo.oo-Soo-14	NT-ST50108T20	NT-FTB20

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SPoX

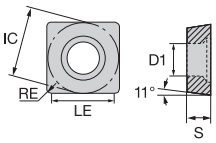
DRS drill

- General purpose type or fine polished sharp geometries for aluminum or non-ferrous materials available
- Diverse PVD coated carbide grades available
- Inserts could also be mounted on DRS Pilot type and ChamferSquare milling bodies

HF: Micrograin carbide
PVD: Physical vapour deposition

	JP5530	JP8725	JP9535	JP9635	JU6520
	HF PVD	HF PVD	HF PVD	HF PVD	HF
Stable machining, light cut (● 1st choice, ○ suitable)		○			●
General machining, medium cut (● 1st choice, ○ suitable)	●	●	●	●	●
Unstable machining, heavy cut (● 1st choice, ○ suitable)	○		●	●	

Dimensions



4 edges

Vc(m/min) - suggested cutting speed range (bold: 1st choice)

ISO	JP5530	JP8725	JP9535	JP9635	JU6520
P	**120** **240**	**120** **240**			
M	40 100		**80** **160**	**80** **160**	
K	**120** **180**				
N					**240** **400**
S					
H					

	Designation		RE	IC	S	D1	LE	JP5530	JP8725	JP9535	JP9635	JU6520	Stock
GENERAL	GP P M K	SPMX050204-GP	0.4	5	2.38	2.5	4.2	●	●	●			
		SPMX060204-GP	0.4	6	2.38	2.8	5.2	●	●	●			
		SPMX07T308-GP	0.8	7.94	3.97	2.8	6.34	●	●	●			
		SPMX090408-GP	0.8	9.8	4.3	4.2	8.2	●	●	▲	●		
		SPMX110408-GP	0.8	11.5	4.76	4.4	9.9	●	●	●			
		SPMX140512-GP	1.2	14.3	5.2	5.5	11.9	●	●	▲	●		
ALUMINIUM	AL N periphery ground polished surface	SPGX050204-AL	0.4	5	2.38	2.5	4.2					●	
		SPGX060204-AL	0.4	6	2.38	2.8	5.2					●	
		SPGX07T308-AL	0.8	7.94	3.97	2.8	6.34					●	
		SPGX090408-AL	0.8	9.8	4.3	4.2	8.2					●	
		SPGX110408-AL	0.8	11.5	4.76	4.4	9.9					●	
		SPGX140512-AL	1.2	14.3	5.2	5.5	11.9					●	

● stock standard, ○ non-standard stock, ▲ upcoming introduction, ▽ stock exhaustion

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ISO 513	MATERIAL	HARDNESS HB	L/D	DC 12.50 ÷ 15.00			DC 15.50 ÷ 21.50			DC 22.00 ÷ 27.50		
				min	start	max	min	start	max	min	start	max
P1 - P2	Free cutting steel and low carbon (ex. 1.0715/9 smn 28/avp, 1.0503/c45)	≤ 200	2xD - 3xD	0.05	**0.07**	0.09	0.05	**0.08**	0.11	0.05	**0.09**	0.13
			4xD	0.04	**0.06**	0.08	0.04	**0.07**	0.10	0.04	**0.08**	0.12
			5xD	0.04	**0.05**	0.06	0.04	**0.06**	0.08	0.04	**0.07**	0.10
P3 - P4	Medium and high alloy steel (ex. 1.7225/42 CrMo 4, 1.3505/100 Cr 6)	200 ÷ 300	2xD - 3xD	0.07	**0.10**	0.13	0.07	**0.11**	0.15	0.09	**0.13**	0.17
			4xD	0.06	**0.09**	0.12	0.06	**0.10**	0.14	0.08	**0.12**	0.16
			5xD	0.06	**0.08**	0.10	0.06	**0.09**	0.12	0.08	**0.11**	0.14
P5 - P6	High tensile strength and tool steel (ex. 1.2344/X 40 CrMoV 5 1/ORVAR, Hardox400®)	300 ÷ 400	2xD - 3xD	0.07	**0.09**	0.11	0.07	**0.10**	0.13	0.09	**0.12**	0.15
			4xD	0.06	**0.08**	0.10	0.06	**0.09**	0.12	0.08	**0.11**	0.14
			5xD	0.06	**0.07**	0.08	0.06	**0.08**	0.10	0.08	**0.10**	0.12
P7	Ferritic and martensitic stainless steel (ex. 1.4021/X 20 Cr 13/AISI420)	≤ 200	2xD - 3xD	0.06	**0.09**	0.12	0.06	**0.10**	0.14	0.06	**0.11**	0.16
			4xD	0.05	**0.08**	0.11	0.05	**0.09**	0.13	0.05	**0.10**	0.15
			5xD	0.05	**0.06**	0.07	0.05	**0.08**	0.11	0.05	**0.09**	0.13
P8	Precipitation hardening stainless steel (ex. 1.4548/X 5 CrNiCuNb 17 4/17-4-PH)	≤ 450	2xD - 3xD	0.05	**0.08**	0.11	0.05	**0.09**	0.13	0.05	**0.10**	0.15
			4xD	0.04	**0.07**	0.10	0.04	**0.08**	0.12	0.04	**0.09**	0.14
			5xD	0.04	**0.06**	0.08	0.04	**0.07**	0.10	0.04	**0.08**	0.12
M1	Austenitic stainless steel (ex. 1.4305/X 10 CrNiS 18 9/AISI303)	> 200	2xD - 3xD	0.06	**0.08**	0.10	0.06	**0.09**	0.12	0.06	**0.10**	0.14
			4xD	0.05	**0.07**	0.09	0.05	**0.08**	0.11	0.05	**0.09**	0.13
			5xD	0.05	**0.06**	0.07	0.05	**0.06**	0.07	0.05	**0.08**	0.11
M2 - M3	Austenitic and Duplex stainless steel (ex. 1.4401/X 5 CrNiMo 17 12 2/AISI316)		2xD - 3xD	0.05	**0.07**	0.09	0.05	**0.08**	0.11	0.05	**0.09**	0.13
			4xD	0.04	**0.06**	0.08	0.04	**0.07**	0.10	0.04	**0.08**	0.12
			5XD	0.04	**0.05**	0.06	0.04	**0.06**	0.08	0.04	**0.07**	0.10
K1	Grey cast iron (ex. 0.6025/GG 25/EN-GJL-250)	150 ÷ 250	2xD - 3xD	0.07	**0.10**	0.13	0.09	**0.13**	0.17	0.11	**0.15**	0.19
			4xD	0.06	**0.09**	0.12	0.08	**0.12**	0.16	0.10	**0.14**	0.18
			5xD	0.06	**0.08**	0.10	0.08	**0.11**	0.14	0.10	**0.13**	0.16
K2	Nodular cast iron (ex. 0.7050/GGG 50/EN-GJS-500-7)	150 ÷ 350	2xD - 3xD	0.07	**0.09**	0.11	0.08	**0.12**	0.16	0.09	**0.14**	0.19
			4xD	0.06	**0.08**	0.10	0.07	**0.11**	0.15	0.08	**0.13**	0.18
			5xD	0.06	**0.07**	0.08	0.07	**0.10**	0.13	0.08	**0.12**	0.16
N1	Aluminium alloys ≤ Si 12% (ex. 3.4365/AlZn5.5MgCu/ERGAL)		2xD - 3xD	0.07	**0.11**	0.15	0.07	**0.12**	0.17	0.09	**0.14**	0.19
			4xD	0.06	**0.10**	0.14	0.06	**0.11**	0.16	0.08	**0.13**	0.18
			5xD	0.06	**0.09**	0.12	0.06	**0.10**	0.14	0.08	**0.12**	0.16
N2	Aluminium alloys Si > 12% (ex. 3.2382/G-AlSi12)		2xD - 3xD	0.07	**0.10**	0.13	0.07	**0.11**	0.15	0.09	**0.13**	0.17
			4xD	0.06	**0.09**	0.12	0.06	**0.10**	0.14	0.08	**0.12**	0.16
			5xD	0.06	**0.08**	0.10	0.06	**0.09**	0.12	0.08	**0.11**	0.14

Complete workpiece materials p. **H**1.

(fn: mm/rev)

DC 28.00 ÷ 33.00			DC 34.00 ÷ 41.00			DC 42.00 ÷ 50.00					
min	start	max	min	start	max	min	start	max			
0.06	**0.10**	0.14	0.07	**0.11**	0.15	0.07	**0.12**	0.17			
0.05	**0.09**	0.13	0.06	**0.10**	0.14	0.06	**0.11**	0.16			
0.05	**0.08**	0.11	0.06	**0.09**	0.12	0.06	**0.10**	0.14			
0.09	**0.14**	0.19	0.11	**0.16**	0.21	0.11	**0.17**	0.23			
0.08	**0.13**	0.18	0.10	**0.15**	0.20	0.10	**0.16**	0.22			
0.08	**0.12**	0.16	0.10	**0.14**	0.18	0.10	**0.15**	0.20			
0.09	**0.13**	0.17	0.09	**0.14**	0.19	0.11	**0.16**	0.21			
0.08	**0.12**	0.16	0.08	**0.13**	0.18	0.10	**0.15**	0.20			
0.08	**0.11**	0.14	0.08	**0.12**	0.16	0.10	**0.14**	0.18			
0.07	**0.12**	0.17	0.08	**0.12**	0.18	0.09	**0.14**	0.19			
0.06	**0.11**	0.16	0.07	**0.11**	0.17	0.08	**0.13**	0.18			
0.06	**0.10**	0.14	0.07	**0.10**	0.13	0.08	**0.12**	0.16			
0.06	**0.11**	0.16	0.07	**0.12**	0.17	0.09	**0.13**	0.17			
0.05	**0.10**	0.15	0.06	**0.11**	0.16	0.08	**0.12**	0.16			
0.05	**0.09**	0.13	0.06	**0.10**	0.14	0.08	**0.11**	0.14			
0.07	**0.11**	0.15	0.08	**0.12**	0.16	0.09	**0.13**	0.17			
0.06	**0.10**	0.14	0.07	**0.11**	0.15	0.08	**0.12**	0.16			
0.06	**0.09**	0.12	0.07	**0.10**	0.13	0.08	**0.11**	0.14			
0.06	**0.10**	0.14	0.07	**0.11**	0.15	0.09	**0.12**	0.15			
0.05	**0.09**	0.13	0.06	**0.10**	0.14	0.08	**0.11**	0.14			
0.05	**0.08**	0.11	0.06	**0.09**	0.12	0.08	**0.10**	0.12			
0.11	**0.17**	0.23	0.13	**0.19**	0.25	0.15	**0.21**	0.27			
0.10	**0.16**	0.22	0.12	**0.18**	0.24	0.14	**0.20**	0.26			
0.10	**0.15**	0.20	0.12	**0.17**	0.22	0.14	**0.19**	0.24			
0.11	**0.16**	0.21	0.13	**0.17**	0.21	0.15	**0.19**	0.23			
0.10	**0.15**	0.20	0.12	**0.16**	0.20	0.14	**0.18**	0.22			
0.10	**0.14**	0.18	0.12	**0.15**	0.18	0.14	**0.17**	0.20			
0.09	**0.15**	0.21	0.11	**0.17**	0.23	0.13	**0.18**	0.23			
0.08	**0.14**	0.20	0.10	**0.16**	0.22	0.12	**0.17**	0.22			
0.08	**0.13**	0.18	0.10	**0.15**	0.20	0.12	**0.16**	0.20			
0.09	**0.14**	0.19	0.11	**0.16**	0.21	0.13	**0.17**	0.21			
0.08	**0.13**	0.18	0.10	**0.15**	0.20	0.12	**0.16**	0.20			
0.08	**0.12**	0.16	0.10	**0.14**	0.18	0.12	**0.15**	0.18			

Complete workpiece materials p. **H**1.

(fn: mm/rev)

DRILLING Parameters - cutting speed · DRS

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ISO 513	MATERIAL	HARDNESS HB	L/D	JP5530 min	JP5530 start	JP5530 max	JP8725 min	JP8725 start	JP8725 max
P1 - P2	Free cutting steel and low carbon (ex. 1.0715/9 smn 28/avp, 1.0503/c45)	≤ 200	2XD ÷ 5XD	120	**180**	240	120	**180**	240
P3 - P4	Medium and high alloy steel (ex. 1.7225/42 CrMo 4, 1.3505/100 Cr 6)	200 ÷ 300	2XD ÷ 5XD	100	**150**	200	100	**150**	200
P5 - P6	High tensile strength and tool steel (ex. 1.2344/X 40 CrMoV 5 1/ORVAR, Hardox400®)	300 ÷ 400	2XD ÷ 5XD	80	**120**	160	80	**120**	160
ISO 513	MATERIAL	HARDNESS HB	L/D	JP5530 min	JP5530 start	JP5530 max	JP9535 min	JP9535 start	JP9535 max
P7	Ferritic and martensitic stainless steel (ex. 1.4021/X 20 Cr 13/AISI420)	≤ 200	2XD ÷ 5XD	50	**90**	130	80	**120**	160
P8	Precipitation hardening stainless steel (ex. 1.4548/X 5 CrNiCuNb 17 4/17-4-PH)	≤ 450	2XD ÷ 5XD		-		60	**90**	120
M1	Austenitic stainless steel (ex. 1.4305/X 10 CrNiS 18 9/AISI303)	> 200	2XD ÷ 5XD	40	**70**	100	80	**120**	160
M2 - M3	Austenitic and Duplex stainless steel (ex. 1.4401/X 5 CrNiMo 17 12 2/AISI316)		2XD ÷ 5XD		-		60	**100**	140
ISO 513	MATERIAL	HARDNESS HB	L/D	JP5530 min	JP5530 start	JP5530 max			
K1	Grey cast iron (ex. 0.6025/GG 25/EN-GJL-250)	150 ÷ 250	2XD ÷ 5XD	120	**150**	180			
K2	Nodular cast iron (ex. 0.7050/GGG 50/EN-GJS-500-7)	150 ÷ 350	2XD ÷ 5XD	100	**120**	140			
ISO 513	MATERIAL	HARDNESS HB	L/D	JU6520 min	JU6520 start	JU6520 max			
N1	Aluminium alloys ≤ Si 12% (ex. 3.4365/AlZn5.5MgCu/ERGAL)		2XD ÷ 5XD	240	**320**	400			
N2	Aluminium alloys Si > 12% (ex. 3.2382/G-AlSi12)		2XD ÷ 5XD	160	**230**	300			

Complete workpiece materials p. **H**1.

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DRS PILOT

For extra deep holes - High performance indexable drilling system

APPLICATION

Plane surface	Concave surface	Convex surface	Pipes

ISO APPLICATION FIELDS

P M K N

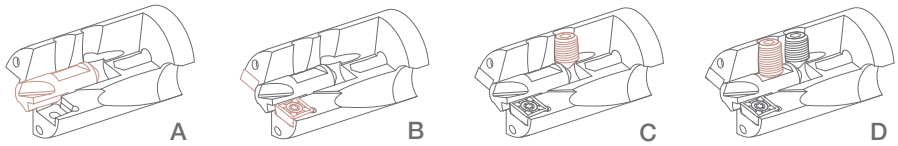
ADVANTAGES AND CHARACTERISTICS

- Highly universal drilling system suitable for diverse conditions
- Highly cost-efficient system for deep hole drilling
- The use of pilot provides better centering effect
- Straight flute design improves chip evacuation and strengthens the body

Drilling bodies

- Weldon shank with internal coolant
- 6xD and 9xD available from D18 to D30
- Special length and stepped body available upon request

Installation of inserts and pilot drill



A Insert DRSP pilot in the drilling body.

B Install the SPMX/SPGX inserts.

C Adjust the DRSP pilot height using the setting grain.

D Screw tight the locking grain.

For pilot adjustement see page E22.

Inserts

- Available sizes 05/06/07
- Cemented carbide grades with PVD coatings or uncoated for N materials
- Geometries: GP, AL
- Pilot drill made of coated premium HSS

GP P M K

SIZE
05 06 07

AL N

SIZE
05 06 07

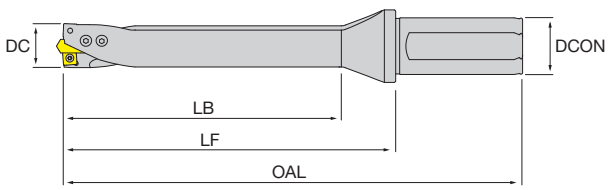
Pilot P M K N

SIZE
06 08

6xD

DRS pilot

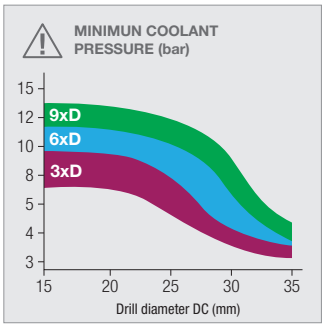
- 6xD indexable drill body with pilot and seats for SP inserts with straight flutes
- All with coolant through
- Please select insert and pilot size according to the drill diameter

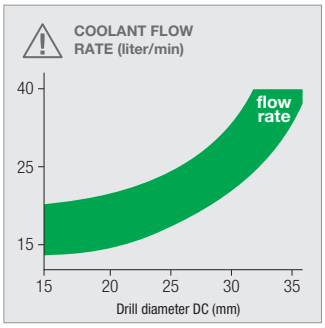


Designation	Stock	DC	DCON	OAL	LF	LB				PILOT	MIID
NT-DRS-6D D18.00-S25-05P6	●	18	25	191	135	112				DRSP06	SPoX05
NT-DRS-6D D19.00-S25-05P6	●	19	25	197	141	118				DRSP06	SPoX05
NT-DRS-6D D20.00-S25-06P6	●	20	25	203	147	124				DRSP06	SPoX06
NT-DRS-6D D21.00-S25-06P6	●	21	25	209	153	130				DRSP06	SPoX06
NT-DRS-6D D22.00-S25-06P6	●	22	25	215	159	136				DRSP06	SPoX06
NT-DRS-6D D23.00-S32-06P6	●	23	32	228	168	142				DRSP06	SPoX06
NT-DRS-6D D24.00-S32-06P6	●	24	32	234	174	148				DRSP06	SPoX06
NT-DRS-6D D25.00-S32-06P6	●	25	32	240	180	154				DRSP06	SPoX06
NT-DRS-6D D26.00-S32-07P8	●	26	32	246	186	160				DRSP08	SPoX07
NT-DRS-6D D27.00-S32-07P8	●	27	32	252	192	166				DRSP08	SPoX07
NT-DRS-6D D28.00-S32-07P8	●	28	32	258	198	172				DRSP08	SPoX07
NT-DRS-6D D29.00-S32-07P8	●	29	32	264	204	178				DRSP08	SPoX07
NT-DRS-6D D30.00-S32-07P8	●	30	32	270	210	184				DRSP08	SPoX07

● stock standard, ○ non-standard stock, ▲ upcoming introduction, ▽ stock exhaustion

Spare parts	Insert screws	Flag wrenches	Locking grains	Setting grains	L wrench
NT-DRS-6D (DC 18÷19)	NT-ST20043T06	NT-FTB06	NT-ST042	NT-ST043	NT-WR025
NT-DRS-6D (DC 20÷22)	NT-ST22055T06	NT-FTB06	NT-ST042	NT-ST043	NT-WR025
NT-DRS-6D (DC 23÷25)	NT-ST22055T06	NT-FTB06	NT-ST044	NT-ST045	NT-WR025
NT-DRS-6D (DC 26÷30)	NT-ST25065T07	NT-FTB07	NT-ST046	NT-ST047	NT-WR030

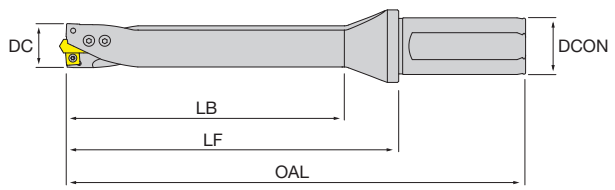




9xD

DRS pilot

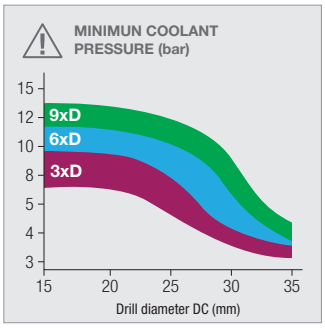
- 9xD indexable drill body with pilot and seats for SP inserts with straight flutes
- All with coolant through
- Please select insert and pilot size according to the drill diameter

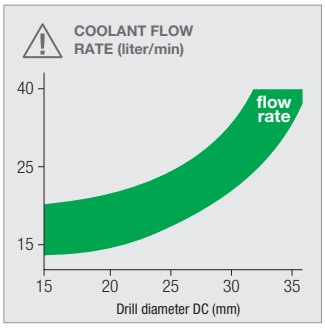


Designation	Stock	DC	DCON	OAL	LF	LB				PILOT	MIID
NT-DRS-9D D18.00-S25-05P6	●	18	25	245	189	166				DRSP06	SPoX05
NT-DRS-9D D19.00-S25-05P6	●	19	25	254	198	175				DRSP06	SPoX05
NT-DRS-9D D20.00-S25-06P6	●	20	25	263	207	184				DRSP06	SPoX06
NT-DRS-9D D21.00-S25-06P6	●	21	25	272	216	193				DRSP06	SPoX06
NT-DRS-9D D22.00-S25-06P6	●	22	25	281	225	202				DRSP06	SPoX06
NT-DRS-9D D23.00-S32-06P6	●	23	32	297	237	211				DRSP06	SPoX06
NT-DRS-9D D24.00-S32-06P6	●	24	32	306	246	220				DRSP06	SPoX06
NT-DRS-9D D25.00-S32-06P6	●	25	32	315	255	229				DRSP06	SPoX06
NT-DRS-9D D26.00-S32-07P8	●	26	32	324	264	238				DRSP08	SPoX07
NT-DRS-9D D27.00-S32-07P8	●	27	32	333	273	247				DRSP08	SPoX07
NT-DRS-9D D28.00-S32-07P8	●	28	32	342	282	256				DRSP08	SPoX07
NT-DRS-9D D29.00-S32-07P8	●	29	32	351	291	265				DRSP08	SPoX07
NT-DRS-9D D30.00-S32-07P8	●	30	32	360	300	274				DRSP08	SPoX07

● stock standard, ○ non-standard stock, ▲ upcoming introduction, ▽ stock exhaustion

Spare parts	Insert screws	Flag wrenches	Locking grains	Setting grains	L wrench
NT-DRS-6D (DC 18÷19)	NT-ST20043T06	NT-FTB06	NT-ST042	NT-ST043	NT-WR025
NT-DRS-6D (DC 20÷22)	NT-ST22055T06	NT-FTB06	NT-ST042	NT-ST043	NT-WR025
NT-DRS-6D (DC 23÷25)	NT-ST22055T06	NT-FTB06	NT-ST044	NT-ST045	NT-WR025
NT-DRS-6D (DC 26÷30)	NT-ST25065T07	NT-FTB07	NT-ST046	NT-ST047	NT-WR030





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SPoX

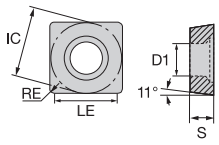
DRS pilot

- General purpose type or fine polished sharp geometries for aluminum or non-ferrous materials available
- Diverse PVD coated carbide grades available
- Inserts could also be mounted on Chamfer-Square milling bodies

HF: Micrograin carbide
PVD: Physical vapour deposition

	JP5530	JP8725	JP9535	JU6520
	HF PVD	HF PVD	HF PVD	HF
Stable machining, light cut (● 1st choice, ○ suitable)		○		●
General machining, medium cut (● 1st choice, ○ suitable)	●	●	●	●
Unstable machining, heavy cut (● 1st choice, ○ suitable)	○		●	

Dimensions



4 edges

ISO	JP5530	JP8725	JP9535	JU6520
	HF PVD	HF PVD	HF PVD	HF
	Vc(m/min) - suggested cutting speed range (bold: 1st choice)			
P	**90** **200**	**90** **200**		
M	30 85		**50** **130**	
K	**90** **150**			
N				**160** **320**
S				
H				

	Designation		RE	IC	S	D1	LE	JP5530	JP8725	JP9535	JU6520	Stock
GENERAL	GP P M K	SPMX050204-GP	0.4	5	2.38	2.5	4.2	●	●	●		
		SPMX060204-GP	0.4	6	2.38	2.8	5.2	●	●	●		
		SPMX07T308-GP	0.8	7.94	3.97	2.8	6.34	●	●	●		
ALUMINIUM	AL N periphery ground polished surface	SPGX050204-AL	0.4	5	2.38	2.5	4.2				●	
		SPGX060204-AL	0.4	6	2.38	2.8	5.2				●	
		SPGX07T308-AL	0.8	7.94	3.97	2.8	6.34				●	

● stock standard, ○ non-standard stock, ▲ upcoming introduction, ▽ stock exhaustion

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Pilot

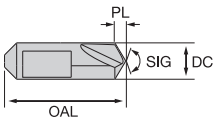
DRS pilot

- TIN coated HSS pilot for DRS PILOT drills
- 1 Pilot is already pre-mounted on DRS Pilot drill body
- Universal use for PMKN materials
- Cannot be mounted on DEX Pilot

Hss: High speed steel
PVD: Physical vapour deposition

		Hss PVD	HSS TIN
Stable machining, light cut	● 1st choice ○ suitable		
General machining, medium cut	● 1st choice ○ suitable	●	
Unstable machining, heavy cut	● 1st choice ○ suitable	●	

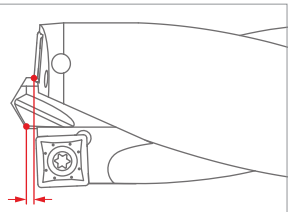
Dimensions



ISO	Vc(m/min) - suggested cutting speed range (bold: 1st choice)	
P	**90** 200	
M	**50** 130	
K	**90** 150	
N	**160** 320	
S		
H		

	Designation	DC	OAL	PL	SIG		Stock	
GENERAL	GP P M K N DRSP06-GP	6	20	1.5	118°		●	
	DRSP08-GP	8	25	2.1	118°		●	

● stock standard, ○ non-standard stock, ▲ upcoming introduction, ▽ stock exhaustion



pilot height

MATERIAL	6xD	9xD
P M K	1.0 mm	1.4 mm
N	1.5 mm	1.7 mm

ISO 513	MATERIAL	HARDNESS HB	L/D	JP5530 min	JP5530 start	JP5530 max	JP8725 min	JP8725 start	JP8725 max
P1 - P2	Free cutting steel and low carbon (ex. 1.0715/9 smn 28/avp, 1.0503/c45)	≤ 200	6XD	100	**150**	200	100	**150**	200
			9XD	90	**130**	170	90	**130**	170
P3 - P4	Medium and high alloy steel (ex. 1.7225/42 CrMo 4, 1.3505/100 Cr 6)	200 ÷ 300	6XD	80	**120**	160	80	**120**	160
			9XD	70	**105**	140	70	**105**	140
P5 - P6	High tensile strength and tool steel (ex. 1.2344/X 40 CrMoV 5 1/ORVAR, Hardox400®)	300 ÷ 400	6XD	65	**95**	125	65	**95**	125
			9XD	55	**85**	115	55	**85**	115
ISO 513	MATERIAL	HARDNESS HB	L/D	JP5530 min	JP5530 start	JP5530 max	JP9535 min	JP9535 start	JP9535 max
P7	Ferritic and martensitic stainless steel (ex. 1.4021/X 20 Cr 13/AISI420)	≤ 200	6XD	40	**80**	120	70	**100**	130
			9XD	30	**60**	90	50	**80**	110
P8	Precipitation hardening stainless steel (ex. 1.4548/X 5 CrNiCuNb 17 4/17-4-PH)	≤ 450	6XD		-		60	**80**	100
			9XD		-		50	**70**	90
M1	Austenitic stainless steel (ex. 1.4305/X 10 CrNiS 18 9/AISI303)	> 200	6XD	35	**60**	85	70	**100**	130
			9XD	30	**50**	70	50	**80**	110
M2 - M3	Austenitic and Duplex stainless steel (ex. 1.4401/X 5 CrNiMo 17 12 2/AISI316)		6XD		-		60	**90**	120
			9XD		-		50	**80**	110
ISO 513	MATERIAL	HARDNESS HB	L/D	JP5530 min	JP5530 start	JP5530 max			
K1	Grey cast iron (ex. 0.6025/GG 25/EN-GJL-250)	150 ÷ 250	6XD	110	**130**	150			
			9XD	90	**110**	130			
K2	Nodular cast iron (ex. 0.7050/GGG 50/EN-GJS-500-7)	150 ÷ 350	6XD	80	**100**	120			
			9XD	70	**90**	110			
ISO 513	MATERIAL	HARDNESS HB	L/D	JU6520 min	JU6520 start	JU6520 max			
N1	Aluminium alloys ≤ Si 12% (ex. 3.4365/AlZn5.5MgCu/ERGAL)		6XD	200	**260**	320			
			9XD	160	**220**	280			
N2	Aluminium alloys Si > 12% (ex. 3.2382/G-AlSi12)		6XD	120	**180**	240			
			9XD	100	**150**	200			

Complete workpiece materials p. **H**1.

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ISO 513	MATERIAL	HARDNESS HB	L/D	DC 18.00 ÷ 19.00			DC 20.00 ÷ 25.00			DC 26.00 ÷ 30.00		
				min	start	max	min	start	max	min	start	max
P1 - P2	Free cutting steel and low carbon (ex. 1.0715/9 smn 28/avp, 1.0503/c45)	≤ 200	6XD	0.04	**0.06**	0.08	0.04	**0.07**	0.10	0.05	**0.08**	0.11
			9XD	0.04	**0.05**	0.06	0.04	**0.06**	0.08	0.05	**0.07**	0.09
P3 - P4	Medium and high alloy steel (ex. 1.7225/42 CrMo 4, 1.3505/100 Cr 6)	200 ÷ 300	6XD	0.06	**0.09**	0.12	0.08	**0.11**	0.14	0.08	**0.12**	0.16
			9XD	0.06	**0.08**	0.10	0.08	**0.10**	0.12	0.08	**0.11**	0.14
P5 - P6	High tensile strength and tool steel (ex. 1.2344/X 40 CrMoV 5 1/ORVAR, Hardox400®)	300 ÷ 400	6XD	0.06	**0.08**	0.10	0.08	**0.10**	0.12	0.08	**0.11**	0.14
			9XD	0.06	**0.07**	0.08	0.08	**0.09**	0.10	0.08	**0.10**	0.12
P7	Ferritic and martensitic stainless steel (ex. 1.4021/X 20 Cr 13/AISI420)	≤ 200	6XD	0.05	**0.08**	0.11	0.05	**0.09**	0.13	0.06	**0.10**	0.14
			9XD	0.05	**0.07**	0.09	0.05	**0.08**	0.11	0.06	**0.09**	0.12
P8	Precipitation hardening stainless steel (ex. 1.4548/X 5 CrNiCuNb 17 4/17-4-PH)	≤ 450	6XD	0.04	**0.07**	0.10	0.04	**0.08**	0.12	0.05	**0.09**	0.13
			9XD	0.04	**0.06**	0.08	0.04	**0.07**	0.10	0.05	**0.08**	0.11
M1	Austenitic stainless steel (ex. 1.4305/X 10 CrNiS 18 9/AISI303)	> 200	6XD	0.05	**0.06**	0.07	0.05	**0.08**	0.11	0.06	**0.09**	0.12
			9XD	0.04	**0.05**	0.06	0.05	**0.07**	0.09	0.06	**0.08**	0.10
M2 - M3	Austenitic and Duplex stainless steel (ex. 1.4401/X 5 CrNiMo 17 12 2/AISI316)		6XD	0.04	**0.06**	0.08	0.04	**0.07**	0.10	0.05	**0.08**	0.11
			9XD	0.03	**0.05**	0.07	0.04	**0.06**	0.08	0.05	**0.07**	0.09
K1	Grey cast iron (ex. 0.6025/GG 25/EN-GJL-250)	150 ÷ 250	6XD	0.08	**0.11**	0.14	0.10	**0.13**	0.16	0.10	**0.15**	0.20
			9XD	0.08	**0.10**	0.12	0.10	**0.12**	0.14	0.10	**0.14**	0.18
K2	Nodular cast iron (ex. 0.7050/GGG 50/EN-GJS-500-7)	150 ÷ 350	6XD	0.07	**0.10**	0.13	0.08	**0.12**	0.16	0.10	**0.14**	0.18
			9XD	0.07	**0.08**	0.11	0.08	**0.11**	0.14	0.10	**0.13**	0.16
N1	Aluminium alloys ≤ Si 12% (ex. 3.4365/AlZn5.5MgCu/ERGAL)		6XD	0.06	**0.10**	0.14	0.08	**0.12**	0.16	0.08	**0.13**	0.18
			9XD	0.06	**0.09**	0.12	0.08	**0.11**	0.14	0.08	**0.12**	0.16
N2	Aluminium alloys Si > 12% (ex. 3.2382/G-AlSi12)		6XD	0.06	**0.09**	0.12	0.08	**0.11**	0.14	0.08	**0.12**	0.16
			9XD	0.06	**0.08**	0.10	0.08	**0.10**	0.12	0.08	**0.11**	0.14

Complete workpiece materials p. **H**1.

(fn: mm/rev)

DEX DRILLS

High productivity indexable drilling system with exchangeable heads

APPLICATION

Plane surface	Concave surface	Convex surface	Stacked plates	Pipes

ISO APPLICATION FIELDS

P M K

ADVANTAGES AND CHARACTERISTICS

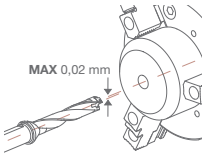
- High reliable quick change indexable drilling system
- Solid drill head with 3D geometry, adapted for high feed rate and provides high efficiency in machining
- Attracting cost efficiency per hole, good replacement for regrind solid carbide drills

Drilling bodies

- Weldon shank with internal coolant
- 3xD and 5xD available from D10 to D26
- Special length (1.5D, 8D and 12D) and stepped body available upon request

Center of arbor deviation must be under 0.02mm.

Milling machine



Keep under 0.02mm the maximum deviation between drill and workpiece.

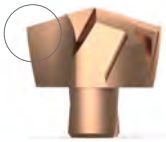
Lathe

Inserts

- Available D10-26, can make special diameters or stepped type
- Cemented carbide grades with PVD coatings
- Geometries: GP, SC, TE, FT (flat)

GP P K

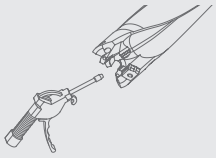
SC P M



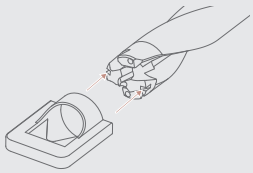
TE K

FT P K

DRILLING HEADS INSTALLATON



Clean pocket with air blast.
Put insert into drill holder.



Set wrench into slots on insert flanks.
Slowly turn the wrench clockwise until stop.

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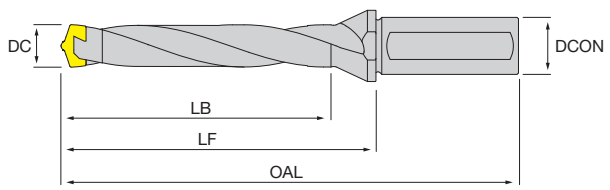
3xD

DEX drill

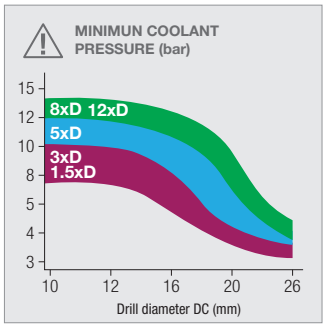
- 3xD indexable drill body for DEX drill head
- All with coolant through
- Different drill heads can fits into the same body, please check MIID column
- Special diameters or stepped type available upon requests

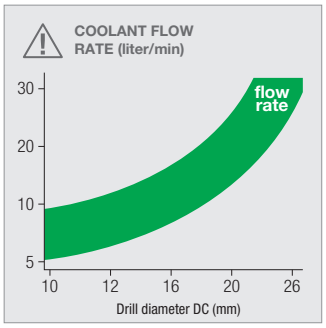


Designation	Stock	DC	DCON	OAL	LF	LB					MIID
NT-DEX-3D D10-S16F	●	10	16	95	47	38					DEX10oo
NT-DEX-3D D11-S16F	●	11	16	98	50	39					DEX11oo
NT-DEX-3D D12-S16F	●	12	16	104	56	44					DEX12oo
NT-DEX-3D D13-S16F	●	13	16	108	60	47					DEX13oo
NT-DEX-3D D14-S16F	●	14	16	112	64	50					DEX14oo
NT-DEX-3D D15-S20F	●	15	20	118	68	53					DEX15oo
NT-DEX-3D D16-S20F	●	16	20	122	72	56					DEX16oo
NT-DEX-3D D17-S20F	●	17	20	126	76	59					DEX17oo
NT-DEX-3D D18-S25F	●	18	25	136	80	62					DEX18oo
NT-DEX-3D D19-S25F	●	19	25	140	84	65					DEX19oo
NT-DEX-3D D20-S25F	●	20	25	144	88	68					DEX20oo
NT-DEX-3D D21-S25F	●	21	25	152	96	75					DEX21oo
NT-DEX-3D D22-S25F	●	22	25	157	101	81					DEX22oo
NT-DEX-3D D23-S32F	●	23	32	165	105	82					DEX23oo
NT-DEX-3D D24-S32F	●	24	32	170	110	86					DEX24oo
NT-DEX-3D D25/26-S32F	●	25	32	175	115	89					DEX25/26oo

● stock standard, ○ non-standard stock, ▲ upcoming introduction, ▽ stock exhaustion

Spare parts	Head wrench
NT-DEX-3D (DC 10÷11)	NT-WR1011
NT-DEX-3D (DC 12÷17)	NT-WR1217
NT-DEX-3D (DC 18÷20)	NT-WR1820
NT-DEX-3D (DC 21÷25)	NT-WR2126



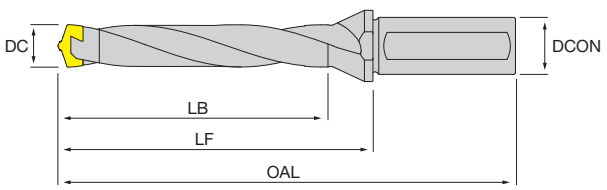


A - TURNING
B - THREADING
C - GROOVING
D - MILLING
E - DRILLING
F - ACCESSORIES
G - SPARE PARTS

5xD

DEX drill

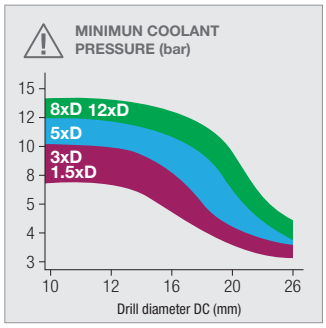
- 5xD indexable drill body for DEX drill head
- All with coolant through
- Different drill heads can fits into the same body, please check MIID column
- Special diameters or stepped type available upon requests

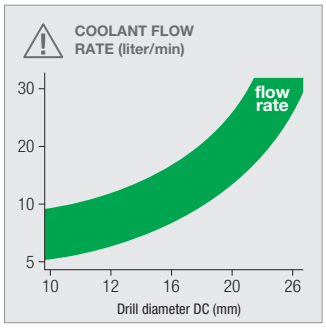


Designation	Stock	DC	DCON	OAL	LF	LB					MIID
NT-DEX-5D D10-S16F	●	10	16	116	68	59					DEX10oo
NT-DEX-5D D11-S16F	●	11	16	121	73	62					DEX11oo
NT-DEX-5D D12-S16F	●	12	16	130	82	70					DEX12oo
NT-DEX-5D D13-S16F	●	13	16	136	88	75					DEX13oo
NT-DEX-5D D14-S16F	●	14	16	142	94	80					DEX14oo
NT-DEX-5D D15-S20F	●	15	20	150	100	85					DEX15oo
NT-DEX-5D D16-S20F	●	16	20	156	106	90					DEX16oo
NT-DEX-5D D17-S20F	●	17	20	162	112	95					DEX17oo
NT-DEX-5D D18-S25F	●	18	25	174	118	100					DEX18oo
NT-DEX-5D D19-S25F	●	19	25	180	124	105					DEX19oo
NT-DEX-5D D20-S25F	●	20	25	186	130	110					DEX20oo
NT-DEX-5D D21-S25F	●	21	25	194	138	117					DEX21oo
NT-DEX-5D D22-S25F	●	22	25	201	145	125					DEX22oo
NT-DEX-5D D23-S32F	●	23	32	211	151	128					DEX23oo
NT-DEX-5D D24-S32F	●	24	32	218	158	134					DEX24oo
NT-DEX-5D D25/26-S32F	●	25	32	225	165	139					DEX25/26oo

● stock standard, ○ non-standard stock, ▲ upcoming introduction, ▽ stock exhaustion

Spare parts	Head wrench
NT-DEX-5D (DC 10÷11)	NT-WR1011
NT-DEX-5D (DC 12÷17)	NT-WR1217
NT-DEX-5D (DC 18÷20)	NT-WR1820
NT-DEX-5D (DC 21÷25)	NT-WR2126





nikkoTOOLS

Heads

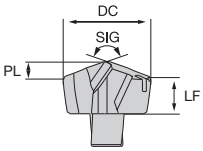
DEX drill

- GP geometry is for general purpose use, SC geometry is more featured for stainless, and TE geometry is more featured for cast iron, FT is for making flat-bottom holes
- Can fit with 3xD or 5xD DEX drill bodies
- Diameters out of catalogue can be made upon request
- Step drill (step on the drill head or with chamfer insert on the drill body) or 1.5/ 8/ 12xD available upon requests

HF: Micrograin carbide
PVD: Physical vapour deposition

		HF PVD	HF PVD
		JP5625	JP5725
Stable machining, light cut	● 1st choice ○ suitable	○	○
General machining, medium cut	● 1st choice ○ suitable	●	●
Unstable machining, heavy cut	● 1st choice ○ suitable		

Dimensions



ISO	JP5625	JP5725
P	55 160	55 160
M		
K	60 140	60 140
N		
S		
H		

Vc(m/min) - suggested cutting speed range (bold: 1st choice)

	Designation		DC	DC toll.	SIG	PL	LF			Stock
GENERAL	GP 10∞ P K	DEX1000-GP	10	k6	140°	1.78	4.42		●	
		DEX1010-GP	10.1	k6	140°	1.8	4.4		○	
		DEX1020-GP	10.2	k6	140°	1.82	4.38		●	
		DEX1030-GP	10.3	k6	140°	1.84	4.36	●	▲	
		DEX1040-GP	10.4	k6	140°	1.86	4.34	●	▲	
		DEX1050-GP	10.5	k6	140°	1.88	4.32		●	
		DEX1060-GP	10.6	k6	140°	1.9	4.3		○	
		DEX1070-GP	10.7	k6	140°	1.92	4.28		○	
		DEX1080-GP	10.8	k6	140°	1.94	4.26		○	
		DEX1090-GP	10.9	k6	140°	1.96	4.24		○	
GENERAL	GP 11∞ P K	DEX1100-GP	11	k6	140°	1.98	4.62	●	▲	
		DEX1110-GP	11.1	k6	140°	2	4.6		○	
		DEX1120-GP	11.2	k6	140°	2.02	4.58		○	
		DEX1130-GP	11.3	k6	140°	2.04	4.56	●	▲	
		DEX1140-GP	11.4	k6	140°	2.06	4.54		○	
		DEX1150-GP	11.5	k6	140°	2.08	4.52	●	▲	
		DEX1160-GP	11.6	k6	140°	2.1	4.5		○	
		DEX1170-GP	11.7	k6	140°	2.12	4.48		○	
		DEX1180-GP	11.8	k6	140°	2.14	4.46		○	
		DEX1190-GP	11.9	k6	140°	2.16	4.44		○	

● stock standard, ○ non-standard stock, ▲ upcoming introduction, ▽ stock exhaustion

GP - Chisel edge

Big size chisel allows high feedrate machining and best centering features.

GP - Outer corner

Small chamfer for very good edge protection in general machining.

GP - Gash geometry

Gashing design allows good chip evacuation and reduce thrust load.

nikkoTOOLS

Heads

DEX drill

- GP geometry is for general purpose use, SC geometry is more featured for stainless, and TE geometry is more featured for cast iron, FT is for making flat-bottom holes
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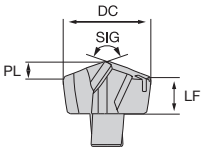
HF: Micrograin carbide
PVD: Physical vapour deposition

		HF PVD	HF PVD
		JP5625	JP5725
Stable machining, light cut	● 1st choice ○ suitable	○	○
General machining, medium cut	● 1st choice ○ suitable	●	●
Unstable machining, heavy cut	● 1st choice ○ suitable		

Dimensions



ISO	JP5625	JP5725
	Vc(m/min) - suggested cutting speed range (bold: 1st choice)	
P	55 160	55 160
M		
K	60 140	60 140
N		
S		
H		

	Designation		DC	DC toll.	SIG	PL	LF			Stock
GENERAL	GP 12oo P K	DEX1200-GP	12	k6	140°	2.18	4.82		●	
		DEX1210-GP	12.1	k6	140°	2.2	4.8	●	▲	
		DEX1220-GP	12.2	k6	140°	2.22	4.78	●	▲	
		DEX1230-GP	12.3	k6	140°	2.24	4.76	●	▲	
		DEX1240-GP	12.4	k6	140°	2.26	4.74	●	▲	
		DEX1250-GP	12.5	k6	140°	2.27	4.73	●	▲	
		DEX1260-GP	12.6	k6	140°	2.29	4.71		●	
		DEX1270-GP	12.7	k6	140°	2.31	4.69	●	▲	
		DEX1280-GP	12.8	k6	140°	2.33	4.67	●	▲	
		DEX1290-GP	12.9	k6	140°	2.35	4.645	●	▲	
GENERAL	GP 13oo P K	DEX1300-GP	13	k6	140°	2.37	5.23		●	
		DEX1310-GP	13.1	k6	140°	2.38	5.22	●	▲	
		DEX1320-GP	13.2	k6	140°	2.4	5.2		●	
		DEX1330-GP	13.3	k6	140°	2.42	5.18	●	▲	
		DEX1340-GP	13.4	k6	140°	2.44	5.16	●	▲	
		DEX1350-GP	13.5	k6	140°	2.46	5.14		●	
		DEX1360-GP	13.6	k6	140°	2.47	5.13	●	▲	
		DEX1370-GP	13.7	k6	140°	2.49	5.11		●	
		DEX1380-GP	13.8	k6	140°	2.51	5.09		●	
		DEX1390-GP	13.9	k6	140°	2.53	5.07	●	▲	

● stock standard, ○ non-standard stock, ▲ upcoming introduction, ▽ stock exhaustion

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GP - Outer corner

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nikkoTOOLS

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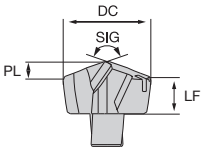
		JP5625	JP5725
Stable machining, light cut	● 1st choice ○ suitable	○	○
General machining, medium cut	● 1st choice ○ suitable	●	●
Unstable machining, heavy cut	● 1st choice ○ suitable		



Dimensions	ISO	JP5625	JP5725	Vc(m/min) - suggested cutting speed range (bold: 1st choice)
	P	55 160	55 160	
	M			
	K	60 140	60 140	
	N			
	S			
	H			

	Designation		DC	DC toll.	SIG	PL	LF			Stock
GENERAL	GP 14oo P K	DEX1400-GP	14	k6	140°	2.55	5.55		●	
		DEX1410-GP	14.1	k6	140°	2.57	5.53		●	
		DEX1420-GP	14.2	k6	140°	2.58	5.52		●	
		DEX1430-GP	14.3	k6	140°	2.6	5.5	●	▲	
		DEX1440-GP	14.4	k6	140°	2.62	5.48		●	
		DEX1450-GP	14.5	k6	140°	2.64	5.46		●	
		DEX1460-GP	14.6	k6	140°	2.66	5.44		●	
		DEX1470-GP	14.7	k6	140°	2.68	5.42	●	▲	
		DEX1480-GP	14.8	k6	140°	2.69	5.41	●	▲	
		DEX1490-GP	14.9	k6	140°	2.71	5.39	●	▲	
GENERAL	GP 15oo P K	DEX1500-GP	15	k6	140°	2.73	5.97		●	
		DEX1505-GP	15.05	k6	140°				○	
		DEX1510-GP	15.1	k6	140°	2.75	5.95		●	
		DEX1520-GP	15.2	k6	140°	2.77	5.93		●	
		DEX1530-GP	15.3	k6	140°	2.78	5.92		●	
		DEX1540-GP	15.4	k6	140°	2.8	5.9	●	▲	
		DEX1550-GP	15.5	k6	140°	2.82	5.88		●	
		DEX1560-GP	15.6	k6	140°	2.84	5.86		●	
		DEX1570-GP	15.7	k6	140°	2.86	5.84	●	▲	
		DEX1580-GP	15.8	k6	140°	2.88	5.82		●	
		DEX1590-GP	15.9	k6	140°	2.89	5.81	●	▲	

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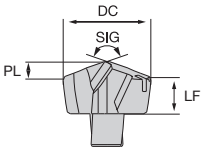
	HF PVD	HF PVD
	JP5625	JP5725
Stable machining, light cut (● 1st choice, ○ suitable)	○	○
General machining, medium cut (● 1st choice, ○ suitable)	●	●
Unstable machining, heavy cut (● 1st choice, ○ suitable)		

Dimensions



ISO	JP5625	JP5725
P	55 160	55 160
M		
K	60 140	60 140
N		
S		
H		

Vc(m/min) - suggested cutting speed range (bold: 1st choice)

	Designation		DC	DC toll.	SIG	PL	LF			Stock
GENERAL	GP 16oo P K	DEX1600-GP	16	k6	140°	2.91	5.89		●	
		DEX1610-GP	16.1	k6	140°	2.93	5.87		●	
		DEX1620-GP	16.2	k6	140°	2.95	5.85	●	▲	
		DEX1630-GP	16.3	k6	140°	2.97	5.83	●	▲	
		DEX1640-GP	16.4	k6	140°	2.98	5.82		●	
		DEX1650-GP	16.5	k6	140°	3	5.8		●	
		DEX1660-GP	16.6	k6	140°	3.02	5.78	●	▲	
		DEX1670-GP	16.7	k6	140°	3.04	5.76	●	▲	
		DEX1680-GP	16.8	k6	140°	3.06	5.74	●	▲	
		DEX1690-GP	16.9	k6	140°	3.08	5.72	●	▲	
GENERAL	GP 17oo P K	DEX1700-GP	17	k6	140°	3.09	6.81		●	
		DEX1710-GP	17.1	k6	140°	3.11	6.79		●	
		DEX1720-GP	17.2	k6	140°	3.13	6.77		●	
		DEX1730-GP	17.3	k6	140°	3.15	6.77	●	▲	
		DEX1740-GP	17.4	k6	140°	3.17	6.75	●	▲	
		DEX1750-GP	17.5	k6	140°	3.18	6.72		●	
		DEX1760-GP	17.6	k6	140°	3.2	6.7		●	
		DEX1770-GP	17.7	k6	140°	3.22	6.68	●	▲	
		DEX1780-GP	17.8	k6	140°	3.24	6.66		●	
		DEX1790-GP	17.9	k6	140°	3.26	6.64	●	▲	

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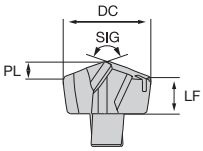
		JP5625	JP5725
Stable machining, light cut	● 1st choice ○ suitable	○	○
General machining, medium cut	● 1st choice ○ suitable	●	●
Unstable machining, heavy cut	● 1st choice ○ suitable		



Dimensions	ISO			Vc(m/min) - suggested cutting speed range (bold: 1st choice)
	P	55 160	55 160	
	M			
	K	60 140	60 140	
	N			
	S			
	H			

	Designation		DC	DC toll.	SIG	PL	LF			Stock
GENERAL	GP 18oo P K	DEX1800-GP	18	k6	140°	3.28	7.22		●	
		DEX1810-GP	18.1	k6	140°	3.29	7.21	●	▲	
		DEX1820-GP	18.2	k6	140°	3.31	7.19	●	▲	
		DEX1830-GP	18.3	k6	140°	3.33	7.17	●	▲	
		DEX1840-GP	18.4	k6	140°	3.35	7.15	●	▲	
		DEX1850-GP	18.5	k6	140°	3.37	7.13		●	
		DEX1860-GP	18.6	k6	140°	3.38	7.12		●	
		DEX1870-GP	18.7	k6	140°	3.4	7.1	●	▲	
		DEX1880-GP	18.8	k6	140°	3.42	7.08	●	▲	
		DEX1890-GP	18.9	k6	140°	3.44	7.06		●	
GENERAL	GP 19oo P K	DEX1900-GP	19	k6	140°	3.46	7.54		●	
		DEX1910-GP	19.1	k6	140°	3.48	7.52	●	▲	
		DEX1920-GP	19.2	k6	140°	3.49	7.51	●	▲	
		DEX1930-GP	19.3	k6	140°	3.51	7.49	●	▲	
		DEX1940-GP	19.4	k6	140°	3.53	7.47	●	▲	
		DEX1950-GP	19.5	k6	140°	3.55	7.45	●	▲	
		DEX1960-GP	19.6	k6	140°	3.57	7.43	●	▲	
		DEX1970-GP	19.7	k6	140°	3.59	7.41	●	▲	
		DEX1980-GP	19.8	k6	140°	3.6	7.4		●	
		DEX1990-GP	19.9	k6	140°	3.62	7.38	●	▲	

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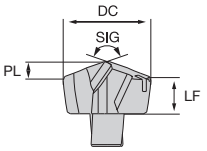
	HF PVD	HF PVD
	JP5625	JP5725
Stable machining, light cut (● 1st choice, ○ suitable)	○	○
General machining, medium cut (● 1st choice, ○ suitable)	●	●
Unstable machining, heavy cut (● 1st choice, ○ suitable)		

Dimensions



ISO	JP5625	JP5725
P	55 160	55 160
M		
K	60 140	60 140
N		
S		
H		

Vc(m/min) - suggested cutting speed range (bold: 1st choice)

	Designation		DC	DC toll.	SIG	PL	LF			Stock
GENERAL	GP 20oo P K	DEX2000-GP	20	k6	140°	3.64	7.96	●	▲	
		DEX2010-GP	20.1	k6	140°	3.66	7.94		●	
		DEX2020-GP	20.2	k6	140°	3.68	7.92	●	▲	
		DEX2030-GP	20.3	k6	140°	3.69	7.91	●	▲	
		DEX2040-GP	20.4	k6	140°	3.71	7.89	●	▲	
		DEX2050-GP	20.5	k6	140°	3.73	7.87		●	
		DEX2060-GP	20.6	k6	140°	3.75	7.85		●	
		DEX2070-GP	20.7	k6	140°	3.77	7.83	●	▲	
		DEX2080-GP	20.8	k6	140°	3.79	7.81	●	▲	
		DEX2090-GP	20.9	k6	140°	3.8	7.8		●	
GENERAL	GP 21oo P K	DEX2100-GP	21	k6	140°	3.82	8.28		●	
		DEX2150-GP	21.5	k6	140°	3.91	8.19		●	
GENERAL	GP 22oo P K	DEX2200-GP	22	k6	140°	4	8.7		●	
		DEX2250-GP	22.5	k6	140°	4.09	8.61		●	
GENERAL	GP 23oo P K	DEX2300-GP	23	k6	140°	4.18	9.12	●	▲	
		DEX2350-GP	23.5	k6	140°	4.28	9.02		●	

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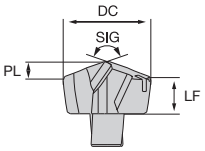
		JP5625	JP5725
Stable machining, light cut	● 1st choice ○ suitable	○	○
General machining, medium cut	● 1st choice ○ suitable	●	●
Unstable machining, heavy cut	● 1st choice ○ suitable		

Dimensions



ISO	JP5625	JP5725
	Vc(m/min) - suggested cutting speed range (bold: 1st choice)	
P	55 160	55 160
M		
K	60 140	60 140
N		
S		
H		

	Designation		DC	DC toll.	SIG	PL	LF	JP5625	JP5725	Stock
GENERAL	GP 24oo P K	DEX2400-GP	24	k6	140°	4.36	9.54	●	▲	
		DEX2450-GP	24.5	k6	140°	4.46	9.44		●	
GENERAL	GP 25oo P K	DEX2500-GP	25	k6	140°	4.55	9.95		●	
		DEX2550-GP	25.5	k6	140°	4.64	9.86	●	▲	
		DEX2600-GP	26	k6	140°	4.73	9.86		●	

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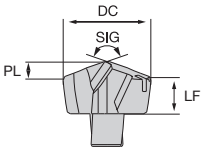
	HF PVD
	JP5630
Stable machining, light cut: ● 1st choice ○ suitable	
General machining, medium cut: ● 1st choice ○ suitable	●
Unstable machining, heavy cut: ● 1st choice ○ suitable	○

Dimensions



ISO	Vc(m/min) - suggested cutting speed range (bold: 1st choice)	
P	55 160	
M	30 80	
K		
N		
S		
H		

	Designation		DC	DC toll.	SIG	PL	LF	Stock	
LOW FORCE	SC 10oo P M	DEX1000-SC	10	k6	140°	1.78	4.42	●	
		DEX1010-SC	10.1	k6	140°	1.8	4.4	○	
		DEX1020-SC	10.2	k6	140°	1.82	4.38	●	
		DEX1030-SC	10.3	k6	140°	1.84	4.36	●	
		DEX1040-SC	10.4	k6	140°	1.86	4.34	●	
		DEX1050-SC	10.5	k6	140°	1.88	4.32	●	
		DEX1060-SC	10.6	k6	140°	1.9	4.3	○	
		DEX1070-SC	10.7	k6	140°	1.92	4.28	○	
		DEX1080-SC	10.8	k6	140°	1.94	4.26	○	
		DEX1090-SC	10.9	k6	140°	1.96	4.24	○	
LOW FORCE	SC 11oo P M	DEX1100-SC	11	k6	140°	1.98	4.62	●	
		DEX1110-SC	11.1	k6	140°	2	4.6	○	
		DEX1120-SC	11.2	k6	140°	2.02	4.58	○	
		DEX1130-SC	11.3	k6	140°	2.04	4.56	●	
		DEX1140-SC	11.4	k6	140°	2.06	4.54	○	
		DEX1150-SC	11.5	k6	140°	2.08	4.52	●	
		DEX1160-SC	11.6	k6	140°	2.1	4.5	○	
		DEX1170-SC	11.7	k6	140°	2.12	4.48	○	
		DEX1180-SC	11.8	k6	140°	2.14	4.46	○	
		DEX1190-SC	11.9	k6	140°	2.16	4.44	○	

● stock standard, ○ non-standard stock, ▲ upcoming introduction, ▽ stock exhaustion

SC - Chisel edge

Small size chisel allows perfect balancing between centering performance and torque level.

SC - Outer corner

Sharp edge for better cutting action and no burr formation on sticky materials.

SC - Gash geometry

Flutes and gash design ensure fast chip evacuation and low cutting force on diffi cult to cut materials.

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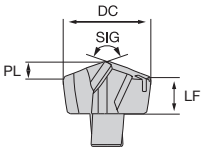
	HF PVD
	JP5630
Stable machining, light cut	● 1st choice ○ suitable
General machining, medium cut	● 1st choice ○ suitable
Unstable machining, heavy cut	● 1st choice ○ suitable

Dimensions



ISO	Vc(m/min) - suggested cutting speed range (bold: 1st choice)
P	55 160
M	30 80
K	
N	
S	
H	

	Designation		DC	DC toll.	SIG	PL	LF	Stock
LOW FORCE	SC 12oo P M	DEX1200-SC	12	k6	140°	2.18	4.82	●
		DEX1210-SC	12.1	k6	140°	2.2	4.8	●
		DEX1220-SC	12.2	k6	140°	2.22	4.78	●
		DEX1230-SC	12.3	k6	140°	2.24	4.76	●
		DEX1240-SC	12.4	k6	140°	2.26	4.74	○
		DEX1250-SC	12.5	k6	140°	2.27	4.73	●
		DEX1260-SC	12.6	k6	140°	2.29	4.71	●
		DEX1270-SC	12.7	k6	140°	2.31	4.69	○
		DEX1280-SC	12.8	k6	140°	2.33	4.67	○
		DEX1290-SC	12.9	k6	140°	2.35	4.645	○
LOW FORCE	SC 13oo P M	DEX1300-SC	13	k6	140°	2.37	5.23	●
		DEX1310-SC	13.1	k6	140°	2.38	5.22	●
		DEX1320-SC	13.2	k6	140°	2.4	5.2	○
		DEX1330-SC	13.3	k6	140°	2.42	5.18	○
		DEX1340-SC	13.4	k6	140°	2.44	5.16	○
		DEX1350-SC	13.5	k6	140°	2.46	5.14	●
		DEX1360-SC	13.6	k6	140°	2.47	5.13	○
		DEX1370-SC	13.7	k6	140°	2.49	5.11	○
		DEX1380-SC	13.8	k6	140°	2.51	5.09	○
		DEX1390-SC	13.9	k6	140°	2.53	5.07	●

● stock standard, ○ non-standard stock, ▲ upcoming introduction, ▽ stock exhaustion

SC - Chisel edge

Small size chisel allows perfect balancing between centering performance and torque level.

SC - Outer corner

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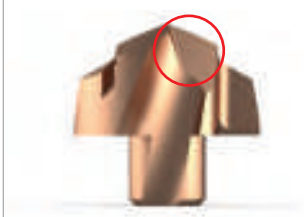
SC - Gash geometry



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nikkoTOOLS

Heads

DEX drill

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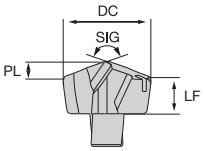
PVD: Physical vapour deposition

	HF PVD
	JP5630
Stable machining, light cut	● 1st choice ○ suitable
General machining, medium cut	● 1st choice ○ suitable
Unstable machining, heavy cut	● 1st choice ○ suitable

Dimensions



ISO	Vc(m/min) - suggested cutting speed range (bold: 1st choice)
P	55 160
M	30 80
K	
N	
S	
H	

	Designation		DC	DC toll.	SIG	PL	LF	Stock
LOW FORCE	SC 14oo P M	DEX1400-SC	14	k6	140°	2.55	5.55	●
		DEX1410-SC	14.1	k6	140°	2.57	5.53	●
		DEX1420-SC	14.2	k6	140°	2.58	5.52	●
		DEX1430-SC	14.3	k6	140°	2.6	5.5	○
		DEX1440-SC	14.4	k6	140°	2.62	5.48	○
		DEX1450-SC	14.5	k6	140°	2.64	5.46	●
		DEX1460-SC	14.6	k6	140°	2.66	5.44	●
		DEX1470-SC	14.7	k6	140°	2.68	5.42	○
		DEX1480-SC	14.8	k6	140°	2.69	5.41	●
		DEX1490-SC	14.9	k6	140°	2.71	5.39	○
LOW FORCE	SC 15oo P M	DEX1500-SC	15	k6	140°	2.73	5.97	●
		DEX1510-SC	15.1	k6	140°	2.75	5.95	●
		DEX1520-SC	15.2	k6	140°	2.77	5.93	●
		DEX1530-SC	15.3	k6	140°	2.78	5.92	●
		DEX1540-SC	15.4	k6	140°	2.8	5.9	○
		DEX1550-SC	15.5	k6	140°	2.82	5.88	●
		DEX1560-SC	15.6	k6	140°	2.84	5.86	○
		DEX1570-SC	15.7	k6	140°	2.86	5.84	○
		DEX1580-SC	15.8	k6	140°	2.88	5.82	○
		DEX1590-SC	15.9	k6	140°	2.89	5.81	○

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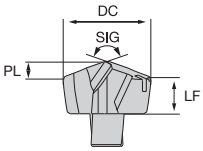
	HF PVD
	JP5630
Stable machining, light cut	● 1st choice ○ suitable
General machining, medium cut	● 1st choice ○ suitable
Unstable machining, heavy cut	● 1st choice ○ suitable

Dimensions



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P	55 160
M	30 80
K	
N	
S	
H	

	Designation		DC	DC toll.	SIG	PL	LF	Stock
LOW FORCE	SC 16oo P M	DEX1600-SC	16	k6	140°	2.91	5.89	●
		DEX1610-SC	16.1	k6	140°	2.93	5.87	○
		DEX1620-SC	16.2	k6	140°	2.95	5.85	●
		DEX1630-SC	16.3	k6	140°	2.97	5.83	●
		DEX1640-SC	16.4	k6	140°	2.98	5.82	○
		DEX1650-SC	16.5	k6	140°	3	5.8	●
		DEX1660-SC	16.6	k6	140°	3.02	5.78	●
		DEX1670-SC	16.7	k6	140°	3.04	5.76	○
		DEX1680-SC	16.8	k6	140°	3.06	5.74	○
		DEX1690-SC	16.9	k6	140°	3.08	5.72	○
LOW FORCE	SC 17oo P M	DEX1700-SC	17	k6	140°	3.09	6.81	●
		DEX1710-SC	17.1	k6	140°	3.11	6.79	●
		DEX1720-SC	17.2	k6	140°	3.13	6.77	○
		DEX1730-SC	17.3	k6	140°	3.15	6.75	○
		DEX1740-SC	17.4	k6	140°	3.17	6.73	○
		DEX1750-SC	17.5	k6	140°	3.18	6.72	●
		DEX1760-SC	17.6	k6	140°	3.2	6.7	○
		DEX1770-SC	17.7	k6	140°	3.22	6.68	●
		DEX1780-SC	17.8	k6	140°	3.24	6.66	●
		DEX1790-SC	17.9	k6	140°	3.26	6.64	○

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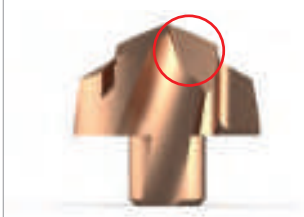

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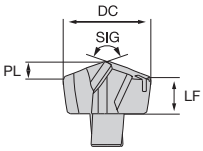
Stable machining, light cut: ● 1st choice ○ suitable	
General machining, medium cut: ● 1st choice ○ suitable	●
Unstable machining, heavy cut: ● 1st choice ○ suitable	○

Dimensions



ISO	Vc(m/min) - suggested cutting speed range (bold: 1st choice)
P	55 160
M	30 80
K	
N	
S	
H	

	Designation		DC	DC toll.	SIG	PL	LF	Stock
LOW FORCE	SC 18oo P M	DEX1800-SC	18	k6	140°	3.28	7.22	●
		DEX1810-SC	18.1	k6	140°	3.29	7.21	●
		DEX1820-SC	18.2	k6	140°	3.31	7.19	○
		DEX1830-SC	18.3	k6	140°	3.33	7.17	●
		DEX1840-SC	18.4	k6	140°	3.35	7.15	○
		DEX1850-SC	18.5	k6	140°	3.37	7.13	●
		DEX1860-SC	18.6	k6	140°	3.38	7.12	○
		DEX1870-SC	18.7	k6	140°	3.4	7.1	○
		DEX1880-SC	18.8	k6	140°	3.42	7.08	○
		DEX1890-SC	18.9	k6	140°	3.44	7.06	○
LOW FORCE	SC 19oo P M	DEX1900-SC	19	k6	140°	3.46	7.54	●
		DEX1910-SC	19.1	k6	140°	3.48	7.52	○
		DEX1920-SC	19.2	k6	140°	3.49	7.51	●
		DEX1930-SC	19.3	k6	140°	3.51	7.49	●
		DEX1940-SC	19.4	k6	140°	3.53	7.47	○
		DEX1950-SC	19.5	k6	140°	3.55	7.45	●
		DEX1960-SC	19.6	k6	140°	3.57	7.43	○
		DEX1970-SC	19.7	k6	140°	3.59	7.41	●
		DEX1980-SC	19.8	k6	140°	3.6	7.4	○
		DEX1990-SC	19.9	k6	140°	3.62	7.38	●

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nikkoTOOLS

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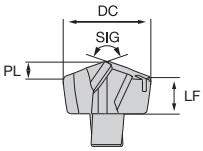
	HF PVD	JP5630
Stable machining, light cut (● 1st choice, ○ suitable)		
General machining, medium cut (● 1st choice, ○ suitable)	●	
Unstable machining, heavy cut (● 1st choice, ○ suitable)	○	

Dimensions



ISO	Vc(m/min) - suggested cutting speed range (bold: 1st choice)	
P	55 160	
M	30 80	
K		
N		
S		
H		

	Designation		DC	DC toll.	SIG	PL	LF	Stock	
LOW FORCE	SC 20oo P M	DEX2000-SC	20	k6	140°	3.64	7.96	●	
		DEX2010-SC	20.1	k6	140°	3.66	7.94	○	
		DEX2020-SC	20.2	k6	140°	3.68	7.92	○	
		DEX2030-SC	20.3	k6	140°	3.69	7.91	○	
		DEX2040-SC	20.4	k6	140°	3.71	7.89	○	
		DEX2050-SC	20.5	k6	140°	3.73	7.87	●	
		DEX2060-SC	20.6	k6	140°	3.75	7.85	○	
		DEX2070-SC	20.7	k6	140°	3.77	7.83	○	
		DEX2080-SC	20.8	k6	140°	3.79	7.81	○	
		DEX2090-SC	20.9	k6	140°	3.8	7.8	○	
LOW FORCE	SC 21oo P M	DEX2100-SC	21	k6	140°	3.82	8.28	●	
		DEX2150-SC	21.5	k6	140°	3.91	8.19	●	
LOW FORCE	SC 22oo P M	DEX2200-SC	22	k6	140°	4	8.7	●	
		DEX2230-SC	22.3	k6	140°			○	
		DEX2250-SC	22.5	k6	140°	4.09	8.61	●	
LOW FORCE	SC 23oo P M	DEX2300-SC	23	k6	140°	4.18	9.12	●	
		DEX2350-SC	23.5	k6	140°	4.28	9.02	●	

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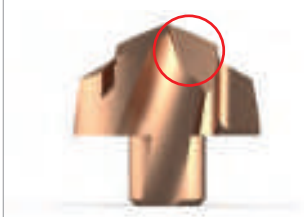

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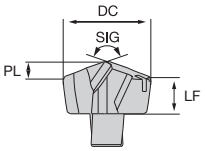
	HF PVD	JP5630
Stable machining, light cut	1st choice / suitable	
General machining, medium cut	1st choice / suitable	1st choice
Unstable machining, heavy cut	1st choice / suitable	suitable



Dimensions	ISO	Vc(m/min) - suggested cutting speed range (bold: 1st choice)
	P	55 160
	M	30 80
	K	
	N	
	S	
	H	

	Designation		DC	DC toll.	SIG	PL	LF		Stock
LOW FORCE	SC 24oo P M	DEX2400-SC	24	k6	140°	4.36	9.54	●	
		DEX2450-SC	24.5	k6	140°	4.46	9.44	●	
LOW FORCE	SC 25oo P M	DEX2500-SC	25	k6	140°	4.55	9.95	●	
		DEX2550-SC	25.5	k6	140°	4.64	9.86	●	
		DEX2600-SC	26	k6	140°	4.73	9.86	●	

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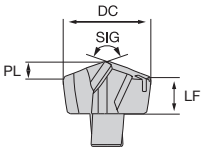
	JP7625
Stable machining, light cut	● 1st choice ○ suitable
General machining, medium cut	● 1st choice ○ suitable
Unstable machining, heavy cut	● 1st choice ○ suitable

Dimensions



ISO	JP7625	Vc(m/min) - suggested cutting speed range (bold: 1st choice)
P		
M		
K	70 160	
N		
S		
H		

	Designation		DC	DC toll.	SIG	PL	LF	Stock	
REINFORCED	TE 10oo K	DEX1000-TE	10	k6	140°	1.78	4.42	●	
		DEX1020-TE	10.2	k6	140°	1.82	4.38	●	
		DEX1030-TE	10.3	k6	140°	1.84	4.36	●	
		DEX1050-TE	10.5	k6	140°	1.88	4.32	●	
REINFORCED	TE 11oo K	DEX1100-TE	11	k6	140°	1.98	4.62	●	
		DEX1150-TE	11.5	k6	140°	2.08	4.52	●	
REINFORCED	TE 12oo K	DEX1200-TE	12	k6	140°	2.18	4.82	●	
		DEX1250-TE	12.5	k6	140°	2.27	4.73	●	
REINFORCED	TE 13oo K	DEX1300-TE	13	k6	140°	2.37	5.23	●	
		DEX1350-TE	13.5	k6	140°	2.46	5.14	●	
REINFORCED	TE 14oo K	DEX1400-TE	14	k6	140°	2.55	5.55	●	
		DEX1450-TE	14.5	k6	140°	2.64	5.46	●	

● stock standard, ○ non-standard stock, ▲ upcoming introduction, ▽ stock exhaustion

TE - Chisel edge

Big size chisel allows high feedrate machining and best centering features.

TE - Outer corner

Big negative chamfer for higher performance on cast iron machining.

TE - Gash geometry

Gashing design allows good chip evacuation and reduce thrust load.

nikkoTOOLS

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Stable machining, light cut	● 1st choice ○ suitable
General machining, medium cut	● 1st choice ○ suitable
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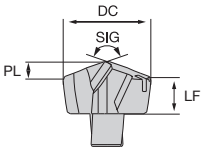
Dimensions



ISO	Vc(m/min) - suggested cutting speed range (bold: 1st choice)
P	
M	
K	70 160
N	
S	
H	

	Designation		DC	DC toll.	SIG	PL	LF	Stock
REINFORCED	TE 15oo K	DEX1500-TE	15	k6	140°	2.73	5.97	●
		DEX1550-TE	15.5	k6	140°	2.82	5.88	●
		DEX1580-TE	15.8	k6	140°	2.88	5.82	○
REINFORCED	TE 16oo K	DEX1600-TE	16	k6	140°	2.91	5.89	●
		DEX1650-TE	16.5	k6	140°	3	5.8	●
REINFORCED	TE 17oo K	DEX1700-TE	17	k6	140°	3.09	6.81	●
		DEX1750-TE	17.5	k6	140°	3.18	6.72	●
REINFORCED	TE 18oo K	DEX1800-TE	18	k6	140°	3.28	7.22	●
		DEX1850-TE	18.5	k6	140°	3.37	7.13	●
REINFORCED	TE 19oo K	DEX1900-TE	19	k6	140°	3.46	7.54	●
		DEX1950-TE	19.5	k6	140°	3.55	7.45	●

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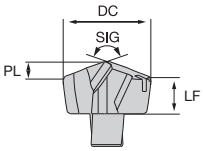
General machining, medium cut	● 1st choice ○ suitable
Unstable machining, heavy cut	● 1st choice ○ suitable

Dimensions



ISO	Vc(m/min) - suggested cutting speed range (bold: 1st choice)
P	
M	
K	70 160
N	
S	
H	

	Designation		DC	DC toll.	SIG	PL	LF	Stock	
REINFORCED	TE 20oo K	DEX2000-TE	20	k6	140°	3.64	7.96	●	
		DEX2050-TE	20.5	k6	140°	3.73	7.87	●	
		DEX2070-TE	20.7	k6	140°	3.77	7.83	○	
REINFORCED	TE 21oo K	DEX2100-TE	21	k6	140°	3.82	8.28	●	
		DEX2150-TE	21.5	k6	140°	3.91	8.19	●	
REINFORCED	TE 22oo K	DEX2200-TE	22	k6	140°	4	8.7	●	
		DEX2250-TE	22.5	k6	140°	4.09	8.61	●	
REINFORCED	TE 23oo K	DEX2300-TE	23	k6	140°	4.18	9.12	●	
		DEX2350-TE	23.5	k6	140°	4.28	9.02	●	
REINFORCED	TE 24oo K	DEX2400-TE	24	k6	140°	4.36	9.54	●	
		DEX2450-TE	24.5	k6	140°	4.46	9.44	●	

● stock standard, ○ non-standard stock, ▲ upcoming introduction, ▽ stock exhaustion

TE - Chisel edge

Big size chisel allows high feedrate machining and best centering features.

TE - Outer corner

Big negative chamfer for higher performance on cast iron machining.

TE - Gash geometry

Gashing design allows good chip evacuation and reduce thrust load.

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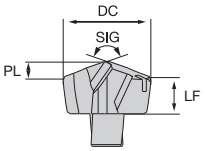
Heads

DEX drill

- GP geometry is for general purpose use, SC geometry is more featured for stainless, and TE geometry is more featured for cast iron, FT is for making flat-bottom holes
- Can fit with 3xD or 5xD DEX drill bodies
- Diameters out of catalogue can be made upon request
- Step drill (step on the drill head or with chamfer insert on the drill body) or 1.5/ 8/ 12xD available upon requests

HF: Micrograin carbide
PVD: Physical vapour deposition

	HF PVD
	JP7625
Stable machining, light cut (1st choice / suitable)	
General machining, medium cut (1st choice / suitable)	●
Unstable machining, heavy cut (1st choice / suitable)	



Dimensions	ISO	Vc(m/min) - suggested cutting speed range (bold: 1st choice)
	P	
	M	
	K	70 160
	N	
	S	
	H	

	Designation	DC	DC toll.	SIG	PL	LF	Stock
REINFORCED TE 25oo K	DEX2500-TE	25	k6	140°	4.55	9.95	●
	DEX2550-TE	25.5	k6	140°	4.64	9.86	●
	DEX2600-TE	26	k6	140°	4.73	9.86	●

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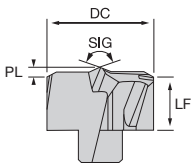
- Diameters out of catalogue can be made upon request
- Step drill (step on the drill head or with chamfer insert on the drill body) or 1.5/ 8/ 12xD available upon requests

HF: Micrograin carbide
PVD: Physical vapour deposition

		HF PVD	HF PVD
		JP5625	JP5725
Stable machining, light cut	● 1st choice ○ suitable	○	○
General machining, medium cut	● 1st choice ○ suitable	●	●
Unstable machining, heavy cut	● 1st choice ○ suitable		

Dimensions



ISO	JP5625	JP5725
P	55 160	55 160
M		
K	60 140	60 140
N		
S		
H		

Vc(m/min) - suggested cutting speed range (bold: 1st choice)

	Designation		DC	DC toll.	SIG	PL	LF			Stock
FLAT TYPE	FT 10oo P K	DEX1000-FT	10	k6	140°	1.78	4.42		○	
		DEX1050-FT	10.5	k6	140°	1.88	4.32		○	
FLAT TYPE	FT 11oo P K	DEX1100-FT	11	k6	140°	1.98	4.62		○	
		DEX1150-FT	11.5	k6	140°	2.08	4.52		○	
FLAT TYPE	FT 12oo P K	DEX1200-FT	12	k6	140°	2.18	4.82		○	
		DEX1250-FT	12.5	k6	140°	2.27	4.73		○	
FLAT TYPE	FT 13oo P K	DEX1300-FT	13	k6	140°	2.37	5.23		○	
		DEX1350-FT	13.5	k6	140°	2.46	5.14	●	▲	
FLAT TYPE	FT 14oo P K	DEX1400-FT	14	k6	140°	2.55	5.55		○	
		DEX1450-FT	14.5	k6	140°	2.64	5.46		○	

● stock standard, ○ non-standard stock, ▲ upcoming introduction, ▽ stock exhaustion

CUTTING CONDITIONS

Please reduce cutting speed and feed rate by 20% when using flat type drilling heads.

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Heads

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HF: Micrograin carbide
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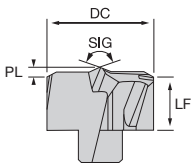
		HF PVD	HF PVD
		JP5625	JP5725
Stable machining, light cut	● 1st choice ○ suitable	○	○
General machining, medium cut	● 1st choice ○ suitable	●	●
Unstable machining, heavy cut	● 1st choice ○ suitable		

Dimensions



ISO	JP5625	JP5725
P	55 160	55 160
M		
K	60 140	60 140
N		
S		
H		

Vc(m/min) - suggested cutting speed range (bold: 1st choice)

	Designation		DC	DC toll.	SIG	PL	LF			Stock
FLAT TYPE	FT 15oo P K	DEX1500-FT	15	k6	140°	2.73	5.97		○	
		DEX1550-FT	15.5	k6	140°	2.82	5.88		○	
FLAT TYPE	FT 16oo P K	DEX1600-FT	16	k6	140°	2.91	5.89		○	
		DEX1650-FT	16.5	k6	140°	3	5.8		○	
FLAT TYPE	FT 17oo P K	DEX1700-FT	17	k6	140°	3.09	6.81		○	
		DEX1750-FT	17.5	k6	140°	3.18	6.72		○	
FLAT TYPE	FT 18oo P K	DEX1800-FT	18	k6	140°	3.28	7.22	●	▲	
		DEX1850-FT	18.5	k6	140°	3.37	7.13		○	
FLAT TYPE	FT 19oo P K	DEX1900-FT	19	k6	140°	3.46	7.54	●	▲	
		DEX1950-FT	19.5	k6	140°	3.55	7.45		○	

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CUTTING CONDITIONS

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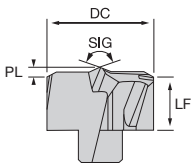
		HF PVD	HF PVD
		JP5625	JP5725
Stable machining, light cut	● 1st choice ○ suitable	○	○
General machining, medium cut	● 1st choice ○ suitable	●	●
Unstable machining, heavy cut	● 1st choice ○ suitable		

Dimensions



ISO	JP5625	JP5725
P	55 160	55 160
M		
K	60 140	60 140
N		
S		
H		

Vc(m/min) - suggested cutting speed range (bold: 1st choice)

	Designation		DC	DC toll.	SIG	PL	LF	Stock	
FLAT TYPE	FT 20oo P K	DEX2000-FT	20	k6	140°	3.64	7.96	●	▲
		DEX2050-FT	20.5	k6	140°	3.73	7.87		○
FLAT TYPE	FT 21oo P K	DEX2100-FT	21	k6	140°	3.82	8.28	●	▲
		DEX2150-FT	21.5	k6	140°	3.91	8.19		○
FLAT TYPE	FT 22oo P K	DEX2200-FT	22	k6	140°	4	8.7	●	▲
		DEX2250-FT	22.5	k6	140°	4.09	8.61		○
FLAT TYPE	FT 23oo P K	DEX2300-FT	23	k6	140°	4.18	9.12		●
		DEX2350-FT	23.5	k6	140°	4.28	9.02		○
FLAT TYPE	FT 24oo P K	DEX2400-FT	24	k6	140°	4.36	9.54	●	▲
		DEX2450-FT	24.5	k6	140°	4.46	9.44		○

● stock standard, ○ non-standard stock, ▲ upcoming introduction, ▽ stock exhaustion

CUTTING CONDITIONS

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Heads

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- Diameters out of catalogue can be made upon request
- Step drill (step on the drill head or with chamfer insert on the drill body) or 1.5/ 8/ 12xD available upon requests

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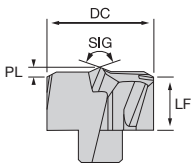
PVD: Physical vapour deposition

		HF PVD	HF PVD
		JP5625	JP5725
Stable machining, light cut	● 1st choice ○ suitable	○	○
General machining, medium cut	● 1st choice ○ suitable	●	●
Unstable machining, heavy cut	● 1st choice ○ suitable		

Dimensions



ISO	JP5625	JP5725
P	55 160	55 160
M		
K	60 140	60 140
N		
S		
H		

Vc(m/min) - suggested cutting speed range (bold: 1st choice)

	Designation	DC	DC toll.	SIG	PL	LF			Stock
FLAT TYPE	FT 25oo P K								
	DEX2500-FT	25	k6	140°	4.55	9.95	●	▲	
	DEX2550-FT	25.5	k6	140°	4.64	9.86		○	
	DEX2600-FT	26	k6	140°	4.73	9.86	●	▲	

● stock standard, ○ non-standard stock, ▲ upcoming introduction, ▽ stock exhaustion

CUTTING CONDITIONS

Please reduce cutting speed and feed rate by 20% when using flat type drilling heads.

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ISO 513	MATERIAL	HARDNESS HB	L/D	JP5630 min	JP5630 start	JP5630 max	JP5725 min	JP5725 start	JP5725 max
P1 - P2	Free cutting steel and low carbon (ex. 1.0715/9 smn 28/avp, 1.0503/c45)	≤ 200	3xD - 5xD	80	**120**	160	80	**120**	160
			8xD	65	**100**	135	65	**100**	135
			12xD	55	**85**	115	55	**85**	115
P3 - P4	Medium and high alloy steel (ex. 1.7225/42 CrMo 4, 1.3505/100 Cr 6)	200 ÷ 300	3xD - 5xD		-		60	**90**	120
			8xD		-		50	**75**	100
			12xD		-		40	**60**	80
P5 - P6	High tensile strength and tool steel (ex. 1.2344/X 40 CrMoV 5 1/ORVAR, Hardox400®)	300 ÷ 400	3xD - 5xD		-		40	**60**	80
			8xD		-		35	**50**	65
			12xD		-		30	**40**	50
ISO 513	MATERIAL	HARDNESS HB	L/D	JP5630 min	JP5630 start	JP5630 max			
P7	Ferritic and martensitic stainless steel (ex. 1.4021/X 20 Cr 13/AISI420)	≤ 200	3xD - 5xD	60	**80**	100			
			8xD	50	**65**	80			
			12xD	40	**55**	70			
P8	Precipitation hardening stainless steel (ex. 1.4548/X 5 CrNiCuNb 17 4/17-4-PH)	≤ 450	3xD - 5xD	30	**40**	50			
			8xD	25	**35**	45			
			12xD	25	**30**	35			
M1	Austenitic stainless steel (ex. 1.4305/X 10 CrNiS 18 9/AISI303)	> 200	3xD - 5xD	40	**60**	80			
			8xD	35	**50**	65			
			12xD	30	**40**	50			
M2 - M3	Austenitic and Duplex stainless steel (ex. 1.4401/X 5 CrNiMo 17 12 2/AISI316)		3xD - 5xD	30	**50**	70			
			8xD	25	**40**	55			
			12XD	20	**35**	50			
ISO 513	MATERIAL	HARDNESS HB	L/D	JP5725 min	JP5725 start	JP5725 max	JP7625 min	JP7625 start	JP7625 max
K1	Grey cast iron (ex. 0.6025/GG 25/EN-GJL-250)	150 ÷ 250	3xD - 5xD	80	**110**	140	100	**130**	160
			8xD	70	**90**	110	80	**100**	120
			12xD	60	**80**	100	70	**90**	110
K2	Nodular cast iron (ex. 0.7050/GGG 50/EN-GJS-500-7)	150 ÷ 350	3xD - 5xD	80	**100**	120	100	**120**	140
			8xD	70	**90**	110	80	**100**	120
			12xD	60	**80**	100	70	**90**	110

Complete workpiece materials p. **H**1.

ISO 513	MATERIAL	HARDNESS HB	L/D	DC 10.00 ÷ 10.99			DC 11.00 ÷ 11.99			DC 12.00 ÷ 12.99		
				min	start	max	min	start	max	min	start	max
P1 - P2	Free cutting steel and low carbon (ex. 1.0715/9 smn 28/avp, 1.0503/c45)	≤ 200	3xD - 5xD	0.10	**0.16**	0.22	0.10	**0.17**	0.24	0.12	**0.19**	0.26
			8xD	0.08	**0.13**	0.18	0.08	**0.14**	0.20	0.10	**0.15**	0.20
			12xD		-			-		0.08	**0.13**	0.18
P3 - P4	Medium and high alloy steel (ex. 1.7225/42 CrMo 4, 1.3505/100 Cr 6)	200 ÷ 300	3xD - 5xD	0.12	**0.19**	0.26	0.12	**0.20**	0.28	0.14	**0.22**	0.30
			8xD	0.10	**0.15**	0.20	0.10	**0.16**	0.22	0.11	**0.17**	0.23
			12xD		-			-		0.10	**0.15**	0.20
P5 - P6	High tensile strength and tool steel (ex. 1.2344/X 40 CrMoV 5 1/ORVAR, Hardox400®)	300 ÷ 400	3xD - 5xD	0.12	**0.18**	0.24	0.12	**0.19**	0.26	0.14	**0.21**	0.28
			8xD	0.10	**0.14**	0.18	0.10	**0.15**	0.20	0.11	**0.16**	0.21
			12xD		-			-		0.10	**0.14**	0.18
P7	Ferritic and martensitic stainless steel (ex. 1.4021/X 20 Cr 13/AISI420)	≤ 200	3xD - 5xD	0.11	**0.15**	0.19	0.11	**0.16**	0.21	0.13	**0.18**	0.23
			8xD	0.09	**0.14**	0.15	0.09	**0.13**	0.17	0.11	**0.15**	0.19
			12xD		-			-		0.09	**0.12**	0.15
P8	Precipitation hardening stainless steel (ex. 1.4548/X 5 CrNiCuNb 17 4/17-4-PH)	≤ 450	3xD - 5xD	0.09	**0.14**	0.19	0.09	**0.15**	0.21	0.11	**0.16**	0.21
			8xD	0.07	**0.11**	0.15	0.07	**0.12**	0.17	0.09	**0.13**	0.17
			12xD		-			-		0.08	**0.11**	0.14
M1	Austenitic stainless steel (ex. 1.4305/X 10 CrNiS 18 9/AISI303)	> 200	3xD - 5xD	0.10	**0.14**	0.18	0.10	**0.15**	0.20	0.12	**0.16**	0.20
			8xD	0.08	**0.11**	0.14	0.08	**0.12**	0.16	0.10	**0.13**	0.16
			12xD		-			-		0.08	**0.11**	0.14
M2 - M3	Austenitic and Duplex stainless steel (ex. 1.4401/X 5 CrNiMo 17 12 2/AISI316)		3xD - 5xD	0.10	**0.13**	0.16	0.10	**0.14**	0.18	0.12	**0.15**	0.18
			8xD	0.08	**0.10**	0.12	0.08	**0.11**	0.14	0.10	**0.12**	0.14
			12xD		-			-		0.08	**0.10**	0.12
K1	Grey cast iron (ex. 0.6025/GG 25/EN-GJL-250)	150 ÷ 250	3xD - 5xD	0.14	**0.22**	0.30	0.14	**0.24**	0.34	0.16	**0.26**	0.36
			8xD	0.11	**0.18**	0.25	0.11	**0.19**	0.27	0.12	**0.20**	0.28
			12xD		-			-		0.11	**0.18**	0.25
K2	Nodular cast iron (ex. 0.7050/GGG 50/EN-GJS-500-7)	150 ÷ 350	3xD - 5xD	0.12	**0.18**	0.24	0.12	**0.20**	0.28	0.13	**0.21**	0.29
			8xD	0.10	**0.15**	0.20	0.10	**0.16**	0.22	0.11	**0.17**	0.23
			12xD		-			-		0.09	**0.14**	0.19

Complete workpiece materials p. **H**1.

(fn: mm/rev)

DC 13.00 ÷ 13.99			DC 14.00 ÷ 14.99			DC 15.00 ÷ 16.99			DC 17.00 ÷ 19.99			DC 20.00 ÷ 22.99			DC 23.00 ÷ 26.00		
min	start	max	min	start	max	min	start	max	min	start	max	min	start	max	min	start	max
0.12	**0.20**	0.28	0.16	**0.23**	0.30	0.16	**0.25**	0.34	0.16	**0.29**	0.42	0.20	**0.32**	0.44	0.20	**0.34**	0.48
0.10	**0.16**	0.22	0.12	**0.18**	0.24	0.12	**0.20**	0.28	0.12	**0.23**	0.34	0.16	**0.26**	0.36	0.16	**0.27**	0.38
0.08	**0.14**	0.20	0.11	**0.16**	0.21	0.11	**0.17**	0.23	0.11	**0.20**	0.29	0.14	**0.22**	0.30	0.14	**0.24**	0.34
0.14	**0.23**	0.32	0.18	**0.26**	0.34	0.18	**0.29**	0.40	0.18	**0.33**	0.48	0.24	**0.37**	0.50	0.24	**0.40**	0.56
0.11	**0.18**	0.25	0.14	**0.20**	0.26	0.14	**0.23**	0.32	0.14	**0.26**	0.38	0.20	**0.30**	0.40	0.20	**0.32**	0.44
0.10	**0.16**	0.22	0.13	**0.18**	0.23	0.13	**0.20**	0.27	0.13	**0.23**	0.33	0.17	**0.26**	0.35	0.17	**0.28**	0.39
0.14	**0.22**	0.30	0.18	**0.25**	0.32	0.18	**0.28**	0.38	0.18	**0.32**	0.46	0.24	**0.36**	0.48	0.24	**0.38**	0.52
0.11	**0.17**	0.23	0.14	**0.20**	0.26	0.14	**0.22**	0.30	0.14	**0.25**	0.36	0.20	**0.29**	0.38	0.20	**0.31**	0.42
0.10	**0.15**	0.20	0.13	**0.17**	0.21	0.13	**0.20**	0.27	0.13	**0.23**	0.33	0.17	**0.25**	0.33	0.17	**0.27**	0.37
0.13	**0.19**	0.25	0.17	**0.22**	0.27	0.17	**0.24**	0.31	0.17	**0.27**	0.37	0.22	**0.31**	0.40	0.22	**0.32**	0.42
0.11	**0.16**	0.21	0.14	**0.18**	0.22	0.14	**0.19**	0.24	0.14	**0.22**	0.30	0.18	**0.25**	0.32	0.18	**0.26**	0.34
0.09	**0.13**	0.17	0.12	**0.15**	0.18	0.12	**0.17**	0.22	0.12	**0.19**	0.26	0.15	**0.21**	0.27	0.15	**0.22**	0.29
0.11	**0.17**	0.23	0.15	**0.20**	0.25	0.15	**0.22**	0.29	0.15	**0.25**	0.35	0.19	**0.28**	0.37	0.19	**0.29**	0.39
0.09	**0.14**	0.19	0.11	**0.16**	0.21	0.12	**0.17**	0.22	0.12	**0.20**	0.28	0.15	**0.22**	0.29	0.15	**0.23**	0.31
0.08	**0.12**	0.16	0.09	**0.13**	0.17	0.10	**0.15**	0.20	0.10	**0.17**	0.24	0.13	**0.19**	0.25	0.13	**0.20**	0.27
0.12	**0.17**	0.22	0.16	**0.20**	0.24	0.16	**0.22**	0.28	0.16	**0.25**	0.34	0.20	**0.28**	0.36	0.20	**0.29**	0.38
0.10	**0.14**	0.18	0.12	**0.16**	0.20	0.12	**0.17**	0.22	0.12	**0.19**	0.26	0.16	**0.22**	0.28	0.16	**0.23**	0.30
0.08	**0.12**	0.16	0.11	**0.14**	0.17	0.11	**0.15**	0.19	0.11	**0.17**	0.23	0.14	**0.20**	0.26	0.14	**0.21**	0.28
0.12	**0.16**	0.20	0.16	**0.19**	0.22	0.16	**0.20**	0.24	0.16	**0.23**	0.30	0.20	**0.26**	0.32	0.20	**0.27**	0.34
0.10	**0.13**	0.16	0.12	**0.15**	0.18	0.12	**0.16**	0.20	0.12	**0.18**	0.24	0.16	**0.21**	0.26	0.16	**0.22**	0.28
0.08	**0.11**	0.14	0.11	**0.13**	0.15	0.11	**0.14**	0.17	0.11	**0.16**	0.21	0.14	**0.18**	0.22	0.14	**0.19**	0.24
0.16	**0.28**	0.40	0.22	**0.32**	0.42	0.22	**0.35**	0.48	0.22	**0.40**	0.58	0.28	**0.45**	0.62	0.28	**0.48**	0.68
0.12	**0.22**	0.32	0.18	**0.26**	0.34	0.18	**0.28**	0.38	0.18	**0.32**	0.46	0.22	**0.36**	0.50	0.22	**0.38**	0.54
0.11	**0.19**	0.27	0.15	**0.22**	0.29	0.15	**0.25**	0.35	0.15	**0.27**	0.39	0.20	**0.32**	0.44	0.20	**0.34**	0.48
0.13	**0.22**	0.31	0.18	**0.26**	0.34	0.18	**0.28**	0.38	0.18	**0.32**	0.46	0.22	**0.36**	0.50	0.22	**0.38**	0.54
0.11	**0.18**	0.25	0.14	**0.20**	0.26	0.14	**0.22**	0.30	0.14	**0.25**	0.36	0.18	**0.27**	0.40	0.18	**0.30**	0.42
0.09	**0.15**	0.21	0.13	**0.18**	0.23	0.13	**0.20**	0.27	0.13	**0.23**	0.33	0.15	**0.25**	0.35	0.15	**0.26**	0.37

Complete workpiece materials p. **H**1.

(fn: mm/rev)

DXP

For extra deep holes - Indexable drilling system with exchangeable heads

APPLICATION

Plane surface	Concave surface	Convex surface	Stacked plates	Pipes

ISO APPLICATION FIELDS

P K

ADVANTAGES AND CHARACTERISTICS

· High performance deep hole modular drilling system
· Pilot enables better centering in deep hole drilling (available also in 3xD for who seeks better centering)
· Adapted for higher feed rate among indexable solutions

Drilling bodies

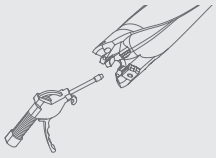
· Weldon shank with internal coolant
· 3/ 6/ 8/ 10xD available from D30 to D60
· Special length and stepped body available upon request

4 holes design

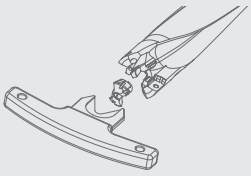
Inserts

· Pilot head available from D15 to D28 with HC geometry for perfect self-centering and reduces drilling force.
· Peripheral insert featuring CS geometry (Chip Splitter) designed to efficiently break and eject chips

DRILLING HEADS INSTALLATON



Clean pocket with air blast.
Put insert into drill holder.



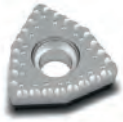
Set wrench into slots on insert flanks.
Slowly turn the wrench clockwise until stop.

HC P K

CS P K

SIZE
04

CS P K



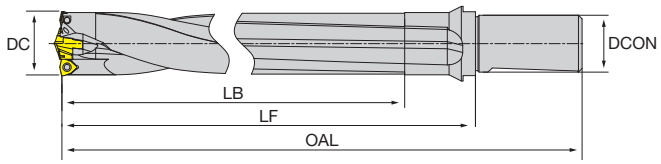
SIZE
05 06 08 10

nikkoTOOLS

3xD

DXP drill

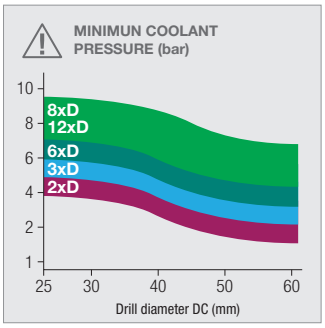
- 3xD pilot type drill body
- All with 4 coolant holes
- Please select inserts according to columns PILOT and MIID
- Peripheral inserts for D30 and D31 have a different shape compared to all the others

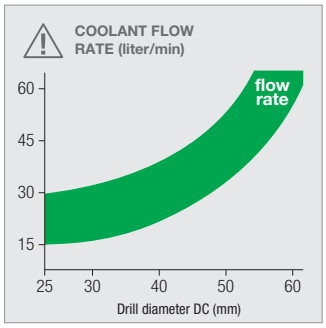


Designation	Stock	DC	DCON	OAL	LF	LB				PILOT	MIID
NT-DXP-03 D30-S32-P16E04	▲	30	32	185	125	99.9				DXP-P16	DXP-E04
NT-DXP-03 D31-S32-P17E04	▲	31	32	189	129	103.9				DXP-P17	DXP-E04
NT-DXP-03 D32-S32-P15E05	▲	32	32	194	134	105.7				DXP-P15	DXP-E05
NT-DXP-03 D33-S32-P16E05	▲	33	32	196	136	107.8				DXP-P16	DXP-E05
NT-DXP-03 D34-S32-P16E05	▲	34	32	199	139	110.8				DXP-P16	DXP-E05
NT-DXP-03 D35-S32-P18E05	▲	35	32	204	144	116.5				DXP-P18	DXP-E05
NT-DXP-03 D36-S32-P18E05	▲	36	32	206	146	118.5				DXP-P18	DXP-E05
NT-DXP-03 D37-S32-P16E06	▲	37	32	209	149	119.8				DXP-P16	DXP-E06
NT-DXP-03 D38-S32-P16E06	▲	38	32	214	154	122.8				DXP-P16	DXP-E06
NT-DXP-03 D39-S32-P18E06	▲	39	32	217	157	127.5				DXP-P18	DXP-E06
NT-DXP-03 D40-S32-P18E06	▲	40	32	234	164	131.5				DXP-P18	DXP-E06
NT-DXP-03 D41-S32-P19E06	▲	41	32	236	166	134				DXP-P19	DXP-E06
NT-DXP-03 D42-S50-P19E06	▲	42	50	240	170	137				DXP-P19	DXP-E06
NT-DXP-03 D43-S50-P16E08	▲	43	50	243	173	137.8				DXP-P16	DXP-E08
NT-DXP-03 D44-S50-P18E08	▲	44	50	246	176	142.5				DXP-P18	DXP-E08
NT-DXP-03 D45-S50-P18E08	▲	45	50	249	179	145.5				DXP-P18	DXP-E08
NT-DXP-03 D46-S50-P19E08	▲	46	50	252	182	149				DXP-P19	DXP-E08
NT-DXP-03 D47-S50-P20E08	▲	47	50	255	185	152.6				DXP-P20	DXP-E08
NT-DXP-03 D48-S50-P21E08	▲	48	50	259	189	156.1				DXP-P21	DXP-E08
NT-DXP-03 D49-S50-P22E08	▲	49	50	262	192	159.7				DXP-P22	DXP-E08
NT-DXP-03 D50-S50-P23E08	▲	50	50	265	195	163.3				DXP-P23	DXP-E08
NT-DXP-03 D51-S50-P24E08	▲	51	50	269	199	167.9				DXP-P24	DXP-E08
NT-DXP-03 D52-S50-P25E08	▲	52	50	280	210	170.5				DXP-P25	DXP-E08
NT-DXP-03 D53-S50-P26E08	▲	53	50	274	204	173.5				DXP-P26	DXP-E08
NT-DXP-03 D54-S50-P27E08	▲	54	50	278	208	178.5				DXP-P27	DXP-E08
NT-DXP-03 D55-S50-P28E08	▲	55	50	280	210	180.5				DXP-P28	DXP-E08
NT-DXP-03 D56-S50-P20E10	▲	56	50	283	213	179.6				DXP-P20	DXP-E10
NT-DXP-03 D57-S50-P21E10	▲	57	50	286	216	183.1				DXP-P21	DXP-E10
NT-DXP-03 D58-S50-P22E10	▲	58	50	289	219	186.7				DXP-P22	DXP-E10
NT-DXP-03 D59-S50-P23E10	▲	59	50	292	222	190.3				DXP-P23	DXP-E10
NT-DXP-03 D60-S50-P24E10	▲	60	50	295	225	193.9				DXP-P24	DXP-E10

● stock standard, ○ non-standard stock, ▲ upcoming introduction, ▽ stock exhaustion

Spare parts	Head wrench	Insert screws	Flag wrenches
NT-DXP-03 (DC 30)	NT-WR1416	NT-ST25080T09	NT-FTB09
NT-DXP-03 (DC 31)	NT-WR1720	NT-ST25080T09	NT-FTB09
NT-DXP-03 (DC 32÷34)	NT-WR1416	NT-ST30080T10	NT-FTB10
NT-DXP-03 (DC 35÷36)	NT-WR1720	NT-ST30080T10	NT-FTB10
NT-DXP-03 (DC 37÷38)	NT-WR1416	NT-ST40100T15	NT-FTB15
NT-DXP-03 (DC 39÷42)	NT-WR1720	NT-ST40100T15	NT-FTB15
NT-DXP-03 (DC 43)	NT-WR1416	NT-ST40100T15	NT-FTB15
NT-DXP-03 (DC 44÷47)	NT-WR1720	NT-ST40100T15	NT-FTB15
NT-DXP-03 (DC 48÷55)	NT-WR2128	NT-ST40100T15	NT-FTB15
NT-DXP-03 (DC 56)	NT-WR1720	NT-ST50100T20	NT-FTB20
NT-DXP-03 (DC 57÷60)	NT-WR2128	NT-ST50100T20	NT-FTB20

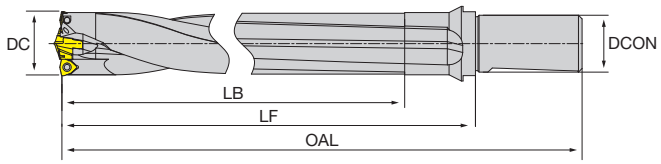




6xD

DXP drill

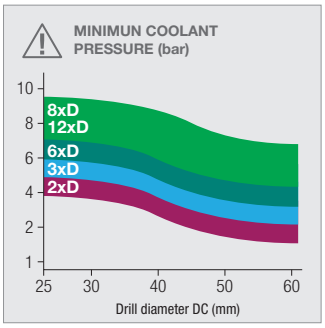
- 6xD pilot type drill body
- All with 4 coolant holes
- Please select inserts according to columns PILOT and MIID
- Peripheral inserts for D30 and D31 have a different shape compared to all the others

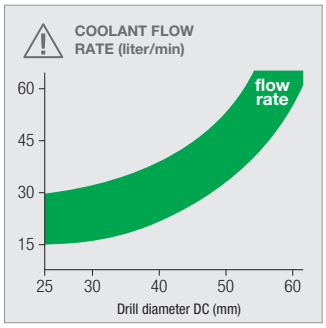


Designation	Stock	DC	DCON	OAL	LF	LB				PILOT	MIID
NT-DXP-06 D30-S32-P16E04	▲	30	32	275	215	189.9				DXP-P16	DXP-E04
NT-DXP-06 D31-S32-P17E04	▲	31	32	282	222	196.9				DXP-P17	DXP-E04
NT-DXP-06 D32-S32-P15E05	▲	32	32	289	229	200.7				DXP-P15	DXP-E05
NT-DXP-06 D33-S32-P16E05	▲	33	32	295	235	206.8				DXP-P16	DXP-E05
NT-DXP-06 D34-S32-P16E05	▲	34	32	301	241	212.8				DXP-P16	DXP-E05
NT-DXP-06 D35-S32-P18E05	▲	35	32	309	249	221.5				DXP-P18	DXP-E05
NT-DXP-06 D36-S32-P18E05	▲	36	32	314	254	226.5				DXP-P18	DXP-E05
NT-DXP-06 D37-S32-P16E06	▲	37	32	320	260	230.8				DXP-P16	DXP-E06
NT-DXP-06 D38-S32-P16E06	▲	38	32	328	268	236.8				DXP-P16	DXP-E06
NT-DXP-06 D39-S32-P18E06	▲	39	32	334	274	244.5				DXP-P18	DXP-E06
NT-DXP-06 D40-S32-P18E06	▲	40	32	353	283	250.5				DXP-P18	DXP-E06
NT-DXP-06 D41-S32-P19E06	▲	41	32	359	289	257				DXP-P19	DXP-E06
NT-DXP-06 D42-S50-P19E06	▲	42	50	366	296	263				DXP-P19	DXP-E06
NT-DXP-06 D43-S50-P16E08	▲	43	50	372	302	266.8				DXP-P16	DXP-E08
NT-DXP-06 D44-S50-P18E08	▲	44	50	378	308	274.5				DXP-P18	DXP-E08
NT-DXP-06 D45-S50-P18E08	▲	45	50	384	314	280.5				DXP-P18	DXP-E08
NT-DXP-06 D46-S50-P19E08	▲	46	50	390	320	287				DXP-P19	DXP-E08
NT-DXP-06 D47-S50-P20E08	▲	47	50	396	326	293.6				DXP-P20	DXP-E08
NT-DXP-06 D48-S50-P21E08	▲	48	50	403	333	300.1				DXP-P21	DXP-E08
NT-DXP-06 D49-S50-P22E08	▲	49	50	409	339	306.7				DXP-P22	DXP-E08
NT-DXP-06 D50-S50-P23E08	▲	50	50	415	345	313.3				DXP-P23	DXP-E08
NT-DXP-06 D51-S50-P24E08	▲	51	50	421	351	319.9				DXP-P24	DXP-E08
NT-DXP-06 D52-S50-P25E08	▲	52	50	427	357	326.5				DXP-P25	DXP-E08
NT-DXP-06 D53-S50-P26E08	▲	53	50	433	363	332.5				DXP-P26	DXP-E08
NT-DXP-06 D54-S50-P27E08	▲	54	50	440	370	340.5				DXP-P27	DXP-E08
NT-DXP-06 D55-S50-P28E08	▲	55	50	445	375	345.5				DXP-P28	DXP-E08
NT-DXP-06 D56-S50-P20E10	▲	56	50	451	381	347.6				DXP-P20	DXP-E10
NT-DXP-06 D57-S50-P21E10	▲	57	50	457	387	354.1				DXP-P21	DXP-E10
NT-DXP-06 D58-S50-P22E10	▲	58	50	463	393	360.7				DXP-P22	DXP-E10
NT-DXP-06 D59-S50-P23E10	▲	59	50	469	399	367.3				DXP-P23	DXP-E10
NT-DXP-06 D60-S50-P24E10	▲	60	50	475	405	373.9				DXP-P24	DXP-E10

● stock standard, ○ non-standard stock, ▲ upcoming introduction, ▽ stock exhaustion

Spare parts	Head wrench	Insert screws	Flag wrenches
NT-DXP-06 (DC 30)	NT-WR1416	NT-ST25080T09	NT-FTB09
NT-DXP-06 (DC 31)	NT-WR1720	NT-ST25080T09	NT-FTB09
NT-DXP-06 (DC 32÷34)	NT-WR1416	NT-ST30080T10	NT-FTB10
NT-DXP-06 (DC 35÷36)	NT-WR1720	NT-ST30080T10	NT-FTB10
NT-DXP-06 (DC 37÷38)	NT-WR1416	NT-ST40100T15	NT-FTB15
NT-DXP-06 (DC 39÷42)	NT-WR1720	NT-ST40100T15	NT-FTB15
NT-DXP-06 (DC 43)	NT-WR1416	NT-ST40100T15	NT-FTB15
NT-DXP-06 (DC 44÷47)	NT-WR1720	NT-ST40100T15	NT-FTB15
NT-DXP-06 (DC 48÷55)	NT-WR2128	NT-ST40100T15	NT-FTB15
NT-DXP-06 (DC 56)	NT-WR1720	NT-ST50100T20	NT-FTB20
NT-DXP-06 (DC 57÷60)	NT-WR2128	NT-ST50100T20	NT-FTB20



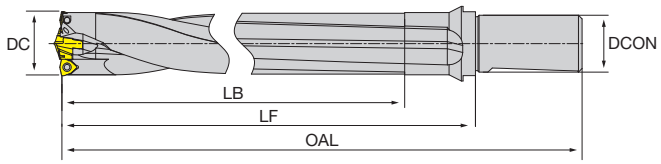


nikkoTOOLS

8xD

DXP drill

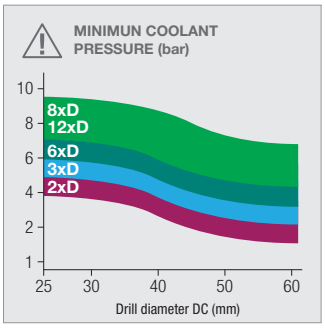
- 8xD pilot type drill body
- All with 4 coolant holes
- Please select inserts according to columns PILOT and MIID
- Peripheral inserts for D30 and D31 have a different shape compared to all the others

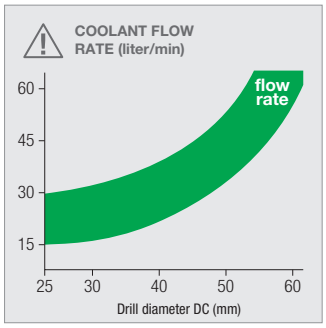


Designation	Stock	DC	DCON	OAL	LF	LB				PILOT	MIID
NT-DXP-08 D30-S32-P16E04	▲	30	32	335	275	249.9				DXP-P16	DXP-E04
NT-DXP-08 D31-S32-P17E04	▲	31	32	344	284	258.9				DXP-P17	DXP-E04
NT-DXP-08 D32-S32-P15E05	▲	32	32	353	293	264.7				DXP-P15	DXP-E05
NT-DXP-08 D33-S32-P16E05	▲	33	32	361	301	272.8				DXP-P16	DXP-E05
NT-DXP-08 D34-S32-P16E05	▲	34	32	369	309	280.8				DXP-P16	DXP-E05
NT-DXP-08 D35-S32-P18E05	▲	35	32	379	319	291.5				DXP-P18	DXP-E05
NT-DXP-08 D36-S32-P18E05	▲	36	32	386	326	298.5				DXP-P18	DXP-E05
NT-DXP-08 D37-S32-P16E06	▲	37	32	394	334	304.8				DXP-P16	DXP-E06
NT-DXP-08 D38-S32-P16E06	▲	38	32	404	344	312.8				DXP-P16	DXP-E06
NT-DXP-08 D39-S32-P18E06	▲	39	32	412	352	322.5				DXP-P18	DXP-E06
NT-DXP-08 D40-S32-P18E06	▲	40	32	433	363	330.5				DXP-P18	DXP-E06
NT-DXP-08 D41-S32-P19E06	▲	41	32	441	371	339				DXP-P19	DXP-E06
NT-DXP-08 D42-S50-P19E06	▲	42	50	450	380	347				DXP-P19	DXP-E06
NT-DXP-08 D43-S50-P16E08	▲	43	50	458	388	352.8				DXP-P16	DXP-E08
NT-DXP-08 D44-S50-P18E08	▲	44	50	466	396	362.5				DXP-P18	DXP-E08
NT-DXP-08 D45-S50-P18E08	▲	45	50	474	404	370.5				DXP-P18	DXP-E08
NT-DXP-08 D46-S50-P19E08	▲	46	50	482	412	379				DXP-P19	DXP-E08
NT-DXP-08 D47-S50-P20E08	▲	47	50	490	420	387.6				DXP-P20	DXP-E08
NT-DXP-08 D48-S50-P21E08	▲	48	50	499	429	396.1				DXP-P21	DXP-E08
NT-DXP-08 D49-S50-P22E08	▲	49	50	507	437	404.7				DXP-P22	DXP-E08
NT-DXP-08 D50-S50-P23E08	▲	50	50	515	445	413.3				DXP-P23	DXP-E08
NT-DXP-08 D51-S50-P24E08	▲	51	50	523	453	421.9				DXP-P24	DXP-E08
NT-DXP-08 D52-S50-P25E08	▲	52	50	531	461	430.5				DXP-P25	DXP-E08
NT-DXP-08 D53-S50-P26E08	▲	53	50	539	469	438.5				DXP-P26	DXP-E08
NT-DXP-08 D54-S50-P27E08	▲	54	50	548	478	448.5				DXP-P27	DXP-E08
NT-DXP-08 D55-S50-P28E08	▲	55	50	555	485	455.5				DXP-P28	DXP-E08
NT-DXP-08 D56-S50-P20E10	▲	56	50	563	493	459.6				DXP-P20	DXP-E10
NT-DXP-08 D57-S50-P21E10	▲	57	50	571	501	468.1				DXP-P21	DXP-E10
NT-DXP-08 D58-S50-P22E10	▲	58	50	579	509	476.7				DXP-P22	DXP-E10
NT-DXP-08 D59-S50-P23E10	▲	59	50	587	517	485.3				DXP-P23	DXP-E10
NT-DXP-08 D60-S50-P24E10	▲	60	50	595	525	493.9				DXP-P24	DXP-E10

● stock standard, ○ non-standard stock, ▲ upcoming introduction, ▽ stock exhaustion

Spare parts	Head wrench	Insert screws	Flag wrenches
NT-DXP-08 (DC 30)	NT-WR1416	NT-ST25080T09	NT-FTB09
NT-DXP-08 (DC 31)	NT-WR1720	NT-ST25080T09	NT-FTB09
NT-DXP-08 (DC 32÷34)	NT-WR1416	NT-ST30080T10	NT-FTB10
NT-DXP-08 (DC 35÷36)	NT-WR1720	NT-ST30080T10	NT-FTB10
NT-DXP-08 (DC 37÷38)	NT-WR1416	NT-ST40100T15	NT-FTB15
NT-DXP-08 (DC 39÷42)	NT-WR1720	NT-ST40100T15	NT-FTB15
NT-DXP-08 (DC 43)	NT-WR1416	NT-ST40100T15	NT-FTB15
NT-DXP-08 (DC 44÷47)	NT-WR1720	NT-ST40100T15	NT-FTB15
NT-DXP-08 (DC 48÷55)	NT-WR2128	NT-ST40100T15	NT-FTB15
NT-DXP-08 (DC 56)	NT-WR1720	NT-ST50100T20	NT-FTB20
NT-DXP-08 (DC 57÷60)	NT-WR2128	NT-ST50100T20	NT-FTB20

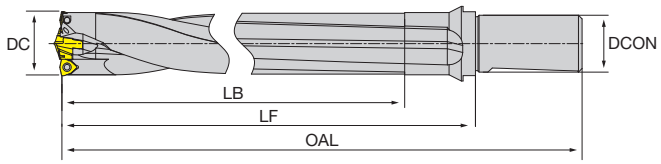




10xD

DXP drill

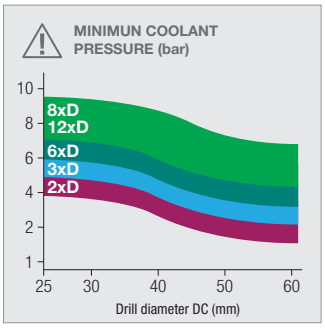
- 10xD pilot type drill body
- All with 4 coolant holes
- Please select inserts according to columns PILOT and MIID
- Peripheral inserts for D30 and D31 have a different shape compared to all the others

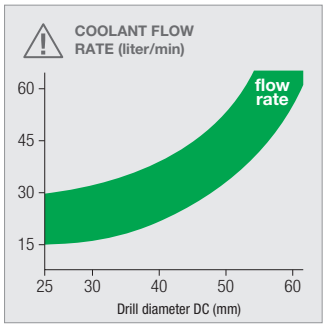


Designation	Stock	DC	DCON	OAL	LF	LB				PILOT	MIID
NT-DXP-10 D30-S32-P16E04	▲	30	32	395	335	319.9				DXP-P16	DXP-E04
NT-DXP-10 D31-S32-P17E04	▲	31	32	406	346	320.9				DXP-P17	DXP-E04
NT-DXP-10 D32-S32-P15E05	▲	32	32	417	357	328.7				DXP-P15	DXP-E05
NT-DXP-10 D33-S32-P16E05	▲	33	32	427	367	338.8				DXP-P16	DXP-E05
NT-DXP-10 D34-S32-P16E05	▲	34	32	437	377	328.8				DXP-P16	DXP-E05
NT-DXP-10 D35-S32-P18E05	▲	35	32	448	388	360.5				DXP-P18	DXP-E05
NT-DXP-10 D36-S32-P18E05	▲	36	32	458	398	370.5				DXP-P18	DXP-E05
NT-DXP-10 D37-S32-P16E06	▲	37	32	468	408	378.8				DXP-P16	DXP-E06
NT-DXP-10 D38-S32-P16E06	▲	38	32	480	420	388.8				DXP-P16	DXP-E06
NT-DXP-10 D39-S32-P18E06	▲	39	32	490	430	400.5				DXP-P18	DXP-E06
NT-DXP-10 D40-S32-P18E06	▲	40	32	513	443	410.5				DXP-P18	DXP-E06
NT-DXP-10 D41-S32-P19E06	▲	41	32	523	453	421				DXP-P19	DXP-E06
NT-DXP-10 D42-S50-P19E06	▲	42	50	534	464	431				DXP-P19	DXP-E06
NT-DXP-10 D43-S50-P16E08	▲	43	50	544	474	438.8				DXP-P16	DXP-E08
NT-DXP-10 D44-S50-P18E08	▲	44	50	554	484	450.5				DXP-P18	DXP-E08
NT-DXP-10 D45-S50-P18E08	▲	45	50	564	494	460.5				DXP-P18	DXP-E08
NT-DXP-10 D46-S50-P19E08	▲	46	50	574	504	471				DXP-P19	DXP-E08
NT-DXP-10 D47-S50-P20E08	▲	47	50	584	514	481.6				DXP-P20	DXP-E08
NT-DXP-10 D48-S50-P21E08	▲	48	50	595	525	492.1				DXP-P21	DXP-E08
NT-DXP-10 D49-S50-P22E08	▲	49	50	605	535	502.7				DXP-P22	DXP-E08
NT-DXP-10 D50-S50-P23E08	▲	50	50	615	545	513.3				DXP-P23	DXP-E08
NT-DXP-10 D51-S50-P24E08	▲	51	50	625	555	523.9				DXP-P24	DXP-E08
NT-DXP-10 D52-S50-P25E08	▲	52	50	635	565	534.5				DXP-P25	DXP-E08
NT-DXP-10 D53-S50-P26E08	▲	53	50	645	575	544.5				DXP-P26	DXP-E08
NT-DXP-10 D54-S50-P27E08	▲	54	50	656	586	556.5				DXP-P27	DXP-E08
NT-DXP-10 D55-S50-P28E08	▲	55	50	665	595	565.5				DXP-P28	DXP-E08
NT-DXP-10 D56-S50-P20E10	▲	56	50	675	605	571.6				DXP-P20	DXP-E10
NT-DXP-10 D57-S50-P21E10	▲	57	50	685	615	582.1				DXP-P21	DXP-E10
NT-DXP-10 D58-S50-P22E10	▲	58	50	695	625	592.7				DXP-P22	DXP-E10
NT-DXP-10 D59-S50-P23E10	▲	59	50	705	635	603.3				DXP-P23	DXP-E10
NT-DXP-10 D60-S50-P24E10	▲	60	50	715	645	613.9				DXP-P24	DXP-E10

● stock standard, ○ non-standard stock, ▲ upcoming introduction, ▽ stock exhaustion

Spare parts	Head wrench	Insert screws	Flag wrenches
NT-DXP-10 (DC 30)	NT-WR1416	NT-ST25080T09	NT-FTB09
NT-DXP-10 (DC 31)	NT-WR1720	NT-ST25080T09	NT-FTB09
NT-DXP-10 (DC 32÷34)	NT-WR1416	NT-ST30080T10	NT-FTB10
NT-DXP-10 (DC 35÷36)	NT-WR1720	NT-ST30080T10	NT-FTB10
NT-DXP-10 (DC 37÷38)	NT-WR1416	NT-ST40100T15	NT-FTB15
NT-DXP-10 (DC 39÷42)	NT-WR1720	NT-ST40100T15	NT-FTB15
NT-DXP-10 (DC 43)	NT-WR1416	NT-ST40100T15	NT-FTB15
NT-DXP-10 (DC 44÷47)	NT-WR1720	NT-ST40100T15	NT-FTB15
NT-DXP-10 (DC 48÷55)	NT-WR2128	NT-ST40100T15	NT-FTB15
NT-DXP-10 (DC 56)	NT-WR1720	NT-ST50100T20	NT-FTB20
NT-DXP-10 (DC 57÷60)	NT-WR2128	NT-ST50100T20	NT-FTB20





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Pilot

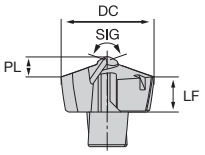
DXP drill

- PVD coated carbide pilot HC (high concentricity) pilot is for general purpose use
- DXP pilot may look like a DEX drill head but they're not interchangeable
- Step drills can be made upon request

HF: Micrograin carbide
PVD: Physical vapour deposition

	HF PVD
	JP5725
Stable machining, light cut (1st choice / suitable)	○
General machining, medium cut (1st choice / suitable)	●
Unstable machining, heavy cut (1st choice / suitable)	

Dimensions



ISO	JP5725
P	55 160
M	
K	60 140
N	
S	
H	

Vc(m/min) - suggested cutting speed range (bold: 1st choice)

	Designation	DC	DC toll.	SIG	PL	LF	Stock
GENERAL HC P K high centering	DXP-P15-HC	15	k6	150°	3.05	5.65	▲
	DXP-P16-HC	16	k6	150°	3.25	5.55	▲
	DXP-P17-HC	17	k6	150°	3.35	6.55	▲
	DXP-P18-HC	18	k6	150°	3.5	7	▲
	DXP-P19-HC	19	k6	150°	3.83	7.17	▲
	DXP-P20-HC	20	k6	150°	4.03	7.57	▲
	DXP-P21-HC	21	k6	150°	4.23	7.87	▲
	DXP-P22-HC	22	k6	150°	4.51	8.19	●
	DXP-P23-HC	23	k6	150°	4.8	8.5	▲
	DXP-P24-HC	24	k6	150°	4.9	9	▲
	DXP-P25-HC	25	k6	150°	4.92	9.58	▲
	DXP-P26-HC	26	k6	150°	5.16	9.34	▲
	DXP-P27-HC	27	k6	150°	5.41	10.09	▲
	DXP-P28-HC	28	k6	150°	5.62	9.88	▲

● stock standard, ○ non-standard stock, ▲ upcoming introduction, ▽ stock exhaustion

HC - Perfect centering

Improved centering for big diameters extra long drilling bodies (until 10xD).

External

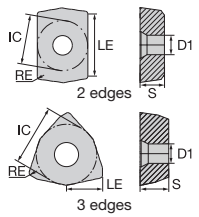
DXP drill

- New generation "Chip Splitter"
- Specially waved edge splits the chips, improves heat dissipation, prolongs the tool life, improves hole quality
- Peripheral inserts for DXP drill
- Step drills can be made upon request

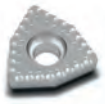
HF: Micrograin carbide
PVD: Physical vapour deposition

		HF PVD	JP5725
Stable machining, light cut	● 1st choice ○ suitable	○	
General machining, medium cut	● 1st choice ○ suitable	●	
Unstable machining, heavy cut	● 1st choice ○ suitable		

Dimensions



ISO	Vc(m/min) - suggested cutting speed range (bold: 1st choice)	
P	55 160	
M		
K	60 140	
N		
S		
H		

	Designation		RE	IC	S	D1	LE	Stock	
GENERAL	CS P K chip splitter	DXP-E04-CS	0.4	7.26	3.79	2.85	10.76	▲	
	CS P K  chip splitter	DXP-E05-CS	0.8	8	3.75	3.4	5.29	▲	
		DXP-E06-CS	0.8	10	3.75	4.4	6.62	▲	
		DXP-E08-CS	0.8	12	4.75	4.4	7.94	●	
		DXP-E10-CS	0.8	15	5.25	5.5	9.92	▲	

● stock standard, ○ non-standard stock, ▲ upcoming introduction, ▽ stock exhaustion

CS - Chips formation

The short chips created by CS geometry can be easely ejected even on very deep holes.

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ISO 513	MATERIAL	HARDNESS HB	L/D	JP5725 min	JP5725 start	JP5725 max		
P1 - P2	Free cutting steel and low carbon (ex. 1.0715/9 smn 28/avp, 1.0503/c45)	≤ 200	3xD - 6xD	80	**120**	160		
			8xD	65	**100**	135		
			10xD	55	**85**	115		
P3 - P4	Medium and high alloy steel (ex. 1.7225/42 CrMo 4, 1.3505/100 Cr 6)	200 ÷ 300	3xD - 6xD	60	**90**	120		
			8xD	50	**75**	100		
			10xD	40	**60**	80		
P5 - P6	High tensile strength and tool steel (ex. 1.2344/X 40 CrMoV 5 1/ORVAR, Hardox400®)	300 ÷ 400	3xD - 6xD	40	**60**	80		
			8xD	35	**50**	65		
			10xD	30	**40**	50		
K1	Grey cast iron (ex. 0.6025/GG 25/EN-GJL-250)	150 ÷ 250	3xD - 6xD	80	**110**	140		
			8xD	70	**90**	110		
			10xD	60	**80**	100		
K2	Nodular cast iron (ex. 0.7050/GGG 50/EN-GJS-500-7)	150 ÷ 350	3xD - 6xD	80	**100**	120		
			8xD	70	**90**	110		
			10xD	60	**80**	100		

Complete workpiece materials p. **H**1.

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ISO 513	MATERIAL	HARDNESS HB	L/D	DC 30.00 ÷ 35.00			DC 36.00 ÷ 40.00			DC 41.00 ÷ 45.00		
				min	start	max	min	start	max	min	start	max
P1 - P2	Free cutting steel and low carbon (ex. 1.0715/9 smn 28/avp, 1.0503/c45)	≤ 200	3xD - 6xD	0.16	**0.22**	0.28	0.18	**0.25**	0.32	0.18	**0.27**	0.36
			8xD	0.12	**0.17**	0.22	0.14	**0.20**	0.26	0.14	**0.21**	0.28
			10xD	0.10	**0.15**	0.20	0.12	**0.17**	0.22	0.12	**0.18**	0.24
P3 - P4	Medium and high alloy steel (ex. 1.7225/42 CrMo 4, 1.3505/100 Cr 6)	200 ÷ 300	3xD - 6xD	0.18	**0.25**	0.32	0.20	**0.28**	0.36	0.20	**0.31**	0.42
			8xD	0.14	**0.20**	0.26	0.16	**0.22**	0.28	0.16	**0.25**	0.34
			10xD	0.12	**0.17**	0.22	0.14	**0.19**	0.24	0.14	**0.22**	0.30
P5 - P6	High tensile strength and tool steel (ex. 1.2344/X 40 CrMoV 5 1/ORVAR, Hardox400®)	300 ÷ 400	3xD - 6xD	0.18	**0.24**	0.30	0.20	**0.27**	0.34	0.20	**0.30**	0.40
			8xD	0.14	**0.19**	0.24	0.16	**0.21**	0.26	0.16	**0.24**	0.32
			10xD	0.12	**0.16**	0.20	0.14	**0.18**	0.22	0.14	**0.21**	0.28
K1	Grey cast iron (ex. 0.6025/GG 25/EN-GJL-250)	150 ÷ 250	3xD - 6xD	0.20	**0.27**	0.34	0.22	**0.30**	0.38	0.22	**0.33**	0.44
			8xD	0.16	**0.21**	0.26	0.18	**0.24**	0.30	0.18	**0.27**	0.36
			10xD	0.14	**0.18**	0.22	0.16	**0.21**	0.26	0.16	**0.23**	0.30
K2	Nodular cast iron (ex. 0.7050/GGG 50/EN-GJS-500-7)	150 ÷ 350	3xD - 6xD	0.16	**0.22**	0.28	0.18	**0.24**	0.30	0.18	**0.28**	0.36
			8xD	0.12	**0.17**	0.22	0.14	**0.19**	0.24	0.14	**0.21**	0.28
			10xD	0.10	**0.15**	0.20	0.12	**0.16**	0.20	0.12	**0.18**	0.24

Complete workpiece materials p. **H**1.

(fn: mm/rev)

DC 46.00 ÷ 50.00			DC 51.00 ÷ 55.00			DC 56.00 ÷ 60.00					
min	start	max	min	start	max	min	start	max			
0.20	**0.30**	0.40	0.20	**0.32**	0.44	0.22	**0.34**	0.46			
0.16	**0.24**	0.32	0.16	**0.26**	0.36	0.18	**0.27**	0.36			
0.14	**0.21**	0.28	0.14	**0.22**	0.30	0.16	**0.24**	0.32			
0.22	**0.29**	0.46	0.22	**0.36**	0.50	0.24	**0.38**	0.52			
0.18	**0.27**	0.36	0.18	**0.27**	0.40	0.20	**0.31**	0.42			
0.16	**0.24**	0.32	0.16	**0.26**	0.36	0.16	**0.26**	0.36			
0.22	**0.33**	0.44	0.22	**0.35**	0.48	0.24	**0.37**	0.50			
0.18	**0.27**	0.36	0.18	**0.28**	0.38	0.20	**0.30**	0.40			
0.16	**0.23**	0.30	0.16	**0.25**	0.34	0.16	**0.26**	0.36			
0.24	**0.36**	0.48	0.24	**0.38**	0.52	0.26	**0.40**	0.54			
0.20	**0.29**	0.38	0.20	**0.31**	0.42	0.20	**0.32**	0.44			
0.16	**0.25**	0.34	0.16	**0.26**	0.36	0.18	**0.28**	0.38			
0.20	**0.29**	0.38	0.20	**0.31**	0.42	0.20	**0.32**	0.44			
0.16	**0.23**	0.30	0.16	**0.25**	0.34	0.16	**0.26**	0.36			
0.14	**0.20**	0.26	0.14	**0.22**	0.30	0.14	**0.22**	0.30			

Complete workpiece materials p. **H**1.

SPOT DRILL

High quality multipurpose system

APPLICATION

Spotting	Engraving	V-Grooving	Chamfering

ISO APPLICATION FIELDS

P M K N

ADVANTAGES AND CHARACTERISTICS

- Highly universal system for chamfering, engraving, spot drilling or milling grooves
- Convenient to use with great flexibility
- Inserts available with different radii and for diverse workpiece materials

Drilling bodies

- Cylindrical type and screw-in type
- Max. drilling dia. 14mm, min. drilling dia. 2.4mm
- Smart kit of 1 holder plus 4 inserts available
- Extension sleeves (steel/carbon 10xD)

Extension arbors

Inserts

- Available R03/08 for PMK, R04/08 for aluminium
- Cemented carbide grades with PVD coatings or uncoated for N materials
- Geometries: GP, AL

GP P M K

SIZE 11

AL N

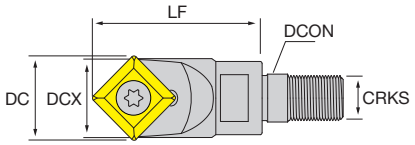
SIZE 11

NT-SPOT

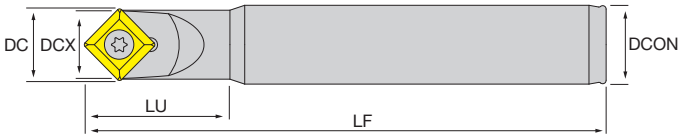
SPOT drill

- Spot drill system with SPOT inserts
- External coolant
- Multifunctional system for maximum versatility
- Inserts cannot be mounted on DRS drills or ChamferSquare milling holders

Screw-in



Cylindrical



Designation	Stock	DC	DCX	CICT	DCON	LF	LU	CRKS			MIID
SCREW-IN											
NT-SPOT D14-M08-L052	●	15.4	14	1	8.5	35	-	M8			SPOT11
CYLINDRICAL											
NT-SPOT D14-S16-L100	●	15.4	14	1	16	100	30	-			SPOT11

● stock standard, ○ non-standard stock, ▲ upcoming introduction, ▽ stock exhaustion

Spare parts	Insert screws	Flag wrenches
NT-SPOT D14-○○○-L○○○	NT-ST35080T15	NT-FTB15

SPOT11

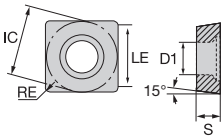
SPOT drill

- General purpose type or fine polished sharp geometries for aluminum or non-ferrous materials available
- Diverse PVD coated or uncoated carbide grades available
- Multiple radii available for each geometry
- Inserts cannot be mounted on DRS drills or ChamferSquare milling holders

HF: Micrograin carbide
PVD: Physical vapour deposition

	JP7525	JP8725	JP9535	JU6520
	HF PVD	HF PVD	HF PVD	HF
Stable machining, light cut (● 1st choice, ○ suitable)		○		●
General machining, medium cut (● 1st choice, ○ suitable)	●	●	●	●
Unstable machining, heavy cut (● 1st choice, ○ suitable)	●		●	

Dimensions



4 edges

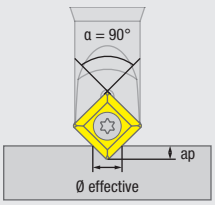
ISO	JP7525	JP8725	JP9535	JU6520
	HF PVD	HF PVD	HF PVD	HF
P		120 240		
M			80 160	
K	100 160			
N				240 400
S				
H				

Vc(m/min) - suggested cutting speed range (bold: 1st choice)

	Designation	RE	IC	S	D1	LE	JP7525	JP8725	JP9535	JU6520	Stock
GENERAL	GP P M K SPOT11 R03-GP	0.3	11	3.97	4.3	10.4	●	●	●		
	SPOT11 R08-GP	0.8	11	3.97	4.3	9.4	●	●	●		
ALUMINIUM	AL N polished surface SPOT11 R04-AL	0.4	11	3.97	4.3	10.2				●	
	SPOT11 R08-AL	0.8	11	3.97	4.3	9.4				●	

● stock standard, ○ non-standard stock, ▲ upcoming introduction, ▽ stock exhaustion

EFFECTIVE DIAMETER



Ø = 2xap x tan (α/2)

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ISO 513	MATERIAL	HARDNESS HB	JP8725 min	start	max		
P1 - P2	Free cutting steel and low carbon (ex. 1.0715/9 smn 28/avp, 1.0503/c45)	≤ 200	120	**180**	240		
P3 - P4	Medium and high alloy steel (ex. 1.7225/42 CrMo 4, 1.3505/100 Cr 6)	200 ÷ 300	100	**150**	200		
P5 - P6	High tensile strength and tool steel (ex. 1.2344/X 40 CrMoV 5 1/ORVAR, Hardox400®)	300 ÷ 400	80	**120**	160		
ISO 513	MATERIAL	HARDNESS HB	JP9535 min	start	max		
P7	Ferritic and martensitic stainless steel (ex. 1.4021/X 20 Cr 13/AISI420)	≤ 200	80	**120**	160		
P8	Precipitation hardening stainless steel (ex. 1.4548/X 5 CrNiCuNb 17 4/17-4-PH)	≤ 450	60	**90**	120		
M1	Austenitic stainless steel (ex. 1.4305/X 10 CrNiS 18 9/AISI303)	> 200	80	**120**	160		
M2 - M3	Austenitic and Duplex stainless steel (ex. 1.4401/X 5 CrNiMo 17 12 2/AISI316)		60	**100**	140		
ISO 513	MATERIAL	HARDNESS HB	JP7525 min	start	max		
K1	Grey cast iron (ex. 0.6025/GG 25/EN-GJL-250)	150 ÷ 250	100	**130**	160		
K2	Nodular cast iron (ex. 0.7050/GGG 50/EN-GJS-500-7)	150 ÷ 350	100	**110**	120		
ISO 513	MATERIAL	HARDNESS HB	JU6520 min	start	max		
N1	Aluminium alloys ≤ Si 12% (ex. 3.4365/AlZn5.5MgCu/ERGAL)		240	**320**	400		
N2	Aluminium alloys Si > 12% (ex. 3.2382/G-AlSi12)		160	**230**	300		

Complete workpiece materials p. **H**1.

A - TURNING
B - THREADING
C - GROOVING
D - MILLING
E - DRILLING
F - ACCESSORIES
G - SPARE PARTS

NCD DRILLS

High performace solid carbide drill series

APPLICATION

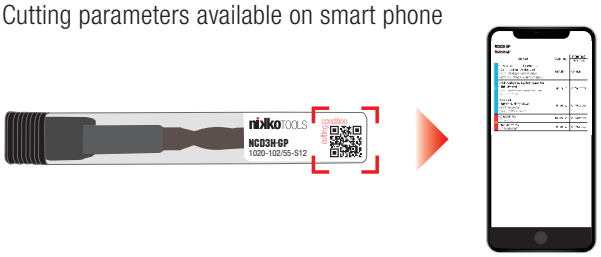
Plane surface	Concave surface	Convex surface	Stacked plates	Pipes

ISO APPLICATION FIELDS

P M K S

ADVANTAGES AND CHARACTERISTICS

· Premium quality delivering top class performance
· Suitable for different types of holes and surfaces on diverse materials
· Twisted flute style with or without coolant available in 3xD and 5xD as standards, for other sizes and step drills we can provide as special
· Cutting parameters available on smart phone



Range

· D3-20mm, 3xD and 5xD, with and without coolant
· Special length and step drill available upon request

Geometries

· GP for general purpose, wide application range
· SC for reduced cutting force and smooth cutting

GP P K

SC P M S

nikkoTOOLS

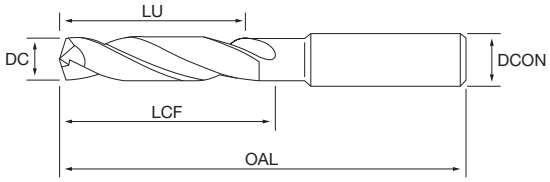
NCD3-GP

NCD

- First choice for steel and cast iron machining (<45 HRC)
- **Without** coolant holes
- Self centering geometry for accurate holes
- AlTin-nano based coating for long lasting tool life

3xD

P K



Designation	Stock	DC	ULDR	LU	LCF	OAL	DCON	SIG			
NCD3-GP 0300-062/020-S06	●	3	3	14	20	62	6	140°			
NCD3-GP 0310-062/020-S06	●	3.1	3	14	20	62	6	140°			
NCD3-GP 0320-062/020-S06	●	3.2	3	14	20	62	6	140°			
NCD3-GP 0330-062/020-S06	●	3.3	3	14	20	62	6	140°			
NCD3-GP 0340-062/020-S06	●	3.4	3	14	20	62	6	140°			
NCD3-GP 0350-062/020-S06	●	3.5	3	14	20	62	6	140°			
NCD3-GP 0360-062/020-S06	●	3.6	3	14	20	62	6	140°			
NCD3-GP 0370-062/020-S06	●	3.7	3	14	20	62	6	140°			
NCD3-GP 0380-066/024-S06	●	3.8	3	17	24	66	6	140°			
NCD3-GP 0390-066/024-S06	●	3.9	3	17	24	66	6	140°			
NCD3-GP 0400-066/024-S06	●	4	3	17	24	66	6	140°			
NCD3-GP 0410-066/024-S06	●	4.1	3	17	24	66	6	140°			
NCD3-GP 0420-066/024-S06	●	4.2	3	17	24	66	6	140°			
NCD3-GP 0430-066/024-S06	●	4.3	3	17	24	66	6	140°			
NCD3-GP 0440-066/024-S06	●	4.4	3	17	24	66	6	140°			
NCD3-GP 0450-066/024-S06	●	4.5	3	17	24	66	6	140°			
NCD3-GP 0460-066/024-S06	●	4.6	3	17	24	66	6	140°			
NCD3-GP 0470-066/024-S06	●	4.7	3	17	24	66	6	140°			
NCD3-GP 0480-066/028-S06	●	4.8	3	20	28	66	6	140°			
NCD3-GP 0490-066/028-S06	●	4.9	3	20	28	66	6	140°			
NCD3-GP 0500-066/028-S06	●	5	3	20	28	66	6	140°			
NCD3-GP 0510-066/028-S06	●	5.1	3	20	28	66	6	140°			
NCD3-GP 0520-066/028-S06	●	5.2	3	20	28	66	6	140°			
NCD3-GP 0530-066/028-S06	●	5.3	3	20	28	66	6	140°			
NCD3-GP 0540-066/028-S06	●	5.4	3	20	28	66	6	140°			
NCD3-GP 0550-066/028-S06	●	5.5	3	20	28	66	6	140°			
NCD3-GP 0560-066/028-S06	●	5.6	3	20	28	66	6	140°			
NCD3-GP 0570-066/028-S06	●	5.7	3	20	28	66	6	140°			
NCD3-GP 0580-066/028-S06	●	5.8	3	20	28	66	6	140°			
NCD3-GP 0590-066/028-S06	●	5.9	3	20	28	66	6	140°			
NCD3-GP 0600-066/028-S06	●	6	3	20	28	66	6	140°			
NCD3-GP 0610-079/034-S08	●	6.1	3	24	34	79	8	140°			
NCD3-GP 0620-079/034-S08	●	6.2	3	24	34	79	8	140°			
NCD3-GP 0630-079/034-S08	●	6.3	3	24	34	79	8	140°			
NCD3-GP 0640-079/034-S08	●	6.4	3	24	34	79	8	140°			
NCD3-GP 0650-079/034-S08	●	6.5	3	24	34	79	8	140°			
NCD3-GP 0660-079/034-S08	●	6.6	3	24	34	79	8	140°			
NCD3-GP 0670-079/034-S08	●	6.7	3	24	34	79	8	140°			
NCD3-GP 0680-079/034-S08	●	6.8	3	24	34	79	8	140°			
NCD3-GP 0690-079/034-S08	●	6.9	3	24	34	79	8	140°			
NCD3-GP 0700-079/034-S08	●	7	3	24	34	79	8	140°			
NCD3-GP 0710-079/041-S08	●	7.1	3	29	41	79	8	140°			
NCD3-GP 0720-079/041-S08	●	7.2	3	29	41	79	8	140°			
NCD3-GP 0730-079/041-S08	●	7.3	3	29	41	79	8	140°			
NCD3-GP 0740-079/041-S08	●	7.4	3	29	41	79	8	140°			
NCD3-GP 0750-079/041-S08	●	7.5	3	29	41	79	8	140°			
NCD3-GP 0760-079/041-S08	●	7.6	3	29	41	79	8	140°			
NCD3-GP 0770-079/041-S08	●	7.7	3	29	41	79	8	140°			

● stock standard, ○ non-standard stock, ▲ upcoming introduction, ▽ stock exhaustion

Designation	Stock	DC	ULDR	LU	LCF	OAL	DCON	SIG			
NCD3-GP 0780-079/041-S08	●	7.8	3	29	41	79	8	140°			
NCD3-GP 0790-079/041-S08	●	7.9	3	29	41	79	8	140°			
NCD3-GP 0800-079/041-S08	●	8	3	29	41	79	8	140°			
NCD3-GP 0810-089/047-S10	●	8.1	3	35	47	89	10	140°			
NCD3-GP 0820-089/047-S10	●	8.2	3	35	47	89	10	140°			
NCD3-GP 0830-089/047-S10	●	8.3	3	35	47	89	10	140°			
NCD3-GP 0840-089/047-S10	●	8.4	3	35	47	89	10	140°			
NCD3-GP 0850-089/047-S10	●	8.5	3	35	47	89	10	140°			
NCD3-GP 0860-089/047-S10	●	8.6	3	35	47	89	10	140°			
NCD3-GP 0870-089/047-S10	●	8.7	3	35	47	89	10	140°			
NCD3-GP 0880-089/047-S10	●	8.8	3	35	47	89	10	140°			
NCD3-GP 0890-089/047-S10	●	8.9	3	35	47	89	10	140°			
NCD3-GP 0900-089/047-S10	●	9	3	35	47	89	10	140°			
NCD3-GP 0910-089/047-S10	●	9.1	3	35	47	89	10	140°			
NCD3-GP 0920-089/047-S10	●	9.2	3	35	47	89	10	140°			
NCD3-GP 0930-089/047-S10	●	9.3	3	35	47	89	10	140°			
NCD3-GP 0940-089/047-S10	●	9.4	3	35	47	89	10	140°			
NCD3-GP 0950-089/047-S10	●	9.5	3	35	47	89	10	140°			
NCD3-GP 0960-089/047-S10	●	9.6	3	35	47	89	10	140°			
NCD3-GP 0970-089/047-S10	●	9.7	3	35	47	89	10	140°			
NCD3-GP 0980-089/047-S10	●	9.8	3	35	47	89	10	140°			
NCD3-GP 0990-089/047-S10	●	9.9	3	35	47	89	10	140°			
NCD3-GP 1000-089/047-S10	●	10	3	35	47	89	10	140°			
NCD3-GP 1010-102/055-S12	●	10.1	3	40	55	102	12	140°			
NCD3-GP 1020-102/055-S12	●	10.2	3	40	55	102	12	140°			
NCD3-GP 1030-102/055-S12	●	10.3	3	40	55	102	12	140°			
NCD3-GP 1040-102/055-S12	●	10.4	3	40	55	102	12	140°			
NCD3-GP 1050-102/055-S12	●	10.5	3	40	55	102	12	140°			
NCD3-GP 1060-102/055-S12	●	10.6	3	40	55	102	12	140°			
NCD3-GP 1070-102/055-S12	●	10.7	3	40	55	102	12	140°			
NCD3-GP 1080-102/055-S12	●	10.8	3	40	55	102	12	140°			
NCD3-GP 1090-102/055-S12	●	10.9	3	40	55	102	12	140°			
NCD3-GP 1100-102/055-S12	●	11	3	40	55	102	12	140°			
NCD3-GP 1110-102/055-S12	●	11.1	3	40	55	102	12	140°			
NCD3-GP 1120-102/055-S12	●	11.2	3	40	55	102	12	140°			
NCD3-GP 1130-102/055-S12	●	11.3	3	40	55	102	12	140°			
NCD3-GP 1140-102/055-S12	●	11.4	3	40	55	102	12	140°			
NCD3-GP 1150-102/055-S12	●	11.5	3	40	55	102	12	140°			
NCD3-GP 1160-102/055-S12	●	11.6	3	40	55	102	12	140°			
NCD3-GP 1170-102/055-S12	●	11.7	3	40	55	102	12	140°			
NCD3-GP 1180-102/055-S12	●	11.8	3	40	55	102	12	140°			
NCD3-GP 1190-102/055-S12	●	11.9	3	40	55	102	12	140°			
NCD3-GP 1200-102/055-S12	●	12	3	40	55	102	12	140°			
NCD3-GP 1250-107/060-S14	●	12.5	3	43	60	107	14	140°			
NCD3-GP 1300-107/060-S14	●	13	3	43	60	107	14	140°			
NCD3-GP 1350-107/060-S14	●	13.5	3	43	60	107	14	140°			
NCD3-GP 1400-107/060-S14	●	14	3	43	60	107	14	140°			
NCD3-GP 1450-115/065-S16	●	14.5	3	45	65	115	16	140°			
NCD3-GP 1500-115/065-S16	●	15	3	49	65	115	16	140°			
NCD3-GP 1550-115/065-S16	●	15.5	3	49	65	115	16	140°			
NCD3-GP 1600-115/065-S16	●	16	3	49	65	115	16	140°			
NCD3-GP 1650-123/073-S18	●	16.5	3	52	73	123	18	140°			
NCD3-GP 1700-123/073-S18	●	17	3	52	73	123	18	140°			
NCD3-GP 1750-123/073-S18	●	17.5	3	52	73	123	18	140°			
NCD3-GP 1800-123/073-S18	●	18	3	52	73	123	18	140°			
NCD3-GP 1850-131/079-S20	●	18.5	3	55	79	131	20	140°			
NCD3-GP 1900-131/079-S20	●	19	3	55	79	131	20	140°			
NCD3-GP 1950-131/079-S20	●	19.5	3	55	79	131	20	140°			
NCD3-GP 2000-131/079-S20	●	20	3	55	79	131	20	140°			

● stock standard, ○ non-standard stock, ▲ upcoming introduction, ▽ stock exhaustion

nikkoTOOLS

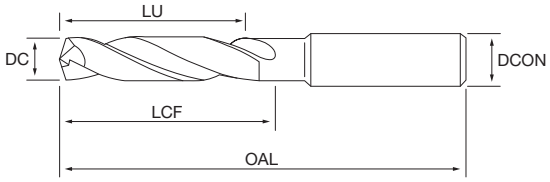
NCD5-GP

NCD

- First choice for steel and cast iron machining (<45 HRC)
- **Without** coolant holes
- Self centering geometry for accurate holes
- AlTin-nano based coating for long lasting tool life

5xD

P K



Designation	Stock	DC	ULDR	LU	LCF	OAL	DCON	SIG			
NCD5-GP 0300-066/028-S06	●	3	5	23	28	66	6	140°			
NCD5-GP 0310-066/028-S06	●	3.1	5	23	28	66	6	140°			
NCD5-GP 0320-066/028-S06	●	3.2	5	23	28	66	6	140°			
NCD5-GP 0330-066/028-S06	●	3.3	5	23	28	66	6	140°			
NCD5-GP 0340-066/028-S06	●	3.4	5	23	28	66	6	140°			
NCD5-GP 0350-066/028-S06	●	3.5	5	23	28	66	6	140°			
NCD5-GP 0360-066/028-S06	●	3.6	5	23	28	66	6	140°			
NCD5-GP 0370-066/028-S06	●	3.7	5	23	28	66	6	140°			
NCD5-GP 0380-074/036-S06	●	3.8	5	29	36	74	6	140°			
NCD5-GP 0390-074/036-S06	●	3.9	5	29	36	74	6	140°			
NCD5-GP 0400-074/036-S06	●	4	5	29	36	74	6	140°			
NCD5-GP 0410-074/036-S06	●	4.1	5	29	36	74	6	140°			
NCD5-GP 0420-074/036-S06	●	4.2	5	29	36	74	6	140°			
NCD5-GP 0430-074/036-S06	●	4.3	5	29	36	74	6	140°			
NCD5-GP 0440-074/036-S06	●	4.4	5	29	36	74	6	140°			
NCD5-GP 0450-074/036-S06	●	4.5	5	29	36	74	6	140°			
NCD5-GP 0460-074/036-S06	●	4.6	5	29	36	74	6	140°			
NCD5-GP 0470-074/036-S06	●	4.7	5	29	36	74	6	140°			
NCD5-GP 0480-082/044-S06	●	4.8	5	35	44	82	6	140°			
NCD5-GP 0490-082/044-S06	●	4.9	5	35	44	82	6	140°			
NCD5-GP 0500-082/044-S06	●	5	5	35	44	82	6	140°			
NCD5-GP 0510-082/044-S06	●	5.1	5	35	44	82	6	140°			
NCD5-GP 0520-082/044-S06	●	5.2	5	35	44	82	6	140°			
NCD5-GP 0530-082/044-S06	●	5.3	5	35	44	82	6	140°			
NCD5-GP 0540-082/044-S06	●	5.4	5	35	44	82	6	140°			
NCD5-GP 0550-082/044-S06	●	5.5	5	35	44	82	6	140°			
NCD5-GP 0560-082/044-S06	●	5.6	5	35	44	82	6	140°			
NCD5-GP 0570-082/044-S06	●	5.7	5	35	44	82	6	140°			
NCD5-GP 0580-082/044-S06	●	5.8	5	35	44	82	6	140°			
NCD5-GP 0590-082/044-S06	●	5.9	5	35	44	82	6	140°			
NCD5-GP 0600-082/044-S06	●	6	5	35	44	82	6	140°			
NCD5-GP 0610-091/053-S08	●	6.1	5	43	53	91	8	140°			
NCD5-GP 0620-091/053-S08	●	6.2	5	43	53	91	8	140°			
NCD5-GP 0630-091/053-S08	●	6.3	5	43	53	91	8	140°			
NCD5-GP 0640-091/053-S08	●	6.4	5	43	53	91	8	140°			
NCD5-GP 0650-091/053-S08	●	6.5	5	43	53	91	8	140°			
NCD5-GP 0660-091/053-S08	●	6.6	5	43	53	91	8	140°			
NCD5-GP 0670-091/053-S08	●	6.7	5	43	53	91	8	140°			
NCD5-GP 0680-091/053-S08	●	6.8	5	43	53	91	8	140°			
NCD5-GP 0690-091/053-S08	●	6.9	5	43	53	91	8	140°			
NCD5-GP 0700-091/053-S08	●	7	5	43	53	91	8	140°			
NCD5-GP 0710-091/053-S08	●	7.1	5	43	53	91	8	140°			
NCD5-GP 0720-091/053-S08	●	7.2	5	43	53	91	8	140°			
NCD5-GP 0730-091/053-S08	●	7.3	5	43	53	91	8	140°			
NCD5-GP 0740-091/053-S08	●	7.4	5	43	53	91	8	140°			
NCD5-GP 0750-091/053-S08	●	7.5	5	43	53	91	8	140°			
NCD5-GP 0760-091/053-S08	●	7.6	5	43	53	91	8	140°			
NCD5-GP 0770-091/053-S08	●	7.7	5	43	53	91	8	140°			

● stock standard, ○ non-standard stock, ▲ upcoming introduction, ▽ stock exhaustion

Designation	Stock	DC	ULDR	LU	LCF	OAL	DCON	SIG			
NCD5-GP 0780-091/053-S08	●	7.8	5	43	53	91	8	140°			
NCD5-GP 0790-091/053-S08	●	7.9	5	43	53	91	8	140°			
NCD5-GP 0800-091/053-S08	●	8	5	43	53	91	8	140°			
NCD5-GP 0810-103/061-S10	●	8.1	5	48.85	61	103	10	140°			
NCD5-GP 0820-103/061-S10	●	8.2	5	48.7	61	103	10	140°			
NCD5-GP 0830-103/061-S10	●	8.3	5	48.55	61	103	10	140°			
NCD5-GP 0840-103/061-S10	●	8.4	5	49	61	103	10	140°			
NCD5-GP 0850-103/061-S10	●	8.5	5	49	61	103	10	140°			
NCD5-GP 0860-103/061-S10	●	8.6	5	49	61	103	10	140°			
NCD5-GP 0870-103/061-S10	●	8.7	5	49	61	103	10	140°			
NCD5-GP 0880-103/061-S10	●	8.8	5	49	61	103	10	140°			
NCD5-GP 0890-103/061-S10	●	8.9	5	49	61	103	10	140°			
NCD5-GP 0900-103/061-S10	●	9	5	49	61	103	10	140°			
NCD5-GP 0910-103/061-S10	●	9.1	5	49	61	103	10	140°			
NCD5-GP 0920-103/061-S10	●	9.2	5	49	61	103	10	140°			
NCD5-GP 0930-103/061-S10	●	9.3	5	49	61	103	10	140°			
NCD5-GP 0940-103/061-S10	●	9.4	5	49	61	103	10	140°			
NCD5-GP 0950-103/061-S10	●	9.5	5	49	61	103	10	140°			
NCD5-GP 0960-103/061-S10	●	9.6	5	49	61	103	10	140°			
NCD5-GP 0970-103/061-S10	●	9.7	5	49	61	103	10	140°			
NCD5-GP 0980-103/061-S10	●	9.8	5	49	61	103	10	140°			
NCD5-GP 0990-103/061-S10	●	9.9	5	49	61	103	10	140°			
NCD5-GP 1000-103/061-S10	●	10	5	49	61	103	10	140°			
NCD5-GP 1010-118/071-S12	●	10.1	5	52	71	118	12	140°			
NCD5-GP 1020-118/071-S12	●	10.2	5	52	71	118	12	140°			
NCD5-GP 1030-118/071-S12	●	10.3	5	52	71	118	12	140°			
NCD5-GP 1040-118/071-S12	●	10.4	5	52	71	118	12	140°			
NCD5-GP 1050-118/071-S12	●	10.5	5	52	71	118	12	140°			
NCD5-GP 1060-118/071-S12	●	10.6	5	52	71	118	12	140°			
NCD5-GP 1070-118/071-S12	●	10.7	5	52	71	118	12	140°			
NCD5-GP 1080-118/071-S12	●	10.8	5	52	71	118	12	140°			
NCD5-GP 1090-118/071-S12	●	10.9	5	52	71	118	12	140°			
NCD5-GP 1100-118/071-S12	●	11	5	52	71	118	12	140°			
NCD5-GP 1110-118/071-S12	●	11.1	5	52	71	118	12	140°			
NCD5-GP 1120-118/071-S12	●	11.2	5	52	71	118	12	140°			
NCD5-GP 1130-118/071-S12	●	11.3	5	52	71	118	12	140°			
NCD5-GP 1140-118/071-S12	●	11.4	5	52	71	118	12	140°			
NCD5-GP 1150-118/071-S12	●	11.5	5	52	71	118	12	140°			
NCD5-GP 1160-118/071-S12	●	11.6	5	52	71	118	12	140°			
NCD5-GP 1170-118/071-S12	●	11.7	5	52	71	118	12	140°			
NCD5-GP 1180-118/071-S12	●	11.8	5	52	71	118	12	140°			
NCD5-GP 1190-118/071-S12	●	11.9	5	52	71	118	12	140°			
NCD5-GP 1200-118/071-S12	●	12	5	52	71	118	12	140°			
NCD5-GP 1250-124/077-S14	●	12.5	5	63	77	124	14	140°			
NCD5-GP 1300-124/077-S14	●	13	5	63	77	124	14	140°			
NCD5-GP 1350-124/077-S14	●	13.5	5	63	77	124	14	140°			
NCD5-GP 1400-124/077-S14	●	14	5	63	77	124	14	140°			
NCD5-GP 1450-133/083-S16	●	14.5	5	67	83	133	16	140°			
NCD5-GP 1500-133/083-S16	●	15	5	67	83	133	16	140°			
NCD5-GP 1550-133/083-S16	●	15.5	5	67	83	133	16	140°			
NCD5-GP 1600-133/083-S16	●	16	5	67	83	133	16	140°			
NCD5-GP 1650-143/093-S18	●	16.5	5	75	93	143	18	140°			
NCD5-GP 1700-143/093-S18	●	17	5	75	93	143	18	140°			
NCD5-GP 1750-143/093-S18	●	17.5	5	75	93	143	18	140°			
NCD5-GP 1800-143/093-S18	●	18	5	75	93	143	18	140°			
NCD5-GP 1850-153/101-S20	●	18.5	5	81	101	153	20	140°			
NCD5-GP 1900-153/101-S20	●	19	5	81	101	153	20	140°			
NCD5-GP 1950-153/101-S20	●	19.5	5	81	101	153	20	140°			
NCD5-GP 2000-153/101-S20	●	20	5	81	101	153	20	140°			

● stock standard, ○ non-standard stock, ▲ upcoming introduction, ▽ stock exhaustion

nikkoTOOLS

NCD3H-GP

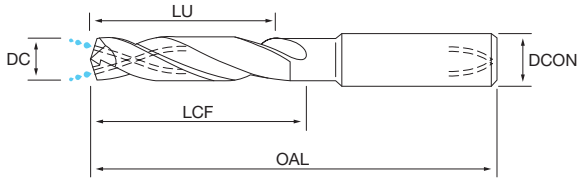
NCD

- First choice for steel and cast iron machining (<45 HRC)
- With coolant holes
- Self centering geometry for accurate holes
- AlTin-nano based coating for long lasting tool life

3xD

with coolant holes

P K



Designation	Stock	DC	ULDR	LU	LCF	OAL	DCON	SIG			
NCD3H-GP 0300-062/020-S06	●	3	3	14	20	62	6	140°			
NCD3H-GP 0310-062/020-S06	●	3.1	3	14	20	62	6	140°			
NCD3H-GP 0320-062/020-S06	●	3.2	3	14	20	62	6	140°			
NCD3H-GP 0330-062/020-S06	●	3.3	3	14	20	62	6	140°			
NCD3H-GP 0340-062/020-S06	●	3.4	3	14	20	62	6	140°			
NCD3H-GP 0350-062/020-S06	●	3.5	3	14	20	62	6	140°			
NCD3H-GP 0360-062/020-S06	●	3.6	3	14	20	62	6	140°			
NCD3H-GP 0370-062/020-S06	●	3.7	3	14	20	62	6	140°			
NCD3H-GP 0380-066/024-S06	●	3.8	3	17	24	66	6	140°			
NCD3H-GP 0390-066/024-S06	●	3.9	3	17	24	66	6	140°			
NCD3H-GP 0400-066/024-S06	●	4	3	17	24	66	6	140°			
NCD3H-GP 0410-066/024-S06	●	4.1	3	17	24	66	6	140°			
NCD3H-GP 0420-066/024-S06	●	4.2	3	17	24	66	6	140°			
NCD3H-GP 0430-066/024-S06	●	4.3	3	17	24	66	6	140°			
NCD3H-GP 0440-066/024-S06	●	4.4	3	17	24	66	6	140°			
NCD3H-GP 0450-066/024-S06	●	4.5	3	17	24	66	6	140°			
NCD3H-GP 0460-066/024-S06	●	4.6	3	17	24	66	6	140°			
NCD3H-GP 0470-066/024-S06	●	4.7	3	17	24	66	6	140°			
NCD3H-GP 0480-066/028-S06	●	4.8	3	20	28	66	6	140°			
NCD3H-GP 0490-066/028-S06	●	4.9	3	20	28	66	6	140°			
NCD3H-GP 0500-066/028-S06	●	5	3	20	28	66	6	140°			
NCD3H-GP 0510-066/028-S06	●	5.1	3	20	28	66	6	140°			
NCD3H-GP 0520-066/028-S06	●	5.2	3	20	28	66	6	140°			
NCD3H-GP 0530-066/028-S06	●	5.3	3	20	28	66	6	140°			
NCD3H-GP 0540-066/028-S06	●	5.4	3	20	28	66	6	140°			
NCD3H-GP 0550-066/028-S06	●	5.5	3	20	28	66	6	140°			
NCD3H-GP 0560-066/028-S06	●	5.6	3	20	28	66	6	140°			
NCD3H-GP 0570-066/028-S06	●	5.7	3	20	28	66	6	140°			
NCD3H-GP 0580-066/028-S06	●	5.8	3	20	28	66	6	140°			
NCD3H-GP 0590-066/028-S06	●	5.9	3	20	28	66	6	140°			
NCD3H-GP 0600-066/028-S06	●	6	3	20	28	66	6	140°			
NCD3H-GP 0610-079/034-S08	●	6.1	3	24	34	79	8	140°			
NCD3H-GP 0620-079/034-S08	●	6.2	3	24	34	79	8	140°			
NCD3H-GP 0630-079/034-S08	●	6.3	3	24	34	79	8	140°			
NCD3H-GP 0640-079/034-S08	●	6.4	3	24	34	79	8	140°			
NCD3H-GP 0650-079/034-S08	●	6.5	3	24	34	79	8	140°			
NCD3H-GP 0660-079/034-S08	●	6.6	3	24	34	79	8	140°			
NCD3H-GP 0670-079/034-S08	●	6.7	3	24	34	79	8	140°			
NCD3H-GP 0680-079/034-S08	●	6.8	3	24	34	79	8	140°			
NCD3H-GP 0690-079/034-S08	●	6.9	3	24	34	79	8	140°			
NCD3H-GP 0700-079/034-S08	●	7	3	24	34	79	8	140°			
NCD3H-GP 0710-079/041-S08	●	7.1	3	29	41	79	8	140°			
NCD3H-GP 0720-079/041-S08	●	7.2	3	29	41	79	8	140°			
NCD3H-GP 0730-079/041-S08	●	7.3	3	29	41	79	8	140°			
NCD3H-GP 0740-079/041-S08	●	7.4	3	29	41	79	8	140°			
NCD3H-GP 0750-079/041-S08	●	7.5	3	29	41	79	8	140°			
NCD3H-GP 0760-079/041-S08	●	7.6	3	29	41	79	8	140°			
NCD3H-GP 0770-079/041-S08	●	7.7	3	29	41	79	8	140°			

● stock standard, ○ non-standard stock, ▲ upcoming introduction, ▽ stock exhaustion

Designation	Stock	DC	ULDR	LU	LCF	OAL	DCON	SIG			
NCD3H-GP 0780-079/041-S08	●	7.8	3	29	41	79	8	140°			
NCD3H-GP 0790-079/041-S08	●	7.9	3	29	41	79	8	140°			
NCD3H-GP 0800-079/041-S08	●	8	3	29	41	79	8	140°			
NCD3H-GP 0810-089/047-S10	●	8.1	3	35	47	89	10	140°			
NCD3H-GP 0820-089/047-S10	●	8.2	3	35	47	89	10	140°			
NCD3H-GP 0830-089/047-S10	●	8.3	3	35	47	89	10	140°			
NCD3H-GP 0840-089/047-S10	●	8.4	3	35	47	89	10	140°			
NCD3H-GP 0850-089/047-S10	●	8.5	3	35	47	89	10	140°			
NCD3H-GP 0860-089/047-S10	●	8.6	3	35	47	89	10	140°			
NCD3H-GP 0870-089/047-S10	●	8.7	3	35	47	89	10	140°			
NCD3H-GP 0880-089/047-S10	●	8.8	3	35	47	89	10	140°			
NCD3H-GP 0890-089/047-S10	●	8.9	3	35	47	89	10	140°			
NCD3H-GP 0900-089/047-S10	●	9	3	35	47	89	10	140°			
NCD3H-GP 0910-089/047-S10	●	9.1	3	35	47	89	10	140°			
NCD3H-GP 0920-089/047-S10	●	9.2	3	35	47	89	10	140°			
NCD3H-GP 0930-089/047-S10	●	9.3	3	35	47	89	10	140°			
NCD3H-GP 0940-089/047-S10	●	9.4	3	35	47	89	10	140°			
NCD3H-GP 0950-089/047-S10	●	9.5	3	35	47	89	10	140°			
NCD3H-GP 0960-089/047-S10	●	9.6	3	35	47	89	10	140°			
NCD3H-GP 0970-089/047-S10	●	9.7	3	35	47	89	10	140°			
NCD3H-GP 0980-089/047-S10	●	9.8	3	35	47	89	10	140°			
NCD3H-GP 0990-089/047-S10	●	9.9	3	35	47	89	10	140°			
NCD3H-GP 1000-089/047-S10	●	10	3	35	47	89	10	140°			
NCD3H-GP 1010-102/055-S12	●	10.1	3	40	55	102	12	140°			
NCD3H-GP 1020-102/055-S12	●	10.2	3	40	55	102	12	140°			
NCD3H-GP 1030-102/055-S12	●	10.3	3	40	55	102	12	140°			
NCD3H-GP 1040-102/055-S12	●	10.4	3	40	55	102	12	140°			
NCD3H-GP 1050-102/055-S12	●	10.5	3	40	55	102	12	140°			
NCD3H-GP 1060-102/055-S12	●	10.6	3	40	55	102	12	140°			
NCD3H-GP 1070-102/055-S12	●	10.7	3	40	55	102	12	140°			
NCD3H-GP 1080-102/055-S12	●	10.8	3	40	55	102	12	140°			
NCD3H-GP 1090-102/055-S12	●	10.9	3	40	55	102	12	140°			
NCD3H-GP 1100-102/055-S12	●	11	3	40	55	102	12	140°			
NCD3H-GP 1110-102/055-S12	●	11.1	3	40	55	102	12	140°			
NCD3H-GP 1120-102/055-S12	●	11.2	3	40	55	102	12	140°			
NCD3H-GP 1130-102/055-S12	●	11.3	3	40	55	102	12	140°			
NCD3H-GP 1140-102/055-S12	●	11.4	3	40	55	102	12	140°			
NCD3H-GP 1150-102/055-S12	●	11.5	3	40	55	102	12	140°			
NCD3H-GP 1160-102/055-S12	●	11.6	3	40	55	102	12	140°			
NCD3H-GP 1170-102/055-S12	●	11.7	3	40	55	102	12	140°			
NCD3H-GP 1180-102/055-S12	●	11.8	3	40	55	102	12	140°			
NCD3H-GP 1190-102/055-S12	●	11.9	3	40	55	102	12	140°			
NCD3H-GP 1200-102/055-S12	●	12	3	40	55	102	12	140°			
NCD3H-GP 1250-107/060-S14	●	12.5	3	43	60	107	14	140°			
NCD3H-GP 1300-107/060-S14	●	13	3	43	60	107	14	140°			
NCD3H-GP 1350-107/060-S14	●	13.5	3	43	60	107	14	140°			
NCD3H-GP 1400-107/060-S14	●	14	3	43	60	107	14	140°			
NCD3H-GP 1450-115/065-S16	●	14.5	3	45	65	115	16	140°			
NCD3H-GP 1500-115/065-S16	●	15	3	49	65	115	16	140°			
NCD3H-GP 1550-115/065-S16	●	15.5	3	49	65	115	16	140°			
NCD3H-GP 1600-115/065-S16	●	16	3	49	65	115	16	140°			
NCD3H-GP 1650-123/073-S18	●	16.5	3	52	73	123	18	140°			
NCD3H-GP 1700-123/073-S18	●	17	3	52	73	123	18	140°			
NCD3H-GP 1750-123/073-S18	●	17.5	3	52	73	123	18	140°			
NCD3H-GP 1800-123/073-S18	●	18	3	52	73	123	18	140°			
NCD3H-GP 1850-131/079-S20	●	18.5	3	55	79	131	20	140°			
NCD3H-GP 1900-131/079-S20	●	19	3	55	79	131	20	140°			
NCD3H-GP 1950-131/079-S20	●	19.5	3	55	79	131	20	140°			
NCD3H-GP 2000-131/079-S20	●	20	3	55	79	131	20	140°			

● stock standard, ○ non-standard stock, ▲ upcoming introduction, ▽ stock exhaustion

nikkoTOOLS

NCD5H-GP

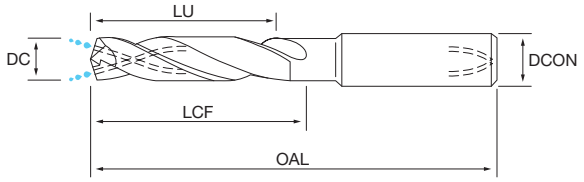
NCD

- First choice for steel and cast iron machining (<45 HRC)
- With coolant holes
- Self centering geometry for accurate holes
- AlTin-nano based coating for long lasting tool life

5xD

with coolant holes

P K



Designation	Stock	DC	ULDR	LU	LCF	OAL	DCON	SIG			
NCD5H-GP 0300-066/028-S06	●	3	5	23	28	66	6	140°			
NCD5H-GP 0310-066/028-S06	●	3.1	5	23	28	66	6	140°			
NCD5H-GP 0320-066/028-S06	●	3.2	5	23	28	66	6	140°			
NCD5H-GP 0330-066/028-S06	●	3.3	5	23	28	66	6	140°			
NCD5H-GP 0340-066/028-S06	●	3.4	5	23	28	66	6	140°			
NCD5H-GP 0350-066/028-S06	●	3.5	5	23	28	66	6	140°			
NCD5H-GP 0360-066/028-S06	●	3.6	5	23	28	66	6	140°			
NCD5H-GP 0370-066/028-S06	●	3.7	5	23	28	66	6	140°			
NCD5H-GP 0380-074/036-S06	●	3.8	5	29	36	74	6	140°			
NCD5H-GP 0390-074/036-S06	●	3.9	5	29	36	74	6	140°			
NCD5H-GP 0400-074/036-S06	●	4	5	29	36	74	6	140°			
NCD5H-GP 0410-074/036-S06	●	4.1	5	29	36	74	6	140°			
NCD5H-GP 0420-074/036-S06	●	4.2	5	29	36	74	6	140°			
NCD5H-GP 0430-074/036-S06	●	4.3	5	29	36	74	6	140°			
NCD5H-GP 0440-074/036-S06	●	4.4	5	29	36	74	6	140°			
NCD5H-GP 0450-074/036-S06	●	4.5	5	29	36	74	6	140°			
NCD5H-GP 0460-074/036-S06	●	4.6	5	29	36	74	6	140°			
NCD5H-GP 0470-074/036-S06	●	4.7	5	29	36	74	6	140°			
NCD5H-GP 0480-082/044-S06	●	4.8	5	35	44	82	6	140°			
NCD5H-GP 0490-082/044-S06	●	4.9	5	35	44	82	6	140°			
NCD5H-GP 0500-082/044-S06	●	5	5	35	44	82	6	140°			
NCD5H-GP 0510-082/044-S06	●	5.1	5	35	44	82	6	140°			
NCD5H-GP 0520-082/044-S06	●	5.2	5	35	44	82	6	140°			
NCD5H-GP 0530-082/044-S06	●	5.3	5	35	44	82	6	140°			
NCD5H-GP 0540-082/044-S06	●	5.4	5	35	44	82	6	140°			
NCD5H-GP 0550-082/044-S06	●	5.5	5	35	44	82	6	140°			
NCD5H-GP 0560-082/044-S06	●	5.6	5	35	44	82	6	140°			
NCD5H-GP 0570-082/044-S06	●	5.7	5	35	44	82	6	140°			
NCD5H-GP 0580-082/044-S06	●	5.8	5	35	44	82	6	140°			
NCD5H-GP 0590-082/044-S06	●	5.9	5	35	44	82	6	140°			
NCD5H-GP 0600-082/044-S06	●	6	5	35	44	82	6	140°			
NCD5H-GP 0610-091/053-S08	●	6.1	5	43	53	91	8	140°			
NCD5H-GP 0620-091/053-S08	●	6.2	5	43	53	91	8	140°			
NCD5H-GP 0630-091/053-S08	●	6.3	5	43	53	91	8	140°			
NCD5H-GP 0640-091/053-S08	●	6.4	5	43	53	91	8	140°			
NCD5H-GP 0650-091/053-S08	●	6.5	5	43	53	91	8	140°			
NCD5H-GP 0660-091/053-S08	●	6.6	5	43	53	91	8	140°			
NCD5H-GP 0670-091/053-S08	●	6.7	5	43	53	91	8	140°			
NCD5H-GP 0680-091/053-S08	●	6.8	5	43	53	91	8	140°			
NCD5H-GP 0690-091/053-S08	●	6.9	5	43	53	91	8	140°			
NCD5H-GP 0700-091/053-S08	●	7	5	43	53	91	8	140°			
NCD5H-GP 0710-091/053-S08	●	7.1	5	43	53	91	8	140°			
NCD5H-GP 0720-091/053-S08	●	7.2	5	43	53	91	8	140°			
NCD5H-GP 0730-091/053-S08	●	7.3	5	43	53	91	8	140°			
NCD5H-GP 0740-091/053-S08	●	7.4	5	43	53	91	8	140°			
NCD5H-GP 0750-091/053-S08	●	7.5	5	43	53	91	8	140°			
NCD5H-GP 0760-091/053-S08	●	7.6	5	43	53	91	8	140°			
NCD5H-GP 0770-091/053-S08	●	7.7	5	43	53	91	8	140°			

● stock standard, ○ non-standard stock, ▲ upcoming introduction, ▽ stock exhaustion

Designation	Stock	DC	ULDR	LU	LCF	OAL	DCON	SIG			
NCD5H-GP 0780-091/053-S08	●	7.8	5	43	53	91	8	140°			
NCD5H-GP 0790-091/053-S08	●	7.9	5	43	53	91	8	140°			
NCD5H-GP 0800-091/053-S08	●	8	5	43	53	91	8	140°			
NCD5H-GP 0810-103/061-S10	●	8.1	5	48.85	61	103	10	140°			
NCD5H-GP 0820-103/061-S10	●	8.2	5	48.7	61	103	10	140°			
NCD5H-GP 0830-103/061-S10	●	8.3	5	48.55	61	103	10	140°			
NCD5H-GP 0840-103/061-S10	●	8.4	5	49	61	103	10	140°			
NCD5H-GP 0850-103/061-S10	●	8.5	5	49	61	103	10	140°			
NCD5H-GP 0860-103/061-S10	●	8.6	5	49	61	103	10	140°			
NCD5H-GP 0870-103/061-S10	●	8.7	5	49	61	103	10	140°			
NCD5H-GP 0880-103/061-S10	●	8.8	5	49	61	103	10	140°			
NCD5H-GP 0890-103/061-S10	●	8.9	5	49	61	103	10	140°			
NCD5H-GP 0900-103/061-S10	●	9	5	49	61	103	10	140°			
NCD5H-GP 0910-103/061-S10	●	9.1	5	49	61	103	10	140°			
NCD5H-GP 0920-103/061-S10	●	9.2	5	49	61	103	10	140°			
NCD5H-GP 0930-103/061-S10	●	9.3	5	49	61	103	10	140°			
NCD5H-GP 0940-103/061-S10	●	9.4	5	49	61	103	10	140°			
NCD5H-GP 0950-103/061-S10	●	9.5	5	49	61	103	10	140°			
NCD5H-GP 0960-103/061-S10	●	9.6	5	49	61	103	10	140°			
NCD5H-GP 0970-103/061-S10	●	9.7	5	49	61	103	10	140°			
NCD5H-GP 0980-103/061-S10	●	9.8	5	49	61	103	10	140°			
NCD5H-GP 0990-103/061-S10	●	9.9	5	49	61	103	10	140°			
NCD5H-GP 1000-103/061-S10	●	10	5	49	61	103	10	140°			
NCD5H-GP 1010-118/071-S12	●	10.1	5	52	71	118	12	140°			
NCD5H-GP 1020-118/071-S12	●	10.2	5	52	71	118	12	140°			
NCD5H-GP 1030-118/071-S12	●	10.3	5	52	71	118	12	140°			
NCD5H-GP 1040-118/071-S12	●	10.4	5	52	71	118	12	140°			
NCD5H-GP 1050-118/071-S12	●	10.5	5	52	71	118	12	140°			
NCD5H-GP 1060-118/071-S12	●	10.6	5	52	71	118	12	140°			
NCD5H-GP 1070-118/071-S12	●	10.7	5	52	71	118	12	140°			
NCD5H-GP 1080-118/071-S12	●	10.8	5	52	71	118	12	140°			
NCD5H-GP 1090-118/071-S12	●	10.9	5	52	71	118	12	140°			
NCD5H-GP 1100-118/071-S12	●	11	5	52	71	118	12	140°			
NCD5H-GP 1110-118/071-S12	●	11.1	5	52	71	118	12	140°			
NCD5H-GP 1120-118/071-S12	●	11.2	5	52	71	118	12	140°			
NCD5H-GP 1130-118/071-S12	●	11.3	5	52	71	118	12	140°			
NCD5H-GP 1140-118/071-S12	●	11.4	5	52	71	118	12	140°			
NCD5H-GP 1150-118/071-S12	●	11.5	5	52	71	118	12	140°			
NCD5H-GP 1160-118/071-S12	●	11.6	5	52	71	118	12	140°			
NCD5H-GP 1170-118/071-S12	●	11.7	5	52	71	118	12	140°			
NCD5H-GP 1180-118/071-S12	●	11.8	5	52	71	118	12	140°			
NCD5H-GP 1190-118/071-S12	●	11.9	5	52	71	118	12	140°			
NCD5H-GP 1200-118/071-S12	●	12	5	52	71	118	12	140°			
NCD5H-GP 1250-124/077-S14	●	12.5	5	63	77	124	14	140°			
NCD5H-GP 1300-124/077-S14	●	13	5	63	77	124	14	140°			
NCD5H-GP 1350-124/077-S14	●	13.5	5	63	77	124	14	140°			
NCD5H-GP 1400-124/077-S14	●	14	5	63	77	124	14	140°			
NCD5H-GP 1450-133/083-S16	●	14.5	5	67	83	133	16	140°			
NCD5H-GP 1500-133/083-S16	●	15	5	67	83	133	16	140°			
NCD5H-GP 1550-133/083-S16	●	15.5	5	67	83	133	16	140°			
NCD5H-GP 1600-133/083-S16	●	16	5	67	83	133	16	140°			
NCD5H-GP 1650-143/093-S18	●	16.5	5	75	93	143	18	140°			
NCD5H-GP 1700-143/093-S18	●	17	5	75	93	143	18	140°			
NCD5H-GP 1750-143/093-S18	●	17.5	5	75	93	143	18	140°			
NCD5H-GP 1800-143/093-S18	●	18	5	75	93	143	18	140°			
NCD5H-GP 1850-153/101-S20	●	18.5	5	81	101	153	20	140°			
NCD5H-GP 1900-153/101-S20	●	19	5	81	101	153	20	140°			
NCD5H-GP 1950-153/101-S20	●	19.5	5	81	101	153	20	140°			
NCD5H-GP 2000-153/101-S20	●	20	5	81	101	153	20	140°			

● stock standard, ○ non-standard stock, ▲ upcoming introduction, ▽ stock exhaustion

nikkoTOOLS

NCD3H-SC

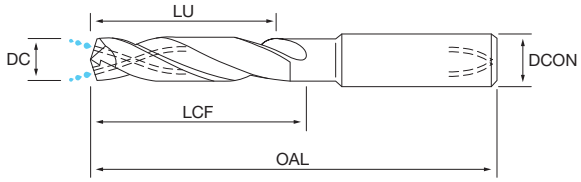
NCD

- First choice for stainless steel and sticky free-cutting steels
- With coolant holes
- Self centering geometry for accurate holes
- AlCrN based multilayer coating with very low friction coefficient to reduce built up edge

3xD

with coolant holes

P M S



Designation	Stock	DC	ULDR	LU	LCF	OAL	DCON	SIG			
NCD3H-SC 0300-062/020-S06	●	3	3	14	20	62	6	140°			
NCD3H-SC 0310-062/020-S06	●	3.1	3	14	20	62	6	140°			
NCD3H-SC 0320-062/020-S06	●	3.2	3	14	20	62	6	140°			
NCD3H-SC 0330-062/020-S06	●	3.3	3	14	20	62	6	140°			
NCD3H-SC 0340-062/020-S06	●	3.4	3	14	20	62	6	140°			
NCD3H-SC 0350-062/020-S06	●	3.5	3	14	20	62	6	140°			
NCD3H-SC 0360-062/020-S06	●	3.6	3	14	20	62	6	140°			
NCD3H-SC 0370-062/020-S06	●	3.7	3	14	20	62	6	140°			
NCD3H-SC 0380-066/024-S06	●	3.8	3	17	24	66	6	140°			
NCD3H-SC 0390-066/024-S06	●	3.9	3	17	24	66	6	140°			
NCD3H-SC 0400-066/024-S06	●	4	3	17	24	66	6	140°			
NCD3H-SC 0410-066/024-S06	●	4.1	3	17	24	66	6	140°			
NCD3H-SC 0420-066/024-S06	●	4.2	3	17	24	66	6	140°			
NCD3H-SC 0430-066/024-S06	●	4.3	3	17	24	66	6	140°			
NCD3H-SC 0440-066/024-S06	●	4.4	3	17	24	66	6	140°			
NCD3H-SC 0450-066/024-S06	●	4.5	3	17	24	66	6	140°			
NCD3H-SC 0460-066/024-S06	●	4.6	3	17	24	66	6	140°			
NCD3H-SC 0470-066/024-S06	●	4.7	3	17	24	66	6	140°			
NCD3H-SC 0480-066/028-S06	●	4.8	3	20	28	66	6	140°			
NCD3H-SC 0490-066/028-S06	●	4.9	3	20	28	66	6	140°			
NCD3H-SC 0500-066/028-S06	●	5	3	20	28	66	6	140°			
NCD3H-SC 0510-066/028-S06	●	5.1	3	20	28	66	6	140°			
NCD3H-SC 0520-066/028-S06	●	5.2	3	20	28	66	6	140°			
NCD3H-SC 0530-066/028-S06	●	5.3	3	20	28	66	6	140°			
NCD3H-SC 0540-066/028-S06	●	5.4	3	20	28	66	6	140°			
NCD3H-SC 0550-066/028-S06	●	5.5	3	20	28	66	6	140°			
NCD3H-SC 0560-066/028-S06	●	5.6	3	20	28	66	6	140°			
NCD3H-SC 0570-066/028-S06	●	5.7	3	20	28	66	6	140°			
NCD3H-SC 0580-066/028-S06	●	5.8	3	20	28	66	6	140°			
NCD3H-SC 0590-066/028-S06	●	5.9	3	20	28	66	6	140°			
NCD3H-SC 0600-066/028-S06	●	6	3	20	28	66	6	140°			
NCD3H-SC 0610-079/034-S08	●	6.1	3	24	34	79	8	140°			
NCD3H-SC 0620-079/034-S08	●	6.2	3	24	34	79	8	140°			
NCD3H-SC 0630-079/034-S08	●	6.3	3	24	34	79	8	140°			
NCD3H-SC 0640-079/034-S08	●	6.4	3	24	34	79	8	140°			
NCD3H-SC 0650-079/034-S08	●	6.5	3	24	34	79	8	140°			
NCD3H-SC 0660-079/034-S08	●	6.6	3	24	34	79	8	140°			
NCD3H-SC 0670-079/034-S08	●	6.7	3	24	34	79	8	140°			
NCD3H-SC 0680-079/034-S08	●	6.8	3	24	34	79	8	140°			
NCD3H-SC 0690-079/034-S08	●	6.9	3	24	34	79	8	140°			
NCD3H-SC 0700-079/034-S08	●	7	3	24	34	79	8	140°			
NCD3H-SC 0710-079/041-S08	●	7.1	3	29	41	79	8	140°			
NCD3H-SC 0720-079/041-S08	●	7.2	3	29	41	79	8	140°			
NCD3H-SC 0730-079/041-S08	●	7.3	3	29	41	79	8	140°			
NCD3H-SC 0740-079/041-S08	●	7.4	3	29	41	79	8	140°			
NCD3H-SC 0750-079/041-S08	●	7.5	3	29	41	79	8	140°			
NCD3H-SC 0760-079/041-S08	●	7.6	3	29	41	79	8	140°			
NCD3H-SC 0770-079/041-S08	●	7.7	3	29	41	79	8	140°			

● stock standard, ○ non-standard stock, ▲ upcoming introduction, ▽ stock exhaustion

Designation	Stock	DC	ULDR	LU	LCF	OAL	DCON	SIG			
NCD3H-SC 0780-079/041-S08	●	7.8	3	29	41	79	8	140°			
NCD3H-SC 0790-079/041-S08	●	7.9	3	29	41	79	8	140°			
NCD3H-SC 0800-079/041-S08	●	8	3	29	41	79	8	140°			
NCD3H-SC 0810-089/047-S10	●	8.1	3	35	47	89	10	140°			
NCD3H-SC 0820-089/047-S10	●	8.2	3	35	47	89	10	140°			
NCD3H-SC 0830-089/047-S10	●	8.3	3	35	47	89	10	140°			
NCD3H-SC 0840-089/047-S10	●	8.4	3	35	47	89	10	140°			
NCD3H-SC 0850-089/047-S10	●	8.5	3	35	47	89	10	140°			
NCD3H-SC 0860-089/047-S10	●	8.6	3	35	47	89	10	140°			
NCD3H-SC 0870-089/047-S10	●	8.7	3	35	47	89	10	140°			
NCD3H-SC 0880-089/047-S10	●	8.8	3	35	47	89	10	140°			
NCD3H-SC 0890-089/047-S10	●	8.9	3	35	47	89	10	140°			
NCD3H-SC 0900-089/047-S10	●	9	3	35	47	89	10	140°			
NCD3H-SC 0910-089/047-S10	●	9.1	3	35	47	89	10	140°			
NCD3H-SC 0920-089/047-S10	●	9.2	3	35	47	89	10	140°			
NCD3H-SC 0930-089/047-S10	●	9.3	3	35	47	89	10	140°			
NCD3H-SC 0940-089/047-S10	●	9.4	3	35	47	89	10	140°			
NCD3H-SC 0950-089/047-S10	●	9.5	3	35	47	89	10	140°			
NCD3H-SC 0960-089/047-S10	●	9.6	3	35	47	89	10	140°			
NCD3H-SC 0970-089/047-S10	●	9.7	3	35	47	89	10	140°			
NCD3H-SC 0980-089/047-S10	●	9.8	3	35	47	89	10	140°			
NCD3H-SC 0990-089/047-S10	●	9.9	3	35	47	89	10	140°			
NCD3H-SC 1000-089/047-S10	●	10	3	35	47	89	10	140°			
NCD3H-SC 1010-102/055-S12	●	10.1	3	40	55	102	12	140°			
NCD3H-SC 1020-102/055-S12	●	10.2	3	40	55	102	12	140°			
NCD3H-SC 1030-102/055-S12	●	10.3	3	40	55	102	12	140°			
NCD3H-SC 1040-102/055-S12	●	10.4	3	40	55	102	12	140°			
NCD3H-SC 1050-102/055-S12	●	10.5	3	40	55	102	12	140°			
NCD3H-SC 1060-102/055-S12	●	10.6	3	40	55	102	12	140°			
NCD3H-SC 1070-102/055-S12	●	10.7	3	40	55	102	12	140°			
NCD3H-SC 1080-102/055-S12	●	10.8	3	40	55	102	12	140°			
NCD3H-SC 1090-102/055-S12	●	10.9	3	40	55	102	12	140°			
NCD3H-SC 1100-102/055-S12	●	11	3	40	55	102	12	140°			
NCD3H-SC 1110-102/055-S12	●	11.1	3	40	55	102	12	140°			
NCD3H-SC 1120-102/055-S12	●	11.2	3	40	55	102	12	140°			
NCD3H-SC 1130-102/055-S12	●	11.3	3	40	55	102	12	140°			
NCD3H-SC 1140-102/055-S12	●	11.4	3	40	55	102	12	140°			
NCD3H-SC 1150-102/055-S12	●	11.5	3	40	55	102	12	140°			
NCD3H-SC 1160-102/055-S12	●	11.6	3	40	55	102	12	140°			
NCD3H-SC 1170-102/055-S12	●	11.7	3	40	55	102	12	140°			
NCD3H-SC 1180-102/055-S12	●	11.8	3	40	55	102	12	140°			
NCD3H-SC 1190-102/055-S12	●	11.9	3	40	55	102	12	140°			
NCD3H-SC 1200-102/055-S12	●	12	3	40	55	102	12	140°			
NCD3H-SC 1250-107/060-S14	●	12.5	3	43	60	107	14	140°			
NCD3H-SC 1300-107/060-S14	●	13	3	43	60	107	14	140°			
NCD3H-SC 1350-107/060-S14	●	13.5	3	43	60	107	14	140°			
NCD3H-SC 1400-107/060-S14	●	14	3	43	60	107	14	140°			
NCD3H-SC 1450-115/065-S16	●	14.5	3	45	65	115	16	140°			
NCD3H-SC 1500-115/065-S16	●	15	3	49	65	115	16	140°			
NCD3H-SC 1550-115/065-S16	●	15.5	3	49	65	115	16	140°			
NCD3H-SC 1600-115/065-S16	●	16	3	49	65	115	16	140°			
NCD3H-SC 1650-123/073-S18	●	16.5	3	52	73	123	18	140°			
NCD3H-SC 1700-123/073-S18	●	17	3	52	73	123	18	140°			
NCD3H-SC 1750-123/073-S18	●	17.5	3	52	73	123	18	140°			
NCD3H-SC 1800-123/073-S18	●	18	3	52	73	123	18	140°			
NCD3H-SC 1850-131/079-S20	●	18.5	3	55	79	131	20	140°			
NCD3H-SC 1900-131/079-S20	●	19	3	55	79	131	20	140°			
NCD3H-SC 1950-131/079-S20	●	19.5	3	55	79	131	20	140°			
NCD3H-SC 2000-131/079-S20	●	20	3	55	79	131	20	140°			

● stock standard, ○ non-standard stock, ▲ upcoming introduction, ▽ stock exhaustion

nikkoTOOLS

NCD5H-SC

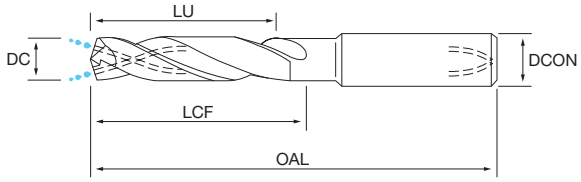
NCD

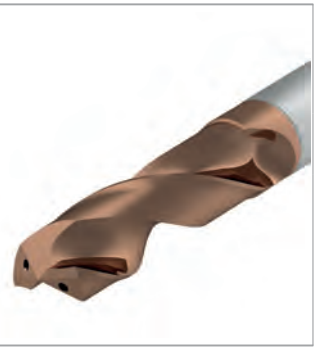
- First choice for stainless steel and sticky free-cutting steels
- With coolant holes
- Self centering geometry for accurate holes
- AlCrN based multilayer coating with very low friction coefficient to reduce built up edge

5xD

with coolant holes

P M S





Designation	Stock	DC	ULDR	LU	LCF	OAL	DCON	SIG			
NCD5H-SC 0300-066/028-S06	●	3	5	23	28	66	6	140°			
NCD5H-SC 0310-066/028-S06	●	3.1	5	23	28	66	6	140°			
NCD5H-SC 0320-066/028-S06	●	3.2	5	23	28	66	6	140°			
NCD5H-SC 0330-066/028-S06	●	3.3	5	23	28	66	6	140°			
NCD5H-SC 0340-066/028-S06	●	3.4	5	23	28	66	6	140°			
NCD5H-SC 0350-066/028-S06	●	3.5	5	23	28	66	6	140°			
NCD5H-SC 0360-066/028-S06	●	3.6	5	23	28	66	6	140°			
NCD5H-SC 0370-066/028-S06	●	3.7	5	23	28	66	6	140°			
NCD5H-SC 0380-074/036-S06	●	3.8	5	29	36	74	6	140°			
NCD5H-SC 0390-074/036-S06	●	3.9	5	29	36	74	6	140°			
NCD5H-SC 0400-074/036-S06	●	4	5	29	36	74	6	140°			
NCD5H-SC 0410-074/036-S06	●	4.1	5	29	36	74	6	140°			
NCD5H-SC 0420-074/036-S06	●	4.2	5	29	36	74	6	140°			
NCD5H-SC 0430-074/036-S06	●	4.3	5	29	36	74	6	140°			
NCD5H-SC 0440-074/036-S06	●	4.4	5	29	36	74	6	140°			
NCD5H-SC 0450-074/036-S06	●	4.5	5	29	36	74	6	140°			
NCD5H-SC 0460-074/036-S06	●	4.6	5	29	36	74	6	140°			
NCD5H-SC 0470-074/036-S06	●	4.7	5	29	36	74	6	140°			
NCD5H-SC 0480-082/044-S06	●	4.8	5	35	44	82	6	140°			
NCD5H-SC 0490-082/044-S06	●	4.9	5	35	44	82	6	140°			
NCD5H-SC 0500-082/044-S06	●	5	5	35	44	82	6	140°			
NCD5H-SC 0510-082/044-S06	●	5.1	5	35	44	82	6	140°			
NCD5H-SC 0520-082/044-S06	●	5.2	5	35	44	82	6	140°			
NCD5H-SC 0530-082/044-S06	●	5.3	5	35	44	82	6	140°			
NCD5H-SC 0540-082/044-S06	●	5.4	5	35	44	82	6	140°			
NCD5H-SC 0550-082/044-S06	●	5.5	5	35	44	82	6	140°			
NCD5H-SC 0560-082/044-S06	●	5.6	5	35	44	82	6	140°			
NCD5H-SC 0570-082/044-S06	●	5.7	5	35	44	82	6	140°			
NCD5H-SC 0580-082/044-S06	●	5.8	5	35	44	82	6	140°			
NCD5H-SC 0590-082/044-S06	●	5.9	5	35	44	82	6	140°			
NCD5H-SC 0600-082/044-S06	●	6	5	35	44	82	6	140°			
NCD5H-SC 0610-091/053-S08	●	6.1	5	43	53	91	8	140°			
NCD5H-SC 0620-091/053-S08	●	6.2	5	43	53	91	8	140°			
NCD5H-SC 0630-091/053-S08	●	6.3	5	43	53	91	8	140°			
NCD5H-SC 0640-091/053-S08	●	6.4	5	43	53	91	8	140°			
NCD5H-SC 0650-091/053-S08	●	6.5	5	43	53	91	8	140°			
NCD5H-SC 0660-091/053-S08	●	6.6	5	43	53	91	8	140°			
NCD5H-SC 0670-091/053-S08	●	6.7	5	43	53	91	8	140°			
NCD5H-SC 0680-091/053-S08	●	6.8	5	43	53	91	8	140°			
NCD5H-SC 0690-091/053-S08	●	6.9	5	43	53	91	8	140°			
NCD5H-SC 0700-091/053-S08	●	7	5	43	53	91	8	140°			
NCD5H-SC 0710-091/053-S08	●	7.1	5	43	53	91	8	140°			
NCD5H-SC 0720-091/053-S08	●	7.2	5	43	53	91	8	140°			
NCD5H-SC 0730-091/053-S08	●	7.3	5	43	53	91	8	140°			
NCD5H-SC 0740-091/053-S08	●	7.4	5	43	53	91	8	140°			
NCD5H-SC 0750-091/053-S08	●	7.5	5	43	53	91	8	140°			
NCD5H-SC 0760-091/053-S08	●	7.6	5	43	53	91	8	140°			
NCD5H-SC 0770-091/053-S08	●	7.7	5	43	53	91	8	140°			

● stock standard, ○ non-standard stock, ▲ upcoming introduction, ▽ stock exhaustion

Designation	Stock	DC	ULDR	LU	LCF	OAL	DCON	SIG			
NCD5H-SC 0780-091/053-S08	●	7.8	5	43	53	91	8	140°			
NCD5H-SC 0790-091/053-S08	●	7.9	5	43	53	91	8	140°			
NCD5H-SC 0800-091/053-S08	●	8	5	43	53	91	8	140°			
NCD5H-SC 0810-103/061-S10	●	8.1	5	48.85	61	103	10	140°			
NCD5H-SC 0820-103/061-S10	●	8.2	5	48.7	61	103	10	140°			
NCD5H-SC 0830-103/061-S10	●	8.3	5	48.55	61	103	10	140°			
NCD5H-SC 0840-103/061-S10	●	8.4	5	49	61	103	10	140°			
NCD5H-SC 0850-103/061-S10	●	8.5	5	49	61	103	10	140°			
NCD5H-SC 0860-103/061-S10	●	8.6	5	49	61	103	10	140°			
NCD5H-SC 0870-103/061-S10	●	8.7	5	49	61	103	10	140°			
NCD5H-SC 0880-103/061-S10	●	8.8	5	49	61	103	10	140°			
NCD5H-SC 0890-103/061-S10	●	8.9	5	49	61	103	10	140°			
NCD5H-SC 0900-103/061-S10	●	9	5	49	61	103	10	140°			
NCD5H-SC 0910-103/061-S10	●	9.1	5	49	61	103	10	140°			
NCD5H-SC 0920-103/061-S10	●	9.2	5	49	61	103	10	140°			
NCD5H-SC 0930-103/061-S10	●	9.3	5	49	61	103	10	140°			
NCD5H-SC 0940-103/061-S10	●	9.4	5	49	61	103	10	140°			
NCD5H-SC 0950-103/061-S10	●	9.5	5	49	61	103	10	140°			
NCD5H-SC 0960-103/061-S10	●	9.6	5	49	61	103	10	140°			
NCD5H-SC 0970-103/061-S10	●	9.7	5	49	61	103	10	140°			
NCD5H-SC 0980-103/061-S10	●	9.8	5	49	61	103	10	140°			
NCD5H-SC 0990-103/061-S10	●	9.9	5	49	61	103	10	140°			
NCD5H-SC 1000-103/061-S10	●	10	5	49	61	103	10	140°			
NCD5H-SC 1010-118/071-S12	●	10.1	5	52	71	118	12	140°			
NCD5H-SC 1020-118/071-S12	●	10.2	5	52	71	118	12	140°			
NCD5H-SC 1030-118/071-S12	●	10.3	5	52	71	118	12	140°			
NCD5H-SC 1040-118/071-S12	●	10.4	5	52	71	118	12	140°			
NCD5H-SC 1050-118/071-S12	●	10.5	5	52	71	118	12	140°			
NCD5H-SC 1060-118/071-S12	●	10.6	5	52	71	118	12	140°			
NCD5H-SC 1070-118/071-S12	●	10.7	5	52	71	118	12	140°			
NCD5H-SC 1080-118/071-S12	●	10.8	5	52	71	118	12	140°			
NCD5H-SC 1090-118/071-S12	●	10.9	5	52	71	118	12	140°			
NCD5H-SC 1100-118/071-S12	●	11	5	52	71	118	12	140°			
NCD5H-SC 1110-118/071-S12	●	11.1	5	52	71	118	12	140°			
NCD5H-SC 1120-118/071-S12	●	11.2	5	52	71	118	12	140°			
NCD5H-SC 1130-118/071-S12	●	11.3	5	52	71	118	12	140°			
NCD5H-SC 1140-118/071-S12	●	11.4	5	52	71	118	12	140°			
NCD5H-SC 1150-118/071-S12	●	11.5	5	52	71	118	12	140°			
NCD5H-SC 1160-118/071-S12	●	11.6	5	52	71	118	12	140°			
NCD5H-SC 1170-118/071-S12	●	11.7	5	52	71	118	12	140°			
NCD5H-SC 1180-118/071-S12	●	11.8	5	52	71	118	12	140°			
NCD5H-SC 1190-118/071-S12	●	11.9	5	52	71	118	12	140°			
NCD5H-SC 1200-118/071-S12	●	12	5	52	71	118	12	140°			
NCD5H-SC 1250-124/077-S14	●	12.5	5	63	77	124	14	140°			
NCD5H-SC 1300-124/077-S14	●	13	5	63	77	124	14	140°			
NCD5H-SC 1350-124/077-S14	●	13.5	5	63	77	124	14	140°			
NCD5H-SC 1400-124/077-S14	●	14	5	63	77	124	14	140°			
NCD5H-SC 1450-133/083-S16	●	14.5	5	67	83	133	16	140°			
NCD5H-SC 1500-133/083-S16	●	15	5	67	83	133	16	140°			
NCD5H-SC 1550-133/083-S16	●	15.5	5	67	83	133	16	140°			
NCD5H-SC 1600-133/083-S16	●	16	5	67	83	133	16	140°			
NCD5H-SC 1650-143/093-S18	●	16.5	5	75	93	143	18	140°			
NCD5H-SC 1700-143/093-S18	●	17	5	75	93	143	18	140°			
NCD5H-SC 1750-143/093-S18	●	17.5	5	75	93	143	18	140°			
NCD5H-SC 1800-143/093-S18	●	18	5	75	93	143	18	140°			
NCD5H-SC 1850-153/101-S20	●	18.5	5	81	101	153	20	140°			
NCD5H-SC 1900-153/101-S20	●	19	5	81	101	153	20	140°			
NCD5H-SC 1950-153/101-S20	●	19.5	5	81	101	153	20	140°			
NCD5H-SC 2000-153/101-S20	●	20	5	81	101	153	20	140°			

● stock standard, ○ non-standard stock, ▲ upcoming introduction, ▽ stock exhaustion

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ISO 513	MATERIAL	HARDNESS HB	L/D	NCD GP min	NCD GP start	NCD GP max	NCD H GP min	NCD H GP start	NCD H GP max	NCD H SC min	NCD H SC start	NCD H SC max
P1 - P2	Free cutting steel and low carbon (ex. 1.0715/9 smn 28/avp, 1.0503/c45)	≤ 200	3XD ÷ 5XD	80	**100**	120	100	**130**	160	100	**130**	160
P3 - P4	Medium and high alloy steel (ex. 1.7225/42 CrMo 4, 1.3505/100 Cr 6)	200 ÷ 300	3XD ÷ 5XD	60	**80**	100	80	**110**	140	80	**110**	140
P5 - P6	High tensile strength and tool steel (ex. 1.2344/X 40 CrMoV 5 1/ORVAR, Hardox400®)	300 ÷ 400	3XD ÷ 5XD	40	**60**	80	60	**90**	120		-	
P7	Ferritic and martensitic stainless steel (ex. 1.4021/X 20 Cr 13/AISI420)	≤ 200	3XD ÷ 5XD		-			-		50	**60**	70
P8	Precipitation hardening stainless steel (ex. 1.4548/X 5 CrNiCuNb 17 4/17-4-PH)	≤ 450	3XD ÷ 5XD		-			-		20	**25**	30
M1	Austenitic stainless steel (ex. 1.4305/X 10 CrNiS 18 9/AISI303)	> 200	3XD ÷ 5XD		-			-		40	**60**	80
M2 - M3	Austenitic and Duplex stainless steel (ex. 1.4401/X 5 CrNiMo 17 12 2/AISI316)		3XD ÷ 5XD		-			-		20	**30**	40
K1	Grey cast iron (ex. 0.6025/GG 25/EN-GJL-250)	150 ÷ 250	3XD ÷ 5XD	80	**90**	100	100	**120**	140		-	
K2	Nodular cast iron (ex. 0.7050/GGG 50/EN-GJS-500-7)	150 ÷ 350	3XD ÷ 5XD	40	**60**	80	60	**90**	120		-	
S1 - S2 - S3	Fe/Ni/Co based heat resistant alloys (ex. Hastelloy, Inconel 625, Inconel 718)		3XD ÷ 5XD		-			-		30	**40**	50
S4 - S5	Titanium alloys (ex. TiAl2Sn4Zr2MoSi)		3XD ÷ 5XD		-			-		40	**50**	60

Complete workpiece materials p. **H**1.

DRILLING Parameters - feed rate · NCD

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ISO 513	MATERIAL	HARDNESS HB	TYPE	DC 3.00 ÷ 3.99			DC 4.00 ÷ 4.99			DC 5.00 ÷ 5.99		
				min	start	max	min	start	max	min	start	max
P1 - P2	Free cutting steel and low carbon (ex. 1.0715/9 smn 28/avp, 1.0503/c45)	≤ 200	NCD GP	0.14	**0.16**	0.18	0.15	**0.17**	0.19	0.16	**0.18**	0.20
			NCD H GP	0.15	**0.17**	0.19	0.16	**0.18**	0.20	0.17	**0.19**	0.21
			NCD H SC	0.13	**0.15**	0.17	0.14	**0.16**	0.18	0.15	**0.17**	0.19
P3 - P4	Medium and high alloy steel (ex. 1.7225/42 CrMo 4, 1.3505/100 Cr 6)	200 ÷ 300	NCD GP	0.10	**0.12**	0.14	0.11	**0.13**	0.15	0.12	**0.14**	0.16
			NCD H GP	0.11	**0.13**	0.15	0.12	**0.14**	0.16	0.13	**0.15**	0.17
			NCD H SC	0.09	**0.11**	0.13	0.10	**0.12**	0.14	0.11	**0.13**	0.15
P5 - P6	High tensile strength and tool steel (ex. 1.2344/X 40 CrMoV 5 1/ORVAR, Hardox400®)	300 ÷ 400	NCD GP	0.08	**0.10**	0.12	0.09	**0.11**	0.13	0.10	**0.12**	0.14
			NCD H GP	0.08	**0.10**	0.13	0.09	**0.12**	0.14	0.10	**0.13**	0.15
			NCD H SC		-			-			-	
P7	Ferritic and martensitic stainless steel (ex. 1.4021/X 20 Cr 13/AISI420)	≤ 200	NCD GP		-			-			-	
			NCD H GP		-			-			-	
			NCD H SC	0.05	**0.08**	0.11	0.06	**0.09**	0.12	0.07	**0.10**	0.13
P8	Precipitation hardening stainless steel (ex. 1.4548/X 5 CrNiCuNb 17 4/17-4-PH)	≤ 450	NCD GP		-			-			-	
			NCD H GP		-			-			-	
			NCD H SC	0.06	**0.07**	0.08	0.05	**0.07**	0.09	0.06	**0.08**	0.10
M1	Austenitic stainless steel (ex. 1.4305/X 10 CrNiS 18 9/AISI303)	> 200	NCD GP		-			-			-	
			NCD H GP		-			-			-	
			NCD H SC	0.02	**0.05**	0.08	0.03	**0.06**	0.09	0.06	**0.08**	0.10
M2 - M3	Austenitic and Duplex stainless steel (ex. 1.4401/X 5 CrNiMo 17 12 2/AISI316)		NCD GP		-			-			-	
			NCD H GP		-			-			-	
			NCD H SC	0.02	**0.04**	0.06	0.03	**0.05**	0.07	0.04	**0.06**	0.08
K1	Grey cast iron (ex. 0.6025/GG 25/EN-GJL-250)	150 ÷ 250	NCD GP	0.16	**0.18**	0.20	0.17	**0.19**	0.21	0.18	**0.20**	0.22
			NCD H GP	0.17	**0.19**	0.21	0.18	**0.20**	0.22	0.19	**0.21**	0.23
			NCD H SC		-			-			-	
K2	Nodular cast iron (ex. 0.7050/GGG 50/EN-GJS-500-7)	150 ÷ 350	NCD GP	0.12	**0.14**	0.16	0.13	**0.15**	0.17	0.14	**0.16**	0.18
			NCD H GP	0.13	**0.15**	0.17	0.14	**0.16**	0.18	0.15	**0.17**	0.19
			NCD H SC		-			-			-	
S1 - S2 - S3	Fe/Ni/Co based heat resistant alloys (ex. Hastelloy, Inconel 625, Inconel 718)		NCD GP		-			-			-	
			NCD H GP		-			-			-	
			NCD H SC	0.01	**0.02**	0.04	0.01	**0.03**	0.05	0.02	**0.04**	0.06
S4 - S5	Titanium alloys (ex. TiAl2Sn4Zr2MoSi)		NCD GP		-			-			-	
			NCD H GP		-			-			-	
			NCD H SC	0.01	**0.03**	0.05	0.02	**0.04**	0.06	0.03	**0.05**	0.07

Complete workpiece materials p. **H**1.

(fn: mm/rev)

DC 6.00 ÷ 6.99			DC 7.00 ÷ 7.99			DC 8.00 ÷ 8.99			DC 9.00 ÷ 9.99			DC 10.00 ÷ 10.99			DC 11.00 ÷ 11.99		
min	start	max	min	start	max	min	start	max	min	start	max	min	start	max	min	start	max
0.17	**0.19**	0.21	0.18	**0.20**	0.22	0.19	**0.21**	0.23	0.20	**0.22**	0.24	0.21	**0.23**	0.25	0.22	**0.24**	0.26
0.18	**0.20**	0.22	0.19	**0.21**	0.23	0.20	**0.22**	0.24	0.21	**0.23**	0.25	0.22	**0.24**	0.26	0.23	**0.25**	0.27
0.16	**0.18**	0.20	0.17	**0.19**	0.21	0.18	**0.20**	0.22	0.19	**0.21**	0.23	0.20	**0.22**	0.24	0.21	**0.23**	0.25
0.13	**0.15**	0.17	0.14	**0.16**	0.18	0.15	**0.17**	0.19	0.16	**0.18**	0.20	0.17	**0.19**	0.21	0.18	**0.20**	0.22
0.14	**0.16**	0.18	0.15	**0.17**	0.19	0.16	**0.18**	0.20	0.17	**0.19**	0.21	0.18	**0.20**	0.22	0.19	**0.21**	0.23
0.12	**0.14**	0.16	0.13	**0.15**	0.17	0.14	**0.16**	0.18	0.15	**0.17**	0.19	0.16	**0.18**	0.20	0.17	**0.19**	0.21
0.11	**0.13**	0.15	0.12	**0.14**	0.16	0.13	**0.15**	0.17	0.14	**0.16**	0.18	0.15	**0.17**	0.19	0.16	**0.18**	0.20
0.12	**0.14**	0.16	0.13	**0.15**	0.17	0.14	**0.16**	0.18	0.15	**0.17**	0.19	0.16	**0.18**	0.20	0.17	**0.19**	0.21
	-			-			-			-			-			-	
	-			-			-			-			-			-	
	-			-			-			-			-			-	
0.10	**0.12**	0.14	0.11	**0.13**	0.15	0.12	**0.14**	0.16	0.13	**0.15**	0.17	0.14	**0.16**	0.18	0.15	**0.17**	0.19
	-			-		-				-			-			-	
	-			-		-				-			-			-	
0.06	**0.09**	0.12	0.07	**0.10**	0.13	0.08	**0.11**	0.14	0.11	**0.13**	0.15	0.12	**0.14**	0.16	0.12	**0.15**	0.18
	-			-			-			-			-			-	
	-			-			-			-			-			-	
0.07	**0.09**	0.11	0.07	**0.10**	0.13	0.10	**0.12**	0.14	0.11	**0.13**	0.15	0.12	**0.14**	0.16	0.13	**0.15**	0.17
	-			-			-			-			-			-	
	-			-			-			-			-			-	
0.05	**0.07**	0.09	0.05	**0.08**	0.11	0.06	**0.09**	0.12	0.09	**0.11**	0.13	0.10	**0.12**	0.14	0.11	**0.13**	0.15
0.19	**0.21**	0.23	0.20	**0.22**	0.24	0.21	**0.23**	0.25	0.22	**0.24**	0.26	0.23	**0.25**	0.27	0.24	**0.26**	0.28
0.20	**0.22**	0.24	0.21	**0.23**	0.25	0.22	**0.24**	0.26	0.23	**0.25**	0.27	0.24	**0.26**	0.28	0.25	**0.27**	0.29
	-			-			-			-			-			-	
0.15	**0.17**	0.19	0.16	**0.18**	0.20	0.17	**0.19**	0.21	0.18	**0.20**	0.22	0.19	**0.21**	0.23	0.20	**0.22**	0.24
0.16	**0.18**	0.20	0.17	**0.19**	0.21	0.18	**0.20**	0.22	0.19	**0.21**	0.23	0.20	**0.22**	0.24	0.21	**0.23**	0.25
	-			-			-			-			-			-	
	-			-			-			-			-			-	
	-			-			-			-			-			-	
0.03	**0.05**	0.07	0.04	**0.06**	0.08	0.05	**0.07**	0.09	0.05	**0.08**	0.11	0.06	**0.09**	0.12	0.09	**0.11**	0.13
	-			-			-			-			-			-	
	-			-			-			-			-			-	
0.04	**0.06**	0.08	0.05	**0.07**	0.09	0.05	**0.08**	0.11	0.06	**0.09**	0.12	0.09	**0.11**	0.13	0.10	**0.12**	0.14

Complete workpiece materials p. **H**1.

(fn: mm/rev)

ISO 513	MATERIAL	HARDNESS HB	TYPE	DC 12.00 ÷ 12.99			DC 13.00 ÷ 13.99			DC 14.00 ÷ 14.99		
				min	start	max	min	start	max	min	start	max
P1 - P2	Free cutting steel and low carbon (ex. 1.0715/9 smn 28/avp, 1.0503/c45)	≤ 200	NCD GP	0.23	**0.25**	0.27	0.24	**0.26**	0.28	0.25	**0.27**	0.29
			NCD H GP	0.24	**0.26**	0.28	0.25	**0.27**	0.29	0.26	**0.28**	0.30
			NCD H SC	0.22	**0.24**	0.26	0.23	**0.25**	0.27	0.24	**0.26**	0.28
P3 - P4	Medium and high alloy steel (ex. 1.7225/42 CrMo 4, 1.3505/100 Cr 6)	200 ÷ 300	NCD GP	0.19	**0.21**	0.22	0.20	**0.22**	0.24	0.21	**0.23**	0.25
			NCD H GP	0.20	**0.22**	0.24	0.21	**0.23**	0.25	0.22	**0.24**	0.26
			NCD H SC	0.18	**0.20**	0.22	0.19	**0.21**	0.23	0.20	**0.22**	0.24
P5 - P6	High tensile strength and tool steel (ex. 1.2344/X 40 CrMoV 5 1/ORVAR, Hardox400®)	300 ÷ 400	NCD GP	0.17	**0.19**	0.21	0.18	**0.20**	0.22	0.19	**0.21**	0.23
			NCD H GP	0.18	**0.20**	0.22	0.19	**0.21**	0.23	0.20	**0.22**	0.24
			NCD H SC		-			-			-	
P7	Ferritic and martensitic stainless steel (ex. 1.4021/X 20 Cr 13/AISI420)	≤ 200	NCD GP		-			-			-	
			NCD H GP		-			-			-	
			NCD H SC	0.16	**0.18**	0.20	0.17	**0.19**	0.21	0.18	**0.20**	0.22
P8	Precipitation hardening stainless steel (ex. 1.4548/X 5 CrNiCuNb 17 4/17-4-PH)	≤ 450	NCD GP		-			-			-	
			NCD H GP		-			-			-	
			NCD H SC	0.13	**0.16**	0.19	0.16	**0.18**	0.20	0.17	**0.19**	0.21
M1	Austenitic stainless steel (ex. 1.4305/X 10 CrNiS 18 9/AISI303)	> 200	NCD GP		-			-			-	
			NCD H GP		-			-			-	
			NCD H SC	0.14	**0.16**	0.18	0.15	**0.17**	0.19	0.16	**0.18**	0.20
M2 - M3	Austenitic and Duplex stainless steel (ex. 1.4401/X 5 CrNiMo 17 12 2/AISI316)		NCD GP		-			-		-		
			NCD H GP		-			-		-		
			NCD H SC	0.12	**0.14**	0.16	0.13	**0.15**	0.17	0.14	**0.16**	0.18
K1	Grey cast iron (ex. 0.6025/GG 25/EN-GJL-250)	150 ÷ 250	NCD GP	0.25	**0.27**	0.29	0.26	**0.28**	0.30	0.27	**0.29**	0.31
			NCD H GP	0.26	**0.28**	0.30	0.27	**0.29**	0.32	0.28	**0.30**	0.33
			NCD H SC		-			-			-	
K2	Nodular cast iron (ex. 0.7050/GGG 50/EN-GJS-500-7)	150 ÷ 350	NCD GP	0.21	**0.23**	0.25	0.22	**0.24**	0.26	0.23	**0.25**	0.27
			NCD H GP	0.22	**0.24**	0.26	0.23	**0.25**	0.27	0.24	**0.26**	0.28
			NCD H SC		-			-			-	
S1 - S2 - S3	Fe/Ni/Co based heat resistant alloys (ex. Hastelloy, Inconel 625, Inconel 718)		NCD GP		-			-			-	
			NCD H GP		-			-			-	
			NCD H SC	0.10	**0.12**	0.14	0.11	**0.13**	0.15	0.12	**0.14**	0.16
S4 - S5	Titanium alloys (ex. TiAl2Sn4Zr2MoSi)		NCD GP		-			-			-	
			NCD H GP		-			-			-	
			NCD H SC	0.11	**0.13**	0.15	0.12	**0.14**	0.16	0.13	**0.15**	0.17

Complete workpiece materials p. **H**1.

(fn: mm/rev)

DC 15.00 ÷ 15.99			DC 16.00 ÷ 16.99			DC 17.00 ÷ 17.99			DC 18.00 ÷ 18.99			DC 19.00 ÷ 19.99			DC 20.00 ÷ 20.99		
min	start	max	min	start	max	min	start	max	min	start	max	min	start	max	min	start	max
0.26	**0.28**	0.30	0.29	**0.29**	0.31	0.28	**0.30**	0.32	0.29	**0.31**	0.33	0.30	**0.32**	0.34	0.31	**0.33**	0.35
0.27	**0.29**	0.32	0.30	**0.30**	0.33	0.29	**0.32**	0.34	0.30	**0.33**	0.35	0.32	**0.34**	0.36	0.33	**0.35**	0.37
0.25	**0.27**	0.29	0.30	**0.30**	0.30	0.26	**0.29**	0.32	0.27	**0.30**	0.33	0.30	**0.32**	0.34	0.31	**0.33**	0.35
0.22	**0.24**	0.26	0.23	**0.25**	0.27	0.24	**0.26**	0.28	0.25	**0.27**	0.29	0.26	**0.28**	0.30	0.27	**0.29**	0.31
0.23	**0.25**	0.27	0.24	**0.26**	0.28	0.25	**0.27**	0.29	0.26	**0.28**	0.30	0.27	**0.29**	0.32	0.28	**0.30**	0.33
0.21	**0.23**	0.25	0.22	**0.24**	0.26	0.23	**0.25**	0.27	0.24	**0.26**	0.28	0.25	**0.27**	0.29	0.26	**0.28**	0.30
0.20	**0.22**	0.24	0.21	**0.23**	0.25	0.22	**0.24**	0.26	0.23	**0.25**	0.27	0.24	**0.26**	0.28	0.25	**0.27**	0.29
0.21	**0.23**	0.25	0.22	**0.24**	0.26	0.23	**0.25**	0.27	0.24	**0.26**	0.28	0.25	**0.27**	0.29	0.26	**0.28**	0.30
	-			-			-			-			-			-	
	-			-			-			-			-			-	
	-			-			-			-			-			-	
0.19	**0.21**	0.23	0.20	**0.22**	0.24	0.21	**0.23**	0.25	0.22	**0.24**	0.26	0.23	**0.25**	0.27	0.24	**0.26**	0.28
	-		-			-			-			-				-	
	-		-			-			-			-				-	
0.17	**0.20**	0.23	0.18	**0.21**	0.24	0.21	**0.23**	0.25	0.22	**0.24**	0.26	0.22	**0.25**	0.28	0.24	**0.26**	0.28
	-			-			-			-			-			-	
	-			-			-			-			-			-	
0.17	**0.19**	0.21	0.18	**0.20**	0.22	0.19	**0.21**	0.23	0.20	**0.22**	0.24	0.21	**0.23**	0.25	0.22	**0.24**	0.26
	-			-			-			-			-			-	
	-			-			-			-			-			-	
0.15	**0.17**	0.19	0.16	**0.18**	0.20	0.17	**0.19**	0.21	0.18	**0.20**	0.22	0.19	**0.21**	0.23	0.20	**0.22**	0.24
0.28	**0.30**	0.32	0.29	**0.31**	0.33	0.30	**0.32**	0.34	0.31	**0.33**	0.35	0.32	**0.34**	0.36	0.33	**0.35**	0.37
0.29	**0.32**	0.34	0.30	**0.33**	0.35	0.32	**0.34**	0.36	0.33	**0.35**	0.37	0.34	**0.36**	0.38	0.35	**0.37**	0.39
	-			-			-			-			-			-	
0.24	**0.26**	0.28	0.25	**0.27**	0.29	0.26	**0.28**	0.30	0.27	**0.29**	0.31	0.28	**0.30**	0.32	0.29	**0.31**	0.33
0.25	**0.27**	0.29	0.26	**0.28**	0.30	0.27	**0.29**	0.32	0.28	**0.30**	0.33	0.29	**0.32**	0.34	0.30	**0.33**	0.35
	-			-			-			-			-			-	
	-			-			-			-			-			-	
	-			-			-			-			-			-	
0.13	**0.15**	0.17	0.14	**0.16**	0.18	0.15	**0.17**	0.19	0.16	**0.18**	0.20	0.17	**0.19**	0.21	0.18	**0.20**	0.22
	-			-			-			-			-			-	
	-			-			-			-			-			-	
0.14	**0.16**	0.18	0.15	**0.17**	0.19	0.16	**0.18**	0.20	0.17	**0.19**	0.21	0.18	**0.20**	0.22	0.19	**0.21**	0.23

Complete workpiece materials p. **H**1.

(fn: mm/rev)

WCMX

ISO

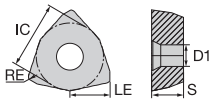
HF: Micrograin carbide
PVD: Physical vapour deposition

	HF PVD
	JP5530

- ISO drilling inserts with geometry for general purposes
- PVD coated carbide grade for universal use
- Inserts could be mounted on ISO drill bodies with seats of the same IC circle

Stable machining, light cut	● 1st choice ○ suitable	
General machining, medium cut	● 1st choice ○ suitable	●
Unstable machining, heavy cut	● 1st choice ○ suitable	○

Dimensions



ISO	Vc(m/min) - suggested cutting speed range (bold: 1st choice)
P	**120** **240**
M	40 100
K	120 180
N	
S	
H	

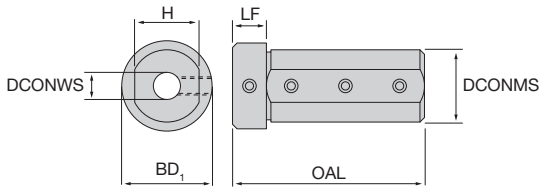
	Designation	RE	IC	S	D1	LE	Stock
GENERAL GP P M K	WCMX030208-GP	0.8	5.56	2.38	2.8	-	●
	WCMX040208-GP	0.8	6.35	2.38	2.9	-	●
	WCMX050308-GP	0.8	7.94	3.18	3.4	-	●
	WCMX06T308-GP	0.8	9.52	3.97	3.8	-	●
	WCMX080412-GP	1.2	12.7	4.76	4.4	-	●

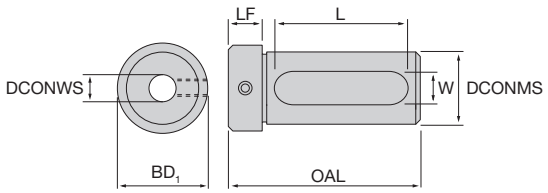
● stock standard, ○ non-standard stock, ▲ upcoming introduction, ▽ stock exhaustion

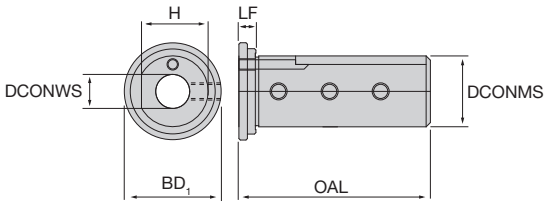
ACCESSORIES

NT-SLB

Sleeves for boring bars







Designation	Stock	DCONWS	DCONMS	OAL	H	LF	BD1	L	W		
SCREWS LOCK SLEEVE											
NT-SLB S03 D16-L62	●	3	16	62	14.5	7	20	-	-		
NT-SLB S04 D16-L62	●	4	16	62	14.5	7	20	-	-		
NT-SLB S04 D20-L67	●	4	20	67	17.5	7	27	-	-		
NT-SLB S04 D32-L80	●	4	32	80	29.5	15	38	-	-		
NT-SLB S05 D16-L62	●	5	16	62	14.5	7	20	-	-		
NT-SLB S05 D20-L67	●	5	20	67	17.5	7	27	-	-		
NT-SLB S05 D32-L85	●	5	32	85	29.5	15	38	-	-		
NT-SLB S05 D40-L100	●	5	40	100	38	15	46	-	-		
NT-SLB S06 D16-L62	●	6	16	62	14.5	7	20	-	-		
NT-SLB S06 D20-L52	●	6	20	52	17.5	7	25	-	-		
NT-SLB S06 D20-L67	●	6	20	67	17.5	7	27	-	-		
NT-SLB S06 D32-L85	●	6	32	85	29.5	15	38	-	-		
NT-SLB S06 D40-L100	●	6	40	100	38	15	46	-	-		
NT-SLB S07 D20-L67	●	7	20	67	17.5	7	27	-	-		
NT-SLB S07 D32-L85	●	7	32	85	29.5	15	38	-	-		
NT-SLB S07 D40-L100	●	7	40	100	38	15	46	-	-		
NT-SLB S08 D16-L62	●	8	16	62	14.5	7	20	-	-		
NT-SLB S08 D20-L52	●	8	20	52	17.5	7	25	-	-		
NT-SLB S08 D20-L67	●	8	20	67	17.5	7	27	-	-		
NT-SLB S08 D32-L85	●	8	32	85	29.5	15	38	-	-		
NT-SLB S08 D40-L100	●	8	40	100	38	15	46	-	-		
NT-SLB S08 D50-L100	●	8	50	100	48	15	58	-	-		
NT-SLB S10 D20-L52	●	10	20	52	17.5	7	25	-	-		
NT-SLB S10 D20-L67	●	10	20	67	17.5	7	27	-	-		
NT-SLB S10 D32-L100	●	10	32	100	29.5	15	38	-	-		

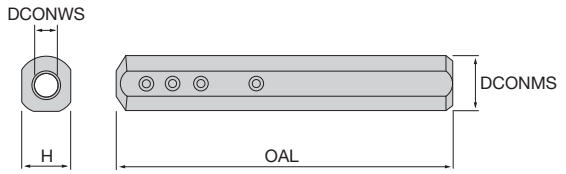
● stock standard, ○ non-standard stock, ▲ upcoming introduction, ▽ stock exhaustion

Designation	Stock	DCONWS	DCONMS	OAL	H	LF	BD1	L	W		
NT-SLB S10 D40-L100	●	10	40	100	38	15	46	-	-		
NT-SLB S10 D50-L100	●	10	50	100	48	15	58	-	-		
NT-SLB S12 D20-L52	●	12	20	52	17.5	7	25	-	-		
NT-SLB S12 D20-L67	●	12	20	67	17.5	7	27	-	-		
NT-SLB S12 D32-L100	●	12	32	100	29.5	15	38	-	-		
NT-SLB S12 D40-L100	●	12	40	100	38	15	46	-	-		
NT-SLB S12 D50-L100	●	12	50	100	48	15	58	-	-		
NT-SLB S14 D32-L100	●	14	32	100	29.5	15	38	-	-		
NT-SLB S14 D40-L100	●	14	40	100	38	15	46	-	-		
NT-SLB S14 D50-L100	●	14	50	100	48	15	58	-	-		
NT-SLB S15 D32-L100	●	15	32	100	29.5	15	38	-	-		
NT-SLB S15 D40-L100	●	15	40	100	38	15	46	-	-		
NT-SLB S16 D32-L100	●	16	32	100	29.5	15	38	-	-		
NT-SLB S16 D40-L100	●	16	40	100	38	15	46	-	-		
NT-SLB S16 D50-L100	●	16	50	100	48	15	58	-	-		
NT-SLB S18 D32-L100	●	18	32	100	29.5	15	38	-	-		
NT-SLB S18 D40-L100	●	18	40	100	38	15	46	-	-		
NT-SLB S18 D50-L100	●	18	50	100	48	15	58	-	-		
NT-SLB S20 D50-L100	●	20	50	100	48	15	58	-	-		
NT-SLB S25 D50-L100	●	25	50	100	48	15	58	-	-		
THROUGH HOLE SLEEVE											
NT-SLB S10 D16-L62	●	10	16	62	-	7	20	50	11		
NT-SLB S12 D16-L62	●	12	16	62	-	7	20	50	11		
NT-SLB S14 D20-L67	●	14	20	67	-	7	27	55	13		
NT-SLB S14 D25-L64	●	14	25	64	-	6	35	51	12		
NT-SLB S15 D20-L67	●	15	20	67	-	7	27	55	13		
NT-SLB S15 D25-L64	●	15	25	64	-	6	35	51	12		
NT-SLB S16 D20-L52	●	16	20	52	-	7	25	40	11		
NT-SLB S16 D20-L67	●	16	20	67	-	7	27	55	13		
NT-SLB S16 D25-L64	●	16	25	64	-	6	35	51	12		
NT-SLB S17 D25-L64	●	17	25	64	-	6	35	51	12		
NT-SLB S18 D25-L64	●	18	25	64	-	6	35	51	12		
NT-SLB S20 D25-L64	●	20	25	64	-	6	35	51	12		
NT-SLB S20 D32-L100	●	20	32	100	-	15	38	77	14		
NT-SLB S20 D40-L100	●	20	40	100	-	15	46	77	14		
NT-SLB S22 D25-L64	●	22	25	64	-	6	35	51	12		
NT-SLB S22 D32-L100	●	22	32	100	-	15	38	77	14		
NT-SLB S22 D40-L100	●	22	40	100	-	15	46	77	14		
NT-SLB S25 D32-L100	●	25	32	100	-	15	38	77	14		
NT-SLB S25 D40-L100	●	25	40	100	-	15	46	77	14		
NT-SLB S32 D40-L100	●	32	40	100	-	15	46	77	14		
NT-SLB S32 D50-L100	●	32	50	100	-	15	46	77	14		
NT-SLB S40 D50-L100	●	40	50	100	-	15	58	77	14		
SCREWS LOCK WITH COOLANT SLEEVE											
NT-SLB S04 D25-L64	●	4	25	64	23.5	6	35	-	-		
NT-SLB S05 D25-L64	●	5	25	64	23.5	6	35	-	-		
NT-SLB S06 D25-L64	●	6	25	64	23.5	6	35	-	-		
NT-SLB S07 D25-L64	●	7	25	64	23.5	6	35	-	-		
NT-SLB S08 D25-L64	●	8	25	64	23.5	6	35	-	-		
NT-SLB S09 D25-L64	●	9	25	64	23.5	6	35	-	-		
NT-SLB S10 D25-L64	●	10	25	64	23.5	6	35	-	-		
NT-SLB S11 D25-L64	●	11	25	64	23.5	6	35	-	-		
NT-SLB S12 D25-L64	●	12	25	64	23.5	6	35	-	-		

● stock standard, ○ non-standard stock, ▲ upcoming introduction, ▽ stock exhaustion

NT-SLV

Sleeves for boring bars



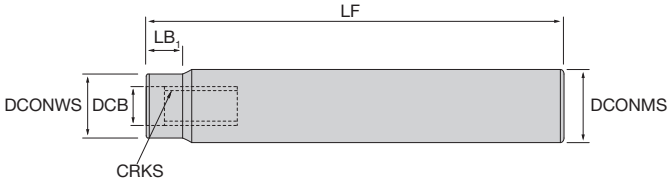
Designation	Stock	DCONWS	DCONMS	OAL	H						
SCREWS LOCK SLEEVE											
NT-SLV S03 D16-L100	●	3	16	100	14						
NT-SLV S04 D16-L100	●	4	16	100	14						
NT-SLV S05 D16-L100	●	5	16	100	14						
NT-SLV S06 D16-L100	●	6	16	100	14						

● stock standard, ○ non-standard stock, ▲ upcoming introduction, ▽ stock exhaustion

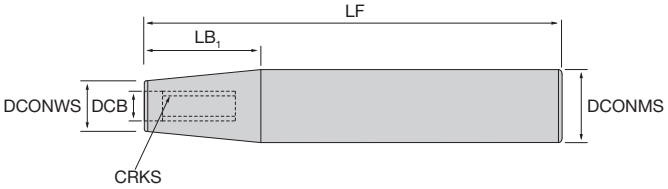
NT-ARB

Arbors for screw-in cutters

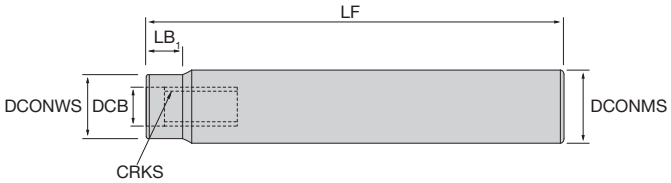
Steel straight shank



Steel tapered shank



Carbide shank, straight type and shrink-neck type



Designation	Stock	DCONMS	CRKS	DCONWS	DCB	LF	LB1				
STEEL STRAIGHT SHANK											
NT-ARB D12-M06-120	●	12	M6	11	6.5	120	10				
NT-ARB D16-M08-150	●	16	M8	14	8.5	150	10				
NT-ARB D16-M08-200	●	16	M8	14	8.5	200	10				
NT-ARB D20-M10-150	●	20	M10	18	10.5	150	12				
NT-ARB D20-M10-250	●	20	M10	18	10.5	250	12				
NT-ARB D25-M12-200	●	25	M12	23	12.5	200	15				
NT-ARB D25-M12-300	●	25	M12	23	12.5	300	15				
NT-ARB D32-M16-200	●	32	M16	29	17	200	18				
NT-ARB D32-M16-350	●	32	M16	29	17	350	18				
STEEL TAPERED SHANK											
NT-ARB D16-M06-150T	●	16	M6	11	6.5	150	40				
NT-ARB D16-M06-200T	●	16	M6	11	6.5	200	40				
NT-ARB D20-M08-200T	●	20	M8	14	8.5	200	50				
NT-ARB D20-M08-250T	●	20	M8	14	8.5	250	50				
NT-ARB D25-M10-200T	●	25	M10	18	10.5	200	60				
NT-ARB D25-M10-250T	●	25	M10	18	10.5	250	60				
NT-ARB D32-M12-250T	●	32	M12	23	12.5	250	70				
NT-ARB D32-M12-350T	●	32	M12	23	12.5	350	70				
CARBIDE STRAIGHT SHANK											
NT-ARB-HM D12-11-M06-100	●	12	M6	11	6.5	100	37				
NT-ARB-HM D12-11-M06-150	●	12	M6	11	6.5	150	52				
NT-ARB-HM D12-M06-100	●	12	M6	12	6.5	100	-				
NT-ARB-HM D12-M06-150	●	12	M6	12	6.5	150	-				
NT-ARB-HM D12-M06-200	●	12	M6	12	6.5	200	-				
NT-ARB-HM D16-13.8-M08-150	●	16	M8	13.8	8.5	150	42				

● stock standard, ○ non-standard stock, ▲ upcoming introduction, ▽ stock exhaustion

nikkoTOOLS

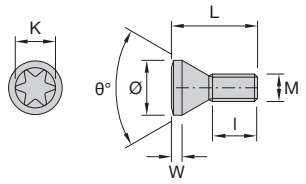
Designation	Stock	DCONMS	CRKS	DCONWS	DCB	LF	LB1				
NT-ARB-HM D16-13.8-M08-200	●	16	M8	13.8	8.5	200	57				
NT-ARB-HM D16-M08-100	●	16	M8	16	8.5	100	-				
NT-ARB-HM D16-M08-150	●	16	M8	16	8.5	150	-				
NT-ARB-HM D16-M08-200	●	16	M8	16	8.5	200	-				
NT-ARB-HM D20-18.2-M10-150	●	20	M10	18.2	10.5	150	54				
NT-ARB-HM D20-18.2-M10-200	●	20	M10	18.2	10.5	200	78				
NT-ARB-HM D20-M10-100	●	20	M10	20	10.5	100	-				
NT-ARB-HM D20-M10-150	●	20	M10	20	10.5	150	-				
NT-ARB-HM D20-M10-200	●	20	M10	20	10.5	200	-				
NT-ARB-HM D20-M10-300	●	20	M10	20	10.5	300	-				
NT-ARB-HM D25-M12-100	●	25	M12	25	12.5	100	-				
NT-ARB-HM D25-M12-150	●	25	M12	25	12.5	150	-				
NT-ARB-HM D25-M12-200	●	25	M12	25	12.5	200	-				
NT-ARB-HM D25-M12-300	●	25	M12	25	12.5	300	-				

● stock standard, ○ non-standard stock, ▲ upcoming introduction, ▽ stock exhaustion

SPARE PARTS

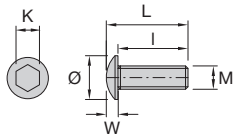
Screws, G2
Clamps and wedges, G5
Shims, G6
Wrenches and screwdrivers, G9
Miscellaneous, G11

Insert screws — **NT-ST**



Designation	M	Ø	L	l	W	θ	K	Torque		Chapter
NT-ST16031T06	M1.6X0.35	2.6	3.3	1	0.8	60°	T6	0.2		A
NT-ST20033T06	M2.0X0.40	2.7	3.3	2.2	0.5	60°	T6	0.4		D
NT-ST20038T06	M2.0X0.40	2.7	3.8	2.6	0.6	60°	T6	0.4		A
NT-ST20040T06	M2.0X0.40	2.7	4	2.9	0.5	60°	T6	0.4		D
NT-ST20043T06	M2.0X0.40	2.7	4.3	2.5	1	60°	T6	0.4		D,E
NT-ST22049T07	M2.2X0.45	3.1	4.9	3.3	0.5	60°	T7	0.7		A
NT-ST22055T06	M2.2X0.45	3	5.5	4	0.8	60°	T6	0.7		E
NT-ST25050T07	M2.5X0.45	3.1	5	3.1	1	60°	T7	0.9		A
NT-ST25056T08HQ	M2.5X0.45	3.5	5.6	3.4	0.6	60°	T8	1.2		D
NT-ST25059T08	M2.5X0.45	4	6	3.9	0.5	60°	T8	0.9		B
NT-ST25060T07	M2.5X0.45	3.5	6	3.6	0.5	60°	T7	0.9		A
NT-ST25060T08	M2.5X0.45	3.85	6	3.9	0.95	60°	T8	1.2		D
NT-ST25065T07	M2.5X0.45	3.5	6.5	4.1	0.5	60°	T7	0.9		D,E
NT-ST25065T08	M2.5X0.45	3.5	6.5	4.6	0.7	60°	T8	0.9		A
NT-ST25080T09	M2.5X0.45	3.5	7.8	5.9	0.5	60°	T9	0.9		E
NT-ST30058T10	M3.0X0.50	4.3	5.8	4.4	1	90°	T10	1.5		A
NT-ST30068T10	M3.0X0.50	4.3	6.8	5.4	0.5	90°	T10	1.5		A
NT-ST30070T10	M3.0X0.50	4.3	7	5.1	0.5	60°	T10	1.5		A
NT-ST30070T10HQ	M3.0X0.50	4.4	7	4.4	0.9	60°	T10	2		D
NT-ST30080T10	M3.0X0.50	4.3	8	5.7	2.9	60°	T10	1.5		E
NT-ST35051T15	M3.5X0.60	5.1	8.8	6	1.3	60°	T15	2.3		D
NT-ST35070T15	M3.5X0.60	5.3	7	4.6	0.8	60°	T15	2.3		D
NT-ST35073T15	M3.5X0.60	5.5	7.3	4.3	0.5	60°	T15	2.3		A
NT-ST35080T15	M3.5X0.60	5.5	8	5.5	1	60°	T15	2.3		E
NT-ST35089T15	M3.5X0.60	5.5	8.9	5.9	0.7	60°	T15	2.3		A,B
NT-ST35089T15B	M3.5X0.60	5.1	8.9	6	1.2	60°	T15	2.3		A
NT-ST35095T15HQ	M3.5X0.60	5.3	9.5	6	1.5	60°	T15	3		D
NT-ST35115T15	M3.5X0.60	5.5	11.5	8	1.3	60°	T15	2.3		A,B
NT-ST35120T15	M3.5X0.60	5.3	12	9.5	0.9	60°	T15	2.3		D
NT-ST40090T15	M4.0X0.70	5.5	9	6.1	1	60°	T15	3.4		A
NT-ST40095T15HQ	M4.0X0.70	5.5	9.5	6.6	1	60°	T15	4.5		D
NT-ST40100T15	M4.0X0.70	5.5	10	7	1.2	60°	T15	3.4		E
NT-ST40101T15	M4.0X0.70	6.5	10.1	8	0.5	90°	T15	3.4		D
NT-ST40110T15HQ	M4.0X0.70	5.5	11	8.2	1.6	60°	T15	4.5		D
NT-ST40115T15	M4.0X0.50	6.8	11.5	8.6	1.3	60°	T15	3.4		A,C
NT-ST40136T15	M4.0X0.70	7.1	13.6	10	0.9	60°	T15	3.4		D
NT-ST40140T15	M4.0X0.50	6.8	13.8	10.1	1	60°	T15	3.4		A
NT-ST45110T20	M4.5X0.75	6.8	11	7.9	1.1	60°	T20	4.9		D
NT-ST45111T15	M4.5X0.75	6.8	11.1	8.2	0.5	60°	T15	4.9		D
NT-ST50100T20	M5.0X0.80	6.4	12.1	8.4	1	40°	T20	6.7		E
NT-ST50108T20	M5.0X0.80	6.4	10.8	5.5	1	43°	T20	6.7		E
NT-ST50110T20	M5.0X0.80	7	11	8.2	1.1	60°	T20	6.7		C,D
NT-ST60160T25	M6.0X1.00	8.5	16	11.5	0.9	60°	T25	11.4		D

Clamp screws — **NT-SC**



Designation	M	Ø	L	l	W	K				Chapter
NT-SC035	M6.0X1.00	10	15	6.3	3.7	3				D
NT-SC200	M6.0X1.00	9.7	24	20.2	3.8	T20				A
NT-SC250	M4.0X0.70	6.8	18.8	15.2	3.6	T15				A
NT-SC300	M5.0X0.80	8.3	20.8	15.9	4.9	4				C

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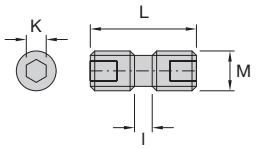
Clamp screws - double type

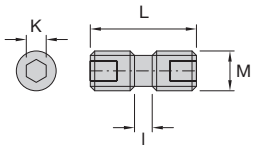
NT-SC double thread



Designation	M	L	I	K						Chapter
NT-SC005	M5.0X0.80	15	5	2.5						A
NT-SC008	M6.0X1.00	24	7	3						A
NT-SC010	M6.0X1.00	30	7	3						A
NT-SC030	M5.0X0.80	18	7	2.5						A
NT-SC070	M8.0X1.00	30	7	4						A

Wedge screws

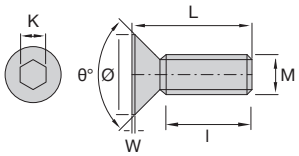
NT-SC



Designation	M	L	I	K						Chapter
NT-SC060	M6.0X1.00	17	2.5	3						D
NT-SC090	M6.0X1.00	20.2	3.5	3						D

Shim screws

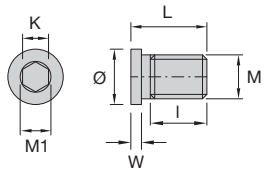
NT-ST



Designation	M	Ø	L	I	W	θ	K			Chapter
NT-ST022	M2.0X0.40	3	5	3	0.5	60°	T6			A,B
NT-ST031	M3.0X0.50	6	8	6	0.1	90°	2			A
NT-ST200	M4.0X0.70	7.9	10	7	0.7	90°	2.5			A
NT-ST250	M4.0X0.70	6.3	7.5	5.2	0.5	90°	T15			A

Shim screws - double type

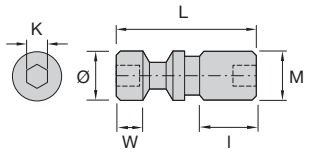
NT-SR with inside thread



Designation	M	Ø	L	I	W	M1	K			Chapter
NT-SR001	M6.0X0.75	7.8	9	6	1.5	M3.0X0.50	4			A
NT-SR002	M5.0X0.50	6.3	6	3.5	1.2	M3.0X0.50	3.5			D
NT-SR009	M6.0X0.75	7.8	7.5	4.1	1.6	M4.0X0.70	4			D
NT-SR010	M5.0X0.50	6.3	8.6	6	1.2	M3.0X0.50	3.5			A

Levers screws

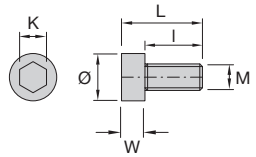
NT-SC



Designation	M	Ø	L	I	W	K				Chapter
NT-SC015	M6.0X1.00	5.95	17	7	3	2.5				A
NT-SC020	M8.0X1.00	8	23.5	10	6	3				A
NT-SC025	M8.0X1.00	8	21	7	6	3				A

Locking screws

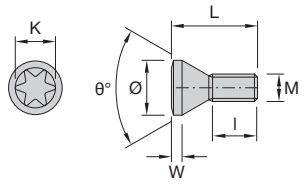
NT-SC



Designation	M	Ø	L	I	W	K				Chapter
NT-SC001	M5.0X0.80	8.5	25.5	20	6	4				C
NT-SC002	M6.0X1.00	10	25	20	5	4				C
NT-SC003	M3.0X0.50	5.5	9	6	3	2.5				B
NT-SC004	M4.0X0.70	7	12	8	4	3				B

Locking screws

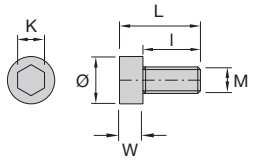
NT-ST



Designation	M	Ø	L	l	W	θ	K			Chapter
NT-ST051	M5.0X0.80	7	13.2	10.1	0.5	60°	T20			C
NT-ST076	M4.0X0.70	5.7	12	7	1	60°	T15			C
NT-ST077	M5.0X0.80	7.2	16	11	1.2	60°	T15			C

Cartridge screw

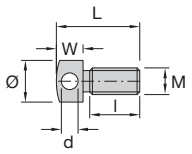
NT-CW



Designation	M	Ø	L	l	W	K				Chapter
NT-CW040	M5.0X0.80	8.5	16.5	11.5	5	4				D

Adjusting screw

NT-AD



Designation	M	Ø	d	L	l	W				Chapter
NT-AD040	M5.0X0.80	9	2	14	8	6				D

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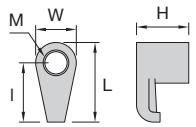
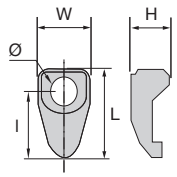
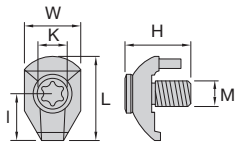
	Designation		M	L	I	W	H					Chapter
Clamps	NT-CS with thread	NT-CS005	M5.0X0.80	13.6	10	7.8	7.1					A
		NT-CS009	M5.0X0.80	14.9	11	7.8	11					A
		NT-CS010	M6.0X1.00	18.2	13	9.4	13.5					A
		NT-CS015	M8.0X1.00	22.3	17	10.8	17.4					A
		NT-CS025	M6.0X1.00	21.5	17	9.4	13.7					A
		NT-CS030	M5.0X0.80	16.9	12.5	7.9	7.9					A
		NT-CS070	M8.0X1.00	19.4	13.5	10.7	16.8					A
		NT-CS075	M6.0X1.00	24.5	19.5	9.7	13.7					A



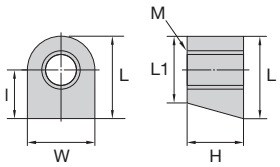
	Designation		Ø	L	I	W	H					Chapter
Clamps	NT-CS with hole	NT-CS028	6.3	20	12	12	6					D
		NT-CS200	6.4	26	17.5	13	11					A
		NT-CS210	6.4	29	20.3	12.1	11					A
		NT-CS250	4.2	21	13.3	11	10					A
		NT-CS300L	5.5	28	15.2	15	12.5					C
		NT-CS300R	5.5	28	15.2	15	12.5					C



	Designation		M	L	I	W	H	K				Chapter
Clamping sets	NT-CS clamp+screw	NT-CS003	M4.0X0.70	13.5	7.5	7.7	14.3	2.5				A
		NT-CS013	M3.5X0.60	11.5	6.4	7.7	9	T15				D
		NT-CS014	M3.5X0.60	11.5	6.4	7.7	9	T15				D
		NT-CS021	M5.0X0.80	16.5	9.5	9.25	11	T20				D

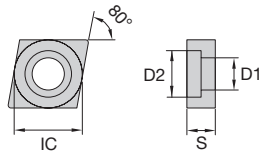


	Designation		M	L	L1	I	W	H				Chapter
Wedges	NT-WD	NT-WD070	M6.0X1.00	11.8	9.6	7.3	9	7.5				D
		NT-WD090	M6.0X1.00	9.96	7.8	5.96	10	9.5				D



Shims for turning

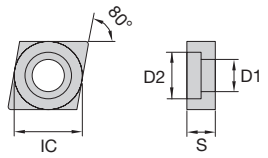
NT-SH (CC∞)



Designation	IC	S	D1	D2						Chapter
NT-SH001	11.4	3.9	6.6	8.2						A
NT-SH011	8.5	3.2	5.4	6.7						A

Shims for turning

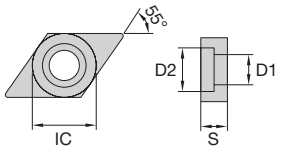
NT-SH (CN∞)



Designation	IC	S	D1	D2						Chapter
NT-SH012	9.3	3.2	4.9	6.8						A
NT-SH030	12.4	4.8	7.5	8.2						A
NT-SH035	12.6	3.2	6.9	8.5						A
NT-SH055	15.5	4.8	9.9	11						A
NT-SH080	18.7	4.8	11.4	12.3						A

Shims for turning

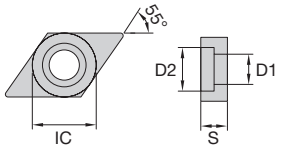
NT-SH (DC∞)



Designation	IC	S	D1	D2						Chapter
NT-SH007	6.9	3.2	5.4	6.7						A

Shims for turning

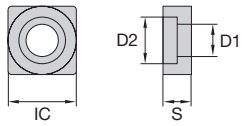
NT-SH (DN∞)



Designation	IC	S	D1	D2						Chapter
NT-SH020	8.5	3.2	6.9	8.9						A
NT-SH025	8.2	6.5	7.5	8						A
NT-SH045	8.2	4.8	7.5	8						A

Shims for turning

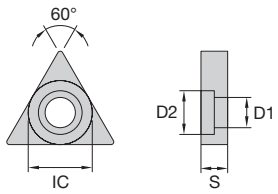
NT-SH (SN∞)



Designation	IC	S	D1	D2						Chapter
NT-SH070	12.3	4.8	7.5	8.2						A
NT-SH090	18.7	4.8	11.3	13						A

Shims for turning

NT-SH (TN∞)



Designation	IC	S	D1	D2						Chapter
NT-SH005	6.7	3.2	5.8	6.6						A
NT-SH006	6.6	3.2	4.8	6.6						A
NT-SH008	8.3	4.9	7.5	8.2						A

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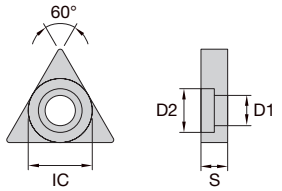
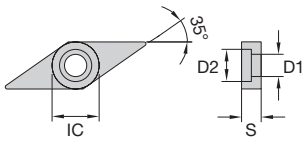
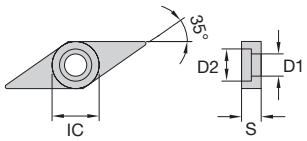
	Designation		IC	S	D1	D2						Chapter
Shims for turning	NT-SH (TP∞)	NT-SH002	5.5	3.2	2.4	5.3						A



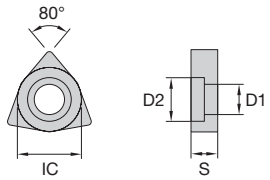
	Designation		IC	S	D1	D2						Chapter
Shims for turning	NT-SH (VB∞-VC∞)	NT-SH050	6.8	3.2	5.4	6.6						A



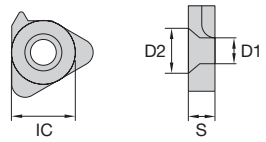
	Designation		IC	S	D1	D2						Chapter
Shims for turning	NT-SH (VN∞)	NT-SH075	6.8	3.2	5.9	6.6						A



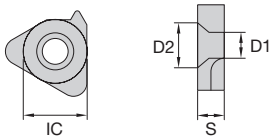
	Designation		IC	S	D1	D2						Chapter
Shims for turning	NT-SH (WN∞)	NT-SH003	6.6	3.3	5.9	6.7						A
		NT-SH010	8	4.8	7.3	8						A
		NT-SH015	8.8	3.2	6.8	9						A

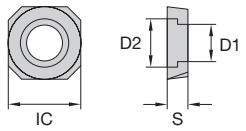


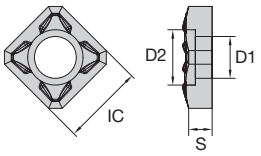
	Designation		IC	S	D1	D2						Chapter
Shims for threading	NT-SH (ER-IL)	NT-SH060	9.5	3.2	4.5	6.4						B
		NT-SH060+1°	9.5	3.2	4.5	6						B
		NT-SH060-1°	9.5	3.2	4.5	6						B
		NT-SH066	12.6	4	5.1							B



	Designation		IC	S	D1	D2						Chapter
Shims for threading	NT-SH (IR-EL)	NT-SH065	9.5	3.2	4.5	6.4						B
		NT-SH067	12.6	4	5.1							B



	Designation		IC	S	D1	D2						Chapter
Shims for milling	**NT-SH (4FacePlus)** 	**NT-SH004**	10.7	3	5.2	6.9						D

	Designation		IC	S	D1	D2						Chapter
Shims for milling	**NT-SH (Double4Face)** 	**NT-SH009**	12.6	3.15	6.7	8.7						D

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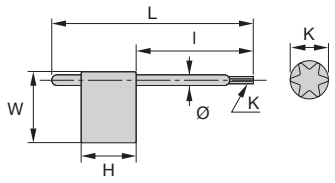
Flag wrenches

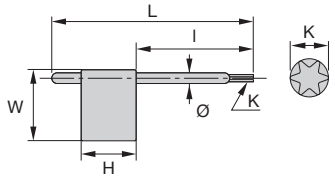
NT-FT yellow (torx)



Designation	Ø	L	I	W	H	K
NT-FT06	3.5	82	45	23	23	T6
NT-FT07	3.5	84	47	23	23	T7
NT-FT08	3.5	82	45	23	23	T8
NT-FT09	3	73	37	23	19	T9
NT-FT10	3.5	83	46	23	23	T10
NT-FT15	3.5	83	46	23	23	T12

Flag wrenches

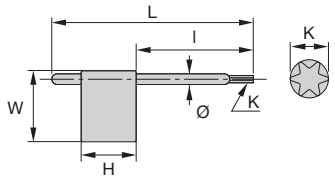
NT-FT blue (torx)



Designation	Ø	L	I	W	H	K
NT-FTB06	3	85	49	21	22	T6
NT-FTB07	3	85	49	21	22	T7
NT-FTB08	3	85	49	21	22	T8
NT-FTB09	3	85	49	21	22	T9
NT-FTB10	3	85	49	21	22	T10
NT-FTB15	4	85	49	29	24	T15
NT-FTB20	4	90	52	29	24	T20

Flag wrenches

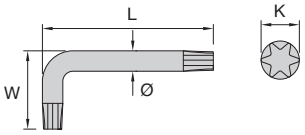
NT-FT yellow (torx plus)



Designation	Ø	L	I	W	H	K
NT-FTP08	3.5	88	51	23	23	IP8

L wrenches

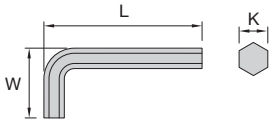
NT-TX (torx)



Designation	Ø	L	W	K
NT-TX15	3.5	57	19	T15
NT-TX20	4	62	23	T20

L wrenches

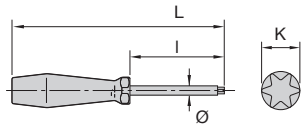
NT-WR (hexagonal)



Designation	Ø	L	W	K
NT-WR020	-	51	18	2
NT-WR025	-	53	18	2.5
NT-WR030	-	66	23	3
NT-WR035	-	69	25	3.5
NT-WR040	-	74	29	4
NT-WR050	-			5

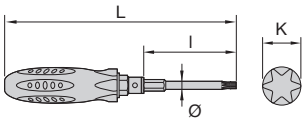
Screwdrivers

NT-DT

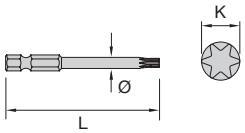


Designation	Ø	L	I	K
NT-DT20	5	175	80	T20

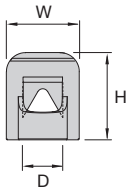
	Designation		Ø	L	l	K	Torque					
Screwdrivers	**NT-TSD torque control**	**NT-TSD TX08-1.2**	3	200	60	T8	1.2 NM					
		NT-TSD TX10-2.0	3.9	200	60	T10	2.0 NM					
		NT-TSD TX15-3.0	4	200	60	T15	3.0 NM					



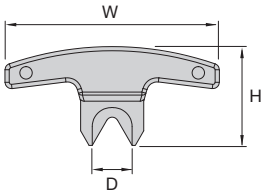
	Designation		Ø	L	K							
Screwdrivers	**Interchangeable bit**	**NT-TORX BIT IP08**	3	70	IP8							
		NT-TORX BIT TX08	3	70	T8							
		NT-TORX BIT TX10	4	70	T10							
		NT-TORX BIT TX15	4	70	T15							



	Designation		W	H	D							Chapter
Head wrenches	**NT-WR (DEX)**	**NT-WR1011**	24	30	12							E
		NT-WR1217	34	39	18							E
		NT-WR1820	38	45	22							E
		NT-WR2126	45	54	29							E



	Designation		W	H	D							Chapter
Head wrenches	**NT-WR (DXP)**	**NT-WR1416**	102	47.1	17							E
		NT-WR1720	102	47.1	19							E
		NT-WR2128	102	47.1	29							E



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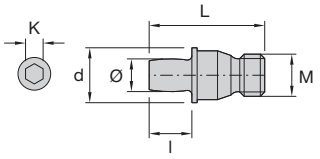
Eccentric pins

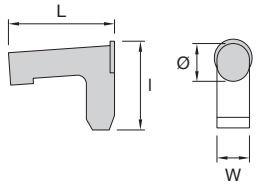
NT-SP



Designation	M	L	l	Ø	D	K				Chapter
NT-SP010	M6.0X1.00	17.7	4.5	5	7.8	3				A
NT-SP020	M5.0X0.80	14	3.4	3.7	6.2	2				A
NT-SP025	M6.0X1.00	19.2	4.5	5	7.8	2.5				A
NT-SP030	M5.0X0.80	11	3.4	3.7	5.6	2				A
NT-SP035	M5.0X0.80	11	4.4	5	5.6	2				A
NT-SP040	M8.0X1.00	21.8	4.7	6.2	10.3	3				A
NT-SP050	M10.0X1.00	21.8	4.7	7.8	11.8	4				A

Levers

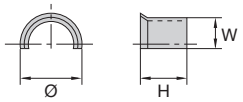
NT-LL



Designation	Ø	L	l	W						Chapter
NT-LL012	3.4	12	9.9	3.6						A
NT-LL015	4.4	10	13.6	4.7						A
NT-LL020	5	14.5	14.3	4.6						A

Shim plugs

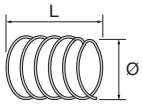
NT-SR



Designation	Ø	H	W						Chapter
NT-SR012	6.2	5.8	3.5						A
NT-SR015	6.5	3	4.5						A
NT-SR020	8.6	7	4						A

Springs

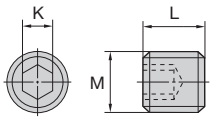
NT-SG



Designation	Ø	L							Chapter
NT-SG028	3.5	8							D
NT-SG200	8	16							A
NT-SG250	5.5	12							A

Locking grains

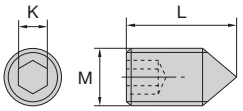
NT-ST



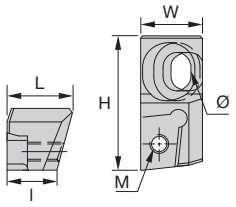
Designation	M	L	K						Chapter
NT-ST042	M5.0X0.80	6	2.5						E
NT-ST044	M5.0X0.80	8	2.5						E
NT-ST046	M6.0X1.00	10	3						E
NT-ST095	M4.0X0.70	4	2						A

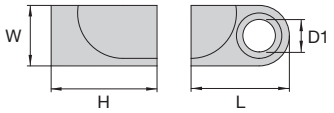
Setting grains

NT-ST



Designation	M	L	K						Chapter
NT-ST043	M5.0X0.80	6	2.5						E
NT-ST045	M5.0X0.80	8	2.5						E
NT-ST047	M6.0X1.00	10	3						E

	Designation		M	H	W	Ø	MIID					Chapter
Cartridge	**NT-CRD** 	**NT-CRD-XP08**	M3.0X0.50	29.5	11	5.5	XPG◁08					D

	Designation		D1	L	H	W						Chapter
Chip cover	**NT-CH** 	**NT-CH030**	6	13	14	8						D

WORKPIECE MATERIALS

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Gr.	Materials	W.-Nr	DIN	EN-Nr.	EN	UNI	BS	JIS	AFNOR
P1	Free cutting steel and structural steel Rm < 500 N/mm²	1.0037	St 37-2	1.0037	S235JR	Fe 360 B		STKM 12 C	E 24-2
		1.0116	St 37-3	1.0038	S235JRG2	Fe 360 D FF	4360-40 C		E 24-3, E 24-4
		1.0144	St 44-3 N	1.0144	S275J2G3	Fe 430 D FF	4360-43 C	SM 41 C	E 28-3, E 28-4
		1.0301	C 10	1.0301	C 10	C 10	045 M 10	S 10 C	34 C 10, XC 10
		1.0401	C 15			C 15, C 16	080 M 15		37 C 12, XC 18
		1.0402	C 22	1.0402	C 22	C 20, C 21	050 A 20		C 20
		1.0570	St 52-3	1.0570	S355JR	Fe 510 B	4360-50 C	SM 50 YA	E 36-3, E 36-4
		1.0715	9 SMn 28	1.0715	11 SMn 30	CF 9 SMn 28	230 M 07	SUM 22	S 250
		1.0718	9 SMnPb 28	1.0718	11 SMnPb 30	CF 9 SMnPb 28		SUM 22 L	S 250 Pb
		1.0721	10 S 20	1.0721	10 S 20	CF 10 S 20	210 M 15		10 F 1
		1.0722	10 SPb 20			CF 10 SPb 20			10 PbF 2
		1.0723	15 S 20	1.0725	15 SMn 13		210 A 15	SUM 32	
		1.0726	35 S 20	1.0726	35 S20		212 M 36		35 MF 4
		1.0727	46 S 20	1.0727	46 S20		212 M 44		45 MF 4
		1.0736	9 SMn 36	1.0736	11 SMn 37	CF 9 SMn 36	240 M 07		S 300
		1.0765	36 SMnPb 14		36 SMnPb 14	CF 35 SMnPb 10	216 M 36		35 MF 6 Pb
		1.1141	Ck 15	1.1141	C 15R	C 15, C 16	080 M 15	S 15 C, S 15 CK	XC 15, XC 18
			Ck 25			C 25	060 A 25	S 25 C	XC 25
P2	Carbon steel and low alloy steel Rm 500÷700 N/mm²	1.0501	C 35		C 35	C 35	060 A 35		55 C 35
		1.0503	C 45	1.0503	E 335	C 45	80 M 46	S 45 C	65 C 45
		1.0511	C 40		C 40	C 40	080 M 40	S 40 C	60 C 40
		1.0535	St 70-2	1.0070	E 360	Fe 690			A 70-2
		1.0601	C 60	1.0601	C60	C 60	080 A 62		CC 55
		1.1157	40 Mn 4				150 M 36		35 M 5
		1.1165	30 Mn 5	1.1165	G 28 Mn6		120 M 36	SMn 1 H, SCMn 2	
		1.1181	Ck 35	1.1181	C 35E	C 35	080 M 36	S 35 C	XC 38 H1
		1.1191	Ck 45	1.1191	C 45E	C 45	080 M 46	S 45 C	XC 42
		1.1221	Ck 60	1.1221	C 60E	C 60	080 A 62	S 58 C	XC 60
		1.1740	C 60 W					SK 7	Y3 55
		1.2162	21 MnCr 5					SCR 420 H	20 NC 5
		1.5415	15 Mo 3	1.5415	16 Mo 3	16 Mo 3	1501-240		15 D 3
		1.5423	16 Mo 5			16 Mo 5	1503-245-420	SB 450 M	
		1.5752	14 NiCr 14	1.5752	14 NiCr 14		655 M 13	SNC 815 (H)	12 NC 15
		1.5919	15 CrNi 6			16 CrNi 4	S 107		16 NC 6
		1.6587	18 CrNiMo 7 6	1.6587	18 NiCrMo 7 6	18 NiCrMo 7	820 A 16		18 NCD 6
		1.7131	16 MnCr 5	1.7131	16 MnCr 5	16 MnCr 5	527 M 17	SCR 415	16 MC 5
		1.7139	16 MnCrS 5	1.7139	16 MnCrS 5				
		1.7147	20 MnCr 5	1.7147	20 MnCr 5	20 MnCr 5		SMnC 420 (H)	20 MC 5
		1.7149	20 MnCrS 5	1.7149	20 MnCrS 5			SMnC 21 H	20 MnCrS 5
		1.7335	13 CrMo 4 4	1.7335	13 CrMo 4 5	14 CrMo 4 5	1501-620 Gr. 27		15 CD 3.5
		1.7337	16 CrMo 4 4			14 CrMo 4 5	1501-620 Gr. 27		15 CD 4.5
		1.7380	10 CrMo 9 10	1.7380	10 CrMo 9 10	12 CrMo 9 10	1501-622 Gr. 31		10 CD 9.10
P3	Medium alloy steel Rm 600÷800 N/mm²	1.0904	55 Si 7	1.7100	55 SiCr7	55 Si 8	250 A 53		55 S 7
		1.2330	35 CrMo 4			35 CrMo 4	708 A 37		34 CD 4
		1.2542	45 WCrV 7			45 WCrV 8 KU	BS 1		
		1.2714	56 NiCrMoV 7	1.2714		56 NiCrMoV7-KU	BH 224-5	SKT 4	
		1.5121	46 MnSi 4						
		1.5710	36 NiCr 6				640 A 35	SNC 236	35 NC 6
		1.5736	36 NiCr 10			35 NiCr 9		SNC 631 (H)	35 NC 11
		1.6511	36 CrNiMo 4		36 CrNiMo 4	38 NiCrMo 4 (KB)	816 M 40		40 NCD 3
		1.6582	34 CrNiMo 6	1.6582	34 CrNiMo 6	35 NiCrMo 6 (KW)	817 M 40	SNCM 447	35 NCD 6
		1.7033	34 Cr 4	1.7033	34 Cr 4	34 Cr 4 (KB)	530 A 32	SCR 430 (H)	32 C 4
		1.7035	41 Cr 4	1.7035	41 Cr 4	41 Cr 4	530 M 40	SCR 440 (H)	42 C 4
		1.7218	25 CrMo 4	1.7218	25 CrMo 4	25 CrMo 4 (KB)	708 M 25	SCM 425	25 CD 4 S
		1.7225	42 CrMo 4	1.7225	42 CrMo 4	42 CrMo 4	708 M 40	SCM 440 (H)	42 CD 4
		1.7361	32 CrMo 12			32 CrMo 12	722 M 24		30 CD 12
		1.8159	50 CrV 4	1.8159	50 CrV 4	51 CrV 4	735 A 50	SUP 10	50 CV 4
		1.8509	41 CrAlMo 7	1.8509	41 CrAlMo 7 10	41 CrAlMo 7	905 M 39	SACM 645	40 CAD 6.12

nikkoTOOLS

SS	UNS	U.N.E. / I.H.A.	AISI-ASTM	GOST	ČSN	Trade Mark	Structure
1311				16D			
1312, 1313			A573 Grade 58	18kp	11 378		
1412, 1414			A573 Grade 70	St14kP	11 448		
	G10100		1010	10			
1350	G10170	F.1110	1015	15			
1450	G10200		1020, 1023	20	12 024		
2172, 2132				17G1S	11 523		
1912	G12130		1213			AVP	
1914	G12134		12 L 13				
			1108				
			11 L 08				
1922							
1957	G11400		1140	40			
1973	G11460		1146				
	G12150		12 L14			AVZ	
			11 L 37	AS35G2		PR80	
1370	G10170	F.1511	1015	15			
	G10250	F.1120	1025	25			
1550	G10350	F.1130	1035	35	12 040		
1650	G10430	F.5110	1045	45	12 050		
			1040	40	12 041		
1655		F.1150	1055	55			
	G10600		1060	60	12 061		
	G10390		1039	40G			
	G13300		1330	30G2			
1572	G10340	F.1135	1035	35			
1672	G10420	F.1140	1045	45	12 050		
1665, 1678	G10640	F.1150	1064	60			
			1060	60			
2912			A204 Grade A		15 020		
	G45200		4520				
	G33106		3310, 9314	20X2H4A	16 420		
			4320		16 220		
2511	G51170	F.1516	5115	12KHN2	14 220		
				18HG			
	G51200		5120	20KH	14 221		
			5120 H	20KH			
2216			A182-F11, A182-F12	12KHM	15 121		
2216			A387 Grade 12 Cl. 2				
2218	J21890	F.155	A182-F22	12KH8	15 313		
2085, 2090		F.144	9255	55S2			
2234	T51620	F.1250	4135	35KHM			
2710	T41901	F.5241	S1	5KHV2S			
	T61206		L6	5KHNV			
			5045				
			3135				
			3435				
	G98400		9840				
2541	G43400	F.1280	4340	38H2N2MA	16 343		
	G51320		5132	35KH			
	G51400		5140	40H	14 140		
2225	G41300	F.1251	4130	20KHM	15 130		
2244	G41400	F.1252	4142, 4140	38HM	15 142		
2240							
2230	H61500	F.143	6150	50KHFA	15 260		
2940	K24065	F.1740	A355 Cl. A				

nikkoTOOLS

Gr.	Materials	W.-Nr	DIN	EN-Nr.	EN	UNI	BS	JIS	AFNOR
P4	High alloy steel Rm 800÷1000 N/mm²	1.1231	Ck 67	1.1231	C 67S	C 70	060 A 67		XC 68
		1.1274	Ck 101	1.1274	C 100S		060 A 96	SUP 4	
		1.1545	C 105 W1	1.1545	C 105U	C 100 KU			Y1 105
		1.1645	C 105 W2			C 100 KU		SK 3	Y1 105
		1.1663	C 125 W			C 120 KU		SK 2	Y2 120
		1.2210	115 CrV 3	1.2210	107 CrV 3	107 CrV 3 KU			100 C 3
		1.2510	100 MnCrW 4			95 MnWCr 5 KU	BO 1	SKS 3	90 MWCV 5
		1.2842	90 MnCrV 8	1.2842	90 MnCrV 8	90 MnVCr 8 KU	BO 2		90 MV 8
		1.3505	100 Cr 6	1.3505	100 Cr 6	100 Cr 6	534 A 99	SUJ 2	100 C 6
P5	Tool steel Rm 900÷1200 N/mm²	1.2080	X 210 Cr 12	1.2080	X 210 Cr 12	X 210 Cr 13 KU	BD 3	SKD 1	Z 200 C 12
		1.2311	40 CrMnMo 7						
		1.2312	40 CrMnMoS 86						
		1.2343	X 38 CrMoV 5 1			X 37 CrMoV 5 1 KU	BH 11	SKD 6	Z 38 CDV 5
		1.2344	X 40 CrMoV 5 1	1.2344	X 40 CrMoV 5 1	X 40 CrMo 5 1 1 KU	BH 13	SKD 61	Z 40 CDV 5
		1.2363	X 100 CrMoV 5	1.2363	X 100 CrMoV 5 1	X 100 CrMoV 5 1 KU	BA 2	SKD 12	Z 100 CDV 5
		1.2365	X 32 CrMoV 3 3			30 CrMoV 12 27 KU	BH 10	SKD 7	32 DCV 28
		1.2379	X 155 CrVMo 12 1			X 155 CrMo 12 KU			
		1.2436	X 210 CrW 12			X 215 CrW 12 1 KU		SKD 2	
		1.2601	X 165 CrMoV 12			X 165 CrMoW 12 KU			
		1.2713	55 NiCrMoV 6					SKT 4	55 NCDV 7
		1.2714	56 NiCrMoV 7			56 NiCrMoV 7 KU			
		1.3243	S 6-5-2-5	1.3243	HS 6-5-2-5	HS 6-5-2-5		SKH 55	Z 85 WDKCV 06-05-05-04-02
		1.3247	S 2-10-1-8	1.3247	HS 2-10-1-8	HS 2-9-1-8	BM 42	SKH 51	Z 110 DKCWV 09-08-04
		1.3255	S 18-1-2-5	1.3255	HS 18-1-2-5	HS 18-1-1-5	BT 4	SKH 3	Z 80 WKCV 18-05-04-01
		1.3343	S 6-5-2	1.3343	HS 6-5-2	HS 6-5-2	BM 2	SKH 9, SKH 51	Z 85 WDCV 06-05-04-02
		1.3348	S 2-9-2	1.3348	HS 2-9-2	HS 2-9-2		SKH 58	Z 100 DCWV 09-04-02-02
		1.3355	S 18-0-1	1.3355	HS 18-0-1	HS 18-0-1	BT 1	SKH 2	Z 80 WCV 18-04-01
P6	High tensile strength steel Rm 1200÷1480 N/mm² HRC 38÷45	1.6546	40 NiCrMo 2 2	1.6546	40 NiCrMo 2 KD	40NiCrMo2	311 - Type 7	SNCM 240	40 NCD 2
		1.7045	42 Cr 4	1.7045		41Cr4	530 A 40	SCR 440	42 C 4 TS
P7	Ferritic - Martensitic stainless steel	1.4000	X 6 Cr 13	1.4000	X 6 Cr 13	X 6 Cr 13	403 S 17	SUS 403	Z 6 C 12
		1.4006	X 10 Cr 13	1.4006	X 12 Cr 13	X 12 Cr 13	410 S 21	SUS 410	Z 10 C 13
		1.4016	X 6 Cr 17	1.4016	X 6 Cr 17	X 8 Cr 17	430 S 15	SUS 430	Z 8 C 17
		1.4021	X 20 Cr 13	1.4021	X 20 Cr 13	X 20 Cr 13	420 S 37	SUS 420 J 1	Z 20 C 13
		1.4031	X 40 Cr 13	1.4031	X 39 Cr 13	X 40 Cr 14	420 S 45	SUS 420	Z 40 C 14
		1.4109	X 65 CrMo 14	1.4109	X 70 CrMo 15			SUS 440 A	Z 70 D 14
		1.4112	X 90 CrMoV 18	1.4112	X 90 CrMoV 18	X CrTi 12	409 S 19	SUS 440 B	Z 2 CND 18 05
		1.4125	X 105 CrMo 17	1.4125	X 105 CrMo 17	X 105 CrMo 17		SUS 440 C	Z 100 CD 17
		1.4313	X 5 CrNi 13 4	1.4313	X 5 CrNiMo 13 3	X 6 CrNi 13 04	425 C 11	SCS 5	Z 5 CN 13.4
		1.4749	X 18 CrN 28	1.4749	X 18 CrN 28				Z 18 C 25
P8	PH stainless steel	1.4534	X 3 CrNiMoAl 13 8 2	1.4534	X 6 NiCrTiMoV 25 15				
		1.4540	X 4 CrNiCuNb 16 4	1.4540	X 4 CrNiCuNb 16 4	Z 4 CNUNb 16.4 M			Z 4 CNUNb 16.4 M
		1.4548	X 5 CrNiCuNb 17 4	1.4548	X 5 CrNiCuNb 17 4	Z 6 CNU 17.4		SCS 24, SUS 630	
		1.4568	X 7 CrNiAl 17 7	1.4564	X 3 CrNiMoAl 13 8 2	X 7 CrNiAl 17 7	301 S 81	SUS 631	Z 9 CAN 17.7
		1.6356	X 2 NiCoMoTi 18 12 4	1.6356	X 2 NiCoMoTi 18 12 4				

WORKPIECE MATERIALS

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SS	UNS	U.N.E. / I.H.A.	AISI-ASTM	GOST	ČSN	Trade Mark	Structure
1770	G10700	F.5103	1070	70			
1870	G10950	F.5117	1095				
1880		F.5118	W1	U10A			
				U10			
			W1	U13			
	T61202	F.520L	L2	11KHF			
2140	T31501	F.5220	O1	9KHVG			
	T31502		O2	9G2F		K720	
2258	G51986	F.5230	52100	SHKH15	14 109		
						TOOLOX 33	
	T30403	F.5212	D3	KH12		K100	
						M201	
						M200 - HOLDAX	
	T20811		H11	4KH5MFS		VIDAR - W300	
2242	T20813	F.5318	H13	4KH5MF1S		ORVAR - W302	
2260	T30102	F.5227	A2	9KH5VF			
	T20810		H10	3KH3M3F		W320	
						K110	
2312		F.5213		KH12			
2310				KH12MF			
	T61206	F.520.S	L6	5KHNM			
			L6			W500	
2723		F.5613	M35	R6M5K5			
	T11342		M42	R2AM9K5			
	T12004		T4	R18K5F2			
2722	T11302	F.5603	M2	R6M5		S600	
2782	T11307		M7				
	T12001		T1	R18			
	G86400		8640			Monix	
2245			5140				
						HARDOX 400®	
						HARDOX 450®	
						TOOLOX 40®	
						TOOLOX 44®	
2301	S41008		403	08KH13			Ferritic
2302	S41000	F.3401	410, CA-15	12KH13			Martensitic
2320	S43000	F.3113	430	12KH17			Ferritic
2303	S42000	F.5261	420	20KH13	17 022		Martensitic
2304	S40280	F.3404	420 C	40KH13			Martensitic
	S44002		440 A				Martensitic
2327	S44003		440 B	95KH18			Martensitic
	S44004		440 C	95KH18			Martensitic
2385	S41500		A182 F6NM				Martensitic
2322	S44600		446	15KH28			Ferritic
	S13800		XM-13			PH13-8 Mo	Austenitic
	S15500		XM-12			15-5-PH	Martensitic
	S17400		630			17-4-PH	Martensitic
2388	S17700		631	09KH17N7YU1		17-7-PH	Austenitic/Ferritic
	K93160		AMS 6515				Martensitic

WORKPIECE MATERIALS

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Gr.	Materials	W.-Nr	DIN	EN-Nr.	EN	UNI	BS	JIS	AFNOR
M1	Austenitic stainless steel (good machinability)	1.4300	X 12 CrNi 18 8	1.4300	X 12 CrNi 18 8		302 S 25	SUS 302	Z 12 CN 18
		1.4301	X 5 CrNi 18 10	1.4301	X 5 CrNi 18 10	X 5 CrNi 18 11	304 S 31	SUS 304	Z 6 CN 18.09
		1.4305	X 10 CrNiS 18 9	1.4305	X 10 CrNiS 18 9	X 10 CrNi 18 09	303 S 31	SUS 303	Z 10 CNF 18.09
		1.4306	X 2 CrNi 19 11	1.4306	X 2 CrNi 19 11	X 3 Cr Ni 18 11	304 S 12	SUS 304 L	Z 2 CN 18.10
		1.4310	X 12 CrNi 17 7	1.4310	X 9 CrNi 18 8	X 12 CrNi 17 07	301 S 21	SUS 301	Z 12 CN 17.07
		1.4550	X 6 CrNiNb 18 10	1.4550	X 6 CrNiNb 18 10	X 6 CrNiNb 18 11	347 S 31	SUS 347	Z 6 CNNb 18.10
M2	Austenitic stainless steel (medium machinability) and Duplex	1.4311	X 2 CrNiN 19 11	1.4311	X 2 CrNiN 18 10	X 2 CrNiN 18 11	304 S 62	SUS 304 LN	Z 2 CN 18 .10 Az
		1.4335	X 12 CrNi 25 21	1.4335	X 12 CrNi 25 21	X 6 CrNi 26 20	310 S 24	SUH 310, SUS 310 S	Z 12 CN 25.20
		1.4401	X 5 CrNiMo 17 12 2	1.4401	X 5 CrNiMo 17 12 2	X 5 CrNiMo 17 12	316 S 31	SUS 316	Z 3 CND 17.11.1
		1.4417	X 2 CrNiMoSi 19 5	1.4424	X 2 CrNiMoSi 19 5				Z 2 CND 18.05.03
		1.4429	X 2 CrNiMoN 17 13 3	1.4429	X 2 CrNiMoN 17 13 3	X 2 CrNiMoN 17 13 3	316 S 62	SUS 316 LN	Z 2 CND 17.13 Az
		1.4435	X 2 CrNiMo 18 14 3	1.4435	X 2 CrNiMo 18 14 3	X 2 CrNiMo 17 13 2	316 S 12	SCS 16, SUS 316 L	Z 2 CND 17.13
		1.4438	X2 CrNiMo 18 16			X2CrNiMo18 16	317 S 12	SUS 317 L	Z 2 CND 19.15
		1.4460	X 4 CrNiMo 27 5 2	1.4460	X 3 CrNiMo 27 5 2	X 3 CrNiMo 27 5 2		SUS 329 J 1	Z 3 CND 25.7 Az
		1.4462	X 2 CrNiMoN 22 5	1.4462	X 2 CrNiMoN 22 5 3	X 2 CrNiMoN 22 5	332 S 15		Z 2 CND 22.05 Az
		1.4466	X 5 CrNi 18 15	1.4466	X 3 CrNiMo 18 12 3	X 5 CrNi 18 15	317 S 16	SUS 317	
		1.4541	X10 CrNiTi 18 9	1.4541		X6CrNiTi18 11	321 S 12	SUS 321	Z 6 CND 18.10
		1.4550	X 6 CrNiNb 18 10	1.4550	X 6 CrNiNb 18 10	X 6 CrNiNb 18 11	347 S 31	SUS 347	Z 6 CNNb 18.10
		1.4571	X10 CrNiMoTi 18 10			X6CrNiMoTi 17 12	320 S 17	-	Z 6 CNDT 17.12
		1.4893	X 9 CrNiSiNCe 21 11 2	1.4835	X 9 CrNiSiNCe 21 11 2		310 S 31		
M3	Super austenitic stainless steel and super Duplex	1.4410	X 2 CrNiMoN 25 7 4	1.4410	X 2 CrNiMoN 25 7 4	X 2 CrNiMoN 25 7 4			Z 3 CND 25.07 Az
		1.4501	X 2 CrNiMoCuWN 15 7 4			X 2 CrNiMoCuWN 15 7 4			
		1.4529	X 1 CrNiMoN 20 18 7	1.4547	X 1 CrNiMoN 20 18 7	X 1 CrNiMoN 20 18 7			Z 1 CNDU 20.18.05 Az
		1.4539	X 2 NiCrMoCu 25 20 5	1.4539	X 2 NiCrMoCu 25 20 5		904 S 13		Z 2 NCDU 25 20
		1.4652	X 2 CrNiMoN 25 22 7	1.4652	X 1 CrNiMoN 25 22 8				
		1.4876	X 10 NiCrAlTi 32 20	1.4876	X 10 NiCrAlTi 32 20			NCF 800	Z 10 NC 32.21
		1.4943	X 4 NiCrTi 25 15	1.4980	X 5 CrNiCuNb 16 4		HR 51	SUH 660	Z 6 NCTDV 25.15
K1	Grey cast iron 150 ÷ 250 HB	0.6015	GG-15	5.1200	EN-GJL-150	G15	Grade 150	FC 150	Ft 15 D
		0.6020	GG-20	5.1300	EN-GJL-200	G20	Grade 220	FC 200	Ft 20 D
		0.6025	GG-25	5.1301	EN-GJL-250	G25	Grade 260	FC 250	Ft 25 D
		0.6027	GG-220 HB		EN-GJL-215				
		0.6035	GG-35	5.1303	EN-GJL-350	G35	Grade 350	FC 350	Ft 35 D
K2	Nodular cast iron 150 ÷ 350 HB	0.7033	GGG 35.3	5.3100	EN-GJS-350-22		Grade 350/22	FCD 350-22L	FGS 370-17
		0.7040	GGG 40	5.3106	EN-GJS-400-15	GS400-12	Grade 420/12		FGS 400-12
		0.7043	GGG 40.3	5.3105	EN-GJS-400-18	GSO 42/17	Grade 370/17	FCD 400-18L	FGS 370-17
		0.7050	GGG 50	5.3200	EN-GJS-500-7	GS500-7	Grade 500/7	FCD 500-7	FGS 500-7
		0.7060	GGG 60	5.3201	EN-GJS-600-3	GS600-3	Grade 600/3	FCD 600-3	FGS 600-3
		0.7070	GGG 70	5.3300	EN-GJS-700-2	GS700-2	Grade 700/2	FCD 700-2	FGS 700-2
		0.8155	GTS-55-04		EN-GJMB-550-4	P 55-04	P 540/5	PCMP55-04	P 540/5
		0.9990	GGV-40	5.2201	EN-GJV-400				
			GGV-45	5.2300	EN-GJV-450				
			GGV-50	5.2301	EN-GJV-500				
K3	ADI cast iron 250 ÷ 500 HB		GJS-800-8	5.3301	EN-GJS-800-8				
			GJS-1000-5		EN-GJS-1000-5				
			GJS-1200-2		EN-GJS-1200-2				
			GJS-1400-1	5.3405	EN-GJS-1400-1				
K4	Austenitic cast iron 120 ÷ 260 HB	0.6655	GGL-NiCuCr 15 6 2		EN-GJLA-XNiCuCr 15-6-2		Grade F1		FGL Ni15 Cu6 Cr2
		0.6660	GGL-NiCr 20 2		EN-GJLA-XNiCr 20-2		Grade F2		FGL Ni20 Cr2
		0.6676	GGL-NiCr 30 3		EN-GJLA-XNiCr 30-3		Grade F3		FGL Ni30 Cr3
		0.7652	GGG-NiMn 13 7		EN-GJSA-XNiMn 13-7		Grade S6		FGS Ni13 Mn7
		0.7660	GGG-NiCr 20 2	5.3500	EN-GJSA-XNiCr 20-2		Grade S2		FGS Ni20 Cr2
		0.7673	GGG-NiMn 23 4		EN-GJSA-XNiMn 23-4		Grade S2M		FGS Ni23 Mn4
		0.7676	GGG-NiCr 30 3	5.3507	EN-GJSA-XNiCr 30-3		Grade S3		FGS Ni30 Cr3
		0.7683	GGG-Ni 35	5.3504	EN-GJSA-XNi 35				FGS Ni35

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SS	UNS	U.N.E. / I.H.A.	AISI-ASTM	GOST	ČSN	Trade Mark	Structure
2331	S30200		302	12KH18N9			Austenitic
2333	S30400	F.3504	304	08KH18N10	17 240		Austenitic
2346	S30300	F.3508	303	12KH19N9			Austenitic
2352	S30403	F.3504	304 L	03KH18N11			Austenitic
	S30100	F.3517	301	07KH16N6			Austenitic
2338	S34700		347	08KH18N12B			Austenitic
2371	S30453	F.3541	304 LN	03KH18N11			Austenitic
2361	S31008		310 S	12KH25N20			Austenitic
2347	S31600	F.3534	316	08KH17H13M2T	17 346		Austenitic
2376	S31500						Duplex
2375	S31653		316 LN	03KH16N15M3			Austenitic
2353	S31603	F.3533	316 L	03KH17N14M3	17 349		Austenitic
2367			317 L				Austenitic
2324	S32900		329				Duplex
2377	S31803		329 LN				Duplex
2366	S31700		317	08KH17H15M3T			Austenitic
2337			321				Austenitic
2338	S34700	F.3524	347	08KH18N12B			Austenitic
2350			316 Ti				Austenitic
2368	S30815						Austenitic
2328	S32750		F 53				Super duplex
	S32760		F 55-329 S				Super duplex
2778	S31254						Super Austenitic
2562	N08904		904L				Super Austenitic
	S32654						Super Austenitic
	N08800					Alloy 800	Austenitic
2570	S66286		660			A286	Austenitic
01 15-00	F11601		A48 25 B	Sc 15	422 415		Lamellar
01 20-00	F12101		A48 30 B	Sc 20	422 420		Lamellar
01 25-00	F12401		A48 35 B	Sc 25	422 425		Lamellar
02 19							Lamellar
01 35-00	F13502		A48 50 B	Sc 35			Lamellar
07 17-15					422 303		Nodular
07 17-02		FGE 38-17		Vc 42-12	422 304		Nodular
07 17-12	F32800		60-40-18	Vc 42-12	422 314		Nodular
07 27-02	F33800	FGE 50-7	A536, 80-55-06	Vc 50-2	422 305		Nodular
07 32-03	F34100	FGE 60-2	A476, 80-60-03	Vc 60-2	422 306		Nodular
07 37-01	F34800	FGE 70-2	A536, 100-70-03	Vc 70-2	422 307		Nodular
08 54-00	F24130		A220 60004				Malleable
			Grade 400-15				Vermicular
			Grade 450				Vermicular
			Grade 500				Vermicular
	ADI grade 1		850/550/10			ADI 800	Ductile austempered
	ADI grade 2		1050/700/7			ADI 1000	Ductile austempered
	ADI grade 3		1200/850/4			ADI 1200	Ductile austempered
	ADI grade 4		1400/1100/1			ADI 1400	Ductile austempered
	F41000		A436 Type 1			Ni-Resist 1	Lamellar
05 23-00	F41002		A436 Type 2			Ni-Resist 2	Lamellar
	F41004		A436 Type 3			Ni-Resist 3	Lamellar
07 72-00						Nodumag	Nodular
	F43000		A436 Type D-2			Ni-Resist D-2	Nodular
	F43010		A439 Type D-2M			Ni-Resist D-2M	Nodular
	F43003		A436 Type D-3			Ni-Resist D-3	Nodular
	F43006		A439 Type D-5			Ni-Resist D-5	Nodular

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Gr.	Materials	W.-Nr	DIN	EN-Nr.	EN	UNI	BS	JIS	AFNOR
N1	Aluminium alloy < 12% Si	3.0205	Al 99			9001/1	1C	A1x3	A4
		3.0255	Al99.5	Al99.5	AW-1050A	9001/2	1B	(A1050)	A-5/1050A
		3.0505	AlMn0,5Mg0,5				N31		
		3.0517	AlMn1Cu	AlMn1Cu	AW-3003			A3003	A-M1/3003
		3.0615	AlMgSiPb						ASGPB
		3.1255	AlCuSiMn	AlCuSiMn	AW-2014		H15		A-U4SG
		3.1305	AlCuMg0,5			9002/1	L86		AU2G
		3.1325	AlCuMg 1			9002/2	(H14)	A3x2	AU4G
		3.1355	AlCuMg 2			9002/4	DTD5090	A3x4	AU4G1
		3.1645	AlCuMgPb			9002/8	-	-	AU4Pb
		3.1655	AlCuBiPb	AlCuBiPb	AW-2011		FC1	A2011	A-U5PbBi
		3.2161	G-AlSi8Cu3	AlSi8Cu3(Si)	AC-46200				
		3.2315	AlSi1MgMn	AlMgSi1	AW-6082	90006/4	H30		A-SGM0.7
		3.2341	G-AlSi5Mg		AC-42000	3599	LM25	AC 4C	A-S7G
		3.2381	G-AlSi10Mg	AlSi10Mg(Fe)	AC-43400		LM9		A-S10G
		3.2383	G-AlSi10Mg (Cu)		43200		(LM9)		A-S10UG
		33.206	AlMgSi0.5	AlMgSi0.5	AW-6060		(H9)		A-GS/6060
		3.3210	AlMgSi0.7	AlMgSi0.7	AW-6063		(H10)	(A6063)	A-GSUC/6061
		3.3211	AlMg1SiCu			9006/2	H20	A2x4	AGSUC
		3.3315	AlMg1	AlMg1	AW-5005		N41		A-G0.6
		3.3316	AlMg1,5			9005/7			
		3.3523	AlMg2,5			9005/2		A2x1	AG2,5C
		3.3535	AlMg3			9005/8	N5/N56		AG3
		3.3547	AlMg4.5Mn0.7			9005/5	N8	A2x7	AG4,5MC
		3.3555	AlMg5				N6		A-G5
		3.4335	AlZn4.5Mg1	AlZn4.5Mg1	AW-7020		H17		A-Z5G
		34.365	AlZn5.5MgCu		AW-7075	9007/2	2L95	A7075	A-Z5GU
		3.5612	G-MgAl6Zn	MgAl6Zn	MG-P-63		MAG-E-121		G-A6-Z1
		3.5812	G-MgAl8Zn	MgAl8Zn	MG-P-61				(G-A7-Z1)
N2	Aluminium alloy > 12% Si and Aluminium-Magnesium	32.382	G-AlSi12	AlSi12	AC-44200	4514	LM6	AC3A	AS 13
		3.2583	G-AlSi12 (Cu)	AlSi12 (Cu)	AC-47000		LM20	Al-Si12Cu	
		3.5101	G-MgZn4SE1Zr1				MAG5		G-Z4TR
		3.5102	G-MgZn5Th2Zr1						
		35.103	G-MgSe3Zn2Zr1	MgSe3Zn2Zr1	MN65120		MAG6-TE		ZRE1
		3.5106	G-MgAg3SE2Zr1				MAG 12		G-Ag22,5
		3.5312	G-MgAl3Zn				MAG-E-111		
		3.5912	G-MgAl9Zn1				MAG7		G-A9Z1
N3	Copper alloy	2.0040	OF Cu		CW008A		C103	C1020	Cu/c1
		2.0060	E-Cu57		CW004A	E-Cu57	C101	C1100	Cu/a1
		2.0070	SE Cu		CW021A				
		2.0090	SF Cu		CW024A		C106	C1220	Cu/b
		2.0240	CuZn15	CuZn15	CW502L		CZ102	C2300	CuZn15
		2.0321	CuZn37		CW508L		CZ108		CuZn37
		2.0401	CuZn39Pb3	CuZn39Pb3	CW614N		CZ121		CuZn39Pb3
		2.0402	CuZn40Pb2	CuZn40Pb2	CW612N		CZ120		CuZn39Pb2
		20.530	CuZn38Sn1	CuZn38Sn1	CW717R				
		2.0790	CuNi18Zn19Pb	CW408J					CuNi18Zn19Pb1
		2.0872	CuNi10Fe1Mn	CuNi10Fe1Mn			CN102		CuNi10Fe1Mn
		2.0940	CuAl10Fe		CC331G		AB1		CuAl10Fe
		2.0975	CuAl10Ni		CC333G		AB2		CuAl10Ni5Fe5
		2.1050	CuSn10		CC480K		CT1		CuSn10
		2.1087	CuSn10Zn						
		2.1176	CuPb10Sn		CW352H		LB2		CuSn10Pb10
		2.1202	SB Cu				C107		

SS	UNS	U.N.E. / I.H.A.	AISI-ASTM	GOST	ČSN	Trade Mark	Structure
4010			A1200				
4007	AA1050A		A1050/1050A				
			3105				
	AA3003					Aluman 100	
			6012				
4338	AA2014		2014			Avional 660	
			2117			Avional 050	
			2017			Avional 100	
			2024			Avional 150	
4335			2030				
4355	AA2011		2011			Recidal 11	
4251	A13800		A380				
4212	A96082		6082			Anticorodal 100	
4244			B26				
4253	A13600		B85				
4103	AA6060					Anticorodal 063	
4104, 4107	AA6005						
			6061			Anticorodal 061	
4106	AA5005					Peraluman 080	
			5050			Peraluman 150	
4120			5052			Peraluman 250	
			5154			Peraluman 350	
4140	A95083		5083			Peraluman 440	
			5056			Peraluman 500	
4425	AA7020		7020				
	A97075		7075	B95		Ergal	
	M11600		AZ61A				
			AZ80A				
			A413.2				
	M12330		AMS 4442				
			AZ31B				
	C10200						
	C11000						
	C10300						
	C12200						
5112	C23000			L90			
5150	C27200						
5170	C38500						
5168	C37800						
	C46400			L060-1			
	C76300						
5667	C70600						
5710	C95200		CA952	BrA9ZH3L			
5716	C95500		CA955	BrA10ZH4N4L			
5443	C90700						
5458	C90500						
5640	C93700		CA937				
	C14200						

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Gr.	Materials	W.-Nr	DIN	EN-Nr.	EN	UNI	BS	JIS	AFNOR
N4	Brass alloy and Bronze alloy	2.0220	CuZn5		CW500L		CZ125	C2100	
		2.0230	CuZn10		CW501L		CZ101	C2200	
		2.0250	CuZn20		CW503L		CZ103	C2400	
		2.0265	CuZn30		CW505L		CZ106	C2600	
		2.0331	CuZn36Pb1.5		CW600N		CZ119	C3501	
		2.0360	CuZn40		CW509L		CZ109	C2800	
		2.0372	CuZn39Pb0.5		CW610N		CZ123		
		2.0375	CuZn36Pb3		CW603N		CZ124	C3601	
		2.0380	CuZn39Pb2		CW612N		CZ 131	C3771	
		2.0401	CuZn39Pb3	12164	CW614N	5705	CZ121	C3603	
		2.0402	CuZn40Pb2		CW617N		CZ122		
		2.0410	CuZn44Pb2	CuZn44Pb2	CW622N		CZ104		
		2.0460	CuZn20Al2				CZ110		
		2.0470	CuZn28Sn1	CuZn28Sn1	CW706R				CuZn29Sn1
		2.0932	CuAl8Fe3		CW303G				
		2.0966	CuAl10Ni5Fe4		CW307G		CA104		
		2.1010	CuSn2				-	-	
		2.1016	CuSn4				PB101	C5111	
		21.020	CuSn6	CuSn6	CW452K		PB103	C5191	CuSn6
		2.1030	CUSn8				PB104	C5212	
N5	Plastic material								
N6	Carbon fiber and composite								
S1	Heat resistant super alloy (HRSA) Ni base (good machinability) < 25 HRC	1.4980							Z3NCT25
		2.4617							NiMo28
			NiCr17Mo17Few						NC17DWY
		2.4816	NiCr15Fe						NC15Fe
		2.4851	NiCr23Fe						NC15FeA
		2.4856	NiCr22Mo9Nb						NC22DNb
		2.4669	NiCr 15 Fe 7 TiAl				HR505		NC19FeNB
S2	Heat resistant super alloy (HRSA) Ni base (medium machinability) 25 ÷ 35 HRC								
		1.4876	X10NiCrAlTi32-21				3075		
		2.4858	NiCr21Mo						NC21FeDU
		2.4665	NiCr22FeMo				HR6,204		NC22FeD
		2.4856	NiCr22Mo9Nb						NC22DNb
		2.4856	NiCr22Mo9Nb						NC22DNb
		2.4668	NiCr19Fe19NbMo				HR8		Nc19FeNb
		2.4668	NiCr19Fe19NbMo				HR8		Nc19FeNb
		2.4630	NiCr20Ti				HR5,203-4		NC20T
		2.4631	NiCr20TiAl				HR401,601		NC20TA
		2.4654	NiCr20Co14MoTi						NC20K14
S3	Heat resistant super alloy (HRSA) Ni base (low machinability) 35 ÷ 45 HRC								
		2.4654	NiCr20Co14MoTi						NC20K14
		2.4668	NiCr19Fe19NbMo				HR8		Nc19FeNb
		2.4669	NiCr 15 Fe 7 TiAl				HR505		NC19FeNB
			NiW13Co10Cr9AlTi						
			NiCo10W10Cr9AlTi						
			NiCr18cCoMoAlTi						NCK19DAT
			NiCo15Cr15MoAlTi						NCKD20AT

SS	UNS	U.N.E. / I.H.A.	AISI-ASTM	GOST	ČSN	Trade Mark	Structure
	C21000						
	C22000						
	C24000						
	C26000						
	C34000						
	C28000						
	C36500						
	C36000						
	C37700						
	C38500					OT-58	
	C38000						
5272	C68700			LAMsh77-2-0.05			
	C68700						
5220	C44300			LOMsh70-1-0.05			
	C61400						
	C63000						
	C50700						
	C51100						
5428	C51900			BrOF6.5-0.15			
	C52100						
							Polycarbonate
							E-glass
							Epoxy
							HTA
							HX
							Kevlar
							PEEK
							PPS
							T300
							T700
							T800
			5725			Discalloy	HRSA Iron-based
	N10665					Hastelloy B-2	HRSA Nickel-based
	N10002					Hastelloy C (casting)	HRSA Nickel-based
	N06600					Inconel 600	HRSA Nickel-based
	N06601					Inconel 601	HRSA Nickel-based
	N06625					Inconel 625 (casting)	HRSA Nickel-based
						Inconel 706	HRSA Nickel-based
	N07750					Inconel X750 (solubilized)	HRSA Nickel-based
						Stellite	HRSA Cobalt-based
	N08800					Incoloy 800	HRSA Iron-based
	N08825					Incoloy 825	HRSA Iron-based
	N06002					Hastelloy X	HRSA Nickel-based
	N06625					Inconel 625 (forged)	HRSA Nickel-based
	N06625					Inconel 625 (pipe)	HRSA Nickel-based
	N07718					Inconel 718 (casting)	HRSA Nickel-based
	N07718					Inconel 718 (pipe)	HRSA Nickel-based
	N06075					Nimonic 80	HRSA Nickel-based
	N07080					Nimonic 81	HRSA Nickel-based
	N07001					Waspalloy (casting)	HRSA Nickel-based
						Haynes	HRSA Cobalt-based
	N07001					Waspalloy (forged)	HRSA Nickel-based
	N07718					Inconel 718 (forged)	HRSA Nickel-based
	N07750					Inconel X750 (precipitation)	HRSA Nickel-based
						Mar-M 200	HRSA Nickel-based
						Mar-M 247	HRSA Nickel-based
						Rene 95	HRSA Nickel-based
						Udimet 500	HRSA Nickel-based
						Udimet 700	HRSA Nickel-based

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Gr.	Materials	W.-Nr	DIN	EN-Nr.	EN	UNI	BS	JIS	AFNOR
S4	Titanium alloy good machinability		TiAl2Sn4Zr2MoSi						
			TiAl2Sn4Zr6Mo						
		3.7055	Ti 99,6						
		3.7195	Ti3Al2.5V						
		3.7115	TiAl5Sn2.5				TA14/17		
		3.7124	TiCu2,5						
		3.7155	TiAl6Zr5Mo0,5						
		3.7165	TiAl6V4 ELI				TA11		
		3.7175	TiAl6V6Sn2						
		3.7185	TiAl4Mo4Sn2						
		3.7025	Ti 99,8				TA 1		
		3.7035	Ti 99,7a				TA 2-5		
S5	Titanium alloy medium machinability								
		3.7164	TiAl6V4						
			Ti5Al2.5SN						
			TiAl2Sn4Zr2MoSi						
			TiAl2Sn4Zr6Mo						
H1	Hardened steel 50 ÷ 56 HRC	1.1231	Ck 67	1.1231	C 67S	C 70	060 A 67		XC 68
		1.1248	Ck 75	1.1248	C 75S	C 75	060 A 78		XC 75
		1.1274	Ck 101	1.1274	C 100S		060 A 96	SUP 4	
		1.1545	C 105 W1	1.1545	C 105U	C 100 KU			Y1 105
		1.2550	60 WCrV 7			55 WCrV 8 KU			55 WC 20
		1.7131	16 MnCr 5	1.7131	16 MnCr 5	16 MnCr 5	527 M 17	SCR 415	16 MC 5
		1.7176	55 Cr 3	1.7176	55 Cr 3	55 Cr 3	527 A 60	SUP 9 (A)	55 C 3
		2.4669	NiCr 15 Fe 7 TiAl				HR505		NC19FeNB
H2	Hardened bearing steel 54 ÷ 62 HRC	1.2210	115 CrV 3	1.2210	107 CrV 3	107 CrV 3 KU			100 C 3
		1.2510	100 MnCrW 4			95 MnWCr 5 KU	BO 1	SKS 3	90 MWCV 5
		1.2842	90 MnCrV 8	1.2842	90 MnCrV 8	90 MnVCr 8 KU	BO 2		90 MV 8
		1.3505	100 Cr 6	1.3505	100 Cr 6	100 Cr 6	534 A 99	SUJ 2	100 C 6
H3	Hardened tool steel 60 ÷ 65 HRC	1.2344	X 40 CrMoV 5 1	1.2344	X 40 CrMoV 5 1	X 40 CrMo 5 1 1 KU	BH 13	SKD 61	Z 40 CDV 5
		1.2363	X 100 CrMoV 5 1	1.2363	X 100 CrMoV 5	X 100 CrMoV 5 1 KU	BA 2	SKD 12	Z 100 CDV 5
		1.2379	X 155 CrVMo 12 1		X 155 CrVMo 12 1	X 155 CrVMo 12 1 KU	BD 2	SKD 11	Z 160 CDV 12
		1.2436	X 210 CrW 12			X 215 CrW 12 1 KU		SKD 2	
		1.2601	X 165 CrMoV 12			X 165 CrMoW 12 KU			
		1.2713	55 NiCrMoV 6					SKT 4	55 NCDV 7
		1.3243	S 6-5-2-5	1.3243	HS 6-5-2-5	HS 6-5-2-5		SKH 55	Z 85 WDKCV 06-05-05-04-02
		1.3247	S 2-10-1-8	1.3247	HS 2-10-1-8	HS 2-9-1-8	BM 42	SKH 51	Z 110 DKCWV 09-08-
		1.3355	S 18-0-1	1.3355	HS 18-0-1	HS 18-0-1	BT 1	SKH 2	Z 80 WCV 18-04-01
H4	Hardened martensitic stainless steel 50 ÷ 56 HRC	1.4021	X 20 Cr 13	1.4021	X 20 Cr 13	X 20 Cr 13	420 S 37	SUS 420 J 1	Z 20 C 13
		1.4109	X 65 CrMo 14	1.4109	X 70 CrMo 15			SUS 440 A	Z 70 D 14
		1.4112	X 90 CrMoV 18	1.4112	X 90 CrMoV 18	X CrTi 12	409 S 19	SUS 440 B	Z 2 CND 18 05
		1.4125	X 105 CrMo 17	1.4125	X 105 CrMo 17	X 105 CrMo 17		SUS 440 C	Z 100 CD 17
		1.4542	X 5 CrNiCuNb 16 4	1.4542	X 5 CrNiCuNb 16 4			SUS 630	
		1.4568	X 7 CrNiAl 17 7	1.4568	X 7 CrNiAl 17 7	X 7 CrNiAl 17 7	301 S 81	SUS 631	Z 9 CAN 17.7
		1.4943	X 4 NiCrTi 25 15	1.4980	X 6 NiCrTiMoV 25 15		HR 51	SUH 660	Z 6 NCTDV 25.15
H5	Hardened white cast iron 48 ÷ 55 HRC	0.9620	G-X330 NiCr 4 2	0.9620	EN-GJN-HV520		Grade 2 A		FB Ni4 Cr2 BC
		0.9625	G-X260 NiCr 4 2	0.9625	EN-GJN-HV550		Grade 2 B		FB Ni4 Cr2 HC
		0.9630	G-X300 CrNiSi 9 5 2	0.9630	EN-GJN-HV600		Grade 2 C, D, E		FB Cr9 Ni5

SS	UNS	U.N.E. / I.H.A.	AISI-ASTM	GOST	ČSN	Trade Mark	Structure
	R50250		265-G1			Grade 1	
	R50400		265-G2			Grade 2	
	R50550		265-G3			Grade 3	
	R56320					Grade 9	
	R50700		265-G4			Grade 4	
	R56400					Grade 5	
						Grade 6	
			4975			6242	
	R56260					6246	
1770	G10700	F.5103	1070	70			
1774, 1778	G10780	F.5107	1078, 1080	75			
1870	G10950	F.5117	1095				
1880		F.5118	W1	U10A			
			S1	5KHV2SF			
2511	G51170	F.1516	5115	12KHN2	14 220		
2253	G51550		5155				
	N07750					Inconel X750 (solubilized)	HRSA Nickel-based
	T61202	F.520L	L2	11KHF			
2140	T31501	F.5220	O1	9KHVG			
	T31502		O2	9G2F			
2258	G51986	F.5230	52100	SHKH15	14 109		
2242	T20813	F.5318	H13	4KH5MF1S			
2260	T30102	F.5227	A2	9KH5VF			
	T30402	F.5211	D2	KH12MF			
2312		F.5213		KH12			
2310				KH12MF			
	T61206	F.520.S	L6	5KHNM			
2723		F.5613	M35	R6M5K5			
	T11342		M42	R2AM9K5			
	T12001		T1	R18			
2303	S42000	F.5261	420	20KH13	17 022		
	S44002		440 A				
2327	S44003		440 B	95KH18			
	S44004		440 C	95KH18			
	S17400		SAE 630			17-4 PH	H900
2388	S17700		AMS 5528	09KH17N7YU1		17-7 PH	TH1050
2570	S66286		660			A286	
05 12-00	F45001		A532 IB			Ni-Hard 2	
05 13-00	F45000		A532 IA			Ni-Hard 1	
04 57-00	F45003		A532 ID			Ni-Hard 4	

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SNXN...	Milling	Advanced	D115
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